

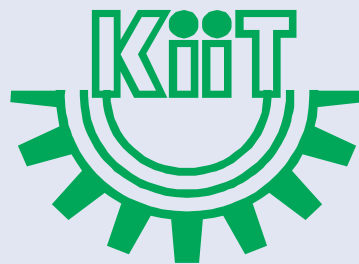
SELF-ASSESSMENT REPORT (SAR)

For Accreditation of Undergraduate Engineering
Programme (Tier-I)

Bachelor of Technology

in

Civil Engineering



Kalinga Institute of Industrial Technology (KIIT)
Deemed to be University

Submitted to



**NBCC Place, 4th Floor East Tower,
Bhisham Pitamah Marg, Pragati Vihar New Delhi 110003**

February 2023

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PART A
INSTITUTIONAL INFORMATION

PART A: Institutional Information

1. Name and Address of the Institution:

Kalinga Institute of Industrial Technology (KIIT) Deemed to be University
City: Bhubaneswar State:- Odisha
Pin Code: 751024
Phone No (including STD Code):-08114382201
Website: - www.kiit.ac.in
E-mail:- kiit@kiit.ac.in

2. Name and Address of the Affiliating University: Not Applicable

3. Year of establishment of the Institution: 1997; Declared Deemed to be University during 2004

4. Type of the Institution:

| | |
|---|-------------------------------------|
| Institute of National Importance University | <input type="checkbox"/> |
| Deemed University | <input checked="" type="checkbox"/> |
| Autonomous | <input type="checkbox"/> |
| Any other (Please specify) | <input type="checkbox"/> |

Note:

1. In case of Autonomous and Deemed University, mention the year of grant of status by the authority.
2. In case of University Constituent Institution, please indicate the academic autonomy status of the Institution as defined in 12th Plan guidelines of UGC. Institute should apply for Tier 1 only when fully academically autonomous.

5. Ownership Status:

| | |
|--------------------|-------------------------------------|
| Central Government | <input type="checkbox"/> |
| State Government | <input type="checkbox"/> |
| Government Aided | <input type="checkbox"/> |
| Self - financing | <input checked="" type="checkbox"/> |
| Trust | <input type="checkbox"/> |

Society
 Section 25 Company
 Any Other (Please specify)

| |
|--|
| |
| |
| |

Provide details:

6. Other Academic Institutions of the Trust/Society/Company etc., if any:

| Name of the Institution(s) | Year of Establishment | Programs of Study | Location |
|----------------------------|-----------------------|---|-------------|
| KIIT Polytechnic | 1995 | Diploma in Civil Engineering Diploma in Computer Science & Engineering Diploma in Electrical Engineering Diploma in Electronics & Telecommunication Engineering Diploma in Metallurgical Engineering Diploma in Mechanical Engineering | Campus - 2 |
| KIIT ITI | 1992 | Electrician, Fitter & Electronics mechanic | Campus - 14 |

Table A.6

Note: Add rows as needed.

7. Details of all the programs being offered by the institution under consideration:

| Name of the Program | Programme Applied Level | Year of Start | Year of AICTE Approval | Initial Intake | Intake increase | Current Intake | Accreditation Status | From | To | Program for consideration | Program for Duration |
|-----------------------------|-------------------------|---------------|------------------------|----------------|-----------------|----------------|--|------------|------------|---------------------------|----------------------|
| B.Tech in Civil Engineering | UG | 1997 | 1997 | 20 | Yes | 180 | Granted accreditation for 6+1+1 years for the period | 07-01-2014 | 30/07/2022 | Yes | 4 |
| M.Tech in Civil Engineering | PG | 2010 | 2010 | 18 | No | 18 | Eligible but not applied | | | No | 2 |

Table A.7

* Write applicable one:

Applying first time

- Granted provisional accreditation for two/three years for the period(specify-period)
- Granted accreditation for 5/6 years for the period (specify period)
- Not accredited (specify visit dates,year)
- Withdrawn (specify visit dates,year)
- Not eligible for accreditation
- Eligible but not applied

Note: Add rows as needed.

8. Programs to be considered for Accreditation vide this application

| Sl. No. | Level | Discipline | Program Name |
|---------|-------|--------------------------|---|
| 1 | UG | Engineering & Technology | Civil Engineering |
| 2 | UG | Engineering & Technology | Computer Science & Engineering |
| 3 | UG | Engineering & Technology | Electrical Engineering |
| 4 | UG | Engineering & Technology | Electronics and Telecommunication Engineering |
| 5 | UG | Engineering & Technology | Mechanical Engineering |

Table A.8

9. Total number of employees:

A. Regular Employees (Faculty and Staff):

| Year of Study | CAY | | CAYm1 | | CAYm2 | |
|---|-------------|------|-------------|------|-------------|------|
| | (2022-2023) | | (2021-2022) | | (2020-2021) | |
| | MIN | MAX | MIN | MAX | MIN | MAX |
| Faculty in engineering (Male) | 332 | 344 | 331 | 334 | 329 | 331 |
| Faculty in engineering (Female) | 132 | 134 | 133 | 132 | 128 | 129 |
| Faculty in Maths, Science and Humanities teaching in Engineering Program (Male) | 100 | 103 | 99 | 99 | 92 | 93 |
| Faculty in Maths, Science and Humanities teaching in Engineering Program (Female) | 60 | 62 | 56 | 57 | 53 | 53 |
| Non-teaching staff (Male) | 5560 | 5567 | 5554 | 5558 | 5463 | 5465 |
| Non-teaching staff (Female) | 4473 | 4482 | 4472 | 4476 | 3655 | 3660 |

Table A.9a

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2

consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

CAY – Current Academic Year

CAYm1- Current Academic Year minus1= Current Assessment Year

CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1

B. Contractual Staff Employees (Faculty and Staff): (Not covered in TableA):

| Year of Study | CAY | | CAYm1 | | CAYm2 | |
|---|-------------|-----|-------------|-----|-------------|-----|
| | (2021-2022) | | (2020-2021) | | (2019-2020) | |
| | MIN | MAX | MIN | MAX | MIN | MAX |
| Faculty in engineering (Male) | | | | | | |
| Faculty in engineering (Female) | | | | | | |
| Faculty in Maths, Science and Humanities teaching in Engineering Program (Male) | | | | | | |
| Faculty in Maths, Science and Humanities teaching in Engineering Program (Female) | | | | | | |
| Non-teaching staff (Male) | | | | | | |
| Non-teaching staff (Female) | | | | | | |

Table A.9b

10. Total number of Engineering Students:

| | | |
|--|-----------|---------|
| Engineering and Technology-UG | √ Shift 1 | Shift 2 |
| Engineering and Technology-PG | √Shift 1 | Shift 2 |
| Engineering and Technology-Polytechnic | Shift 1 | Shift 2 |
| MBA | √Shift 1 | Shift 2 |
| MCA | √Shift 1 | Shift 2 |

Engineering and Technology-UG-Shift 1

| Item | CAY | CAYm1 | CAYm2 |
|-----------------------|------|-------|-------|
| Total no. of boys | 4582 | 4437 | 4323 |
| Total no. of girls | 2061 | 1994 | 1853 |
| Total no. of students | 6643 | 6431 | 6176 |

Engineering and Technology-PG-Shift 1

| Item | CAY | CAYm1 | CAYm2 |
|-----------------------|-----|-------|-------|
| Total no. of boys | 156 | 153 | 155 |
| Total no. of girls | 66 | 69 | 67 |
| Total no. of students | 222 | 222 | 222 |

Engineering and Technology-MBA-Shift 1

| Item | CAY | CAYm1 | CAYm2 |
|-----------------------|-----|-------|-------|
| Total no. of boys | 475 | 468 | 475 |
| Total no. of girls | 245 | 252 | 245 |
| Total no. of students | 720 | 720 | 720 |

Engineering and Technology-MCA-Shift 1

| Item | CAY | CAYm1 | CAYm2 |
|-----------------------|-----|-------|-------|
| Total no. of boys | 255 | 249 | 252 |
| Total no. of girls | 105 | 111 | 108 |
| Total no. of students | 360 | 360 | 360 |

Table A.10

(Instruction: The data may be categorized in tabular form separately for undergraduate, postgraduate engineering, other program, if applicable)

Note: *In case the institution is running programs other than engineering programs, a separate table giving similar details is to be included.*

1. Vision of the Institution:

To create an advanced centre of professional learning of international standing where pursuit of knowledge and excellence shall reign supreme, unfettered by the barriers of nationality, language, cultural plurality and religion.

2. Mission of the Institution:

- *Imparting quality value based education of international standard and imbibing skill for solving real life problems.*
- *Inculcating global perspective in attitude.*
- *Creating leadership qualities with futuristic vision.*
- *Fostering spirit of entrepreneurship and realisation of societal responsibilities.*
- *Cultivating adaptation of ethics, morality and healthy practices in professional life.*
- *Instilling habit of continual learning.*
- *Encouraging and supporting creative abilities and research temperament.*
- *Establishing and promoting close interaction with industries and other utility sectors and keep abreast with state-of-the-art technology.*

3. Contact Information of the Head of the Institution and NBA coordinator, if designated:

| Head of the Institution | |
|--------------------------------|-----------------------------|
| Name | Prof. (Dr.) Sasmita Samanta |
| Designation | Vice Chancellor |
| Mobile No | 9937220218 |
| Email Id | vicechancellor@kiit.ac.in |

| NBA Coordinator | |
|------------------------|--|
| Name | Dr. Dipti Ranjan Biswal |
| Designation | Deputy Director (National Accreditation) |
| Mobile No | 9583595895 |
| Email Id | dipti.biswalfce@kiit.ac.in |

PART B- Criteria Summary

| Criteria No | Criteria | Marks/Weightage | Institute Mark |
|-------------|---|-----------------|----------------|
| 1 | Vision, Mission and Program Educational Objectives | 50 | 50 |
| 2 | Program Curriculum and Teaching – Learning Processes | 100 | 100 |
| 3 | Course Outcomes and Program Outcomes | 175 | 175 |
| 4 | Students' Performance | 100 | 86.07 |
| 5 | Faculty Information and Contributions | 200 | 200 |
| 6 | Facilities and Technical Support | 80 | 80 |
| 7 | Continuous Improvement | 75 | 75 |
| 8 | First Year Academics | 50 | 48.68 |
| 9 | Student Support Systems | 50 | 50 |
| 10 | Governance, Institutional Support and Financial Resources | 120 | 120 |
| | Total | 1000 | 984.75 |

**PART B:
PROGRAMME LEVEL CRITERIA**

| | | |
|--------------------|---|-----------|
| CRITERION 1 | Vision, Mission and Program Educational Objectives | 50 |
|--------------------|---|-----------|

1.1 State the Vision and Mission of the Department and Institute (5)

Vision of the Institute:

To create advanced centre of professional learning of international standing where pursuit of knowledge and excellence shall reign supreme, unfettered by the barriers of nationality, language, cultural plurality and religion.

Mission of the Institute:

Mission statements of KIIT DU are as follows.

- MU-1: Imparting value based quality education of international standard and imbibing skill for solving real life problems.
- MU-2: Inculcating global perspective in attitude.
- MU-3: Creating leadership qualities with futuristic vision.
- MU-4: Fostering spirit of entrepreneurship and realization of societal responsibilities.
- MU-5: Cultivating adaptation of ethics, morality and healthy practices in professional life.
- MU-6: Instilling habit of continual learning.
- MU-7: Encouraging and supporting creative abilities and research temperament.
- MU-8: Establishing and promoting close interaction with industries and other utility sectors and keep abreast with state-of-the-art technology.

The B.Tech. programme in Civil Engineering is offered from the School of Civil Engineering.

Vision of School of Civil Engineering:

To impart education and research in Civil Engineering, with particular emphasis on their application in the industry, infrastructure building, economic welfare, health, safety and commerce in a diverse society and to create scope for professional engineering licensure and practice.

Mission of School of Civil Engineering

Mission statements of the school of Civil Engineering, KIIT DU are as follows.

- M-1: To provide students with a broad and in-depth education in civil engineering fundamentals, applications, and design in order to prepare them for the practice of civil engineering at the professional level with the confidence and skill necessary to meet the technical and social challenges of the future.
- M-2: To prepare students for higher education or entrepreneurship
- M-3: To encourage and facilitate students, to involve themselves in continuous learning, to build skills beyond the curriculum

M-4: To inculcate critical thinking and an open-ended problem-solving attitude to build up creative abilities and research spirit

M-5: To impart the essential skills of leadership, teamwork, communication and ethics so that they can interact and communicate effectively (written and/or oral) with others (e.g., supervisor, client and/or team)

M-6: To engage students with alumni, industry, government, and community partners through outreach activities in order to inculcate global perception

M-7: To engage students in creating innovative design solutions that include realistic constraints such as economic, environmental, social, political, ethical, health and safety, constructability, sustainability, and global considerations, and disseminating these designs at national and regional venues

M-8: To provide solutions and propose methodologies in the areas related to structural, geotechnical, water resources and environmental engineering

Mapping between the mission statements of the school and mission statements of the university

| Mission of School/Mission of university | M 1 | M 2 | M3 | M4 | M5 | M6 | M7 | M8 |
|---|-----|-----|----|----|----|----|----|----|
| MU 1 | √ | | | | | | √ | |
| MU 2 | | | | √ | | √ | | |
| MU 3 | √ | | | | √ | | | |
| MU 4 | | √ | | | | | | |
| MU 5 | | | | | √ | | | |
| MU 6 | | | √ | | | | | |
| MU 7 | | | | √ | | | | |
| MU 8 | | | | | √ | | | √ |

1.2 State the Program Educational Objectives (PEOs) (5)

The Programme Educational Objectives (PEOs) of the B.Tech. Programme in Civil Engineering are as follows:

PEO 1: *The B. Tech program (Civil Engineering) prepares the graduates who shall provide solutions to Civil Engineering problems and allied areas involving structural design, construction, geotechnical, environmental and water resources issues.*

PEO 2: *The B. Tech program (Civil Engineering) prepares the graduates who shall reinforce their knowledge through higher educational programs and life-long learning, adapt to rapid changes in technology, perceive the limitation and impact of engineering solutions in social, legal, environmental, economical and multidisciplinary contexts.*

PEO 3: *The B. Tech program (Civil Engineering) prepares the graduates who shall demonstrate professional and ethical responsibilities and thrive to reinforce their knowledge being a part of higher educational programs.*

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (15)

- The vision and mission of the Deemed University is available at: <http://www.kiit.ac.in>
- The vision and mission of the Deemed University are also displayed through notice boards across the campus.
- The vision and mission of the School is available at: <https://civil.kiit.ac.in/>
- The vision and mission of the School are also displayed through notice boards inside the School.
- The Program Educational Objectives of the B.Tech. Program in Civil Engineering is available at: <https://civil.kiit.ac.in/programme/>
- The PEOs are also displayed through notice boards inside the school and in the Syllabus book of the program.
- The PEOs are reviewed every 3-4 years to ensure they are relevant, and are aligned with missions of both the Deemed University and the School. Program outcomes and Program Specific Outcomes and the program curricula. This review is done through feedbacks taken from faculty members, students, alumni, parents, industry experts, eminent academicians, members of Board of Studies and the academic audit team.

Process of dissemination among stake holders

List of stakeholders: Internal & External

Internal:

1. Students: Display on noticeboards, Induction programs, Tutor mentor meetings

Implementation Schedule

| | |
|-----------------------|--|
| Display vide boards | Through the year, in the School corridor |
| Induction Programs | Conducted annually |
| Tutor Mentor Meetings | Using Second Saturday of each month |

2. Faculty: Faculty meeting, Course files, individual copy of Vision and Mission given for display at work station, Faculty circular through mail
3. Support staff: Display on notice board and corridors
4. Management: Individual copy of Vision and Mission handed over during faculty & staff meetings

External:

1. Parents: Parents-teachersInteractions
2. Alumni: Alumni meet / E Mails/Alumni Website
3. Industry/employer: E Mails /Institute Website
4. Affiliating University: E Mails/ Institute Website
5. AICTE/NBA: SAR/Institute Website

Extent of awareness of Vision, Mission and PEOs amongst stakeholders:

Apart from this, Vision and Mission is disseminated to the stakeholders of the programs through faculty meetings, FDPs, student awareness workshops, student induction programs, and parent-teacher meetings etc.

The faculty members and students demonstrate complete awareness during class meetings, faculty meetings, curriculum review meeting, program review meeting etc.

- ✓ Sap portal
- ✓ Introductory classes
- ✓ Tutor mentor meetings

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (15)

(Articulate the process involved in defining the Vision and Mission of the department and PEOs of the program.)

The School of Civil Engineering follow a standard process for defining the vision and mission of the school. School has a drafting committee for initial drafting of the vision and mission statements which is framed considering short- and long-term goals for the School keeping alignment with the vision and mission of the Deemed University. The draft statements are subsequently revised based on the feedback of internal and external stake holders such as:

- Graduates
- Alumni
- Parents
- Faculty members
- Industry representatives
- Eminent academicians
- Academic and Research partners
- Internal Quality Assurance Cell
- Management of the Deemed University

Finally, the vision and mission statements are approved by the Deemed University Academic Council. The detailed process of defining mission and vision is shown in Fig. 1.1.

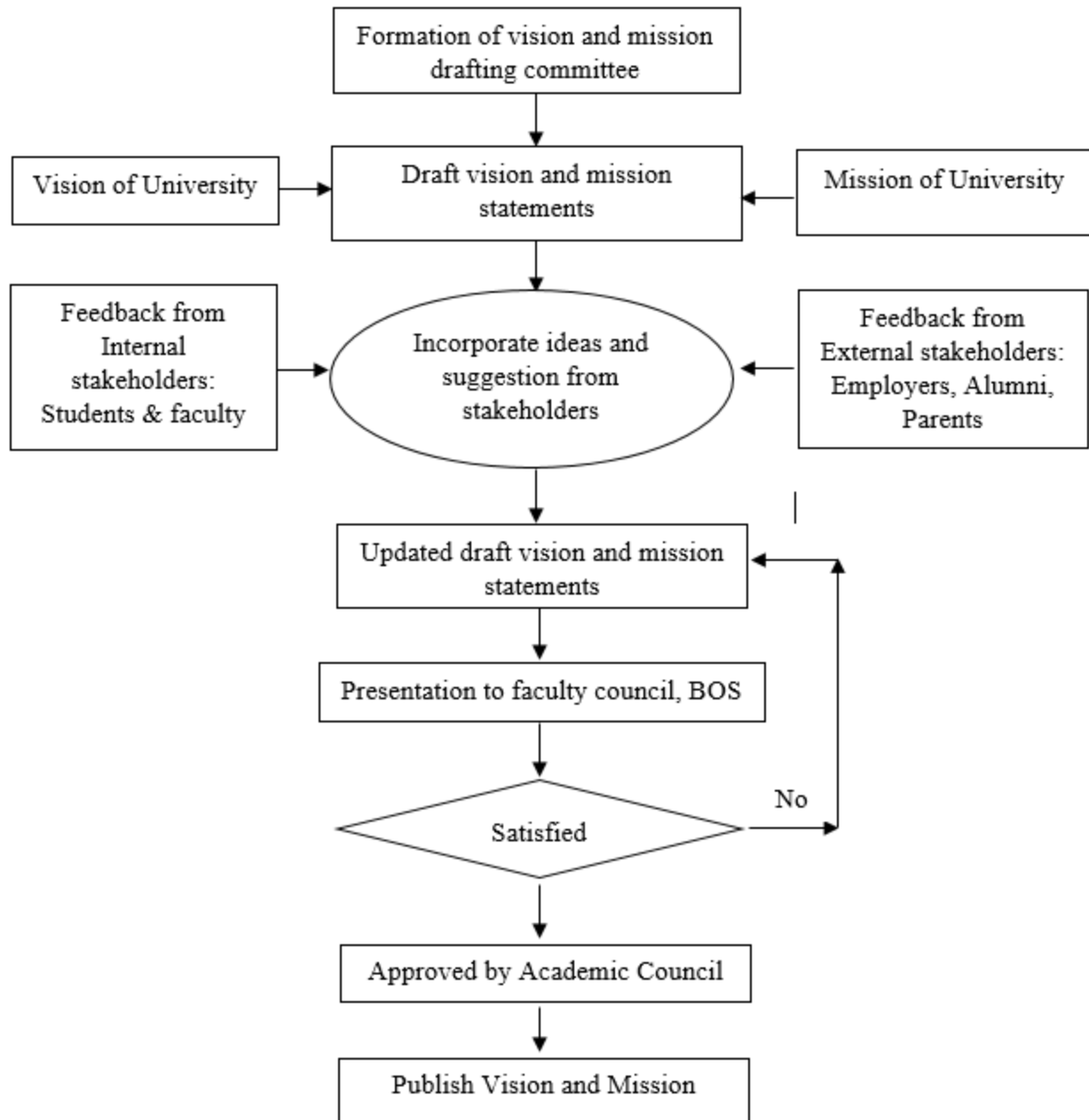


Figure 1.1: Process for defining Vision and Mission statements

Process for defining Programme Educational Objectives

The programme educational objectives of an engineering degree program are the statements that describe the expected achievements of graduates in their career, and also in particular, what the graduates are expected to perform and achieve during the **first few years after graduation**. In the first place, these objectives should help in fulfilling the mission of the department. Secondly, the students graduating from the programme are expected to lead a fruitful and meaningful life in the society by being useful in its progressive development.

Following process were adopted in defining the Program Educational Objectives as mentioned in figure 1.2

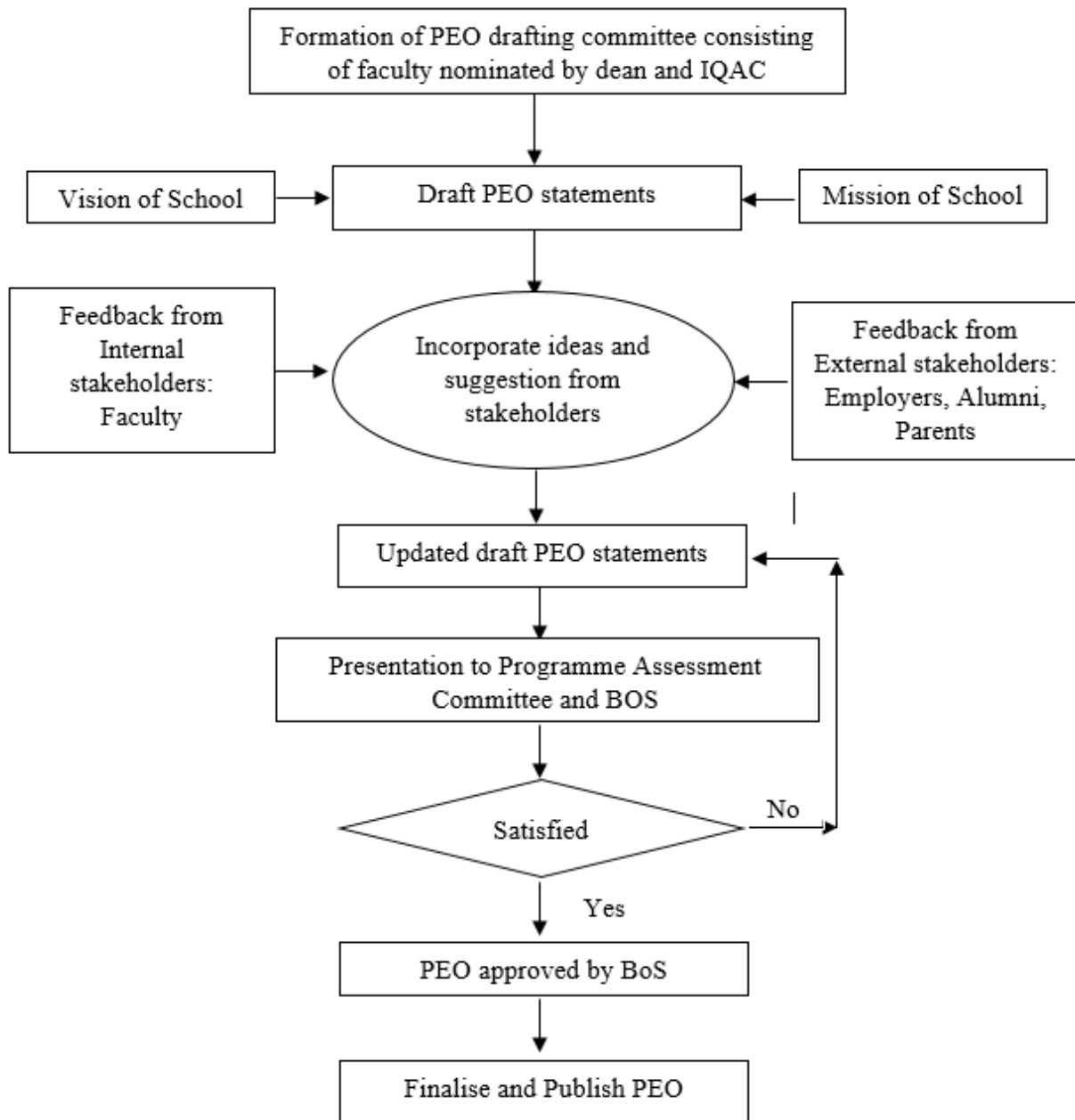


Figure 1.2: Process for defining Programme Educational Objectives

1.5 Establish consistency of PEOs with Mission of the Department (10)

The program educational objectives of this program are aligned and consistent with the mission statements of the School as described below:

PEO 1: *The B. Tech program (Civil Engineering) prepares the graduates who shall provide solutions to Civil Engineering problems and allied areas involving structural design, construction, geotechnical, environmental and water resources issues.*

- This objective statement is consistent and aligned with the following mission statements of the school: ***"Imparting quality value based education of international standard and imbibing skill for solving real life problems; Establishing and promoting close interaction with industries and other utility sectors and keep abreast with state-of-the-art technology"***.
- This objective statement is also consistent and aligned with the following mission statements of the School: ***"To prepare students for professional career, higher studies and entrepreneurship ; To facilitate students to utilize fundamental technical knowledge and skills in Civil engineering, to analyze and solve problems, and apply these abilities to generate new knowledge, ideas or products in academia, industry or Government; To integrate training in engineering principles, critical thinking, hands-on projects, open-ended problem solving to build up creative abilities and research spirit."***
- The institute and the School focus on providing and facilitating technical education of high quality and international standard to its students thereby producing able graduates in their field of expertise. The graduates are expected to possess analytical and creative skills based on their years of study in the program which includes an appropriate mix of professional core courses, design courses ,wide choice of elective courses, laboratory sessions, industrial trainings, hands-on projects and open ended exercises. They are also expected to keep themselves updated with emerging technologies and industrial revolutions in their respective fields so as to provide or suggest suitable solutions to different Civil Engineering problems, and lead a successful career in their domain

PEO 2: *The B. Tech program (Civil Engineering) prepares the graduates who shall reinforce their knowledge through higher educational programs and life-long learning, adapt to rapid changes in technology, perceive the limitation and impact of engineering solutions in social, legal, environmental, economical and multidisciplinary contexts.*

- This objective statement is also consistent and aligned with the following mission statements of the School: ***"To engage students with alumni, industry, Government, and community partners through outreach activities in order to inculcate global perception; To engage students in creating innovative design solutions that include realistic constraints such as economic, environmental, social, political, ethical, health and safety, constructability, sustainability, and global considerations, and disseminating these designs at national and regional venues"***.
- The graduates will be able to perceive the limitation and impact of engineering solutions in different contexts (as mentioned in PEO 2) in a better way if they maintain close interaction with industries, alumni and community partners, and keep themselves updated with state of the art technologies. Consequently, they are expected to take decisions in deploying engineering solutions or promoting entrepreneurship keeping social, legal, environmental and economical aspects in consideration. This will also help them to inculcate global perspective in attitude.

PEO 3: *The B. Tech program (Civil Engineering) prepares the graduates who shall demonstrate professional and ethical responsibilities and thrive to reinforce their knowledge being a part of higher educational programs.*

- This objective statement is also consistent and aligned with the following mission statements of the School: *“To encourage and facilitate students, to involve themselves in research work through continuous learning, to build skills beyond curriculum; To impart the essential skills of leadership, teamwork, communication and ethics in students to interact and communicate effectively (written and/or oral) with others (e.g., supervisor, client and/or team; to prepare students for higher studies”*
- All these mission statements directly reflect the professional responsibilities of a graduate as an engineer. The professionals are expected to keep on learning and remain updated with emerging technologies from time to time. They should also emphasize on upgrading their academic qualification through different short term or long term educational programs.

| PEO Statements | M1 | M2 | M3 | M4 | M5 | M6 | M7 | M8 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| PEO1: | 2 | 1 | 3 | 3 | 3 | 3 | 2 | 2 |
| PEO2: | 1 | 3 | 1 | 1 | 2 | 2 | 3 | 3 |
| PEO3: | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 |

| | | |
|--------------------|--|------------|
| CRITERION 2 | Program Curriculum and Teaching –Learning Processes | 100 |
|--------------------|--|------------|

2.1 Program Curriculum (30)

2.1.1 State the process for designing the program curriculum (10)

(Describe the process that periodically documents and demonstrates how the program curriculum is evolved considering the POs and PSOs)

The curriculum design process of KIIT DU is a systematic process involving the University level committee and School level committee. The school has taken several measures through a process for designing the program curriculum in order to accomplish the program outcomes. The detailed procedure for designing the curriculum is as shown in figure 2.1.

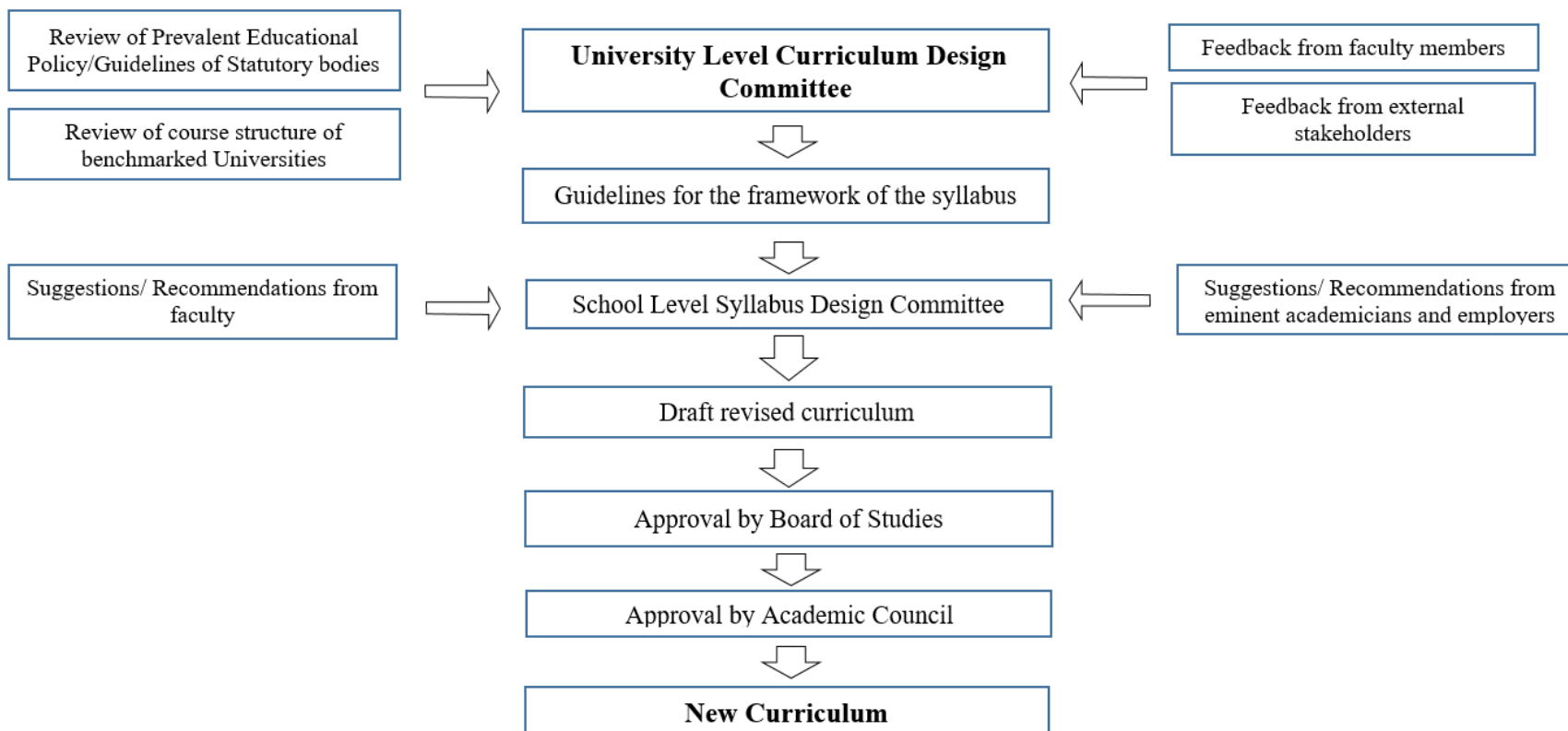


Figure 2.1: Process for Curriculum Design

2.1.2 Structure of the Curriculum (5)

Table B.2.1.2

| ID | Course Code | Course Title | Total Number of contact hours | | | | Credit | | |
|----|-------------|--|-------------------------------|--------------|---------------|-------------|---------------|------------------|---------|
| | | | Lecture (L) | Tutorial (T) | Practical (P) | Total Hours | Theory Credit | Practical Credit | Credits |
| 1 | C101 | Mathematics-I | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 2 | C102 | Chemistry | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 3 | C103 | Professional Communication | 2 | 0 | 0 | 2 | 2 | 0 | 2 |
| 4 | C104 | Biology | 2 | 0 | 0 | 2 | 2 | 0 | 2 |
| 5 | C105 | Chemistry Lab | 0 | 0 | 3 | 3 | 0 | 1.5 | 1.5 |
| 6 | C106 | Computer Programming | 0 | 2 | 4 | 6 | 2 | 2 | 4 |
| 7 | C107 | Language Lab | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 8 | C108 | Engineering Graphics | 0 | 1 | 2 | 3 | 1 | 1 | 2 |
| 9 | C109 | Mathematics-II | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 10 | C110 | Physics | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 11 | C111 | Basic Electrical Engineering | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 12 | C112 | Engineering Mechanics | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 13 | C113 | Physics Lab | 0 | 0 | 3 | 3 | 0 | 1.5 | 1.5 |
| 14 | C114 | Basic Electrical Engineering Lab | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 15 | C115 | Basic Manufacturing Systems | 0 | 1 | 2 | 3 | 0 | 2 | 2 |
| 16 | C116 | Environmental Science | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 17 | C117 | Yoga and Human Consciousness | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 18 | C201 | Fluid Mechanics | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 19 | C202 | Mechanics of Material | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 20 | C203 | Environmental Engineering-I | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 21 | C204 | Surveying & Geomatics | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 22 | C205 | Civil Engineering Materials & Construction | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 23 | C206 | HS Elective-I | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 24 | C207 | Environmental Engg. Lab. | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 25 | C208 | Surveying Field Work | 0 | 0 | 3 | 3 | 0 | 1.5 | 1.5 |
| 26 | C209 | Material Testing Lab. | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 27 | C210 | Business Communication | 0 | 2 | 0 | 2 | 0 | 1 | 1 |
| 28 | C211 | Mathematics –III | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 29 | C212 | Structural Analysis | 3 | 1 | 0 | 4 | 4 | 0 | 4 |

| | | | | | | | | | |
|----|------|------------------------------------|---|---|---|---|---|-----|-----|
| 30 | C213 | Surface Hydrology & Hydraulics | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 31 | C214 | Geotechnical Engineering-I | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 32 | C215 | Environmental Engineering-II | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 33 | C216 | Construction Planning & Management | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 34 | C217 | Geotechnical Engineering Lab. | 0 | 0 | 3 | 3 | 0 | 1.5 | 1.5 |
| 35 | C218 | Fluid Mechanics Lab. | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 36 | C219 | Structural Analysis Applications | 0 | 2 | 0 | 2 | 0 | 1 | 1 |
| 37 | C220 | Hydraulics & Hydrologic Design | 0 | 2 | 0 | 2 | 0 | 1 | 1 |
| 38 | C301 | Design of Concrete Structures | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 39 | C302 | Transportation Engineering-I | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 40 | C303 | Water Resources Engineering | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 41 | C304 | Geotechnical Engineering-II | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 42 | C305 | Department Elective-I | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 43 | C306 | Department Elective-II | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 44 | C307 | Transportation Engg. Laboratory | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 45 | C308 | Structural Design (RCC) | 0 | 2 | 0 | 2 | 0 | 1 | 1 |
| 46 | C309 | Geotechnical Design | 0 | 2 | 0 | 2 | 0 | 1 | 1 |
| 47 | C310 | Water Resources Design | 0 | 2 | 0 | 2 | 0 | 1 | 1 |
| 48 | C405 | Inferential Statistics | 3 | 1 | 0 | 4 | 4 | 0 | 4 |
| 49 | C311 | Design of Steel Structures | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 50 | C313 | Transportation Engineering-II | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 51 | C314 | Department Elective-III | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 52 | C315 | Department Elective-IV | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 53 | C316 | Department Elective-V | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 54 | C317 | Open Elective-I / (Minor-I) | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 55 | C318 | Structural Engg. Lab. | 0 | 0 | 2 | 2 | 0 | 1 | 1 |
| 56 | C319 | Estimating & Costing | 0 | 2 | 0 | 2 | 1 | 0 | 1 |
| 57 | C320 | Computer Aided Building Drawing | 0 | 2 | 0 | 2 | 1 | 0 | 1 |
| 58 | C321 | Structural Design (Steel) | 0 | 2 | 0 | 2 | 1 | 0 | 1 |
| 59 | C322 | Minor Project | 0 | 0 | 4 | 4 | 0 | 2 | 2 |

| | | | | | | | | | |
|----|------|-------------------------------------|---|---|----|----|---|----|----|
| 60 | C401 | Professional Practice, Law & Ethics | 2 | 0 | 0 | 2 | 2 | 0 | 2 |
| 61 | C402 | Open Elective-II | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 62 | C403 | Project-I / Internship | 0 | 0 | 6 | 6 | 0 | 3 | 3 |
| 63 | C404 | Practical Training | 0 | 0 | 4 | 4 | 0 | 2 | 2 |
| 64 | C406 | HS Elective-II | 3 | 0 | 0 | 3 | 3 | 0 | 3 |
| 65 | C407 | Project | 0 | 0 | 20 | 20 | 0 | 10 | 10 |

2.1.3 State the components of the curriculum (5)

Program curriculum grouping based on course components

Table B.2.1.3

| <i>Course components</i> | <i>Curriculum content (% of total number of credits in the program)</i> | <i>Total number of contact hours</i> | <i>Total number of credits</i> |
|--|---|--------------------------------------|--------------------------------|
| <i>Mathematics and Basic Sciences</i> | <i>19.63</i> | <i>36</i> | <i>32</i> |
| <i>Engineering Sciences</i> | <i>7.36</i> | <i>17</i> | <i>12</i> |
| <i>Humanities and Social Sciences</i> | <i>3.68</i> | <i>8</i> | <i>6</i> |
| <i>Program Core</i> | <i>41.72</i> | <i>84</i> | <i>68</i> |
| <i>program Electives</i> | <i>9.20</i> | <i>15</i> | <i>15</i> |
| <i>Open Electives</i> | <i>3.68</i> | <i>6</i> | <i>6</i> |
| <i>Institute Electives</i> | <i>3.68</i> | <i>6</i> | <i>6</i> |
| <i>Projects</i> | <i>9.20</i> | <i>30</i> | <i>15</i> |
| <i>Internships, practical training</i> | <i>1.23</i> | <i>4</i> | <i>2</i> |
| <i>Any other (Specif)</i> | <i>0.61</i> | <i>2</i> | <i>1</i> |
| <i>Total Credits</i> | <i>163</i> | | |

2.1.4 State the process used to identify extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I (10)

(State the process details)

The curriculum for B. Tech. in Civil Engineering maintains a balance among various categories of courses from Science, Mathematics, Engineering Science, Humanities and Management, Professional core, professional electives, open elective Projects, and Internship components. The syllabus for each course has been designed to comply with the curriculum for attaining the POs and PSOs defined for the program.

The process used to identify extent of compliance of the curriculum is given below.

- The curriculum development process is illustrated in figure 2.1.
- All course outcomes of the courses are mapped with the POs and PSOs along with their level of correlation: 1 (low), 2 (medium) and 3 (high). (Table 2.1).
- It is ensured that all POs/PSOs are adequately covered by the courses being taught and each course is mapped to high correlation level with at least one PO.
- It also ensured that all POs/PSOs have high correlation with adequate number of courses. The course and PO mapping of all the compulsory courses have been provided in the sub Criteria 3.1 as programme articulation matrix. However, low level of mapping of course with PO/PSO shows curricular gap which are fulfilled through guest lectures, seminars, industrial visits etc.
- The POs and PSOs attainment is calculated considering cumulative internal examination and semester end examination. Feedbacks are also collected from external stake holders like Alumni, Graduates and Employers for indirect attainment of POs and PSOs. Finally, the POs and PSOs attainment is calculated considering the relative weightage of direct attainment and indirect attainment (Fig. 2.2)
- PO/PSO attainments are analysed in the Programme Assessment Committee and BOS meeting; recommendations are suggested

Table 2.1: Course Outcome with PO/PSO Mapping of Geotechnical Engineering-I

| Sl. No. | Course Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO 11 | PO 12 | PSO1 | PSO2 | PSO3 |
|---------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|-------|------|------|------|
| 1 | CO1 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 2 | CO2 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 3 | CO3 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 4 | CO4 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 5 | CO5 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 6 | CO6 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |

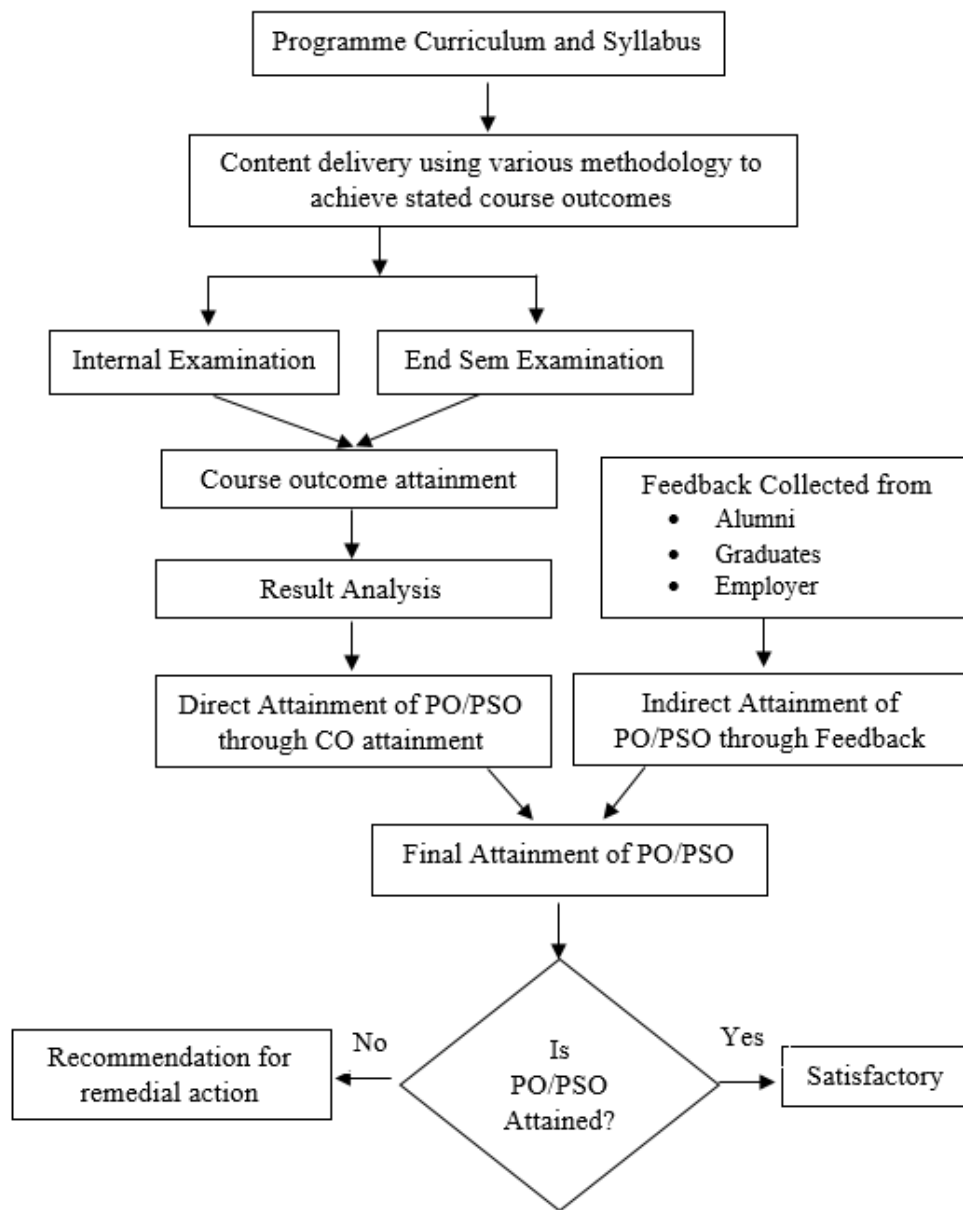


Fig. 2.2 Process for Identifying extent of compliance of curriculum

2.2 Teaching-Learning Processes (70)

2.2.1 Describe Processes followed to improve quality of Teaching & Learning(15)

(Processes may include adherence to academic calendar and improving instruction methods using pedagogical initiatives such as real world examples, collaborative learning, quality of laboratory experience with regard to conducting experiments, recording observations, analysis of data etc. encouraging bright students, assisting weak students etc. The implementation details and impact analysis need to be documented)

The Institute has adopted an integrated teaching learning process which includes different student centric methods aimed for enhancing learning experiences. The curricula and courses are updated periodically satisfying requirements by statutory bodies, addressing global issues, and course and program outcomes along with the Bloom's learning levels. School of Civil Engineering has a systematic procedure for improvement of teaching –learning process and thereby the students' performance. The process for **Teaching-Learning and Quality Improvement** in the school is focused on following broad criteria

(A) Adherence to Academic Calendar

The academic calendar of BTech programmes is prepared by the university and shared to the Deans and Directors of the Schools and faculty members. The academic calendar contains following information related to reporting of students, commencement of classes, pre-mid semester session, mid semester session, post mid semester session, end semester session, all in a chronological order.

Subject allotment for each subject takes place in the previous semester as per the faculty specialization and students' choice so that the faculty members can get enough time to plan their pedagogical approach for the subject.

All academic activities are being done in time without any disruption in the Academic Calendar

Time Table

A detailed time table is prepared at the school level by the programme head of the concerned programme for smooth functioning of the programme.

B. Instructional Methods and Pedagogical Initiatives

A course committee is formed for each course headed by course coordinator, who prepares the course handout in coordination with the course faculty. Course handout contains details of the course such as course code, course credit, course content, course outcome, lesson plan, assessment scheme, activity calendar, text books & Reference books etc. The lesson plan covers the details of the modulus /topics to be covered in each class along with the course outcome mapping and the chapters of textbook/reference book.

All the course teacher prepares the teaching /lecture materials and shares the materials with the students. For lab course lab manuals are shared with the students along with the course handout. Lab manuals are prepared well in advance and all lab manuals will be thoroughly scrutinized by the mentor of the respective lab and if it is required.

Class room lecture and Discussion: The lecture hour is utilized for planning implementing evaluating and making decision in the class room. During each topic discussion first ten minutes are utilized for discussing the theory behind it and next 30 minutes are used to presenting the reader the practice situations in which the knowledge about the skills can be applied and evaluated. Further 10 minutes are used to connect with the practical situation and the last 10 minutes for discussions.

Hands on practice: A practical section demonstrates how theory can be verified by experiments through interpretation of results. For each laboratory course a well defined lab manual is prepared and shared with the students to perform the experiments. Further each labs conducted

open ended experiments to check the skills of students in solving real life problems.. Students normally performs the experiment which develops a zeal between the students to correlate the results with practical situations where in the students are exposed to get a glance of practical area's including the limitations with each exercise of practical.

Assignments/Tutorial: A batch of 5 to 6 students are formed in a class room and a topic/practical problem is given to them related to course out come and guided accordingly to have the access the e-media, journal, site visits, group discussions etc. . Later on they are evaluated and asked to present their work so that it creates a collaborative learning environment and also helps the co-students.

Seminar/Presentations: The student's collect knowledge related to a topic and present it in a technical report and using power point presentation, the topic is presented to other students for their knowledge and benefits as mentioned above.

Guest lecturers from industrial background: Special qualified and experienced guest lecturers are arranged to get the real life experience and modern techniques, which are actually implemented in the field, and hence improves the understanding and learning experience. Therefore, the curriculum gap if any is fulfilled.

Industrial visits: The students are encourage to to undergo industrial visit to have an exposure of real-life probems and the soultions provided by the industry.

Video lecture from Online sources: Students are also encourage to learn from video lectures, animations, different images, open courseware, e-Resources Journals & Articles, Coursera, MOOCs, NPTEL, SWAYAM and KIITX etc.

Smart Classrooms: The classrooms are well equipped with advanced projector and smart writing board. Every classroom having PC system internet conectivity. All the laboratories are well equipped with the equipment, materials.

C. Continuous Learning Activity

The continuous assessment of a student in a course requires full engagement in different activities as an individual or in a group. Group activities include group discussions, field work, surveys, laboratory tasks and group projects. Individual task varies from student to student as allocated by the course teacher.

The institute has introduced a framework of learning activities with the following focus areas in all streams:

Interactive focus: Activities include synchronous and collaborative discussions, group activities and assignments, etc.

Critical thinking: Activities include undertaking case studies, field surveys, problem identification, reviewing impacts created by previous researchers, identifying gaps and scope for further improvement and strategy formulation.

Problem solving: Activities include implementation of strategies under real life circumstances, developing an understanding of constraints, realizing relevant social, environmental, legal and economic implications and analyzing the impact created; activities also include solving real life open ended problems supported by simulations and modeling relevant to the purpose.

Creation: Activities include design and implementation tasks both at simulation level followed by hardware implementation, real time deployment and study of the impacts.

Preparedness for competitive examinations and higher studies: Activities include extra studies (self-learning) and problem solving as preparation for competitive examinations and higher studies.

D. Actions taken for Bright and Weak Students

Course Committee meeting is conducted regularly to identify the bright students and weak students and suitable actions are taken.

The identification of weak and bright students is a continuous process. The process of assessment of the learning levels of the students and conduction of activities are done in two stages (Stage 1 and stage 2) which are explained in the Figures 2.3 and 2.4.

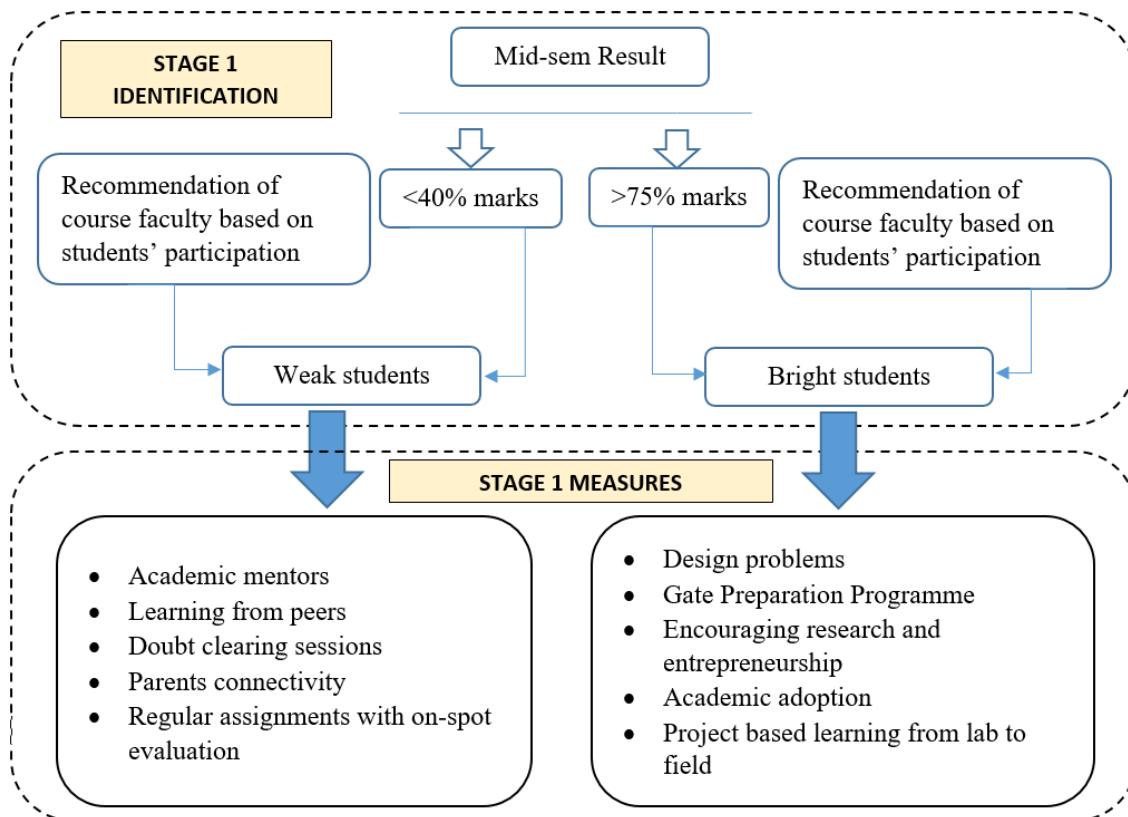


Fig. 2.3: Identification and measures for weak and bright students in stage 1

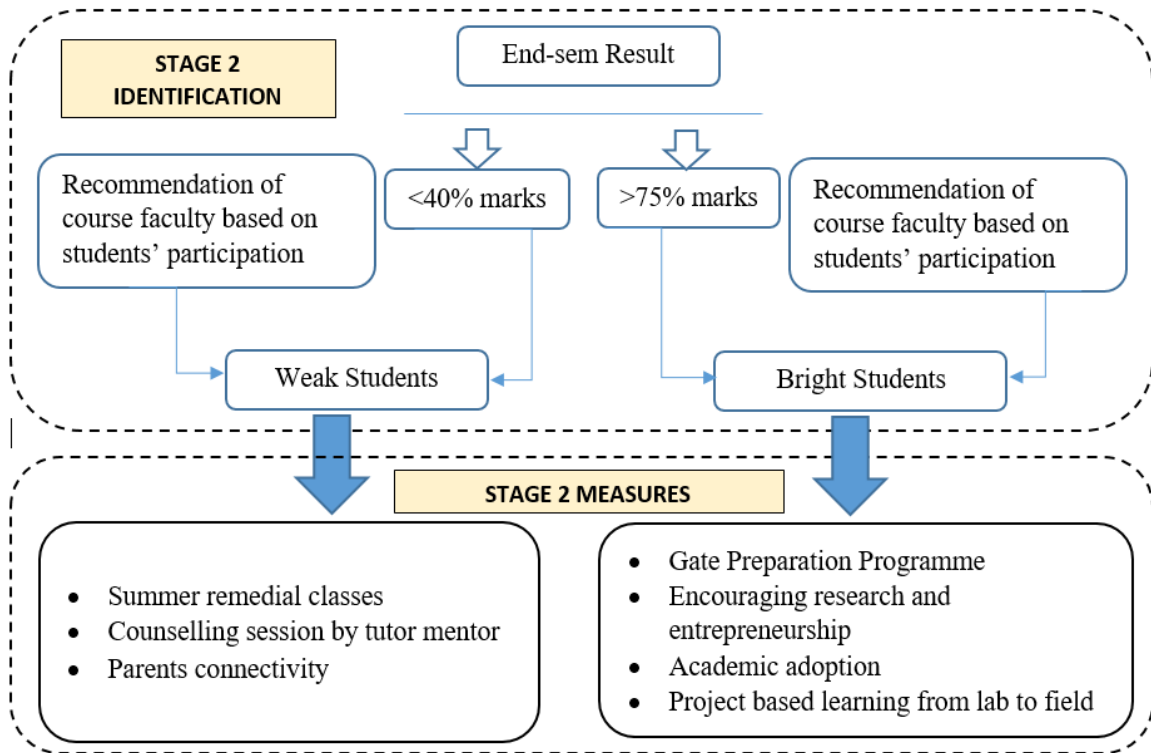


Fig. 2.4: Identification and measures for weak and bright students in stage 2

Special Programmes for Weak and Bright Students

D.1 Activities for Bright Students

- a. **Introduction of Major-minor scheme:** A student having a Major in a Branch of Engineering can opt for a Minor in a different Branch of Engineering from another School. To get Minor in a discipline, a student has to complete 20 credits in that area (Six Theory subjects @ 3 credits each and Two Labs @ 1 credit each / a Minor Project of 2 credits).
- b. **Introduction of B.Tech. with Honours:** A student has to undertake additional Three Advanced level courses (to the tune of 9 cr) to get a B.Tech Honours Degree. A student will be allowed to opt for the Honours scheme only if he/she has a minimum CGPA of 8.00 at the end of 5th sem and which is to be maintained constantly in the 6th, 7th and 8th sem.
- c. **GATE Preparation Programme:** School of Civil Engineering in association with the University has started Gate preparation programme for the advanced learners. It includes classroom teaching, Gate standard problem solving, module wise practice test, practice test similar to Gate and doubt clearing class.
- d. **Encouraging research and entrepreneurship:** Students are advised to actively join in various research groups in their field of interest with the help of faculty members. This helps the students to imbibe a research culture and have good publications from the start of their career. Further for the students, who have innovative entrepreneurial ideas, they

are advised to actively participate in the lectures conducted by the school by inviting the successful industry people and entrepreneurs.

- e. **Academic Adoption:** The Deemed University has initiated the ‘Academic Adoption’ scheme towards nurturing young minds towards research and higher education. This is also designed for teachers to promote their research interests. As a result, it's expected from students to achieve some publications with adopting faculty members, which will help them to achieve fellowships from institutes of higher learning. The process normally starts from 2nd year of the program where mentors are allotted to students with research bent of mind to handhold them and guide them through a well defined research path culminating in a major project cum research experience by the end of the graduation. This is also aimed at increasing student publications indexed in SCOPUS at the undergraduate level with faculty members as co-authors.
- f. **Project based learning from lab to field:** Students are given the opportunity to be part of live research and consultancy projects to have a better understanding of their theoretical knowledge.

D.2. Activities for Weak Students

- a. **Academic mentors:** Other than tutor-mentors, academic mentors are assigned specially for the slow learners who regularly supervise the overall academic improvement of their mentees.
- b. **Learning from peers:** In a residential university like KIIT DU, where most of the students live in hostels, the peer groups always play a major role in the knowledge advancement of the slow learners. Therefore, special attention is given towards this aspect so as to engage advanced learners for the same.
- c. **Doubt clearing sessions:** Concerned subject teachers take extra sessions for clearing the doubts of slow learners who usually skip asking during the regular classes.
- d. **Summer remedial classes:** Summer remedial classes are conducted for the slow learners during the summer vacation.
- e. **Parents connectivity:** Periodical meetings and phone calls are conducted with parents to discuss the academic as well as personality improvements of the students.
- f. **Regular assignments with on-spot evaluation:** Students are given regular assignments. A fixed time is given to the students to submit the assignment and is checked on the same day to provide feedback regarding their performance.

E. Conduct of experiments

- All lab manuals are prepared well before the commencement of the semester as prescribed by the University.
- Each class is divided into two groups and the two groups are sent to two separate Laboratories; in further they are divided into small groups, not more than five students.
- Each group will do the experiments separately in order to make them understand and conduct the laboratory experiment and to get individual attention from the faculty.
- The students record the experimental values in their observation after completing the relevant calculations; the students submit the same for evaluation.
- Continuous assessments done on the basis of submission of laboratory records, understanding of the experiment through viva-voce and participation in performing the experiment.

F. Project

As mentioned above each batch of class is assigned micro project, which includes the topic from curriculum, practical problems, societal requirement etc. and asked to present in a small report format including power point presentation.

G. Maintenance of Course File

Maintenance of Course File:-For each course, a course file is prepared and maintained by the concerned faculty member. The course file consists of the following points:-

Course Handout

Course Material (Teaching Material)

Mapping of the Course outcomes with the Program Outcomes/ Program Specific Outcomes

Activity details (if assignments have been given):

- *Assignment/quiz/group activity with marks allocated separately for different questions and instructions to the students.*
 - *Model solution containing evaluation scheme.*
 - *Samples of student assignments marked/evaluated with comments (if any).*
 - *Marks obtained by different student in each assignment.*
 - *Mapping of the questions with the Course Outcomes.*
- **Mid semester examination documents:**
 - Mid semester question paper.
 - Mapping of mid semester questions with course/learning outcomes.
 - Model solution of mid semester question paper along with the corresponding evaluation scheme.
 - **End semester examination documents:**
 - End semester question paper.
 - Mapping of end semester questions with course/learning outcomes.
 - Model solution of end semester question paper along with the corresponding evaluation scheme.

- **Course Attainment:**
 - Course outcome attainment and result analysis
- **Minutes of meetings of the course committee** throughout the semester
- **Notification of extra classes, remedial and tutorial classes to help weak students or clarifying concepts for all students.-** One notification/Email is required
- **All E mail communication communications with students and parents.**

H. Library and Internet Facilities

Library facilities: College is been provided with good collection of books including text book, reference books, technical journals, magazines etc. Books are arranged according to subject classification and in a systematic manner. Also there is a separate newspaper section for day-to-day reference. In addition to this department is maintaining departmental library separately.

Internet facility: Internet facility allows our students to access internet 24/7. High speed Wi-Fi network surrounds campus and let student access it any time. Students can access E-books through internet. Our department has dedicated Internet Leased line of 2 Mbps, connected throughout the Campus. Students and faculties are free to access internet after the regular working hours. This helps the students to prepare papers on the latest technologies to be presented in various symposiums and seminars. With Internet facilities in the well-equipped computer lab, providing high speed of connectivity the student can surf the net together for unlimited information.

I. Teaching And Learning During Covid-19 PANDEMIC

During COVID-19 pandemic in India, the academic and research activities of the Institute through were continued through the extensive use of following ICT facilities and associated technical infrastructure:

- 3.7 Gbps internet connectivity
- 35082 Laptops available with all faculty-members, executives and students of the University
- SAP /ERP Platform

The following apps/platforms are being extensively used for conducting the online classes supported by suitable Learning Management systems:

- Zoom
- Google Meet
- Cisco Webex
- Gsuite
- Moodle

- MyPerfectice

All the Lab class is conducted using virtual platform google meet and zoom. The experiments were explained through prerecorded video conducted by the concerned faculty members and technical assistant. Virtual labs developed Ministry of Education is also used for demonstration. Relevant informative videos related to experiments were also being shown to students from different internet sources

J. Student feedback of teaching learning process and action taken

Feedback is collected from each student at every mid of the semester and at end of the semester and analyzed by the Internal Quality Cell. Feedback covers questions to course content, pedagogy, effectiveness of instructional methodology, Approach and attitude of faculty members.

The feedbacks are used to strengthen the instructional methods and also the content of the course or teaching material. Based on the feedback, faculty members are encouraged to improve their skills and abilities. Reputed academicians are also invited to deliver lecture on improving the efficiency of the teaching-learning process. In case of any negative comment related to attitude or approach of faculty members, a counselling session is organized by the HoD for those faculty members who have secured low scores and negative comments, if any, in the feedback.

2.2.2 Quality of end semester examination, internal semester question papers, assignments and evaluation (15)

(Mention the initiatives, implementation details and analysis of learning levels related to quality of semester tests, assignments and evaluation)

The courses taken up by the student are classified into theory, practical and sessional courses. A set of assessments are conducted for each of these courses through which the students' performance is currently evaluated as summarized below:

| Courses | Assessment |
|----------------|--|
| Theory courses | <p>The assessment is done in three stages:</p> <p>Continuous assessment (30 marks): Student is evaluated based on different tasks and learning activities throughout the semester for the course. The management, assignment and evaluation of tasks, assignments are done through different learning management systems like Google Classroom , Moodle etc.</p> <p>Mid semester examination (20 marks): Student is evaluated based on mid semester examination (closed book examination) conducted towards the middle of the semester based on a part of the syllabus decided and announced by the course coordinator in discussion with other course teachers.</p> |

| | |
|-------------------|---|
| | <p>End Semester examination (50 marks): Student is evaluated based on end semester examination (closed book examination) conducted towards at the end of the semester based on the entire syllabus for the course.</p> <p>The mid semester and end semester examinations are conducted by the School Examination cell in coordination with the central examination cell under the supervision of the Controller of Examinations of the Institute. All evaluations are done online, marks are communicated to the students and grievances if any are immediately resolved.</p> |
| Practical courses | <p>The assessment is done in 2 stages:</p> <p>Continuous or Internal assessment (60 marks): Student is evaluated based on their performance, concepts, performance as a group member, viva and documentation corresponding to different experimental tasks, simulations, programming and learning activities prescribed and carried out throughout the semester.</p> <p>End Semester examination (40 marks): Student is evaluated based on their performance on a given experimental or hands-on task that has to be completed within a stipulated time under constant proctoring, and on their performance in the end semester viva examination.</p> |
| Sessional Courses | <p>Continuous assessment (100 marks): Student is evaluated based on different tasks, learning activities, group tasks and /or reviews and viva conducted throughout the semester for the course. The management, assignment and evaluation of tasks, assignments are done through different learning management systems like Google Classroom , Moodle etc.</p> |

KIIT DU has set guidelines for conducting examinations including setting up the question papers of mid semester and end-semester examination and continuous evaluation through activities. The guidelines of each component of assessment are given below.

The activities in continuous assessments have been designed to facilitate/strengthen learning among the students. The activities are to be designed such that the course teacher will be to assess the student on following categories as well as to the intended course outcomes.

A set of suggested practices on the above aspects have been furnished in the table below. Course teachers are free to adopt a practice within or beyond the frame work suggested.

| Focus | Learning Practice | Brief description |
|---|--|--|
| Interactivity Focus (Group based evaluation) | Synchronous Discussion | Provide a set of questions to 20-30 students. Facilitate sharing of responses. |
| | Collaborative Discussion | Divide available set of information to 5-6 parts. Provide a part of information to 5-6 students. Allow sharing of information and further buildup among the subgroups. |
| | Group Assignment | In a group of 5-6 assign roles to members as project manager, schedule and records manager, presenters and researchers. Assign a project that can be developed in a semester. |
| Critical Thinking Focus | Response to issues | Assign an ongoing practice / Text / Audio / Video. Student is supposed to critique based on set criteria. |
| | Case Study | Students are supposed to identify issues, stakeholders, options, impacts and consequences. |
| | Research need identification | Student is supposed to go through review papers / set of research papers to identify a pertinent research need. A two page report compiling the background, literature summary and research need is to be presented. |
| Creation | Info-graphic | To explain, describe and visualize the given information / process / procedure. |
| | Written summary | From a specific aspect of a class / text / research article student is supposed to write a one page summary |
| | Physical model/ mathematical model/ soft-model | Student is supposed to develop an appropriate model. |
| Problem solving | Assignments | Set of problems / cases to be solved and submitted |
| | Modeling and simulation | Students are supposed to develop algorithm/code/ mathematical model, to use appropriate software and simulate. |
| Preparedness for GATE/ And other competitive exams | Quiz | Students are supposed to answer course questions set according to standard of GATE/ CES/ CS/ Other competitive exams. |
| Reflection (Self evaluation) | Self assessment | Student to assess the quality of their work based on given criteria. |

| | | |
|--|------------------------|--|
| | Reflection on learning | A write-up reflecting what the student intended to learn before the course, reflect upon what is learnt and effectiveness of specific learning tools |
|--|------------------------|--|

The activity are planned and informed to the students in the course handout at the start of the semester. The learning activities of each course are continuously monitored by Programme Assessment committee.

B. Quality of the Internal Question Paper

Following processes is in place to maintain the quality of the internal question paper. The process is reviewed over the years and updated.

- The course coordinator decides the syllabus for the internal examination and requests question pool from the respective committee members.
- After collecting the questions from respective committee members, the course coordinator prepares the internal question paper and evaluates each question through following parameters.
 1. Mapping of individual questions of the question paper with the respective Course Outcomes (COs).
 2. Mapping of individual question paper with the respective levels of questions based on the Bloom's Taxonomy.
 3. Mapping of individual question paper with the respective chapters of the course.
 4. Finally, the quality of the question is analyzed based on the prevalent guidelines to related to the Bloom's Taxonomy requirement and the coverage of chapter and course outcomes.
- Then, the course coordinator shares the evaluation sheets with the committee members for review and feedback.
- After the evaluation sheet data found to meet the quality standards, the question paper is submitted to Faculty-In-Charge Examination.

C. Quality of the end semester Question Paper

Following process is in place to maintain the quality of the end semester question paper.

- The Course Co-ordinator recommends the name of any four/ five faculty members from the course committee for setting up the end semester question paper.
- A school level committee comprising of Dean, Program Head, Assistant Controller of Examination finalizes the list of end semester paper setters (any two/ three faculty members) and two moderators. The list is further sent to Vice Chancellor for approval. The paper setters are also faculty member from other premier institution of India.
- After receiving the approval from Vice Chancellor, the respective faculty members (both paper setter and moderators) are intimated confidentially regarding preparation of

question paper along with the guidelines for setting up of question paper by the office of the Dean. During Covid time, the format of question paper was revised for online examination.

- The paper setter after setting up the question paper, evaluate the question paper and submits the question paper along with an evaluation sheet template to the moderator. The evaluation sheet template comprises of
 1. Mapping of individual questions of the question paper with the respective Course Outcomes (COs). The mapping is quantified through a score.
 2. Mapping of individual question paper with the respective levels of questions based on the Blooms Bloom's Taxonomy. The mapping is quantified through a score.
 3. Mapping of individual question paper with the respective chapters of the course. The mapping is quantified through a score
 4. Finally, the quality of the question is statistically analyzed.
- The moderator reviews the question paper along with the evaluation sheet template and finally submits the question paper (from three paper setters) to the Controller Of Examination after being sure about the quality standard of the question paper.

A sample template of question paper with the mapping of questions paper with course outcome and Bloom's Learning level is given below.

Format-1(Default)

Pattern

- SIX questions are to be attempted|
- Question paper consists of four SECTIONS that is, A, B, C and D
- Section-A is compulsory and to cover the entire syllabus.
- The examinee has to attempt any five questions from the SECTIONS B,C,D with minimum one question from each SECTION.

Usefulness:

- All levels of learning are assessed as per the Bloom's taxonomy
- Course Outcomes and Performance Indicators are achieved
- Suitable for lower semesters of the programmes

| Question number | Learning levels as per Bloom's taxonomy | Description | Marks | Course Outcomes (CO)/ Performance Indicators(PI) | Additional Instructions |
|------------------|---|---|---|---|--|
| Section A | | | 20% of total Marks to be assigned for Q1. | <ul style="list-style-type: none"> ✓ All COs ✓ PI s related to Learning levels 1 and 2as per Bloom's taxonomy | The questions in SECTION-B,C and D should collectively cover all COs defined for the Course. |
| Q1 (a)-(j) | Learning levels 1 and 2 | Questions based on remembering and understanding. | | | |
| Section B | | | 16% of total Marks to be assigned to each question | <ul style="list-style-type: none"> ✓ All COs ✓ PI s related to Learning levels 1, 2 and 3 as per Bloom's taxonomy | |
| Q2 Q3 | Learning levels 1,2, and 3 | Questions based on remembering, understanding and application | | | |
| Section C | | | | | |
| Q4 Q5 Q6 | Learning Levels 3 and 4 | Questions based on application and analysis. | | | |
| Section D | | | <ul style="list-style-type: none"> ✓ All COs ✓ PI s related to Learning levels 4, 5 and 6 as per Bloom's taxonomy | | |
| Q7 Q8 | Learning levels 4,5,6 | Questions based on analysis, evaluation, design, formulation or innovation. | | | |

C. Question quality Assessment:

The quality of questions is assessed by a Question Quality Assessment Committee formed by the School.

The assessment is made with respect to the stated course outcomes, the learning levels as per Bloom's Taxonomy (LL1 to LL6 representing Remember, Understand, Apply, Analyze, Evaluate and Create respectively) and the chapter coverage.

The marks allotted with respect to the Course Outcomes, Learning Levels and Chapter IDs are compared against a desired set. The deviations are computed and the question quality with respect to the CO, LL and Chapters are marked as 'Strong', 'Moderate' and 'Weak'.

The process of question quality assessment is usually completed within one month of the assessment. The process covers the questions of mid-semester and end-semester. Through assessing the questions relating to the course during the semester a comprehensive analysis is taken up by the Quality Assurance Cell and the report is shared to the Program Assessment Committee.

Quality of the Evaluation

Following processes has been defined to maintain the quality of evaluation of answer scripts. The process is reviewed over the years and updated.

- The answer scripts are scanned (By a third party service provider) and uploaded with an intimation to the evaluators.
- The evaluator evaluates the answer scripts online, using the login credentials. For every evaluation/ award of mark to the individual answers, there is a provision to give remarks about justification of the award of mark.
- The course coordinator prepares a scheme of evaluation, which is circulated among all evaluators and students.
- Once the evaluation is over, the chief examiner appointed by Vice Chancellor, reviews the evaluated answer sheets online, and does necessary updates with proper justification in the remark field. The chief examiner checks whether marks has been awarded judiciously or not.
- As transparency is another key focus point of the University, the reviewed answer sheets are sent for student view. Students go through their answer sheets online and apply for recheck.
- Then, the copies are sent back to the respective evaluator for recheck and after that final mark are generated.

Examination during Covid-19:

During Covid-19, online exam was conducted with the help of following online platforms.

- Zoom with pro accounts for the invigilators and examinees (For uninterrupted online invigilation: Maximum 20 Examinees per invigilator have been allowed).
- Moodle with cloud hosting to support 1000 examinees concurrent access.

- Google Drive used by invigilators to deal with issues with respect to uploading of scanned documents.
- WhatsApp Groups (for real time communication between examination officers, invigilators and examinees)

Reforms in Question Paper:

- The University has approved six formats of end semester question paper to be used for all theory type course items offered from different Schools of the University. These formats have been prepared by a subcommittee of the Academic Monitoring Committee of the University for Implementation. The Course Committees of the School select the appropriate format of end semester question paper (one out of these six formats) for effective assessment of the course. The question paper format selected for the course are included in the Course Handout for distribution to the students before the start of the teaching learning process for the Course.
- A consolidated list containing the semester, subject name, subject code and selected question format no are sent to the Office of the Controller of Examinations for implementation in the online evaluation process.

2.2.3 Quality of student projects (20)

(Quality of the project is measured in terms of consideration to factors including, but not limited to, environment, safety, ethics, cost, type (application, product, research, review etc.) and standards. Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects. Mention Implementation details including details of POs and PSOs addressed through the projects with justification)

As per BTech Civil curriculum for 2015, 2016 and 2017 admitted batches, each student has to undertake one projects during 6th, 7th and 8th semester as mentioned below

| SL no. | Semester | Course code | Course name | Credits |
|--------|----------|-------------|---------------------|---------|
| 1 | 6 | CE 3082 | Minor Project | 2 |
| 2 | 7 | CE 4081 | Project Preparation | 2 |
| 3 | 9 | CE 4082 | Project | 6 |

Similarly, as per BTech Civil curriculum for 2018, 2019 and 2020 and 2021 admitted batches, each student has to undertake one projects during 6th, 7th and 8th semester as mentioned below

| SL no. | Semester | Course code | Course name | Credit |
|--------|----------|-------------|---------------------|--------|
| 1 | 6 | CE 3082 | Minor Project | 2 |
| 2 | 7 | CE 4081 | Project Preparation | 3 |

| | | | | |
|---|---|---------|---------|----|
| 3 | 9 | CE 4082 | Project | 10 |
|---|---|---------|---------|----|

A. Identification of Projects and allocation methodology to faculty members

Process related to project identification, allotment, and monitoring are described in Fig. 2.5

A project coordinator is appointed by the Dean of the School, who is responsible for planning, scheduling and execution of all the activities related to the student project work.

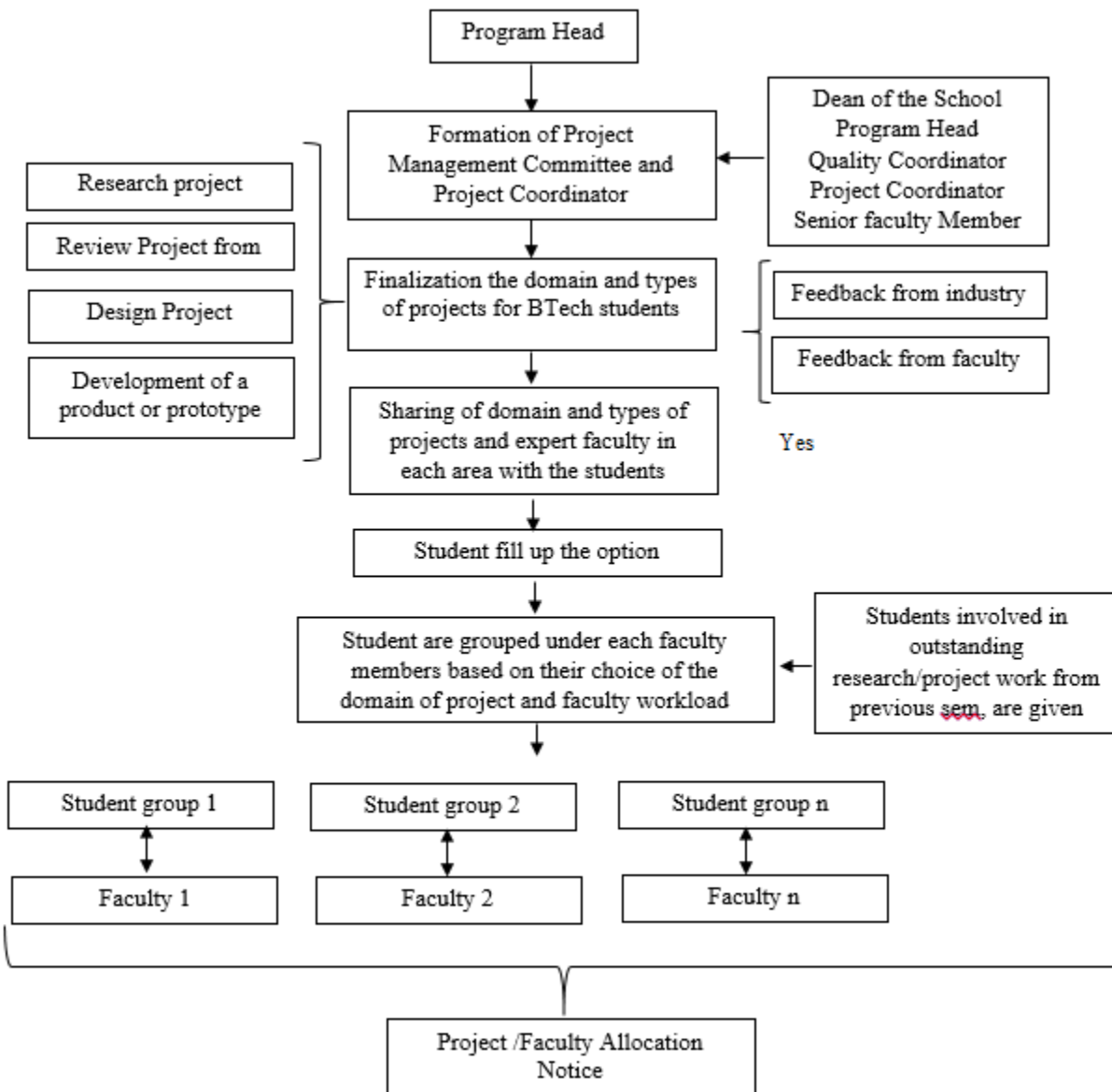


Figure 2.5. Process for Project Allocation methodology

B. Planning, Scheduling, Monitoring and Execution

The project scheduling and monitoring is briefly explained in the following table.

| Step | Task | Process description |
|--------|------------------------|---|
| Step-1 | Project Identification | Projects are identified by faculty members and/or students in their respective area of interest. The detailed process is depicted in Fig. 2.5. |
| Step-2 | Allotment | Projects are assigned to students and guides allotted to them. The laboratory is assigned and the resources are provided to students for project development. |
| Step-3 | Continuous Monitoring | The progress of a project is monitored by the guide on day to day basis. The continuous progress is also assessed through periodic review by panel. |
| Step-4 | Evaluation | Students have to give demonstration of the project works. Students have to present the working principle of the project works. Students have to explain implementation methodology, design process of components, performance of the system, application of projects and future scopes. Finally students have to submit the project report. |

Role of Students

- Regular interaction with guide with minimum 75% attendance. The attendance record will be maintained by the guide which will be submitted to the project coordinators before mid-semester and end-semester.
- Perform a literature review of current knowledge and developments in the chosen research area.
- Undertake detailed technical work in the chosen area consisting of:
 - Analytical and computational studies
 - Experimental works
 - Model and prototype creation
- Maintain a record of individual contribution to the project completed.
- Prepare a formal report, one for mid-semester, and another for end-semester (templates are attached) describing the work undertaken and results obtained so far with **similarity index less than 20% (Attach Plagiarism Report)**.
- The project should be linked to the Societal Impacts/ Sustainability/ Economic Viability.
- Present the work in a forum by preparing a formal presentation.
- Students have to participate in the 8th Semester project expo by preparing extended abstracts and presentation in consultation with their guides.

Role of Guides:

- The guide must prepare the **project groups comprising maximum of 5 students**.
- The guide should send the proposed project title to the project coordinators within 15 days of the start of 7th semester.
- The guides should maintain the attendance record of their project students and submit the same to the project coordinators before mid-semester and end-semester.
- In case the progress is found to be unsatisfactory, it should be reported in advance to the project coordinators for their information and necessary action.
- The guides should submit their marks to project coordinators for mid-semester and end-semester exam before the committee evaluation.

- The guide should ensure that all the project reports should be prepared in the attached format given below and also submit a **plagiarism report with $\leq 20\%$** similarity before the final submission.
- The guide should ensure the participation of students in 8th Sem project expo and check the extended abstract.

Role of Project Coordinators:

- The coordinators will conduct the mid-semester and end-semester examination and therefore should mail the same prior to atleast two weeks before the presentations.
- The coordinators will collect the proposed project titles within 15 days of the start of the 7th semester.
- The coordinators will collect the attendance report of project students before mid-semester and end-semester exams.

Guidelines for presentation:

- The Power Point presentation should be of 15-20 slides comprising:
 - Title (Project title, name/names (roll numbers) of students along with the name of supervisor)
 - Introduction (Background of the study, Significance of the study)
 - Objectives of the study
 - Review of literature
 - Materials and Methods (Description of study area/experimental design, data collection, materials and procedures to achieve the objective)
 - Results and Discussion (Graphs, tables or charts that demonstrate critical elements of the research findings or outcomes)
 - Societal Impacts/ Sustainability/ Economic Viability
 - Conclusion
 - Recommendations for future study
 - List of Publications, if any

Guidelines for project report:

- *All the main text of the thesis should be in "Times New Roman 12" font style with 1.5 line spacing.*
- *No unnecessary gap should be provided in between paragraph, subheadings, page end etc. (follow the template).*
- *Cite the references in ASCE style.*
- *All the cited references in the main text must be listed under and vice versa.*
- *Provide table and figure number with caption for all the tables and figures in the main text. (Follow the template).*
- *The report should contain the following headings as per the attached templates.*
 - *Abstract*
 - *Introduction*
 - *Objectives of the Study*
 - *Review of the Literature*
 - *Materials and Methods/Software Tools/Data Collection and Extraction*
 - *Results and Discussion*
 - *Societal Impacts/ Sustainability/ Economic Viability*
 - *Conclusion*

Project Evaluation Scheme

- Performance in Project components is evaluated separately by the project guide, panel members, reviews and external evaluators. The assessment takes into account model/prototype/construction material development, use of modern engineering tools, quality of project work and innovation, student presentation, viva, reviews, report writing, and individual contributions.
- Since last two academic years, evaluation of major design projects involves external examiners and exhibition through Project Expo. Project Expo is a platform where the final year students are got a chance to show case their project and the project are evaluated by external experts from industry and academia
- **A detailed project assessment scheme is provided below**

| EC No. | Evaluation Component | Evaluation type | Marks/Weightage | Components of evaluation |
|--------|--------------------------|--|--------------------------------|--|
| 1 | Mid Semester Examination | Presentation, viva and report submission | 30 (Panel – 15, Guide – 15) | Report – 10 Presentation skills & content – 10 Viva – 10 |
| 2 | End Semester Examination | Presentation, viva and report submission | 70 (Panel – 35, Guide – 35) | Report – 30 Presentation skills & content – 20 Viva – 20 |

C. Types and relevance of the projects and their contribution towards attainment of POs

Course Outcomes of project

At the end of the course, the students will be able to:

CO1: perform a background study on certain scientific aspect and formulate a project objective

CO2: outline a pathway for the implementation of the project within the time line

CO3: apply fundamental mathematical concepts, advanced technical know-how, use modern tools, perform experiments and critically analyze the data

CO4: provide solutions with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

CO5: function effectively as an individual, and as a member or leader in a team under multidisciplinary settings following ethical practices

CO6: communicate effectively with a range of audiences and prepare reports

Mapping of project CO with PO/PSO

| Sl. No. | Project CO | Relevance to PO/PSO |
|---------|------------|---|
| 1 | CO1 | PO2 |
| 2 | CO2 | PO9, PO10, PO11 |
| 3 | CO3 | PO1, PO2, PO3, PO4, PO5 |
| 4 | CO4 | PO6, PO7, PO8, PO11, PO12, PSO1, PSO2, PSO3 |
| 5 | CO5 | PO9 |
| 6 | CO6 | PO9, PO10 |

A list of major projects addressing various POs

| Sl. No. | Project title | Group Code | Relevance to PO/PSO | Year |
|---------|--|------------|--------------------------------|------|
| 1 | Solutions to the cost overrun in the construction projects | 1 | 1,2,3,6,9,10,12,5,11 | 2022 |
| 2 | Design of pile foundation | 1 | 1,2,3,6,9,10,12,5,8 | 2022 |
| 3 | Seismic assessment of multi-storey apartment building | 1 | 1,2,3,6,9,10,12,5,8,13 | 2022 |
| 4 | Design of a healthy building: Perspective of air pollution and ventilation. | 1 | 1,2,3,6,9,10,12,5,8,14 | 2022 |
| 5 | P-y analysis of laterally loaded piles | 1 | 1,2,3,6,9,10,12,5, | 2022 |
| 6 | Design of a road over bridge near paap mochansagar in Janakpur city, Nepal | 1 | 1,2,3,6,9,10,12,5,8,11,13 | 2022 |
| 7 | Design of Pavement and Cross Drainage structures of a Expansion of National Highway | 1 | 1,2,3,6,9,10,12,5,8,11,13,15 | 2022 |
| 8 | Design of flexible pavement including cross drainage of a village road near deulbar village | 1 | 1,2,3,6,9,10,12,5,8,11,13,15 | 2022 |
| 9 | Geo-Technical Investigation Report on Construction of EMRS (Ekalabya Model Residential School) at Kaptipada, Odisha | 1 | 1,2,3,6,9,10,12,4,8,11,13 | 2022 |
| 10 | Case study of an accident blackspot-factors and effects | 1 | 1,2,3,6,9,10,12,4,11 | 2022 |
| 11 | Design of rcc bridge | 1 | 1,2,3,6,9,10,12,5,8,11,13 | 2022 |
| 12 | Design of soil nailed slope protection system in hilly terrain | 1 | 1,2,3,6,9,10,12,4,8,11,13,14 | 2022 |
| 13 | Planning and design of exhibition hall at Dhangadi, Nepal | 1 | 1,2,3,6,9,10,12,5,8,11,13 | 2022 |
| 14 | Delineation and Analyzation of Waste Stabilization Pond (WSP) for sustainable treatment of beverage industry wastewater: A research containing climatic factors, design and circular economy | 1 | 1,2,3,6,9,10,12,4,7,8,14,15 | 2022 |
| 15 | Analysis of a girder bridge | 1 | 1,2,3,6,9,10,12,5,8 | 2022 |
| 16 | Quantity survey , material calculation ,cost evaluation and bbs of a box culvert | 1 | 1,2,3,6,9,10,12,5,11 | 2022 |
| 17 | Accident prediction using fuzzy inference system | 1 | 1,2,3,6,9,10,12,5,7 | 2022 |
| 18 | Phytoremediation potential of sunflower (helianthus annuus) plant in different contaminated soils: a review | 1 | 1,2,3,6,9,10,12,4,7,14 | 2022 |
| 19 | Soil stabilization using fly ash method | 1 | 1,2,3,6,9,10,12,4,7,13,14 | 2022 |
| 20 | Development of a crash prediction model using historical crash data | 1 | 1,2,3,6,9,10,12,5,7 | 2022 |
| 21 | Developement of los criteria for uncontrolled median openings | 1 | 1,2,3,6,9,10,12,5,7 | 2022 |
| 22 | Construction Planning of G+3 RESIDENTIAL BUILDING | 1 | 1,2,3,6,9,10,12,5,11 | 2022 |
| 23 | Development of LOS Range for Speed Humps | 1 | 1,2,3,6,9,10,12,5 | 2022 |
| 24 | Hydraulic analysis of unsteady channel flow modelling using HEC-RAS | 1 | 1,2,3,6,9,10,12,5,7,14,15 | 2022 |
| 25 | Association of air pollution and meteorological parameters with covid-19 | 1 | 1,2,3,6,9,10,12,4,7,14 | 2022 |
| 26 | Design and cost comparison of regular and sustainable building | 1 | 1,2,3,6,9,10,12,5,7,8,13,14 | 2022 |
| 27 | Capacity reduction due to on-street parking | 1 | 1,2,3,6,9,10,12,5,11 | 2022 |
| 28 | Use of fibre in bituminous mixes | 1 | 1,2,3,6,9,10,12,4,7,13 | 2022 |
| 29 | Design of Wastewater Stabilization Ponds For KIIT & KISS | 1 | 1,2,3,6,9,10,12,4,7,8,11,13,14 | 2022 |
| 30 | Utilization of fly ash as filler in bituminous mixes | 1 | 1,2,3,6,9,10,12,4,7,13,14 | 2022 |
| 31 | Assessment of traffic congestion due to presence of uncontrolled median openings | 1 | 1,2,3,6,9,10,12,5 | 2022 |
| 32 | Developing Road Traffic Noise Map Using GIS and sound meter. | 1 | 1,2,3,6,9,10,12,5,7,14 | 2022 |
| 33 | Design of flexible pavement using IIT-pave | 1 | 1,2,3,6,9,10,12,5,8,13 | 2022 |
| 34 | Analysis of hydrological extreme event in mahanadi river basin | 1 | 1,2,3,6,9,10,12,5,8,14,15 | 2022 |
| 35 | Design of an unlined prismatic irrigated channel considering various types of crop season in alluvial soil | 1 | 1,2,3,6,9,10,12,5,8,11,14,15 | 2022 |

| | | | | |
|----|---|---|---------------------------------|------|
| 36 | Long term assessment of waste composition from landfill | 1 | 1,2,3,6,9,10,12,5,7,11,14 | 2022 |
| 37 | Design of industrial warehouse | 1 | 1,2,3,6,9,10,12,5,8,11,13 | 2022 |
| 38 | Assessment of pedestrian safety on Indian roads | 1 | 1,2,3,6,9,10,12,5,8 | 2022 |
| 39 | Analysis and design of steel intensive quarantine center building | 2 | 1,2,3,6,9,10,12,5,7,8,11,13,14 | 2021 |
| 40 | Evaluating the effect of vegetation coverage on the performance of Floating Treatment Wetland | 2 | 1,2,3,6,9,10,12,5,7,8,11,14,15 | 2021 |
| 41 | Performance of agro-industrial wastes used in lightweight concrete | 2 | 1,2,3,6,9,10,12,4,7,8,11,13, | 2021 |
| 42 | Comparative analysis and design of three storey house using STAAD PRO, ETABS and SAP 2000 | 2 | 1,2,3,6,9,10,12,5,8 | 2021 |
| 43 | Operational Effects of Speed Breakers: A Case Study In India | 2 | 1,2,3,6,9,10,12,5,8 | 2021 |
| 44 | Analysis of quality inequity in the drinking water of Bhubaneswar city | 2 | 1,2,3,6,9,10,12,4,7,8,14 | 2021 |
| 45 | Analysis and design of g+8 storey residential building | 2 | 1,2,3,6,9,10,12,5,8,11 | 2021 |
| 46 | Stability of slope and foundation with respect to its distance from edge of the slope | 2 | 1,2,3,6,9,10,12,4,7,8,14 | 2021 |
| 47 | Design of Sewage Treatment Plant For KIIT and KISS | 2 | 1,2,3,6,9,10,12,4,7,8,11,14 | 2021 |
| 48 | Geometrical Design of Traffic Calming Device For Bhubaneswar City | 2 | 1,2,3,6,9,10,12,5,8 | 2021 |
| 49 | Study of Low Cost Housing and Design of A Typical Condominium House Using Staad Pro | 2 | 1,2,3,6,9,10,12,5,7,13 | 2021 |
| 50 | Design of Flexible Pavement With Granular Base And Subbase For NH-16 | 2 | 1,2,3,6,9,10,12,5,8,11 | 2021 |
| 51 | Design of Monopile and Cost Estimation of an Offshore Wind Turbine | 2 | 1,2,3,6,9,10,12,5,8,11 | 2021 |
| 52 | Selection of an Appropriate Truss Type Based on Optimized Truss Configurations | 2 | 1,2,3,6,9,10,12,5,8,11,13 | 2021 |
| 53 | Comparison of Life Cycle Cost of Flexible Pavement With Granular and Cemented Base | 2 | 1,2,3,6,9,10,12,5,8,11,13 | 2021 |
| 54 | Optimization of position of steel plate shear wall in a multi-storied steel building | 3 | 1,2,3,6,9,10,12,5,8,11,13 | 2020 |
| 55 | Geoengineering & microstructural properties of alkali activated fly ash geopolymer | 3 | 1,2,3,6,9,10,12,4,7,8,11,13 | 2020 |
| 56 | Evaluation of the geotechnical properties of msw in a landfill | 3 | 1,2,3,6,9,10,12,4,7,8,11,14,15 | 2020 |
| 57 | Design and comparison of pavement alternatives for Gola-Sahajanpur road (sh-93) | 3 | 1,2,3,6,9,10,12,5,8,11,13 | 2020 |
| 58 | Application of waste plastic in modifying bitumen properties | 3 | 1,2,3,6,9,10,12,4,7,8,11,13 | 2020 |
| 59 | Water resource management in different agroclimatic zones of Odisha, India using EDI and SPI | 3 | 1,2,3,6,9,10,12,5,8,11,14,15 | 2020 |
| 60 | Effect of Oil Contaminated Aggregates on Mechanical Properties of Concrete | 3 | 1,2,3,6,9,10,12,4,7,8,11,13,14 | 2020 |
| 61 | Compressive Strength of Fiber Reinforced Cement Stabilised Flyash | 3 | 1,2,3,6,9,10,12,4,8,11,13 | 2020 |
| 62 | Design of Water Tank For Rooftop Rainwater Harvesting System | 3 | 1,2,3,6,9,10,12,5,8,11,15 | 2020 |
| 63 | Study of Strength Properties of Concrete Using Copper Slag and Steel Slag as A Partial Replacement of Fine Aggregates | 3 | 1,2,3,6,9,10,12,4,7,13,14 | 2020 |
| 64 | Analysis and Design of Steel Intensive Innovative Food Grain Godown | 3 | 1,2,3,6,9,10,12,5,8,14 | 2020 |
| 65 | Use of pervious concrete for ground water recharge | 3 | 1,2,3,6,9,10,12,4,8,11,13,14,15 | 2020 |
| 66 | Stabilization of black cotton soil using Fly ash and marble dust | 4 | 1,2,3,6,9,10,12,4,7,8,13,14 | 2019 |
| 67 | Monsoon Rainfall Analysis of Balasore and Puri Districts of Odisha | 4 | 1,2,3,6,9,10,12,5,7,15 | 2019 |
| 68 | Study of Pervious Concrete | 4 | 1,2,3,6,9,10,12,4,8,11,13,14 | 2019 |
| 69 | Shear Behaviour of A Stepped Reinforced Concrete Beam | 4 | 1,2,3,6,9,10,12,4,8,11,13 | 2019 |
| 70 | Analysis and Design of School Building using Staad Pro | 4 | 1,2,3,6,9,10,12,5,8,11 | 2019 |
| 71 | Study of Triaxial Behaviour of Soils Reinforced With Low Strength Geotextile | 4 | 1,2,3,6,9,10,12,4,7,8,13 | 2019 |
| 72 | Design Of A Simplistic Vermicomposting Shed | 4 | 1,2,3,6,9,10,12,4,8,11,14 | 2019 |

D. Evidences of papers published/ awards received by projects

The students are encouraged to publish their innovative works in to the national and international conferences, Journals etc. Many students do participate in national and international competitions. A list of student publications out of their project work are given below.

| Sl. No. | Student name | Batch | Faculty | Achievement |
|---------|------------------|---------|--------------------|---|
| | Naushin Yasmin | 2018-22 | Prof. Kundan Samal | <ul style="list-style-type: none"> Selected for Mitacs Globalink research internship program (2021) in her 6th semester, University of Alberta, Edmonton, Canada. Selected for DAAD (WISE) Research Internship Program to work in University of Duisburg- Essen, Germany (2021). Selected for NTU-India connect, Singapore internship program (2021) to work in Nanyang Technological University, Singapore. <p>Started working from 4th semester on a project 'Ecological Floating Bed for wastewater treatment' and has published following papers.</p> <ul style="list-style-type: none"> Samal Kundan, Yasmin Naushin, Kumari Priya. Challenges in the implementation of Phyto Fuel System (PFS) for wastewater treatment and harnessing bio-energy. Journal of Environmental Chemical Engineering. 2020, 8, 104388. (Elsevier) |
| | Priya Kumari | 2018-22 | Prof. Kundan Samal | <p>Started working from 4th semester on a project 'Ecological Floating Bed for wastewater treatment' and has published following papers.</p> <ul style="list-style-type: none"> Samal Kundan, Yasmin Naushin, Kumari Priya. Challenges in the implementation of Phyto Fuel System (PFS) for wastewater treatment and harnessing bio-energy. Journal of Environmental Chemical Engineering. 2020, 8, 104388. (Elsevier) |
| | Saswat Mahapatra | 2018-22 | Prof. Kundan Samal | <p>Worked on topic composting and vermicomposting and filed one Indian patent and published one paper A portable organic waste management apparatus and method of composting (202131038736).</p> <ul style="list-style-type: none"> Mahapatra Saswat, Ali Md Hibzur, Samal Kundan. Assessment of compost maturity-stability indices and recent development of composting bin. Energy Nexus. 2022, 100062. (Elsevier) <p>Started working on project Oxidation pond for wastewater treatment from 4th semester and published following paper.</p> <ul style="list-style-type: none"> Mahapatra Saswat, Samal Kundan, Dash Rajesh Roshan. Waste Stabilization Pond (WSP) for wastewater treatment: A review on factors, modelling and cost analysis. Journal of Environmental Management. 2022, 308, 114668. (Elsevier) |

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|--|-------------------|---------|--|--|
| | | | | |
| | Hibzur Ali | 2018-22 | Prof. Kundan Samal Prof. Sanjib Moulick | <p>Worked on topic composting and vermicomposting and filed one Indian patent and published one paper</p> <ul style="list-style-type: none"> • A portable organic waste management apparatus and method of composting (202131038736). • Mahapatra Saswat, Ali Md Hibzur, Samal Kundan. Assessment of compost maturity-stability indices and recent development of composting bin. Energy Nexus. 2022, 100062. (Elsevier) |
| | Soham Kar | 2017-21 | Prof. Kundan Samal | <p>Selected for Mitacs Globalink research internship program (2020) in his 6th semester, Concordia University, Montreal, Canada. Started working from 4th semester on a project 'Ecological Floating Bed for wastewater treatment' and has published following papers.</p> <ul style="list-style-type: none"> • Samal Kundan, Kar Soham, Trivedi Shivanshi. Ecological floating bed (EFB) for decontamination of polluted water bodies: Design, mechanism and performance. Journal of Environmental Management. 2019, 251, 109550. (Elsevier) • Samal Kundan, Kar Soham, Trivedi Shivanshi, Upadhaya Sudhanshu. <u>Assessing the impact of vegetation coverage ratio in a floating water treatment bed of Pistia stratiotes</u>. SN Applied Science. 2021, 3. (Springer) |
| | Yash Raj | 2017-21 | Prof. Malaya Mohanty | <p>Started working from 4th semester on KIIT DU sponsored project "Design analysis of speed breakers and its operational effects of road users" and have 1 journal publication and a conference proceeding.</p> <ul style="list-style-type: none"> • Mohanty, M., Raj, Y., Tiwary, U., Roy, S., Rout, S., and Samal, S. R. (2021). "Operational Effects of Speed Breakers: A Case Study in India", European Transport/Trasporti Europei, 81(1), DOI: 10.48295/ET.2021.81.1. • Mohanty, M., Samal, S. R., Raj, Y., Rout, S., Tiwary, U., and Roy, S. (2020) "Performance analysis of speed breakers: A case study in India", ASCE India 2020 Conference, Paper ID: AIC2020-13-338. |
| | Shivanshi Trivedi | 2017-21 | Prof. Kundan Samal | <p>Started working from 4th semester on a project 'Ecological Floating Bed for wastewater treatment' and has published following papers.</p> <ul style="list-style-type: none"> • Samal Kundan, Kar Soham, Trivedi Shivanshi. Ecological floating bed (EFB) for decontamination of polluted water bodies: Design, mechanism and |

| | | | | |
|--|--------------------|---------|----------------------|---|
| | | | | <p>performance. Journal of Environmental Management. 2019, 251, 109550. (Elsevier)</p> <ul style="list-style-type: none"> • Samal Kundan, Kar Soham, Trivedi Shivanshi, Upadhaya Sudhanshu. <u>Assessing the impact of vegetation coverage ratio in a floating water treatment bed of Pistia stratiotes</u>. SN Applied Science. 2021, 3. (Springer) • Samal Kundan, Trivedi Shivanshi. A statistical and kinetic approach to develop an Ecological Floating Bed for the treatment of wastewater. Journal of Environmental Chemical Engineering. 2020, 8, 104102. (Elsevier) |
| | Utkarsh Tiwari | 2017-21 | Prof. Malaya Mohanty | <p>Started working from 4th semester on KIIT DU sponsored project “Design analysis of speed breakers and its operational effects of road users” and have 1 journal publication and a conference proceeding.</p> <ul style="list-style-type: none"> • Mohanty, M., Raj, Y., Tiwary, U., Roy, S., Rout, S., and Samal, S. R. (2021). “Operational Effects of Speed Breakers: A Case Study in India”, European Transport/Trasporti Europei, 81(1), DOI: 10.48295/ET.2021.81.1. • Mohanty, M., Samal, S. R., Raj, Y., Rout, S., Tiwary, U., and Roy, S. (2020) “Performance analysis of speed breakers: A case study in India”, ASCE India 2020 Conference, Paper ID: AIC2020-13-338. |
| | Sudhanshu Upadhaya | 2017-21 | Prof. Kundan Samal | <p>He is the University topper and receiver of chancellor medal and founder gold medal.</p> <p>Started working from 4th semester on a project ‘Ecological Floating Bed for wastewater treatment’ and has published following paper.</p> <ul style="list-style-type: none"> • Samal Kundan, Kar Soham, Trivedi Shivanshi, Upadhaya Sudhanshu. <u>Assessing the impact of vegetation coverage ratio in a floating water treatment bed of Pistia stratiotes</u>. SN Applied Science. 2021, 3. (Springer) |
| | Sagarika Roy | 2017-21 | Prof. Malaya Mohanty | <p>Started working from 4th semester on KIIT DU sponsored project “Design analysis of speed breakers and its operational effects of road users” and have 1 journal publication and a conference proceeding.</p> <ul style="list-style-type: none"> • Mohanty, M., Raj, Y., Tiwary, U., Roy, S., Rout, S., and Samal, S. R. (2021). “Operational Effects of Speed Breakers: A Case Study in India”, European Transport/Trasporti Europei, 81(1), DOI: 10.48295/ET.2021.81.1. • Mohanty, M., Samal, S. R., Raj, Y., Rout, S., |

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|--|----------------------|---------|-------------------------|--|
| | | | | Tiwary, U., and Roy, S. (2020) "Performance analysis of speed breakers: A case study in India", ASCE India 2020 Conference, Paper ID: AIC2020-13-338. |
| | Alakh Raj Mohan | 2017-21 | Prof. Kundan Samal | <p>Started working from 4th semester on a project 'Solid Waste Management' and has published following paper.</p> <ul style="list-style-type: none"> Samal Kundan, Mohan Alakh Raj, Chaudhury Nabin, Moulick Sanjib. Application of vermitechology in waste management: A review on mechanism and performance. Journal of Environmental Chemical Engineering. 2019, 7, 103392. (Elsevier) |
| | Debdatta Chakraborty | 2017-21 | Prof. Purnachandra Saha | <ul style="list-style-type: none"> 3rd prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2019-20 on the Theme "Steel Intensive Innovative Quarantine Centre Building for COVID 19" on March 19-20, 2021. 2nd position in Bridge builder competition conducted by IIT Bombay. Runner up in BIM Design competition secured 'Best planner 2k19' title, SCE, KIIT (Organised by Autodesk with collab Twintech) |
| | Soham De | 2017-21 | Prof. Purnachandra Saha | <ul style="list-style-type: none"> 3rd prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2019-20 on the Theme "Steel Intensive Innovative Quarantine Centre Building for COVID 19" on March 19-20, 2021. Sujon Mondal, Soham De, Purnachandra Saha. Removal of VOCs and Improvement of Indoor Air Quality Using Activated Carbon Air Filter. <u>Lecture Notes in Civil Engineering</u> book series (LNCE, volume 81), 2020. |
| | Sourav Paul | 2017-21 | Prof. Purnachandra Saha | 3rd prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2019-20 on the Theme "Steel Intensive Innovative Quarantine Centre Building for COVID 19" on March 19-20, 2021. |
| | Shubham Singh | 2017-21 | Prof. Purnachandra Saha | 3rd prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2019-20 on the Theme "Steel Intensive Innovative Quarantine Centre Building for COVID 19" on March 19-20, 2021. |
| | Sujon Mondal | 2017-21 | Prof. Purnachandra Saha | Sujon Mondal, Soham De, Purnachandra Saha. Removal of VOCs and Improvement of Indoor Air Quality Using Activated Carbon Air Filter. <u>Lecture Notes in Civil Engineering</u> book series (LNCE, volume 81), 2020. |
| | Sagnik Paul | 2017- | Prof. | Worked on urban road maintenance and published paper. |

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|--|----------------------|---------|-------------------------|---|
| | Choudhury | 21 | Purnachandra Saha | Debarshi Sahoo, Sagnik Paul Choudhury, Purnachandra Saha. <u>Urban road maintenance management & repairing techniques.</u> |
| | Nabin Chaudhury | 2017-21 | Prof. Kundan Samal | <p>Started working from 4th semester on a project 'Solid Waste Management' and has published following paper.</p> <ul style="list-style-type: none"> Samal Kundan, Mohan Alakh Raj, Chaudhury Nabin, Moulick Sanjib. Application of vermitechnology in waste management: A review on mechanism and performance. Journal of Environmental Chemical Engineering. 2019, 7, 103392. (Elsevier) |
| | Subhangee Rout | 2017-21 | Prof. Malaya Mohanty | <p>Started working from 4th semester on KIIT DU sponsored project "Design analysis of speed breakers and its operational effects of road users" and have 1 journal publication and a conference proceeding.</p> <ul style="list-style-type: none"> Mohanty, M., Raj, Y., Tiwary, U., Roy, S., Rout, S., and Samal, S. R. (2021). "Operational Effects of Speed Breakers: A Case Study in India", European Transport/Trasporti Europei, 81(1), DOI: 10.48295/ET.2021.81.1. Mohanty, M., Samal, S. R., Raj, Y., Rout, S., Tiwary, U., and Roy, S. (2020) "Performance analysis of speed breakers: A case study in India", ASCE India 2020 Conference, Paper ID: AIC2020-13-338. |
| | Debdatta Chakraborty | 2017-21 | Prof. Purnachandra Saha | <ul style="list-style-type: none"> 3rd prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2019-20 on the Theme "Steel Intensive Innovative Quarantine Centre Building for COVID 19" on March 19-20, 2021. 2nd position in Bridge builder competition conducted by IIT Bombay. Runner up in BIM Design competition secured 'Best planner 2k19' title, SCE, KIIT (Organised by Autodesk with collab Twintech) |
| | Nirmal Pandey | 2016-20 | Prof. Purnachandra Saha | 2nd Prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2016-17 on the Theme "Inter State Bus Terminus for Smart City" on 21 December, 2017. |
| | Aproov Ankit | 2016-20 | Prof. Purnachandra Saha | 2nd Prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2016-17 on the Theme "Inter State Bus Terminus for Smart City" on 21 December, 2017. |
| | Sajal Verma | 2014-18 | Prof. Purnachandra | 2nd Prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative |

| | | | | |
|--|----------------|---------|-------------------------|---|
| | | | Saha | Structural Steel Design: 2016-17 on the Theme "Inter State Bus Terminus for Smart City" on 21 December, 2017. |
| | Krishan Pareek | 2014-18 | Prof. Purnachandra Saha | 2nd Prize in National level Civil/Structural Engineering Students Award Competition for Best Innovative Structural Steel Design: 2016-17 on the Theme "Inter State Bus Terminus for Smart City" on 21 December, 2017. |

2.2.4 Initiatives related to industry interaction (10)

(Give details of the industry involvement in the program such as industry-attached laboratories, partial delivery of appropriate courses by industry experts etc. Mention the initiatives, implementation details and impact analysis)

School of Civil Engineering has developed a strong industry-academia partnership in order to maximize the benefit to the students. The School has taken a number of initiatives for a vibrant industry interaction, some of which are given below.

- Industry Involvement in the Program Design and Curriculum
 - Industry involvement in Industry Supported Laboratories
 - Partial delivery in Partial delivery of course:
 - Invited lectures by Industry Experts
 - Workshops/Conferences
 - Industrial visits
 - Industry Electives
 - Industry involvement in Research
 - Industry involvement in student projects
 - Internship
- **Industry Involvement in the Program Design and Curriculum**
 - a. Industry experts are part of Board of School of Civil Engineering
 - b. Feedbacks are taken continuously from industry experts for curriculum design and development
 - **MoUs with Industry**

| Sl. No. | Title of the collaborative activity | Name of the collaborating agency with contact details (Name of the primary contact person, address, email id, phone number) | Name of the participants: Names of faculty member with students | Starting date of collaboration (DD-MM-YYYY) | Duration (in days) | Nature of the activity |
|---------|---|---|---|---|--------------------|---|
| 1 | Remote Sensing and GIS | Spark and Absys | D K Bera, B G MOhapatra, B Das, J Padhy, K P Samal | 6-1-2018 | 365 | Training and Skill Development |
| 2 | Scaffolding and Formwork Doka India Lab | Doka India Limited | D K Bera, B G Mohapatra, A k Pani | 10-6-2016 | 730 | Training and Skill Development |
| 3 | Building Information and Modelling lab development | KIIT DU and Autodesk India Private Limited | D K Bera, B G Mohapatra, N C Moharana, P C Saha, Mohibullah, | 16-02-2018 | 365 | Skill Development |
| 4 | Training, Education and Internship in the area of Port and Harbour Engineering | KIIT DU and Global Archer Consultancy LLP | D k Bera, Mohibullah, B G Mohapatra, S Moulick | 19-02-2018 | 1825 | Training and Skill Development |
| 5 | Mutual Cooperation and dissemination of respective expertise in civil/highway engineering field through the road infrastructure development | KIIT DU and National Highway Authority of India | B G Mohapatra, B Das, P k Acharya, D R Biswal, M Mohanty, B Beriha | 01-08-2020 | 1825 | Research, Teaching, Training, Sharing of expertise, Students Internship |
| 6 | Technical Support to the Housing and Urban Development Department, Government of Odisha to implement the state urban sanitation strategy (FSSM) | KIIT DU, Ernst & Young LLP, India and Housing and Urban Development, Govt.of Odisha | B G Mohapatra, B Das, P K Acharya, S Moulick, T Mohanty, K Samal, Mr. Sarith Sasidharan, Advisory Services, Government & Public | 04-03-2020 | 1825 | Building of local technical capabilities and execution of the interventions |

| | | | | | | |
|---|---|-------------------------------------|---|------------|------|--|
| | | | Sector, E&Y LLP, Bengaluru | | | |
| 7 | Industrial training of students, Research and developments, Work Integrated learning Program. | KIIT DU and G R INFRA PROJECTS LTD. | B G Mohapatra, D.K Bera, P K Acharya, D R Biswal, M Mohanty, B Beriha | 01-04-2022 | 1095 | Industrial training of students, Students development programmes |
| | | | | | | |

- Industry Supported Laboratories

| Sl. No. | Name of the Laboratory | Name of the associated industry | Brief detail about laboratory |
|---------|--|--|--|
| 1 | Building Information and Modelling Lab | Autodesk India Ltd and Twin Tech Engineering and Design Technology | Conducting Training on softwares like autocad, revit, civil 3d etc... |
| 2 | Scaffolding and Formwork Lab | Doka India | Conducting workshops on the erection and de-erection of formwork with doka material. |

- Partial delivery of course:

| Sl. No | Industry Expert/Academia Expert | Designation including Affiliated organisation | Topic | Date |
|--------|---------------------------------|--|--|---------------|
| 1. | Industry Expert | Mr. Pramod Kumar Mishra, General Manager – Learning and Development, G.R. Infracore Ltd., | “Career options for Civil Engineers in Infrastructure Sector”. | 23 April 2022 |
| 2. | Industry Expert | National Council for Cement and Building Materials (NCCBM) | Waste Utilization in Cement and Concrete Industry | 21 Mar 2022 |
| 3. | Industry Expert | Dr. B. Pandu Ranga Rao, General Manager (NCB-Hyderabad) & Unit In-charge (NCB-Bhubaneswar) | Construction Technology and Project Management | 9 April 2022 |

| | | | | |
|-----|--------------------|--|---|-----------|
| 4. | Nupur Apte-Gumaste | Executive Director, Global Archer Construction & Engineering LLP | Const. MGMT, BOQ, Quantity survey, Business development, QA/QC | 17-Mar-21 |
| 5. | Somnath Gaikwad | CFO, Global Archer Construction & Engineering LLP | Accounts & Finance, Opex, Capex, Revenue, Depreciation, Cash Flow, Budget, Drawdown, TDS, GST, Tour Claim, TA Bill | 18-Mar-21 |
| 6. | Shubham Choudhary | Project Engineer, Global Archer Construction & Engineering LLP | Brief on GSM Project, Challenges, faced, followed with Project Management. | 18-Mar-21 |
| 7. | Papiya Saha | Business Development Manager, Global Archer Construction & Engineering LLP | Individual project details & work methodology, Tender surfing, NIT, Documentation, Eligibility Criteria Financial & Technical, Turnover, JV , SPV, Sub Let, CVs, Experts, Approach Methodology & Social Media Management. | 19-Mar-21 |
| 8. | Ankur Raj | Deputy Manager -Projects, Global Archer Construction & Engineering LLP | Refinery : Introduction, Design & construction of onshore oil facilities like Sub-stations, Control Room, Warehouse, Pavement, sheds etc., Mobilization process, Work Implementation with Proper Safety Guideline, Hand over Process. | 19-Mar-21 |
| 9. | D. N. Pegu | Vice President, Global Archer Construction & Engineering LLP | Brief on Boffa Project, Challenges, faced, followed with Project Management, Bridge, Culvert and Road works. | 22-Mar-21 |
| 10. | Vijay Jamader | QA/QC Engineer, Global Archer Construction & Engineering LLP | Testing of Aggregate, Concrete, Cement ,Soil, Bitumen, NDT | 23-Mar-21 |

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| 11. | Nishikant Parida | Manager- Operations, Global Archer Construction & Engineering LLP | Konta port loading & unloading procedure | 23-Mar-21 |
| 12. | Sudhir Pawar | Sr. Manager, Global Archer Construction & Engineering LLP | Konta port Operation & Maintanance | 23-Mar-21 |
| 13. | Priyanka Sinha | Global Archer Construction & Engineering LLP | Introduction and fundamentals | 25 th - 28 th Feb 2019 |
| 14. | Dayanand Pegu | Global Archer Construction & Engineering LLP | Port infrastructures | 27th - 28th Feb 2019 |
| 15. | Shailendra Jha | Global Archer Construction & Engineering LLP | Harbour infrastructures | 28th Feb & 1st March 2019 |
| 16. | Saroj Nayak | Global Archer Construction & Engineering LLP | Traffic Study, Demand Assessment/Forecast: | 1st & 2nd April 2019 |
| 17. | Mayur Bhatt | Global Archer Construction & Engineering LLP | Surveying & study | 1st & 2nd April 2019 |
| 18. | Jali Debnath / Manoj Verma | Global Archer Construction & Engineering LLP | Introduction and fundamentals of ports | 7th - 9th March 2019 |

- Guest Lectures in Lecture series/Conferences/Seminars/workshops by Industry Experts

| Sl. No. | Industry Expert/Academia Expert | Designation including Affiliated organisation | Topic | Date |
|---------|---------------------------------|---|--|------------|
| 1. | Industry Expert | Mr. Jagannath Oleti, VP President & Head HR L & T Defence | Building Culture of a Digital Future: Challenges Here and Now (People Perspective) | 28-08-2020 |
| 2. | Industry Expert | Ms. Annie Lim, TA Head & Diversity Outreach Citrix Singapore | Building Culture of a Digital Future: Challenges Here and Now (People Perspective) | 28-08-2020 |
| 3. | Industry Expert | Mr. Sreenu Ambati, VP HR, Navayuga Enginnering Company | Building Culture of a Digital Future: Challenges Here and | 28-08-2020 |

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|----|-----------------|--|--|--------------------------|
| | | Limited | Now (People Perspective) | |
| 4. | Industry Expert | Mr. Sanjay Chaturvedi, Director, HR, Hilti India | Future of Work: HR Competencies | 29-08-2020 |
| 5. | Industry Expert | Dr. Rasheed M. L., Head HR, My Homes Construction Ltd | Future of Work: HR Competencies | 29-08-2020 |
| 6. | Industry Expert | Mr. Arabinda Nandy, GM-HR, Strata Geosystems (India) Pvt. Ltd. | Becoming Industry Ready | 29-08-2020 |
| 7. | Industry Expert | Mr. Tridip Sarma, GM, HR, Patel Engineering Ltd. | Becoming Industry Ready | 29-08-2020 |
| 8. | Industry Expert | Mr. Rashmi Mansharamani, CHRO, The Wave Group | Building the Organization for Future | 29-08-2020 |
| 9. | Industry Expert | Mr. Rajesh Srishetty, Bridage Group | Emerging Technologies in Building Construction in India | 29-08-2020 |
| 10 | Industry Expert | Prof. Suranjan Panigrahi Professor, Purdue University, USA | Air-Water- Health Nexus: Role of Advanced Technologies. | 19-12-2020 to 21-12-2020 |
| 11 | Industry Expert | Prof. Ts.Dr. Christy P. Gomez Associate Professor, Universiti Tun Hussein Onn, Malaysia | Cultural Shift towards Sustainability in the Construction Industry | 19-12-2020 to 21-12-2020 |
| 12 | Industry Expert | Prof. Jean-Louis Roubaty Professor, Paris-Diderot University Consultant | Indoor Airquality, CO2 measurement and Reduction of Covid-19 | 19-12-2020 to 21-12-2020 |
| 13 | Industry Expert | Prof. Hong Yao-ming igr | Sustainable and Green Energy Building | 19-12-2020 to 21-12-2020 |
| 14 | Industry Expert | Dr. Ajay Pradhan VP, CEAI & President, C2S2 Pvt Ltd | Sustainable Agriculture Water Management through Internet of Things (IoT) in Punjab, India | 19-12-2020 to 21-12-2020 |
| 15 | Industry Expert | Prof. Sudhindra Nath Panda Director, National Institute of Technical teachers Training and Research (NITTR), Govt of India | Education and Training for Sustainable Development | 19-12-2020 to 21-12-2020 |
| 16 | Industry Expert | Prof. Debakanta (Deb) Mishra Associate Professor, Oklahoma | Pavement Material Characterisation and field instrumentation | 19-12-2020 to 21-12-2020 |

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| | | State University, USA | | |
| 17 | Industry Expert | Prof. Achintya Bezbaruah Professor, North Dakota State University, USA | Preparing Our Municipal Infrastructure for Climate Change | 19-12-2020 to 21-12-2020 |
| 18 | Industry Expert | Prof. Pijush Samui Associate Professor, NIT Patna | Artificial Intelligence in Infrastructure Engineering | 19-12-2020 to 21-12-2020 |
| 19 | Industry Expert | Dr. Sunil S. Basarkar, General Manager , AFCONS Infrastructure Limited | Sustainability in infrastructure in Reference to Multi-Activity Road Project at Himachal Pradesh, India | 19-12-2020 to 21-12-2020 |
| 20 | Industry Expert | Dr. R. N. Sankhua, Chief Engineer, NWDA, Hyderabad | Sustainable Water Resources: Reimagining a blue future | 19-12-2020 to 21-12-2020 |
| 21 | Industry Expert | Mr. Prasanta Kumar Mohapatra Project Director, OWSSB, Govt. of Odisha | Sustainable Urban Municipal Waste management | 19-12-2020 to 21-12-2020 |
| 22 | Industry Expert | Mr. Ajay Singhal general manager, G R Infrastructure Pvt Ltd | Status of Infrastructure Projects in India | 19-12-2020 to 21-12-2020 |

- Industrial visits

| Sl. No. | Industry Visited | Site Details/Project details | Date |
|---------|--|------------------------------|------------|
| 1 | Rudrapur, cuttack, Odisha | | 12/11/2019 |
| 2 | 36 MLD Sewage Treatment plant | | 07/12/2019 |
| 3 | Kalinga Institute of Medical Science's | | 31/01/2020 |
| 4 | Pradhan Constructions | | 04/04/2022 |

- Industry Electives

Departmental elective and Open elective is floated under the category of Industry Elective. This is introduced with an objective to familiarize students with the basics of Construction techniques, provide students an opportunity for real-time practical exposure of the Construction Industry. Ensuring that the trainee apprentice acquires basic working knowledge of the Construction sites. Create industry-certified Graduate Engineers in the field of the Construction Engineering.

- Industry involvement in Research

School of Civil Engineering has is engaged with various industries for carrying out impactful

research. A brief list of research activities with industries are given below.

| Name of the industry | Area of the MoU | MoU sign Date | Research Activities |
|---|--|---------------------------------|---|
| Ernst & Young LLP | Urban FSSM Fellowship programme to support the programme delivery at district level and to provide technical support for FSSM. | 25 th February, 2020 | One paper published in journal: Paper detail: Design of faecal sludge treatment plant (FSTP) and availability of its treatment technologies authored by Kundan Samal, Sanjib Moulick, Benu Gopal Mohapatra, Sasmita Samanta, Sandipan Sarangi in Energy Nexus. One patent has been filed. |
| National Council of Cement and Building Materials | Fostering collaboration between the two institutions to promote | 01 st February, 2022 | A collaborative research project proposal named “Development of paver block from cement-less binder using agro-industrial waste” submitted by KIIT DU and NCCBM is under consideration of DST, Govt of India. |
| National Highway Authority of India | Mutual Cooperation and dissemination of respective expertise in civil/highway engineering field through the road infrastructural development | 18 th August, 2020 | Field visit and research on road safety. |

2.2.5 Initiatives related to industry internship/summer training (10)

Initiative:

Students undertake field/industry visits and undergo internships/trainings to acquaint themselves with the industry and job requirements and develop an understanding of the real time issues. School level Industry Engagement Cell (IEC) along with Central IEC coordinates with various industry, government agencies, academic institutions for internship programme of students. During Covid-19, School of Civil Engineering has also conducted a number of internship programme for the students which are given below.

| Sl. No. | Name of Internship Programme | Starting date | Ending date | Number of participants |
|---------|------------------------------|---------------|-------------|------------------------|
|---------|------------------------------|---------------|-------------|------------------------|

| | | | | |
|---|--|------------|------------|----|
| 1 | Summer Internship on “Waste Management as Business Model” | 20/06-2020 | 19/07/2020 | 42 |
| 2 | Summer Internship on “Planning, Designing & Detailing of a Building with case study | 20/06-2020 | 19/07/2020 | 45 |
| 3 | Summer Internship on “Project Management using Primavera P6” | 20/06-2020 | 19/07/2020 | 37 |
| 4 | Summer Internship on “Transportation infrastructure: Planning & Design” | 20/06-2020 | 19/07/2020 | 41 |
| 5 | Summer Internship on “Infrastructure Engineering and Design Solutions using E-Survey CADD” | 1/6/2021 | 2/7/2021 | 32 |
| 6 | Summer Internship on “Design of RCC Structures using Tekla Software”. | 1/6/2021 | 2/7/2021 | 25 |
| 7 | Summer Internship on “Project Planning and Scheduling using Primavera” | 1/6/2021 | 2/7/2021 | 23 |
| 8 | Summer Internship on “Transportation infrastructure: Planning & Design” | 1/6/2021 | 2/7/2021 | 27 |
| 9 | Summer Internship on “Modelling Applications in Water Resources Engineering” | 1/6/2021 | 2/7/2021 | 21 |

Implementation

| Sl. No | Name of the industry | Title of the training | No of student | Duration of the training (days) |
|--------|---|---|---------------|---------------------------------|
| 1 | National Highway Authority of India (NHAI) | NHAI offer internship to 40 numbers of undergraduate / postgraduate students of KIIT and pay stipend @ Rs. 6,000/- per month for undergraduate students and @ Rs. 12,000/- per month to Postgraduate students | 40 | 30 |
| 2 | Government of Odisha's Housing and Urban Department | The Urban Learning Internship Program (TULIP). with a stipend of Rs. 5000/- per month | 9 | 30 |
| 3 | Tata Steel Limited | Vocational Training Program | 2 | 30 |
| 4 | URTS Private Limited | Operations Intern | 1 | 60 |
| 5 | Twintech Engineering and Design Technology | Drafting, Annotation, 3D Modelling with AutoCAD | 2 | 30 |
| 6 | SAIL | Compressive strength of concrete | 1 | 30 |
| 7 | CPWD | Construction and planning activities | 2 | 30 |
| 8 | Larsen & Toubro Limited | Summer Internship | 3 | 45 |
| 9 | JSW PTPL Paradip | Summer Internship | 1 | 30 |
| 10 | CPWD, Bhubaneswar | Design and construction of water treatment plant. | 1 | 30 |
| 11 | Infrastructure Development Ministry Nepal | Transportation | 1 | 120 |
| 12 | NCC Limited | Summer Internship | 1 | 60 |
| 13 | Public Works Department, | Site Engineer | 1 | 30 |

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|----|--|---|----|-----|
| | Assam | | | |
| 14 | Govt of West Bengal, Social Sector, PWDTE, Tamluk Division | Construction of Sadbhav Mandap | 1 | 30 |
| 15 | Psp projects limited | Winter internship | 6 | 30 |
| 16 | Simplex Infrastructure Ltd. | Summer Internship | 1 | 30 |
| 17 | Orient Constructions Private Limited | Civil Engineering Intern | 1 | 30 |
| 18 | Allied infrastructures and projects | Summer internship | 1 | 60 |
| 19 | Kolkata Metro Rail Corporation Limited | Summer Intern | 1 | 30 |
| 20 | Sai Shiv Construction Private Limited | Multi Level Car parking | 5 | 10 |
| 21 | Amazon.com | Compliance intern | 1 | 180 |
| 22 | MECON Limited Ranchi | Basics of RCC Design | 1 | 30 |
| 23 | NCC limited | Graduate engineer trainee | 1 | 365 |
| 24 | HOLICOW | Construction Engineer | 2 | 30 |
| 25 | PNC Infratech limited | Road construction | 1 | 30 |
| 26 | PGCIL. | Summer internship | 1 | 30 |
| 27 | NBCC India | Summer Intern | 4 | 30 |
| 28 | Water power consultant pvt. Ltd | Irrigation engineering and railway engineering | 1 | 60 |
| 29 | High Radius | Summer Internship - Business Essentials Program | 14 | 41 |
| 30 | civil center | G+6 Storey Commercial Building | 2 | 30 |
| 31 | CPWD,Odisha | Various construction and planning activities(Water treatment plant) | 1 | 30 |
| 32 | PHE(PUBLIC HEALTH ENGINEERING) | Distribution of Pipeline system under AMRUT | 1 | 60 |
| 33 | Power Grid corporation limited (PGCIL) Gurugram haryana | Summer Internship | 1 | 30 |
| 34 | SHAJ | Road work | 1 | 30 |
| 35 | Vedanta Aluminium Limited, Lanjigarh (Odisha) | Civil maintenance and ongoing capex project | 1 | 30 |
| 36 | Iron Triangle ltd. | Summer internship | 5 | 30 |
| 37 | CTTC, Bhubaneswar | StaadPro | 4 | 30 |
| 38 | Water Resource Department | Water conservation practices and keoti canal network in Rewa district | 1 | 30 |
| 39 | Bihar Rajya Pul Nirman Nigam Ltd | Bridge Construction. | 1 | 45 |
| 40 | Rajbir construction pvt ltd. | Improvement and construction of new pipe culverts and 2 minor bridges and improvement of two way bituminous road. | 1 | 25 |
| 41 | China petroleum pipeline ltd. | Summer Internship | 1 | 30 |

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|----|--|---|---|-----|
| 42 | Shapoorji pallonji group | Belle vue eye hospital kolkata | 5 | 45 |
| 43 | PWD, Raiganj Subdivision | Road Construction in Transportation Engineering | 1 | 30 |
| 44 | Rang Private Limited | Internship on Road construction | 1 | 30 |
| 45 | jai shiv construction pvt.ltd | construction site | 1 | 60 |
| 46 | Tisa infratec | Implementation of buildings | 1 | 60 |
| 47 | Bisoi and Associates | Building Construction | 5 | 30 |
| 48 | Ashoka buildcon | Construction | 4 | 30 |
| 49 | Shree Maa Sakhada Bhagwati Construction and company Pvt. Ltd. | construction management | 1 | 30 |
| 50 | Gammon India Ltd. | 9012 ANV2 Kolkata Metro Rail Project | 4 | 30 |
| 51 | SCPL | Summer internship program | 4 | 90 |
| 52 | BRPNL | Flyover Construction | 1 | 30 |
| 53 | PWD Chhattisgarh | Executive Engineer PWD Champa | 1 | 30 |
| 54 | Centre for Environmental Efficiency | Self Sustainable Houses | 1 | 30 |
| 55 | INSDAG | National Award Competition for Students | 1 | 90 |
| 56 | Ashoka Ranastalam Anandapuram Road Limited | National Highway Project | 1 | 30 |
| 57 | PWD | Preparation of estimate of Building and Road works. | 1 | 30 |
| 58 | NBCC (INDIA) LIMITED | Summer Internship | 1 | 30 |
| 59 | Water Resouces Department, Government of Odisha | Summer Intenship | 1 | 30 |
| 60 | Skipper Limited | Internship On Transmission Tower Testing Bed | 1 | 30 |
| 61 | Raipur Smart City Corporation Limited | Jawahar Bazaar Multi-Level Parking | 1 | 45 |
| 62 | ReadyGo Cabs (Riant Group) | Business Development Intern | 1 | 30 |
| 63 | East Central railways | Site supervision | 1 | 30 |
| 64 | Department of Water Resources , Office Of The Executive Engineer, Prachi Division , Bhubaneswar , Odisha | Industrial Training | 1 | 30 |
| 65 | A.G Office at Keshari Nagar , Unit-V , Bhubaneswar , Odisha | Construction of New office Building (G+6) | 1 | 30 |
| 66 | Sagar nirman sewa | Road construction work(DBSD work) | 1 | 120 |
| 67 | Rk Construction, Mayurbhanj | Quality Control And Management | 2 | 90 |
| 68 | Private | IT Centre Building | 1 | 30 |
| 69 | Shree Bhagat Construction Pvt.Ltd. | Survey And Implementation of a building Project | 1 | 90 |

| | | | | |
|----|--|--|----|----|
| 70 | North Eastern Electric Power Corporation Limited | Summer Industrial Training at 101 MW Tripura Gas Based Combined Cycle Power Plant | 1 | 30 |
| 71 | APDL Pvt. Ltd | Site Engineer | 1 | 30 |
| 72 | Mm engineering and consultant | Pile designing | 1 | 45 |
| 73 | Central Public Works Department | POSOCO work site | 1 | 30 |
| 74 | Nirajan Mahapatra A Class Engineer Contractor | Dam Project Construction and Maintenance | 1 | 30 |
| 75 | P.W.D west bengal | Summer Internship | 1 | 30 |
| 76 | P.W.D | Site engineer | 1 | 45 |
| 77 | Sri yes yes shelter | Break ground, excavation and foundation | 1 | 30 |
| 78 | Deyan Infratech | Client Dealing, Architectural Planning, Drafting, 3D Modelling, Basic Interior detailing & Material Selection for a Residential Building Project | 1 | 30 |
| 79 | RK Construction Mayurbhanj | Quality Control And Management | 1 | 90 |
| 80 | Online Internship program Conducted by KIIT | Summer Internship on “Infrastructure Engineering and Design Solutions using E-Survey CADD” | 32 | 30 |
| 81 | Online Internship program Conducted by KIIT | Summer Internship on “Design of RCC Structures using Tekla Software”. | 25 | 30 |
| 82 | Online Internship program Conducted by KIIT | Summer Internship on “Project Planning and Scheduling using Primavera” | 23 | 30 |
| 83 | Online Internship program Conducted by KIIT | Summer Internship on “Transportation infrastructure: Planning & Design” | 27 | 30 |
| 84 | Online Internship program Conducted by KIIT | Summer Internship on “Modeling Applications in Water Resources Engineering” | 21 | 30 |
| 85 | M/s Ecometrix Consultant Pvt. Ltd. | Online training program on ‘EPANET Software’ by Mr. Ashok Kumar Tarai, Consultant – Water and Environment, M/s Ecometrix Consultant Pvt. Ltd. | 45 | 30 |

Impact Analysis:

Feedback collection process

- Students’ exposure to industry gets improved.
- The student’s technical skills are improved.

- Student's placement in core companies is improved.
- The student's placement percentage has improved compared to the previous years.
- Students gain valuable work experience.
- Students have an edge in the job market
- Students understand the practical challenges and process in the industry.

Feedback collection process

- Feedback is obtained from the students regarding the industrial training/internship.
- Necessary actions with regard to the feedback given by the students who underwent training.
- A sample feedback form is given below.

STUDENT FEEDBACK ON INDUSTRIAL TRAINING/INTERNSHIP

Name of the Student:..... Semester.....

Duration:.....

Name of the organization/industry

Short title of training:.....

PLEASE TICK APPROPRIATE OPTION (PART-A)

| Description | Below Average (1) | Average (2) | Good (3) | Very Good (4) | Excellent (5) |
|--|----------------------|----------------|----------|------------------|------------------|
| Relevance of the industrial training or internship with the curriculum | | | | | |
| Effectiveness in communicating the course content was | | | | | |
| The instructor's ability and willingness to answer the questions | | | | | |
| Ability to keep the session lively and interesting was | | | | | |
| Quality of training manual & handouts as future resource /learning tools | | | | | |
| Opportunity to learn from the internship work in the company | | | | | |
| Training environment with the co-interns/workers. | | | | | |
| Recommend the company for future training/internship | | | | | |

PART-B

1. How did you find the training duration? High Appropriate Less

2. Which subject did you like the most during the industrial training/internship?

3. What would you suggest to improve the industrial training/internship?

Signature of the Student

| | | |
|-------------|--------------------------------------|-----|
| CRITERION 3 | Course Outcomes and Program Outcomes | 175 |
|-------------|--------------------------------------|-----|

3.1 Establish the correlation between the courses and the Program Outcomes (POs) & Program Specific Outcomes (25)

- NBA defined Program Outcomes as mentioned in Annexure I and Program Specific Outcomes as defined by the Program. Six to ten matrices of core courses are to be mentioned with at least one per semester.
- Select core courses to demonstrate the mapping/correlation with all POs and PSOs.
- Number of Outcomes for a Course is expected to be around 6.

(A) PROGRAM OUTCOMES (NBA defined Outcomes)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** understand the impact of the professional engineering solutions in societal and environmental contexts, demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics, responsibilities, and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

1. Ability to select and utilize sustainable low cost alternate materials contributing to environment friendly construction practices.
2. Ability to understand and adopt methodologies and actions for sustainable environment.
3. Ability to understand and develop strategies for sustainable water resources in the context of climate change.

| | | | |
|-----------------------|------|------|------|
| No. of Core Courses:6 | C2:2 | C3:3 | C4:1 |
|-----------------------|------|------|------|

Note: Number of Outcomes for a Course is expected to be around 6

| | | | |
|--------------|------|--------------|-----------|
| Course Name: | C203 | Course Year: | 2019-2020 |
|--------------|------|--------------|-----------|

| Course Name | Statements |
|-------------|---|
| C203.1 | Estimate the water demand for a particular areas |
| C203.2 | characterize physical and chemical parameters responsible |
| C203.3 | characterize biological parameters of water and its significance |
| C203.4 | design various units of a water treatment plant |
| C203.5 | identify and control the parameters responsible for air pollution |
| C203.6 | identify and control the parameters responsible for noise pollution |

| | | | |
|--------------|------|--------------|-----------|
| Course Name: | C214 | Course Year: | 2019-2020 |
|--------------|------|--------------|-----------|

| Course Name | Statements |
|-------------|---|
| C214.1 | identify the soil types and classify based on index properties |
| C214.2 | evaluate the capillarity and permeability characteristics of soils |
| C214.3 | determine the seepage pressure in soil |
| C214.4 | estimate effective stress under various conditions to lead failures of hydraulic structures by piping |
| C214.5 | Determine various shear strength parameters of soil. |
| C214.6 | determine the long-term settlement of foundations based on one dimensional consolidation theory |

| | | | |
|--------------|------|--------------|---------|
| Course Name: | C301 | Course Year: | 2020-21 |
|--------------|------|--------------|---------|

| Course Name | Statements |
|-------------|---|
| C301.1 | understand the basic concepts of working stress and limit state methods |
| C301.2 | determine strength of reinforced concrete beams and slabs at various support conditions as per Limit state design |
| C301.3 | design reinforced concrete beams and slabs at various support conditions for different loadings as per Limit state design |
| C301.4 | design staircases for different support conditions as per Limit state design |
| C301.5 | design different types of reinforced concrete compression members as per Limit state design |
| C301.6 | design different types of footings as per Limit state design |

| | | | |
|--------------|------|--------------|---------|
| Course Name: | C303 | Course Year: | 2020-21 |
|--------------|------|--------------|---------|

| Course Name | Statements |
|-------------|---|
| C303.1 | classify the canals, design irrigation channels and apply the concept of Kennedy and lacey theory |
| C303.2 | explain the theories of seepage and design of weirs on permeable foundation |
| C303.3 | Select appropriate sites for construction of reservoirs and dams. |
| C303.4 | Design the gravity dam by considering various forces acting on it. |
| C303.5 | Describe the types, causes of failure and criteria for safe design of earthen dam. |
| C303.6 | study about different types of spillways and design of Ogee spillway |

| | | | |
|--------------|------|--------------|---------|
| Course Name: | C311 | Course Year: | 2020-21 |
|--------------|------|--------------|---------|

| Course Name | Statements |
|-------------|--|
| C311.1 | understand the properties of different types of rolled steel structural members |
| C311.2 | design different types of connections (bolted & welded) as per Limit state design |
| C311.3 | design different types of steel structural members for axial (tension and compression) as per Limit state design |
| C311.4 | design of beams as per Limit state design |
| C311.5 | design beam-column and select appropriate column bases for steel columns |
| C311.6 | analyse beams and frames using plastic theory |

| | | | |
|--------------|------|--------------|---------|
| Course Name: | C401 | Course Year: | 2021-22 |
|--------------|------|--------------|---------|

| Course Name | Statements |
|-------------|--|
| C401.1 | Select appropriate engineering decisions in consideration of professional ethics |

| | |
|--------|---|
| | in realization of more critical impact of engineering compared to general experiments. |
| C401.2 | Evaluate and prescribe risk reducing measures. |
| C401.3 | Comprehend the dynamics in engineers' roles and responsibilities with emerging issues in global scene. |
| C401.4 | Know the various compliance requirements and the regulatory bodies to protect environment. |
| C401.5 | Have a fair idea to protect their engineering inventions from unauthorized exploitation under intellectual property rights system and laws relating to information communication technologies |
| C401.6 | Understand, analyse and prevent misuse of IT related transactions. |

1. Course name: C203

| Course | Statements | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| C203.1 | Estimate the water demand for a particular areas | 3 | | | | | 2 | 3 | 1 | | 1 | 2 | 2 |
| C203.2 | characterize physical and chemical parameters responsible | 3 | | | | | 2 | 3 | 1 | | 1 | 2 | 2 |
| C203.3 | characterize biological parameters of water and its significance | 3 | | | | | 2 | 3 | 1 | | 1 | 2 | 2 |
| C203.4 | design various units of a water treatment plant | 3 | | 2 | | | 2 | 3 | 1 | | 1 | 2 | 2 |
| C203.5 | identify and control the parameters responsible for air pollution | 3 | | 2 | | | 2 | 3 | 1 | | 1 | 2 | 2 |
| C203.6 | identify and control the parameters responsible for noise pollution | 3 | | 2 | | | 2 | 3 | 1 | | 1 | 2 | 2 |
| Average | | 3 | | 2 | | | 2 | 3 | 1 | | 1 | 2 | 2 |

2. Course name: C214

| Course | Statements | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| C214.1 | identify the soil types and classify based on index properties | 3 | 3 | 2 | | | | 1 | | | | | |
| C214.2 | evaluate the capillarity and permeability characteristics of soils | 3 | 3 | 2 | | | | 1 | | | | | |
| C214.3 | determine the seepage pressure in soil | 3 | 3 | 2 | | | | 1 | | | | | |
| C214.4 | estimate effective stress under various conditions to lead failures of hydraulic structures by piping | 3 | 3 | 2 | | | | 1 | | | | | |
| C214.5 | Determine various shear strength parameters of soil. | 3 | 3 | 2 | | | | 1 | | | | | |
| C214.6 | determine the long-term settlement of foundations based on one dimensional consolidation theory | 3 | 3 | 2 | | | | 1 | | | | | |
| Average | | 3 | 3 | 2 | | | | 1 | | | | | |

3. Course name: C301

| Course | Statements | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| C301.1 | understand the basic concepts of working stress and limit state methods | 3 | 3 | 3 | | | | 1 | 3 | | 2 | 1 | 2 |
| C301.2 | determine strength of reinforced concrete beams and slabs at various support conditions as per Limit state design | 3 | 3 | 3 | | | | 1 | 3 | | 2 | 1 | 2 |
| C301.3 | design reinforced concrete beams and slabs at various support conditions for different loadings as per Limit state design | 3 | 3 | 3 | | | | 1 | 3 | | 2 | 1 | 2 |
| C301.4 | design staircases for different support conditions as per Limit state design | 3 | 3 | 3 | | | | 1 | 3 | | 2 | 1 | 2 |
| C301.5 | design different types of reinforced concrete compression members as per Limit state design | 3 | 3 | 3 | | | | 1 | 3 | | 2 | 1 | 2 |
| C301.6 | design different types of footings as per Limit state design | 3 | 3 | 3 | | | | 1 | 3 | | 2 | 1 | 2 |
| Average | | 3 | 3 | 3 | | | | 1 | 3 | | 2 | 1 | 2 |

4. Course name: C303

| Course | Statements | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| C303.1 | classify the canals, design irrigation channels and apply the concept of Kennedy and lacey theory | 3 | 3 | 3 | | | | 2 | | | | | |
| C303.2 | explain the theories of seepage and design of weirs on permeable foundation | 3 | 3 | 3 | | | | 2 | | | | | |
| C303.3 | Select appropriate sites for construction of reservoirs and dams. | 3 | 1 | 1 | | | | 2 | | | | | |
| C303.4 | Design the gravity dam by considering various forces acting on it. | 3 | 2 | 2 | | | | 2 | | | | | |
| C303.5 | Describe the types, causes of failure and criteria for safe design of earthen dam. | 3 | 3 | 3 | | | | 2 | | | | | |
| C303.6 | study about different types of spillways and design of Ogee spillway | 3 | 1 | 1 | | | | 2 | | | | | |
| Average | | 3 | 3 | 2 | | | | 1 | | | | | |

5. Course name: C311

| Course | Statements | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|--------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| C311.1 | understand the properties of different | 3 | 3 | 3 | | | | | | | 2 | | |

| | | | | | | | | | | | | | |
|---------|--|---|---|---|--|--|--|--|--|--|---|--|--|
| | types of rolled steel structural members | | | | | | | | | | | | |
| C311.2 | design different types of connections (bolted & welded) as per Limit state design | 3 | 3 | 3 | | | | | | | 2 | | |
| C311.3 | design different types of steel structural members for axial (tension and compression) as per Limit state design | 3 | 3 | 3 | | | | | | | 2 | | |
| C311.4 | design of beams as per Limit state design | 3 | 3 | 3 | | | | | | | 2 | | |
| C311.5 | design beam-column and select appropriate column bases for steel columns | 3 | 3 | 3 | | | | | | | 2 | | |
| C311.6 | analyse beams and frames using plastic theory | 3 | 3 | 3 | | | | | | | 2 | | |
| Average | | 3 | 3 | 3 | | | | | | | 2 | | |

6. Course name: C401

| Course | Statements | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|--------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| C401.1 | Select appropriate engineering decisions in consideration of professional ethics in realization of more critical impact of engineering compared to general experiments. | | | | | | | | 3 | 1 | | 1 | 1 |
| C401.2 | Evaluate and prescribe risk reducing measures. | | | | | | | | 3 | 1 | | 1 | 1 |
| C401.3 | Comprehend the dynamics in engineers' roles and responsibilities with emerging issues in global scene. | | | | | | | | 3 | 1 | | 1 | 1 |
| C401.4 | Know the various compliance requirements and the regulatory bodies to protect environment. | | | | | | | | 3 | 1 | | 1 | 1 |
| C401.5 | Have a fair idea to protect their engineering inventions from unauthorized exploitation under intellectual property rights system and laws relating to information communication technologies | | | | | | 1 | | 3 | 1 | | 1 | 1 |
| C401.6 | Understand, analyse and prevent misuse of IT related transactions. | | | | | | 1 | | 3 | 1 | | 1 | 1 |
| | Average | | | | | | 1 | | 3 | 1 | | 1 | 1 |

1. Course Name: C203

| Course | PSO1 | PSO2 | PSO3 |
|--------|------|------|------|
| C203.1 | - | 3 | - |

| | | | |
|---------|---|---|---|
| C203.2 | - | 3 | - |
| C203.3 | - | 3 | - |
| C203.4 | - | 3 | - |
| C203.5 | - | 3 | - |
| C203.6 | - | 3 | - |
| Average | - | 3 | - |

2. Course Name: C214

| Course | PSO1 | PSO2 | PSO3 |
|---------|------|------|------|
| C214.1 | - | - | - |
| C214.2 | - | - | - |
| C214.3 | - | - | - |
| C214.4 | - | - | - |
| C214.5 | - | - | - |
| C214.6 | - | - | - |
| Average | - | - | - |

3. Course Name: C301

| Course | PSO1 | PSO2 | PSO3 |
|---------|------|------|------|
| C301.1 | - | - | - |
| C301.2 | - | - | - |
| C301.3 | - | - | - |
| C301.4 | - | - | - |
| C301.5 | - | - | - |
| C301.6 | - | - | - |
| Average | - | - | - |

4. Course Name: C303

| Course | PSO1 | PSO2 | PSO3 |
|---------|------|------|------|
| C303.1 | - | - | 3 |
| C303.2 | - | - | 3 |
| C303.3 | - | - | 3 |
| C303.4 | - | - | 3 |
| C303.5 | - | - | 3 |
| C303.6 | - | - | 3 |
| Average | - | - | 3 |

5. Course Name: C311

| Course | PSO1 | PSO2 | PSO3 |
|---------|------|------|------|
| C311.1 | - | - | - |
| C311.2 | - | - | - |
| C311.3 | - | - | - |
| C311.4 | - | - | - |
| C311.5 | - | - | - |
| C311.6 | - | - | - |
| Average | - | - | - |

5. Course Name: C401

| Course | PSO1 | PSO2 | PSO3 |
|---------|------|------|------|
| C401.1 | - | - | - |
| C401.2 | - | - | - |
| C401.3 | - | - | - |
| C401.4 | - | - | - |
| C401.5 | - | - | - |
| C401.6 | - | - | - |
| Average | - | - | - |

Program Articulation Matrix

| Course Code | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| C101 | 2.67 | 2.50 | 3.00 | 2.67 | 1.50 | 1.60 | 2.00 | | 1.00 | | | 2.00 |
| C102 | 2.33 | 2.33 | 3.00 | 1.75 | | 1.50 | 1.50 | | 0.83 | | | 1.00 |
| C103 | | | | | | | 3.00 | 2.25 | | 3.00 | 1.00 | 2.00 |
| C104 | 2.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 3.00 | 1.00 | 0.00 | 0.00 | 0.00 | 3.00 |
| C105 | 2.20 | 2.33 | | 2.50 | 1.00 | | 1.00 | | | | | |
| C106 | 2.67 | 2.83 | 2.67 | 2.17 | 2.25 | | | 1.00 | | 1.67 | | 1.67 |
| C107 | | | | | | 1.00 | | | | 3.00 | | 2.00 |
| C108 | 1.50 | 1.75 | | | 2.67 | 1.00 | | | | | 1.75 | 2.83 |
| C109 | 3.00 | 3.00 | 1.00 | 3.00 | | | | | | | | 2.67 |
| C110 | 2.40 | 1.33 | 1.00 | 1.00 | | | | | | | | 1.00 |
| C111 | 2.00 | 2.00 | 2.17 | 1.83 | | 1.50 | 1.67 | | | | | 1.40 |
| C112 | 3.00 | 2.00 | 1.00 | 1.00 | | | | | | | | 2.33 |
| C113 | 2.20 | 1.67 | 2.00 | | | | | | | | | 1.40 |
| C114 | 2.60 | 3.00 | 2.40 | 1.83 | 2.25 | 1.75 | 1.60 | 1.00 | 3.00 | 1.00 | | 1.25 |
| C115 | 1.50 | 1.33 | 1.40 | 1.80 | 1.50 | 1.33 | 1.50 | 1.50 | 2.33 | 1.00 | 1.50 | 1.33 |
| C116 | 1.00 | 1.00 | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 3.00 | 3.00 | 2.00 | 2.20 | 2.00 |
| C201 | 3.00 | 3.00 | | | | | 1.00 | | | | | |

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| C202 | 3.00 | 3.00 | 1.00 | | | | | | | | | |
| C203 | 3.00 | | 2.00 | | | 2.00 | 3.00 | 1.00 | | 1.00 | 2.00 | 2.00 |
| C204 | 3.00 | 1.00 | 1.00 | | | | | | | 2.00 | 2.00 | 1.00 |
| C205 | 1.00 | | 1.00 | | | 1.00 | 1.83 | | | | 1.00 | |
| C207 | 3.00 | 3.00 | 2.00 | 3.00 | 3.00 | 2.00 | 3.00 | 3.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| C208 | 3.00 | 3.00 | | 3.00 | 3.00 | 3.00 | 3.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| C209 | 3.00 | 2.00 | 2.00 | 3.00 | 3.00 | | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 2.00 |
| C210 | | | | | | | 1.00 | | 3.00 | 2.00 | 1.00 | 3.00 |
| C211 | 3.00 | 3.00 | 1.80 | 3.00 | | | | | 2.00 | | | 2.67 |
| C212 | 3.00 | 3.00 | | | | | | | | | | |
| C213 | 3.00 | 3.00 | | | | | 1.00 | | | | | |
| C214 | 3.00 | 3.00 | 2.00 | | | | 1.00 | | | | | |
| C215 | 3.00 | | 2.00 | | | 2.00 | 3.00 | 1.00 | | 1.00 | 2.00 | 2.00 |
| C216 | 3.00 | 2.00 | | | | 1.00 | 1.00 | | | | 3.00 | |
| C217 | 3.00 | 3.00 | | 3.00 | 1.00 | | | | 2.00 | 2.00 | | |
| C218 | 3.00 | 3.00 | | 3.00 | 3.00 | | | | 2.00 | 2.00 | | |
| C219 | 3.00 | 3.00 | | | | | | | | | | |
| C220 | 3.00 | 3.00 | 3.00 | | | | 2.00 | 1.00 | 2.00 | 2.00 | | 1.00 |
| C301 | 3.00 | 3.00 | 3.00 | | | | 1.00 | 3.00 | | 2.00 | 1.00 | 2.00 |
| C302 | 2.17 | 2.17 | 2.67 | | | | 3.00 | 1.00 | | 1.00 | 2.00 | 1.00 |
| C303 | 3.00 | 2.17 | 2.17 | | | | 2.00 | | | | | |
| C304 | 3.00 | 3.00 | 2.83 | | | 1.00 | 1.00 | | | | | 1.00 |
| C307 | 3.00 | 2.00 | | 3.00 | 3.00 | | | | 2.00 | 2.00 | | |
| C308 | 3.00 | 3.00 | 3.00 | | 3.00 | | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| C309 | 3.00 | 3.00 | 3.00 | | 2.00 | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| C310 | 3.00 | 3.00 | 3.00 | | | | 2.00 | 2.00 | 1.00 | 2.17 | 2.00 | |
| C311 | 3.00 | 3.00 | 3.00 | | | | | | | 2.00 | | |
| C312 | 2.17 | 2.17 | 2.67 | | | | 3.00 | 1.00 | | 1.00 | 2.00 | 1.00 |
| C317 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | | 1.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| C318 | 3.00 | 2.00 | 1.00 | | 2.00 | 2.00 | 2.00 | 3.00 | 2.00 | 2.00 | 3.00 | 1.00 |
| C319 | 2.00 | | 2.00 | | 3.00 | 1.00 | | 1.00 | | 2.00 | | |
| C320 | 3.00 | 3.00 | 3.00 | | 3.00 | | | 3.00 | 2.00 | 2.00 | 2.00 | 1.00 |
| C321 | 1.00 | 3.00 | 3.00 | 3.00 | 3.00 | | | | | 3.00 | 3.00 | 3.00 |
| C401 | | | | | | 1.00 | | 3.00 | 1.00 | | 1.00 | 1.00 |
| C403 | 2.67 | 2.00 | 2.60 | 3.00 | 2.50 | 1.60 | 1.67 | 1.80 | 3.00 | 1.50 | 2.00 | 3.00 |
| C404 | 1.83 | 1.50 | 1.67 | 1.67 | 1.67 | 3.00 | 2.50 | 2.50 | 2.83 | 3.00 | 2.00 | 3.00 |
| C405 | 3.00 | 3.00 | 1.80 | 3.00 | | | | | 2.00 | | | 2.67 |
| C407 | 3.00 | 2.67 | 2.00 | 2.60 | 3.00 | 2.50 | 1.60 | 1.67 | 1.80 | 3.00 | 1.50 | 2.00 |

| <i>Course Code</i> | PSO1 | PSO2 | PSO3 |
|--------------------|-------------|-------------|-------------|
| C101 | | 2.25 | |
| C102 | | 1.33 | |

| | | | |
|------|------|------|------|
| C103 | | | |
| C104 | | | |
| C105 | | | |
| C106 | 1.75 | 1.00 | |
| C107 | | | |
| C108 | 1.00 | 1.00 | 1.00 |
| C109 | | | |
| C110 | | | |
| C111 | 1.50 | 2.50 | 1.40 |
| C112 | | 2.17 | 1.00 |
| C113 | | | |
| C114 | 1.83 | 1.33 | 1.75 |
| C115 | 2.50 | 1.17 | 1.00 |
| C116 | 2.00 | 2.00 | 3.00 |
| C201 | | | 2.00 |
| C202 | | | |
| C203 | | 3.00 | |
| C204 | | | |
| C205 | 2.83 | 1.00 | |
| C207 | | 3.00 | |
| C208 | 2.00 | 2.00 | 2.00 |
| C209 | 3.00 | | |
| C210 | | | |
| C211 | | | |
| C212 | | | |
| C213 | | | 3.00 |
| C214 | | | |
| C215 | | 3.00 | |
| C216 | | | |
| C217 | | | |
| C218 | | | 3.00 |
| C219 | | | |
| C220 | | 1.00 | 3.00 |
| C301 | | | |
| C302 | | | |
| C303 | | | 3.00 |
| C304 | | | |
| C307 | | 2.00 | 2.00 |
| C308 | | | |
| C309 | 2.00 | | |
| C310 | | | 3.00 |
| C311 | | | |
| C312 | 2.00 | 2.00 | |

| | | | |
|------|------|------|------|
| C317 | 2.00 | | |
| C318 | 2.00 | 2.00 | 2.00 |
| C319 | 1.00 | 1.00 | 1.00 |
| C320 | 2.00 | | |
| C321 | 3.00 | 3.00 | 2.00 |
| C401 | | | |
| C403 | 3.00 | 3.00 | 2.00 |
| C404 | 3.00 | 3.00 | 3.00 |
| C405 | | | |
| C407 | 3 | 3 | 2 |

3.2 Attainment of Course Outcomes (75)

3.2.1 Describe the assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Describe different assessment tools (semester end examinations, mid-semester tests, laboratory examinations, student portfolios etc) to measure the student learning and hence attainment of course outcomes. (*Student portfolio is a collection of artifacts that demonstrate skills, personal characteristics and accomplishments created by the student during study period.*) The process adopted to map the assessment questions, parameters of assessment rubrics etc. to the course outcomes to be explained with examples. The process of data collection from different assessment tools and the analysis of collected data to arrive at CO attainment levels need to be explained with examples

All the courses offered in the program curriculum are broadly classified into 4 categories with their individual assessment methods:

- Theory courses
- Practical courses
- Sessional courses
- Project.

The performance of student in each semester is assessed for a maximum of 100 marks for theory, practical and sessional/project components. These different categories of courses have different assessment schemes as discussed in the table below

| Course category: | Assessment Methods: | Evaluator |
|------------------|---|--------------|
| Theory courses | • Continuous assessment of 30 marks: | • Continuous |

| | | |
|---|--|---|
| (assessed out of 100 marks) | <ul style="list-style-type: none"> ○ Assessment is done through student's performance in different assignments/tests/tasks/learning activities given by the course faculty-member. The tasks are designed to address all the course outcomes almost uniformly. These tasks are given at different times in the semester. ● Mid semester examination/assessment of 20 marks (questions corresponding to attainment of different COs): <ul style="list-style-type: none"> ○ Assessment is done through student's performance in the mid-semester examination which is conducted once in a semester which is currently of one hour duration. As the name implies, this examination is conducted in the middle of the semester. ○ Frequency: once in a semester. ○ Questions are set to assess the attainments of certain course outcomes defined for the course, through the students' marks or scores. ● End semester examination/assessment of 50 marks (questions correspond to attainment of different COs): <ul style="list-style-type: none"> ○ Assessment is done through student's performance in the end-semester examination which is conducted at the end of every semester. This examination is currently of two hours duration. ○ Frequency: once in a semester. ○ Questions are set to assess the attainments of course outcomes defined for the course through the students' marks or scores. | <p>assessment is done by the concerned faculty member for the course teaching the student.</p> <ul style="list-style-type: none"> ● Answer script for mid semester examination is evaluated by the designated faculty member and marks passed on to the examination cell for further compilation. ● Answer script for end semester examination is evaluated by the designated faculty member and marks passed on to the examination cell for further compilation. |
| Practical courses (assessed out of 100 marks) | <ul style="list-style-type: none"> ● Continuous assessment of 60 marks <ul style="list-style-type: none"> ○ Assessment is done through student performance in day to day laboratory activities where the student's | <ul style="list-style-type: none"> ● Continuous assessment is done by the concerned |

| | | |
|--|--|---|
| | <p>involvement, conduct of the experiment, recording of observations and analysis/ design outputs, documentation of results and observations, clarity of concept is taken into account by the designated laboratory faculty member.</p> <ul style="list-style-type: none"> ○ All the laboratory tasks are designed to assess the attainments of different course outcomes defined for the course through students' marks or scores. <ul style="list-style-type: none"> ● End semester examination/ assessment of 40 marks <ul style="list-style-type: none"> ○ Assessment is done through conduct of a given experiments tasks, viva, etc. This is normally conducted at the end of the semester and is normally of three hour duration. ○ Frequency: once in a semester. ○ The tasks, questionnaires are mapped to course outcomes and the students' marks or score is used to compute the attainment. | <p>faculty member for the laboratory course teaching the student.</p> <ul style="list-style-type: none"> ● End semester examinations, tasks, viva are conducted by the concerned faculty member. ● Marks from continuous assessment and performance in the end semester examination are passed onto the examination cell for further compilation. |
| <p>Sessional courses (assessed out of 100 marks)</p> | <ul style="list-style-type: none"> ● Continuous assessment of 100 marks: <ul style="list-style-type: none"> ○ Assessment is done through student's performance in different assignments/tests/tasks/learning activities given by the course faculty-member. The tasks are designed to address all the course outcomes almost uniformly. ○ Frequency: Assessed throughout the semester. ○ Different tasks are mapped to | <ul style="list-style-type: none"> ● Continuous assessment is done by the concerned faculty member for the sessional course teaching the student and marks passed onto the examination cell for further |

| | | |
|--------------------------------------|--|--|
| | different outcomes and the students' marks or score in that category is used to compute the attainment | processing. |
| Projects (assessed out of 100 marks) | <ul style="list-style-type: none"> • The project evaluation process is indicated below and includes consideration of factors related to contribution both as a group and as an individual in the process. Markings are based on : <ul style="list-style-type: none"> a. Model or prototype/product development or software application (10 marks by panel and 10 marks by the Project guide/supervisor). b. Modern tools, software and their usage (10 marks by panel). c. Quality of project and innovation (10 marks by panel). d. Presentation given by the student illustrating individual contribution (10 marks by panel). e. Performance of the student in the viva (10 marks by panel) f. Project report (20 marks) g. Individual contribution report (10 marks by guide). h. Performance of the student as a member of the group (10 marks by guide). <p>The panel reviewing the project work are external members from academia and industry. Suggestions made by the external members are noted by the project guides for future reference.</p> | <ul style="list-style-type: none"> • Evaluators are already mentioned. The logistics for undergraduate programs are looked after by a Project Monitoring Committee (PMC). Marks from different assessment components are compiled by the PMC are passed on to the examination cell. |

Every course has a defined set of course outcome statements which describes the abilities a student will develop after successfully completing the course. The assessment methods are used to evaluate the attainment of the course outcomes on a scale of 0-3 lead to the direct attainment

of program outcomes. The attainments of course outcomes are measured from marks obtained by the students in different examinations, course related assessments (different assessment and examination questions are framed to test the attainment of different course outcomes for a course).

Class average is the average percentage of marks secured by all the students in a assessment component in a specific CO

Targets are quantized into three different levels (Level 1, Level 2 and Level 3) based on Class average in each CO as per the rubrics given below.

Attainment levels and threshold levels of course outcomes

| Threshold Levels for CO Attainment | | | | |
|------------------------------------|----------|-------------|-------------------------------------|-------------|
| Level | 0 | 0 | \leq Class Average in each CO $<$ | Threshold 1 |
| Level | 1 | Threshold 1 | \leq Class Average in each CO $<$ | Threshold 2 |
| Level | 2 | Threshold 2 | \leq Class Average in each CO $<$ | Threshold 3 |
| Level | 3 | Threshold 3 | \leq Class Average in each CO $<$ | 100 |

Thresholds 1, 2, and 3 are normally set at 25%, 50% and 75% respectively. However, if the course coordinator and course committee involved in ascertaining the attainment levels can raise the thresholds if required.

Data Acquisition Process:

- All the questions of mid semester and end semesters are mapped with course outcomes during the preparation of question paper.
- All the activities/assignments/quiz/ experiments are mapped with course outcomes by the course coordinator.
- Exam papers are assessed and marks of obtained by all the students are saved in ediquity software which is shared with the course coordinator for further CO attainment analysis.
- During Covid 19, marks obtained by all the students are saved in Moodle which is shared with the course coordinator for further CO attainment analysis.
- Final computation of course outcome is done through spreadsheets and also through SAP.

CO attainment information will be compiled by the course coordinators and information passed on to the School Quality Assurance Cell and Program Assessment Committee for subsequent decisions and actions. The calculation for attainments is performed after declaration of end semester examination results. All documentations related to attainments are maintained by the course coordinators.

Course outcome attainment for each type of courses are discussed below.

Attainment of course outcomes for theory courses:

The course outcomes attainment is assessed based on students' performance in cumulative internal examination (which included continuous assessment and mid sem) and semester end examination. A summary of different assessment components and respective weightage is given in the table below.

| Course Category | Assessment Tools | Marks | Category | Weightage |
|-----------------|--------------------------|-------|---------------------------------------|-----------|
| Theory Course | Continuous Evaluation | 30 | Cumulative Internal Examination (CIE) | 50 |
| | Mid-Semester Examination | 20 | | |
| | End Semester Examination | 50 | Semester End Examination (SEE) | 50 |

The students' marks in different questions are mapped to different Course Outcomes (COs) and are used to compute the class average corresponding to every CO in the course as described below:

Cumulative Internal Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Continuous Evaluation | | Mid Semester Examination | | Cumulative Internal Examination | | |
|-----------------|--|---|--|---|--|---|--------------------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted questions mapped to each CO (considering all the students) | Total marks obtained by all the student corresponding to each CO | Total marks allotted to questions mapped each CO (considering all the students) | Total marks obtained by all the student corresponding to each CO | Total marks allotted to questions mapped each CO (considering all the students) | Class Average |
| CO _x | X' | X | Y' | Y | X'+Y' | X+Y | $\frac{X'+Y'}{X+Y} \times 100$ |

Semester End Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Semester End Examination n | | |
|-----------------|--|---|---------------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to questions mapped each CO (considering all the students) | Class Average |
| CO _x | Z' | Z | $\frac{Z'}{Z} \times 100$ |

Targets are quantized into three different levels (Level 1, Level 2 and Level 3) based on Class Average in each CO as per the rubrics given below. The course outcome attainment is assessed

based the set target levels as given below.

Table: 1. Attainment levels and targets of various course outcomes

| Thresholds Levels for CO Attainment | | | | |
|-------------------------------------|----------|----|-----------------------------------|-----|
| Level | 0 | 0 | \leq Class Average in each CO < | 25 |
| Level | 1 | 25 | \leq Class Average in each CO < | 50 |
| Level | 2 | 50 | \leq Class Average in each CO < | 75 |
| Level | 3 | 75 | \leq Class Average in each CO < | 100 |

The CO attainment is assessed separately for CIE and SEE. The final CO attainment is measured based the weighted average of CIE (C) and SEE (S). For the theory course, the weightage of CIE and SEE is 50 % and 50%.

Final Attainment level=

Weightage in CIE (=0.5) * CO Attainment in Cumulative Internal Exam (CIE) +

Weightage in CIE (=0.5) * CO Attainment in Semester End Exam (SEE)

Attainment of course outcomes for Practical courses:

The course outcome attainment is assessed based on the students’ performance in cumulative internal examination (which included continuous assessment through experimental activities/tasks) and semester end examination. A summary of different assessment components and respective weightage is given in the table below.

| Course Category | Assessment Tools | Marks | Category | Weightage |
|------------------|---|-------|---------------------------------------|-----------|
| Practical Course | Continuous Evaluation (Experimental activities/tasks) | 100 | Cumulative Internal Examination (CIE) | 100 |

The experimental activities and tasks are mapped to different Course Outcomes (COs) and are used to compute the class average corresponding to every CO in the course as described below:

Cumulative Internal Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Cumulative Internal Examination | | |
|-----------------|--|---|---------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to questions mapped each CO (considering all the students) | Class Average |
| CO _x | X' | X | X'/X x100 |

Semester End Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Semester End Internal Examination | | |
|-----------------|--|---|---------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to questions mapped each CO (considering all the students) | Class Average |
| CO _x | Z' | Z | Z'/Z x 100 |

The course outcome attainment is assessed based on the set target levels as given below.

| Thresholds Levels for CO Attainment | | | | |
|-------------------------------------|----------|----|-----------------------------------|-----|
| Level | 0 | 0 | \leq Class Average in each CO < | 25 |
| Level | 1 | 25 | \leq Class Average in each CO < | 50 |
| Level | 2 | 50 | \leq Class Average in each CO < | 75 |
| Level | 3 | 75 | \leq Class Average in each CO < | 100 |

The CO attainment is assessed separately for CIE and SEE. The final CO attainment is measured based the weighted average of CIE (C) and SEE (S). For the practical theory course, the weightage of CIE and SEE is 60 % and 40%.

Final Attainment level= Weightage in CIE (=0.6) * CO Attainment in CIE + Weightage in SEE (=0.4) * CO Attainment in SEE

Attainment of course outcomes for Sessional courses:

The course outcome attainment is assessed based on the students' performance in cumulative internal examination (which included continuous assessment through different activities like design, development, analysis or any other tasks) and semester end examination. A summary of different assessment components and respective weightage is given in the table below.

| Course Category | Assessment Tools | Marks | Category | Weightage |
|-----------------|------------------|-------|----------|-----------|
|-----------------|------------------|-------|----------|-----------|

| | | | | |
|------------------|--|----|---------------------------------------|----|
| Practical Course | Continuous Evaluation (Experimental tasks) activities/ | 60 | Cumulative Internal Examination (CIE) | 60 |
| | End Semester Examination | 40 | Semester End Examination (SEE) | 40 |

The experimental activities and tasks are mapped to different Course Outcomes (COs) and are used to compute the class average corresponding to every CO in the course as described below:

Cumulative Internal Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Cumulative Internal Examination | | |
|-----------------|--|--|-------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Class Average |
| CO _x | X' | X | $X'/X \times 100$ |

Semester End ~~Internal~~ Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Semester Internal Examination | | |
|-----------------|--|--|-------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Class Average |
| CO _x | Z' | Z | $Z'/Z \times 100$ |

The course outcome attainment is assessed based on the set target levels as given below.

| Threshold Levels for CO Attainment | | | | |
|------------------------------------|----------|----|-------------------------------------|-----|
| Level | 0 | 0 | \leq Class Average in each CO $<$ | 25 |
| Level | 1 | 25 | \leq Class Average in each CO $<$ | 50 |
| Level | 2 | 50 | \leq Class Average in each CO $<$ | 75 |
| Level | 3 | 75 | \leq Class Average in each CO $<$ | 100 |

The CO attainment is assessed separately for CIE and SEE. The final CO attainment is measured based the weighted average of CIE (C) and SEE (S). For the practical course, the weightage of CIE and SEE is 60 % and 40%.

Final Attainment level= Weightage in CIE (=0.6) * CO Attainment in CIE + Weightage in

CIE (=0.4) * CO Attainment in SEE

EXAMPLE OF COURSE OUTCOME ATTAINMENT OF A THEORY COURSE : Civil Engineering Materials & Construction

Course Outcomes of Civil Engineering Materials & Construction

At the end of the course, the students will be able to:

- CO1. Understand the properties of stones and bricks
- CO2. Learn different properties of cement and concrete
- CO3. Acquire knowledge on properties of timber
- CO4. Learn about different types of foundations
- CO5. Identify different types of masonries
- CO6. Select different types of doors, windows and floors for construction

Table 1: Course Outcomes and Activities Mapping of Continuous Assessment

| Activity No | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 |
|-------------|-----|-----|-----|-----|-----|-----|
| 1 | √ | | | | | |
| 2 | | √ | | | | |
| 3 | | | √ | | | |
| 4 | | | | √ | | |
| 5 | | | | | √ | |
| 6 | | | | | | √ |

Table 2: Mark Calculation of Continuous Evaluation

| CO ATTAINMENT CALCULATION OF CONTINOUS EVALUATION | | | | | | | | | | |
|---|--------------------|----------------|----------------|-----|------------|-----|----------------|-----|---|--|
| Program | Branch | Batch | Academic Year | | Semester | | Course Code | | Course Name | |
| Btech | Civil Engg. | 2018-22 | 2019-20 | | 3rd | | CE 2109 | | Civil Engineering Materials & Construction | |
| Activity | | Full marks | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | Students appearing in the examination/attempting the question | Added Marks of all students for the question |
| Activity 1 | | 5 | 5 | | | | | | 196 | 765 |
| Activity 2 | | 5 | | 5 | | | | | 196 | 700 |
| Activity 3 | | 5 | | | 5 | | | | 196 | 743 |

| | | | | | | | | | |
|-------------------|---|--|--|--|---|---|---|-----|-----|
| Activity 4 | 5 | | | | 5 | | | 196 | 763 |
| Activity 5 | 5 | | | | | 5 | | 196 | 740 |
| Activity 6 | 5 | | | | | | 5 | 196 | 718 |

| CO Number | Total marks allotted corresponding to each CO | Total marks secured corresponding to each CO |
|-----------|---|--|
| CO1 | 980 | 765 |
| CO2 | 980 | 700 |
| CO3 | 980 | 743 |
| CO4 | 980 | 763 |
| CO5 | 980 | 740 |
| CO6 | 980 | 718 |

Table 3: Mark Calculation of Mid Semester Evaluation

| CO ATTAINMENT CALCULATION OF MID SEMESTER EXAMINATION | | | | | | | | | | |
|---|--------------------|----------------|----------------|-----|------------|-----|---------------|-----|---|--|
| Program | Branch | Batch | Academic Year | | Semester | | Course Code | | Course Name | |
| BTech | Civil Engg. | 2018-22 | 2019-20 | | 3rd | | CE2109 | | Civil Engineering Materials & Construction | |
| Question No | Sub Question No | Full marks | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | Students appearing in the examination/attempting the question | Added Marks of all students for the question |
| Q1 | 1a | 1 | 1 | | | | | | 182 | 162 |
| | 1b | 1 | | 1 | | | | | 189 | 157 |
| | 1c | 1 | | 1 | | | | | 194 | 161 |
| | 1d | 1 | 1 | | | | | | 191 | 164 |
| | 1e | 1 | 1 | | | | | | 188 | 161 |
| Q2 | 2 | 5 | 5 | | | | | | 150 | 612 |
| Q3 | 3 | 5 | | 5 | | | | | 151 | 582 |
| Q4 | 4 | 5 | 5 | | | | | | 151 | 584 |
| Q7 | 5a | 2.5 | | 2.5 | | | | | 87 | 341 |
| | 5b | 2.5 | 2.5 | | | | | | 58 | 226 |
| | 5c | 2.5 | 2.5 | | | | | | 63 | 196 |

| CO Number | Total marks allotted corresponding to specific CO | Total marks secured to specific CO | Class Average (%) |
|-----------|---|------------------------------------|-------------------|
| CO1 | 2368.5 | 2105 | 88.87 |

| | | | |
|-----|--------|------|---------|
| CO2 | 1355.5 | 1241 | 91.55 |
| CO3 | 0 | 0 | #DIV/0! |
| CO4 | 0 | 0 | #DIV/0! |
| CO5 | 0 | 0 | #DIV/0! |
| CO6 | 0 | 0 | #DIV/0! |

Table 4: Calculation of Class average in Cumulative Internal Examination (CIE)

| CO ATTAINMENT CALCULATION OF CUMULATIVE INTERNAL EXAMINATION | | | | | | | |
|--|---|--|---|--|---|---|---------------|
| Programme | Branch | Batch | Academic Year | Semester | Course Code | Course Name | |
| BTech | Civil Engg. | 2018-22 | 2019-20 | 3rd | CE2109 | Civil Engineering Materials & Construction | |
| Course Outcomes | Continuous Evaluation | | Mid Semester Examination | | Cumulative Internal Examination | | |
| | Total marks allotted corresponding to each CO | Total marks secured corresponding to each CO | Total marks allotted corresponding to each CO | Total marks secured corresponding to each CO | Total marks allotted corresponding to each CO | Total marks secured corresponding to each CO | Class Average |
| CO1 | 980 | 765 | 2368.5 | 2105 | 3348.5 | 2870 | 85.71 |
| CO2 | 980 | 700 | 1355.5 | 1241 | 2335.5 | 1941 | 83.11 |
| CO3 | 980 | 743 | 0 | 0 | 980 | 743 | 75.82 |
| CO4 | 980 | 763 | 0 | 0 | 980 | 763 | 77.86 |
| CO5 | 980 | 740 | 0 | 0 | 980 | 740 | 75.51 |
| CO6 | 980 | 718 | 0 | 0 | 980 | 718 | 73.27 |

Table 4: Calculation of Class average in Semester End Examination (SEE)

CO ATTAINMENT CALCULATION (SEE)

| Programme | Branch | Batch | Academic Year | | Semester | | Course Code | | Course Name | |
|--------------|--------------------|------------------|------------------|------|------------|------|---------------|------|---|--|
| BTech | Civil Engg. | 2018-2022 | 2019-2020 | | 3rd | | CE2109 | | Civil Engineering Materials & Construction | |
| Question No | Sub Question No | Full marks | CO 1 | CO 2 | CO 3 | CO 4 | CO 5 | CO 6 | Students appearing in the examination/attempting the question | Added Marks of all students for the question |
| Q1 | 1a | 1 | 1 | | | | | | 158 | 117 |
| | 1b | 1 | 1 | | | | | | 155 | 119 |
| | 1c | 1 | | 1 | | | | | 154 | 118 |
| | 1d | 1 | | 1 | | | | | 154 | 118 |

| | | | | | | | | | | |
|-----------|----|---|---|---|---|---|---|---|-----|-----|
| | 1e | 1 | | | 1 | | | | 164 | 127 |
| | 1f | 1 | | | | 1 | | | 157 | 124 |
| | 1g | 1 | | | | | 1 | | 167 | 121 |
| | 1h | 1 | | | | | | 1 | 164 | 124 |
| | 1i | 1 | | | | | | 1 | 166 | 125 |
| | 1j | 1 | | | | | | 1 | 154 | 118 |
| Q2 | 2a | 4 | 4 | | | | | | 116 | 348 |
| | 2b | 4 | 4 | | | | | | 116 | 328 |
| Q3 | 3a | 4 | 4 | | | | | | 131 | 414 |
| | 3b | 4 | | 4 | | | | | 131 | 381 |
| Q4 | 4a | 4 | | | 4 | | | | 112 | 323 |
| | 4b | 4 | | 4 | | | | | 112 | 351 |
| Q5 | 5a | 4 | 4 | | | | | | 121 | 346 |
| | 5b | 4 | | 4 | | | | | 121 | 375 |
| Q6 | 6a | 4 | | | | 4 | | | 122 | 367 |
| | 6b | 4 | | | | 4 | | | 122 | 338 |
| Q7 | 7a | 4 | | 4 | | | | | 107 | 336 |
| | 7b | 4 | | | | 4 | | | 107 | 309 |
| Q8 | 8a | 4 | | 4 | | | | | 124 | 324 |
| | 8b | 4 | | | | | 4 | | 124 | 370 |

| CO No. | Total marks allotted corresponding to specific CO | Total marks secured to specific CO | Class Average (%) |
|--------|---|------------------------------------|-------------------|
| CO1 | 2249 | 1672 | 74.34 |
| CO2 | 2688 | 2003 | 74.52 |
| CO3 | 612 | 450 | 73.53 |
| CO4 | 1561 | 1138 | 72.90 |
| CO5 | 663 | 491 | 74.06 |
| CO6 | 484 | 367 | 75.83 |

Table 6. Final Co Attainment

| CO Attainment Calculation | | | | | |
|---------------------------------|---------------------------------------|---------------------|--|---------------------|---------------------|
| Programme | Branch | Batch | Academic Year | | Semster |
| Btech | Civil Engg. | 2018-22 | 2019-20 | | 3rd |
| Course Code | CE2109 | Course Name | Civil Engineering Materials & Construction | | |
| Target Levels for CO Attainment | | | | | |
| Level | 1 | 20 | \geq Class Average $<$ | | 50 |
| Level | 2 | 50 | \geq Class Average $<$ | | 75 |
| Level | 3 | 75 | \geq Class Average $<$ | | 100 |
| CO Attainment | | | | | |
| Course Outcomes | Cumulative Internal Examination (CIE) | | Semester End Examination (SEE) | | Total CO Attainment |
| | Weightage | 50% | Weightage | 50% | |
| | Class Average | CO Attainment Level | Class Average | CO Attainment Level | |
| CO1 | 85.71 | 3 | 74.34 | 2 | 2.5 |
| CO2 | 83.11 | 3 | 74.52 | 2 | 2.5 |
| CO3 | 75.82 | 3 | 73.53 | 2 | 2.5 |
| CO4 | 77.86 | 3 | 72.90 | 2 | 2.5 |
| CO5 | 75.51 | 3 | 74.06 | 2 | 2.5 |
| CO6 | 73.27 | 2 | 75.83 | 3 | 2.5 |

3.2.2 Record the attainment of Course Outcomes of all courses with respect to set attainment levels (65)

The target or the expected attainment for the course:

- Achieve attainment level of **2.5** for all course outcomes defined for the course.

The attainment of course outcome in cumulative internal examination and semester end examination is given below

CO Attainment in Cumulative Internal Examination (CIE)

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 |
|-------------|----------------------------|-----|-----|-----|-----|-----|-----|
| C101 | Mathematics-I | 3 | 3 | 3 | 3 | 3 | 2 |
| C102 | Chemistry | 3 | 2 | 3 | 3 | 3 | 2 |
| C103 | Professional Communication | 3 | 3 | 3 | 3 | 3 | 3 |
| C104 | Biology | 3 | 3 | 3 | 3 | 3 | 3 |

| | | | | | | | |
|------|--|---|---|---|---|---|---|
| C105 | Chemistry Lab | 3 | 3 | 3 | 3 | 3 | 3 |
| C106 | Computer Programming | 3 | 3 | 3 | 2 | 3 | 2 |
| C107 | Language Lab | 3 | 3 | 3 | 3 | 3 | 3 |
| C108 | Engineering Graphics | 3 | 3 | 3 | 3 | 3 | 3 |
| C109 | Mathematics-II | 3 | 3 | 3 | 3 | 2 | 2 |
| C110 | Physics | 3 | 3 | 3 | 3 | 3 | 3 |
| C111 | Basic Electrical Engineering | 3 | 3 | 3 | 3 | 3 | 2 |
| C112 | Engineering Mechanics | 3 | 3 | 2 | 3 | 2 | 3 |
| C113 | Physics Lab | 3 | 3 | 3 | 3 | 3 | 3 |
| C114 | Basic Electrical Engineering Lab | 3 | 3 | 3 | 3 | 3 | 3 |
| C115 | Basic Manufacturing Systems | 3 | 3 | 3 | 3 | 3 | 3 |
| C116 | Environmental Science | 3 | 3 | 3 | 3 | 3 | 3 |
| C201 | Fluid Mechanics | 3 | 3 | 3 | 3 | 3 | 2 |
| C202 | Mechanics of Material | 3 | 3 | 3 | 3 | 2 | 2 |
| C203 | Environmental Engineering-I | 3 | 3 | 3 | 3 | 3 | 3 |
| C204 | Surveying & Geomatics | 3 | 3 | 3 | 3 | 2 | 3 |
| C205 | Civil Engineering Materials & Construction | 3 | 3 | 3 | 3 | 3 | 2 |
| C207 | Environmental Engg. Lab. | 3 | 3 | 3 | 3 | 3 | 3 |
| C208 | Surveying Field Work | 3 | 3 | 3 | 3 | 3 | 3 |
| C209 | Material Testing Lab. | 3 | 3 | 3 | 3 | 3 | 3 |
| C210 | Business Communication | 3 | 3 | 3 | 3 | 3 | 3 |
| C211 | Mathematics –III | 3 | 2 | 2 | 3 | 3 | 3 |
| C212 | Structural Analysis | 3 | 3 | 3 | 3 | 3 | 3 |
| C213 | Surface Hydrology & Hydraulics | 3 | 2 | 3 | 3 | 2 | 3 |
| C214 | Geotechnical Engineering-I | 3 | 3 | 3 | 3 | 3 | 3 |
| C215 | Environmental Engineering-II | 3 | 3 | 3 | 3 | 3 | 3 |
| C216 | Construction Planning & Management | 3 | 3 | 3 | 2 | 2 | 3 |
| C217 | Geotechnical Engineering Lab. | 3 | 3 | 3 | 3 | 3 | 3 |
| C218 | Fluid Mechanics Lab. | 3 | 3 | 3 | 3 | 3 | 3 |
| C219 | Structural Analysis Applications | 3 | 3 | 2 | 3 | 3 | 3 |
| C220 | Hydraulics & Hydrologic Design | 3 | 3 | 2 | 2 | 3 | 3 |
| C301 | Design of Concrete Structures | 3 | 3 | 3 | 3 | 3 | 3 |
| C302 | Transportation Engineering-I | 3 | 3 | 3 | 3 | 3 | 3 |
| C303 | Water Resources Engineering | 3 | 3 | 3 | 3 | 3 | 2 |
| C304 | Geotechnical Engineering-II | 3 | 3 | 3 | 3 | 3 | 3 |
| C307 | Transportation Engg. Laboratory | 3 | 3 | 3 | 3 | 3 | 3 |
| C308 | Structural Design (RCC) | 3 | 2 | 2 | 2 | 2 | 2 |
| C309 | Geotechnical Design | 3 | 3 | 3 | 3 | 3 | 3 |
| C310 | Water Resources Design | 2 | 2 | 2 | 3 | 3 | 3 |
| C311 | Design of Steel Structures | 3 | 3 | 2 | 3 | 3 | 2 |
| C312 | Transportation Engineering-II | 3 | 3 | 3 | 3 | 3 | 3 |
| C317 | Structural Engg. Lab. | 3 | 3 | 3 | 3 | 3 | 3 |
| C318 | Estimating & Costing | 3 | 3 | 3 | 3 | 3 | 3 |

| | | | | | | | |
|------|-------------------------------------|---|---|---|---|---|---|
| C319 | Computer Aided Building Drawing | 3 | 3 | 3 | 3 | 3 | 3 |
| C320 | Structural Design (Steel) | 3 | 3 | 3 | 3 | 3 | 3 |
| C321 | Minor Project | 3 | 3 | 3 | 3 | 3 | 3 |
| C401 | Professional Practice, Law & Ethics | 3 | 3 | 3 | 3 | 3 | 3 |
| C403 | Project-I/ Internship | 3 | 3 | 3 | 3 | 3 | 3 |
| C404 | Practical Training | 3 | 3 | 3 | 3 | 3 | 3 |
| C405 | Inferential Statistics | 3 | 3 | 3 | 3 | 2 | 2 |
| C407 | Project/Internship | 3 | 3 | 3 | 3 | 3 | 3 |

CO Attainment in Semester End Examination (SEE)

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 |
|-------------|--|-----|-----|-----|-----|-----|-----|
| C101 | Mathematics-I | 3 | 3 | 2 | 2 | 2 | 3 |
| C102 | Chemistry | 3 | 3 | 3 | 2 | 3 | 2 |
| C103 | Professional Communication | 3 | 3 | 3 | 3 | 3 | 3 |
| C104 | Biology | 3 | 2 | 3 | 2 | 3 | 2 |
| C105 | Chemistry Lab | 3 | 3 | 3 | 3 | 3 | 3 |
| C106 | Computer Programming | 3 | 3 | 3 | 2 | 2 | 2 |
| C108 | Engineering Graphics | 3 | 3 | 2 | 2 | 3 | 2 |
| C109 | Mathematics-II | 3 | 2 | 2 | 2 | 3 | 3 |
| C110 | Physics | 3 | 3 | 3 | 2 | 2 | 3 |
| C111 | Basic Electrical Engineering | 3 | 3 | 2 | 2 | 3 | 2 |
| C112 | Engineering Mechanics | 3 | 2 | 3 | 3 | 3 | 3 |
| C113 | Physics Lab | 3 | 3 | 2 | 3 | 3 | 3 |
| C114 | Basic Electrical Engineering Lab | 3 | 3 | 3 | 3 | 3 | 3 |
| C115 | Basic Manufacturing Systems | 3 | 3 | 3 | 3 | 2 | 3 |
| C116 | Environmental Science | 3 | 3 | 2 | 3 | 3 | 3 |
| C201 | Fluid Mechanics | 3 | 3 | 2 | 3 | 2 | 2 |
| C202 | Mechanics of Material | 3 | 3 | 2 | 2 | 2 | 2 |
| C203 | Environmental Engineering-I | 3 | 2 | 2 | 3 | 3 | 3 |
| C204 | Surveying & Geomatics | 3 | 3 | 3 | 2 | 3 | 3 |
| C205 | Civil Engineering Materials & Construction | 2 | 2 | 2 | 2 | 2 | 3 |
| C207 | Environmental Engg. Lab. | 3 | 3 | 3 | 3 | 3 | 3 |
| C208 | Surveying Field Work | 3 | 3 | 3 | 3 | 2 | 3 |
| C209 | Material Testing Lab. | 2 | 3 | 2 | 2 | 3 | 2 |
| C210 | Business Communication | 3 | 3 | 3 | 3 | 3 | 3 |
| C211 | Mathematics –III | 3 | 3 | 3 | 2 | 2 | 2 |
| C212 | Structural Analysis | 2 | 2 | 2 | 2 | 2 | 2 |
| C213 | Surface Hydrology & Hydraulics | 3 | 2 | 3 | 2 | 2 | 2 |
| C214 | Geotechnical Engineering-I | 3 | 3 | 2 | 2 | 3 | 2 |
| C215 | Environmental Engineering-II | 3 | 3 | 3 | 3 | 2 | 3 |

| | | | | | | | |
|------|-------------------------------------|---|---|---|---|---|---|
| C216 | Construction Planning & Management | 3 | 3 | 2 | 3 | 3 | 3 |
| C217 | Geotechnical Engineering Lab. | 3 | 3 | 3 | 2 | 2 | 2 |
| C218 | Fluid Mechanics Lab. | 3 | 3 | 3 | 3 | 2 | 3 |
| C219 | Structural Analysis Applications | 3 | 3 | 3 | 3 | 2 | 2 |
| C220 | Hydraulics & Hydrologic Design | 3 | 2 | 3 | 3 | 2 | 3 |
| C301 | Design of Concrete Structures | 2 | 3 | 3 | 2 | 3 | 2 |
| C302 | Transportation Engineering-I | 2 | 2 | 2 | 2 | 2 | 2 |
| C303 | Water Resources Engineering | 3 | 2 | 2 | 2 | 2 | 2 |
| C304 | Geotechnical Engineering-II | 3 | 3 | 2 | 2 | 3 | 2 |
| C307 | Transportation Engg. Laboratory | 2 | 2 | 2 | 2 | 2 | 2 |
| C308 | Structural Design (RCC) | 3 | 3 | 3 | 3 | 2 | 3 |
| C309 | Geotechnical Design | 3 | 3 | 3 | 2 | 3 | 2 |
| C310 | Water Resources Design | 3 | 2 | 3 | 2 | 2 | 3 |
| C311 | Design of Steel Structures | 3 | 2 | 2 | 2 | 2 | 2 |
| C312 | Transportation Engineering-II | 3 | 3 | 3 | 2 | 3 | 2 |
| C317 | Structural Engg. Lab. | 3 | 3 | 3 | 3 | 3 | 3 |
| C318 | Estimating & Costing | 3 | 3 | 3 | 3 | 3 | 3 |
| C319 | Computer Aided Building Drawing | 3 | 3 | 3 | 3 | 3 | 3 |
| C320 | Structural Design (Steel) | 3 | 2 | 3 | 3 | 2 | 3 |
| C401 | Professional Practice, Law & Ethics | 3 | 3 | 3 | 3 | 3 | 3 |
| C405 | Inferential Statistics | 3 | 2 | 2 | 2 | 2 | 2 |

Final CO Attainment of all the core courses

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | Target | Remarks |
|-------------|------------------------------|-----|-----|-----|-----|-----|-----|--------|---------------------------------|
| C101 | Mathematics-I | 3 | 3 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | Achieved |
| C102 | Chemistry | 3 | 2.5 | 3 | 2.5 | 3 | 2 | 2.5 | CO6 target not achieved |
| C103 | Professional Communication | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C104 | Biology | 3 | 2.5 | 3 | 2.5 | 3 | 2.5 | 2.5 | Achieved |
| C105 | Chemistry Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C106 | Computer Programming | 3 | 3 | 3 | 2 | 2.5 | 2 | 2.5 | CO4 and CO6 target not achieved |
| C107 | Language Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C108 | Engineering Graphics | 3 | 3 | 2.5 | 2.5 | 3 | 2.5 | 2.5 | Achieved |
| C109 | Mathematics-II | 3 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | Achieved |
| C110 | Physics | 3 | 3 | 3 | 2.5 | 2.5 | 3 | 2.5 | Achieved |
| C111 | Basic Electrical Engineering | 3 | 3 | 2.5 | 2.5 | 3 | 2 | 2.5 | CO6 target not achieved |
| C112 | Engineering Mechanics | 3 | 2.5 | 2.5 | 3 | 2.5 | 3 | 2.5 | Achieved |
| C113 | Physics Lab | 3 | 3 | 2.6 | 3 | 3 | 3 | 2.5 | Achieved |

| | | | | | | | | | |
|------|--|-----|-----|-----|-----|-----|-----|-----|---------------------------------|
| C114 | Basic Electrical Engineering Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C115 | Basic Manufacturing Systems | 3 | 3 | 3 | 3 | 2.5 | 3 | 2.5 | Achieved |
| C116 | Environmental Science | 3 | 3 | 2.5 | 3 | 3 | 3 | 2.5 | Achieved |
| C201 | Fluid Mechanics | 3 | 3 | 2.5 | 3 | 2.5 | 2 | 2.5 | CO6 target not achieved |
| C202 | Mechanics of Material | 3 | 3 | 2.5 | 2.5 | 2 | 2 | 2.5 | CO5 and CO6 target not achieved |
| C203 | Environmental Engineering-I | 3 | 2.5 | 2.5 | 3 | 3 | 3 | 2.5 | Achieved |
| C204 | Surveying & Geomatics | 3 | 3 | 3 | 2.5 | 2.5 | 3 | 2.5 | Achieved |
| C205 | Civil Engineering Materials & Construction | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | Achieved |
| C207 | Environmental Engg. Lab. | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C208 | Surveying Field Work | 3 | 3 | 3 | 3 | 2.6 | 3 | 2.5 | Achieved |
| C209 | Material Testing Lab. | 2.6 | 3 | 2.6 | 2.6 | 3 | 2.6 | 2.5 | Achieved |
| C210 | Business Communication | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C211 | Mathematics –III | 3 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | Achieved |
| C212 | Structural Analysis | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | Achieved |
| C213 | Surface Hydrology & Hydraulics | 3 | 2 | 3 | 2.5 | 2 | 2.5 | 2.5 | CO2 and CO5 target not achieved |
| C214 | Geotechnical Engineering-I | 3 | 3 | 2.5 | 2.5 | 3 | 2.5 | 2.5 | Achieved |
| C215 | Environmental Engineering-II | 3 | 3 | 3 | 3 | 2.5 | 3 | 2.5 | Achieved |
| C216 | Construction Planning & Management | 3 | 3 | 2.5 | 2.5 | 2.5 | 3 | 2.5 | Achieved |
| C217 | Geotechnical Engineering Lab. | 3 | 3 | 3 | 2.6 | 2.6 | 2.6 | 2.5 | Achieved |
| C218 | Fluid Mechanics Lab. | 3 | 3 | 3 | 3 | 2.6 | 3 | 2.5 | Achieved |
| C219 | Structural Analysis Applications | 3 | 3 | 2.5 | 3 | 2.5 | 2.5 | 2.5 | Achieved |
| C220 | Hydraulics & Hydrologic Design | 3 | 2.5 | 2.5 | 2.5 | 2.5 | 3 | 2.5 | Achieved |
| C301 | Design of Concrete Structures | 2.5 | 3 | 3 | 2.5 | 3 | 2.5 | 2.5 | Achieved |
| C302 | Transportation Engineering-I | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | Achieved |
| C303 | Water Resources | 3 | 2.5 | 2.5 | 2.5 | 2.5 | 2 | 2.5 | CO6 target not achieved |

| | | | | | | | | | |
|------|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|---------------------------------|
| | Engineering | | | | | | | | |
| C304 | Geotechnical Engineering-II | 3 | 3 | 2.5 | 2.5 | 3 | 2.5 | 2.5 | |
| C307 | Transportation Engg. Laboratory | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 | Achieved |
| C308 | Structural Design (RCC) | 3 | 2.5 | 2.5 | 2.5 | 2 | 2.5 | 2.5 | CO5 target not achieved |
| C309 | Geotechnical Design | 3 | 3 | 3 | 2.5 | 3 | 2.5 | 2.5 | |
| C310 | Water Resources Design | 2.5 | 2 | 2.5 | 2.5 | 2.5 | 3 | 2.5 | CO2 target not achieved |
| C311 | Design of Steel Structures | 3 | 2.5 | 2 | 2.5 | 2.5 | 2 | 2.5 | CO3and CO6 target not achieved |
| C312 | Transportation Engineering-II | 3 | 3 | 3 | 2.5 | 3 | 2.5 | 2.5 | Achieved |
| C317 | Structural Engg. Lab. | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C318 | Estimating & Costing | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C319 | Computer Aided Building Drawing | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C320 | Structural Design (Steel) | 3 | 2.5 | 3 | 3 | 2.5 | 3 | 2.5 | Achieved |
| C321 | Minor Project | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C401 | Professional Practice, Law & Ethics | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C403 | Project-I / Internship | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C404 | Practical Training | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |
| C405 | Inferential Statistics | 3 | 2.5 | 2.5 | 2.5 | 2 | 2 | 2.5 | CO5 and CO6 target not achieved |
| C407 | Project/Internship | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Achieved |

3.3 Attainment of Program Outcomes and Program Specific Outcomes (75)

3.3.1 Describe assessment tools and processes used for measuring the attainment of each Program Outcome and Program Specific Outcomes (10)

B. Attainment of Program Outcomes

The Program outcome assessment tools are categorized into direct and indirect method of outcome assessment. The program regularly uses a documented processes for assessing and evaluating the extent to which the student outcomes are being attained.

Direct Program outcome attainment is evaluated through the course outcome attainment or specified rubrics. Indirect PO attainment is evaluated through based on questionnaire survey of various stake holders such as Graduates, Alumni and Employers. The details of frequency of collection and responsible authorities are given below.

| Type of Assessment | Weightage | Assessment tools | Assessment Criteria | Data Collection frequency | Responsible entity |
|---------------------|-----------|--|---------------------|---------------------------|---|
| Direct Assessment | 80 | Internal examination and External Examination | CO attainment | Once every semester | Course coordinator & School quality Cell |
| Indirect Assessment | 20 | Graduate survey, Alumni Survey and Employer Survey | | Once in a year | Quality Cell & Program Assessment Committee |

The process of direct and indirect PO attainment is described below.

B.1. Direct assessment and evaluation of Program Outcomes and Program Specific Outcomes

The direct PO_x -attainment level = weighted average of course outcome attainment levels for course outcomes spanning all possible courses linked to PO_x according to Program and course articulation matrix.

x-represents the PO/PSO number.

The formula for calculating the PO attainment considering the relevant courses and their outcomes is given below:

$$PO_x = \frac{\sum_{i=1}^N CO_i M_i}{\sum_{i=1}^N M_i}$$

'i' represents the i^{th} CO in the PO-CO articulation matrix. CO_i is the CO Attainment level for that CO and M_i represents the mapping level (1, 2, or 3) between PO_x and CO_i .

The direct PO attainment is estimated by the School Quality Assurance Cell and intimated to the Program Assessment committee after the declaration of even semester results for an academic year.

EXAMPLE: DIRECT PO ATTAINMENT OF CIVIL ENGINEERING MATERIALS & CONSTRUCTION

Course Outcome and Program Outcome mapping of Civil Engineering Materials & Construction

| CO Number | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| CO1 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 |
| CO2 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 |
| CO3 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 |

| | | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| CO4 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| CO5 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 |
| CO6 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 |

The calculation of Program Outcome Attainment of Civil Engineering Materials & Construction is given below.

| Programme | Branch | | Batch | | Academic Year | | | Semester | | | Course Code | | Course Name | |
|-------------------|--------------------|-------------|------------------|-------------|------------------|-----------|-------------|-----------------------|-----------|-----------|---------------|-------------|---|--|
| BTech | Civil Engg. | | 2018-2022 | | 2019-2020 | | | 3rd | | | CE2109 | | Civil Engineering Materials & Construction | |
| CO Number | CO Attainment | PO1 | PO2 | PO3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 0 | PO1 1 | PO1 2 | |
| CO1 | 2.5 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | |
| CO2 | 2.5 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | |
| CO3 | 2.5 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | |
| CO4 | 2.5 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | |
| CO5 | 2.5 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | |
| CO6 | 2.5 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | |
| Sum Product | | 15 | 0 | 15 | 0 | 0 | 15 | 27.5 | 0 | 0 | 0 | 15 | 0 | |
| Sum of mapping | | 6 | 0 | 6 | 0 | 0 | 6 | 11 | 0 | 0 | 0 | 6 | 0 | |
| ATTAINMENT | | 2.50 | ## | 2.50 | ## | ## | 2.50 | 2.50 | ## | ## | #### | 2.50 | ## | |

Attainment of PO1 = $(1 \times 3 + 1 \times 3 + 1 \times 2.5 + 1 \times 3 + 1 \times 3 + 1 \times 2.5) / (1 + 1 + 1 + 1 + 1 + 1) = 2.83$

B.2 Indirect assessment and evaluation of Program Outcomes and Program Specific Outcomes

The indirect assessment of Program Outcomes and Program Specific Outcomes are obtained by the following survey tools:

| Survey tools | Activity Owners | Compilation |
|-----------------|-------------------------------|-------------|
| Graduate Survey | School Quality Assurance Cell | Yearly once |
| Alumni Survey | School Alumni Cell | Yearly once |
| Employer Survey | Training and Placement Cell | Yearly once |

The graduate survey form, alumni survey form and employer survey form are given in Appendices S1, S2 and S3 respectively. The draft survey format is developed by Internal quality assessment cell of university and shared with quality cell of each school. Quality cell and Programme assessment committee finalizes the survey form. The form is shared to the graduates/alumni/employer through the google form.

The surveys reports are passed on to the School QA cell for further computation as described below:

B.2.1 Graduate Survey

- Section B of the graduate survey (appendix-S1) has a set of questions and statements which needs to be answered through ratings on a scale of 5 where ‘1’ indicates poor and ‘5’ indicates excellent rating. For each question in section B, the attainment level is calculated as given below:
 - Attainment level corresponding to each statement= 3 (high) if more than/equal to 80% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.
 - Attainment level corresponding to each statement= 2 (medium) if more than/equal to 60% and less than 80% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.
 - Attainment level corresponding to each statement= 1 (low) if more than/equal to 40% and less than 60% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.
 - Attainment level corresponding to each statement= 0 (no attainment) if less than 40% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.
- Section C of the graduate survey refers to students’ involvement in different extracurricular activities/affairs/events in technical/domain oriented and/or social affairs/outreach activities. Two lists are maintained ‘A’ and ‘B’.
 - List A mentions different categories of involvement in extracurricular activities/affairs/events in technical/domain:
 - Technical societies at KIIT-DU
 - KIIT Technology Business Incubator Cell
 - Coordination and participation in Technical events/fests/contests
 - Member of professional bodies/student chapters/student societies
 - Live and interdisciplinary projects
 - Research projects with faculty members
 - Associated with industry engagement cell
 - International student exchange program
 - List B mentions different categories of involvement in extracurricular activities/affairs/events in social and outreach activities:
 - Voluntary service/Social Outreach Activities/Community Services, etc.
 - Environmental and Social Awareness Programs
 - Attainment level corresponding to List A:
 - Attainment Level =3 (high) if more than 80% of the students were engaged/involved in any of the categories in list A.
 - Attainment Level =2 (medium) if more than 60% of the students were engaged/involved in any of the categories in list A.
 - Attainment Level =1 (low) if more than 40% of the students were engaged/involved in any of the categories in list A.
 - Attainment level corresponding to List B:
 - Attainment Level =3 (high) if more than 80% of the students were engaged/involved in any of the categories in list b.
 - Attainment Level =2 (medium) if more than 60% of the students were engaged/involved in any of the categories in list B.
 - Attainment Level =1 (low) if more than 40% of the students were engaged/involved in any of the categories in list B.

B.2.2 Alumni Survey

- Section B of the alumni survey (appendix-S2) has a set of questions and statements which needs to be answered through ratings on a scale of 5 where ‘1’ indicates poor and ‘5’ indicates excellent rating. For each question in section B, the attainment level is calculated as given below:
 - Attainment level corresponding to each statement= 3 (high) if more than/equal to 80% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.
 - Attainment level corresponding to each statement= 2 (medium) if more than/equal to 60% and less than 80% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.
 - Attainment level corresponding to each statement= 1 (low) if more than/equal to 40% and less than 60% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.
 - Attainment level corresponding to each statement= 0 (no attainment) if less than 40% of students/graduates/alumni rate it as 3 or higher on a 5 point scale.

B.2.3 Employer Survey

The employer survey contains a set of rubrics (as depicted in Appendix S3) which are to be marked on a scale of 5 for the batch of students interviewed for placements by different recruiters. Attainment level is measured against each rubric based on the following procedure:

- Attainment Level =3 (high) if more than 80% of the respondents mark them as ‘good’ (rating 3) or above.
- Attainment Level =2 (medium) if more than 60% of the respondents mark them as ‘good’ (rating 3) or above.
- Attainment Level =1 (low) if more than 40% of the respondents mark them as ‘good’ (rating 3) or above.

The correlation of the PO/PSO statements with the survey reports is given below:

| Programme Outcomes | Graduate Survey (Section B) | Graduate Survey (Section C) | Alumni survey | Employer Survey |
|--------------------|-----------------------------|-----------------------------|---------------|-----------------|
| PO1 | 1 | 1 | | 1 |
| PO2 | 1 | 1 | 1 | 1 |
| PO3 | 1 | 1 | 1 | 1 |
| PO4 | 1 | 1 | | |
| PO5 | 1 | 1 | 1 | 1 |
| PO6 | | 1 | 1 | 1 |
| PO7 | | 1 | 1 | 1 |
| PO8 | | 1 | 1 | 1 |
| PO9 | | 1 | 1 | 1 |
| PO10 | 1 | 1 | 1 | 1 |
| PO11 | 1 | 1 | 1 | |
| PO12 | 1 | 1 | 1 | |
| PSO1 | 1 | | | |
| PSO2 | 1 | | | |
| PSO3 | 1 | | | |

The different Program Outcomes indirect assessment is done by taking the average of the attainment-levels of the following statements from each survey:

| POs | Graduate Attainment corresponding to question (Section B) | Survey level to number | Graduate Attainment corresponding to List (Section C) | Survey level to List | Alumni survey level corresponding to question number | Employer Attainment corresponding to parameter/rubric | Survey level to |
|------|---|------------------------|---|----------------------|--|---|-----------------|
| PO1 | 1,2 | | List A | | 1,2 | 1 | |
| PO2 | 1,2,3,4 | | List A | | 1,2,3 | 1 | |
| PO3 | 5,6 | | List A | | 4,7 | 4 | |
| PO4 | 3,4,6 | | List A | | 4,5 | | |
| PO5 | 7 | | List A | | 6 | 1 | |
| PO6 | 6,11 | | List B | | 7 | 5 | |
| PO7 | 11 | | List B | | 7,8,9 | 5 | |
| PO8 | 12 | | List A, B | | 10 | 5 | |
| PO9 | 8,9,10 | | List A, B | | 11,13,14 | 6,7 | |
| PO10 | 13,14 | | List A, B | | 12 | 2 | |
| PO11 | 15 | | List A, B | | 15 | | |
| PO12 | 16 | | List A, B | | 16 | 1,2,6,7,8 | |
| PSO1 | 1- 16 | | | | 1- 16 | 1,2 | |
| PSO2 | 1- 16 | | | | 1- 16 | 1,2 | |
| PSO3 | 1- 16 | | | | 1- 16 | 1,2 | |

Overall attainment of Program Outcomes

The final PO/PSO attainment is evaluated considering 80% weightage of direct PO attainment and 20% weightage of PSO attainment.

Final PO/PSO attainment = $0.8 * \text{Direct Assessment (attainment level)} + 0.2 * \text{Indirect Assessment (attainment level)}$

Target Attainment Level

The target attainment level for 2022 graduating batch is 2.25.

Appendix S1 **GRADUATE SURVEY**

Dear Graduand,

Greetings from Kalinga Institute of Industrial Technology, Deemed to be University!

Congratulations on completing your program of study at our University!

We request you to participate in the graduate survey and share your feedback with us. Your thoughtful responses will improve the educational experience for future students and guide us as we work to improve

our services.

Thank you for helping make KIIT, Deemed to be University the best that it can be for future generations!

Sincerely,

Prof. Biswajit Mishra
Dean, Internal Quality Assurance Cell
Kalinga Institute of Industrial Technology, Deemed to be University.
Bhubaneswar-751024
India

SECTION A:

Personal Information

- Full name of the student:
- Email ID:
- Roll number:
- B. Tech Program of study:
- Choose the option applicable in your case at the moment:
 - Received job offer/s
 - Appearing for job interviews
 - Preparing for higher studies
 - Planning/preparing for entrepreneurship
- Kindly provide details with respect to the above (if you are placed ,provide your company details and your designation; if you are planning for higher studies, indicate the type of program and the institute if you have received admission letter; if you are planning for entrepreneurship, kindly provide details in terms of the name of the business unit, its brief profile, weblink,etc):

SECTION B:

Provide your response to the questions of this section as ratings on a scale of 1-5 where 1 indicates poor and 5 indicates excellent rating

1. How far are you proficient in mathematics, basic sciences and engineering sciences?
2. How strong do you feel are your concepts in core courses pertaining to your program of study?
3. How successfully are you able to perform experiments, record, analyze and interpret data?
4. How well can you perceive, analyze and solve complex problems in your domain of study?
5. How well are you able to design products, prototypes and systems satisfying given specifications pertaining to your program of study?
6. How well can you perceive the limitations, feasibility and impact of your engineering solutions or designs with respect to social, cultural, health, economical, legal, and multidisciplinary contexts?
7. How well are you familiar with research methodology, and modern engineering tools for performing complex experiments, project work and research activities?
8. How well have you been involved as a member in group /team activities in sessional courses, labs and projects?

9. How do you rate your ability as a team leader?
10. How confident do you feel in executing tasks as an individual?
11. How well can you understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development?
12. How committed are you to professional ethics and responsibilities and norms of the engineering practice?
13. How well are you able to make presentations, communicate your ideas in seminars, technical discussions and group activities?
14. How well can you make documentations and reports pertaining to technical data, findings, analysis and inferences?
15. How well do you consider are your project and associated financial management skills ?
16. How strongly do you feel that you will need to engage in higher studies, self-learning as well as lifelong learning?

SECTION C:

Student Engagement in Extracurricular Activities

- Choose the ones you were involved in, during your study at KIIT-DU:
 - Technical societies at KIIT-DU
 - KIIT Technology Business Incubator Cell
 - Coordination and participation in Technical events/fests/contests
 - Member of professional bodies/student chapters/student societies
 - Live and interdisciplinary projects
 - Research projects with faculty members
 - Associated with industry engagement cell
 - International student exchange program
 - Voluntary service/Social Outreach Activities/Community Services, etc.
 - Environmental and Social Awareness Programs
- Provide specifics :

SECTION D:

Review of Program Educational Objectives

Program Educational Objectives (PEOs) as broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies.

Weblink for PEO statements for B. Tech Programs offered by the School of Engineering:

- How far do you think your study in KIIT-DU has prepared you for attaining the Program Educational Objectives (corresponding to your program) in future: provide your response on a scale of 1-5:
- Would you like to suggest any changes in the statements?

SECTION E:

Submission

Suggestions (if any) for juniors with respect to academics and research:

Appendix S2

ALUMNI SURVEY

Dear Alumnus,

Greetings from Kalinga Institute of Industrial Technology (KIIT), Deemed to be University!

We hope that you and your family are fine amidst the pandemic.

The Institution is conducting an alumni survey and review of the program educational objectives for the B. Tech programs.

Program Educational Objectives (PEOs) are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies.

We request you to give your frank response in this survey. We also request you to reflect on the PEO statements and suggest changes you recommend in them.

We thank you for your time in participating in this review.

Thanking you,

Best Wishes,

Dr. S.S. Behura

Deputy Director (Student Services)

Kalinga Institute of Industrial Technology, Deemed to be University

Bhubaneswar, India.

Section A: Review of Program Educational Objectives:

Program Educational Objectives (PEOs) are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies.

<<Weblinks for PEOs>>

- Full name of the alumnus:
- Email ID:
- Indicate your discipline of study at KIIT-DU:
- Year of graduation:
- Roll number at KIIT-DU:
- Indicate your level of agreement with the PEO statements (on a scale of 1-5):
- Provide your suggestions and recommendations (if any) with respect to the PEO statements for your discipline of study at KIIT-DU:
- Kindly choose the option applicable in your case:

- I am a working professional.
- I am pursuing higher studies.
- I am an entrepreneur.
- Kindly provide details about your employer (company and your designation, location) or about your higher studies (Institute and Program) or about your entrepreneurship (name of business unit, website, year of establishment):

Section B: Survey: Kindly choose the score best acceptable in your case (on a scale of 1-5):

1. How proficient are you in mathematics and basic sciences?
2. How advanced are your engineering and technical concepts and knowledge?
3. How well are you able to integrate your concepts and knowledge for solving complex problems or design systems/products?
4. How well can you design and perform experiments leading to new study and innovations?
5. How proficient are you in analyzing facts and figures and drawing relevant conclusions in your profession?
6. How proficient are you in using modern engineering and IT tools and resources?
7. How well can you perceive the limitations and impact of engineering solutions or professional practice in the context of societal, legal, health, safety, economical and environmental contexts?
8. How well can you predict the upcoming changes and challenges in your profession based on current scenarios nationally and globally?
9. How strongly do you feel the need for sustainable development in different contexts?
10. How well can you apply and realize the need and importance of engineering professionalism, responsibility and ethical standards?
11. How comfortable are you working in international/Global Environment?
12. How well can you communicate your ideas, findings and inferences to a range of audiences orally and through written form?
13. How strongly well do you perform as a member of diverse teams?
14. How capable are you in building teams and leading them?
15. How well can you manage projects? (Setting goals, building teams, team management, planning, project execution, etc.)
16. How strongly do you believe in the need and importance of higher studies, self and life-long learning?

Section C: Suggestions

Kindly provide suggestions (if any) on additional courses, laboratories, training modules, centers of excellence, project thrust areas, employability skills required for emerging recruiting sectors for the concerned discipline of study, which you think will lead to better attainment of the Program Educational Objectives:

**Appendix S3
EMPLOYER SURVEY**

Dear Employer,

The evaluation by the employers is regarded as most valuable as the industries / organizations are the ultimate standard.

We request you to put a tick (✓) mark in the following table based on your observations / experience.

Name of the Organization.....

Name of the Representative.....

Designation.....Contact No.....

Email ID.....Website.....

| RATING ⇨ | | Excellent [5] | Very Good [4] | Good [3] | Average [2] | Below Average [1] |
|---|--|------------------|---------------------|-------------|----------------|-------------------------|
| SUBJECT ⇩ | | | | | | |
| FEEDBACK ON: STUDENTS/ GRADUATES (tick the relevant one) | | | | | | |
| 1. | Technical Knowledge / Skills | | | | | |
| 2. | Communication skills | | | | | |
| 3. | Personal interest & Involvement | | | | | |
| 4. | Innovativeness & Creativity | | | | | |
| 5. | Responsible & Reliable | | | | | |
| 6. | Effective team member / leader | | | | | |
| 7. | Effectively address work place problems | | | | | |
| 8. | Overall contribution to meet organizational goal | | | | | |
| FEEDBACK ON INSTITUTION | | | | | | |
| 1. | Course curriculum | | | | | |
| 2. | Training of the students | | | | | |
| 3. | Attitude of University Employees | | | | | |
| 4. | Hospitality and logistic support | | | | | |
| Suggestion (if any) for improvement: | | | | | | |
| | | | | | | |

3.3.2 Provide results of evaluation of each PO & PSO (65)

PO Attainment (Direct)

| <i>Course Code</i> | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| C101 | 2.56 | 2.55 | 2.58 | 2.56 | 2.58 | 2.56 | 2.50 | | 2.75 | | | 2.60 |
| C102 | 2.64 | 2.66 | 2.67 | 2.61 | | 2.67 | 2.67 | | 2.65 | | | 2.67 |
| C103 | | | | | | | 3.00 | 3.00 | | 3.00 | 3.00 | 3.00 |
| C104 | 2.63 | | | 2.63 | | 2.63 | 2.63 | 2.63 | | | | 2.63 |
| C105 | 3.00 | 3.00 | | 3.00 | 3.00 | | 3.00 | | | | | |
| C106 | 2.56 | 2.59 | 2.56 | 2.46 | 2.33 | | | 2.25 | | 2.20 | | 2.10 |
| C107 | | | | | | 3.00 | | | | 3.00 | | 3.00 |
| C108 | 2.75 | 2.75 | | | 2.75 | 2.75 | | | | | 2.75 | 2.75 |
| C109 | 2.63 | 2.63 | 2.63 | 2.63 | | | | | | | | 2.64 |
| C110 | 2.85 | 2.88 | 2.79 | 2.79 | | | | | | | | 2.79 |
| C111 | 2.56 | 2.56 | 2.58 | 2.55 | | 2.61 | 2.55 | | | | | 2.46 |
| C112 | 2.63 | 2.63 | 2.63 | 2.63 | | | | | | | | 2.63 |
| C113 | 2.93 | 2.92 | 3.00 | | | | | | | | | 2.94 |
| C114 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | | 3.00 |
| C115 | 2.94 | 2.75 | 2.86 | 2.89 | 2.92 | 2.94 | 2.89 | 3.00 | 2.89 | 2.92 | 2.89 | 2.94 |
| C116 | 2.55 | 2.55 | 2.55 | 2.50 | 2.50 | 2.55 | 2.55 | 2.50 | 2.50 | 2.50 | 2.52 | 2.55 |
| C201 | 2.50 | 2.50 | | | | | 2.50 | | | | | |
| C202 | 2.38 | 2.38 | 2.38 | | | | | | | | | |
| C203 | 2.67 | | 2.75 | | | 2.67 | 2.67 | 2.67 | | 2.67 | 2.67 | 2.67 |
| C204 | 2.50 | 2.50 | 2.50 | | | | | | | 2.50 | 2.50 | 2.50 |
| C205 | 2.50 | | 2.50 | | | 2.50 | 2.50 | | | | 2.50 | |
| C207 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 | 2.80 |
| C208 | 2.82 | 2.82 | | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 | 2.82 |
| C209 | 2.73 | 2.73 | 2.73 | 2.73 | 2.73 | | 2.73 | 2.73 | 2.73 | 2.73 | 2.73 | 2.73 |
| C210 | | | | | | | 3.00 | | 3.00 | 3.00 | 3.00 | 3.00 |
| C211 | 2.58 | 2.58 | 2.56 | 2.55 | | | | | 2.50 | | | 2.59 |
| C212 | 2.50 | 2.50 | | | | | | | | | | |
| C213 | 2.46 | 2.46 | | | | | 2.46 | | | | | |
| C214 | 2.63 | 2.63 | 2.63 | | | | 2.63 | | | | | |
| C215 | 2.63 | | 2.50 | | | 2.63 | 2.63 | 2.63 | | 2.63 | 2.63 | 2.63 |
| C216 | 2.54 | 2.54 | | | | 2.54 | 2.54 | | | | 2.54 | |
| C217 | 2.80 | 2.80 | | 2.80 | 2.80 | | | | 2.80 | 2.80 | | |
| C218 | 2.80 | 2.80 | | 2.80 | 2.80 | | | | 2.80 | 2.80 | | |
| C219 | 2.50 | 2.50 | | | | | | | | | | |
| C220 | 2.75 | 2.75 | 2.75 | | | | 2.75 | 2.75 | 2.75 | 2.75 | | 2.75 |
| C301 | 2.50 | 2.50 | 2.50 | | | | 2.50 | 2.50 | | 2.50 | 2.50 | 2.50 |
| C302 | 2.50 | 2.50 | 2.50 | | | | 2.50 | 2.50 | | 2.50 | 2.50 | 2.50 |
| C303 | 2.54 | 2.60 | 2.60 | | | | 2.54 | | | | | |
| C304 | 2.79 | 2.79 | 2.78 | | | 2.79 | 2.79 | | | | | 2.79 |
| C307 | 2.80 | 2.80 | | 2.80 | 2.80 | | | | 2.80 | 2.80 | | |
| C308 | 2.50 | 2.50 | 2.50 | | 2.50 | | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 |

| | | | | | | | | | | | | |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| C309 | 2.79 | 2.79 | 2.79 | | 2.79 | | 2.79 | 2.79 | 2.79 | 2.79 | 2.79 | 2.79 |
| C310 | 2.58 | 2.58 | 2.58 | | | | 2.58 | 2.58 | 2.58 | 2.58 | 2.58 | |
| C311 | 2.38 | 2.38 | 2.38 | | | | | | | 2.38 | | |
| C312 | 2.58 | 2.58 | 2.63 | | | | 2.67 | 2.67 | | 2.67 | 2.67 | 2.67 |
| C317 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 |
| C318 | 2.79 | 2.79 | 2.79 | | 2.79 | 2.79 | 2.79 | 2.79 | 2.79 | 2.79 | 2.79 | 2.79 |
| C319 | 2.58 | | 2.58 | | 2.58 | 2.58 | | 2.58 | | 2.58 | | |
| C320 | 2.75 | 2.75 | 2.75 | | 2.75 | | | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 |
| C321 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | | | | | 3.00 | 3.00 | 3.00 |
| C401 | | | | | | 2.75 | | 2.75 | 2.75 | | 2.75 | 2.75 |
| C403 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C404 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C405 | 2.42 | 2.42 | 2.47 | 2.40 | | | | | 2.50 | | | 2.44 |
| C407 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Average | 2.68 | 2.69 | 2.68 | 2.75 | 2.79 | 2.75 | 2.72 | 2.74 | 2.78 | 2.75 | 2.74 | 2.73 |

PO attainment indirect

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Graduate Survey | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Employer Survey | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Alumni Survey | 3 | 3 | 3 | | 3 | 3 | 3 | 3 | 3 | 3 | | 3 |
| Average | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

Overall PO attainment level

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Direct Attainment (X) | 2.68 | 2.69 | 2.68 | 2.75 | 2.79 | 2.75 | 2.72 | 2.74 | 2.78 | 2.75 | 2.74 | 2.73 |
| Indirect Attainment (Y) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Over all Attainment (0.8*X+0.2*Y) | 2.74 | 2.75 | 2.75 | 2.80 | 2.83 | 2.80 | 2.77 | 2.79 | 2.82 | 2.80 | 2.80 | 2.79 |

PSO Attainment (Direct)

| Course Code | PSO1 | PSO2 | PSO3 |
|-------------|------|------|------|
| C101 | | 2.56 | |
| C102 | | 2.56 | |
| C103 | | | |
| C104 | | | |
| C105 | | | |
| C106 | 2.29 | 2.25 | |

| | | | |
|------|------|------|------|
| C107 | | | |
| C108 | 2.75 | 2.75 | 2.75 |
| C109 | | | |
| C110 | | | |
| C111 | 2.58 | 2.50 | 2.57 |
| C112 | | 2.63 | 2.63 |
| C113 | | | |
| C114 | 3.00 | 3.00 | 3.00 |
| C115 | 2.90 | 2.93 | 2.92 |
| C116 | 2.50 | 2.63 | 2.63 |
| C201 | | | 2.50 |
| C202 | | | |
| C203 | | 2.67 | |
| C204 | | | |
| C205 | 2.50 | 2.50 | |
| C206 | | | |
| C207 | | 2.80 | |
| C208 | 2.82 | 2.82 | 2.82 |
| C209 | 2.73 | | |
| C210 | | | |
| C211 | | | |
| C212 | | | |
| C213 | | | 2.46 |
| C214 | | | |
| C215 | | 2.63 | |
| C216 | | | |
| C217 | | | |
| C218 | | | 2.80 |
| C219 | | | |
| C220 | | 2.75 | 2.75 |
| C301 | | | |
| C302 | | | |
| C303 | | | 2.54 |
| C304 | | | |
| C305 | | | |
| C306 | | | |
| C307 | | 2.80 | 2.80 |
| C308 | | | |
| C309 | 2.79 | | |
| C310 | | | 2.58 |
| C311 | | | |
| C312 | 2.67 | 2.67 | |
| C313 | | | |
| C314 | | | |
| C315 | | | |

| | | | |
|----------------|-------------|-------------|-------------|
| C316 | | | |
| C317 | 2.93 | | |
| C318 | 2.75 | 2.75 | 2.75 |
| C319 | 2.58 | 2.58 | 2.58 |
| C320 | 2.75 | | |
| C321 | 3.00 | 3.00 | 3.00 |
| C401 | | | |
| C402 | | | |
| C403 | 3.00 | 3.00 | 3.00 |
| C404 | 3.00 | 3.00 | 3.00 |
| C405 | | | |
| C406 | | | |
| C407 | 3.00 | 3.00 | 3.00 |
| Average | 2.77 | 2.73 | 2.75 |

PSO attainment (indirect)

| Survey | PSO1 | PSO2 | PSO3 |
|-----------------|-------------|-------------|-------------|
| Graduate Survey | 3 | 3 | 3 |
| Employer Survey | 3 | 3 | 3 |
| Alumni Survey | 3 | 3 | 3 |
| Average | 3 | 3 | 3 |

Overall PSO attainment level

| Attainment | PSO1 | PSO2 | PSO3 |
|--|-------------|-------------|-------------|
| Direct Attainment (X) | 2.77 | 2.73 | 2.75 |
| Indirect Attainment (Y) | 3 | 3 | 3 |
| Over all Attainment (0.8*X+0.2*Y) | 2.82 | 2.78 | 2.80 |

| | | |
|--------------------|------------------------------|------------|
| CRITERION 4 | Students' Performance | 100 |
|--------------------|------------------------------|------------|

Table 4.1

| Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable) | CAY (2022-23) | CAYm1 (2021-22) | CAYm2 (2020-21) | CAYm3 (2019-20) | CAYm4 (2018-19) | CAYm5 (2017-18) | CAYm6 (2016-17) |
|---|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Sanctioned intake of the program (N) | 120 | 180 | 180 | 180 | 180 | 180 | 180 |
| Total number of students admitted in first year <i>minus</i> number of students migrated to other programs/institutions, plus no. of students migrated to this program (N1) | 120 | 180 | 180 | 180 | 180 | 180 | 180 |
| Number of students admitted in 2nd year in the same batch via lateral entry (N2) | 0 | 18 | 18 | 15 | 16 | 20 | 30 |
| Separate division students, if applicable (N3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total number of students admitted in the Program (N1 + N2 + N3) | 120 | 198 | 198 | 195 | 196 | 200 | 210 |

CAY – Current Academic Year

CAYm1- Current Academic Year minus1= Current Assessment Year

CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1 LYG – Last Year

Graduate

LYGm1 – Last Year Graduate minus 1 LYGm2

– Last Year Graduate minus 2

Table 4.2

| Year of entry | N1 + N2 + N3 (As defined above) | Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study) | | | |
|----------------------------|------------------------------------|--|---------|----------|---------|
| | | I Year | II Year | III Year | IV Year |
| CAY(2022-23) | 120 | | | | |
| CAYm1(2021-22) | 198 | 177 | | | |
| CAYm2(2020-21) | 198 | 175 | 190 | | |
| CAYm3(2019-20) | 195 | 174 | 187 | 185 | |
| CAYm4 (LYG) (2018-19) | 196 | 175 | 189 | 186 | 184 |
| CAYm5 (LYGm1) (2017-18) | 200 | 176 | 193 | 190 | 187 |

| | | | | | |
|-----------------------------------|-----|-----|-----|-----|-----|
| CAYm6 (LYGm2) (2016-17) | 210 | 176 | 204 | 201 | 199 |
|-----------------------------------|-----|-----|-----|-----|-----|

Table 4.3

| Year of entry | N1 + N2 + N3 (As defined above) | Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog] | | | |
|-----------------------------------|------------------------------------|---|---------|----------|---------|
| | | I Year | II Year | III Year | IV Year |
| CAY(2022-23) | 120 | | | | |
| CAYm1(2021-22) | 198 | 180 | | | |
| CAYm2(2020-21) | 198 | 180 | 198 | | |
| CAYm3(2019-20) | 195 | 180 | 195 | 195 | |
| CAYm4 (LYG) (2018-19) | 196 | 180 | 196 | 196 | 196 |
| CAYm5 (LYGm1) (2017-18) | 200 | 180 | 200 | 200 | 200 |
| CAYm6 (LYGm2) (2016-17) | 210 | 180 | 210 | 210 | 210 |

4.1 Enrolment Ratio (20)

Enrolment Ratio=[(N1/N) x100%]

| Item (Students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year) | Marks |
|---|-------|
| >=90% students enrolled | 20 |
| >=80% students enrolled | 18 |
| >=70% students enrolled | 16 |
| >=60% students enrolled | 14 |
| Otherwise | 0 |

| | N (From table 4.1) | N1(From table 4.1) | ment Ratio=[(N1/N) x100%] |
|----------------|--------------------|--------------------|----------------------------|
| CAY(2022-23) | 120 | 120 | 100 |
| CAYm1(2021-22) | 180 | 180 | 100 |
| CAYm2(2020-21) | 180 | 180 | 100 |

Average[(ER1+ER2+ER3)]/3:100

Assessment :20.00

4.2 Success Rate in the stipulated period of the program (20)

4.2.1 Success rate without backlogs in any semester/year of study (15)

SI = (Number of students who have graduated from the program without backlog)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = Mean of Success Index (SI) for past three batches

Success rate without backlogs in any semester/year of study = 15 × Average SI

| Item | Last Year of Graduate , LYG | Last Year of Graduate minus 1, LYGm1 | Last Year of Graduate minus 2, LYGm2 |
|---|-----------------------------|--------------------------------------|--------------------------------------|
| Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable | 196 | 200 | 210 |
| Number of students who have graduated without backlogs in the stipulated period | 184 | 187 | 199 |
| Success Index (SI) | 0.94 | 0.93 | 0.95 |

Average[(S1+S2+S3)]/3:1.0

Assessment : (15x 0.94)=14.1

4.2.2 Success rate in stipulated period of study [Total of with backlog + without backlog] (5)

SI= (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = mean of Success Index (SI) for past three batches Success rate = 5

× Average SI

| Item | Last Year of Graduate, LYG (CAYm4) | Last Year of Graduate minus 1, LYGm1 (CAYm5) | Last Year of Graduate minus 2, LYGm2 (CAYm6) |
|---|------------------------------------|--|--|
| Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable | 196 | 200 | 210 |
| Number of students who have graduated in the stipulated period | 196 | 200 | 210 |
| Success Index (SI) | 1 | 1 | 1 |
| Average Success Index | 1 | | |

Note: If 100% students clear without any backlog then also total marks scored will be 20 as both 4.2.1 & 4.2.2 will be applicable simultaneously

4.3 Academic Performance in Second Year (10)

Academic Performance = Average API (Academic Performance Index), where

$API = ((\text{Mean of 2}^{\text{nd}} \text{ Year Grade Point Average of all successful Students on a 10 point scale}) \text{ or } (\text{Mean of the percentage of marks of all successful students in Second Year}/10)) \times (\text{number of successful students}/\text{number of students appeared in the examination})$

Successful students are those who are permitted to proceed to the Third year.

| Academic Performance | CAYm2 ₂₀₋₂₁ | CAYm3 ₁₉₋₂₀ | LYG(2018-19) |
|--|------------------------|------------------------|--------------|
| Mean of CGPA or Mean Percentage of all successful students (X) | 8.30 | 8.29 | 8.23 |
| Total no. of successful students (Y) | 198 | 195 | 196 |
| Total no. of students appeared in the examination (Z) | 198 | 195 | 196 |
| API = X* (Y/Z) | 8.30 | 8.29 | 8.23 |
| Average API = (AP1 + AP2 + AP3)/3 | 8.27 | | |

4.4 Placement, Higher Studies and Entrepreneurship (30)

Assessment Points = 30 × average placement

| Item | CAYm1 2021-2022/ LYG(2018-19) | CAYm2 2020-2021/ LYGm1(2017-18) | CAYm3 2019-2020/ LYGm2(2016-17) |
|--|-------------------------------------|---------------------------------------|---------------------------------------|
| Total No. of Final Year Students (N) | 196 | 200 | 210 |
| No. of students placed in companies or Government Sector (x) | 128 | 123 | 120 |
| No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y) | 25 | 19 | 45 |
| No. of students turned entrepreneur in engineering/technology (z) | 5 | 8 | 5 |
| $x + y + z =$ | 158 | 150 | 170 |
| Placement Index : $(x + y + z)/N$ | P1=0.80 | P2=0.75 | P3=0.81 |

| | |
|---|------|
| Average placement= $(P1 + P2 + P3)/3$ | 0.79 |
| Assessment Points = $30 \times$ average placement | 23.7 |

4.4.1 Provide the placement data in the below mentioned format with the name of the program and the assessment year:

| Programs Name and Assessment Year | | | | |
|-----------------------------------|----------------------------|----------------|----------------------|--|
| S.no. | Name of the student placed | Enrollment no. | Name of the Employer | Appointment letter reference no. with date |
| | | | | |
| | | | | |

| Programs Name and Assessment Year | | | | |
|-----------------------------------|----------------------------|----------------|---|--|
| 2021 - 2022 | | | | |
| S.no. | Name of the student placed | Enrollment no. | Name of the Employer | Appointment letter reference no. with date |
| 1 | ABHISHEK KUMAR | 18620764999 | SkillVertex | 23-02-2022 |
| 2 | SHIVAM KUMAR CHOUDHARY | 18012258899 | Adani Group | Adani Group |
| 3 | ARUN MISHRA | 18301061787 | Juspay technology PVT.LTD | 24.6.21 |
| 4 | AISHWARYA KHAMBRA | 18600264779 | Cognizant | Cognizant |
| 5 | DEBJYOTI CHAKRABORTY | 18307861855 | Accenture | Date: 04/28/2022 C10990556 |
| 6 | ANISH PAWAR | 18012658903 | SkillVertex | 23-02-2022 |
| 7 | ANJAN PRATAPSINGH | 18600364780 | SkillVertex | 22.2.22 |
| 8 | ASHUTOSH VERMA | 18291761694 | HighRadius Technologies | HighRadius Technologies |
| 9 | ANKIT RAJ | 18697465799 | Orissa Sponge Iron & Steel Ltd | OSISL/2022-23/016, 14.7.22 |
| 10 | ANUBHAV GOGOI | 18012958906 | SkillVertex | 23-02-2022 |
| 11 | ARGHAJIT DAS | 18013058907 | Unschool | Unschool |
| 12 | ATRI BISWAS | 18301361790 | Accenture | Date:01-Apr-2022 C10945410 |
| 13 | GOURAV DUTTA | 18308061857 | HighRadius Technologies | 12 th August,2021 |
| 14 | AYUSH RAJ | 18644865241 | HighRadius Technologies | 2.2.22 |
| 15 | AYUSHI DUBEY | 18600464781 | Ashiana Housing | Ashina/HR/OL/2022, 27.5.22 |
| 16 | ANKIT KUMAR MOHANTY | 18013358910 | Road Safety Department, Govt. of Odisha | Road Safety Department, Govt. of Odisha |
| 17 | BITATI SARKAR | 18600564782 | Ashiana Housing | Ashina/HR/OL/2022, 27.5.22 |
| 18 | HARSH KUMAR | 18292261699 | HighRadius Technologies | 12 th August,2021 |
| 19 | ANIKET RAJ | 18291361690 | HighRadius Technologies | 14th December,2021 |
| 20 | BARSHA PRIYADARSHINI | 18301661793 | HighRadius Technologies | 14th December,2021 |

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|----|------------------------|-------------|--|---|
| 21 | HARSHIT KISHLAY | 18013658913 | Shapoorji Pallonji | U45200MH1943PTC003812,22.11.21 |
| 22 | INDRADIPTO CHATTERJEE | 18705465950 | Amazon Non Tech | Amazon Non Tech |
| 23 | DEBASIS PANDA | 18301761794 | HighRadius Technologies | 14th December,2021 |
| 24 | DHIRAJ GUPTA | 18685465660 | Power Mech Projects | Power Mech Projects |
| 25 | KARSH KOMAL SINGH | 18013758914 | SkillVertex | 23-02-2022 |
| 26 | MOHIT VATSH | 18014158918 | Cognizant Ltd. | 31.12.21 |
| 27 | IQTIZA KHAN | 18292361700 | HighRadius Technologies | HighRadius Technologies |
| 28 | SAKSHI GUPTA | 18292761704 | PwC India | PwC India |
| 29 | PRASHANT UPADHYA | 18292561702 | Ernst & Young (EY) | 03 November, 2021 |
| 30 | PRIYADARSHINEE JENA | 18014358920 | Power Mech Projects | Power Mech Projects |
| 31 | DISHANI CHATTERJEE | 18302061797 | HighRadius Technologies | 20th January,2022 |
| 32 | ROHAN SINHA | 18600864785 | HighRadius Technologies | HighRadius Technologies |
| 33 | ROHIT DWIVEDI | 18014558922 | SkillVertex | 23-02-2022 |
| 34 | ROHIT SARKAR | 18014758924 | Practo | Practo |
| 35 | SAKET KUMAR | 18600964786 | Cognizant | Candidate ID – 19196549, 10-Feb-2022 |
| 36 | JAYANJAN BHATTACHARYA | 18302761804 | Deloitte | 28.5.22 |
| 37 | SANJUKTA MANDAL | 18015258929 | Amazon Non Tech | 17.1.22 |
| 38 | VISHAL KUMAR | 18706065956 | Voltas Ltd | Voltas Ltd |
| 39 | SHUBHRA SHARMA | 18015558932 | Wipro | Wipro |
| 40 | SOUMENDRA KUMAR BEHERA | 18015658933 | SkillVertex | 22-02-2022 |
| 41 | DIVIJ NAGPAL | 18294961726 | Cognizant | 08-Feb-2022 |
| 42 | PRIYAM PAL | 18304061817 | Cognizant | 10-Feb-2022, Candidate ID – 19190837 |
| 43 | SUCHISMITA DEY | 18016058937 | Codeyoung | 13.11.21 |
| 44 | SUMIT KUMAR MAHATO | 18621165003 | Johnson Tiles | Date : 10th January 2022 Ref. : GT/SB/OL/SG/2022 |
| 45 | TARUN SAINI | 18601064787 | AdPushup | 14th February, 2022. |
| 46 | VIKRAM ROY | 18016258939 | BYJU'S- Think & Learn | BYJU'S- Think & Learn |
| 47 | UMA SHANKAR MAJHI | 18704065932 | Road Safety Departmen, Govt. of Odisha | Road Safety Departmen, Govt. of Odisha |
| 48 | KARTIK BUDHRAJA | 18295461731 | Cognizant | 08-Feb-2022 |
| 49 | ABHISHEK ANAND | 18601264789 | HighRadius Technologies | HighRadius Technologies |
| 50 | ADARSH KUMAR | 18644965242 | Practo | Practo |
| 51 | SHREYA | 18292961706 | High Radius | 20th September, 2021 |

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|----|----------------------|-------------|--------------------------------|---|
| | AGNIHOTRI | | Technologies | |
| 52 | ANANYA KUMAR | 18016558942 | Wipro | 7.2.22 |
| 53 | AKASH RANJAN | 18637865171 | HighRadius Technologies | 12 th August,2021 |
| 54 | MONIMOY PAUL | 18295961736 | HighRadius Technologies | HighRadius Technologies |
| 55 | SATISH CHANDRA | 18304761824 | Amazon Tech | 17.1.22 |
| 56 | ANKITA ROUSTRAY | 18016958946 | Brandscapes | 28.12.21 |
| 57 | ANUBHAV CHOUHRY | 18017058947 | Power Mech Projects | Power Mech Projects |
| 58 | OISIKA PAUL | 18296161738 | HighRadius Technologies | HighRadius Technologies |
| 59 | BEDANT KOUSHIK PANDA | 18017258949 | Cognizant | Cognizant |
| 60 | KRISHNA KUMAR | 18705765953 | Practo | Practo |
| 61 | DEBARUNA NASKAR | 18601364790 | Cognizant | Cognizant |
| 62 | DEBJYOTI NATH | 18017358950 | Cognizant | 02-Dec-2021 |
| 63 | DEEP NANDY | 18017458951 | SkillVertex | 23-02-2022 |
| 64 | DEEPIKA KUMARI | 18017558952 | Amazon Non Tech | 17.1.22 |
| 65 | KSHITIJ CHAUBEY | 18295661733 | HighRadius Technologies | 20th August,2021 |
| 66 | DIBYASRI KARMAKAR | 18645265245 | SkillVertex | 23-02-2022 |
| 67 | GAURAV SAHOO | 18718071943 | Ashiana Housing | Ashina/HR/OL/2022, 27.5.22 |
| 68 | RITUPARNA ROY | 18297161748 | HighRadius Technologies | 12 th August,2021 |
| 69 | JAY SINHA | 18017758954 | Ericsson India Global Services | Date Reference 2022-04-12 EGIL/HR-22:3206 Uen |
| 70 | KAUSHIK KUMAR PATRA | 18017858955 | SkillVertex | 23-02-2022 |
| 71 | KUMAR SHASHANK | 18017958956 | Infosys | Infosys |
| 72 | MD EZAZUR RAHMAN | 18018158958 | Bookmyshow | 22.1.22 |
| 73 | SHAMBHAVI STUTI | 18297561752 | HighRadius Technologies | 12 th August,2021 |
| 74 | SIDDHANT MUKHERJEE | 18297961756 | Accenture | 01-Apr-2022 C10945406 |
| 75 | PALASH MAITY | 18018458961 | Holcim Group | 17.2.22 |
| 76 | PRIYA KUMARI | 18018558962 | Verzeo | Verzeo |
| 77 | RAMNISH GUPTA | 18018758964 | HighRadius Technologies | HighRadius Technologies |
| 78 | RATIRAM PATNAIK | 18018858965 | SkillVertex | 23-02-2022 |
| 79 | RAVI RAMAN JHA | 18018958966 | Adani Group | Adani Group |
| 80 | SOUMYA LAHIRI | 18298361760 | Autodesk | 7.4.21 |
| 81 | SAGAR MANNA | 18601864795 | Cognizant | 2.12.21 |

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|-----|------------------------|-------------|---|---|
| 82 | SAGARMAY DEBNATH | 18601964796 | Orissa Sponge Iron & Steel Ltd | OSISL/2022-23/015, 14.7.22 |
| 83 | SARTHAK KUMAR LENKA | 18019158968 | SkillVertex | 23-02-2022 |
| 84 | SATIRTHA SATYAKAM JENA | 18019258969 | Acmegrade | 16.2.22 |
| 85 | SAURABH SINGH | 18621365005 | Brandscapes | 28.12.21 |
| 86 | SAURAV KUMAR | 18019358970 | Holcim Group | 17.2.22 |
| 87 | SUBHAM KUMAR VERMA | 18298661763 | Cognizant | Candidate ID – 19190903,10-Feb-2022 |
| 88 | SAYAN HATI | 18019458971 | Verzeo | 14 December 2021 OL No: VZ22C263 |
| 89 | SUMEDHA PATNAIK | 18298761764 | PwC India | Ref. No:280889WD 13 December 2021 |
| 90 | SOUMYA PRAMANICK | 18019558972 | SkillVertex | 22-02-2022 |
| 91 | SOURAKAR BISWAS | 18019758974 | Cognizant | Cognizant |
| 92 | SUPURNA SADHUKHAN | 18298861765 | HighRadius Technologies | 20th August,2021 |
| 93 | SUBHAM MAHALIK | 18019858975 | Road Safety Department, Govt. of Odisha | Road Safety Department, Govt. of Odisha |
| 94 | SUCHISMITA GHOSH | 18689665702 | Jindal Steel Works | 28.3.22 |
| 95 | DIVYANSHU PANT | 18302261799 | HighRadius Technologies | 12th August,2021 |
| 96 | SHRISHA MOHAN | 18305161828 | HighRadius Technologies | 14th December,2021 |
| 97 | MD SHAHWAZ | 18602364800 | Power Mech Projects | Power Mech Projects |
| 98 | SWASTIK SOURAV SAHOO | 18298961766 | HighRadius Technologies | 20th September, 2021 |
| 99 | ASHISH ANAND | 18724177497 | Ashiana Housing | Ashina/HR/OL/2022, 27.5.22 |
| 100 | MANAS SRIVASTAVA | 18020258979 | Collabera Services Ltd | Collabera Services Ltd |
| 101 | TIRTHANKAR MUKHERJEE | 18299261769 | Cognizant | 31-Dec-2021 |
| 102 | ATUL ANAND | 18020358980 | HighRadius Technologies | 20th January,2022 |
| 103 | THOKCHOM HELEN | 18020558982 | Autodesk | Autodesk |
| 104 | AASTHA | 18299661773 | HighRadius Technologies | 20th August,2021 |
| 105 | MUQEET | 18020758984 | Ashiana Housing | Ashina/HR/OL/2022, 27.5.22 |
| 106 | ARPITA BEHERA | 18020958986 | Ashiana Housing | Ashina/HR/OL/2022, 27.5.22 |
| 107 | ERUM ARSHAD | 18302361800 | HighRadius Technologies | HighRadius Technologies |
| 108 | HARDIK KUMAR BEGMAL | 18616564942 | Capgemini | Capgemini |
| 109 | KAMALESH KUMAR YADAV | 18621465006 | Ashiana Housing | Ashina/HR/OL/2022, 27.5.22 |

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|-----|----------------------|-------------|---|---|
| 110 | ATISH KUMAR SAH | 18621565007 | Power Mech Projects | Power Mech Projects |
| 111 | SMRITI SINGH | 18679565598 | Shapoorji Pallonji | 22.11.21 |
| 112 | JOYJIT NATH | 18302861805 | Cognizant | ID: 1211718 November 03, 2021 |
| 113 | KAUSHIK RANJAN OJHA | 18302961806 | HighRadius Technologies | 14th December, 2021 |
| 114 | MEGHNA SINGH | 18616664943 | Cognizant | Cognizant |
| 115 | SHOURJYA CHAKRABORTY | 18309661873 | Ernst & Young | Ernst & Young |
| 116 | ANANYA CHATTOPADHYAY | 18300261779 | Wipro | Wipro |
| 117 | SAMANTA KUMARI | 18718572204 | Wipro | Wipro |
| 118 | SAYANTAN BANERJE | 18309561872 | Wipro | Wipro |
| 119 | SIMRAN MEHTA | 18305461831 | Accenture | 14.1.22 |
| 120 | ISHIKA SAHA | 18302661803 | Accenture | Accenture |
| 121 | DEBARSHI DEB | 18307661853 | PwC Acceleration | PwC Acceleration |
| 122 | ADITYA CHOUDHURY | 19247868562 | Shapoorji Pallonji | 22.11.21 |
| 123 | AUROBINDO SAHU | 19247968563 | Road Safety Department, Govt. of Odisha | Road Safety Department, Govt. of Odisha |
| 124 | NITISHA DEBNATH | 19248068564 | SkillVertex | 23.2.22 |
| 125 | RIYA CHAKRABORTY | 19592572022 | AcmeGrade | AcmeGrade |
| 126 | SAYANTIKA SEN | 19248268566 | Merkle Sokrati | 24.9.21 |
| 127 | SUSOVIT TRIPATHY | 19248368567 | SkillVertex | 23.2.22 |
| 128 | VISHAL THAKUR | 19248568569 | Power Mech Projects | Power Mech Projects |

| Programs Name and Assessment Year | | | | |
|--|-----------------------------------|-----------------------|---|---|
| 2020 - 2021 | | | | |
| S.no. | Name of the student placed | Enrollment no. | Name of the Employer | Appointment letter reference no. with date |
| 1 | Abhash Aryan | 17014751899 | Megha Engineering & Infrastructure Ltd. | |
| 2 | Bariyal Soren | 17015751909 | Verzeo and Thermax | |
| 3 | Apurba Panigrahi | 17015851910 | Megha Engineering & Infrastructure Ltd. | |
| 4 | Arshita Hazarika | 17016351915 | PlanetSpark | Employee Code: |

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|----|------------------------------|-------------|---|---|
| | | | | _PS0358, 23/01/2021 |
| 5 | Biprangshu Deb | 17016651918 | PropertyPistol | 06 th March 2021 |
| 6 | Chandramitra Baruah | 17016751919 | Verzeo | |
| 7 | Debjani Pal | 17016951921 | Amazon- Non Tech(Allow other Company) | |
| 8 | Debolina Saha | 17017051922 | Accenture (4.50) and Cognizant | C9263033 Date:10- Mar-2021 |
| 9 | Himanshu Singh | 17017451926 | NCC | |
| 10 | Jyoti Kumari | 17698465765 | Amazon- Non Tech(Allow other Company) | |
| 11 | Krishna Kumar | 17017651928 | NCC | CO- HR/RCT/609 /2020-2021, 19.2.2021 |
| 12 | Kumar Kishan | 17017751929 | Maia Estate(Allow) | |
| 13 | Nitish Kumar | 17018151933 | PropertyPistol and My home constructions | 06 th March 2021 |
| 14 | Priyasha Das | 17018551937 | Cognizant and High Radius | |
| 15 | Rhittik Bhattacharya | 17378255538 | PropertyPistol | 06 th March 2021 |
| 16 | Rupayan Dutta | 17019051942 | Wipro | |
| 17 | Sagnik Paul Choudhury | 17019151943 | BYJU'S-Think and learn(10.00) | |
| 18 | Saif Ahmed Ansari | 17019251944 | PropertyPistol | 06 th March 2021 |
| 19 | Saurabh Singh Rathore | 17586857643 | Verzeo | |
| 20 | Siddharth Singh | 17019751949 | Megha Engineering & Infrastructure Ltd. | |
| 21 | Alisha Kumari | 17020451956 | Verzeo and Global archer Consultancy | |
| 22 | Aniket Singha Deb | 17020651958 | NCC | |
| 23 | Anupam Saxena | 17629158078 | HighRadius (37th Batch) | |
| 24 | Biswajit Saha | 17574757517 | Megha Engineering & Infrastructure Ltd. | |
| 25 | Joyutpal Laskar Choudhury | 17021851970 | BYJU'S-Think and learn(10.00) | |
| 26 | Sakshi Goyal | 17021951971 | Infosys-5th and High radius | |
| 27 | Laila Chakraborty | 17022051972 | HighRadius(Batch-5) | |
| 28 | Manisha | 17378455540 | Accenture (4.50) | |
| 29 | Pranav | 17022651978 | My Home Constructions and Global archer | |

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|----|------------------------|-------------|---|---------------------------|
| | | | Consultancy | |
| 30 | Preetam Das | 17022751979 | Megha Engineering & Infrastructure Ltd. | |
| 31 | Riya Kumari | 17022951981 | TATA Power Delhi Distribution Ltd(5.50) | |
| 32 | Shaurya | 17023351985 | PropertyPistol and Global archer Consultancy | 06 th February 2021 |
| 33 | Sudhanshu Upadhyay | 17023751989 | NCC | |
| 34 | Sujit Sarkar | 17023851990 | PropertyPistol | 06 th March 2021 |
| 35 | Supradeep Dey | 17587357648 | Wipro and TCS | |
| 36 | Vikram Kumar | 17709072471 | NCC | |
| 37 | Alakh Raj Mohan | 17024251994 | TATA Power Delhi Distribution Ltd(5.50) | |
| 38 | Ashish Raj | 17024451996 | Megha Engineering & Infrastructure Ltd. | |
| 39 | Ashok Kumar Pandey | 17024551997 | Maia Estate(Allow) | |
| 40 | Ayan Sarkhel | 17024751999 | PropertyPistol | 06 th March 2021 |
| 41 | Debapriya Bandopadhyay | 17378655542 | Amazon- Non Tech | |
| 42 | Sagar Kapoor | 17025752009 | Megha Engineering & Infrastructure Ltd. | |
| 43 | Sagar Raj Singh | 17025852010 | Infosys | |
| 44 | Sagarika Roy | 17025952011 | Amazon- Non Tech | |
| 45 | Sayar Mondal | 17026352015 | NCC | |
| 46 | Sourish Das | 17379155547 | Megha Engineering & Infrastructure Ltd. and Global Archer Consultancy | |
| 47 | Subhangee Rout | 17026952021 | Climber(2nd Visit) | |
| 48 | Sushant Kumar Singh | 17587557650 | NCC | |
| 49 | Sushil Kumar Swain | 17027152023 | Megha Engineering & Infrastructure Ltd. and Simplex | |
| 50 | Susrut Gupta | 17027352025 | PropertyPistol | 06 th March 2021 |
| 51 | Suvam Kumar Das | 17027452026 | Verzeo | |
| 52 | Swetank Singh | 17027652028 | NCC | |
| 53 | Vivek Kumar | 17028252034 | Unschool and High radius | |
| 54 | Yashika Prusty | 17028452036 | Sheltera | 04/02/2021 |
| 55 | Aakash Kumar | 17028652038 | Sheltera and Simplex | 04/02/2021 |
| 56 | Shashank Shekhar | 17587657651 | Unschool | |
| 57 | Priyanshu Agarwal | 17705265900 | Infosys and Wipro | |

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|----|----------------------|-------------|--|--------------------------------------|
| 58 | Sayan Sarkar | 18001358790 | Verzeo | |
| 59 | Koushik Roy | 18001458791 | Maia Estate(Allow) and PropertyPistol and Ashiana Housing Ltd. | Ashiana/HR/OL/2021, 7.7.2021 |
| 60 | Saini Dey | 18001558792 | Climber | |
| 61 | Shivam Kumar | 18001658793 | PropertyPistol | 06 th March 2021 |
| 62 | Kingshook Saha | 18623365025 | Cognizant | Candidate ID – 14994957, 21-Mar-2021 |
| 63 | Sri Sairam Jena | 18002058797 | DreamGains | 14.4.2021 |
| 64 | Swaraj Saha | 18002158798 | Megha Engineering & Infrastructure Ltd. | |
| 65 | Annyesha Sinha | 17020951961 | Zolostays Property Solution Ltd. | |
| 66 | Inzimamul Haque | 17021751969 | Ashiana Housing Ltd. | Ashiana/HR/OL/2021, 7.7.2021 |
| 67 | Nayan Chakrabarty | 17018051932 | Global Archer Consultancy | |
| 68 | Shaswati Sarma | 17378555541 | Global Archer Consultancy | |
| 69 | Shiv Kumar Yadav | 17650358290 | Global Archer Consultancy | |
| 70 | Saumya Basant | 17023151983 | Ashiana Housing Ltd. | Ashiana/HR/OL/2021, 12.7.2021 |
| 71 | Prateek Kumar | 17018351935 | HighRadius (51th Batch) | |
| 72 | Ravi Kumar | 17018851940 | Trident Group | |
| 73 | Ipsita Priyadarshini | 17025052002 | Trident Group | |
| 74 | Harsh Anand | 17690458721 | Simplex | |
| 75 | Mutum Avikrant | 17022351975 | Simplex | |
| 76 | Mohammad Azaz | 17025252004 | Simplex | |
| 77 | Aashu Yadav | 17658758377 | Wipro | |
| 78 | Apoorva Jyoti | 17297354725 | Accenture | C9282840, 12.3.2021 |
| 79 | Arpan Roy Chowdhury | 17297454726 | Accenture | |
| 80 | Ateev Anand Saxena | 17658858378 | Accenture | |
| 81 | Atharv Jain | 17297754729 | Accenture | C9248809,3.3.2021 |
| 82 | Avirupa Saha | 17297854730 | Accenture | |
| 83 | Bijeet Ojha | 17297954731 | Accenture | |
| 84 | Dipanwita Mandal | 17298154733 | Accenture | C9282841,12.3.2021 |
| 85 | Gaurav Bansal | 17298254734 | Accenture | |
| 86 | Megha Chaudhuri | 17580257572 | Accenture | C9248805,3.3.2021 |
| 87 | Prabhav Kumar | 17299754749 | Accenture | |

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|-----|-----------------------|-------------|------------------------|---|
| | Pandey | | | |
| 88 | Ria | 17580357573 | Accenture | C9282842,3.3.2021 |
| 89 | Shubham | 17301954771 | Accenture | |
| 90 | Sourav Gorai | 17302454776 | Accenture | |
| 91 | Sumantra Pal | 17302854780 | Infosys | HRD/FINAL SEMTRG/2021/B1-231, 26.1.2021 |
| 92 | Aditya Kumar Sahoo | 17304054792 | Accenture | C9394739, 13.4.2021 |
| 93 | Ashwi Priyadarshi | 17305254804 | Wipro | |
| 94 | Nancy Singh | 17400355759 | Accenture | |
| 95 | Ritaja Rahman | 17308254834 | Accenture | C9282848, 12.3.2021 |
| 96 | Shameek Bhattacharjee | 17309154843 | HighRadius | |
| 97 | Shrey Dixit | 17309554847 | Accenture | C9263147, 9.3.2021 |
| 98 | Shreyam | 17309754849 | PlanetSpark | |
| 99 | Sushmita Roy | 17310654858 | Accenture | C9248811,3.3.2021 |
| 100 | Anirudh Banerjee | 17311754869 | Accenture | |
| 101 | Anirudh Gupta | 17311854870 | Infosys | |
| 102 | Manasi Sharma | 17601557790 | Infosys | |
| 103 | Mohit Rathor | 17312354875 | Infosys | |
| 104 | Priyam Anand | 17312754879 | Accenture | C9263150,10.3.2021 |
| 105 | Sadish Kumar Dash | 17312954881 | Accenture | |
| 106 | Sagnik Mukherjee | 17313054882 | Accenture | |
| 107 | Soumyajit Roy | 17313854890 | Accenture | |
| 108 | Souvik Ghosh | 17313954891 | Wipro | 15.2.2021 |
| 109 | Gaurav Das | 17314754899 | Wipro | |
| 110 | Navdeep Kishore Singh | 17314854900 | BYJU'S-Think and learn | |
| 111 | Priyam Saha | 17658958379 | Climber | |
| 112 | Aakash Kumar Sinha | 17665258443 | Accenture | |
| 113 | Ishani Sengupta | 17596457739 | Infosys | |
| 114 | Samsunnahar Khan | 17300754759 | Climber | |
| 115 | B Sharath | 17305654808 | Climber | 17.1.2021 |
| 116 | Srizan Dogra | 17310454856 | Climber | |
| 117 | Bhaskar Banerjee | 17601757792 | Climber | 17.1.2021 |
| 118 | Sonali Priyadarshini | 17313654888 | Unschool | |
| 119 | Ansuman Sahoo | 17315154903 | Cognizant | |
| 120 | Venkatesh Akhouri | 17314654898 | Wipro | |
| 121 | Mridul Rai | 17307454826 | Wipro | |

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|-----|-----------------|-------------|-----------|
| 122 | Kapil Choudhary | 17306754819 | Cognizant |
| 123 | Diksha Jha | 17306254814 | Wipro |

| Programs Name and Assessment Year | | | | |
|--|-----------------------------------|-----------------------|-------------------------------------|---|
| 2019 - 2020 | | | | |
| S.no | Name of the student placed | Enrollment no. | Name of the Employer | Appointment letter reference no. with date |
| 1 | Aayush Panda | 16035145306 | Merkle Sokrati (Should be Allowed) | |
| 2 | Parichay Mohanty | 16035545310 | Capgemini(3.80) | |
| 3 | Akanksha Arbind | 16035745312 | Accenture (4.50) | |
| 4 | Akash Deb | 16035845313 | TCS | TCSL/CT20192806574/Kolkata,12/09/2019 |
| 5 | Ankit Raj | 16036345318 | Byju's | |
| 6 | Ashutosh Kumar | 16637351353 | Accenture (4.50) | C8467918,Date:16-Jan-2020 |
| 7 | Ayush Yadav | 16036745322 | Accenture (4.50) | |
| 8 | Chayan Das | 16036945324 | DXC Technology | 21 Jun, 2020 |
| 9 | Dileep Kumar | 16659251601 | GR Infraprojects | 3.12.2020 |
| 10 | Himanshu Raj | 16037445329 | Paramount Technomech | 7-Feb-2020 |
| 11 | Kairavi Nandana Ray | 16037545330 | UpGrad Education | 28-January-2020 |
| 12 | Keshav Kumar | 16634951329 | Extramarks 2nd Visit | |
| 13 | Md Shahnawaj | 16037945334 | Shapoorji Pallonji | 22.10.2019 |
| 14 | Mohit Raj | 16038145336 | Extramarks 2nd Visit | |
| 15 | Namrata Pal | 16038345338 | Paramount | |
| 16 | Nikhil Thawani | 16038545340 | Ashiana Houseing 2nd Visit | Ash/HR AL/2020/1318,28th November 2020 |
| 17 | Pratik Dey | 16038645341 | Chibber | 1 st -Dec -2019 |
| 18 | Ramendra Kumar Dubey | 16038945344 | Shapoorji Pallonji | 22.10.2019 |
| 19 | Raunak Kumar | 16039145346 | Global Archer | |
| 20 | Rohit Kumar | 16039445349 | Global Archer | |
| 21 | Salman Ashraf | 16039545350 | Chibber | |
| 22 | Saumya Sinha | 16039745352 | Paramount Technomech | 7-Feb-2020 |
| 23 | Sritam Mohapatra | 16040845363 | Capgemini(3.80) | |
| 24 | Subham Debbarma | 16040945364 | DXC Technology | |
| 25 | Sumon Mitra | 16041145366 | Accenture (4.50) | C8425084,Date:30-Dec-2019 |
| 26 | Yajat Agrawal | 16591050880 | Accenture (ICI Role) | |
| 27 | Abdul Nazir | 16041545370 | ITD Cementation | 12.10.2020 |

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|----|--------------------------|-------------|-----------------------------|---------------------------|
| 28 | Abesh Ray | 16041645371 | Accenture (4.50) | |
| 29 | Abhinav Kumar | 16041845373 | Capgemini(3.80) | |
| 30 | Adrija Dutta | 16042145376 | TCS | |
| 31 | Akash Rai | 16042245377 | Accenture (4.50) | C8391696,Date:15-Jan-2020 |
| 32 | Anindita Yadav | 16042845383 | Extramarks | |
| 33 | Harsh Kumar Jain | 16043645391 | Parmer Construction | |
| 34 | Joydeep Samanta | 16043945394 | Parmer Construction | |
| 35 | Khushi Kumari | 16591350883 | Paramount | 7.2.2020 |
| 36 | Madhurya Mandit Chutia | 16591450884 | Global Archer | |
| 37 | Murchana Rabha | 16044445399 | Accenture (ICI Role) | C8712193,07-Aug-2020 |
| 38 | Dixit Kumar | 16044745402 | Paramount | 7.2.2020 |
| 39 | Priyajit Deb | 16635051330 | ExtraMarks (3rd Visit) | 30-May-2020 |
| 40 | Rajkumar Routh | 16045245407 | Accenture (4.50) | |
| 41 | Rishabh Sharma | 16045445409 | Accenture (4.50) | |
| 42 | Rudrani Das | 16045645411 | DreamGain Financial Ltd. | |
| 43 | Satyam Anand | 16046145416 | Edupolics | |
| 44 | Shashank Mishra | 16046345418 | Wipro | |
| 45 | Shivam Singh | 16046445419 | Accenture (4.50) | C8440606,Date:01-Jan-2020 |
| 46 | Shivangi Sharma | 16046545420 | Accenture (ICI Role) | C8712194,07-Aug-2020 |
| 47 | Shrawani Tetarbe | 16046645421 | Highradius | |
| 48 | Shubham Choudhary | 16046745422 | Parmer Construction | |
| 49 | Shubham Sinha | 16046845423 | DXC Technology | |
| 50 | Sibasish Mishra | 16047045425 | GR Infraprojects | 03/12/2020 |
| 51 | Sohom Mondal | 16047145426 | Global Archer | |
| 52 | Sweta Gogoi | 16047545430 | Parmer Construction | |
| 53 | Abhilash Mishra | 16048145436 | ITD Cementation | 12.10.2020 |
| 54 | Abhishek Roychowdhury | 16048245437 | Chibber | 1 st -Dec -2019 |
| 55 | Amina Khanam | 16048845443 | Accenture (4.50) | |
| 56 | Aniket Singh | 16676558542 | Accenture (4.50) | |
| 57 | Bidesh Das | 16635251332 | Accenture (4.50) | C8391700,Date:15-Jan-2020 |
| 58 | Deepak Kumar | 16049345448 | Global Archer | |
| 59 | Jagrity Sinha | 16049445449 | Chibber | 1 st -Dec -2019 |
| 60 | Kumar Pranav | 16049745452 | RDC Concrete | |
| 61 | Kunal Kumar | 16049945454 | Sapio Analytica Ltd. | |
| 62 | Manisha Mahabir | 16050045455 | Accenture (4.50) | |
| 63 | Manisha Panigrahi | 16050145456 | DXC Technology | 20 Aug, 2020 |
| 64 | Naveed Ahmad | 16050245457 | DreamGain Financial Ltd. | |

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|----|-------------------------------|-------------|-----------------------------|--|
| 65 | Nikita Sarkar | 16050545460 | Accenture (4.50) | |
| 66 | Prahast Tripathi | 16050945464 | Global Archer | GAC/REC/2020-21, 21st Sept'2020 |
| 67 | Prashant Shekhar | 16051145466 | RAO Edusolutions | |
| 68 | Raj Manthan | 16051445469 | Byju's | |
| 69 | Rishav Raj | 16051745472 | Capgemini(3.80) | |
| 70 | Rishav Rishikesh | 16051845473 | GR Infraprojects | 03/12/2020 |
| 71 | Rohit Kumar | 16051945474 | DreamGain Financial Ltd. | |
| 72 | Samarpan Sinha | 16052245477 | Accenture (4.50) | |
| 73 | Shree Priya | 16052745482 | Accenture (4.50) | |
| 74 | Shreeya Bhargawi | 16052845483 | DreamGain Financial Ltd. | |
| 75 | Soumit Dey | 16053445489 | GR Infraprojects | 03/12/2020 |
| 76 | Sourav Kar | 16053645491 | HighRadius (27th Batch) | 89DD2EE7-0F1A-49F9-8390- 096AA50B82D8, Date: 01 Sep 2020 |
| 77 | Subhrasan Medhi | 16054145496 | Accenture (4.50) | |
| 78 | Aditya Prasad Satpathy | 16054945504 | GR Infraprojects | |
| 79 | Anand Kumar Chaturvedi | 16055245507 | Samsung Heavy | SHII-HR-APPT-2020-0031 |
| 80 | Ashish Rai | 16055845513 | HR Johnson | GST/OL/1/2020, 3.2.2020 |
| 81 | Asim Singh | 16592150891 | Accenture (4.50) | |
| 82 | Bhabarnav Sarma | 16055945514 | Accenture (ICI Role) | |
| 83 | Desaindi Khersa | 16056245517 | Peak Infrasture | 13.1.2020 |
| 84 | Devroop Ghosh | 16056345518 | Accenture (4.50) | |
| 85 | Gyan Kinkar | 16056645521 | GR Infraprojects | |
| 86 | Gyan Prakash | 16056745522 | DreamGain Financial Ltd. | |
| 87 | Harsh Bakshi | 16056945524 | Accenture (4.50) | |
| 88 | Ibadawankmen Diengdoh | 16057145526 | DreamGain Financial Ltd. | |
| 89 | Jyoti Singh | 16057245527 | Accenture (4.50) | |
| 90 | Kasorina Golui | 16057445529 | DreamGain Financial Ltd. | |
| 91 | Mayank Singh | 16057845533 | Deloitte India | |
| 92 | Naveen Kumar | 16649251489 | Parmer Construction | |
| 93 | Nishant Verma | 16057945534 | Accenture (4.50) | |
| 94 | Padma Priyadarshini Parija | 16058045535 | Capgemini(3.80) | |
| 95 | Prerit Kumar Singh | 16058145536 | GR Infraprojects | |
| 96 | Ratul Suklabaidya | 16058945544 | Paramount | 7-Feb-2020 |
| 97 | Rishav Basak | 16059045545 | Accenture (4.50) | |
| 98 | Samrat Sen | 16059245547 | Higradius | Date: 01 Sep 2020 |
| 99 | Sanchita Devi | 16059345548 | Sapio Analytica Ltd. | 28.11.2019 |

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|-----|-----------------------|-------------|-----------------------------|--|
| 100 | Saurabh Sinha | 16059445549 | Shapoorji Pallonji | |
| 101 | Saurav Kumar | 16059545550 | Global Archer | GAC/REC/2020-21,21st Sept'2020 |
| 102 | Shresth Sharma | 16059945554 | Parmer Construction | |
| 103 | Subhadeep Banerjee | 16060245557 | Chibber | |
| 104 | Kanishk Chauhan | 16061145566 | Climber | |
| 105 | Ritika Kerkatta | 16061845573 | Highradius | |
| 106 | Sharique Anwer | 16061945574 | Shapoorji Pallonji | 22.10.2019 |
| 107 | Roshan Ojha | 16592350893 | ITD Cementation | 12.10.2020 |
| 108 | Monalisa Kar | 17000551757 | Capgemini(3.80) | |
| 109 | Namrata Debnath | 17000651758 | Paramount | 7.2.2020 |
| 110 | Papiya Saha | 17000751759 | Global Archer | 18.6.2020 |
| 111 | Vanshika Rai | 17001251764 | Chibber | 1.12.2019 |
| 112 | Sabyasachi Dutta | 17637158158 | Global Archer | GAC/REC/2020-21,21st Sept'2020 |
| 113 | Harsh Kumar | 17678858597 | Accenture (4.50) | |
| 114 | Sounak Majumder | 16040645361 | Maiaestates | 29.6.2020 |
| 115 | Subhamoy Dutta Gupta | 16054045495 | Maiaestates | 29.6.2020 |
| 116 | Sobhan Kumar Samal | 16040545360 | Ashiana Houseing | |
| 117 | Somesh Kumar Singh | 16047245427 | Ashiana Houseing | Ashina/HR/OL/2020, 30.10.2020 |
| 118 | Ravi Shankar | 16045345408 | Prena Manpower Solution LLP | O1/HR/ENRL/MEC/01/VOL-1/148569, 10.11.2020 |
| 119 | Gyan Prakash | 16056845523 | Simplex Infrastructures | |
| 120 | Saptarshi Chakraborty | 16045945414 | Ashiana Houseing 2nd Visit | |

| Programs Name and Assessment Year | | | | |
|--|-----------------------------------|-----------------------|-------------------------------|---|
| 2018 - 2019 | | | | |
| S.no. | Name of the student placed | Enrollment no. | Name of the Employer | Appointment letter reference no. with date |
| 1 | Abhishek Kumar Singh | 15550743645 | Simplex Infrasture Site Engg. | |
| 2 | Alisha Ali | 15031238439 | High Radius Technologies | |
| 3 | Anand Kishor | 15031338440 | Pie Infocomm | |
| 4 | Ankana Das | 15031738444 | Wipro | April 12, 2019 |
| 5 | Ankesh Kumar | 15031838445 | Simplex Infrasture Site Engg. | |
| 6 | Anurag | 15031938446 | Yash Paper | |
| 7 | Anushka Shankar | 15595044088 | RDC Concrete | |
| 8 | Asad Ullah Noorie | 15032238449 | Eduvirtuso | |

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|----|-------------------------|-------------|----------------------------------|---|
| 9 | Atul Narayan | 15032338450 | Simplex Infrasture Site Engg. | |
| 10 | Debdipta Maity | 15033038457 | DN Homes | |
| 11 | Divyanshu Singh | 15033338460 | ITD Cementation | 15.7.2019 |
| 12 | Kavyanjali Tripathi | 15033738464 | Shapoorji & Pallonji | 00026031, 15.7.2019 |
| 13 | Manish Kumar | 15033938466 | Sea Geo Surveys | |
| 14 | Faisal Aman | 15034238469 | Wipro | |
| 15 | Navneet Khare | 15034738474 | Tech Mahindra | |
| 16 | Nilanjana Saha | 15034838475 | Simplex Infrasture Site Engg. | |
| 17 | Puja Patel | 15035038477 | Orion | |
| 18 | Rajdeep Dasgupta | 15035138478 | Pie Infocomm | 15.7.2019 |
| 19 | Rupam Ravi | 15035538482 | Tech Mahindra | |
| 20 | Saurav Paul | 15036038487 | Ultratech Cement | |
| 21 | Sharmili Paul | 15036138488 | Wipro | |
| 22 | Sourav Paul | 15036638493 | Simplex Infrasture Site Engg. | |
| 23 | Subhojit Das | 15036938496 | TCS | TCSL/CT20182572510/Kolkata,09/ 10/2018 |
| 24 | Sudeshna Chakraborty | 15551243650 | Global Archer | 1st August 2019. |
| 25 | Tanmoy Barik | 15037538502 | HCC | |
| 26 | Trisha Bej | 15037638503 | Tech Mahindra | |
| 27 | Vaibhav Rathore | 15037738504 | HCC | HRD/LM/028, 8.7.2019 |
| 28 | Vikrant Ujjawal | 15038138508 | Pie Infocomm | |
| 29 | Vivek Pratap | 15038238509 | Global Archer | |
| 30 | Aditya Kumar | 15038838515 | TCS | |
| 31 | Adyesh Mishra | 15038938516 | Extra Marks | |
| 32 | Arkadeb Datta | 15039838525 | Byju's | |
| 33 | Asmeeta Pal | 15039938526 | Collabera | |
| 34 | Debashis Mishra | 15040338530 | Eduvirtuso | |
| 35 | Kamalika Das | 15041138538 | Vrednic | 18.3.2019 |
| 36 | Kumari Sonika | 15041238539 | Artech | |
| 37 | Mananjay Pratap Singh | 15041338540 | DN Homes | |
| 38 | Prajwal Prasanajeet | 15041738544 | TCS | |
| 39 | Prithviraj Sikdar | 15041938546 | Wipro | |
| 40 | Sabyasachi Swain | 15042438551 | TCS | |
| 41 | Sagar Khedia | 15042538552 | Simplex Infrasture Site Engg. | |
| 42 | Satyasankar Sahoo | 15042838555 | Ashiana Housing | |
| 43 | Shivam | 15043738564 | Ultratech Cement | |
| 44 | Shubham Kumar | 15551443652 | Simplex Infrasture Site Engg. | |
| 45 | Shubham Kumar | 15044038567 | Simplex Infrasture | |

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|----|-----------------------|-------------|--------------------------------------|----------------------------|
| | | | Site Engg. | |
| 46 | Subhangi Sudhakar | 15044238569 | Artech | |
| 47 | Siddhant Bisen | 15044338570 | Collabera | |
| 48 | Sneha Saikia | 15044438571 | Artech | |
| 49 | Sudeshna Roychoudhury | 15044838575 | Wipro | |
| 50 | Sumit Kumar Panda | 15045038577 | SPARC | |
| 51 | Tuhin Ghosh | 15045238579 | Artech | |
| 52 | U Asutosh Patro | 15595244090 | Ashiana Housing | |
| 53 | Vipul Dubey | 15045538582 | Shapoorji & Pallonji | |
| 54 | Vitthal Kumar | 15045638583 | Lancesoft | |
| 55 | Abhishek Kumar | 15046038587 | Simplex Infrasture Site Engg. | |
| 56 | Abhishek Kumar Porwal | 15046138588 | Simplex Infrasture Site Engg. | |
| 57 | Abhishek Kumar Rao | 15551543653 | Vrednic | 18.3.2019 |
| 58 | Aditi Bardhan | 15046238589 | My Perfectice(Operations + Blogging) | |
| 59 | Aditi Chakraborty | 15046338590 | TCS | |
| 60 | Aditya Singh | 15551643654 | Lancesoft | |
| 61 | Ali Imran | 15046438591 | Tech Mahindra | |
| 62 | Aman Kumar Singh | 15046538592 | GMI | 27.3.2019 |
| 63 | Bedanta Saikia | 15047338600 | AFCONS Infrastructure Ltd. | AFC/BP/RN/70496, 14.5.2019 |
| 64 | Debashina Dwivedy | 15047438601 | Mu-Sigma | |
| 65 | Duke Das | 15047638603 | Shapoorji & Pallonji | 00026095,15.7.2019 |
| 66 | Gaurav Bhatt | 15595544093 | Simplex Infrasture Site Engg. | |
| 67 | Gaurav Kumar | 15047738604 | Collabera | |
| 68 | Gaurav Kumar Singh | 15047838605 | Simplex Infrasture Site Engg. | |
| 69 | Harsh Menaria | 15048038607 | Vrednic | 18.3.2019 |
| 70 | Karun Bhujel | 15048338610 | Tech Mahindra | |
| 71 | Kauntey Suryavanshi | 15048438611 | HCC | |
| 72 | Malayaka Manali | 15048538612 | Collabera | |
| 73 | Manish Kumar | 15048738614 | Vrednic | 18.3.2019 |
| 74 | Meghna Saikia | 15048938616 | Clear tax | August 20,2019 |
| 75 | Neeraj Agarwal | 15049138618 | Accrete | ACE/HR/190404/355 |
| 76 | Poulami Paul | 15049438621 | Orion | |
| 77 | Pravomh Mukhopadhaya | 15049638623 | Decathlon | |

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|-----|--------------------------|-------------|-------------------------------|---------------------------------------|
| 78 | Rohan Choudhary | 15050138628 | Byju's | |
| 79 | Rudra Prasanna Swain | 15050338630 | Asahi India Glass Ltd. | |
| 80 | Sachin Kumar Singh | 15050538632 | Simplex Infrasture Site Engg. | |
| 81 | Sagarika Mitra | 15050638633 | Wipro | April 12, 2019 |
| 82 | Sani Panda | 15050838635 | Accrete | ACE/HR/190629/385, 29.6.2019 |
| 83 | Shreyan Sekhar sarmah | 15051238639 | Global Archer | |
| 84 | Shubham Kumar Gupta | 15051638643 | Global Archer | |
| 85 | Souvik Bhattacharyya | 15051838645 | Lancesoft | |
| 86 | Sreyashi Das | 15051938646 | Wipro | April 12, 2019 |
| 87 | Subhabrata Nayek | 15052038647 | DN Homes | 14.6.2019 |
| 88 | Supriya Kumari | 15052238649 | Simplex Infrasture Site Engg. | |
| 89 | Varun Mandal | 15052638653 | Orion | |
| 90 | Vishal Shukla | 15053038657 | Ashiana Housing | |
| 91 | Aditya Kumar | 15053638663 | TCS | |
| 92 | Ahana Guha | 15053938666 | Deloitte (Advisory) | 16.5.2019 |
| 93 | Ayush Agrawal | 15054438671 | RDC Concrete | |
| 94 | Dishari Parial | 15055238679 | High Radius Technologies | 29-Apr-2019 |
| 95 | Ipshita Barua | 15055338680 | Global Archer | |
| 96 | Jyoti Chandan Pati | 15055438681 | AFCONS Infrastructure Ltd. | |
| 97 | KOENA SAHA | 15055638683 | Vrednic | 18.3.2019 |
| 98 | Kunwar Vikrant Singh | 15055738684 | Global Archer | |
| 99 | Mantu Kumar | 15643744580 | Simplex Infrasture Site Engg. | |
| 100 | Mridul Das | 15056038687 | Citrix | |
| 101 | Nandinee Goswami | 15056138688 | Global Archer | 1st of June, 2019. |
| 102 | Omkar Ghosh | 15056238689 | Tech Mahindra | |
| 103 | Parth Shukla | 15623144371 | Simplex Infrasture Site Engg. | |
| 104 | Poulami Pal | 15056538692 | Tech Mahindra | |
| 105 | Rahul Anand | 15057138698 | Yash Paper | |
| 106 | Abdul Hoda | 15057338700 | Eduvirtuso | |
| 107 | Rakesh Kumar | 15057538702 | Extra Marks | |
| 108 | Rojasuman Tripathy | 15057838705 | TCS | TCSL/CT20182526629/Kolkata,09/10/2018 |
| 109 | Ronanki Sanjay Kumar | 15057938706 | Simplex Infrasture Site Engg. | |
| 110 | Sandeep Madhusudan Sahoo | 15058138708 | Vrednic | 18.3.2019 |
| 111 | Sayan Dey | 15058238709 | Ashiana Housing | Ashiana/HR/OL/2019, 12.6.2019 |

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|-----|--------------------|-------------|-------------------------------|---------------------------|
| 112 | Shubham Gupta | 15058538712 | Simplex Infrasture Site Engg. | |
| 113 | Soumya Kar | 15058838715 | Simplex Infrasture Site Engg. | |
| 114 | Sumit Kumar Jha | 15059138718 | Orion | |
| 115 | Sunny Kumar | 15059338720 | Simplex Infrasture Site Engg. | |
| 116 | Varsha Vaishal | 15059938726 | Jaro Education | |
| 117 | Aakriti Sinha | 15060338730 | Lancesoft | |
| 118 | Abhilekh Singh | 15060738734 | Wipro | April 12, 2019 |
| 119 | Abhimanyu | 15060838735 | Simplex Infrasture Site Engg. | |
| 120 | Abhinaba Sinha | 15060938736 | Tech Mahindra | |
| 121 | Abhishek Anand | 15061038737 | HCC | 8.7.2019 |
| 122 | Abinash Patowary | 15627544415 | Eduvirtuso | |
| 123 | Madhumita Mohanty | 15643844581 | Orion | 15.2.2019 |
| 124 | Bhaskar Bezboruah | 15062038747 | Eduvirtuso | |
| 125 | Debarshee Das | 15062338750 | AFCONS Infrastructure Ltd. | AFC/BP/AS/71157, 3.6.2019 |
| 126 | Harsh Baranwal | 15062638753 | Keyence | |
| 127 | Himasree Dam | 15062838755 | Orion | |
| 128 | Keshaw Kumar | 15552243660 | Simplex Infrasture Site Engg. | |
| 129 | Kumar Saurabh | 15062938756 | Global Archer | 2nd May 2019. |
| 130 | Linita George | 15063038757 | Tech Mahindra | |
| 131 | Mohit Kumar Sharma | 15063138758 | Simplex Infrasture Site Engg. | |
| 132 | Nayan Gupta | 15063238759 | Simplex Infrasture Site Engg. | |
| 133 | Prashasti Laskar | 15063838765 | Pie Infocomm | |
| 134 | Pritam Kr. Sinha | 15063938766 | Extra Marks | |
| 135 | Rhiddhi Kotoky | 15064138768 | Tech Mahindra | |
| 136 | Rishav Raj | 15064238769 | Collabera | |
| 137 | Samikshya Behera | 15064438771 | Tech Mahindra | |
| 138 | Saptak Basu | 15645444597 | Ultratech Cement | |
| 139 | Sarthak Bapat | 15064638773 | Sea Geo Surveys | |
| 140 | Sayani Saha | 15064938776 | Clear tax | |
| 141 | Shibam Banerjee | 15065038777 | Citrix | |
| 142 | Shivani Khare | 15065138778 | Tech Mahindra | |
| 143 | Shubham Kumar | 15065338780 | RDC Concrete | |
| 144 | Shubham Neogi | 15065438781 | Byju's | |
| 145 | Sukhamoy Ghoshal | 15065538782 | Eduvirtuso | |
| 146 | Susmita Swain | 15065838785 | Sea Geo Surveys | |
| 147 | Utkarsh Chauhan | 15066038787 | Deloitte (Advisory) | |
| 148 | Vishal Sahu | 15066338790 | Citrix | |
| 149 | Vivek Kumar | 15066438791 | Simplex Infrasture | |

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| | | | Site Engg. | |
| 150 | Yash Srivastava | 15066538792 | Simplex Infrasture Site Engg. | |
| 151 | Debarshi Sahoo | 15066738794 | HCC | |
| 152 | Anuvab Mohanty | 15629544435 | Tata Projects | TPL/Campus/2019/1322 09-Jan-2019 |
| 153 | Ajeet kumar | 15329141418 | Global Archer | |
| 154 | Ankan Jana | 15329541422 | SPARC | |
| 155 | Anuttam Bhattacharjee | 15329941426 | TCS | |
| 156 | Bibaswan Manna | 15330141428 | DN Homes | |
| 157 | Geetansh Bhandari | 15330441431 | Lancesoft | |
| 158 | Kritika Talukdar | 15330641433 | Lancesoft | |
| 159 | Lohit Suryawanshi | 15562643764 | Pie Infocomm | |
| 160 | Saurav Kumar | 15331341440 | Simplex Infrasture Site Engg. | |
| 161 | Shovite Gaurav | 15331541442 | Vrednic | 18.3.2019 |
| 162 | Sreeparna Mandal | 15331841445 | Extra Marks | |
| 163 | Swagato Saha | 15332141448 | Shapoorji & Pallonji | 00026026, 15.7.2019 |
| 164 | Tushar Jha | 15332441451 | Wipro | |
| 165 | Soham Chakraborty | 15356741694 | Ultratech Cement | |
| 166 | Sudarshan Banerjee | 15356941696 | Vrednic | 18.3.2019 |
| 167 | Sachin Kumar Jha | 15357241699 | Eduvirtuso | |
| 168 | Siddhartha Bhowmik | 15357941706 | Kalpataru Playwood | |
| 169 | Bipul Kumar Rai | 15358241709 | Vrednic | 18.3.2019 |
| 170 | Mirza Mosahid Baig | 15358541712 | Simplex Infrasture Site Engg. | |
| 171 | Swastik Sarkar | 15358641713 | SPARC | |
| 172 | Akash Chakraborty | 15358741714 | Global Archer | |
| 173 | Melissa Dutta | 15358941716 | Wipro | April 12, 2019 |
| 174 | Sakshi Patel | 15359041717 | Tech Mahindra | |
| 175 | Kaushiki Raj | 15359141718 | Deloitte (Advisory) | 7.10.2019 |
| 176 | Swapnil Behera | 16005945008 | Simplex Infrasture Site Engg. | |
| 177 | Mukul Sharma | 16006345012 | Extra Marks | |

4.5 Professional Activities (20)

4.5.1 Professional societies/chapters and organizing engineering events (5)

(The Department shall provide relevant details)

List of societies and chapters are as follows

- KSCE

- ASCE
- ICE

| Sl. | Name of the events | Date of event | Number of participants |
|-----|--|---------------|------------------------|
| 1 | KSCE organised Alumni talk by Er. Vaibhav Rathore on Tunnel works and bridge construction | 01/04/2022 | 50 |
| 2 | KSCE organised Alumni meet 2010 Pass out Batch | 03/04/2022 | 100 |
| 3 | KSCE organised Interaction Session with Alumni Er. Karamvir Choudhary, Highway Manager, Aarvie Econ Ltd, C/O Bangalore International Airport Project Limited | 09/04/2022 | 60 |
| 4 | KIIT ASCE Student Chapter of School of Civil Engineering has organized Techno-Cultural event "CIVISTA", on 09-04-2022 | 9/4/2022 | 52 |
| 5 | KSCE organised Interaction Session with Alumni Dr. Bikram Prasad, Assistant Professor, NIT Jalandhar on GATE Preparedness | 03/09/2022 | 45 |
| 6 | Under the supervision of the KIIT Society of Civil Engineers (KSCE), ASCE, ICE, and NSS held a celebration of Teachers Day on September 5, 2022 | 5/9/2022 | 100 |
| 7 | On 15-09-2022 ASCE of School of Civil Engineering organized the event of Engineer's Day. | 15/9/2022 | 70 |
| 8 | On 29th September 2022, ASCE KIIT Student Chapter successfully | 29/9/2022 | 50 |

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| | conducted an online workshop, with an active participation by student members, on Graphics Designing | | |
| 9 | ASCE organized recruitment drive on 22.12.2022. | 22/12/2022 | 70 |
| 10 | KSCE “Speak and Search Lecture Series” on Environmental Awareness(Virtual platform) by Mr. Y. Rama Mohan Rao | 06/02/2021 | 50 |
| 11 | KSCE Alumni Meet with 2014 Pass out Students(Virtual platform) | 14/03/2021 | 100 |
| 12 | KSCE Yoga and Nature Therapy for Immune System and Life management(Virtual platform) by Dr.Biswabandita kar, Prof School of Applied Science and Director school of Yoga. KIIT DU. | 04 /03/2021 | 95 |
| 13 | KSCE Promoting Mental Health during Covid-19 Pandemic(Virtual platform) by Dr. Shree Mishra, Assistant Professor, Department of Psychiatry, AIIMS Bhubaneswar | 22/05/2021 | 100 |
| 14 | ASCE of The School of Civil Engineering organised a debate competition. The competition was named as “The Grand Verbattle” organized by the School of Civil Engineering. | 7/11/21 | 65 |
| 15 | ASCE members Interacted with the ABET Accreditation evaluator Dr.William Kitch on 08th November 2021 | 8/11/21 | 3 |

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| 16 | KSCE Technical site visit by Prof.Dipti Biswal Prof.Mohibullah | 31/01/2020 | 45 |
| 17 | KSCE Enrollement of New Members | 5/02/2020 | |
| 18 | Interactive session with Mr. Amitabha Ghosal | 12/02/2020 | 53 |
| 19 | KSCE Civiwiz | 14/02/2020 | 41 |
| 20 | Technical Talk on “Small Community Water and Wastewater Treatment by Dr. Achintya Bezbaruah | 07/03/2020 | 60 |
| 21 | KSCE Webinar on Career Counselling and Grooming Session | 09-04-2020 | 83 |
| 22 | KSCE Webinar on Scope for girls in Civil Engineering | 20-04-2020 | 60 |
| 23 | ICE Career Development Webinar | 09-05-2020 | 50 |
| 24 | ASCE Industrial interactive session with Er. Nikesh Ganesh Rathod | 17-06-2020 | 45 |
| 25 | My Life My Passion Series on “Acoustics and Noise Mapping” by Mrs. Francesca Remigi (CEng, UK) Alf Greenwood, Christopher Boydell | 30/06/2020 | 50 |
| 26 | ICE Alumni Meet Online Series by Mr. Debajyoti Saha and Mr. Rudroneel Manna | 05-07-2020 | 50 |
| 27 | ASCE Interaction With New Members | 17-07-2020 | 90 |
| 28 | KSCE Knowledge Forum – A Guide to your future, Lecture series by Dr. Ashutosh Kumar (Associate Professor at IIT Mandi), Dr. Deepanshu Shirole (Post-Doctoral Fellow at Northwestern University), Er. Bitan Ghosh(Entrepreneur and | 19-07-2020 | 83 |

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| | Digital Nomad) | | |
| 29 | ASCE KIIT Chapter 2020-21 Membership drive (online) | 20-07-2020 | 60 |
| 30 | ICE KIIT Chapter 2020-21 Recruitment Drive (Online) | 26-07-2020 | 70 |
| 31 | ASCE Live Workshop on Graphics Designing | 26-07-2020 | 35 |
| 32 | Introduction to ICE KIIT Student Chapter amongst Budding Civil Engineers | 02-08-2020 | 40 |
| 33 | ASCE Webinar on Modern Day Interview with Asish Kumar Panda | 02-08-2020 | 35 |
| 34 | KSCE Webinar on Storm water management by Prof. Debabrata Sahoo, Associate Professor, Department of Agricultural Sciences, South Carolina Water Resource Centre, Clemson University, USA | 16-08-2020 | 90 |
| 35 | ICE Webinar on How to Face Fitness Challenges during Covid-19 on Construction Sites | 16-08-2020 | 90 |
| 36 | ICE KIIT Quiz | 18/10/2020 | 50 |
| 37 | KSCE Technical talk on “Awakening Giant:Nanotechnology for the masses”by Dr.AchintyaBezbaruah | 3/08/2019 | 60 |
| 38 | KSCE Speak and Search Lecture Series by Ms.Padma Parija & Mr. Purnajit Bhowmik | 10/08/2019 | 55 |
| 39 | KSCE Speak and Search Lecture Series by Mr. Ashish Raj | 16/08/2019 | 50 |
| 40 | KSCE Speak and Search Lecture Series by Mr. Debarshi Sahoo | 20/08/2019 | 50 |
| 41 | KSCE Speak and Search Lecture Series by Mr. Sourav Ghosh Dastider | 14/09/2019 | 45 |

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| 42 | KSCE Speak and Search Lecture Series by Ms. Makida Amare | 21/09/2019 | 45 |
| 43 | KSCE Technical site visit | 12/11/2019 | 60 |
| 44 | KSCE Speak and Search Lecture Series by Mr. Salman Ashraf | 06/12/2019 | 50 |
| 45 | KSCE Technical site visit by <i>Dr.S.Maulick</i> | 07/12/2019 | 50 |

4.5.2 Publication of technical magazines, newsletters, etc. (5)

(The Department shall list the publications mentioned earlier along with the names of the editors, publishers, etc.)

| <p style="text-align: center;">School of Civil Engineering Kalinga Institute of Industrial Technology (KIIT), Deemed to be University List of Journal Articles under KIIT University Affiliation</p> | | | | | | | | |
|---|--|---|---|---|---------------------|--------------------------|---------------|---|
| Sl. No. | Name of the Faculty | Author Affiliation | Title of the Journal Article | Journal Title | Year of Publication | Volume (Issue): Page No. | Impact Factor | Part of E-databases(Scopus / Web of Science) |
| 1 | Malaya Mohanty; Rachita Panda; Srinivasa Rao Gandupalli; Ritik Raj Arya; Sarthak Kumar Lenka | KIIT DU KIIT DU GITAM DU KIIT DU KIIT DU | Factors propelling fatalities during road crashes: A detailed investigation and modelling of historical crash data with field studies | Heliyon | Nov-22 | | 3.776 | Scopus and Web of Science |
| 2 | Md.Shahzar Intekhab; Swagato Das; M. Ahmad Jajnery; Salman Akhtar; Debarshi Sahoo Purnachandra Saha | KIIT DU C.V Raman Global University KIIT DU KIIT DU KIIT DU | Analysis Methods of Irregular High-Rise Buildings Subjected to Seismic Loads | Journal of Vibration Engineering and Technologies | Jul-22 | | 2.333 | Scopus |

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|---|--|---|--|--|--------|---------------------------|-------|-------------------------|
| 3 | Malaya Mohanty; Rachita Panda; Srinivasa Rao Gandupalli; Didriksha Sonowal; Muskan Muskan; Riya Chakraborty; Mukund R. Dangeti | KIIT, DU KIIT, DU GITAM DU KIIT, DU NIT Agartala KIIT, DU GITAM DU | Development of crash prediction models by assessing the role of perpetrators and victims: a comparison of ANN & logistic model using historical crash data | International Journal of Injury Control and Safety Promotion | 2022 | | 2.603 | Scopus & Web of Science |
| 4 | Saswat Mahapatra; Kundan Samal; Rajesh Roshan Dash | KIIT, DU KIIT, DU IIT Bhubaneswar | Waste Stabilization Pond (WSP) for wastewater treatment: A review on factors, modelling and cost analysis | Journal of Environmental Management | Apr-22 | Vol. 308, 114668 | 8.91 | Scopus & Web of Science |
| 5 | Divyendu Tushar Disha Das Aparupa Pani Pratyasha Singh | KIIT, DU KIIT, DU KIIT, DU KIIT, DU | Geo-Engineering and Microstructural Properties of Geopolymer Concrete and Mortar: A Review | Iranian Journal of Science and Technology, Transactions of Civil Engineering | Oct-21 | | NA | Scopus & Web of Science |
| 6 | Malaya Mohanty Yash Raj Subhangee Rout Utkarsh Tiwari Sagarika Roy Satyaranjan Samal | KIIT DU | Operational effects of speed breakers: A Case Study in India | European Transport \ Trasperti Europei | Mar-21 | 81 (01), pp 1-10 | NA | Scopus & Web of Science |
| 7 | Kundan Samal Soham Kar Shivanshi Trivedi Sudhanshu Upadhyay | KIIT DU | Assessing the impact of vegetation coverage ratio in a floating water treatment bed of Pistia stratiotes | SN Applied Sciences | Jan-21 | 03(01), 120 | NA | Scopus & Web of Science |
| 8 | Kundan Samal Naushin Yasmin Priya Kumari | KIIT, DU | Challenges in the implementation of Phyto Fuel System (PFS) for wastewater treatment and harnessing bio-energy | Journal of Environmental Chemical Engineering | Oct-20 | Vol. 8 (05), 104388 | 7.968 | Scopus & Web of Science |
| 9 | Kundan Samal Shivanshi Trivedi | KIIT, DU | A statistical and kinetic approach to develop a Floating Bed for the treatment of wastewater | Journal of Environmental Chemical Engineering | Oct-20 | | 7.968 | Scopus |

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|----|--|---|--|--|--------|-------------------------------|-------|-------------------------|
| 10 | Kundan Samal S. Kar S. Trivedi | KIIT, DU | Ecological floating bed (EFB) for decontamination of polluted water bodies: Design, mechanism and performance | Journal of Environmental Management | Dec-19 | Vol. 251 | 8.91 | Scopus & Web of Science |
| 11 | Kundan Samal AlakhRaj Mohan NabinChaudhary Sanjib Moulick | KIIT, DU | Application of vermitechnology in waste management: A review on mechanism and performance | Journal of Environmental Chemical Engineering | Oct-19 | 7 (05), Article Number 103392 | 7.968 | Scopus & Web of Science |
| 12 | Rishu Prasad S. K. S. Parashar | KIIT, DU | Structural and electromagnetic properties of nano cobalt ferrite polymeric thin film | Journal of Materials Science: Materials in Electronics | May-19 | 30(13), pp 12023-12030 | 2.779 | Scopus & Web of Science |
| 13 | K. Pareek S. Saha N. Gupta Purnachandra Saha | Nanhua University, Taiwan KIIT, DU KIIT, DU KIIT, DU | Effect of Recycled Aggregate on Mechanical and Durability Properties of Concrete | International Journal of Structural and Civil Engineering Research | May-19 | 8 (2), pp 119-125 | NA | Google Scholar |
| 14 | Rishu Prasad A. E. Mohamoud S. K. S. Parashar | KIIT, DU KIIT, DU KIIT, DU | Enhancement of electromagnetic shielding and piezoelectric properties of White Portland cement by hydration time | Construction and Building Materials | Apr-19 | 204; pp 20-27 | 7.693 | Scopus & Web of Science |
| 15 | Y. K. Sharma J. C. Pati A. Patel A. Jose Purnachandra Saha | KIIT, DU | Contribution of material properties on seismic behaviour of shear wall | International Journal of Research | Jul-18 | 5 (13), pp 224-232 | NA | Google Scholar |
| 16 | R. Tripathy A. Chatterjee V. Vaishali P. Saha | KIIT, DU | Effect of material properties on the mechanical, thermal and acoustic properties of hollow blocks: A review | International Journal of Research | Jul-18 | 5 (13), pp 159-169 | NA | Google Scholar |
| 17 | Biswaroop Ghosh A. K. Rath | KIIT, DU | Fly-Ash Pellets: A Replacement of Coarse Aggregate | International Journal of Technical Research and Applications | Aug-17 | 5 (2): pp 03-07 | NA | Google Scholar |

School of Civil Engineering
Kalinga Institute of Industrial Technology (KIIT), Deemed to be University
List of Book Chapters under KIIT University Affiliation

| Sl. No. | Name of the Faculty | Author Affiliation | Year Of Publication | Title of the Book Chapter | Book Title | Publisher | Volume(issue) : Page no. | ISBN | Part of E-databases (Scopus/ Web of Science/ SCI) |
|---------|--|--------------------|---------------------|---|--|-----------|-----------------------------|-------------------|---|
| 1 | Purnajit Bhowmik; Gaurav Udgata; Shivanshi Trivedi | KIIT, DU | Apr-22 | Risk Assessment in Construction Industry Using a Fuzzy Logic | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)— Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 517 - 526 | 978-981-16-8433-3 | Scopus |
| 2 | Sneha Sen; Akash Rai; Sanjib Moulick | KIIT, DU | Apr-22 | Management of Bio-medical Wastes in a Multispeciality Hospital in Bhubaneswar | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—GEO-TRA-ENV-WRM, Lecture Notes in Civil Engineering Book Series | Springer | Volume 207, Pages 169 - 180 | 978-981-16-7509-6 | Scopus |
| 3 | Soham Kar; Kundan Samal | KIIT, DU | Apr-22 | Hydro Economy: Environmental Sustainability of Water and Wastewater | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—GEO-TRA-ENV-WRM, Lecture Notes in Civil Engineering Book Series | Springer | Volume 207, Pages 181 - 197 | 978-981-16-7509-6 | Scopus |

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|---|--|----------|--------|--|---|----------|-----------------------------|-------------------|--------|
| | | | | Resources and Infrastructure | | | | | |
| 4 | Animesh Maurya; Amina Khanam; Malaya Mohanty | KIIT, DU | Apr-22 | Cleaner City Through Lesser Noise: Traffic Noise Modelling | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—GEO-TRA-ENV-WRM, Lecture Notes in Civil Engineering Book Series | Springer | Volume 207, Pages 741 - 756 | 978-981-16-7509-6 | Scopus |
| 5 | Manisha Mohanty; Ipsita Panda | KIIT, DU | Apr-22 | Assessment of Food Waste as Suitable Adsorbent for Removal of Chromium (vi) from Synthetic Waste Water | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—GEO-TRA-ENV-WRM, Lecture Notes in Civil Engineering Book Series | Springer | Volume 207, Pages 757 - 778 | 978-981-16-7509-6 | Scopus |
| 6 | Biswaroop Ghosh Ashoke Kumar Rath | KIIT, DU | Jul-20 | Use of Autoclaved Fly-Ash Aggregates in Concrete Mixture | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 7 | Rudrani Das Amit Ganguly Purnachandra Saha | KIIT, DU | Jul-20 | Different Techniques Used For Well Foundat | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |

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|----|---|-------------|--------|--|--|----------|--|-----------------------------------|--------|
| | | | | ion Constru ction Focused On Pneuma tic Cassion Techniq ue : A Review | | | | | |
| 8 | Gaurav Udgata Purnaji t Bhow mik Silpa P Das | KIIT, DU | Jul-20 | Effect of Lime on Mechan ical Properti es of Silica Fume Modifie d Concret e | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978- 981- 15- 4576- 4 | Scopus |
| 9 | Omkar Ghosh Sourav Das | KIIT, DU | Jul-20 | Optimal Design of Hysteretic Nonline ar Energy Sink for Suppres sion of Limit Cycle Oscillati ons of a Flappin g Airfoil | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978- 981- 15- 4576- 4 | Scopus |
| 10 | Sneha Sen Purnac handra Saha | KIIT, DU | Jul-20 | The Perform ance of Geopol ymer Concret e Utilizin g Wastes As Binder | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978- 981- 15- 4576- 4 | Scopus |

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|----|---|-------------|--------|---|-------------------------|----------|----------|-------------------|----------------|
| 11 | A. Patnaik V. Kumar Purnachandra Saha | KIIT, DU | Jun-18 | Importance of Indoor Environmental Quality in Green Buildings | Environmental Pollution | Springer | PP 53-64 | 978-981-10-5792-2 | Google Scholar |
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School of Civil Engineering
Kalinga Institute of Industrial Technology (KIIT), Deemed to be University
List of Conference Proceedings under KIIT University Affiliation

| Sl. No. | Name of the Faculty | Year of Publication | Title of the Conference Paper | Conference Title | Date of Conference | Place of Publication : Publisher | National / International |
|---------|---|---------------------|---|--|-------------------------|----------------------------------|--------------------------|
| 1 | M. Mohanty S. R. Samal Yash Raj Subhangee Rout Utkarsh Tiwari Sagarika Roy | Mar-20 | Performance Analysis of Speed Breakers: A Case Study in India | 2nd ASCE India Conference | 2nd - 4th March 2020 | Novotel, Kolkata | National |
| 2 | N. Gupta T. Barik S. Dey Purnachandra Saha | Feb-19 | Effect of Wind and Seismic forces on different Components of Cable Suspension Bridge: An Overview | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | 1st - 3rd February 2019 | NIT Silchar, India | National |
| 3 | P. Sen M. Kumar P. Shukla Purnachandra Saha | Feb-19 | The Aerodynamic and Seismic Behaviour of Cable-Stayed Bridge | Proceedings of National Conference on Advances in Structural Technologies (CoAST- | 1st - 3rd February 2019 | NIT Silchar, India | National |

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| | | | | 2019) | | | |
| 4 | K. Pareek Purnachandra Saha | Feb-19 | Basalt Fiber and Its Composites: An Overview | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | 1st - 3rd February 2019 | NIT Silchar, India | National |
| 5 | A. Singh A. Ghoshal A. Singh Purnachandra Saha | Feb-19 | Organic and Inorganic Elements Used for Co ₂ Absorption in Concrete | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | 1st - 3rd February 2019 | NIT Silchar, India | National |
| 6 | S. Mondal S. De Purnachandra Saha | Feb-19 | Removal of VOCs and Improvement of Indoor Air Quality Using Activated Carbon Air Filter | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | 1st - 3rd February 2019 | NIT Silchar, India | National |

| S.NO. | Name of the News Letter | Year |
|-------|---|--------------|
| 1. | NIRMINITE | 2017 onwards |
| 2. | Project Expo | 2018 onwards |
| 3. | KIIT R&D Newsletter | 2021 onwards |
| 4. | ICRDSI | 2019 onwards |
| 5. | International Conference on Sustainable Waste Management towards Circular Economy | 2019 |

4.5.3 Name of the Editors In Technical Magazines

| Sl. No. | Name of the Editor | Title of the book/chapters published | Title of the proceedings of the conference | Name of the conference | National / International | Year of publication | ISBN/ISSN number of the proceeding | Affiliating Institute at the time of publication | Name of the publisher |
|---------|--------------------|---|---|---|--------------------------|---------------------|------------------------------------|--|------------------------|
| 1 | Purnachandra Saha, | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | 2021 | 978-981-15-5001-0 | KIIT DU | Springer International |
| 2 | B G Mohapatra | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | 2021 | | KIIT DU | Springer International |

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| 3 | S Nanda | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2020 | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Infrastructure (Materials & Management) 2019 | International | 2021 | | KIIT DU | Springer International |
| 4 | B G Mohapatra | Circular Economy in the Construction Industry | Circular Economy in the Construction Industry | 9 th International Conference on Sustainable Waste Management towards Circular Economy 2019 | International | 2021 | ISBN: 978-1-032-10896-4 | KIIT DU | CRC Press |

4.5.4 Name of the Editors and Student Coordinators In Technical Magazines

| Name of the student | Designation | Name of the magazines |
|----------------------|--------------------------|-----------------------|
| Salman Ashraf | General Secretary | NIRMINITE- 2019 |
| Sourav Roy | Chief Designer | NIRMINITE- 2019 |
| Arijit Guha | Co-Chief Designer | NIRMINITE- 2019 |
| Satej Kundu | Designer & Documentation | NIRMINITE- 2019 |
| Soumya Sayan Pal | Documentation | NIRMINITE- 2019 |
| Jyoti Prakash Jena | General Secretary | NIRMINITE- 2018 |
| Debarshi Sahoo | Chief Designer | NIRMINITE- 2018 |
| Tanmoy Barik | Co-Chief Designer | NIRMINITE- 2018 |
| Vikas Kumar Kushwaha | Logo Designer | NIRMINITE- 2018 |
| Aritra Das Adhikari | Assistant Designer | NIRMINITE- 2018 |
| Souvik Sarkar | Designer & Documentation | NIRMINITE- 2018 |
| Ranajoy Mukherjee | Documentation | NIRMINITE- 2018 |
| Devroop Ghosh | Documentation | NIRMINITE- 2018 |
| Bidesh Das | Documentation | NIRMINITE- 2018 |
| Aditya Divyadarshi | General Secretary | NIRMINITE- 2017 |
| Vikas Kumar Kushwaha | Graphics Designer | NIRMINITE- 2017 |
| Dhruvojyoti Nath | Graphics Designer | NIRMINITE- 2017 |

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| Geetansh Bhandari, Ayush Rey Yadav, Nikhil Thawani, Salman asheaf and achintya Tushar Jha | Member | NIRMINITE- 2017 |
|--|--------|-----------------|

Name of the Paper Published In the Technical Magagine (ICRDSI)

| Sl. No. | Name of the Author | Title of the paper | Title of the proceedings of the conference | Name of the conference | National / International | Year of publication |
|---------|---|---|---|---|--------------------------|---------------------|
| 1 | Paromik Ray Dillip Kumar Bera Ashoke Kumar Rath | Genetic Algorithm: An Innovative Technique For Optimizing A Construction Project | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 2 | Srishti Saha Tribikram Mohanty Purnachandra Saha | Mechanical properties of fly ash and ferrochrome ash based geopolymer concrete using recycled aggregate | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 3 | Pratik Sen Purnachandra Saha | Seismic Performance of Polynomial Friction Pendulum Isolator (PFPI) on Benchmark Cable-Stayed Bridge | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 4 | Wubshet Gebru Ashoke Kumar Rath Dillip Kumar Bera | Individual and Combined Effect of Nano and Micro Silica on Cement Based Product | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 5 | B. Jena | Limit State Design and Factor of Safety: An Overview | Lecture Notes in Civil Engineering, Recent | International Conference on Recent Developments in | International | Jul-20 |

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| | | | Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | Sustainable Developments (Materials & Management) 2019 | | |
| 6 | Smruti Pal Ipsita Mohanty Ipsita Panda | Self Healing Conventional Concrete Using Bacteria | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 7 | Biswaroop Ghosh Ashoke Kumar Rath | Use of Autoclaved Fly-Ash Aggregates in Concrete Mixture | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 8 | Abhipsa Guru Mohibullah | Exploring the Acceptance of Life Cycle Cost for Residential Projects in India | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 9 | Dolasankar Sahu Mohibullah | Genetic Algorithm for Resource Levelling Problem in Construction Projects | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 10 | Rajarshi Patty Dillip Kumar Bera A.K. Rath | Strategies for Construction and Destruction (C&D) Waste Management | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 11 | Chandan Kumar Majhi Satyajjeet | An Approximate Cost Equation of Offshore Wind | Lecture Notes in Civil Engineering, | International Conference on Recent | International | Jul-20 |

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|-----------|---|--|--|---|---------------|--------|
| | Nanda R.C Pradhan B. G. Mohapatra | Turbine Blade | Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | Developments in Sustainable Developments (Materials & Management) 2019 | | |
| 12 | Rudrani Das Amit Ganguly Purnachandra Saha | Different Techniques Used For Well Foundation Construction Focused On Pneumatic Cassion Technique : A Review | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 13 | T. Shil R. Pradhan S. Nanda B. G. Mohapatra | Strengthening of Soil Subgrade Using Bio-Enzyme | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 14 | Paromik Ray Dillip Kumar Bera Ashoke Kumar Rath | Comparison Between the Tunnel Form System Formwork and the MIVAN Formwork System in a Multi-Unit Building Project | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 15 | Paromik Ray Dillip Kumar Bera Ashoke Kumar Rath | Time Cost Optimization Using Genetic Algorithm of A Construction Project | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 16 | S. S. Panda Subham Ghosh B. Jena | Yield Behavior of Three Edge Simply Supported Two Way Slab Under Concentrated Loading | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |

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|----|---|---|---|---|---------------|--------|
| 17 | Kshyana Prava Samal G. C. Mishra Nayan Sharma | Analysis of Seepage from a Triangular Furrow with Negligible Free- Board Considering Soil Capillarity using Inverse Hodograph and Conformal Mapping Technique | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 18 | Bandita Paikaray Sarat Kumar Das B.G. Mohapatra Sahil Pritam Swain Sabyasachi Swain | Bearing Capacity Analysis Based on Optimization of Single Layer Depth of Reinforcement Below Rectangular Footing | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 19 | Saismrutiranjana Mohanty Sanjib Moulick Sanjoy Maji | Decolorization of Congo Red Using Synthesized Titanate Nanotubes (TNTs) | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 20 | Asheena Sunny Nitin Gusain | Optimization of percentage of AR glass fibre addition to flyash based self consolidating concrete | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 21 | Srishti Saha Tribikram Mohanty Purnachandra Saha | Performance of Concrete with Marble Dust as Supplementary Material: A Review | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 22 | Bidisha Byabartta Tanmoy Majumder Paromita Chakraborty Jyotiprakash Padhi | A Review: Effect of Turbidity Current on the Reservoir Sedimentation | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select | International Conference on Recent Developments in Sustainable Developments (Materials & Management) | International | Jul-20 |

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|----|--|--|---|---|---------------|--------|
| | Bitanjaya Das | | Proceedings of ICRDSI 2019 | 2019 | | |
| 23 | Debarshree Biswajit Jena Kaliprasanna Sethy Ashish Pani Kirti Kanta Sahoo | Mechanical Properties of Self-compacting Concrete Made of Glass Fibre | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 24 | Ashish Pani Kirti Kanta Sahoo | Study on Mechanical Properties of Steel Fibre Concrete | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 25 | Abhijeet Prasad Dash Kirtikanta Sahoo | Sustainable Infrastructures (Materials & Management) – High Strength Nano Concrete with the replacement of Nano Flyash | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 26 | Lovely Sabat Chinmay Kumar Kundu | Torsional Buckling Analysis of a Bar Member | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 27 | Swabarna Roy Chinmay Kumar Kundu | Design and Analysis of Transmission Tower Under Wind Loading | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 28 | Swabarna Roy Chinmay Kumar Kundu | Structural Optimization of Microwave Antenna Tower Subjected to Wind Load | Lecture Notes in Civil Engineering, Recent Developments in Sustainable | International Conference on Recent Developments in Sustainable Developments | International | Jul-20 |

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|----|---|--|---|---|---------------|--------|
| | | | Infrastructure Select Proceedings of ICRDSI 2019 | (Materials & Management) 2019 | | |
| 29 | Brundaban Beriha Umesh Chandra Sahoo | Design of Long-Life Pavements for India | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 30 | Sourav Sarkhel Jyotiprakash Padhi Anil Kumar Dash | Seismic Analysis of a Concrete Gravity Dam Using ABAQUS | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 31 | Neha Nasreen Ashok Kumar Khan Sitam Suvam Jena | Performance study of single helix embedded in cohesionless soil under pullout load | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 32 | Bhagyashree Panda Nazia T Imran Kundan Samal | A Study on Replacement of Coarse Aggregate with Recycled Concrete Aggregate (RCA) in Road Construction | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 33 | Jyoti Ranjan Barik Purnachandra Saha | Seismic Control of Benchmark Highway Bridge Using Fiber Reinforced Elastomeric Isolator | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 34 | Gaurav Udgate Purnajit Bhowmik Silpa P Das | Effect of Lime on Mechanical Properties of Silica Fume Modified Concrete | Lecture Notes in Civil Engineering, Recent Developments in | International Conference on Recent Developments in Sustainable | International | Jul-20 |

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|----|---|--|---|---|---------------|--------|
| | | | Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | Developments (Materials & Management) 2019 | | |
| 35 | Raja Sekhar Mamillapalli Ashok Kumar Rath Dilip Kumar Bera | Studies on Integration of Lean Construction and Sustainability in Indian Real Estate Projects | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 36 | Omkar Ghosh Sourav Das | Optimal Design of Hysteretic Nonlinear Energy Sink for Suppression of Limit Cycle Oscillations of a Flapping Airfoil | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 37 | Ankit Kumar Sumon Saha Rana Chattaraj | Soft Clay Stabilization With Steel Slag | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 38 | Suresh Chandra Pattanaik Sanjaya Kumar Patro Bitanjaya Das | Polymeric Materials for Repair of Distressed Concrete Structures | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 39 | Jyotiprakash Padhi Abhilash Mishra Shubham Choudhary Bitanjaya Das | Water Resource Management During Monsoon Months Based on SPI And CZI in Khordha District, India | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 40 | Sushree Sasmita Dudam Bharath Kumar | Seasonal Variability of Satellite-Derived Aerosol Optical | Lecture Notes in Civil Engineering, Recent | International Conference on Recent Developments in | International | Jul-20 |

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|----|---|---|---|---|---------------|--------|
| | | Depth in Smart City, Bhubaneshwar | Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | Sustainable Developments (Materials & Management) 2019 | | |
| 41 | Lovely Sabat Chinmay Kumar Kundu | History of Finite Element Method | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 42 | S. S. Panda B. Jena | Yield Behaviour of Two-Way Reinforced Concrete Flyash Brick Slab | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 43 | Arani Dutta Narayan Chandra Moharana | Mechanical and Durability Properties of Fly Ash-Based Geopolymer Concrete | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 44 | Vishal Singh B.G. Mohapatra | Parametric study on foundation retrofitting using Micro-piles | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 45 | Rohita Kumar Sethi Prabhash Kumar Mishra Deepak Khare Kshyana Prava Samal | Modelling Sea Water Intrusion in the Eastern Coast Adjacent to Ersama and Kujanga Blocks of Odisha, India | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 46 | Tribikram Mohanty Bhargavi | Durability Properties of Self Compacting | Lecture Notes in Civil Engineering, | International Conference on Recent | International | Jul-20 |

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|----|--|--|--|---|---------------|--------|
| | Nandan Patra Purnachandra Saha | Concrete Using Silica Fume | Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | Developments in Sustainable Developments (Materials & Management) 2019 | | |
| 47 | Arnab Debnath Sumon Saha Rana Chattaraj | Stabilization of Clayey Soil With Marble Dust | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 48 | Sneha Sen Purnachandra Saha | The Performance of Geopolymer Concrete Utilizing Wastes As Binder | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 49 | Rachita Panda Tanmaya Kumar Sahoo | Effect of Replacement of GGBS and Fly Ash with Cement in Concrete | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 50 | Anuradha Panda Bitanjaya Das Jyotiprakash Padhi Paromita Chakraborty | Groundwater Level Trend Analysis for Sustainable Extraction and Use in Coastal Odisha | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 51 | Amarendra Kr. Mohapatra Dillip Kumar Bera A. K. Rath | Effect of Silica Fume on Strength Enhancement of Geo-polymer Mortar in Ambient Curing | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |

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|----|--|--|---|---|---------------|--------|
| 52 | B. K. Das S. K. Das B. G. Mohapatra | Red Mud As A Controlled Low Strength Material | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 53 | Srishti Saha Joyanta Pal | A Study on Properties of Concrete Using Silica Fume and Brick Aggregate | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 54 | Divyajit Das Bhubaneswari Bisoyi Ipseeta Satpathy Biswajit Das | Urban Infrastructure and Special Economic Zone (SEZ): Challenges for Corporate Land Alienation | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Jul-20 |
| 55 | Bandita Paikaray; Sarat Kumar Das; Benu Gopal Mohapatra; Sweta Sarang | Behavior of Rectangular Footing on Geosynthetic Reinforced Crusher Dust (Book Chapter) | Lecture Notes in Civil Engineering, Recent Developments in Sustainable Infrastructure Select Proceedings of ICRDSI 2019 | International Conference on Recent Developments in Sustainable Developments (Materials & Management) 2019 | International | Oct-20 |

| Sl. No. | Name of the Author | Title of the paper | Title of the proceedings of the conference | Name of the conference | National / International | Year of publication |
|---------|---------------------------|--|--|--|--------------------------|---------------------|
| 1 | M. Mohanty S. R. Samal | Road crashes among adolescents: A case study | International Conference on Recent Development in Sustainable Infrastructures (Materials & Management) ICRDSI 2019 | International Conference on Recent Development in Sustainable Infrastructures (Materials & Management) ICRDSI 2019 | International | Jul-19 |

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| 2 | S. R. Samal M. Mohanty | Development of flexible pavement cost models for weak subgrade stabilized with fly ash and lime | Proceedings of The 9th International Conference on Sustainable Waste Management towards Circular Economy | The 9th International Conference on Sustainable Waste Management towards Circular Economy | International | Nov-19 |
| 3 | Bittu Ghosh D. Bharath Kumar Mohibullah | Role of GHG Emissions from Livestock Waste Controlling to Climate over India: A short Review | Proceedings of the 9th International Conference on Sustainable Waste Management towards Circular Economy | The 9th International Conference on Sustainable Waste Management towards Circular Economy | International | Nov-19 |
| 4 | B. Jena K. K. Sahoo | Mechanical Properties and Chloride Content on Self Compacting Concrete Exposed to Sea Water | Proceedings of The 9th International Conference on Sustainable Waste Management towards Circular Economy | The 9th International Conference on Sustainable Waste Management towards Circular Economy | International | Nov-19 |
| 5 | Dudam Bharath Kumar | Study on Improvement of Strength in Weak Soil using Rice Husk | Proceedings of The 9th International Conference on Sustainable Waste Management towards Circular Economy | The 9th International Conference on Sustainable Waste Management towards Circular Economy | International | Nov-19 |
| 6 | Dudam Bharath Kumar S. Jayalekshmi | Effect of Temperature on Adsorption of Municipal Solid Waste Leachate using Soil as an Adsorbent | Proceedings of The 9th International Conference on Sustainable Waste Management towards Circular Economy | The 9th International Conference on Sustainable Waste Management towards Circular Economy | International | Nov-19 |
| 7 | Sushree Sasmita Dudam Bharath Kumar | Study of water and wastewater treatment at Hindustan Coca-cola Pvt. Ltd. At Khurda, Odisha, India | Proceedings of The 9th International Conference on Sustainable Waste Management towards Circular Economy | The 9th International Conference on Sustainable Waste Management towards Circular Economy | International | Nov-19 |

4.5.5 Participation in inter-institute events by students of the program of study (10)

(The Department shall provide a table indicating those publications, which received awards in the events/conferences organized by other institutes)

| Sl. no. | Year of Award | Title of the innovation | Name of the Awardee | Name of the Awarding Agency with contact details (Address, Phone number, email ID) |
|---------|---------------|-------------------------|---------------------|--|
| | | | | 157 |

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|----|------------------------|---|---|--|
| 1 | 2023 | Student exchange programme | Navasree Das | CyTech, France |
| 2 | 2023 | Odisha club power lifting championship 2023 | Amritanshu Sahoo | Odisha state power lifting association |
| 3 | 2022 | Youth Exchange Program | Navasree Das | AIESEC, Egypt |
| 4 | 2022 | Long jump and 100 m race | Shatakshi Rai | 68 th Odisha Athletics Championship |
| 5 | 2022 | Odisha state power lifting championship 2022 | Amritanshu Sahoo (3 rd) | Odisha state power lifting association |
| 6 | 2022 | Odisha state power lifting championship 2022 | Amritanshu Sahoo (1 st) | Odisha state power lifting association |
| 7 | 2021 | Best innovative structural design | Soham De, Debdatta Chakraborty, Sourav Paul and Shubham Singh | Institute of Steel Development and Growth (INSDAG), Ministry of Steel, India |
| 8 | Urban FSSM Fellow 2021 | Champion of the Week by Ernst & Young | Rajarshi Paty | E & Y LLP |
| 9 | Urban FSSM Fellow 2021 | Recognition for best service as a Urban FSSM Fellow | Mohammad Shahnawaz Ansari | E & Y LLP |
| 10 | 2021 | Selected for MITACS Globalink Research Internship (GRI), University of Alberta-Edmonton | Naushin Yasmin | University of Alberta-Edmonton, Government of Canada |
| 11 | 2021 | Selected for NTU-India Connect Research Internship Programme, Nanyang Technological | Naushin Yasmin | Nanyang Technological University, Singapore |
| 12 | 2021 | Selected for DAAD WISE Internship Programme, | Naushin Yasmin | Universitat Duisburg-Essen, Germany |
| 13 | 2020 | Best innovative structural design | Salman Ashraf | Institute of Steel Development and Growth (INSDAG), Ministry of Steel, India |
| 14 | 2020 | Best innovative structural design | Shubham | Institute of Steel Development and Growth (INSDAG), Ministry of Steel, India |

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| 15 | 2020 | Best innovative structural design | Debarshi Sahoo | Institute of Steel Development and Growth (INSDAG), Ministry of Steel, India |
| 16 | 2020 | Best innovative structural design | Nikil Tawani | Institute of Steel Development and Growth (INSDAG), Ministry of Steel, India |
| 17 | 2020 | Harvesting Clean Energy from Wastewater by Membranes | Naushin Yasmin | Globalink Research Internship (GRI), University of Alberta-Edmonton |
| 18 | 2020 | Advantages of steel in infrastructure construction | Debarshi Sahoo | Ispati Irada Brand Campaign, Ministry of steel |
| 19 | 2020 | Bridge Builder | Debarshi Sahoo | Techfest, IIT Bombay |
| 20 | 2020 | 67 th Senior National Kabaddi Championship | Shiv Kumar Yadav | Govt. of India |
| 21 | 2020 | Best Player, IIIT BBSR University Fest | Hasman Isabel Pedro | IIT Bhubaneswar |
| 22 | 2020 | Basketball Winner, BGU Inter University Sports fest | Hasman Isabel Pedro | BGU Inter University |
| 23 | 2020 | Woman Finals Winner, BGU Inter University Sports meet | Hasman Isabel Pedro | BGU Inter University |
| 24 | 2020 | IIT KGP, Spring Fest 2020, Band Performance | Rohan Sinha | IIT Kharagpur |
| 25 | 2020 | IIT BBSR Alma Fiesta, Upbeat event 1 st position | Rohan Sinha | IIT Bhubaneswar |
| 26 | 2020 | Youth Exchange Program | Navasree Das | AIESEC, Egypt |
| 27 | 2019 | Globalink Research Internship (MITAC), | Soham Kar | Govt. Of CANADA, Concordia University, Montreal |
| 28 | 2019 | Tannery Wastewater Treatment Model Exhibition | Vaibhav Rathore | Megalith 2019 Organised by IIT Kharagpur |
| 29 | 2019 | Tannery Wastewater Treatment Model Exhibition | Parthiva Shome | Megalith 2019 Organised by IIT Kharagpur |

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| 30 | 2019 | Tannery Wastewater Treatment Model Exhibition | Kasorina Golui | Megalith 2019 Organised by IIT Kharagpur |
| 31 | 2019 | Tannery Wastewater Treatment Model Exhibition | Mridul Das | Megalith 2019 Organised by IIT Kharagpur |
| 32 | 2019 | 2nd prize in Encode Steel(A Structural Design Challenge) at Techfest | Debarshi Sahoo | IIT Bombay |
| 33 | 2019 | 2nd prize in Encode Steel(A Structural Design Challenge) at Techfest | Sourav Paul | IIT Bombay |
| 34 | 2019 | 2nd prize in Encode Steel(A Structural Design Challenge) at Techfest | Sayan Dey | IIT Bombay |
| 35 | 2019 | 2nd prize in Encode Steel(A Structural Design Challenge) at Techfest | Debdatta Chakraborty | IIT Bombay |
| 36 | 2019 | 3rd prize in AutoCAD at Annual Techfest“Megalith” | Shubham Chowdary | Civil Engineering Department, IIT Kharagpur |
| 37 | 2019 | 3rd prize in AutoCAD at Annual Techfest“Megalith” | Rishab Sharma | Civil Engineering Department, IIT Kharagpur |
| 38 | 2019 | 2nd prize in Edifice at Annual Techfest “Megalith” | Biswa Ranjan Jena | Civil Engineering Department, IIT Kharagpur |
| 39 | 2019 | 2nd prize in Edifice at Annual Techfest “Megalith” | Debapriya Bandopadhyay | Civil Engineering Department, IIT Kharagpur |
| 40 | 2019 | 2nd prize in Edifice at Annual Techfest “Megalith” | Manish Kumar Sahoo | Civil Engineering Department, IIT Kharagpur |
| 41 | 2019 | 2nd prize in Edifice at Annual Techfest “Megalith” | Rohit Patel | Civil Engineering Department, IIT Kharagpur |

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| 42 | 2019 | 2nd prize in Model Exhibition at Annual Techfest of Civil Engineering Department, IIT Kharagpur “Megalith” 2019 | Debarshi Sahoo | Civil Engineering Department, IIT Kharagpur |
| 43 | 2019 | 2nd prize in Model Exhibition at Annual Techfest of Civil Engineering Department, IIT Kharagpur “Megalith” 2019 | Sourav Paul | Civil Engineering Department, IIT Kharagpur |
| 44 | 2019 | 2nd prize in Model Exhibition at Annual Techfest of Civil Engineering Department, IIT Kharagpur “Megalith” 2019 | Sayan Dey | Civil Engineering Department, IIT Kharagpur |
| 45 | 2019 | 2nd prize in Model Exhibition at Annual Techfest of Civil Engineering Department, IIT Kharagpur “Megalith” 2019 | Debdatta Chakraborty | Civil Engineering Department, IIT Kharagpur |
| 46 | 2018 | Tannery Wastewater Treatment(Best Entry in innovation Challenge) | Subhojit Das | IIT Kharagpur |
| 47 | 2018 | Globalink Research Internship (MITAC) | Jyoti Prakash Jena | IIT Kharagpur |
| 48 | 2018 | 1st prize in Model Exhibition (Bridge) at Annual Techfest“Megalith” | Nayan Gupta | Civil Engineering Department, IITKharagpur |
| 49 | 2018 | 1st prize in Model Exhibition (Bridge) at Annual Techfest“Megalith” | Parth Shukla | Civil Engineering Department, IITKharagpur |
| 50 | 2018 | 1st prize in Model Exhibition (Bridge) at Annual Techfest“Megalith” | Pritam Shina | Civil Engineering Department, IITKharagpur |
| 51 | 2018 | 1st prize in Model Exhibition (Bridge) | Manish Kumar | Civil Engineering Department, IITKharagpur |

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| | | at Annual Techfest“Megalith” | | |
| 52 | 2018 | 1st prize in Model Exhibition (Bridge) at Annual Techfest“Megalith” | Anand Kishor | Civil Engineering Department, IITKharagpur |

| CRITERION 5 | Faculty Information and Contributions | 200 |
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|-------------|---------------------------------------|-----|

| S I N o | Name | PA N No. | Unive rsity Degre e | Date of Recei ving High est Degre e | Area of Special ization | Resea rch Pape r Publi cation | Ph. D Gui danc e | Facul ty recei ving Ph. D durin g the asses ment year | Curre nt Desig natio n | Date (Desi gnate d as Prof / Assoc . Prof.) | Init ial Date of Joi nin g | Assoc iation Type | At prese nt work ing with the Insti tution (Yes / No) | In case of NO, Date of Lea vin g | IS HOD / Prin cipal ? |
|------------------|----------------------------|------------------------|------------------------------|--|----------------------------------|--|------------------------------|--|------------------------------------|---|--|-------------------------|---|--|--------------------------------------|
| 1 | Aditya Kumar Das | BJD PD9 745 E | M.E/ M.Tec h | 14- 12- 2012 | Transp ortatio n Engg. | | | | Assist ant Profes sor | | 01- 07- 201 4 | Regul ar | No | 01- 03- 202 1 | No |
| 2 | Amit Kumar Das | AU HPD 9235 D | ME/M . Tech and PhD | 07- 03- 2022 | Transp ortatio n Engg. | 2 | | | Assist ant Profes sor | | 03- 12- 201 8 | Regul ar | Yes | | No |
| 3 | Anil Kumar Dash | AU BPD 1813 F | ME/M . Tech and PhD | 22- 03- 2016 | Structu ral Engg. | | | | Assist ant Profes sor | | 20- 06- 201 6 | Regul ar | No | 11- 03- 202 0 | No |
| 4 | Aparupa Pani | BFI PP3 393 B | ME/M . Tech and PhD | 09- 07- 2019 | Geotec h. Engg | 3 | 1 | | Assist ant Profes sor | | 02- 08- 201 0 | Regul ar | Yes | | No |
| 5 | Asheena Sunny | ETH PS5 662 E | M.E/ M.Tec h | 22.02 .2016 | Structu ral Engg. | 2 | | | Assist ant Profes sor | | 17- 01- 201 7 | Regul ar | Yes | | No |
| 6 | Asish Kumar Pani | AU APP 2236 R | ME/M . Tech and PhD | 02- 09- 2021 | Structu ral Engg. | 5 | | | Assoc iate Profes sor | 15- 09- 2016 | 17- 04- 200 7 | Regul ar | Yes | | No |
| 7 | B. P. Sahoo | CA DPS 1562 E | ME/M . Tech and PhD | 13- 06- 2008 | Chemis try | | | | Assist ant Profes sor | | 18- 02- 201 3 | Regul ar | Yes | | No |
| 8 | B.B. Kar | AH GPK 1039 C | ME/M . Tech and PhD | 30- 03- 2001 | Chemis try | | | | Profes sor | 11- 07- 2012 | 01- 03- 200 5 | Regul ar | Yes | | No |
| 9 | Bandita Paikaray | APV PP9 756 L | ME/M . Tech and PhD | 09- 11- 2019 | Geotec h. Engg | 8 | 2 | | Assoc iate Profes sor | 15- 09- 2016 | 31- 07- 200 8 | Regul ar | Yes | | No |
| 10 | Banu Gopal Mohapatra | AG TPB 5462 C | ME/M . Tech and PhD | 01- 09- 2001 | Geotec h. Engg | 18 | 3 | 4 | Profes sor | 06- 06- 2012 | 01- 07- 201 0 | Regul ar | Yes | | No |
| 11 | Bhagabat Jena | ABP PJ31 38C | ME/M . Tech and PhD | 10- 07- 1970 | Structu ral Engg. | 6 | 2 | | Profes sor | 02- 08- 2007 | 02- 08- 200 7 | Regul ar | Yes | | No |

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|----|-----------------------|---------------|-------------------|------------|---------------------------|----|---|---|---------------------|------------|------------|---------|-----|------------|----|
| 12 | Bhagyashree Panda | BKE PP7 201 F | M.E/M.Tech | 18-01-2014 | Transportation Engg. | 4 | | | Assistant Professor | | 06-07-2013 | Regular | Yes | | No |
| 13 | Bitanjaya Das | AH LPD 8458 K | ME/M.Tech and PhD | 16-12-1993 | Water Resources Engg. | 19 | 5 | 4 | Professor | 01-09-2004 | 01-09-2004 | Regular | Yes | | No |
| 14 | Brundaban Beriha | BEL PB0 104 G | ME/M.Tech and PhD | 20-10-2020 | Transportation Engg. | 4 | 1 | | Assistant Professor | | 27-06-2019 | Regular | Yes | | No |
| 15 | Chinmay Kumar Kundu | ASA PK9 113 E | ME/M.Tech and PhD | 15-09-2007 | Structural Engg. | 11 | 3 | 0 | Associate Professor | 01-09-2015 | 01-09-2015 | Regular | Yes | | No |
| 16 | Dillip Kumar Bera | AK GPB 5659 Q | ME/M.Tech and PhD | 12-11-2016 | Construction Management | 17 | 4 | 2 | Associate Professor | 01-09-2016 | 03-01-2005 | Regular | Yes | | No |
| 17 | Dipti Ranjan Biswal | AN WP B66 52Q | ME/M.Tech and PhD | 18-05-2018 | Transportation Engg. | 5 | 4 | | Associate Professor | 18-06-2018 | 18-06-2018 | Regular | Yes | | No |
| 18 | Dudam Bharath Kumar | BC MP B13 22F | ME/M.Tech and PhD | 07-08-2017 | Environmental Engineering | 11 | 1 | | Assistant Professor | | 01-07-2017 | Regular | Yes | | No |
| 19 | Gaurav Udgata | AEZ PU3 397 R | M.E/M.Tech | 31.05.2016 | Structural Engg. | 4 | | | Assistant Professor | | 23-06-2016 | Regular | Yes | | No |
| 20 | Himanshu Sekhar Panda | AL UPP 7236 Q | ME/M.Tech and PhD | 28.03.2016 | Structural Engg. | 1 | | | Associate Professor | 23-01-2017 | 23-01-2017 | Regular | Yes | | No |
| 21 | Ipsita Mohanty | AV CP M07 42J | M.E/M.Tech | 05-02-2016 | Structural Engg. | 1 | | | Assistant Professor | | 23-06-2017 | Regular | Yes | | No |
| 22 | Ipsita Panda | CW SPP 9150 L | M.E/M.Tech | 16-01-2016 | Geotech. Engg | 2 | | | Assistant Professor | | 04-07-2017 | Regular | Yes | | No |
| 23 | Jagori Dutta | APF PD3 424 F | ME/M.Tech and PhD | 22.06.2016 | Geotech. Engg | | | | Assistant Professor | | 27-06-2016 | Regular | No | 10-08-2021 | No |
| 24 | Jyotiprakash Padhi | BIB PP5 986J | ME/M.Tech and PhD | 17-04-2010 | Water Resources Engg. | 9 | 2 | | Associate Professor | 01-09-2016 | 06-07-2012 | Regular | Yes | | No |
| 25 | K. Parashar | AX KPP 1089 R | M.Sc. and PhD | 06-09-2004 | Chemistry | | | | Professor | 01-03-2019 | 10-08-2009 | Regular | Yes | | No |
| 26 | K.G. Mishra | AJ WP | ME/M.Tech | 06-07- | Chemistry | | | | Professor | 01-09- | 22-07- | Regular | Yes | | No |

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|--------|---------------------------------|------------------------|------------------------------|--------------------|------------------------------------|----|---|---|--------------------------------|--------------------|------------------------|-------------|-----|--|----|
| | | M34 83A | and PhD | 2001 | | | | | | 2007 | 200 3 | | | | |
| 2 7 | Kalpna Sahoo | ES MPS 2701 A | M.E/ M.Tec h | 07- 03- 2022 | Transp ortatio n Engg. | 2 | | | Assist ant Profes sor | | 27- 06- 201 7 | Regul ar | Yes | | No |
| 2 8 | Kirtikant a Sahoo | DEL PS8 005 F | ME/M . Tech and PhD | 07- 01- 2017 | Structu ral Engg. | 10 | 4 | | Assist ant Profes sor | | 18- 06- 201 2 | Regul ar | Yes | | No |
| 2 9 | Kshyana Prava Samal | BN NPK 6597 B | ME/M . Tech and PhD | 14- 11- 2009 | Water Resour ces Engg. | 4 | 2 | | Assoc iate Profes sor | 17- 06- 2016 | 17- 06- 201 6 | Regul ar | Yes | | No |
| 3 0 | Kundan Samal | DQ DPS 7888 L | ME/M . Tech and PhD | 10- 01- 2020 | Enviro nmenta l Engg. | 11 | 1 | | Assist ant Profes sor | | 02- 07- 201 8 | Regul ar | Yes | | No |
| 3 1 | Lalima Banerjee | AX VPB 7259 A | M.E/ M.Tec h | 24.12 .2014 | Structu ral Engine ering | | | | Assist ant Profes sor | | 24- 11- 201 4 | Regul ar | Yes | | No |
| 3 2 | Madhulis ha Pattanaik | BHZ PP4 836J | ME/M . Tech and PhD | 04- 06- 2019 | Transp ortatio n Engg. | 1 | | | Assist ant Profes sor | | 19- 07- 201 9 | Regul ar | Yes | | No |
| 3 3 | Malaya Mohanty | BR UP M47 56R | ME/M . Tech and PhD | 20- 03- 2020 | Transp ortatio n Engg. | 13 | 1 | | Assist ant Profes sor | | 02- 07- 201 8 | Regul ar | Yes | | No |
| 3 4 | Mohibull ah | AY AP M25 15J | M.E/ M.Tec h | 30- 06- 2012 | Constr uction Manag ement | 4 | | | Assist ant Profes sor | | 09- 01- 201 7 | Regul ar | Yes | | No |
| 3 5 | Narayan Chandra Moharana | AH LP M16 60J | ME/M . Tech and PhD | 18- 11- 1968 | Structu ral Engg. | 1 | 2 | | Assoc iate Profes sor | 15- 09- 2016 | 18- 11- 196 8 | Regul ar | Yes | | No |
| 3 6 | Paromita Chakrabo rty | AJH PC1 855 F | ME/M . Tech and PhD | 30- 10- 2020 | Water Resour ces Engg. | 8 | 2 | | Assist ant Profes sor | | 13- 07- 201 2 | Regul ar | Yes | | No |
| 3 7 | Prasanna Kumar Acharya | AIO PA2 405 M | ME/M . Tech and PhD | 15- 12- 2014 | Constr uction Manag ement | 9 | 5 | | Assoc iate Profes sor | 01- 01- 2020 | 01- 01- 202 0 | Regul ar | Yes | | No |
| 3 8 | Prateeksh a Mahamal ik | BJW PM4 843 D | ME/M . Tech and PhD | 27- 07- 2013 | Enviro nmenta l Engg. | | | | Assist ant Profes sor | | 31- 07- 201 7 | Regul ar | Yes | | No |
| 3 9 | Preetyna nda Nanda | AM RPN 0876 E | M.E/ M.Tec h | 09- 06- 2014 | Geotec h. Engg | 3 | | | Assist ant Profes sor | | 23- 07- 201 4 | Regul ar | Yes | | No |
| 4 0 | Purna Chandra Saha | BHF PS3 820 P | ME/M . Tech and PhD | 06- 08- 2010 | Structu ral Engg. | 27 | 6 | 2 | Assoc iate Profes sor | | 01- 07- 201 3 | Regul ar | Yes | | No |
| 4 | Rachita | BSU | M.E/ M.Tec h | 08- | Transp | 3 | | | Assist | | 19- | Regul | Yes | | No |

| | | | | | | | | | | | | | | | |
|--------|-----------------------------|------------------------|------------------------------|--------------------|-----------------------------------|----|---|---|--------------------------------|--------------------|------------------------|-------------|-----|------------------------|-----|
| 1 | Panda | PP6 733J | M.Tec h | 11- 2016 | ortatio n Engg. | | | | ant Profes sor | | 06- 201 7 | ar | | | |
| 4 2 | Rana Chattaraj | AIP PC4 084 P | ME/M . Tech and PhD | 27- 02- 2017 | Geotec h. Engg | 4 | 2 | | Assist ant Profes sor | | 03- 01- 201 7 | Regul ar | Yes | | No |
| 4 3 | S. K. Maji | BQ AP M57 65K | ME/M . Tech and PhD | 25- 07- 2008 | Chemis try | | | | Assist ant Profes sor | | 13- 01- 201 4 | Regul ar | Yes | | No |
| 4 4 | Sananda Sarkar | BZ WP S88 43P | M.E/ M.Tec h | 02- 02- 2015 | Enviro nmenta l Engg. | | | | Assist ant Profes sor | | 16- 06- 201 6 | Regul ar | Yes | | No |
| 4 5 | Sanjib Moulick | ANS PM0 708 N | ME/M . Tech and PhD | 03- 02- 2003 | Enviro nmenta l Engg. | 10 | 2 | 1 | Profes sor | 01- 07- 2016 | 10- 01- 201 2 | Regul ar | Yes | | Yes |
| 4 6 | Satya Ranjan Samal | EEH PS2 603 E | M.E/ M.Tec h | 15- 07- 2014 | Transp ortatio n Engg. | 10 | | | Assist ant Profes sor | | 23- 07- 201 4 | Regul ar | Yes | | No |
| 4 7 | Satyajeet Nanda | AD YPN 6744 M | ME/M . Tech and PhD | 11- 03- 2013 | Geotec h. Engg | 3 | 4 | 1 | Assoc iate Profes sor | 20- 02- 2017 | 20- 02- 201 7 | Regul ar | Yes | | No |
| 4 8 | Shiv Shankar Kumar | HL XPK 7687 A | ME/M . Tech and PhD | 25- 06- 2018 | Geotec h. Engg | 2 | | | Assist ant Profes sor | | 30- 07- 201 8 | Regul ar | No | 202 0 | No |
| 4 9 | Sitam Suvam Jena | AU MPJ 3464 H | M.E/ M.Tec h | 07.02 .2017 | Water Resour ces Engg. | 1 | | | Assist ant Profes sor | | 19- 06- 201 7 | Regul ar | Yes | | No |
| 5 0 | Sunny Jaiswal | EA NPS 0722 L | M.E/ M.Tec h | 22- 07- 2017 | Structu ral Engg. | | | | Assist ant Profes sor | | 19- 06- 201 7 | Regul ar | Yes | | No |
| 5 1 | Susanta Banerjee | AOS PB4 028 B | M.E/ M.Tec h | 09.04 .2014 | Structu ral Engine ering | | | | Assist ant Profes sor | | 21- 07- 201 4 | Regul ar | No | 30- 09- 202 1 | No |
| 5 2 | Sushree Sangita Panda | AN OPP 6897 K | M.E/ M.Tec h | 24.07 .2015 | Structu ral Engg. | 1 | | | Assist ant Profes sor | | 19- 06- 201 7 | Regul ar | Yes | | No |
| 5 3 | T. K. Bastia | AHF PB4 366 A | M.Sc. and PhD | 01- 06- 1993 | Chemis try | | | | Profes sor | 01- 09- 2018 | 09- 03- 200 9 | Regul ar | Yes | | No |
| 5 4 | Tribikra m Mohanty | AGJ PM1 717 B | ME/M . Tech and PhD | 10- 11- 2018 | Structu ral Engg. | 8 | 4 | | Assoc iate Profes sor | 01- 09- 2016 | 05- 09- 200 8 | Regul ar | Yes | | No |

Table B.5

Note: Please provide details for the faculty of the department, cumulative information for all the shifts for all academic years starting from current year in above format in Annexure - II.

5.1. Student-Faculty Ratio (SFR) (20)

(To be calculated at Department Level)

No. of UG Programs in the Department (n): _____

No. of PG Programs in the Department (m): _____

No. of Students in UG 2nd Year= **u1**=

No. of Students in UG 3rd Year= **u2**

No. of Students in UG 4th Year= **u3**

No. of Students in PG 1st Year= **p1**

No. of Students in PG 2nd Year= **p2**

No. of Students = Sanctioned Intake + Actual admitted lateral entry students

(The above data to be provided considering all the UG and PG programs of the department)

S=Number of Students in the Department = UG1+UG2+UG3+PG1+PG2

F = Total Number of Faculty Members in the Department (excluding first year faculty)

Student Faculty Ratio (SFR) = S / F

| B. Tech in Civil Engineering | | | | | | |
|---|-------------------|--|-------------------|--|-------------------|--|
| Year of Study | CAY | | CAYm1 | | CAYm2 | |
| | (2022-2023) | | (2021-2022) | | (2020-2021) | |
| | Sanctioned Intake | Actual Admitted through lateral entry students | Sanctioned Intake | Actual Admitted through lateral entry students | Sanctioned Intake | Actual Admitted through lateral entry students |
| 2nd Year | 180 | 18 | 180 | 18 | 180 | 15 |
| 3rd Year | 180 | 18 | 180 | 15 | 180 | 16 |
| 4th Year | 180 | 15 | 180 | 16 | 180 | 20 |
| Sub Total | 540 | 51 | 540 | 49 | 540 | 51 |
| Total | 591 | | 589 | | 591 | |
| No of PG programs in the department: 1 | | | | | | |
| M. Tech in Civil Engineering | | | | | | |
| Year of Study | CAY | | CAYm1 | | CAYm2 | |
| | (2022-2023) | | (2021-2022) | | (2020-2021) | |
| | Sanctioned Intake | Actual Admitted through lateral entry students | Sanctioned Intake | Actual Admitted through lateral entry students | Sanctioned Intake | Actual Admitted through lateral entry students |
| 1st Year | 18 | | 18 | | 18 | |
| 2nd Year | 18 | | 18 | | 18 | |
| Sub Total | 36 | 0 | 36 | 0 | 36 | 0 |
| Total | 36 | | 36 | | 36 | |
| Total | 627 | | 625 | | 627 | |
| Total Faculty | 43 | | 43 | | 45 | |
| Student Faculty Ratio (SFR) | 14.58 | | 14.53 | | 13.93 | |
| Average Student Faculty Ratio (SFR) | 14.34 | | | | | |
| Marks for SFR | 20.00 | | | | | |

Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:

| | | |
|--------|---|----------|
| < = 15 | - | 20 Marks |
| < = 17 | - | 18 Marks |
| < = 19 | - | 16 Marks |
| < = 21 | - | 14 Marks |
| < = 23 | - | 12 Marks |
| < = 25 | - | 10 Marks |
| > 25.0 | - | 0 Marks |

Note:

All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

| | Total number of regular faculty in the | Total number of contractual faculty in the department |
|--------------------------|---|--|
| CAY (2022-2023) | 43 | 0 |
| CAYm1 (2021-2022) | 43 | 0 |
| CAYm2 (2020-2021) | 45 | 0 |

Table 5.1.1

5.2. Faculty Cadre Proportion (20)

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Professors required = $1/9 \times$ Number of Faculty required to comply with 20:1 Student- Faculty ratio based on no. of students (N) as per 5.1

F2: Number of Associate Professors required = $2/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F3: Number of Assistant Professors required = $6/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

| Year | Professors | | Associate Professors | | Assistant Professors | |
|------------------------|-------------|-----------|----------------------|-----------|----------------------|-----------|
| | Required F1 | Available | Required F2 | Available | Required F3 | Available |
| CAY | | | | | | |
| CAYm1 | | | | | | |
| CAYm2 | | | | | | |
| Average Numbers | RF1= | AF1= | RF2= | AF2= | RF3= | AF3= |

Table B.5.2

$$\text{Cadre Ratio Marks} = \left[\frac{AF1}{RF1} \right] + \left[\frac{AF2}{RF2} \times 0.6 \right] + \left[\frac{AF3}{RF3} \times 0.4 \right] \times 10$$

- If AF1 = AF2= 0 then zero marks
- Maximum marks to be limited if it exceeds 20

Example: Intake = 60 (i.e. total no. of students= 180); Required number of Faculty: 9; RF1= 1, RF2=2 and RF3=6

Case 1: AF1/RF1= 1; AF2/RF2 = 1; AF3/RF3 = 1; Cadre proportion marks = $(1+0.6+0.4) \times 10 = 20$

Case 2: AF1/RF1= 1; AF2/RF2 = 3/2; AF3/RF3 = 5/6; Cadre proportion marks = $(1+0.9+0.3) \times 10 =$ limited to 20

Case 3: AF1/RF1=0; AF2/RF2=1/2; AF3/RF3=8/6; Cadre proportion marks = $(0+0.3+0.53) \times 10 = 8.3$

| Faculty Cadre Proportion | | | | | | |
|--------------------------|-------------|-----------|----------------------|-----------|----------------------|-----------|
| Year | Professors | | Associate professors | | Assistant Professors | |
| | Required F1 | Available | Required F2 | Available | Required F3 | Available |
| CAY (2022-2023) | 3.48 | 4 | 6.96 | 13 | 20.90 | 26 |
| CAYm1 (2021-2022) | 3.56 | 4 | 7.12 | 13 | 21.40 | 26 |
| CAYm2 (2020-2021) | 3.48 | 4 | 6.97 | 13 | 20.90 | 28 |
| Average Numbers | 3.50 | 4 | 7.01 | 13.00 | 21.06 | 26.66 |
| | RF1 | AF1 | RF2 | AF2 | RF3 | AF3 |
| | | | | | | |
| Cadre Ratio Marks | 27.60 | 20 | | | | |

5.3. Faculty Qualification (20)

$FQ = 2.0 \times [(10X + 4Y)/F]$ where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M. Tech., F is no. of regular faculty required to comply 20:1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

| Faculty Qualification | | | | |
|-----------------------|-------------------------|---------------------------|-------|-------|
| | Faculty with PhD Degree | Faculty with MTech Degree | | |
| Year | X | Y | F | FQ |
| CAY (2022-2023) | 28 | 15 | 31.35 | 21.69 |
| CAYm1 (2021-2022) | 28 | 15 | 31.25 | 21.76 |
| CAYm2 (2020-2021) | 29 | 16 | 31.35 | 22.32 |
| Average Numbers | | | | 21.92 |
| Marks | | | | 20 |

5.4. Faculty Retention (10)

No. of regular faculty members in CAYm1= 43

CAY= 43

| Item (% of faculty retained during the period of assessment keeping CAYm2 as base year) | Marks |
|--|-------|
| >= 90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year | 10 |
| >=75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year | 08 |
| >= 60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year | 06 |
| >= 50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year | 04 |
| < 50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year | 0 |

Table B.5.4

| Faculty Retention | | | |
|------------------------|-------------|-------------|-------------|
| | CAY | CAYm1 | CAYm2 |
| | (2022-2023) | (2021-2022) | (2020-2021) |
| No of faculty retained | 43 | 43 | 45 |
| Total no of faculty | 43 | 43 | 45 |
| % of faculty retained | 95.55 | 95.55 | |
| Marks | 10 | 10 | |

5.5. Faculty competencies in correlation to Program Specific Criteria(10)

(List the program specific criteria and the competencies (specialization, research publications, course developments etc.) of faculty to correlate the program specific criteria and competencies.)

| Sl. No | Name | Subject specialization | Research Specialization | No. of Publications | Course Developments | Mapping of Capability to PSO |
|--------|------------------------|--------------------------|--|---------------------|--|------------------------------|
| 1 | Prof. Amit Kumar Das | Transportation Engg | Traffic flow modeling, Traffic engineering | 2 | Course handouts/laboratory video/lecture video | PSO 1, PSO2 |
| 2 | Prof. Aparupa Pani | Geotechnical Engineering | Industrial Waste Management, Ground Improvement, Soil Stabilization | 5 | Course handouts/laboratory video/lecture video | PSO 2, PSO3 |
| 3 | Prof. Asish Kumar Pani | Structural Engg. | Concrete block pavement, sustainable use of waste material, fiber reinforced concrete | 5 | Course handouts/laboratory video | PSO 1, PSO2 |
| 4 | Prof. Bandita Paikaray | Geotechnical Engineering | Bearing capacity of shallow foundation, Ground improvement techniques, Geosynthetic reinforced structure | 8 | Course handouts | PSO 2, PSO3 |

| | | | | | | |
|----|----------------------------|--|---|----|---------------------------------------|-------------|
| 5 | Prof. Banu Gopal Mohapatra | Geotechnical Engineering, Foundation Engineering | Slope stabilization, Soil Nailing | 11 | Course handouts /Blogs/Lecture videos | PSO 2, PSO3 |
| 6 | Prof. Bhagabat Jena | Structural Engg. | Structural analysis | 6 | Course handouts | PSO 1, PSO2 |
| 7 | Prof. Bitanjaya Das | Transportation Engg | Hydrology and water resources engineering | 21 | Course handouts | PSO 2, PSO3 |
| 8 | Prof. Brundaban Beriha | Transportation Engg | Pavement Analysis and Design, Pavement Material Characterization, Pavement Evaluation and Maintenance | 7 | Course handouts/lecture video | PSO 1, PSO2 |
| 9 | Prof. Chinmay Kumar Kundu | Structural Engg. | nonlinear finite element analysis, smart structures, Composite structures | 11 | Course handouts | PSO 1, PSO2 |
| 10 | Prof. Dillip Kumar Bera | Construction Management | Nano-materials used in cement, geo-polymer concrete, project optimization | 18 | Course handouts | PSO 1, PSO2 |
| 11 | Prof. Dipti Ranjan Biswal | Transportation Engg | Pavement material characterization, stabilized base and sub-base, pavement design | 8 | Course handouts/lecture video | PSO 1, PSO2 |
| 12 | Prof. Dudam Bharath Kumar | Environmental Engg. | Air pollution monitoring (PM2.5, PM10 and SO2 and NOx), Source-receptor modeling, Source Apportionment, Evaluation of satellite based aerosol estimates, receptor modeling, Indoor air quality studies, Traffic noise pollution | 14 | Course handouts/laboratory video | PSO 2, PSO3 |

| | | | | | | |
|----|-----------------------------|--------------------------|---|---|--|-------------|
| | | | modeling | | | |
| 13 | Prof. Gaurav Udgata | Structural Engg. | Sustainable interlocking bricks | 4 | Course handouts/lecture video | PSO 1, PSO2 |
| 14 | Prof. Himanshu Sekhar Panda | Structural Engg. | Structural Analysis and Design, Dynamic analysis and testing of laminated and delaminated composite structures under influence hygro-thermal environment | 1 | Course handouts | PSO 1, PSO2 |
| 15 | Prof. Ipsita Mohanty | Structural Engg. | Sustainable material, pre-stressed concrete, RCC | 1 | Course handouts/lecture video | PSO 1, PSO2 |
| 16 | Prof. Ipsita Panda | Geotechnical Engineering | Geo-environmental engineering, Ground improvement methods, soil remediation techniques, waste recycling and utilization, Bio-mediated soil improvement, Contaminated soil management. | 2 | Course handouts/laboratory video/lecture video | PSO 2, PSO3 |
| 17 | Prof. Jyotiprakash Padhi | Water Resources Engg. | water resource management, surface water hydrology and drought | 7 | Course handouts | PSO 2, PSO3 |
| 18 | Prof. Kalpana Sahoo | Transportation Engg | Traffic engineering, rotary and intersection design, pavement material and pavement design | 1 | Course handouts | PSO 1, PSO2 |
| 19 | Prof. Kirtikanta Sahoo | Structural Engg. | Smart Concrete, Advanced Concrete, Industrial waste in concrete, Bio-Concrete | 9 | Course handouts | PSO 1, PSO2 |
| 20 | Prof. | Water | Irrigation | 3 | Course | PSO 2, |

| | | | | | | |
|----|--------------------------------|--------------------------|---|----|---|-------------|
| | Kshyana Prava Samal | Resources Engg. | Management and Ground water | | handouts/laboratory video/lecture video | PSO3 |
| 21 | Prof. Kundan Samal | Environmental Engg. | Biological water and wastewater treatment, Constructed Wetland, Composting and Vermi composting | 13 | Course handouts/laboratory video | PSO 2, PSO3 |
| 22 | Prof. Madhulisha Pattanaik | Transportation Engg | Transportation Engineering, Pavement Materials, Recycling, Solid Waste Management | 2 | Course handouts | PSO 1, PSO2 |
| 23 | Prof. Malaya Mohanty | Transportation Engg | Traffic engineering and management, Traffic safety | 13 | Course handouts /Lecture videos/ laboratory video | PSO 1, PSO2 |
| 24 | Prof. Mohibullah | Construction Management | project Management in construction | 5 | Course handouts /Lecture videos | PSO 1, PSO2 |
| 25 | Prof. Narayan Chandra Moharana | Structural Engg. | Sustainable material, reinforcement corrosion, analysis and design of steel and RCC structures | 2 | Course handouts/laboratory video | PSO 1, PSO2 |
| 26 | Prof. Paromita Chakraborty | Water Resources Engg. | Reservoir sedimentation, flow hydraulics, non-Newtonian fluids | 10 | Course handouts /Lecture videos | PSO 2, PSO3 |
| 27 | Prof. Prasanna Kumar Acharya | Construction Management | Construction Engineering and Management | 12 | Course handouts/laboratory video/lecture video | PSO 1, PSO2 |
| 28 | Prof. Preetynanda Nanda | Geotechnical Engineering | Ground improvement, utilization of industrial waste | 4 | Course handouts/laboratory video/lecture video | PSO 2, PSO3 |
| 29 | Prof. Purna Chandra Saha | Structural Engg. | Earthquake engineering, Structural Dynamics, structural health monitoring and | 40 | Course handouts | PSO 1, PSO2 |

| | | | | | | |
|----|--------------------------|--------------------------|---|----|--|-------------|
| | | | structural control, sustainable materials, green buildings | | | |
| 30 | Prof. Rachita Panda | Transportation Engg | Pavement design, traffic safety | 4 | Course handouts/laboratory video/lecture video | PSO 1, PSO2 |
| 31 | Prof. Rana Chattaraj | Geotechnical Engineering | ground improvement, small strain and large strain dynamic properties of soil and liquefaction | 4 | Course handouts/lecture video | PSO 2, PSO3 |
| 32 | Prof. Sananda Sarkar | Environmental Engg. | Modeling and understanding The Impacts of Climate Change On Water Resources, Watershed Modeling | 3 | Course handouts/lecture video/laboratory video | PSO 2, PSO3 |
| 33 | Prof. Sanjib Moulick | Environmental Engg. | water and wastewater treatment, designing of water re-use system and water quality management | 15 | Course handouts/lecture video | PSO 2, PSO3 |
| 34 | Prof. Satya Ranjan Samal | Transportation Engg | Traffic congestion and management, traffic safety | 13 | Course handouts/laboratory video/lecture video | PSO 1, PSO2 |
| 35 | Prof. Satyajeet Nanda | Geotechnical Engineering | load-settlement behavior of long piles, behavior of monopile in offshore loading condition, crushing properties of offshore sand, deep water anchor system and strain rate effect of soft soil using T-bar. | 7 | Course handouts /Lecture videos | PSO 2, PSO3 |

| | | | | | | |
|----|-----------------------------|------------------|--|-------|--|-------------|
| 36 | Prof. Sunny Jaiswal | Structural Engg. | Geopolymer-concrete and self-compacting concrete | ----- | Course handouts/laboratory video | PSO 1, PSO2 |
| 37 | Prof. Sushree Sangita Panda | Structural Engg. | Structural engineering, Dowel Action in Reinforced Concrete Beam | 2 | Course handouts/laboratory video/lecture video | PSO 1, PSO2 |
| 38 | Prof. Tribikram Mohanty | Structural Engg. | sustainable building materials and waste utilization | 10 | Course handouts/laboratory video/lecture video | PSO 1, PSO2 |

5.6. Innovations by the Faculty in Teaching and Learning (10)

Innovations by the Faculty in teaching and learning shall be summarized as per the following description.

Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations not limited to, use of ICT, instruction delivery, instructional methods, assessment, evaluation and inclusive class rooms that lead to effective, efficient and engaging instruction. Any contributions to teaching and learning should satisfy the following criteria:

- *The work must be made available on Institute website*
- *The work must be available for peer review and critique*
- *The work must be reproducible and developed further by other scholars*

The department/institution may set up appropriate processes for making the contributions available to the public, getting them reviewed and for rewarding. These may typically include statement of clear goals, adequate preparation, use of appropriate methods, significance of results, effective presentation and reflective critique

Some of the innovations by the faculties in teaching & learning process:

- Mode of teaching is an amalgamation of the modern technology (e.g. power point presentation, audio-visual teaching etc.) with the traditional marker-duster method of teaching.
- The course handouts (lesson plan) are distributed among students by the subject teacher before the commencement of the classes.
- Study materials are shared to students via e-mail, websites, handouts etc.
- Students are encouraged to visit NPTEL lectures, browse different internet sites to increase their knowledge base about the subject. Moreover, through these activities students acquire relevant knowledge, which is beyond the prescribed university syllabus.
- Students are endowed with various online video lectures related to their curriculum, which is developed by faculty members of the school.
- The faculty members encourage students to participate in different technical competitions.
- Open-ended experiments are a part of the laboratory curriculum where the students apply the knowledge gained during laboratory sessions to solve real life problems.

- The Tech-Fest and other technical events are organized by the school to create opportunities for students' self-development based on the gained technological knowledge.
- The school of Humanities regularly organizes soft skill classes for various schools, based on availability and requirement, to enhance the students' communication skills, grooming and body language to equip them for the professional world.
- Social network groups (e.g. WhatsApp) has been formed between the students and faculties in order to handle the queries of the students and provide the solutions 24x7.
- The school organizes a number of workshops/ conferences/ project contests/ symposium throughout the year for dissemination of knowledge on recent technologies.
- The school has established a number of centre of excellence in collaboration with external academic and research units for enhancing the skills of the students.
- Activity based learning has been introduced to analyze the abilities of students under different orientations based on problem solving, critical thinking focus, creation, interactivity focus, quiz, reflection etc.
- The biggest resource for self-learning is the school library which not only possesses ample of books to meet the students' syllabus-oriented needs, but it also houses numerous books by eminent national and international authors on a variety of topics which students may regularly access to sharpen and broaden their knowledge. The library also possesses a number of magazines and periodicals related to different branches of science and technology, which the students may readily access.
- The library subscribes to a host of online and printed journals, which are made readily available to the students.

5.7. Faculty as participants in Faculty development/training activities/STTPs (15)

- A Faculty scores maximum five points for participation
- Participation in 2 to 5 days Faculty/ Faculty development program: 3Points
- Participation >5 days Faculty/ Faculty development program: 5 points

| Name of the Faculty | Max. 5 per faculty | | |
|----------------------------|--------------------|-------------------|-------------------|
| | CAYm1 (2021-2022) | CAYm2 (2020-2021) | CAYm3 (2019-2020) |
| Prof. Bitanjaya Das | 5 | 5 | 5 |
| Prof. Benu Gopal Mohapatra | 5 | 5 | 5 |
| Prof. Sanjib Moulick | 5 | 5 | 5 |
| Prof. Bhagabata Jena | | 5 | 5 |
| Prof. Asish Kumar Pani | 5 | 5 | 5 |
| Prof. Bandita Paikaray | 5 | 5 | 5 |
| Prof. Tribikram Mohanty | 5 | 5 | 5 |
| Prof. Jyotiprakash Padhi | 5 | 5 | 5 |
| Prof. Purna Chandra Saha | 5 | 5 | 5 |

| | | | |
|--------------------------------|-----|-----|-----|
| Prof. Satyajeeet Nanda | 5 | 5 | 5 |
| Prof. Prasanna K Acharya | 5 | 5 | 5 |
| Prof. Narayan Chandra Moharana | 5 | 5 | 5 |
| Prof. Dillip Kumar Bera | 5 | 5 | 5 |
| Prof. Kshyana Prava Samal | 5 | 5 | 5 |
| Prof. Chinmay Kumar Kundu | 5 | 5 | 5 |
| Prof. Dipti Ranjan Biswal | 5 | 5 | 5 |
| Prof. Paromita Chakraborty | 5 | 5 | 5 |
| Prof. Kirti Kanta Sahoo | 5 | 5 | 5 |
| Prof. Malaya Mohanty | 5 | 5 | 5 |
| Prof. Jagori Dutta | 5 | 5 | 5 |
| Prof. Madhu Lisha Pattanaik | 5 | 5 | 5 |
| Prof. Preetynanda Nanda | 5 | 5 | 5 |
| Prof. Satya Ranjan Samal | 5 | 5 | 5 |
| Prof. Sananda Sarkar | 5 | 5 | 5 |
| Prof. Asheena Sunny | 5 | 5 | 5 |
| Prof. Amit Kumar Das | 5 | 5 | 5 |
| Prof. Bhagyashree Panda | 5 | 5 | 5 |
| Prof. Rachita Panda | 5 | 5 | 5 |
| Prof. Aparupa Pani | 5 | 5 | 5 |
| Prof. Ipsita Panda | 5 | 5 | 5 |
| Prof. Sitam Suvam Jena | 5 | 3 | 5 |
| Prof. Rana Chattaraj | 5 | 5 | 5 |
| Prof. Gaurav Udgata | 5 | 5 | 5 |
| Prof. Kundan Samal | 5 | 5 | 5 |
| Prof. Mohibullah | 5 | 5 | 5 |
| Prof. Ipsita Mohanty | 5 | 5 | 5 |
| Prof. Brundaban Beriha | 5 | 5 | 5 |
| Prof. Dudam Bharath Kumar | 5 | 5 | 5 |
| Prof. Sushree Sangita Panda | 5 | 5 | 5 |
| Prof. Kalpana Sahoo | 5 | 5 | 5 |
| Prof. Sunny Jaiswal | 5 | 5 | 5 |
| Sum | 200 | 203 | 205 |

| | | | |
|---|-----------|-------|-------|
| RF= Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1 | 31.25 | 31.35 | 32.10 |
| Assessment = $3 \times (\text{Sum}/0.5 \text{ RF})$ (Marks limited to 15) | 38.41 | 38.85 | 38.31 |
| Average | 38.52 | | |
| Average assessment over last three years (Marks limited to 15) = | 15 | | |

2021-22

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|---------------------------|---|----------------------|-----------------|
| Prof Dipti Biswal | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Rachita Panda | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Bandita Paikaray | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Asish Kumar Pani | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Amit Kumar Das | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Kirti Kanta Sahoo | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Preetynanda Nanda | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Tribikram Mohanty | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Aparupa Pani | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Kundan Samal | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Dudam Bharath Kumar | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Ipsita Panda | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Paromita Chakraborty | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |

| | | | |
|--------------------------------|---|------------|------------|
| Prof. Purna Chandra Saha | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Brundaban Beriha | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Narayan Chandra Moharana | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Kshyana Prava Samal | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof. Jyotiprakash Padhi | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Sananda Sarkar | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Satya Samal | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |
| Prof Asheena Sunny | Recent Advances in Forensic Analysis in Civil Engineering | 27.09.2021 | 01.10.2021 |

2020-21

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|----------------------------|--|---------------|------------|
| Prof. Bitanjaya Das | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Dam & Network Safety Assurance organized by ICID and AF Academy | 10.09.2020 | 10.09.2020 |
| Prof. Benu Gopal Mohapatra | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Preparing for Post -Covid Job Market organized by KIIT DU | 16.08.2020 | 16.08.2020 |
| Prof. Sanjib Moulick | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|--------------------------|---|---------------|------------|
| | Laboratory Quality Management System & Internal Audit conducted by National Institute for Standardization, Bureau of Indian Standards | 01.09.2020 | 04.09.2020 |
| Prof. Asish Kumar Pani | FDP on Finite Element Analysis of Structures (FEAST) organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.09.2020 | 18.09.2020 |
| | Latest Advances in Construction Management and Concrete Technology organized by College of Engineering and Technology, Odisha | 01.09.2020 | 05.09.2020 |
| Prof. Bandita Paikaray | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Geotechnical Application “Recent advances in geotechnical engineering” organized by Indian Geotechnical Society, Bhubaneswar Chapter | 23.08.2020 | 23.08.2020 |
| | Challenges and opportunities in geotechnical engineering organized by B V Raju Institute of Technology, Hyderabad | 29.07.2020 | 29.07.2020 |
| | Compaction characteristics of industrial wastes and by-products organized by Indian Geotechnical Society, Bhubaneswar Chapter | 26.07.2020 | 26.07.2020 |
| | Sustainable livelihood in climate change scenario organized by Indian Geotechnical Society, Bhubaneswar Chapter | 25.07.2020 | 25.07.2020 |
| Prof. Tribikram Mohanty | FDP on Finite Element Analysis of Structures (FEAST) organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.09.2020 | 18.09.2020 |
| | Latest Advances in Construction Management and Concrete Technology organized by College of Engineering and Technology, Odisha | 01.09.2020 | 05.09.2020 |
| Prof. Jyotiprakash Padhi | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | ATAL FDP on GIS and Remote Sensing organized by University College of Engineering, JNTU Kakinada | 04.01.2021 | 08.01.2021 |
| | Application of Remote sensing & GIS in Water, Environment, Land and Society organized by IAWEES and IHE Delft | 01.12.2020 | 03.12.2020 |
| | The Joy, Opportunities and Challenges in Field Hydrological Research organized by National Institute of | 02.11.2020 | 06.11.2020 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|----------------------------|---|---------------|------------|
| | Engineering. Mysuru and IIT Guwahati | | |
| | Application of Remote sensing & GIS in Civil Engineering organized by Silicon Institute of Technology Sambalpur, Odisha | 07.07.2020 | 10.07.2020 |
| Prof. Paromita Chakraborty | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Purna Chandra Saha | FDP on Finite Element Analysis of Structures (FEAST) organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.09.2020 | 18.09.2020 |
| | World Ozone Day organized by KLEF, Guntur | 16.09.2020 | 16.09.2020 |
| | Prospects and Challenges in 3D Printing: A Design Perspective organized by B.M.S. College of Engineering | 01.09.2020 | 05.09.2020 |
| Prof. Preetynanda Nanda | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Satya Ranjan Samal | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.9.2020 | 18.9.2020 |
| | Sustainable Pavement: Current research and Practices (SPCRP-2020) organized by IGIT Sarang, Odisha | 11.9.2020 | 15.9.2020 |
| | Latest Advances in Concrete Technology and Construction Management (LACTCM-2020) organized by College of Engineering and Technology, Odisha | 01.09.2020 | 05.09.2020 |
| | “Research and Practices in Civil Engineering (RPCE-2020)” organized by IGIT Sarang, Odisha | 03.08.2020 | 07.08.2020 |
| Prof. Sananda Sarkar | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | International Virtual Conference AFM 2020 organized by School of Applied Sciences, KIIT DU | 26.08.2020 | 28.08.2020 |
| Prof. Asheena Sunny | FDP on Finite Element Analysis of Structures (FEAST) organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | FDP on A-Z of Writing & Publication in Scopus-Indexed Journals organized by GMR Institute of Technology Kakinada | 16.08.2020 | 22.08.2020 |
| Prof. Satyajeet Nanda | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|-----------------------------|--|----------------------|-----------------|
| Prof. Madhu Lisha Pattanaik | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Sustainable Environmental Engineering Practices (SEEP-2020) organized by NIT Rourkela | 21.09.2020 | 25.09.2020 |
| | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.9.2020 | 18.9.2020 |
| | Two Day Online Road Safety Advocacy Program organized by MIT World Peace University, Maharashtra | 05.02.2021 | 06.02.2021 |
| | Webinar: Ultra-High-Performance Concrete organized by Ultratech Cement Ltd. | 13.03.2021 | 13.03.2021 |
| Prof. Malaya Mohanty | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Virtual Faculty Development Programme | 11.9.2020 | 15.9.2020 |
| Prof. Dipti Ranjan Biswal | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Sustainable Pavement: Current research and Practices (SPCRP-2020) organized by IGIT Sarang, Odisha | 11.9.2020 | 15.9.2020 |
| | Virtual Faculty Development Programme | 12.8.2020 | 12.8.2020 |
| | Short Term Course on “Advances in Pavement Engineering” organized by IIT Bhubaneswar | 24.05.2021 | 28.05.2021 |
| Prof. Amit Kumar Das | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Advances in Transportation Engineering (ATE-2020) organized by NIT Rourkela | 23.09.2020 | 27.09.2020 |
| Prof. Prasanna K Acharya | FDP on Statistical analysis and Computer Aided Design | 20.06.2021 | 26.06.2021 |
| Prof. Bhagyashree Panda | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Rachita Panda | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | The Joy, Opportunities and Challenges in Field Hydrological Research organized by National Institute of Engineering, Mysuru and IIT Guwahati | 02.11.2020 | 06.11.2020 |
| | SUSTAINABLE ENVIRONMENTAL GEOTECHNICS organized by Sagi Rama Krishnam Raju Engineering College, Andhra Pradesh | 05.10.2020 | 09.10.2020 |
| | Sustainable Environmental Engineering Practices | 21.09.2020 | 25.09.2020 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|---------------------------|--|---------------|------------|
| | (SEEP-2020) organized by NIT Rourkela | | |
| | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.9.2020 | 18.9.2020 |
| | Application of Remote sensing & GIS in Civil Engineering organized by Silicon Institute of Technology Sambalpur, Odisha | 07.07.2020 | 10.07.2020 |
| | Research and Practices in Civil Engineering (RPCE-2020) organized by IGIT Sarang, Odisha | 03.08.2020 | 07.08.2020 |
| | Recent Advances in Forensic Analysis of Sub and Super Structures- Transportation Engineering Phase II organized by Velagapudi Ramakrishna Siddhartha Engineering College | 24.08.2020 | 29.08.2020 |
| | Webinar on Sky & Earth organized by Indian Geotechnical Society Bhubaneswar Chapter | 25.07.2020 | 26.07.2020 |
| Prof. Aparupa Pani | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Ipsita Panda | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Sitam Suvam Jena | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.9.2020 | 18.9.2020 |
| Prof. Rana Chattaraj | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Kshyana Prava Samal | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Gaurav Udgata | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Kundan Samal | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Mohibullah | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Ipsita Mohanty | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Brundaban Beriha | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Short Term Course on “Advances in Pavement Engineering” organized by IIT Bhubaneswar | 24.05.2021 | 28.05.2021 |
| Prof. Dudam Bharath Kumar | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|--------------------------------|---|---------------|------------|
| | International FDP on Climate Change and Hydrologic Extremes organized by Karunya Institute of Technology & Sciences and Regional Remote Sensing Centre – South, ISRO, Bengaluru | 20-07-2020 | 24-07-2020 |
| | Application of Remote sensing & GIS in Civil Engineering organized by Silicon Institute of Technology Sambalpur, Odisha | 07.07.2020 | 10.07.2020 |
| Prof. Sunny Jaiswal | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Sushree Sangita Panda | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Chinmay Kumar Kundu | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| | Emerging Trends in Civil Engineering (ETCE-2020) organized by VSSUT Burla, Odisha | 14.9.2020 | 18.9.2020 |
| Prof. Kirti Kanta Sahoo | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Narayan Chandra Moharana | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Dillip Kumar Bera | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |
| Prof. Kalpana Sahoo | FDP on Statistical analysis and Computer Aided Design organized by KIIT DU | 20.06.2021 | 26.06.2021 |

2019-20

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|----------------------------|---|---------------|------------|
| Prof. Bitanjaya Das | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Benu Gopal Mohapatra | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| | Covid 19 Lives & Livelihood | 05.05.2020 | 06.05.2020 |
| Prof. Sanjib Moulick | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Bhagabata Jena | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Asish Kumar Pani | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Bandita Paikaray | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| | Application of soft computing in civil engineering Government College of Engineering Kalahandi, | 09.06.2020 | 09.06.2020 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|--------------------------------|--|----------------------|-----------------|
| | Bhawanipatna, Odisha | | |
| Prof. Tribikram Mohanty | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Jyotiprakash Padhi | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Purna Chandra Saha | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Satyajeet Nanda | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Prasanna K Acharya | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Narayan Chandra Moharana | FDP on blended learning organized by KIIT DU | 05.05.2020 | 06.05.2020 |
| | Covid 19 Lives & Livelihood | 22.06.2020 | 28.06.2020 |
| Prof. Dillip Kumar Bera | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Kshyana Prava Samal | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Chinmay Kumar Kundu | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Dipti Ranjan Biswal | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Kirti Kanta Sahoo | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Malaya Mohanty | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Jagori Dutta | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Madhu Lisha Pattanaik | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Preetynanda Nanda | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Satya Ranjan Samal | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Sananda Sarkar | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Asheena Sunny | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Amit Kumar Das | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Bhagyashree Panda | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Rachita Panda | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Aparupa Pani | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Ipsita Panda | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Sitam Suvam Jena | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|-----------------------------|--|----------------------|-----------------|
| Prof. Rana Chattaraj | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Gaurav Udgata | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Kundan Samal | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Mohibullah | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Ipsita Mohanty | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Brundaban Beriha | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Dudam Bharath Kumar | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| | WORLD ENVIRONMENTAL DAY | 05-06-2020 | 05-06-2020 |
| Prof. Sushree Sangita Panda | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Kalpana Sahoo | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |
| Prof. Sunny Jaiswal | FDP on blended learning organized by KIIT DU | 22.06.2020 | 28.06.2020 |

2018-19

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|----------------------------|---|----------------------|-----------------|
| Prof. Bitanjaya Das | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Benu Gopal Mohapatra | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Sanjib Moulick | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Bhagabata Jena | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Asish Kumar Pani | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Bandita Paikaray | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Tribikram Mohanty | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Jyotiprakash Padhi | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|--------------------------------|--|----------------------|-----------------|
| Prof. Purna Chandra Saha | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Satyajeeet Nanda | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Narayan Chandra Moharana | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Dillip Kumar Bera | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Kshyana Prava Samal | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Chinmay Kumar Kundu | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Dipti Ranjan Biswal | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Paromita Chakraborty | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Kirti Kanta Sahoo | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Preetynanda Nanda | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Satya Ranjan Samal | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| | Recent Development in Pavement Analysis and Design conducted by IIT BHU | 17.09.2018 | 22.09.2018 |
| | Recent trend in transportation engineering and town planning conducted by Coimbatore Institute of Technology | May 2019 | |
| Prof. Sananda Sarkar | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Asheena Sunny | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Amit Kumar Das | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Bhagyashree Panda | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Rachita Panda | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |

| Faculty | Details of FDP/Workshop/Webinars/STTP | Starting date | End date |
|-----------------------------|---|---------------|------------|
| Prof. Aparupa Pani | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Ipsita Panda | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Sitam Suvam Jena | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Rana Chattaraj | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Jagori Dutta | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Gaurav Udgata | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Kundan Samal | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Malaya Mohanty | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Mohibullah | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Ipsita Mohanty | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Dudam Bharath Kumar | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Sushree Sangita Panda | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Kalpana Sahoo | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |
| Prof. Sunny Jaiswal | FDP on Contemporary methods in Civil Engineering organized by KIIT DU | 22.06.2019 | 27.06.2019 |

5.8. Research and Development (75)

5.8.1. Academic Research (20)

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (15)

Ph.D. guided /Ph.D. awarded during the assessment period while working in the

institute (5) All relevant details shall be mentioned.

LIST OF JOURNAL PUBLICATIONS

| Sl. No | Name of the Faculty | Author Affiliation | Title of the Journal Article | Journal Title | Year of Publication | Volume (Issue): Page No. | Impact Factor | Part of E-databases (Scopus / Web of Science) |
|--------|---|--|---|--|---------------------|--------------------------|---------------|---|
| 1 | Asish Kumar Pani Bikasha Chandra Panda | KIIT DU University College of Engineering | Elastic Modulus of Equivalent Block Layer in Concrete Block Pavement Using Finite Element Analysis | The Indian Concrete Journal | Jan-23 | | NA | Scopus Accepted |
| 2 | Monika Mohanty Dipti Ranjan Biswal Smruti Sourava Mohapatra | IIT, Dhanbad KIIT DU IIT, Dhanbad | A systematic review exploring the utilization of coal mining and processing wastes as secondary aggregate in sub-base and base layers of pavement | Construction and Building Materials | Jan-23 | Vol. 368 A.N. 130408 | 7.693 | Scopus & Web of Science |
| 3 | Shivanand S. Shirkole Aparupa Pani | Institute of Chemical Technology Mumbai KIIT DU | A Concise Historical Account of Drying Technology - An International Journal | Drying Technology | Jan-23 | | 3.556 | Scopus & Web of Science |
| 4 | Aparupa Pani Shivanand S. Shirkole Arun S. Mujumdar | KIIT DU Institute of Chemical Technology Mumbai McGill University, Quebec, Canada | Expert reviews for assessment of recent developments and future perspectives of global drying R&D | Drying Technology | Jan-23 | | 3.556 | Scopus & Web of Science |
| 5 | Prasanna Kumar Acharya; Sanjaya Kumar Patro; | KIIT DU VSS University of Technology | Evaluation of environmental disturbance indicator using functional performance and life cycle assessment of ferrochrome waste concrete | Journal of Building Engineering | April-23 | Vol.-65 | 7.144 | Scopus |
| 6 | Manal Alali Bandita Paikaray Benu Gopal Mohapatra | KIIT DU | Behavioral investigation of the footings on geosynthetics-reinforced ferrochrome slag | International Journal of Sustainable Building Technology and Urban Development | Dec-22 | 13(4), pp. 436-453 | NA | Scopus |
| 7 | Malaya Mohanty; Rachita Panda; Srinivasa Rao Gandupalli; Ritik Raj Arya; Sarhak Kumar Lenka | KIIT DU KIIT DU GITAM Deemed to be University KIIT DU KIIT DU | Factors propelling fatalities during road crashes: A detailed investigation and modelling of historical crash data with field studies | Heliyon | Nov-22 | | 3.776 | Scopus and Web of Science |
| 8 | Piotr Gorzelańczyk; Martin Jurkovič; Tomáš Kalina; Malaya Mohanty; | S S University of Appl. Sc., Poland University of Zilina, Slovak Republic University of Zilina, Slovak Republic KIIT DU | Assessment of Traffic Congestion under Indian Environment - a Case Study | Communications - Scientific letters of the University of Zilina | Sep-22 | | NA | Scopus Accepted |
| 9 | Piotr Gorzelańczyk; Martin Jurkovič; Tomáš Kalina; Malaya Mohanty; | S S University of Appl. Sc., Poland University of Zilina, Slovak Republic University of Zilina, Slovak Republic | Forecasting the road accident rate and the impact of the covid 19 on its frequency in the polish provinces | Communications - Scientific letters of the University of Zilina | Sep-22 | | NA | Scopus Accepted |

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|----|--|--|---|---|--------|--------------------|-------|---------------------------|
| | | KIIT DU | | | | | | |
| 10 | Prasanna Kumar Acharya; Sanjaya Kumar Patro; | KIIT DU VSS University of Technology | Evaluation of Functional, Microstructural, Environmental Impact, and Economic Performance of Concrete Utilizing Ferrochrome Ash and Slag | Journal of Sustainable Metallurgy | Sep-22 | | 3.068 | Scopus and Web of Science |
| 11 | Tribikram Mohanty; Ankit Kumar; Prasanna Kumar Acharya; Sanjaya Kumar Patro; Purnachandra Saha | KIIT DU KIIT DU KIIT DU VSS University of Technology KIIT DU | Performance of Structural Geopolymer Concrete Utilising Ferrochrome Ash and Fly Ash as Source Material | Journal of The Institution of Engineers (India): Series A | Sep-22 | | NA | Scopus |
| 12 | Kalyani Dash; Bibhu Prasad Sahoo | KIIT DU KIIT DU | Exploring the effect of TiO ₂ and ionic liquid on the dielectric properties of polyurethane and polyaniline blend nanocomposites | Polymer International | 2022 | 71 (7), pp 847-855 | 3.213 | Scopus & Web of Science |
| 13 | Debashish Meher; Tapan Kumar Bastia; Suman; Swatee Acharya; Bibhu Prasad Sahoo | KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU | Exploring the influence of ionic liquid and temperature on the dielectric properties and microwave absorption of SWCNT based PVDF/PANI blend nanocomposites | Materials Today: Proceedings | 2022 | | NA | Scopus |
| 14 | Ganeswar Sahu; Bibhu Prasad Sahoo; Jasawini Tripathy | KIIT DU KIIT DU KIIT DU | Influence of ionic liquid on the dielectric relaxation behavior of SWCNT reinforced poly(vinyl alcohol) based nanocomposites | Materials Today: Proceedings | 2022 | | NA | Scopus & Web of Science |
| 15 | A.K.Sahoo; Biswa Bandita Kar | KIIT DU KIIT DU | Impact of Silica Fume on Fly Ash Based Concrete Material | Asian Journal of Water, Environment and Pollution | 2022 | 19(4), pp. 49-54 | NA | Scopus & Web of Science |
| 16 | H.N.Dash; S.Hota; Biswa Bandita Kar | KIIT DU KIIT DU KIIT DU | Recovery of vanadium from red mud using microwave assisted leaching | Materials Today: Proceedings | 2022 | NA | NA | Scopus |
| 17 | Sasmita Mishra; Santosh Kumar Nathsarma; K.G. Mishra; Raja Kishore Paramguru | KIIT DU KIIT DU KIIT DU KIIT DU | Antimicrobial Activity of Silver Nanoparticles on Pseudomonas aeruginosa: Influence of Particle Size Controlled through Mixed Current | Surface Engineering and Applied Electrochemistry | 2022 | 58(2), pp. 184-193 | NA | Scopus & Web of Science |
| 18 | S.K. Natthsharma; Sasmita Mishra; K.G.Mishra; Raj Kishore Paramguru | KIIT DU KIIT DU KIIT DU KIIT DU | Parameters Influencing Electrodeposition of Nanocrystalline Fe _x -Co _{100-x} Alloys on Stainless Steel | Surface Engineering and Applied Electrochemistry | 2022 | 58(1), pp. 20-30 | NA | Scopus & Web of Science |

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| 19 | Sritam Swapnadarshi Sahu; Dillip Bera | KIIT DU KIIT DU | Performance evaluation of nano slag incorporating in concrete | Materials Today: Proceedings | Aug-22 | | NA | Scopus |
| 20 | Md.Shahzar Intekhab; Swagato Das; M. Ahmad Jainery; Salman Akhtar; Debarshi Sahoo Purnachandra Saha | KIIT DU C.V Raman Global University KIIT DU KIIT DU KIIT DU | Analysis Methods of Irregular High-Rise Buildings Subjected to Seismic Loads | Journal of Vibration Engineering and Technologies | Jul-22 | | 2.333 | Scopus |
| 21 | Kshitish Ranjan Mishra; Malaya Mohanty; Partha Pratim Dey | Govt. of Odisha, India KIIT DU IIT Bhubaneswar | Modelling traffic safety at uncontrolled median openings: A case study in India | IATSS Research | Jul-22 | | NA | Scopus |
| 22 | Malaya Mohanty; Rachita Panda; Srinivasa Rao Gandupalli; Didriksha Sonowal; Muskan Muskan; Riya Chakraborty; Mukund R. Dangeti | KIIT DU KIIT DU GITAM Deemed to be University KIIT DU NIT Agartala KIIT DU GITAM Deemed to be University | Development of crash prediction models by assessing the role of perpetrators and victims: a comparison of ANN & logistic model using historical crash data | International Journal of Injury Control and Safety Promotion | 2022 | | 2.603 | Scopus & Web of Science |
| 23 | Aparupa Pani; Shivanand S. Shirkole; Arun S, Mujumdar | KIIT DU ICT-IOC Odisha Campus, BBSR McGill University, Canada | Importance of renewable energy in the fight against global climate change | Drying Technology | 2022 | | | |
| 24 | Singh, Pratyasha; Aparupa Pani; Mujumdar, Arun S.; Shirkole, Shivanand S. | KIIT DU KIIT DU McGill University, Canada ICTM, Odisha | New strategies on the application of artificial intelligence in the field of phytoremediation | International Journal of Phytoremediation | 2022 | | 4.003 | Scopus & Web of Science |
| 25 | Abhijeet Prasad Dash; Kirti Kanta Sahoo; Himanshu Sekhar Panda; Arpan Pradhan; Biswajit Jena | KIIT DU KIIT DU KIIT DU Christ Deemed to be University KIIT DU | Experimental study on the effect of superplasticizer on workability and strength characteristics of recycled coarse aggregate concrete | Materials Today: Proceedings | 2022 | Vol. 60 , pp 488-493 | NA | Scopus |
| 26 | Brundaban Beriha Umesh Chandra Sahoo Debakanta Mishra | KIIT DU IIT, Bhubaneswar Oklahoma State University, USA | Crosspave: a multi-layer elastic analysis programme considering stress-dependent and cross-anisotropic behaviour of unbound aggregate pavement layers | International Journal of Pavement Engineering | 2022 | | 4.178 | Scopus & Web of Science |
| 27 | Shivanand S. Shirkole; Aparupa Pani; Arun S. Mujumdar | ICT, Mumbai KIIT DU McGill University, Montreal, Canada | Role of expert reviews for assessment of current developments in global drying R&D | Drying Technology | 2022 | 40 (2), pp 227 - 229 | 3.556 | Scopus & Web of Science |
| 28 | Santanu Pathak; Rajan Choudhary; Abhinay Kumar; Madhu Lisha Pattanaik | IIT Guwahati IIT Guwahati IIT Guwahati KIIT DU | Friction Characteristics of Open Graded Asphalt Friction Courses with BOF and EAF Steel Slag Aggregates | Journal of Materials in Civil Engineering | Jun-22 | 34(6), 04022087 | 3.651 | Scopus & Web of Science |

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| 29 | Sumanta Chaudhuri; Paromita Chakraborty; Mrutyunjay Das; Bitanjaya Das | KIIT DU KIIT DU KIIT DU KIIT DU | Magneto-hydrodynamic mixed convection in a non-Newtonian third-grade fluid flowing through vertical parallel plates: A semianalytical study of flow and heat transfer | Heat Transfer | Jun-22 | 51 (4), pp 3373 - 3400 | 2.431 | Scopus & Web of Science |
| 30 | Bhagabata Jena; Rakesh Kumar Patra; Bibhuti Bhusan Mukharjee | KIIT DU NIT, Rourkela BPUT, Rourkela | Influence of Incorporation of Jute Fibre and Ferrochrome Slag on Properties of Concrete | Australian Journal of Civil Engineering | Jun-22 | 20 (01), pp 13-30 | NA | Scopus & Web of Science |
| 31 | Kirti Kanta Sahoo; Prateek Kumar Dhir; Shantanu Kumar Behera; Dipti Ranjan Biswal | KIIT DU Univ. of Strathclyde, Glasgow KIIT DU KIIT DU | Influence of Ground-Granulated Blast-Furnace Slag on the Structural Performance of Self-Compacting Concrete | Practice Periodical on Structural Design and Construction | Aug-22 | 27 (03), 04022019 | NA | Scopus |
| 32 | Satya Ranjan Samal; Malaya Mohanty; Dipti Ranjan Biswal | KIIT DU KIIT DU KIIT DU | A review of effectiveness of speed reducing devices with focus on developing countries | Transactions on Transport Sciences | May-22 | 13 (01), pp 65-73 | NA | Scopus |
| 33 | Amit Kumar Das Ujjal Chattaraj | KIIT DU NIT Rourkela | Cellular Automata Model for Lane Changing Activity | International Journal of Intelligent Transportation Systems Research | Apr-22 | | NA | Scopus & Web of Science |
| 34 | Saswat Mahapatra; Kundan Samal; Rajesh Roshan Dash | KIIT DU KIIT DU IIT Bhubaneswar | Waste Stabilization Pond (WSP) for wastewater treatment: A review on factors, modelling and cost analysis | Journal of Environmental Management | Apr-22 | Vol. 308, 114668 | 8.91 | Scopus & Web of Science |
| 35 | Kundan Samal; Rupam Bandyopadhyay; Rajesh Roshan Dash | KIIT DU IIT Bhubaneswar IIT Bhubaneswar | Biological Treatment of Contaminants of Emerging Concern in Wastewater: A Review | Journal of Hazardous, Toxic, and Radioactive Waste | Apr-22 | 26 (2), 04022002 | NA | Scopus & Web of Science |
| 36 | Sushree Sasmita; Dudam Bharath Kumar; Babu Priyadarshini | KIIT DU KIIT DU Bennett University, Greater Noida | Assessment of sources and health impacts of PM10 in an urban environment over eastern coastal plain of India | Environmental Challenges | Apr-22 | Vol. 7, 100457 | NA | Scopus |
| 37 | Manoj Kumar Dash; Sanjay K. Patro; Prasanna Kumar Acharya Mayuresh Dash | KIIT DU VSSUT Burla KIIT DU M.M.Engineers and Consultants | Impact of elevated temperature on strength and micro-structural properties of concrete containing water-cooled ferrochrome slag as fine aggregate | Construction and Building Materials | Mar-22 | Vol. 323, 126542 | 7.693 | Scopus & Web of Science |
| 38 | Amaresh Tripathy; Prasanna Kumar Acharya | KIIT DU KIIT DU | Characterization of bagasse ash and its sustainable use in concrete as a supplementary binder – A review | Construction and Building Materials | Mar-22 | Vol. 322, 126391 | 7.693 | Scopus & Web of Science |
| 39 | Pattanaik, Madhu Lisha; Kumar, Sanjit; Choudhary, Rajan; Agarwal, Mayank; Kumar, Bimlesh | KIIT DU IIT, Patna IIT, Guwahati IIT, Patna IIT, Guwahati | Predicting the abrasion loss of open-graded friction course mixes with EAF steel slag aggregates using machine learning algorithms | Construction and Building Materials | Feb-22 | Vo. 321, A.N. 126408 | 7.693 | Web of Science |

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| 40 | Srishti Saha; Purnachandra Saha; Neelima Talluri | KIIT DU KIIT DU K L Deemed to be University | Effects of quality of water on the setting times and compressive strength of concrete | Materials Today: Proceedings | Jan-22 | Vol. 60 , pp 378-383 | NA | Scopus |
| 41 | Swagato Das Purnachandra Saha; Swatee Prajna Jena; Pratyush Panda | C.V Raman Global University KIIT DU KIIT DU KIIT DU | Geopolymer concrete: Sustainable green concrete for reduced greenhouse gas emission – A review | Materials Today: Proceedings | Jan-22 | Vol. 60 , pp 62-71 | NA | Scopus |
| 42 | Monalisa Sharma; Priyadarshinee Behera; Srishti Saha; Tribikram Mohanty; Purnachandra Saha | KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU | Effect of silica fume and red mud on mechanical properties of ferrochrome ash based concrete | Materials Today: Proceedings | Jan-22 | Vol. 60 , pp 55-61 | NA | Scopus |
| 43 | Subha M. Roy; Rajendra Machavaram; Sanjib Moulick; C.K. Mukherjee | IIT, Kharagpur IIT, Kharagpur KIIT DU IIT, Kharagpur | Economic feasibility study of aerators in aquaculture using life cycle costing (LCC) approach | Journal of Environmental Management | Jan-22 | 302, 114037 | 8.91 | Scopus & Web of Science |
| 44 | Raj Banerjee Rana Chattaraj Y. M. Parulekar Aniruddha Sengupta | BARC, Mumbai KIIT DU BARC, Mumbai IIT, Kharagpur | Numerical prediction of undrained cyclic triaxial experiments on saturated Kasai river sand using two constitutive models of liquefaction | Bulletin of Engineering Geology and the Environment | Nov-21 | 80, pp 8565–8582 | 4.13 | Scopus & Web of Science |
| 45 | Divyendu Tushar Disha Das Aparupa Pani Pratyasha Singh | KIIT DU KIIT DU KIIT DU KIIT DU | Geo-Engineering and Microstructural Properties of Geopolymer Concrete and Motar: A Review | Iranian Journal of Science and Technology, Transactions of Civil Engineering | Oct-21 | | NA | Scopus & Web of Science |
| 46 | Aparupa Pani Suresh Prasad Singh | KIIT DU NIT, Rourkela | Reclamation of Sedimented Ash Deposit by Chemical Columns | Journal of Hazardous, Toxic, and Radioactive Waste | Oct-21 | 25 (04), 04021031 | NA | Scopus & Web of Science |
| 47 | B. Priyadarshini; Bibhu Prasad Sahoo; T. Sahoo; T. R. Sahoo | KIIT DU KIIT DU SRM, Kattankulathur, Chennai KIIT DU | Effect of Zn doping on dielectric properties of MgO nanoparticles synthesized by microwave-assisted combustion route | Materials Letters | 2021 | 304, A.N. 130645 | 3.574 | Scopus & Web of Science |
| 48 | Laxmidhar Panda; Subhakanta Dash; Biswa Bandita Kar; Snigdha Panigrahi; Itishree Mohanty | KIIT DU S I ET, Dhenkanal KIIT DU Govt. (Autonomous) College, Phulbani S I ET, Dhenkanal | ALKALINE HYDROTHERMAL SYNTHESIS OF ZEOLITE FROM CLASS F COAL FLY ASH | Journal of Solid Waste Technology and Management | 2021 | 47(4), pp. 674-681 | NA | Scopus |
| 49 | Biswa Bandita Kar; Pratap Kumar Deheri; Dibyaranjan Rout | KIIT DU KIIT DU KIIT DU | Polymer and polymer-based nanocomposite materials for energy | Nano Tools and Devices for Enhanced Renewable Energy | 2021 | pp. 237-262 | NA | Scopus |

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| 50 | Pratap Kumar Deheri; Biswabandita Kar, | KIIT DU KIIT DU | Synthesis of Nanoclay Composite Material | Engineering Materials | 2021 | pp. 69-103 | 0.224 | Scopus |
| 51 | S Hota; Biswabandita Kar; Manoranjan Mishra | GIT, Bhubaneswar KIIT DU GIT, Bhubaneswar | Removal of phosphorus from contaminated water sources using composite matrix fabricated from agro-based waste materials | Materials Today: Proceedings | 2021 | NA | NA | Scopus |
| 52 | Subhakanta Dash ; Biswabandita Kar; Laxmidhar Panda; Syed Mohammed Mustakim; Itishree Mohanty; Rudra Prasanna Nayak, | SIET, Dhenkanal KIIT DU KIIT DU CSIR-IMMT, Bhubaneswar SIET, Dhenkanal SIET, Dhenkanal | Use of sintered fly ash aggregate in pervious concrete | International Journal of Materials and Product Technology | 2021 | 62(1-3), pp. 199-219 | 0.743 | Scopus & Web of Science |
| 53 | Saroj Kumar Barik; Satyanarayan Brahma; Srikanta Samanta; Ajit Kumar Pattanaik; Raj Kishore Patel; Tapan Kumar Bastia; Rabindro Nath Samal; Dibakar Behera; Prasanta Rath | KIIT DU IGCAR, Tamil Nadu ICAR, kolkata WISA, New Delhi NIT, Rourkela KIIT DU WRTC, Bhubaneswar KIIT DU KIIT DU | Phosphorus sorption behaviour of the largest brackish water lagoon, South Asia | Journal of Earth System Science | 2021 | 130(1),48 | 1.912 | Scopus & Web of Science |
| 54 | Deepak Senapati; Jagannath Panda; Rashmirekha Tripathy; Tejaswini sahu; J.R. Sahu; Madhuri Hembram; Saraswati Soren; C.K. Rath; T.K. Bastia; Rosalin sahu | KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU | Graphene Composite Membrane for Water Desalination | Advances in Science, Technology and Innovation | 2021 | pp. 227-240 | NA | Scopus |
| 55 | Manal Alali Bandita Paikaray Benu Gopal Mohapatra | KIIT DU KIIT DU KIIT DU | An insight on the response of foundations resting on sand with geosynthetic materials as a reinforcement | Journal of Physics: Conference Series | Aug-21 | 12153 | NA | Scopus |
| 56 | Kundan Samal Rajesh Roshan Dash | KIIT DU IIT Bhubaneswar | Modelling of pollutants removal in Integrated Vermifilter (IVmF) using response surface methodology | Cleaner Engineering and Technology | Jun-21 | 100060 | NA | Scopus |

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| 57 | Sumanta Chaudhuri Sourick Sinha Paromita Chakraborty Mrutyunjay Das Satyabrata Sahoo Bitanjaya Das | KIIT DU KIIT DU KIIT DU IITISM, Dhanbad KIIT DU | Thermal characteristics of forced convection in combined pressure and shear-driven flow of a non-Newtonian third-grade fluid through parallel plates | Heat Transfer | Jun-21 | | 2.431 | Scopus & Web of Science |
| 58 | Satya Ranjan Samal Malaya Mohanty S. Moses Santhakumar | KIIT DU KIIT DU NIT, Tiruchirappalli, India | Adverse Effect of Congestion on Economy, Health and Environment Under Mixed Traffic Scenario | Transportation in Developing Economies, Springer Nature | May-21 | 07 (15), pp 1-10 | NA | Web of Science |
| 59 | Raj Banerjee Rana Chattaraj Aniruddha Sengupta Y. M. Parulekar | BARC, Mumbai KIIT DU IIT, Kharagpur BARC, Mumbai | Dynamic behaviour of a piled raft resting on saturated Kasai River Sand | Geomechanics and Geoengineering | May-21 | | NA | Scopus & Web of Science |
| 60 | Malaya Mohanty Bhagyashree Panda Partha Pratim Dey | KIIT DU KIIT DU IIT, Bhubaneswar | Quantification of surrogate safety measure to predict severity of road crashes at median openings | IATSS Research | Apr-21 | | NA | Scopus |
| 61 | Sangram K. Sahoo Benu Gopal Mohapatra S. K. Patro Prasanna Kumar Acharya | KIIT DU KIIT DU KIIT DU VSS University of Technology | Evaluation of Graded Layer in Ground Granulated Blast Furnace Slag Based Layered Concrete | Construction and Building Materials | Mar-21 | 276, 122218 | 7.693 | Scopus & Web of Science |
| 62 | Malaya Mohanty Yash Raj Subhangee Rout Utkarsh Tiwari Sagarika Roy Satyaranjan Samal | KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU KIIT DU | Operational effects of speed breakers: A Case Study in India | European Transport \ Trasporti Europei | Mar-21 | 81 (01), pp 1-10 | NA | Scopus & Web of Science |
| 63 | Malaya Mohanty Partha Pratim Dey | KIIT DU IIT, Bhubaneswar | Operational effects of U-turns at median opening | Transportation Letters - The International Journal of Transportation Research | Mar-21 | | 2.844 | Scopus & Web of Science |
| 64 | P. Pandey K. Lynch V. Sivakumar B. Solan S. Tripathy Satyajeet Nanda S. Donohue | Queen's University Belfast, UK Department of Finance, Northern Ireland, UK Queen's University Belfast, UK Ulster University, UK Cardiff University, UK KIIT DU Cardiff University, UK | Measurements of permeability of saturated and unsaturated soils | Geotechnique | Feb-21 | 71 (02), pp 170-177 | 5.554 | Scopus & Web of Science |
| 65 | Swabarna Roy Chinmay Kumar Kundu | KIIT DU IIT Bhubaneswar | State of the art review of wind induced vibration and its control on transmission towers | Structures | Feb-21 | 29, pp 254-264 | 4.01 | Scopus & Web of Science |

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| 66 | Swagato Das Purnachandra Saha | KIIT DU KIIT DU | Performance of swarm intelligence based chaotic meta-heuristic algorithms in civil structural health monitoring | Measurement | Feb-21 | 108533 | 5.131 | Scopus & Web of Science |
| 67 | Prasanna Kumar Acharya S. K. Patro | KIIT DU VSS University of Technology | Flexural Behaviour of Reinforced Cement Concrete Beams made with Air-cooled ferrochrome Slag Coarse Aggregate | Indian Concrete Journal | Feb-21 | | NA | Scopus |
| 68 | Pawan Kumar Chamling Dipti Ranjan Biswal Umesh Chandra Sahoo | IIT Bhubaneswar KIIT DU IIT Bhubaneswar | Effect of moulding water content on strength characteristics of a cement-stabilized granular lateritic soil | Innovative Infrastructure Solutions | Jan-21 | 03(01), 120 | NA | Scopus & Web of Science |
| 69 | Kundan Samal Sohan Kar Shivanshi Trivedi Sudhanshu Upadhyay | KIIT DU KIIT DU KIIT DU KIIT DU | Assessing the impact of vegetation coverage ratio in a floating water treatment bed of Pistia stratiotes | SN Applied Sciences | Jan-21 | 03(01), 120 | NA | Scopus & Web of Science |
| 70 | Bandita Paikaray Sarat Kumar Das Benu Gopal Mohapatra | KIIT DU IIT (ISM), Dhanbad KIIT DU | Bearing Capacity of Model Footing on Reinforced Foundation with Crusher Dust | Arabian Journal of Geosciences | Jan-21 | 57 (2021) | 1.827 | Scopus & Web of Science |
| 71 | Malaya Mohanty Partha Pratim Dey Bhagyashree Panda | KIIT DU IIT Bhubaneswar KIIT DU | Assessment of Traffic Safety at Median Openings using Surrogate Safety Measures: A Case Study in India | European Transport - Trasporti Europei | Dec-20 | 80 (03) | NA | Scopus & Web of Science |
| 72 | Saismrutiranjana Mohanty Sanjib Moulick Shuvendu Singha Sanjoy Kumar Maji | KIIT DU KIIT DU KIIT DU KIIT DU | Exclusion of crystal violet and methylene blue from wastewater using titanate nanotube: Kinetics of the adsorption and photodegradation | Journal of Indian Chemical Society | Dec-20 | 97 (12b), pp 1-9 | NA | Web of Science |
| 73 | Malaya Mohanty Partha Pratim Dey | KIIT DU IIT Bhubaneswar | Modeling the lane changing behavior of major stream traffic due to U-turns | Transportation Engineering | Dec-20 | Vol. 2, 100012 | 1.52 | Scopus |
| 74 | Dipti Ranjan Biswal Umesh Chandra Sahoo Suresh Ranjan Dash | KIIT DU IIT, Bhubaneswar IIT, Bhubaneswar | Structural response of an inverted pavement with stabilised base by numerical approach considering isotropic and anisotropic properties of unbound layers | Road Materials and Pavement Design | Nov-20 | 21 (08), pp 2160-2179 | 3.805 | Scopus & Web of Science |
| 75 | Kundan Samal Naushin Yasmin Priya Kumari | KIIT DU KIIT DU KIIT DU | Challenges in the implementation of Phyto Fuel System (PFS) for wastewater treatment and harnessing bio-energy | Journal of Environmental Chemical Engineering | Oct-20 | Vol. 8 (05), 104388 | 7.968 | Scopus & Web of Science |
| 76 | Saismrutiranjana Mohanty Sanjib Moulick Sanjoy Kumar Maji | KIIT DU KIIT DU KIIT DU | Adsorption/photodegradation of crystal violet (basic dye) from aqueous solution by hydrothermally synthesized titanate nanotube (TNT) | Journal of Water Process Engineering | Oct-20 | Vo. 37, 101428 | 7.34 | Scopus & Web of Science |
| 77 | Kundan Samal Shivanshi Trivedi | KIIT DU KIIT DU | A statistical and kinetic approach to develop a Floating Bed for the treatment of wastewater | Journal of Environmental Chemical Engineering | Oct-20 | | 7.968 | Scopus |

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| 78 | Swagato Das Dr. Purnachandra Saha Suresh Chandra Satapathy Junali Jena | KIIT DU | Social Group Optimization Algorithm for Civil Engineering Structural Health Monitoring | Engineering Optimization (GENO) | Sep-20 | | NA | Scopus & Web of Science |
| 79 | G. Sahu; J. Tripathy; Bibhu Prasad Sahoo | KIIT DU KIIT DU KIIT DU | Significant enhancement of dielectric properties of graphene oxide filled polyvinyl alcohol nanocomposites: Effect of ionic liquid and temperature | Polymer Composites | 2020 | 41(10), pp. 4411-4430 | 3.531 | Scopus & Web of Science |
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| 15 9 | Satyajeet Nanda V. Sivakumar S. Donohue S. Graham | KIIT DU Queen's University Belfast, UK University College Dublin, Ireland University College Dublin, Ireland | Small-strain behaviour and crushability of Ballyconnelly carbonate sand under monotonic and cyclic loading | Canadian Geotechnical Journal | Jul-18 | 55 (7), pp 979-987 | 4.167 | Scopus & Web of Science |
| 16 0 | Manoj Kumar Dash S. K. Patro | KIIT DU VSS University of Technology, Burla | Effects of water cooled ferrochrome slag as fine aggregate on the properties of concrete | Construction and Building Materials | Jul-18 | Vol. 177, PP 457-466 | 7.693 | Scopus & Web of Science |

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| 16 1 | P. Whitehead, L. Jin I. Macadam T. S. Janes Sananda Sarkar H. J. E. Rodda R. Sinha R. J. Nicholls | University of Oxford, Oxford, UK State University of New York College at Cortland, USA Met Office, Fitzroy Road, UK Met Office, Fitzroy Road, UK KIIT DU Hydro-GIS Ltd., UK IIT, Kanpur University of Southampton | Corrigendum to “Modelling Impacts of Climate Change and Socio-Economic Change on the Ganga, Brahmaputra, Meghna, Hooghly and Mahanadi River Systems in India and Bangladesh” | Science of the Total Environment | Jul-18 | 644: pp 1651-1652 | 10.75 3 | Scopus |
| 16 2 | Swagato Das Purnachandra Saha | KIIT DU KIIT DU | Structural health monitoring techniques implemented on IASC–ASCE benchmark problem: a review | Journal of Civil Structural Health Monitoring | Jul-18 | 8 (4), pp 689-718 | 3.338 | Scopus & Web of Science |
| 16 3 | Y. K. Sharma J. C. Pati A. Patel A. Jose Purnachandra Saha | KIIT DU KIIT DU | Contribution of material properties on seismic behaviour of shear wall | International Journal of Research | Jul-18 | 5 (13), pp 224-232 | NA | Google Scholar |
| 16 4 | R. Tripathy A. Chatterjee V. Vaishali P. Saha | KIIT DU KIIT DU | Effect of material properties on the mechanical, thermal and acoustic properties of hollow blocks: A review | International Journal of Research | Jul-18 | 5 (13), pp 159-169 | NA | Google Scholar |
| 16 5 | T. Mohammad Sanjib Moulick C. K. Mukherjee | College of Fisheries Engineering, Tamil Nadu KIIT DU IIT, Kharagpur | Economic feasibility of goldfish (Carassius auratus Linn.) recirculating aquaculture system | Aquaculture Research | Jun-18 | 49 (9), pp 2945-2953 | 2.184 | Scopus & Web of Science |
| 16 6 | L. Jin P. G. Whitehead H. Rodda I. Macadam Sananda Sarkar | State University of New York College at Cortland, USA University of Oxford, Oxford, UK Hydro-GIS Ltd., UK Met Office, Fitzroy Road, UK KIIT DU | Simulating climate change and socio-economic change impacts on flows and water quality in the Mahanadi River system, India | Science of the Total Environment | May-18 | Vol. 637- 638: PP 907-917 | 10.75 3 | Scopus & Web of Science |
| 16 7 | Prasanna K. Acharya; S. K. Patro; | KIIT DU VSS University of Technology, Burla | Bond, permeability, and acid resistance characteristics of ferrochrome waste concrete | ACI Materials Journal | May-18 | 115 (03), PP 359-368 | 1.661 | Scopus & Web of Science |

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| 16 8 | M.U. Arshad A. Kundu E. Bertino A. Ghafoor C. Kundu | Purdue University, United States Watson Research Center, Yorktown Heights, NY Purdue University, United States Purdue University, United States KIIT Deemed to be University | Efficient and Scalable Integrity Verification of Data and Query Results for Graph Databases | IEEE Transactions on Knowledge and Data Engineering | May-18 | 30(05), pp 866-879 | 9.235 | Scopus & Web of Science |
| 16 9 | Manish Kumar K. S. Parmar Dudam Bharath Kumar A. Mhawish D. M. Broday R. K. Mall T. Benarjee | BHU, Varanasi, India Punjab Technical University KIIT DU BHU, Varanasi, India Civil and Environmental Engineering, Technion, Haifa, Israel BHU, Varanasi, India BHU, Varanasi, India | Long-term aerosol climatology over Indo-Gangetic Plain: Trend, prediction and potential source fields | Atmospheric Environment | May-18 | Vol. 180, pp 37-50 | 5.755 | Scopus & Web of Science |
| 17 0 | Biswajit Jena Bipin Bihari Mohanty K. K. Sahoo | DRIEMS, Cuttack, Odisha DRIEMS, Cuttack, Odisha KIIT DU | Comparative Study of Self Compacting Concrete Reinforced with Different Chopped Fibers | Proceedings of Institution of Civil Engineers: Construction Materials | Apr-18 | 171 (2), pp 72-84 | NA | Scopus |
| 17 1 | Nikesh Ganesh Rathod N. C. Moharana S. K. S. Parashar | KIIT DU KIIT DU KIIT DU | Effect of nano-SiO ₂ on physical and electrical properties of PPC cement using complex impedance spectroscopy | Materials Today: Proceedings | Feb-18 | 5(1): PP 193-199 | NA | Scopus & Web of Science |
| 17 2 | K. Bhowmik Purnachandra Saha | KIIT DU KIIT DU | Seismic response control of benchmark highway bridge using passive hybrid control systems | International Journal of Materials and Structural Integrity | Feb-18 | 11(4): pp 155-174 | NA | Scopus |
| 17 3 | N Sarath Chandra Reddy D. M. Dewaikar B. G. Mohapatra | IIT, Mumbai IIT, Mumbai KIIT DU | Gauss Integration Based Approach for the Establishment of Top Flow Line and Seepage Analysis in Homogeneous Earth Embankment Dams | International Journal of Advanced Structures & Geotechnical Engineering | Jan-18 | 1 (01), PP 1-12 | NA | Google Scholar |

List of Conference Publication

| Sl. No . | Name of the Faculty | Year of Publication | Title of the Conference Paper | Conference Title | Place of Publication: Publisher | National / International | Part of E-databases (Web of Knowledge/ Scopus/ Mathscience etc Please specify) |
|----------|--|---------------------|--|--|--|--------------------------|--|
| 1 | Ankita Sikder Purnachandra Saha | Aug-21 | Effect of different types of Waste as Binder on Durability Properties of Geopolymer Concrete: A Review | 2021 International Conference on Community Based Research and Innovations in Civil Engineering, CBRICE 2021, Jaipur | IOP Conference Series: Earth and Environmental Science | International | Scopus |
| 2 | Ashish Kundu; Abhishek Reddypalle; Chnimaya Kumar Kundu | Dec-21 | AI-Driven Selective Protection of Multimedia Data | Bulletin of Indian Aerosol Science and Technology Association (IASTA) | 3rd IEEE International Conference on Trust, Privacy and Security in Intelligent Systems and Applications, TPS-ISA 2021 | International | Scopus |
| 3 | Chnimaya Kumar Kundu | Oct-20 | Towards Dynamic Access Control for Privacy | 2nd IEEE International Conference on Trust, Privacy and Security in Intelligent Systems and Applications, TPS-ISA 2020 | Atlanta; United States | International | Scopus |
| 4 | S. R. Samal P. Gireesh Kumar J. Cyril Santhosh M. Santhakumar | Oct-20 | Analysis of Traffic Congestion Impacts of Urban Road Network under Indian Condition | Sustainable Construction Technologies and Advancements in Civil Engineering, ScTACE 2020 | Bhimavaram; India | International | Scopus |
| 5 | Preetyananda Nanda | Aug-20 | Application of Biopolymers for Enhancing Engineering Properties of Problematic Soils and Industrial wastes: A Review | National Conferences on Advances in Sustainable Construction Materials (ASCM 2020) | | National | Scopus |
| 6 | M. Mohanty S. R. Samal Yash Raj Subhangee Rout Utkarsh Tiwari Sagarika Roy | Mar-20 | Performance Analysis of Speed Breakers: A Case Study in India | 2nd ASCE India Conference | Novotel, Kolkata | National | Google Scholar |

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| 7 | M. Mohanty P. P. Dey B. Panda S. K. Das | Mar-20 | Traffic safety analysis at median openings | 2nd ASCE India Conference | Novotel, Kolkata | National | Google Scholar |
| 8 | T. Majumder B. Das J. Padhi | Feb-20 | Distribution and Autocorrelation analysis of monsoon rainfall over Odisha | III Indian National Groundwater Conference | CWRDM, Kozhikode, Kerala | National | Google Scholar |
| 9 | B. Bisoi Divyajit Das Biswajit Das | Jan-20 | Assessing Global Environmental Sustainability: Second-Order Effect of Information and Communication Technology | 3rd International Conference on Smart Computing and Informatics, SCI 2018; Bhubaneswar; India; 21 | Smart Innovation, Systems and Technologies | International | Scopus |
| 10 | Dudam Bharath Kumar | Dec-19 | Satellite based observations for Surface level Urban Heat Island over Bhubaneswar: A case study | International Conference on countermeasures of urban heat island (IC2UHI) | IIIT Hyderabad | International | Google Scholar |
| 11 | Sukanya Dasgupta Nilanjana Roy Dudam Bharath Kumar | Dec-19 | Use Urban Green as a Mitigation Strategy to Combat Urban Heat Island Effect: A Case of Puri-Cuttack Road | International Conference on countermeasures of urban heat island (IC2UHI) | IIIT Hyderabad | International | Google Scholar |
| 12 | S. R. Samal M. Mohanty | Nov-19 | Development of flexible pavement cost models for weak subgrade stabilized with fly ash and lime | The 9th International Conference on Sustainable Waste Management towards Circular Economy | KIIT DU, Bhubaneswar, Odisha, India | International | Google Scholar |
| 13 | Bittu Ghosh D. Bharath Kumar Mohibullah | Nov-19 | Role of GHG Emissions from Livestock Waste Controlling to Climate over India: A short Review | The 9th International Conference on Sustainable Waste Management towards Circular Economy | KIIT DU, Bhubaneswar, Odisha, India | International | Google Scholar |
| 14 | B. Jena K. K. Sahoo | Nov-19 | Mechanical Properties and Chloride Content on Self Compacting Concrete Exposed to Sea Water | The 9th International Conference on Sustainable Waste Management towards Circular Economy | KIIT DU, Bhubaneswar, Odisha, India | International | Google Scholar |
| 15 | Dudam Bharath Kumar | Nov-19 | Study on Improvement of Strength in Weak Soil using Rice Husk | The 9th International Conference on Sustainable Waste | KIIT DU, Bhubaneswar, Odisha, India | International | Google Scholar |

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| | | | | Management towards Circular Economy | | | |
| 16 | Dudam Bharath Kumar S. Jayalekshmi | Nov-19 | Effect of Temperature on Adsorption of Municipal Solid Waste Leachate using Soil as an Adsorbent | The 9th International Conference on Sustainable Waste Management towards Circular Economy | KIIT DU, Bhubaneswar, Odisha, India | International | Google Scholar |
| 17 | Sushree Sasmita Dudam Bharath Kumar | Nov-19 | Study of water and wastewater treatment at Hindustan Coca-cola Pvt. Ltd. At Khurda, Odisha, India | The 9th International Conference on Sustainable Waste Management towards Circular Economy | KIIT DU, Bhubaneswar, Odisha, India | International | Google Scholar |
| 18 | B. Bisoi Divyajit Das P. S. Subbarao B. Das | Nov-19 | An Evaluation on Green Manufacturing: It's Technique, Significance and Rationality | International Conference on Advances in Materials and Manufacturing Engineering, ICAMME 2019 | IOP Conference Series: Materials Science and Engineering | International | Scopus |
| 19 | A. Panda B. Das J. Padhi P. Chakraborty | Oct-19 | Spatio-Temporal trend of groundwater level in Odisha | | IIT Roorkee, Roorkee, India | International | Google Scholar |
| 20 | M. Mohanty S. R. Samal | Jul-19 | Road crashes among adolescents: A case study | International Conference on Recent Development in Sustainable Infrastructures (Materials & Management) ICRDSI 2019 | KIIT DU, Bhubaneswar, Odisha, India | International | Google Scholar |
| 21 | B. Paikaray S. K. Das B. G. Mohapatra S. Sarangi | Apr-19 | Behaviour of Rectangular Footing on Reinforced Crusher Dust | International Conference on Smart Materials and Techniques for Sustainable Development, SMTS(2019) | Dr. N.G.P. Institute of Technology, Coimbatore | International | Google Scholar |
| 22 | Tribikram Mohanty Souna Majhi Purnachandra Saha Bitanjaya Das | Apr-19 | Combined Effect of Fly-Ash and Ferrochrome Ash as Partial Replacement of Cement on Mechanical Properties of Concrete | International Conference on Green Energy and Environment Engineering, CGEEE 2018 | Seisa Dohto University Kitahiroshima; Japan | International | Scopus |
| 23 | Dudam Bharath Kumar S. Sushree | Mar-19 | Analysis of seasonal variation and sources of PM10 aerosols | International Conference of China India Association for | IIT-Delhi, New Delhi, India | International | Google Scholar |

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| | H. Kumar | | over eastern coast of India | Atmospheric Scientists (CIAAS) | | | |
| 24 | N. Gupta T. Barik S. Dey Purnachandra Saha | Feb-19 | Effect of Wind and Seismic forces on different Components of Cable Suspension Bridge: An Overview | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 25 | P. Sen M. Kumar P. Shukla Purnachandra Saha | Feb-19 | The Aerodynamic and Seismic Behaviour of Cable-Stayed Bridge | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 26 | K. Pareek Purnachandra Saha | Feb-19 | Basalt Fiber and Its Composites: An Overview | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 27 | S. Saha R. Dey Purnachandra Saha | Feb-19 | Mechanical and Durability Properties of Concrete Using Recycled Aggregate | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 28 | S. Roy S. Das Purnachandra Saha | Feb-19 | Seismic Response Control of a Building Using Passive Hybrid Damper under Near Field Earthquakes | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 29 | P. Das P. Roy Purnachandra Saha | Feb-19 | Effect of Superplasticizer and Mineral Admixtures on Mechanical and Durability Properties of Geopolymer Concrete: A Review | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 30 | P. Ray R. Patty D. K. Bera A. K. Rath | Feb-19 | Innovative Optimization Techniques of Time and Cost Trade Off | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 31 | S. Ghosh D. K. Bera | Feb-19 | Oil Contaminated Sand: Towards Cleaner Future | Proceedings of National Conference on Advances in Structural Technologies | NIT Silchar, India | National | Google Scholar |

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| | | | | (CoAST-2019) | | | |
| 32 | L. Priyadarshini P. Ray P. Roy D. K. Bera | Feb-19 | Risk Assessment and Management in Construction Projects | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 33 | S. Mohapatra D. K. Bera A. K. Rath | Feb-19 | A Review on Geo-Polymer Pervious Concrete by Using Recycled Coarse Aggregate | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 34 | A. Singh A. Ghoshal A. Singh Purnachandra Saha | Feb-19 | Organic and Inorganic Elements Used for Co ₂ Absorption in Concrete | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Google Scholar |
| 35 | S. Mondal S. De Purnachandra Saha | Feb-19 | Removal of VOCs and Improvement of Indoor Air Quality Using Activated Carbon Air Filter | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Scopus |
| 36 | Swabarna Roy Swagato Das Purnachandra Saha | Jul-05 | Seismic Control and Performance of Passive Hybrid Damper Under Near-Field Earthquakes | Proceedings of National Conference on Advances in Structural Technologies (CoAST-2019) | NIT Silchar, India | National | Scopus |
| 37 | Kshyana Prava Samal | Dec-18 | Analysis of seepage from a triangular furrow considering soil capillarity using inverse hodograph and conformal mapping technique | International Conference HYDRO-2018 | | International | Google Scholar |
| 38 | Sourav Das A. Chakrabarty | Dec-18 | Effects of Centrifugal Stiffening on Vibration Control of Horizontal Axis Wind Turbine Blade | SEC18: Proceedings of the 11th Structural Engineering Convention | Jadavpur University, Kolkata | National | Google Scholar |
| 39 | A. K. Das Sourav Das | Dec-18 | Reliability Based Seismic Response Control of Liquid Storage Tank Isolated by Polynomial Friction Pendulum | SEC18: Proceedings of the 11th Structural Engineering Convention | Jadavpur University, Kolkata | National | Google Scholar |

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| | | | Isolators | | | | |
| 40 | A. K. Das Sourav Das | Dec-18 | Reliability Based Optimum Design of Nonlinear TMD with Duffing Stiffness for Vibration Control of 76-Story Benchmark Building | SEC18: Proceedings of the 11th Structural Engineering Convention | Jadavpur University, Kolkata | National | Google Scholar |
| 41 | S. Roy S. Das Purnachandra Saha | Dec-18 | Seismic Response Control of a Building Using Passive Hybrid Damper | SEC18: Proceedings of the 11th Structural Engineering Convention | Jadavpur University, Kolkata | National | Google Scholar |
| 42 | Dudam Bharath Kumar Sasmita Sushree | Nov-18 | Sources and Characteristics of Aerosol over Smartcity Bhubaneswar in Winter and Summer | Bulletin of Indian Aerosol Science and Technology Association (IASTA) | IIT, Delhi | National | Google Scholar |
| 43 | D.Biswas; T. Ghosh; R. Prasad; Kajal Parashar; S.K.S. Parashar | 2018 | Study of Electromagnetic behavior of Nd ₂ O ₃ /PVA thin film for microwave applications | 2018 International Conference on Applied Electromagnetics, Signal Processing and Communication, AESPC 2018 | IEEE | International | Scopus |
| 44 | S. Baral; R. Prasad; Kajal Parashar; S.K.S. Parashar, | 2018 | Synthesis of La ₂ O ₃ /PVA thin film for microwave device application | 2018 International Conference on Applied Electromagnetics, Signal Processing and Communication, AESPC 2018 | IEEE | International | Scopus |
| 45 | Sagnik Chatterjee; Rishu Prasad; Kajal Parashar; S.K.S. Parashar | 2018 | Electromagnetic analysis of SiC/PVA polymer thin film for microwave applications | 2018 International Conference on Applied Electromagnetics, Signal Processing and Communication, AESPC 2018 | IEEE | International | Scopus |
| 46 | Ankit Singh; Rishu Prasad; Kajal Parashar; S.K.S. Parashar, | 2018 | Investigation of electromagnetic properties of Bi ₂ O ₃ /PVA for microwave application | 2018 International Conference on Applied Electromagnetics, Signal Processing and Communication, AESPC 2018 | IEEE | International | Scopus |

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|----|---|--------|--|--|------------------|---------------|-------------------------|
| 47 | Priyamvada, Deeksha Prasad, Rishu Parashar, Kajal Parashar S.K.S. | 2018 | Electromagnetic Interaction of Nickel Oxide polymeric thin film for microwave | 2018 International Conference on Applied Electromagnetics, Signal Processing and Communication, AESPC 2018 | IEEE | International | Scopus |
| 48 | L. Panda, Biswabandita Kar S.Dash, | 2018 | Preparation of fly ash based zeolite for removal of fluoride from drinking water | AIP Conference Proceedings | Bikaner, India | International | Scopus & Web of Science |
| 49 | S. Dash; Biswabandita Kar; P.S. Mukherjee | 2018 | Pervious concrete using fly ash aggregate as coarse aggregate- an experimental study | AIP Conference Proceedings | Bikaner, India | International | Scopus & Web of Science |
| 50 | A. Divyadarshi Kshyana Prava Samal | Jul-18 | Cost optimization in Building Construction by Comparing Various Materials in Brickwork | IACCM 2018 | | International | Google Scholar |
| 51 | J. Padhi B. Das A. S. Rao | May-18 | Optimal cropping pattern for sustainable agriculture under drought condition | 8th Asian Regional Conference (8ARC): Irrigation in Support of Evergreen Revolution | Kathmandu, Nepal | International | Google Scholar |
| 52 | Dudam Bharath Kumar S. Choudhary | Mar-18 | Episodic Analysis of Biomass Burning Aerosols over east-coast India: Effect of Regional and Long-range Transport | International Conference on Atmospheric Composition and Climate Change in Asia (ICACCCA) | Malaysia | International | Google Scholar |
| 53 | A. S. Rao Jyotiprakash Padhi B. Das | Jan-18 | Assessment of Drought in Balangir District of Odisha, India using Drought Indices | International Conference on Water, Environment, Energy and Society | | International | Google Scholar |

List of Book Chapter

| S. I. No. | Name of the Faculty | Author Affiliation | Year of Publication | Title of the Book Chapter | Book Title | Publisher | Volume(issue): Page no. | ISBN | Part of E-databases (Scopus) |
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|---|--|--|------------|--|--|--------------|---|---------------------------|--|
| 1 | Pala Girees h Kumar ; Satya Ranjan Samal; Abhira mi Priyan ka Pathiva da | SVECW, Bhimavar am, India KIIT DU SVECW, Bhimavar am, India | May- 22 | Traffic Crowd Assess ment and Placing of Traffic Signal at Unsign alized Intersec tion–A State of Art | Recent Advances in Civil Engineering, Lecture Notes in Civil Engineering Book Series | Spri nger | Volum e 233, Pages 601- 611 | 978-981- 19-0188- 1 | Sco pus |
| 2 | Satya Ranjan Samal; Malaya Mohan ty; Pala Girees h Kumar ; Moses Santha kumar M; | KIIT DU KIIT DU SVECW, Bhimavar am, India NIT, Tiruchirap palli | May- 22 | Evaluat ion of Functio nal Effecti veness of Speed Humps in Accord ance to IRC Specifi cations | Recent Advances in Civil Engineering, Lecture Notes in Civil Engineering Book Series | Spri nger | Volum e 233, Pages 105- 114 | 978-981- 19-0188- 1 | Sco pus |
| 3 | Saismr utiranj an Mohan ty ; Sanjib Moulic k ; Sanjoy Kumar Maji, | KIIT DU KIIT DU KIIT DU | 2022 | Remov al of Malach ite Green from Spiked Pond Water Using Titanat e Nanotu | Lecture Notes in Civil Engineering | Spri nger | 207, pp. 663- 675 | 978-981- 16-7508- 9 | Sco pus |

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| 4 | Vishal Singh; Rajesh Kumar ; Benu G. Mohapatra; Malay Saha; S. N. Patel | BITS, Pilani BITS, Pilani KIIT DU SIEM, Siliguri BITS, Pilani | Apr-22 | Nonlinear Vibration of Functionally Graded CNT-Reinforced Composite Plate Under Nonuniform In-Plane Loading | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 47 - 58 | 978-981-16-8433-3 | Scopus |
| 5 | Pramodini Sahu; D. K. Bera; P. K. Parhi | CET Bhubaneswar KIIT DU CET Bhubaneswar | Apr-22 | Gradation of the Relative Significance of the Claims Obtained from Construction Industry | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 115 - 125 | 978-981-16-8433-3 | Scopus |
| 6 | Prasanna Kumar Acharya; Sanjaya Kumar Patro | KIIT DU VSSUT Burla | Apr-22 | Utilization of Air-Cooled Ferrochrome Slag in Lime Additive | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 149 - 162 | 978-981-16-8433-3 | Scopus |

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| | | | | Blended Cement-Based Concrete | | | | | |
| 7 | Nathnael Azmeraw Workeluel; Tribikram Mohanty | KIIT DU KIIT DU | Apr-22 | Evaluation of Precast Prestressed Concrete System : For the Housing Projects | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 163 - 172 | 978-981-16-8433-3 | Scopus |
| 8 | Dolasankar Sahu; Mohibullah | KIIT DU KIIT DU | Apr-22 | Effective Criterion for Equipment Management in Construction Industry | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 185 - 199 | 978-981-16-8433-3 | Scopus |
| 9 | Swagato Das; Purnachandra Saha | C. V. Raman Global University KIIT DU | Apr-22 | Performance of Optimal Sensor Placement Strategies for Damage Detection in Civil Engineering | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 269 - 279 | 978-981-16-8433-3 | Scopus |

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| 10 | Bittu Ghosh; Mohibullah; D. K. Bera | KIIT DU KIIT DU KIIT DU | Apr-22 | Influence of Various Factor Associate with Claims on Construction Industry | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 337 - 357 | 978-981-16-8433-3 | Scopus |
| 11 | Amaresh Tripathy; Prasanna Kumar Acharya | KIIT DU KIIT DU | Apr-22 | Characteristics of Sugarcane Bagasse Ash as a Pozzolanic Material—A Report on Present Knowledge | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 463 - 479 | 978-981-16-8433-3 | Scopus |
| 12 | Purnajit Bhowmik; Gaurav Udgata; Shivanishi Trivedi | KIIT DU KIIT DU KIIT DU | Apr-22 | Risk Assessment in Construction Industry Using a Fuzzy Logic | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 517 - 526 | 978-981-16-8433-3 | Scopus |
| 13 | Lisyna Priyadarshini; Prasanta Roy | KIIT DU Amity University, Kolkata | Apr-22 | Risk Assessment and Management in Construction Industry | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 539 - 556 | 978-981-16-8433-3 | Scopus |

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| 14 | Subodha Kumar Rautaray; Dillip Kumar Bera; A. K. Rath | KIIT DU KIIT DU KIIT DU | Apr-22 | The Effects of Ground Granulated Blast-Furnace Slag Blending with Fly Ash Based Self Compacting Geopolymer Concrete on the Workability and Strength Properties at Ambient Curing | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 567 - 579 | 978-981-16-8433-3 | Scopus |
| 15 | Aakash Kumar Gupta; Prasanna Kumar Acharya | KIIT DU KIIT DU | Apr-22 | Effect of Various Waste Materials on Hydration Process Binding Materials | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 603 - 618 | 978-981-16-8433-3 | Scopus |
| 16 | Sangram K. Sahoo; Benu G. Mohapatra; | KIIT DU KIIT DU VSSUT Burla KIIT DU | Apr-22 | Performance of Functionally Graded Concrete | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil | Springer | Volume 221, Pages 619 - 643 | 978-981-16-8433-3 | Scopus |

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| | Sanjaya K. Patro; Prasan K. Acharya | | | e Made of Layered Technique—A Review | Engineering Book Series | | | | |
| 17 | J. Nihar Ranjan ; Benu G. Mohapatra; Manal Alali | KIIT DU KIIT DU KIIT DU | Apr-22 | Approaches to Slope Stability Analysis Considering the Effects of Dilatancy and Strength Non-linearity: A Review | Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management, Lecture Notes in Civil Engineering Book Series | Springer | Volume 221, Pages 645 - 655 | 978-981-16-8433-3 | Scopus |
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| 87 | Bhagyashree Panda Nazia T Imran Kundan Samal | KIIT DU | Jul-20 | A Study on Replacement of Coarse Aggregate with Recycled Concrete Aggregate (RCA) in Road Construction | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |

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|----|--|---------|--------|---|---|----------|--|-------------------|--------|
| 88 | Jyoti Ranjan Barik Purnachandra Saha | KIIT DU | Jul-20 | Seismic Control of Benchmark Highway Bridge Using Fiber Reinforced Elastomeric Isolator | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 89 | Gaurav Udgata Purnajit Bhowmik Silpa P Das | KIIT DU | Jul-20 | Effect of Lime on Mechanical Properties of Silica Fume Modified Concrete | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 90 | Raja Sekhar Mamillapalli Ashok Kumar Rath Dilip Kumar Bera | KIIT DU | Jul-20 | Studies on Integration of Lean Construction and Sustainability in Indian Real Estate Projects | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 91 | Omkar Ghosh Sourav Das | KIIT DU | Jul-20 | Optimal Design of Hysteretic Nonlin | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |

| | | | | | | | | | |
|--------|--|---------|------------|--|--|--------------|--|---------------------------|------------|
| | | | | ear Energy Sink for Suppre ssion of Limit Cycle Oscillat ions of a Flappin g Airfoil | | | | | |
| 9 2 | Ankit Kumar Sumon Saha Rana Chattar aj | KIIT DU | Jul- 20 | Soft Clay Stabiliz ation With Steel Slag | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Spri nger | | 978-981- 15-4576- 4 | Sco pus |
| 9 3 | Suresh Chandr a Pattana ik Sanjay a Kumar Patro Bitanja ya Das | KIIT DU | Jul- 20 | Polyme ric Materia ls for Repair of Distres sed Concret e Structu res | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Spri nger | | 978-981- 15-4576- 4 | Sco pus |
| 9 4 | Jyotipr akash Padhi Abhila sh Mishra Shubha m Choud hary Bitanja ya Das | KIIT DU | Jul- 20 | Water Resour ce Manag ement During Monso on Months Based on SPI And CZI in Khordh a District , India | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Spri nger | | 978-981- 15-4576- 4 | Sco pus |

| | | | | | | | | | |
|----|--|---------|--------|--|---|----------|--|-------------------|--------|
| 95 | Sushre Sasmita Dudam Bharath Kumar | KIIT DU | Jul-20 | Seasonal Variability of Satellite-Derived Aerosol Optical Depth in Smart City, Bhubaneswar | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 96 | Lovely Sabat Chinmay Kumar Kundu | KIIT DU | Jul-20 | History of Finite Element Method | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 97 | S. S. Panda B. Jena | KIIT DU | Jul-20 | Yield Behaviour of Two-Way Reinforced Concrete Flyash Brick Slab | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 98 | Arani Dutta Narayan Chandra Moharana | KIIT DU | Jul-20 | Mechanical and Durability Properties of Fly Ash-Based Geopolymer Concrete | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |

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|-----|--|---------|--------|---|---|----------|--|-------------------|--------|
| 99 | Vishal Singh B.G. Mohapatra | KIIT DU | Jul-20 | Parametric study on foundation retrofitting using Micropiles | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 100 | Rohita Kumar Sethi Prabhash Kumar Mishra Deepak Khare Kshyana Prava Samal | KIIT DU | Jul-20 | Modelling Sea Water Intrusion in the Eastern Coast Adjacent to Ersama and Kujanga Blocks of Odisha, India | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 101 | Tribikram Mohanty Bhargavi Nandan Patra Purnachandra Saha | KIIT DU | Jul-20 | Durability Properties of Self Compacting Concrete Using Silica Fume | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 102 | Arnab Debnath Sumon Saha Rana Chattaraj | KIIT DU | Jul-20 | Stabilization of Clayey Soil With Marble Dust | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |

| | | | | | | | | | |
|-----|--|---------|--------|---|---|----------|--|-------------------|--------|
| 103 | Sneha Sen Purnachandra Saha | KIIT DU | Jul-20 | The Performance of Geopolymer Concrete Utilizing Wastes As Binder | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 104 | Rachita Panda Tanmayya Kumar Sahoo | KIIT DU | Jul-20 | Effect of Replacement of GGBS and Fly Ash with Cement in Concrete | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 105 | Anuradha Panda Bitanjaya Das Jyotiprakash Padhi Paromita Chakraborty | KIIT DU | Jul-20 | Groundwater Level Trend Analysis for Sustainable Extraction and Use in Coastal Odisha | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |
| 106 | Amarendra Kr. Mohapatra Dillip Kumar Bera A. K. Rath | KIIT DU | Jul-20 | Effect of Silica Fume on Strength Enhancement of Geopolymer | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Springer | | 978-981-15-4576-4 | Scopus |

| | | | | | | | | | |
|-------------|--|---|------------|--|--|--------------|-------------------|--|---------------------------|
| | | | | Mortar in Ambie nt Curing | | | | | |
| 1 0 7 | B. K. Das S. K. Das B. G. Mohap atra | KIIT DU | Jul- 20 | Red Mud As A Control led Low Strengt h Materia l | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Spri nger | | 978-981- 15-4576- 4 | Sco pus |
| 1 0 8 | Srishti Saha Joyant a Pal | KIIT DU | Jul- 20 | A Study on Propert ies of Concret e Using Silica Fume and Brick Aggreg ate | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Spri nger | | 978-981- 15-4576- 4 | Sco pus |
| 1 0 9 | Divyajit Das Bhuba neswar i Bisoyi Ipseeta Satpath y Biswaj it Das | KIIT DU | Jul- 20 | Urban Infrastr ucture and Special Econo mic Zone (SEZ): Challen ges for Corpor ate Land Alienat ion | Recent Developments in Sustainable Infrastructure, Lecture Notes in Civil Engineering Book Series | Spri nger | | 978-981- 15-4576- 4 | Sco pus |
| 1 1 0 | Rachit a Panda Sudhir a Rath | KIIT DU VSS University of Technolog y, Burla | Mar- 20 | Improv ement in Engine ering Behavi | Urban Mining and Sustainable Waste Management | Spri nger | pp 239- 248 | 978-981- 15-0531- 7 (P) 978-981- 15-0532- 4 | Goo gle Sch olar |

| | | | | | | | | | |
|-------------|--|--|------------|--|--|--------------|--|---------------------------|------------|
| | | | | our of Expans ive Soil Reinfor ced with Rando mly Distrib uted Waste Plastic Strips | | | | (Ebook) | |
| 1 1 1 | Kunda n Samal Rajnee sh Singh Rajesh Roshan Dash Puspen du Bhunia | KIIT DU KIIT DU KIIT DU KIIT DU | Jan- 20 | Investi gation on the effect of plantin g Canna indica in two stage vermifi lter for syntheti c dairy wastew ater treatme nt | Recent Developments in Waste Management | Spri nger | | 978-981- 15-0990- 2 | Sco pus |
| 1 1 2 | Satya Ranjan Samal Aditya Kumar Das | KIIT DU Indian Institute of Technolog y Bombay, Mumbai | Jan- 20 | Evaluat ion of traffic congest ion parame ters under heterog eneous traffic conditi on: A case study on Bhuban eswar city | Lecture Notes in Civil Engineering | Spri nger | Volum e 45, Pages 675- 684 | 978-981- 32-9042- 6 | Sco pus |

| | | | | | | | | | |
|-----|--|---|--------|---|---|----------|------------------------|-------------------|-------------------------|
| 113 | Abhishek Mund ; Bikash Pattanayak; J.S. Jayakumar; Kajal Parashar; S.K.S. Parashar | AVV, Amritapuri AVV, Amritapuri AVV, Amritapuri KIIT DU KIIT DU | 2019 | Experimental and numerical study of heat transfer in double-pipe heat exchanger using Al ₂ O ₃ , and TiO ₂ water nanofluid | Lecture Notes in Mechanical Engineering | Springer | pp. 531-540 | 978-981-13-6415-0 | Scopus & Web of Science |
| 114 | Bikash Pattanayak; Abhishek Mund; J.S. Jayakumar ; Kajal Parashar; S.K.S. Parashar | AVV, Amritapuri AVV, Amritapuri AVV, Amritapuri KIIT DU KIIT DU | 2019 | Spray impingement heat transfer using nanofluid— experimental study | Lecture Notes in Mechanical Engineering | Springer | pp. 369-377 | 978-981-13-6415-0 | Scopus & Web of Science |
| 115 | Dr. Bandita Paikaray; Sarat Kumar Dash; Benu Gopal Mohapatra | KIIT DU IIT (ISM) Dhanbad KIIT DU | Feb-19 | Interference of Two Shallow Square Footings on Geogrid Reinforced Crusher Dust | Sustainable Construction and Building Materials | Springer | Volume 25, Pages 41-60 | 978-981-13-3317-0 | Scopus |

| | | | | | | | | | |
|-----|---|-------------------------------|--------|--|---|----------|--------------------------|-------------------|----------------|
| 116 | Gaurav Udgata ; A. K. Rath | KIIT DU KIIT DU | Jan-19 | Effects of steel fibre on self-compacting concrete with fly ash | Recent Advances in Structural Engineering, Vol. 1 | Springer | Volume 11, Pages 737-746 | 978-981-13-0361-6 | Scopus |
| 117 | Rini Dey; Purnachandra Saha | BBIT, Budgekolkata KIIT DU | Jan-19 | Seismic response control of smart base-isolated benchmark building using hybrid control strategy (viscous fluid damper with MR damper) | Recent Advances in Structural Engineering, Volume 2 | Springer | Volume 12, Pages 365-374 | 978-981-13-0365-4 | Scopus |
| 118 | Rohit Shah; Tribikram Mohanty; | KIIT DU KIIT DU | Jan-19 | Combined effect of steel fibers with ferrous slag on hardened concrete | Recent Advances in Structural Engineering, Volume 1 | Springer | Volume 11, Pages 647-655 | 978-981-13-0362-3 | Scopus |
| 119 | A. Patnaik V. Kumar Purnachandra Saha | KIIT DU KIIT DU KIIT DU | Jun-18 | Importance of Indoor Environmental Quality | Environmental Pollution | Springer | PP 53-64 | 978-981-10-5792-2 | Google Scholar |

| | | | | | | | | | |
|-------------|---|--|------------|--|---------------------------|--------------|-------------------|---------------------------|---------------------------|
| | | | | in Green Buildin gs | | | | | |
| 1 2 0 | A. S. Rao Jyotipr akash Padhi B. Das | Departme nt of Water Resources Governme nt of Odisha KIIT DU KIIT DU | May- 18 | Assess ment of Drough t in Balangi r District of Odisha, India using Drough t Indices | Climate Change Impacts | Spri nger | pp 273- 291 | 978-981- 10-5714- 4 | Goo gle Sch olar |

PhD Scholar List (Last 3 years)

| Sl No | Scholar Name | Roll No | Year | Supervisor | Co-Supervisor |
|----------|---------------------------|---------|------|--------------------|--------------------|
| 1 | SUCHISMITA JENA | 2281052 | 2022 | Dr. M.L. Pattanaik | |
| 2 | SUSMITA SWAIN | 2281053 | 2022 | Dr. P. Saha | |
| 3 | SILPA PRIYADARSANI DAS | 2281054 | 2022 | Dr. N.C. Moharana | Dr. Sanjukta Sahoo |
| 4 | ANINDITA SAMANT | 2281055 | 2022 | Dr. Aparupa Pani | |
| 5 | RAJNISH KUMAR | 2281056 | 2022 | Dr. C.K. Kundu | |
| 6 | BIDYA PARIJA | 2281057 | 2022 | Dr. B. Paikaray - | Dr. B.G. Mohapatra |
| 7 | SALINI PATRA | 2281058 | 2022 | Dr. A.K. Pani | |
| 8 | NILIMASHREE NIHARIKA | 2281059 | 2022 | Dr. D.K. Bera - | Dr. A.K. Rath |

| | | | | | |
|----|---------------------------|---------|------|--------------------|-------------------|
| 9 | SANJEEB KUMAR DAS | 2281060 | 2022 | Dr. A.K. Pani | |
| 10 | RASHMI RANJAN SAMAL | 2281061 | 2022 | Dr. M. Mohanty | |
| 11 | AJIT BARIK | 2281062 | 2022 | Dr. B.G. Mohapatra | |
| 12 | HIMANDRI NANDINI SAHOO | 2281063 | 2022 | Dr. S. Nanda | |
| 13 | AVISHEK MUKHERJEE | 2281064 | 2022 | Dr. H.S. Panda | |
| 14 | ASHMITA MOHANTY | 2281065 | 2022 | Dr. D.R. Biswal | |
| 15 | SASWAT MISHRA | 2281190 | 2022 | Dr. D.K. Bera | |
| 16 | JEEVAN ACHARYA | 2281214 | 2022 | Dr. N.C. Moharana | |
| 17 | SOHINI BANERJEE | 2281228 | 2022 | Dr. S. Moulick - | Dr. K. Samal |
| 18 | KALPANA SAHOO | 2281248 | 2022 | Dr. B. Beriha | |
| 19 | NASIM HOSSIN | 2181003 | 2021 | Dr. N.C. Moharana | |
| 20 | PUNYASHA SEEYARAM | 2181034 | 2021 | Dr. S. Nanda | |
| 21 | KAMALDEEP BEHERA | 2181035 | 2021 | Dr. S. Nanda | |
| 22 | CHINMAYEE DASH | 2181036 | 2021 | Dr. B.G. Mohapatra | Dr. B. Beriha |
| 23 | SARTHAK SAHOO | 2181037 | 2021 | Dr. K.P. Samal | Dr P. K. Mishra |
| 24 | ATUL RANJAN | 2181038 | 2021 | Dr. H.S. Panda | |
| 25 | ANANYA DAS | 2181039 | 2021 | Dr. S. Moulick | Dr. Subhra Debdas |

| | | | | | |
|----|---------------------------|---------|------|------------------|--------------------|
| 26 | ABINASH JENA | 2181146 | 2021 | Dr. S. Moulick | Dr. S.K. Maji |
| 27 | SUDHANSU BEHERA | 2181163 | 2021 | Dr. K. Samal | |
| 28 | ANIBRATA PAL | 2081041 | 2020 | Dr. P.K. Acharya | |
| 29 | ANURADHA PANDA | 2081042 | 2020 | Dr. B. Das | Dr. P. Chakraborty |
| 30 | ASHEENA SUNNY | 2081043 | 2020 | Dr. P. Saha | |
| 31 | CHANDANA ROY | 2081044 | 2020 | Dr. T. Mohanty | |
| 32 | IPSITA MOHANTY | 2081045 | 2020 | Dr. P. Saha | |
| 33 | LIPSITA SAMAL | 2081046 | 2020 | Dr. K.K. Sahoo | |
| 34 | MOHIBULLAH | 2081047 | 2020 | Dr. P.K. Acharya | |
| 35 | PRANGYA SUCHARITA RATH | 2081048 | 2020 | Dr. R. Chattaraj | |
| 36 | PRATYASHA SINGH | 2081049 | 2020 | Dr. Aparupa Pani | |
| 37 | PREETYNANDA NANDA | 2081050 | 2020 | Dr. S. Nanda | |
| 38 | RACHITA PANDA | 2081051 | 2020 | Dr. D.R. Biswal | |
| 39 | RASHMI RANJAN BISWAL | 2081052 | 2020 | Dr. B. Paikaray | |
| 40 | SARUK MALLICK | 2081053 | 2020 | Dr. P.K. Acharya | |
| 41 | SHASHANKA SEKHAR | 2081054 | 2020 | Dr. R. Chattaraj | |

| | | | | | |
|----|----------------------------|---------|------|--------------------|-----------------|
| | PALAI | | | | |
| 42 | SMRUTI RANJAN GACHHAYAT | 2081055 | 2020 | Dr. P.K. Acharya | |
| 43 | SOUVIK BANERJEE | 2081056 | 2020 | Dr. T. Mohanty | |
| 44 | SRISHTI SAHA | 2081057 | 2020 | Dr. P. Saha | |
| 45 | SWETAPADMA NAYAK | 2081058 | 2020 | Dr. P. Chakraborty | Dr. B. Das |
| 46 | SUTAAPA GIRI | 2081258 | 2020 | Dr. J. Padhi | Dr. B. Das |
| 47 | ASHOK KU TARAI | 2081287 | 2020 | Dr K. P. Samal | |
| 48 | JYOTISHREE SWAIN | 2081295 | 2020 | Dr. N.C. Moharana | |
| 49 | AMARESH TRIPATHY | 1981017 | 2019 | Dr. P.K. Acharya | |
| 50 | STUTEE MOHANTY | 1981019 | 2019 | Dr. S. Nanda | |
| 51 | GAURAV UDGATA | 1981016 | 2019 | Dr. K.K. Sahoo | Dr. D.R. Biswal |
| 52 | VEEROTTAM KUMAR CH | 1981020 | 2019 | Dr. P.K. Acharya | |
| 53 | ACHANTA SUDHEER | 1981021 | 2019 | Dr. T. Mohanty | |
| 54 | RAHUL KUMAR GUPTA | 1981022 | 2019 | Dr. T. Mohanty | Dr. P. Saha |
| 55 | SATYA RANJAN SAMAL | 1981023 | 2019 | Dr. M. Mohanty | |
| 56 | CHOUDHURY GYANARANJAN | 1981024 | 2019 | Dr. D.R. Biswal | |

| | | | | | |
|--|-------|--|--|--|--|
| | SAMAL | | | | |
|--|-------|--|--|--|--|

PhD awarded list (last 3 years)

| SI No | Roll No | Name | Year |
|-------|---------|---------------------------|------|
| 1 | 1381075 | Rama Chandra Pradhan | 2022 |
| 2 | 1481022 | Subodh Kumar Routray | 2022 |
| 3 | 1481025 | Jagannath Patel | 2022 |
| 4 | 1481024 | Sangram Kishor Sahoo | 2021 |
| 5 | 1681025 | Swagato Das | 2021 |
| 6 | 1281041 | Amarendra Kumar Mohapatra | 2020 |
| 7 | 1181002 | Bijaya Kumar Das | 2020 |
| 8 | 1381074 | Manoj Kumar Dash | 2019 |

5.8.2. Sponsored Research (20)

- Funded research from outside:

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding Amount (Cumulative during CAYm1, CAYm2 and CAYm3): Amount > 50 Lakh – 20 Marks,

Amount > 40 and ≤ 50 Lakh – 15 Marks, 2020-21, 2019-20, 2018-19

Amount > 30 and ≤ 40 Lakh – 10 Marks,

Amount ≥ 15 and ≤ 30 Lakh – 5 Marks, Amount

< 15 Lakh – 0 Marks

| CAY 2022-2023 | | | |
|--|----------|---|--------------------|
| Project Title | Duration | Funding Agency | Amount (in Rupees) |
| Design, optimization and demonstration of chemical column and pressure injection treatment to enhance the shear strength characteristics along with phytoremediation of the abandoned ash pond | | SERB, Department of Science & Technology, Govt of India | 46,73,900 |

| | | | |
|---|-----------------|---|---------------------------|
| Anthropogenic and Geogenic contamination of ground water in Bhubaneswar Urban Catchment – A systematic Investigation | 2022-2024 | Indian Council of Social Science Research, Ministry of Human Resources Development | 6,00,000 |
| Total | | | 52,73,900 |
| CAYm1 2021-22 | | | |
| Project Title | Duration | Funding Agency | Amount (in Rupees) |
| Social determiners of water Inequity-A systematic investigation at Bhubaneswar | 2019-2021 | Indian Council of Social Science Research, Ministry of Human | 2,55,000 |
| Technical Support to the Housing and Urban Development Department, Government of Odisha to implement the state urban sanitation strategy (FSSM) | 2019-2021 | Ernst & Young LLP, Govt. Of Odisha | 46,34,644 |
| Total | | | 48,89,644 |
| CAYm2 2020-21 | | | |
| Project Title | Duration | Funding Agency | Amount (in Rupees) |
| Photo-degradation of Dyes using Hydrothermally Synthesized Titanate Nanotube (TNT) and Surface Modified Titanate Nanotube (SMTNT) | 2017-2020 | Science & Engineering Research Board, Department of Science and Technology, Government of India | 7,87,590 |
| Construction of Fly ash based Geopolymer Concrete (Green concrete) Road at Aradiapada School to Anantapur Road for the year 2018-20 | 2018-2020 | Engineer-in-Chief, Rural Works (0), Bhubaneswar | 14,50,000 |
| Waste utilization in self-compacting concrete: Effective assessment of Environmental benefits | 2019-2020 | TEQIP-III under Collaborative Research and Innovation Scheme | 1,98,000 |
| Social determiners of water Inequity-A systematic investigation at Bhubaneswar | 2019-2021 | Indian Council of Social Science Research, Ministry of Human | 3,40,000 |
| Total | | | 27,75,590 |
| CAYm3 2019-20 | | | |
| Project Title | Duration | Funding Agency | Amount (in Rupees) |

| | | | |
|---|-----------|---|------------------|
| Photo-degradation of Dyes using Hydrothermally Synthesized Titanate Nanotube (TNT) and Surface Modified Titanate Nanotube (SMTNT) | 2017-2020 | Science & Engineering Research Board, Department of Science and Technology, Government of India | 7,87,590 |
| Improving Ground Water Level & Quality through Enhanced Water Use Efficiency in Eastern Indian Agriculture | 2013-2018 | Information Technology Research Academy (ITRA) | 9,50,000 |
| Total | | | 17,37,590 |

5.8.3. Development activities (15)

A. PRODUCT DEVELOPMENT

| DETAILS OF PATENTS | | | | | | | | | |
|--------------------|---------------------------|---|--|-----------------------------|---------------------|-----------------------------------|---|------------------------------------|--------------------------------|
| | Full Name of the inventor | Full name of Co-inventors | Title of the patent | Patent filed application no | Date of application | To whom applied | Present Status (Filed / Published/ Granted) | Published | Granted |
| | | | | | | | | Publication No with date | Patent No with date |
| 1 | Prasanna Kumar Acharya | Sanjaya Kumar Patro | A composition for partial replacement of ordinary portland cement | 856/KOL/2014 | 20-08-2014 | The Patent Office, Govt. of India | Granted | N/A | No: 303344 Date: 22-11-2018 |
| 2 | Dillip Kumar Bera | Ashoke Kumar Rath, Sujay Kumar Singh Parashar | A novel cement composition incorporating bulk fly ash and nano fly ash | 201631024541 | 18-07-2016 | The Patent Office, Govt. of India | Published | W0/2018/015873 Date: 04-11-2016 | |

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|---|----------------------|---|--|--------------|------------|-----------------------------------|-----------|--|--|
| 3 | Kundan Samal | Sanjib Moulick Md. Hizbur Ali, Subhra Sharma, Harshit Kishlay and Saswat Mohapatra | A portable organic waste management apparatus and method of composting | 202131038736 | 26-08-2021 | The Patent Office, Govt. of India | Filed | | |
| 4 | Suraj Kumar Tripathy | Nikita Tiwari, Sanjaya Sarkar, Kali Shashank, Kundan Samal, Sanjib Moulick, Benu Gopal Mohapatra, Shirsendu Banerjee, Sankha Chakraborty, Sasmita Samanta, P.K. Mohapatra | Metal doped fecal sludge biochar for treatment of water | 202231000798 | 06-01-2022 | The Patent Office, Govt. of India | Filed | | |
| 5 | | Amaresh Tripathy and Prasanna Kumar Acharya | Synthesis of cement less geopolym er mix for a paver block system under non-traffic conditions | | | | Submitted | | |
| 6 | | Mohib Ullah and Prasanna Kumar Acharya | Synthesis of a geopolym er system using industrial | | | | Submitted | | |

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|----|--------------------------|--|--|--|--|--------------------|-----------|--|--|
| | | | waste red mud for making paver block | | | | | | |
| 7 | | Ashish Kumar Pani and Prasanna Kumar Acharya | Development of a heavy duty concrete block pavement system for construction of mine area roads | | | | Submitted | | |
| 8 | Narayan Chandra Moharana | Sanjukta Sahoo, Purnachandra Saha | Development of acid resistant geopolymer concrete for sewer Pipe using Class F fly ash and aluminium dross | | | | Submitted | | |
| 9 | Manal Aalali | Bandita Paikara y, Benu Gopal Mohapatra | An alternative foundation material from ferrochrome slag | | | | Submitted | | |
| 10 | Prafulla K. Panda | M. L Narasimham; I. V. | A disease vulnerability an | | | The Patent Office, | Submitted | | |

| | | | | | | | | | |
|----|------------------|---|---|---------------|-------------|---------------------------------------|------------|--|------------------------------|
| | | Murali Krishna; Sovan Sankalp ; B. B. Sahoo; R. K. Majhi; S. R. Sahoo; Rahul Adhikari; A. Mohanta; A. Pradhan ; C. Dalai; Apaupa Pani; M. Mallik | d combat mappin g model for tribal fortifica tion using geospati al Contrib utors | | | Gov t. of Indi a | | | |
| 11 | Sumit Sagar Hota | Sudhans u Sekhar Sahoo, Santa Chakrab orty, Deba prakash Satpath y, Dilip Kumar Bera, Auorosh is Rout, Sarat Kumar Panda | Earthqu ake resistant and energy efficient composi te brick and method of preparat ion therof | 202231010 295 | 25.02.2 022 | The Pate nt Offi ce, Gov t. of Indi a | Grante d | | No : 406468 dated 13.09.2022 |
| 12 | Ipsita Mohanty | Purnach andra Saha | Novel sustaina ble concrete using industri | | | | Submi tted | | |

| | | | | | | | | | |
|--|--|--|---|--|--|--|--|--|--|
| | | | al by-products as optimum replacement of cement and aggregates towards a sustainable path | | | | | | |
|--|--|--|---|--|--|--|--|--|--|

B. RESEARCH LABORATORIES

B.1 GEOTECHNICAL ENGINEERING RESEARCH SPECIFIC LAB Research Lab

Scope:

Civil Engineering School in KIIT boasts one of the most advanced and cutting-edge geotechnical research laboratory in Bhubaneswar, Odisha with a combined space of 35 m² for special experiments. It is used by B.Tech, M.Tech as well as Ph.D scholars of School of Civil Engineering.

Mentor: Dr. S. Nanda

Faculty-in-charge: Dr. Bandita Paikaray

Technical Assistant: Mr. Manoj Kumar Naik

Equipment:

- Steel tank with transparent front
- Weight machine
- Load cell to apply the loads (50kN ,100kN capacity)

- Loading frame attached with hydraulic jack
- Load indicator
- Steel funnels to pour the soil
- LVDTs (4 numbers)
- Back cement tanks
- Footings with different shapes
- Attachment rods and frames for loading
- Readout units for load cell and LVDTs

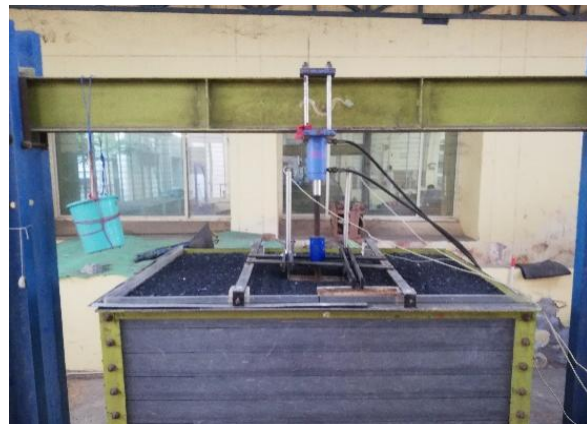
Experiments:

- Determination of bearing capacity of shallow foundation
- Determination of the settlement of footings resulting from the applied loads
- Determination of settlement of pavement layers placed on foundation soil.
- Determination of footing on reinforced soil foundation

Photo Gallery:



Steel Tank with loading frame



Steel Tank with loading frame



Hydraulic jack with load cell



Readout units for load cell and LVDT

B.2 COMPUTATIONAL LABORATORY Research Lab

Scope:

Computational Laboratory established at the School of Civil Engineering houses latest software to meet the computational demand of students, faculty members and researchers. The laboratory gives an opportunity all the stake holders such as faculty, students, and researchers to work in a collaborative learning environment. A number of finite element based software like ANSYS, FEAST, PLAXIS enables the students to analyse complex geotechnical engineering, pavement engineering, structural engineering problems. The objective of this lab is focused on applying the theories, design, application, and development of computational paradigms, highlighting finite element analysis, evolutionary computation, cloud-based mapping and analysis solution to make maps, analyze data, to share and collaborate, and structural analysis of various types of structures.

Mentor: Dr. P.C. Saha

Faculty In-Charge: Prof. Sunny Jaiswal

Technical Assistant: Ms. Sushree Barsarani Dakua

Major software:

- Arc-GIS
- FEAST^{SMT} (Finite Element Analysis of Structure)
- ERDAS IMAGINE
- PLAXIS 3D Suit & 2D Suit Software
- ANSYS SOFTWARE
- ERDAS IMAGINE
- GEOMEDIA PROFESSIONAL
- PHOTOGRAMMETRY
- MICROSTATION POWERDRAFT
- MICROSTATION
- STAAD.Pro
- STAAD FOUNDATION ADVANCED

Sponsored Research/Consultancy

- Structural health monitoring of ASCE bench mark structure and study of optimal sensor placement for damage diagnosis
- Analysis and vibration control of transmission tower
- Water resource analysis in Mahanadi basin using ensemble modelling
- Flow analysis in meandering river with grass
- Buckling analysis of thin-walled composite smart beams
- Fluid structure interaction of laminated composite and functionally grade plate
- Vibration analysis of isotropic plate in time domain and frequency domain using finite element method
- Numerical analysis of interlocking concrete block pavement using ANSYS
- Analysis of monsoon rainfall over Odisha

B.3 ADVANCED PAVEMENT MATERIAL TESTING LABORATORY Research Lab

Scope:

The Advanced Pavement material testing Laboratory consists of Servo hydraulic fatigue testing equipment. The servo hydraulic fatigue testing equipment can be used for determination of dynamic modulus, Resilient Modulus, Stiffness, permanent deformation, dynamic creep and fatigue life of Bituminous Mixture and stabilized soil & Aggregate samples. It has the provision of static and cyclic tests with Sine, square, triangle, ramp, hold, profile, other necessary waveforms and custom waveform activities. A list of tests which can be conducted based on specific AASHTO/ASTM/EN standards are given below.

Faculty-in-charge: Dr. D.R. Biswal and Dr. Brundaban Beriha

Technical Assistant: Ms. Elora Choudhury

Major Equipment: Universal Testing Machine with following specifications

Load Capacity: +/- 30kN Static, +/- 30kN Dynamic*

Frequency: Up to 70Hz

Load Cell: Low profile/Pancake type, +/-30kN capacity

Actuator Type: Double acting high precision labyrinth bearing or tie-rod actuator

Stroke: +/-25mm

The servo-hydraulic fatigue testing system has following accessories:

- Environmental chamber
- Accessories for Resilient Modulus test as per ASTM D4123
- Accessories for Resilient Modulus test as per ASTM D7369/AASHTO 322.
- Accessories for Resilient Modulus test as per EN 12697-24E
- Accessories for Stiffness Test as per EN 12697-26C.
- Accessories for Stiffness Test as per EN 12697-26B
- Accessories for Dynamic Modulus, Flow Number, and Flow Time: Asphalt Mixture Performance Tester (**AMPT**) as per AASHTO 378/TP 79.
- Accessories for Permanent deformation, Creep Strain, Creep Modulus, as per EN 12697-25B
- Accessories for fatigue study as per AASHTO 321
- Accessories for fatigue study as per ASTM D7460.
- Accessories for fatigue study as per EN 12697-24D
- General Purpose 4-B test for stabilized soil and aggregate
- Desktop with monitor

Experiments:

The servo hydraulic fatigue testing equipment can be used for

- Determination of Resilient modulus of Bituminous Mixtures by conducting Indirect Tension Test as per ASTM D4123
- Determination of Resilient modulus of Bituminous Mixtures by conducting Indirect Tension Test as per ASTM D7369/AASHTO 322.
- Determination of Resilient Modulus and Fracture Life of Hot Mix Asphalt by conducting 4-Point Bending Test as per EN 12697-24E
- Determination of Stiffness of Hot Mix Asphalt by conducting Indirect Tension Test as per EN 12697-26C.
- Determination of Stiffness of Hot Mix Asphalt by conducting 4-Point Bending Test as per EN 12697-26B
- Determining the Dynamic Modulus, Flow Number, and Flow Time for Asphalt Mixtures Using the Asphalt Mixture Performance Tester (**AMPT**) as per AASHTO 378/TP 79.
- Determination of Permanent deformation, Creep Strain, Creep Modulus, by Conducting Cyclic Compression Test as per EN 12697-25B
- Determining the Fatigue Life of Compacted Hot Mix Asphalt (HMA) subjected to Repeated Flexural bending as per AASHTO 321
- Determining Fatigue Failure of Compacted Asphalt Concrete Subjected to Repeated Flexural Bending as per ASTM D7460.
- Determination of Fatigue Life of Hot Mix Asphalt by conducting 4-Point Bending Test as per EN 12697-24D

- Determining Flexural Strength and Fatigue Life of concrete or cement stabilized soil by conducting Four Point Flexure Test on 100mmx100mmx450mm and 75mmx75mmx300mm size sample

Photo Gallery



Loading frame of Servo Hydraulic Fatigue Testing Machine



Accessories for 4 point Bending Machine

B.4 ENVIRONMENTAL ENGINEERING RESEARCH LABORATORY Research Lab

Scope:

The Environmental Engineering Research Laboratory of School of Civil Engineering focuses on determination of elemental compositions in terms of C, H and N of powdered solid samples using CHN Analyser and determination of ionic composition of water or waste water samples using Ion-chromatography. Fully automated PC controlled CHN analyzer provides combustion of the sample followed by reduction, trapping, gas chromatographic separation and detection of the products by temperature stabilized thermal conductivity detector for C, H, and N. Ion Chromatography can be used to characterize the different cations and anions present in the air, water or wastewater samples.

Faculty-in-charge: Dr. K Samal and Dr. D. B. Kumar

Technical Assistant: Ms. Harapriya Raoutray

Major Equipment:

CHN Analyser

Model: PerkinElmer 2400 Series II System

Specification

- Combustion temperature: 100-1100 °C
- Reduction temperature: 100-1000 °C
- Sample feed: 60 Auto sampler
- Detector: TCD (Thermal Conductivity Detector)
- Separation Technique: Frontal Chromatography
- Carrier gas: Helium

- Combustion Gas: Oxygen
- Calculations: Estimation of CHN in %

Ion-Chromatography

Model: 930 Compact IC Flex ChS/PP

Specification

- Minimum Detection Limit (MDL): 0.05 μ g per Cubic Meter or Less
- Flow rate: 0.001 to 20.000 mL/min
- Data Acquisition: Uses Auto ranging digital conductivity signal monitoring with MagIC software
- Power Supply: 110-240 V, 50/60 Hz, 1.3 A

Experiments:

CHN Analyser can be used to

- Estimate percentage of Carbon, Hydrogen and Nitrogen in solid organic samples.

Ion-Chromatography can be used to

- determine inorganic ions present in the water including anions such as Chloride, Bromide, Phosphate, Sulphate, Nitrate, Fluoride, and cations such as Lithium, Sodium, Potassium, Magnesium, Calcium, Ammonium.

Photo Gallery



CHN Analyser



Ion-Chromatography

C. Instructional materials

C.1 Course Name: Traffic Engineering and Transportation Planning

Instructor Details:

Dr. Malaya Mohanty is presently working as Assistant Professor at KIIT DU, India. He works in the area of Traffic Engineering, mainly in the field of traffic operations, management, control, and safety. During his masters, he had worked on aspects of traffic safety on hilly roads. Further, different problems experienced by road users while driving through median openings in India under heterogeneous traffic conditions was studied in detail by him during his Ph.D. He is interested in all the aspects of traffic engineering like traffic flow, delay, congestion, safety and its analysis using statistics and validating them with the real field data. He is involved in various consultancy projects in the field of traffic engineering and traffic forecasting.

Course Outline:

The course will help students, policy makers, practitioners, etc. to understand the role of a traffic engineer in various important dimensions on field and develop innovative strategies to combat various traffic problems. The course will help learners to perceive the knowledge on various traffic parameters, understand various phenomena of traffic flow and congestion, and learn the basics of transportation planning process.

Prerequisite: NIL

Learning outcomes: Learners will be able to

- Identify the different aspects of traffic engineering
- Determine traffic RU characteristics at various sections of road
- Perform highway capacity analysis.
- Design traffic facilities and understand about traffic control system
- Explain the concept of transportation planning
- Explain the economic evaluation of transportation plan

Skills you will gain: Understand various traffic phenomena; relations between various traffic parameters, understand steps of transportation planning, Traffic signaling techniques, Route optimization, Measure traffic congestion and quality of flow, Design alternative transportation systems, parking demand calculations.

Course plan:

Week 1:

- Introduction to traffic engineering and transportation planning (Video Lecture)
- Road user and vehicle characteristics (Video Lecture)
- Fundamental curves and relations of traffic flow (Video Lecture)

Week 2:

- Traffic Characteristics & Conditions in India

(Headway, types of headway, Sharing of lanes, Gap, Lag, Critical gap, Vehicle arrival, Queuing theory, Pedestrian facilities)

Week 3: (Video tutorials, Quizzes, and assignments)

Origin and Destination Studies (O-D matrix, Use in Transportation Planning)

Traffic Volume & Occupancy Studies (Volume, Capacity, Lane occupancy, Area Occupancy)

- 1 Quiz
- 1 Assignment

Week 4: (Video tutorials, Quizzes, and assignments)

Speed, Journey time and Delay Studies

(Types of speed, Percentile speed, Delay concepts, delay at intersections, Moving observer method)

Week 5: (Video tutorials, Quizzes, and assignments)

Parking Studies, Parking types & Facilities.

(Different parameters of parking, types of parking, Parking accumulation, volume, turnover, efficiency)

Week 6: (Video tutorials, Quizzes, and assignments)

Highway capacity & Level of Service (Capacity and its types, LOS for different facilities, Pedestrian LOS and its computation, Computation of number of lanes for roads)

Week 7: (Video tutorials, Quizzes, and assignments)

Traffic channelization (Types of channelization and traffic movements),

Design of Rotary/Roundabout

Week 8: (Video tutorials, Quizzes, and assignments)

Design of Traffic Signals

Traffic Signs and Road marking

Road Accidents (Road crash data, Accident analysis)

Week 9: (Video tutorials, Quizzes, and assignments)

Transportation Planning & Planning Surveys

4 steps of transportation planning

Trip generation and trip distribution

| | |
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| <p>Week 10: (Video tutorials, Quizzes, and assignments)</p> <p>Modal Split by various models</p> <p>Gravity model</p> <p>Trip assignment</p> | |
| <p>Week 11: (Video tutorials, Quizzes, and assignments)</p> <p>Land use models</p> <p>Optimum scheduling</p> | |

C.2 Course Name: Construction Planning & Management

Instructor Details:

Mohibullah is presently working as Assistant Professor at KIIT DU, India. Started his career in construction Industry. Giving exposure in the real projects challenges and strengthening technical as well managerial part of construction. Worked in L&T for 4.5 years in various site projects. Later due to his keen interest in Academics, started career in education as a Assistant Professor. His area of research and interest is project Management in construction.

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| <p>Course Outline:</p> <p>The course deals with management theories to deal with construction projects ,how to apply modern management systems to manage major resources including people. This course includes the different phases of construction, planning and scheduling methods. The course will help learner to know how to monitor and control construction projects with various tools and their significance to make projects profitable.</p> |
| <p>Prerequisite: NIL</p> |
| <p>Learning outcomes: Learners will be able to</p> <p>CO1: understand the different parameters of construction management</p> <p>CO2: optimize the cost and time of a Project by using CPM & PERT</p> <p>CO3: optimization of resources in a project</p> <p>CO4: Understand and prepare Bar bending schedule</p> |

CO5: Understand and prepare BOQ of a construction projects.

Skills you will gain:

Scheduling using CPM & PERT, Optimization of time & cost, Resource Leveling, BBS, BOQ

Course plan:

Week 1: (Video tutorials, Quizzes, and assignments)

Construction Management – Introduction and tools to manage projects

Week 2: (Video tutorials, Quizzes, and assignments)

Network Fundamentals & Techniques: Project management system, Requirements of a good project management system/ techniques, Project planning and scheduling

Week 3: (Video tutorials, Quizzes, and assignments)

Optimization of cost through network, Project cost control, Time cost relationship, Resource leveling and smoothening.

Week 4: (Video tutorials, Quizzes, and assignments)

Bar Bending schedule - Introduction, BBS for various structures.

Week 5: (Video tutorials, Quizzes, and assignments)

Analysis of rates, Rate Analysis For Excavation, PCC, RCC, Plastering, masonry etc. schedule of rates

Week 6: (Video tutorials, Quizzes, and assignments)

Bill of Quantity - Introduction, format, its significance.

C.3 Course Name: Offshore Geotechnical Engineering

Instructor Details:

Dr. Satyajeet Nanda is working as an Associate Professor in the School of Civil Engineering, KIIT DU, Bhubaneswar, Odisha, India. He obtained Ph.D. in 2013 from the Department of Civil Engineering, Indian Institute of Technology Kanpur. He completed his M.Tech from IIT BHU and B.Tech. from CET, OUAT Bhubaneswar. He has worked as postdoctoral research fellow in School of Natural and Built Environment, Queen's University Belfast, United Kingdom between Dec. 2013 and Dec. 2016. Since the last eight years, Dr. Satyajeet Nanda is working on offshore Geotechnical engineering. He has been successfully completed a number of research assignment on various subjects related to offshore Geotechnical engineering. His research includes; load-settlement behavior of long piles, behavior of monopile in offshore loading condition, crushing properties of offshore sand, deep water anchor system and strain rate effect of soft soil.

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| Course Outline: | The course will provide basic information about offshore geotechnical engineering practices. The course shall be delivered in 12 weeks. The first two weeks discuss the offshore topographical features, marine sediment, and prevalent environmental forces in offshore. The weeks extending from week-3 to week-5 shall cover offshore site investigation and various in situ tests. The rest of the weeks shall discuss the geotechnical design aspect of different offshore foundation systems like Pile, Monopile, GBS and anchors. |
| Prerequisite: | GE-I & GE-II |
| Learning outcomes: Learners will be able to | <ul style="list-style-type: none"> • Offshore Environment • Geotechnical investigation of offshore soils • Uplift and lateral load carrying capacity of long pile • Offshore anchors • Gravity foundation • Offshore pipeline and cable |
| Capacity Building & Skills you will gain | <ol style="list-style-type: none"> i. Learn about the various method used for site investigation for an offshore structure ii. Learn about the Environmental loads prevalent if offshore iii. Analysis of various foundation system used in offshore like, pile, GBS and anchors |

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| <p>Total Duration: 12 to 18 hr</p> <p>Video Lecture:</p> <p>Activities:</p> | | |
| <p>Course plan:</p> <p>Week 1:</p> <ul style="list-style-type: none"> • Introduction, feature of offshore engineering, type of offshore foundation (Video Lecture) • introduction to the topographical feature of ocean floors, marine sediments (Video Lecture) • Environmental loads (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |
| <p>Week 2:</p> <ul style="list-style-type: none"> • Wave and current force (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |
| <p>Week 3:</p> <ul style="list-style-type: none"> • Introduction on geophysical investigation and its application in offshore (Video Lecture) <p>Geotechnical investigation (Video Lecture)</p> | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |

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| <p>Week 4:</p> <ul style="list-style-type: none"> In situ testing, Cone penetrometer and T-bar penetrometer (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> 1 Quiz 1 Assignment |
| | | |
| <p>Week 5:</p> <ul style="list-style-type: none"> Uplift load carrying capacity of single pile and group of piles (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> 1 Quiz 1 Assignment |
| <p>Week 6:</p> <ul style="list-style-type: none"> Pile subjected to horizontal load and | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> 1 Quiz 1 Assignment |
| <p>Week 7:</p> <ul style="list-style-type: none"> Pile subjected to horizontal load and moment acting on the pile cap (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> 1 Quiz 1 Assignment |

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| <p>Week 8:</p> <ul style="list-style-type: none"> • Types of shallow foundation in offshore condition (Video Lecture) • Bearing capacity of shallow foundation (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |
| <p>Week 9:</p> <ul style="list-style-type: none"> • types of anchor (Video Lecture) • Anchor line response for embedded anchors (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |
| <p>Week 10:</p> <ul style="list-style-type: none"> • Modal Split by various models (Video Lecture) • Drag anchors (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |
| <p>Week 11:</p> <ul style="list-style-type: none"> • Monopile (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |
| <p>Week 12:</p> <ul style="list-style-type: none"> • pipeline network, geotechnical input to pipeline design, design issue (Video Lecture) | <p>20 to 25 minutes for each video and total 60 to 90 minutes in a week</p> | <ul style="list-style-type: none"> • 1 Quiz • 1 Assignment |

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| <ul style="list-style-type: none"> moment acting on the pile cap (Video Lecture) | | <ul style="list-style-type: none"> 1 Quiz 1 Assignment |
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C.4 Course Name: Fluid Mechanics

Instructor Details: Dr. Paromita Chakraborty

Designation & Affiliation: Assistant Professor, School of Civil Engineering, KIIT DU, India.

Education: B. Tech, NIT Sicha, M. Tech, IIT Kanpur, Ph. D, IIT Bhubaneswar

Broad Area of Specialization: Hydraulics & Water Resources Engineering

Specific Research Area: Flow behavior in open channel, hydraulics of flow in vegetated channel under laminar and turbulent flow conditions, experimental study of flow hydraulics in open channel, analytical and numerical analysis of open channel flow, rainfall-run off modeling, reservoir sedimentation process, sediment flow analysis.

Courses Taught: Fluid Mechanics, Advanced Fluid Mechanics, River Engineering & Sediment Transport, Surface Hydrology & Hydraulics, Water Resources Engineering

Course Outline:

The course will help students and researchers in understanding the applications of fluid mechanics concept in different domains of civil engineering problem solution. These include fluid property, types of fluid, fluid static, buoyancy and floatation, fluid kinematic, fluid dynamics, pipe flow, dimension analysis and models etc.

Prerequisite: Engineering Mechanics

Learning outcomes: The learners will be

- able to understand the fluid properties, classification of fluid and its application
- apply the basic equations of fluid statics to determine forces on planar and curved surfaces submerged in a static fluid; to manometers: to the determination of buoyancy and stability
- to know and use the concept of fluid kinematics, stream functions, velocity potentials and Laplace equation.
- to use Euler's and Bernoulli's equations and the conservation of mass to determine velocities, pressures and accelerations for fluids
- to perform dimensional analysis for problems in fluid mechanics.
- to apply the concepts to determine minor and major head losses for flows through pipes
- to apply the concept for design of simple pipe water distribution systems

Skills you will gain: Fundamental knowledge on fluid property, application of important fluid property for understanding natural phenomenon, skill of hydrostatic pressure and its measurement, hydrostatic force on different submerged bodies and its application in design of hydraulic

structures, pressure measurement using different types of manometers, understand, analyze and apply knowledge of buoyancy and floatation for design of floating objects.

Course plan of Video Lectures & Tutorials

Week 1:

- Introduction to Fluid Mechanics
- Fundamental Properties of Fluid
- Detailed analysis of Viscosity, kinematic viscosity, different classification of fluid
- Applications of Viscosity
- Pressure of Liquid
- Hydrostatic Law
- Pascal's Law
- Absolute and Gauge Pressure
- Hydrostatic Paradox

Assignment-1
Quiz-1

Week 2:

- Measurement of Pressure
- Simple Manometer
- Positive U tube Manometer
- Negative U tube Manometer
- Differential Manometer
- Video Tutorial on Manometer
- Positive & Negative U tube manometer
- Differential Manometer

Assignment-2
Quiz-2

Week 3:

- Hydrostatic Force on Surface
- Total Pressure
- Center of Pressure
- Pressure on submerged Horizontal Surface
- Pressure on submerged Vertical Surface

Assignment-3
Quiz-3

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| <ul style="list-style-type: none"> • Moment of Inertia for different Geometric Figures • Hydrostatic Force on submerged Inclined Surface • Derivation of Center of Pressure | |
| <p>Week 4:</p> <ul style="list-style-type: none"> • Concept of Buoyancy • Conditions for Floatation • Equilibrium Condition of Floating Bodies • Metacenter and Metacentric Height • Video Tutorial on Applications | <p>Assignment-4 Quiz-4</p> |
| <p>Week 5:</p> <ul style="list-style-type: none"> • Kinematics of fluid flow • Continuity equation • Convective and Local Acceleration • Assessment • Stream lines, path lines • Stream function and velocity potential function • Flow Net | <p>Assignment-5 Quiz-5</p> |
| <p>Week 6:</p> <ul style="list-style-type: none"> • Dynamics of inviscid flows • Bernoulli's equation • Various flow meters • Venturimeter • Orificemeter • Pitot tube | <p>Assignment-6 Quiz-6</p> |
| <p>Week 7:</p> <ul style="list-style-type: none"> • Momentum equation and its application • Flow through orifices • Determination of various hydraulic coefficients | <p>Assignment-7</p> |
| <p>Week 8:</p> | <p>Quiz-7</p> |

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| | | Muffle Furnace |
| | | Power Hacksaw |
| | | Tile Abrasion testing Machine |
| | | Universal Testing machine (100T) |
| | | Universal Testing machine (40T) |
| | | Testing Frame |
| | | Concrete Pan Mixer |
| | | Table Vibrator |
| 2 | Geotechnical Engineering Laboratory | Covid Protocol Chart |
| | | Safety Protocol Chart |
| | | Experiment List Chart |
| | | Course GOAL Chart |
| | | Triaxial Test Apparatus |
| | | UCS Test Apparatus |
| | | Odeometer Consolidation Test |
| | | Auto Compactor Machine |
| | | Direct Shear Test Apparatus |
| | | In Plane Permeability |
| | | CBR Test Appartus |
| | | Relative Density Test Vibrating Table |
| | | Permeability Test Appartus |
| | | Loading Frame |
| Wet/ Dry Seive Shaker Machine | | |
| 3 | Transportation Engineering Laboratory | Covid Protocol Chart |
| | | Aggregate Crushing Test |
| | | Los Angeles Abrasion Test |
| | | California Bearing Ratio Test |
| | | Bitumen Extractor |
| | | Bitumen Penetration Test |

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| | | Ductility Test |
| | | Marshall Test |
| | | Impact Testing Machine |
| 4 | Fluid Mechanics Laboratory | Covid Protocol Chart |
| | | venturimeter and orifice meter apparatus |
| | | Metacentric height apparatus |
| | | Reynold's Apparatus |
| | | Friction factor apparatus |
| | | Triangular notch Apparatus |
| | | Minor loss Apparatus |
| | | Impact of jet on vane apparatus |
| 5 | Environmental Engineering Laboratory | Covid Protocol Chart |
| | | High Volume Air Sampler |
| | | Muffle Furnace |
| | | BOD Incubator |
| | | Nephelometric Turbidity Meter |
| | | Jar Test Apparatus |
| | | Dissolve Oxygen Meter |
| | | Auto Clave |
| pH Meter | | |
| 6 | BIM Laboratory | Covid Protocol Chart |
| | | List of Licence Softwares |
| 7 | Material Testing Laboratory | Covid Protocol Chart |
| | | Concrete Permeability Testing Machine |
| | | Flexural Testing Machine |
| | | Accelerated Curing Tank |
| | | Sieve Shaker Machine |
| | | Autoclave Machine |
| | | Slump Test |

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| | | Compression Testing Machine (CTM) |
| | | Compaction Factor Apparatus |

MASONRY DEMONSTRATION LABORATORY

Academic Lab

Scope:

The Masonry Demonstration Laboratory provides excellent state of the art facilities for teaching and research. The laboratory facilities are capable of physical testing, forms of bricks and demonstrating the bonds of types of bricks and brick masonry. Masonry Demonstration Laboratory is used for teaching a practical knowledge on brick and brick masonry for B.Tech Civil Engineering students. Students can directly correlated with the academic subject like Building materials and construction in 3rd semester.

Faculty-in-charge: Dr. D.K. Bera

Technical Assistant: Mr. Alok Das

Experiments:

- Determination of Classes of Bricks using Physical testing.
- Study the shapes and forms of bricks used in construction.
- Study the types of brick bonds like Stretcher, Header, English, Flemish, Double Flemish, Rat Trapped Bond of different shapes.
- Study the Lay-out Plan of a single roomed house.
- Study the different steps of construction of house.
- Construction of brick masonry wall
- Testing of brick masonry wall

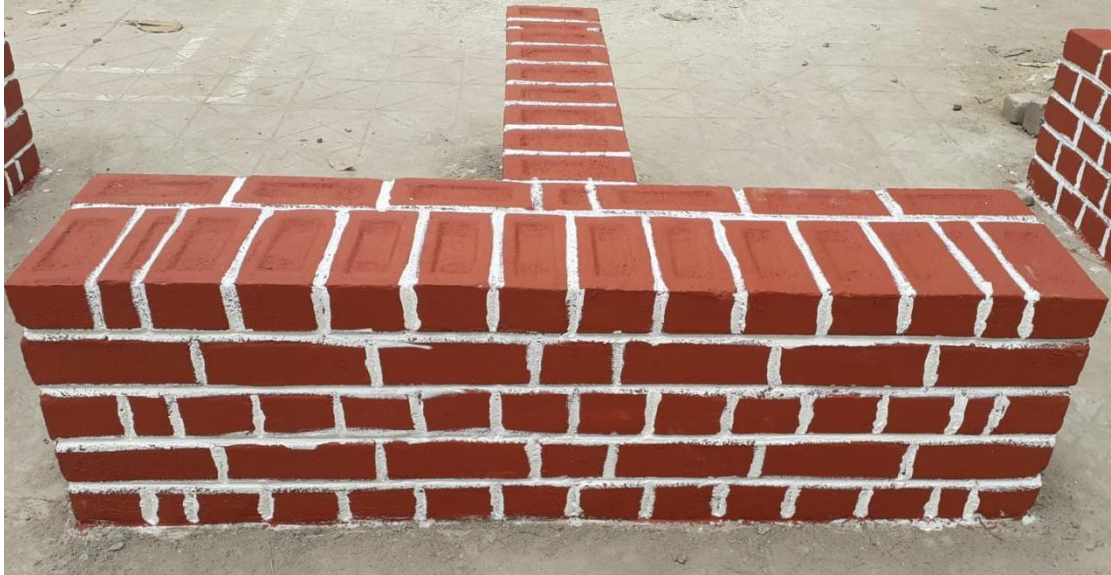
Photo Gallery



Overview image of the Masonry Demonstration Laboratory



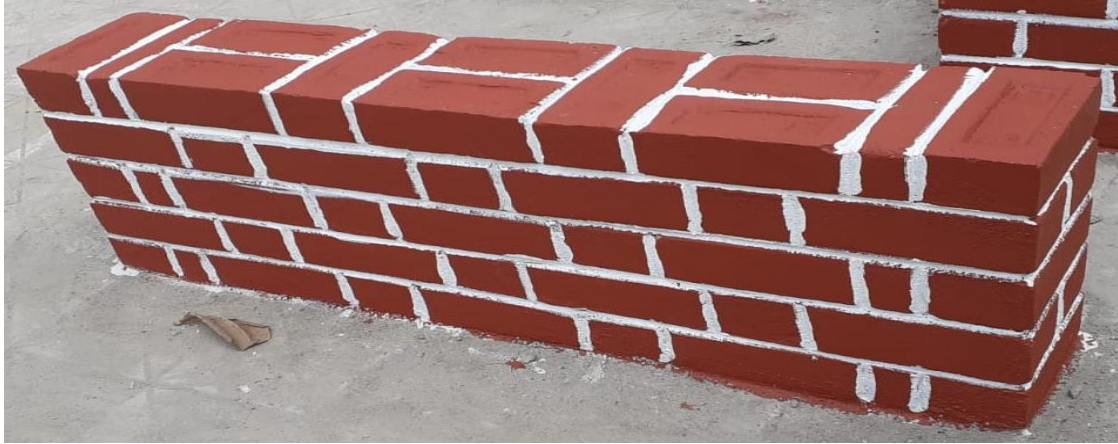
HALF BRICK THICK STRETCHER BOND



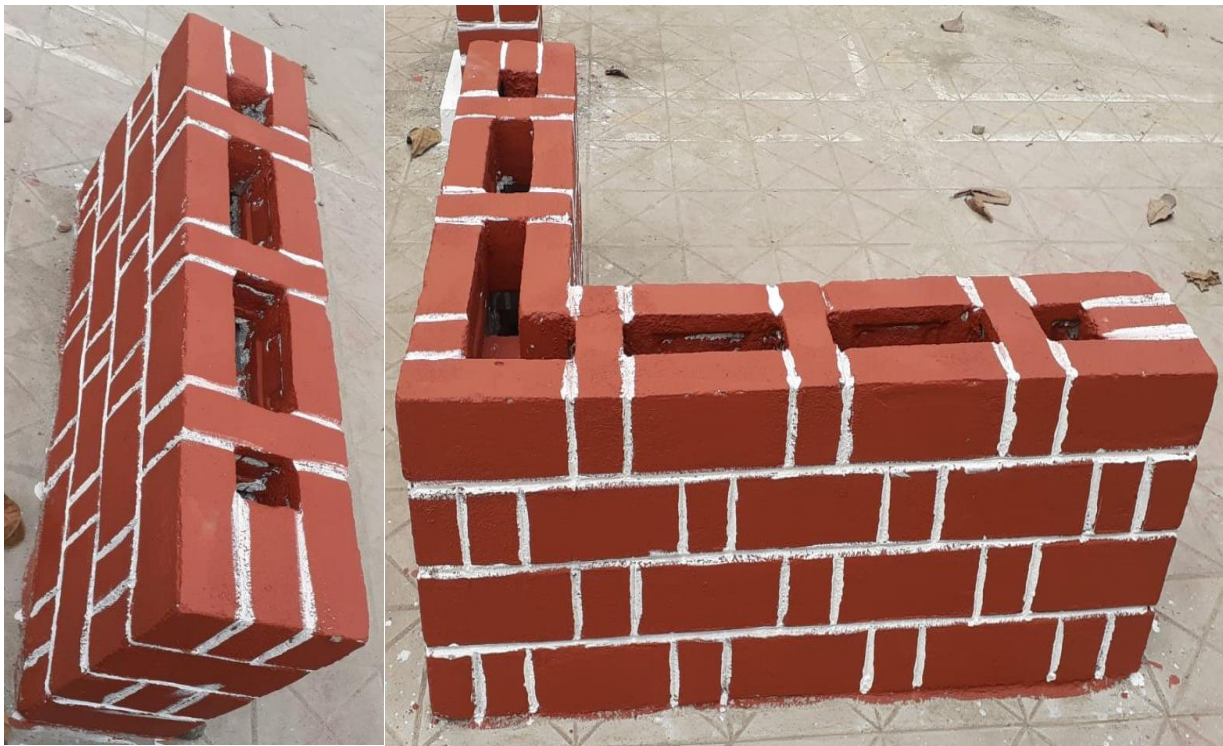
ONE AND HALF BRICK THICK WALL -ENGLISH BOND



ONE BRICK THICK WALL -ENGLISH BOND



ONE BRICK THICK - FLEMISH BOND



STRAIGHT AND L- TYPE ONE BRICK THICK RAT TRAPPED BOND WALL



CONSTRUCTION OF BRICK WORK WITH FOUNDATION ON LAYOUT PLAN

5.8.4. Consultancy (from Industry) (20)

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding Amount (Cumulative during CAYm1, CAYm2 and CAYm3):

Amount >10 Lacs – 20 Marks,

Amount ≤ 10 and ≥ 8 Lakh – 15 Marks,

Amount < 8 and ≥ 6 Lakh – 10 Marks,

Amount < 6 and ≥ 4 Lakh – 5 Marks,

Amount < 4 and ≥ 2 Lakh – 2 Marks,

Amount < 2 Lakh – 0 Mark

| CAY 2021-2022 | | | |
|---|-----------|------------------------------|-----------------------|
| Project Title | Duration | Funding Agency | Amount (INR in Lakhs) |
| Technical Support Unit to the Housing and Urban Development Department, Government of Odisha to implement the state urban sanitation strategy (FSSM) - offered Technical services for 8 Districts of Odisha | 2021-2022 | Ernst & Young LLP | 40.92 |
| Providing Design & Detailing of proposed barricade as per specification | 2021-2022 | Ahluwalia Contracts (I) Ltd. | 0.177 |

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|--|-----------|--|--|
| Proof Consultancy Service for Special Repair of NH-329A from Sangtamilla to Pimla Junction (Km 38.00 to 70.270 km) [Total length: 32.270], Nagaland | 2021-2022 | National Highway Infrastructure Development Corporation Ltd. (NHIDCL), Nagaland | 2.36 |
| Traffic safety and management report for CSPUR Residential Project | 2021-2022 | ZJSH SPV Pvt Ltd. | 0.89 |
| Traffic safety and management report for Badaraghunathpur Res. Project | 2021-2022 | United Construction Corporation | 0.89 |
| Traffic safety and management report for Pratap Nagari Res. Project, Cuttack | 2021-2022 | Builder Consortium Tridev | 0.89 |
| Proof-Checking of Traffic safety report for Pahala res. Projects | 2021-2022 | Khushi Realcon Pvt. Ltd. | 1.00 |
| Traffic safety and management report for Vikash Multispecialty Hospitals, Bargarh | 2021-2022 | Vikash Group Pvt. Ltd. | 1.06 |
| Traffic safety and management report for Madanpur, Bhubaneswar | 2021-2022 | DN Homes Pvt. Ltd | 1.18 |
| Classification of soil for Construction of Syamsunder Forest Academy Project Site at Bhubaneswar (Project Ref No. RITES/BBSR/SFA/Package II/Part 1/2021) | 2021-2022 | Gangadhar Jena Super Class Contractor | 0.59 |
| Utilization of soil as filling and road construction for Construction of Syamsunder Forest Academy Project Site at Bhubaneswar (Project Ref No. RITES/BBSR/SFA/Package II/Part 1/2021) | 2021-2022 | RITES Limited (Ministry of Railway Enterprise) | 0.50 |
| Third Party Quality Assurance / Audit for the work: (1) Development of Urban Forest in KNDA area under Vyasagar Municipality for pollution control measures, Jajpur Odisha (2) Development of Science Academy in Panikoili Area, Jajpur Odisha | 2021-2023 | Krishna Builders & Project Management Consultant: National Building Construction Corporation (NBCC) as a part of Consortium with NCCBM | 0.2% of Tended Amount (Rs.70 Crores) = 14.00 |
| Design & Drawing of Widening Major Bridge at Ch-250/240 of Project "Widening of the existing lane to 2 Lane with paved shoulder from Km 239.900 to 294.300 (Nayagarh to Khurda) excluding Khurda bypass of NH 57 in the state of Odisha on EPC Mode" | 2021-2022 | Woodhill Infrastructure Ltd. | 4.72 |
| Total | | | 69.1777 |

| CAY 2020-2021 | | | |
|---------------|----------|----------------|-----------------------|
| Project Title | Duration | Funding Agency | Amount (INR in Lakhs) |

| | | | |
|--|-----------|---|------|
| Four Laning of Dimapur to Kohima Road (KM 152.49 to KM 166.70) in the state of Nagaland under SARDP-NE(Pkg-III) for National Highways and Infrastructure Development Corporation Ltd (NHIDCL): Proposal submitted for extensive investigation | 2020-2021 | Gayatri Project Limited Kohima, Nagaland | 2.00 |
| Improvement of road infrastructure in the country under the umbrella of 'Institutional Social Responsibility (ISR)' for the adopted two stretches of National Highways 1. 74.5 km stretch from Chandikhol to Bhadrak Section on NH-5 (New NH-16) 2. 166 km stretch from Panikoili to Rimuli Section on NH-215 (New NH-20): NHAI offer internship to 40 numbers of undergraduate / postgraduate students of KIIT and pay stipend @ Rs. 6,000/- per month for undergraduate students and @ Rs. 12,000/- per month to Postgraduate students Creation of Lab infrastructure in KIIT and can sponsor relevant research project that helps in using alternative resource material and improving quality of roads • Related Consultancy work | 2020-2025 | National Highway Authority of India (NHAI) | 3.60 |
| Geotechnical Investigation for dewatering process and proposed solution for the same for Z1 Project, Bhubaneswar | 2020-2021 | Ahluwalia Contracts (I) Ltd. | 1.42 |
| Estimating Desired Soil Properties on Project site of Odisha Mining Corporation (OMC) | 2020-2021 | Dept. of Civil Engineering, IIT Roorkee | 0.52 |
| Traffic Study Report and detailed traffic management for the upcoming Residential Apartment project at Sundarpur, Bhubaneswar | 2020-2021 | D N Homes Pvt. Ltd. | 1.48 |
| Traffic Study Report and detailed traffic management for the upcoming 5 star Hotel Project at Gopabandhu | 2020-2021 | D N Homes Pvt. Ltd. | 1.48 |

| | | | |
|--|-----------------|---------------------------|------------------------------|
| Nagar, Bhubaneswar | | | |
| Proposed Construction of Divisional Office Building (Basement+Ground+3Upperfloors) and Allied Ancillary Structures of Pokhairput, Bhubaneswar,Odisha | 2020-2021 | LIC of India, Bhubaneswar | 6.00 |
| Modernization Work of Divisional Office Building at Sambalpur | 2020-2021 | LIC of India, Sambalpur | 1.00 |
| Construction of Godown & Ancillary Building for OSBCL depot at Khurda, Odisha | 2020-2021 | ARCON PROJECT PVT LTD | 2.00 |
| Traffic Study Report and detailed traffic management for the upcoming residential apartment project at mouza, Bidyadharpur, Nayabazar, Cuttack. | 2020-2021 | JMG Lifestyle Pvt. Ltd. | 1.48 |
| Preparation of DPR of "Widening of Kalinga ghat in valley side for elimination of Black spot from KM 86/000 to 86/600 KM of NH-157 | 2020-2021 | NH Division, Sambalpur | 14.89 |
| Total | | | 35.87 |
| CAY 2019-2020 | | | |
| Project Title | Duration | Funding Agency | Amount (INR in Lakhs) |
| Mix Design and Material Testing | 2019-2020 | KNK (Mind Tree) | 0.23 |
| Making of Preliminary Design and Estimating of Jagannath Ballav Pilgrim Center, Puri | 2019-2020 | M/s D N Homes | 1.00 |
| Design and Stability Certification services for retrofit of hoist and proposed corridor which will connect TG and CCR Building at +12m height, Balco Corrba, Chhatisgarh | 2019-2020 | Mantra Udyog | 1.00 |

| | | | |
|--|-----------|---|----------------|
| Proof checking of the structural design and drawings to accommodate one additional 20 Ton EOT Crane in addition to 3 other cranes operating in the same Bay of Structural Building & Handling hot metal in the Titanium Saraf Plant at Chatrapur | 2019-2020 | Saraf Agencies Pvt Ltd (Titanium Plant) Chatrapur, Ganjam, Odisha | 1.00 |
| Technical Support Unit to the Housing and Urban Development Department, Government of Odisha to implement the state urban sanitation strategy (FSSM) - offered Technical services for 8 Districts of Odisha | 2019-2021 | Ernst & Young LLP | 61.41 |
| Total | | | 64.64 |
| Grand Total | | | 169.687 |

5.9. Faculty Performance Appraisal and Development System (FPADS) (10)

Faculty members of Higher Educational Institutions today have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, Faculty members need to innovate and conduct research for their self-renewal, keep abreast with changes in technology, and develop expertise for effective implementation of curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real life problems in industry. Another role relates to the shouldering of administrative responsibilities and co-operation with other Faculty, Heads-of-Departments and the Head of Institute. An effective performance appraisal system for Faculty is vital for optimizing the contribution of individual Faculty to institutional performance.

The assessment is based on:

- A well-defined system for faculty appraisal for all the assessment years (5)
- Its implementation and effectiveness (5)

KIIT DU has a well-defined system **for performance based appraisal system (PBAS)** for faculty members for all the assessment years. Performance appraisal ensures documenting and evaluating an employee's performance with a view to enhancing work quality, output and

efficiency of the staff members.

Process of Implementation

1. A data capturing system has been implemented through the **SAP Integrated Management System** to record faculty contributions in diverse areas including:

- Pedagogical activities
- Research publications (journal papers, conference papers, book chapters, books)
- Patents
- Sponsored research projects
- Consultancies
- PG/PhD Guidance
- Awards, recognitions and fellowships
- Collaborations and interactions with the outside world
- Contribution to research community through innovations, reviews, social outreach and extension activities
- Tutor-mentoring
- Administrative engagements and contributions
- Overall feedback and value additions.

Analysis of PBAS

- The performance assessment of the faculty member is done through an expert committee formed by IQAC.
- All the captured qualitative and quantitative data submitted by faculty members are analyzed and converted to Academic Performance Indicator Score (API Score) bases on the approved marking scheme.

Awards and Rewards

- Faculty members are encouraged, appreciated and recognized for their academic, research, administrative and outreach activities performance by University Management.
- Faculty members with significant contributions are awarded as Best staff, Best Researcher, Best faculty.
- Faculty members who upgrade their research work through quality publications honored by management and institute through research incentive every year.
- The Institute has a well-defined policy for promotion of faculty members. API score and the significant contribution of the faculty member is considered as one of the major criteria in the promotion of faculty members.

Effectiveness

- The performance based appraisal system has proven to be very effective in enhancing the quality of contribution of faculty members in teaching, research and other activities.
- There has been consistent increase in the number of research publications, funded projects, patents and faculty with PhD degree.

Sample format for Faculty Self- Assessment

Personal Information

Any changes in Personal Information from employee master record has to be done by HR cell

GENERAL INFORMATION

| | |
|--|---|
| Name: | <input type="text"/> |
| Employee ID: | <input type="text"/> |
| Current Designation: | <input type="text"/> |
| Contact number: | <input type="text"/> |
| Official Email ID: | <input type="text"/> |
| Alternate Email ID: | <input type="text"/> |
| Correspondence Address: | <input type="text"/> |
| Father's name: | <input type="text"/> |
| Mother's name: | <input type="text"/> |
| PAN card Number: | <input type="text"/> |
| Aadhaar card number: | <input type="text"/> |
| Upload scan copy of Aadhaar: | <input type="text" value="Choose File"/> No file chosen (Uploaded File name): |
| Passport number: | <input type="text"/> |
| Upload scan copy of Passport: | <input type="text" value="Choose File"/> No file chosen (Uploaded File name): |
| Date of Birth: | 19.06.1988 |
| Date of joining the teaching profession: | <input type="text"/> |
| Date of Joining in KIIT-DU: | 17.10.2016 |
| School under KIIT-DU: | Quality Assurance Cell |
| Promotion from Assistant Professor to Associate Professor: | <input type="text" value="No"/> |
| Promotion from Associate Professor to Professor: | <input type="text" value="No"/> |
| Promotion from Professor to Senior Professor: | <input type="text" value="No"/> |

Publication ID details

| | |
|--------------|----------------------|
| * SCOPUS ID: | <input type="text"/> |
| * ORCID: | <input type="text"/> |

Details of Academic qualification

Undergraduate study details:

| | |
|-------------------------|----------------------|
| Name of the Institute: | <input type="text"/> |
| Name of the University: | <input type="text"/> |
| Name of the Department: | <input type="text"/> |
| Name of the Program: | <input type="text"/> |
| Month of graduation: | <input type="text"/> |
| Year of graduation: | 0000 |

Post graduate study details

| | |
|---|----------------------|
| Name of the Institute: | <input type="text"/> |
| Name of the University: | <input type="text"/> |
| Name of the Department: | <input type="text"/> |
| Name of the Program: | <input type="text"/> |
| Specialization (if any): | <input type="text"/> |
| Month of post-graduation: | <input type="text"/> |
| Year of post-graduation: | 0000 |
| Area of research work conducted (if any): | <input type="text"/> |

Doctoral study details

Status of PhD:

Post doctoral details

Multiple entries are allowed

Post doctoral research pursued:

NET qualified:

GATE qualified:

Professional memberships

Multiple entries are allowed

Name of the Professional Body:

Membership number:

Professional membership history

Experience

Date of leaving (Study Leave):

Date of rejoining:

Research experience in months:

Industry experience in months:

Teaching experience in months:

Pedagogical Activities:-

Theory Course Details

Multiple entries are allowed :-

Do you want to enter theory course details:

* Academic year:

* Level of the Course:

* Course code:

* Course name:

* Semester:

* Course credits:

* Number of hours assigned for the course in the semester:

* Total Number of contact hours in the entire semester:

* Number of learning activities conducted:

Upload a single PDF document comprising descriptions/questions for different learning activities, mapping with COs and their detailed evaluation schemes

* Total number of students in this course under your tutelage:

* Number of students under your tutelage who have successfully completed the course:

* Number of hours spent in the entire evaluation process for this course:

* Number of Question papers set:

* Number of Question papers moderated:

* Total hours of invigilation duty:

Attainment of COs

CO1-Mention CO1 statement-Mention the attainment of CO1 in your group:

CO2-Mention CO2 statement-Mention the attainment of CO2 in your group:

CO3-Mention CO3 statement-Mention the attainment of CO3 in your group:

CO4-Mention CO4 statement-Mention the attainment of CO4 in your group:

CO5-Mention CO5 statement-Mention the attainment of CO5 in your group:

CO6-Mention CO6 statement-Mention the attainment of CO6 in your group:

Practical Course Details

Multiple entries are allowed :-

Do you want to enter theory course details:

* Academic year:

* Level of the Course:

* Course code:

* Course name:

* Semester:

* Course credits:

* Number of hours assigned for the course in the semester:

* Total Number of contact hours in the entire semester:

* Number of learning activities conducted:

Upload a single PDF document comprising descriptions/questions for different learning activities, mapping with COs and their detailed evaluation schemes

* Total number of students in this course under your tutelage:

* Number of students under your tutelage who have successfully completed the course:

* Number of hours spent in the entire evaluation process for this course:

Attainment of COs

CO1-Mention CO1 statement-Mention the attainment of CO1 in your group:

CO2-Mention CO2 statement-Mention the attainment of CO2 in your group:

CO3-Mention CO3 statement-Mention the attainment of CO3 in your group:

CO4-Mention CO4 statement-Mention the attainment of CO4 in your group:

CO5-Mention CO5 statement-Mention the attainment of CO5 in your group:

CO6-Mention CO6 statement-Mention the attainment of CO6 in your group:

Project/Thesis Details

Multiple entries are allowed :-

Do you want to enter theory course details:

| | |
|---|--------------------------------------|
| * Academic year: | <input type="text"/> |
| * Project Type: | <input type="text" value="Major"/> |
| * Level of the Course: | <input type="text"/> |
| * Course code: | <input type="text"/> |
| * Course name: | <input type="text"/> |
| * Semester: | <input type="text" value="Autumn"/> |
| * Course credits: | <input type="text" value="0.00000"/> |
| * Student roll numbers: | <input type="text"/> |
| * Title of the Project: | <input type="text"/> |
| * Abstract: | <input type="text"/> |
| * Number of hours assigned for the course in the semester: | <input type="text" value="0.00"/> |
| * Total Number of contact hours in the entire semester: | <input type="text" value="0.00"/> |
| * Number of students who have successfully completed the course: | <input type="text" value="00000"/> |
| * Number of hours spent in the entire evaluation process for this course: | <input type="text" value="0.00"/> |
| * List of publications: | <input type="text"/> |
| * Impact /Outcome of the project/thesis: | <input type="text"/> |

Sessional Course Details

Multiple entries are allowed :-

Do you want to enter theory course details:

| | |
|--|---|
| * Academic year: | <input type="text"/> |
| * Level of the Course: | <input type="text"/> |
| * Course code: | <input type="text"/> |
| * Course name: | <input type="text"/> |
| * Semester: | <input type="text" value="Autumn"/> |
| * Course credits: | <input type="text" value="0.00000"/> |
| * Number of hours assigned for the course in the semester: | <input type="text" value="0.00"/> |
| * Total Number of contact hours in the entire semester: | <input type="text" value="0.00"/> |
| Upload a single PDF document comprising descriptions/questions for different learning activities, mapping with COs and their detailed evaluation schemes | <input type="button" value="Choose File"/> No file chosen |
| * Total number of students in this course under your tutelage: | <input type="text" value="00000"/> |
| * Number of students who have successfully completed the course: | <input type="text" value="00000"/> |
| * Number of hours spent in the entire evaluation process for this course: | <input type="text" value="0.00"/> |

Attainment of COs

| | | |
|--|----------------------|----------------------|
| CO1-Mention CO1 statement-Mention the attainment of CO1 in your group: | <input type="text"/> | <input type="text"/> |
| CO2-Mention CO2 statement-Mention the attainment of CO2 in your group: | <input type="text"/> | <input type="text"/> |
| CO3-Mention CO3 statement-Mention the attainment of CO3 in your group: | <input type="text"/> | <input type="text"/> |
| CO4-Mention CO4 statement-Mention the attainment of CO4 in your group: | <input type="text"/> | <input type="text"/> |
| CO5-Mention CO5 statement-Mention the attainment of CO5 in your group: | <input type="text"/> | <input type="text"/> |
| CO6-Mention CO6 statement-Mention the attainment of CO6 in your group: | <input type="text"/> | <input type="text"/> |

Co-ordinator - Theory Course Details

Multiple entries are allowed :-

Do you want to enter theory course details:

* Academic year:
* Level of the Course:
* Course code:
* Course name:
* Semester:
* Course credits:

* Number of hours assigned for the course in the semester:
* Total Number of contact hours in the entire semester:

Attainment of COs

CO1-Mention CO1 statement-Mention the attainment of CO1 in your group:
CO2-Mention CO2 statement-Mention the attainment of CO2 in your group:
CO3-Mention CO3 statement-Mention the attainment of CO3 in your group:
CO4-Mention CO4 statement-Mention the attainment of CO4 in your group:
CO5-Mention CO5 statement-Mention the attainment of CO5 in your group:
CO6-Mention CO6 statement-Mention the attainment of CO6 in your group:

Co-ordinator - Practical Course Details

Multiple entries are allowed :-

Do you want to enter theory course details:

* Academic year:
* Level of the Course:
* Course code:
* Course name:
* Semester:
* Course credits:

* Number of hours assigned for the course in the semester:
* Total Number of contact hours in the entire semester:

Attainment of COs

CO1-Mention CO1 statement-Mention the attainment of CO1 in your group:
CO2-Mention CO2 statement-Mention the attainment of CO2 in your group:
CO3-Mention CO3 statement-Mention the attainment of CO3 in your group:
CO4-Mention CO4 statement-Mention the attainment of CO4 in your group:
CO5-Mention CO5 statement-Mention the attainment of CO5 in your group:
CO6-Mention CO6 statement-Mention the attainment of CO6 in your group:

Co-ordinator - Sessional / Project Course Details

Multiple entries are allowed :-

Do you want to enter theory course details:

* Academic year:
* Level of the Course:
* Course code:
* Course name:
* Semester:
* Course credits:

* Number of hours assigned for the course in the semester:
* Total Number of contact hours in the entire semester:

Attainment of COs

CO1-Mention CO1 statement-Mention the attainment of CO1 in your group:
CO2-Mention CO2 statement-Mention the attainment of CO2 in your group:
CO3-Mention CO3 statement-Mention the attainment of CO3 in your group:
CO4-Mention CO4 statement-Mention the attainment of CO4 in your group:
CO5-Mention CO5 statement-Mention the attainment of CO5 in your group:
CO6-Mention CO6 statement-Mention the attainment of CO6 in your group:

Publication Details-Journals

Publication Details - Journals

Multiple entries are allowed :-

Do you want to enter publication details:

* Whether referred/peer reviewed:

* Title of paper:

* Full name of the Journal:

* Publisher name:

* Volume number of the journal:

* Issue Number:

* Page No:

* Publication Month:

* Publication Year:

Whether it is a joint publication:

* ISSN/ISBN no:

* Digital Object Identifier:

* Indexing information

* Web of Science:

* SCOPUS:

* UGC approved:

* PUBMED:

Others:

* URL of the journal webpage:

Is it an impact factor journal publication:

Publication Details-Conferences

Publication Details - Conferences

Multiple entries are allowed :-

Do you want to enter publication details:

* Whether referred/peer reviewed:

* Title of paper:

* Full name of the conference:

* Location:

* Publisher name:

Page No:

* Month the conference was held:

* Year the conference was held:

Whether it is a joint publication:

* ISSN/ISBN no:

* Digital Object Identifier:

* Indexing information

* Web of Science:

* SCOPUS:

* UGC approved:

PUBMED:

Others:

* URL of the conference webpage:

Publication Details-Books

Publication Details - Books

Multiple entries are allowed :-

Do you want to enter publication details:

* Title of the Book:
* Edition:
* Page No:
* Role of faculty:
* Type of Publication:
* Whether it is a joint publication:
* ISSN/ISBN number:
* Full name of the Publisher:
* Full address of the Publisher:
* Publisher category:
* Month of Publication:
* Year of Publication:
* Whether translational work in Indian/foreign Language:
Upload the first few pages of the book as a single PDF:
* file clearly showing the name of the book, name of the author and their affiliation, name of the publisher, addition number and year of printing/publication.

Learning Pedagogy

ICT Mediated Teaching Learning Pedagogy, MOOCs and E-content

Multiple entries are allowed :-

Do you want to enter details:

* Category:
* Brief description:
* Organization for which it was developed:
* Platform used:
* Whether open access:
* Level:
* URL Link:
* Date since when the URL is active:
* Whether it is a joint effort:

Patents

Patents Policy Documentation

Multiple entries are allowed :-

Do you want to enter details:

* Patent Title:
* Patent Application number/ Patent number:
* Patent type:
* patent (National/International):
* Organization to whom applied:
* URL Link:
* Status:
* Whether it is a joint work:
* License fee (in INR):
* Whether the technology has been transferred:
* Whether commercialized:
* Potential use of patent:
* Earning from the patent during this period(optional):
Upload document in support of patent:
* publish/Granted clearly indicating the title, innovators/contributors/owner and their affiliation and the name of the publisher/Granting authority

Multiple entries are allowed :-

Do you want to enter details:

* Title of the policy document:

* Organization to whom the document is submitted:

* Date of submission:

* Level:

Project/Consultancy

SPONSORED PROJECT/CONSULTANCY

Multiple entries are allowed :-

Do you want to enter details:

* Nature of the Project:

* Title of the project:

* Funding agency:

* Name of the scheme/project/endowment/chairs:

* Duration of project (in months):

* Status:

* Sanctioned date of project:

* Sanctioned letter number/Ref no:

* Date of Commencement:

* Grants received/mobilized in INR:

* Whether PI:

* Whether it is a joint work:

* Please upload supporting documents: No file chosen

Publication Statistics

Publication Statistics Details

Multiple entries are not allowed :-

* h-index of the faculty member as in Scopus:

* h-index of the faculty member (based on publications in last five years):

* Citations for the faculty member till date (as in Scopus):

* Citations for the faculty corresponding to publications in last five years (as in Scopus):

P.G Guidance

P.G Guidance:-

Multiple entries are allowed :-

Have any of the postgraduate /dual degree students whom you have provided guidance in thesis been awarded degree during this per:

* Student name:

* Roll number:

Role with student:

* Institute:

* Title of the thesis:

* Name of the Post-graduate program:

* Does student have publication:

* Upload Supporting Documents: No file chosen

Ph.d Guidance

Ph.D Guidance:-

Multiple entries are allowed :-

Have any of the doctoral students whom you have provided guidance in thesis been awarded degree during this period:

* Student name:

* Roll number:

* Role with student:

* Institute:

* Title of the thesis:

Scholar Publication:

Sponsored Project:

* Upload Supporting documents: No file chosen

Awards and Fellowships

Awards and Fellowships Details

Multiple entries are allowed :-

Do you want to enter details:

* Full Name of the Award/Fellowship:

* Level:

* Received from:

* Full name of the awarding agency/body:

* Address of the awarding agency:

* Contact details of the awarding agency:

* Date of receiving the award:

* Upload Certificate/Supporting Document: No file chosen

Interaction with Outside World

Outreach Activity as Resource Person

Event Organised in the School

Faculty Improvement Program

Invited Lectures / Resource Person / Paper Presentation in Seminars / Conferences

Multiple entries are allowed :-

Do you want to enter details:

* Role:

* Title of invited lecture/topic/paper presented:

* Title of the programme/conference/seminar:

* Full name of the organizer:

* Date of the event:

* Level:

* Location:

* Upload Certificate: No file chosen

* Please Upload Supporting Documents: No file chosen

Outreach Activity as Resource Person Event Organised in the School Faculty Improvement Program

Event Organised in the School

Multiple entries are allowed :-

Do you want to enter details: **Yes**

* Role:

* No. of Resource Person:

* Resource Person Detail:

* No. of Attendees:

* Title of the Event:

* Outcome of the Event:

* Level:

* Date of Event:

* Collaborating Agency if any / Technological Co-sponsored:

* Revenue Generated from Event:

* Please Upload Supporting Documents:

Outreach Activity as Resource Person Event Organised in the School Faculty Improvement Program

Faculty development programs/ Certification programs or courses/ Workshops/ Online conferences/ Webinars attended

Multiple entries are allowed :-

Do you want to enter details: **Yes**

* Choose program type:

* Full name of the program/course/workshop/online conference/webinar:

* Choose Category:

* Organization/coordinator:

* Location:

* Start date:

* End date:

* Course Credits provided:

* Course exam conducted:

* Please upload supporting documents:

Social Outreach

Social outreach and Community engagement activities Details

Multiple entries are allowed :-

Do you want to enter details: **Yes**

* Title of the Activity:

* Type / Category of Activity:

* Name of the Society (under KIIT-DU through which activity has been conducted):

* Brief description of the social outreach and community engagement activity:

* Location of the activity (village, district, state):

* Date of Event:

* Organized by:

* Outcome of the Event:

* Upload Activity Photo:

* Upload Appreciation Letter/Supporting Documents:

Tutor Mentoring

Tutor Mentoring Activities Detail

Multiple entries are allowed :-

* Agenda of the meeting:

* Date of the meeting:

* Students present in the meeting:

* Number of one to one interactions held:

* Number of communications to the mentees:

* Number of communications made to parents:

* Mode of communication used:

* Measures taken to solve the difficulties of the Mentees (Academic):

* Measures taken to solve the difficulties of the Mentees (Non-Academic):

* Number of meetings with parents with specific problem of mentees academically:

Academic Administration

Academic Administration Details

Multiple entries are allowed :-

Are you a member of any Central or School Committee/Council/Body:

* Committee/council/body of:

* Aspect / Domain:

* Specific name of the committee/Council/Body:

* Designation:

Role during this period(Contribution / Value Addition / Justification to the assigned job)Describe in 100 words:

* Have you developed any course material / open ended experiments / industry connect etc. during this period:

* Do you want to mention any significant contributions during this period:

* Please upload supporting documents: No file chosen

Faculty Feedback

Faculty Feedback Section

Employee Number:

Name of the Faculty:

Designation:

Name of the School:

Academic year:

Date of Submission:

Please select the radio button on the basis of your observations and experience

Project / Thesis on recent emerging multidisciplinary area 5 4 3 2 1

Teaching Pedagogy 5 4 3 2 1

Student Participation in Different learning activities 5 4 3 2 1

Guest Lecture / Expert Talk by industry people 5 4 3 2 1

Industry Visit 5 4 3 2 1

Innovative Teaching practices and the ICT platforms used (link)

Value addition, Institutional Building and Branding

Comments/Suggestion (if any)

5.10. Visiting/Adjunct/Emeritus Faculty etc. (10)

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

- Provision of visiting/adjunct faculty (1)
- Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc.(9)
(Minimum 50 hours interaction in a year will result in 3 marks for that year; 3marks x 3years= 9marks)

KIIT DU has the provision of inviting visiting /adjunct and Emeritus faculty or industry experts to deliver lectures for the core courses. In addition to this, technical symposiums, and lecture series are also organized at the school level, where experts from industry and academia are invited to address the students on real-world life experiences. A detailed list of visiting /adjuncts/emergitus faculty are given below for three assessment years.

Details of Visiting/Adjunct/Emeritus Faculty: 2020-2021

| Sl. No. | Name | Institution or University or Retired Professor | Subject | Hours of interaction with visiting faculty |
|---------|-----------|--|-----------------------|--|
| 01 | Dr Pradip | NIT Rourkela | Mechanics of Material | 15 |

| | | | | |
|----|--|---|--|---|
| | Sarkar | | | |
| 02 | Mr. jagannath Oleti, | VP President & Head HR L & T Defence | Building Culture of a Digital Future: Challenges Here and Now (People Perspective) | 2 |
| 03 | Ms. Annie Lim, TA | Head & Diversity Outreach Citrix Singapore | Building Culture of a Digital Future: Challenges Here and Now (People Perspective) | 2 |
| 04 | Mr. Sreenu Ambati, | VP HR, Navayuga Enginnering Company Limited | Building Culture of a Digital Future: Challenges Here and Now (People Perspective) | 2 |
| 05 | Mr. Sanjay Chaturvedi, Director, HR, Hilti India | Director, HR, Hilti India | Future of Work: HR Competencies | 2 |
| 06 | Dr. Rasheed M. L., | Head HR, My Homes Construction Ltd | Future of Work: HR Competencies | 2 |
| 07 | Mr. Arabinda Nandy, | GM-HR, Strata Geosystems (India) Pvt. Ltd. | Becoming Industry Ready | 2 |
| 08 | Mr. Tridip Sarma, | GM, HR, Patel Engineering Ltd. | Becoming Industry Ready | 2 |
| 09 | Mr. Rashmi Mansharamani, | CHRO, The Wave Group | Building the Organization for Future | 2 |
| 10 | Mr. Rajesh | Bridage Group | Emerging | 2 |

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|----|-------------------------------|---|--|---|
| | Srishetty, | | Technologies in Building Construction in India | |
| 11 | Prof. Suranjan Panigrahi | Professor, Purdue University, USA | Air-Water-Health Nexus: Role of Advanced Technologies. | 2 |
| 12 | Prof. Ts.Dr. Christy P. Gomez | Associate Professor, Universiti Tun Hussein Onn, Malaysia | Cultural Shift towards Sustainability in the Construction Industry | 2 |
| 13 | Prof. Jean-Louis Roubaty | Professor, Paris-Diderot University Consultant | Indoor Airquality, CO2 measurement and Reduction of Covid-19 | 2 |
| 14 | Dr. Ajay Pradhan | VP, CEAI & President, C2S2 Pvt Ltd | Sustainable Agriculture Water Management through Internet of Things (IoT) in Punjab, India | 2 |
| 15 | Prof. Sudhindra Nath Panda | Director, National Institute of Technical teachers Training and Research (NITTR), Govt of India | Education and Training for Sustainable Development | 2 |
| 16 | Prof. Debakanta (Deb) Mishra | Associate Professor, Oklahoma State University, USA | Pavement Material Characterisation and field instrumentation | 2 |
| 17 | Prof. Achintya Bezbaruah | Professor, North Dakota State University, USA | Preparing Our Municipal Infrastructure for Climate | 2 |

| | | | Change | |
|----|------------------------------------|---|---|---|
| 18 | Prof. Pijush Samui | Associate Professor, NIT Patna | Artificial Intelligence in Infrastructure Engineering | 2 |
| 19 | Dr. Sunil S. Basarkar, | General Manager , AFCONS Infrastructure Limited | Sustainability in infrastructure in Reference to Multi-Activity Road Project at Himachal Pradesh, India | 2 |
| 20 | Dr. R. N. Sankhuan, | Chief Engineer, NWDA, Hyderabad | Sustainable Water Resources: Reimagining a blue future | 2 |
| 21 | Mr. Prasanta Kumar Mohapatra | Project Director, OWSSB, Govt. of Odisha | Sustainable Urban Municipal Waste management | 2 |
| 22 | Mr. Ajay Singhal | General manager, G R Infrastructure Pvt Ltd | Status of Infrastructure Projects in India | 2 |
| 23 | R. N. Das | Global Archer LLC | Oil & Gas Projects | 1 |
| 24 | Nupur Apte-Gumaste | Global Archer LLC | Const. MGMT, BOQ, Quantity survey, Business Development | 1 |
| 25 | Somnath Gaikwad | Global Archer LLC | Accounts & Finance | 1 |
| 26 | Aritra Das Adhikari & Poorvi Singh | Global Archer LLC | Autocad & Staadpro. | 2 |
| 27 | Shubham Choudh | Global Archer LLC | Brief on GSM Project | 1 |

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|----------------------------|----------------------------|-------------------|--|----|
| | ary | | | |
| 28 | Papiya Saha | Global Archer LLC | Individual project details & work methodology | 1 |
| 29 | Ankur Raj | Global Archer LLC | Refinery : Introduction, Design & construction of onshore oil facilities like Sub-stations | 2 |
| 30 | Anshuman Gourav | Global Archer LLC | Brief on Yembouli site | 1 |
| 31 | D.N.Pegu | Global Archer LLC | Brief on Boffa Project | 1 |
| 32 | Anurag Paul & Deep Prakash | Global Archer LLC | Brief of electrical & mechanical | 1 |
| 33 | Vijay Jamader | Global Archer LLC | Testing of Aggregate, Concrete, Cement, Soil, Bitumen, NDT | 1 |
| 34 | Nishikant Parida | Global Archer LLC | Konta port loading & unloading procedure | 2 |
| 35 | Sudhir Pawar | Global Archer LLC | Konta port Operation & Maintenance | 1 |
| Total hours of interaction | | | | 73 |

Details of Visiting/Adjunct/Emeritus Faculty: 2019-2020

| Sl. No. | Name | Institution or University or Retired Professor | Subject | Hours of interaction with visiting faculty |
|---------|------|--|---------|--|
|---------|------|--|---------|--|

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|----|--------------------------------|---|---|---|
| 01 | Dr. Achintya Bezbaruah, Gehrts | Presidential Professor and Associate Professor of Civil and Environmental Engineering at North Dakota State University (NDSU), Fargo, USA | “Small Community Water and Wastewater Treatment” | 2 |
| 02 | Mr. Samiran Sarkar, | Sr GM, HR, Penna Cement; | Industry Knowledge Lecture Series on Innovation in Construction, Real Estate, Infrastructure & Projects (iCRIP) | 2 |
| 03 | Mr. Sankar Reesu, | Head Hr, Pennar Industry; | Industry Knowledge Lecture Series on Innovation in Construction, Real Estate, Infrastructure & Projects (iCRIP) | 2 |
| 04 | Mr. Anil Panda, | CEO, SCPL; | Industry Knowledge Lecture Series on Innovation in Construction, Real Estate, Infrastructure & Projects (iCRIP) | 2 |
| 05 | Dr. Deb Mishra, | Associate Professor School of Civil and Environmental Engineering, Oklahoma State | An integrated approach to understand the behavior of coarse and fine | 2 |

| | | | | |
|----|------------------------------|--|---|---|
| | | University,USA | grained solid: Findings from field instrumentation, advanced laboratory characterization, and numerical modeling” | |
| 06 | Mr. Arabinda Kumar Nandy, | Sr. HR Head of Strata Geo System Pvt Ltd | Industry Knowledge Lecture Series on Innovation in Construction, Real Estate, Infrastructure & Projects (iCRIP) | 2 |
| 07 | R N Das | Global Archer LLC | Introduction to port and Harbour | 6 |
| 08 | R N Das | Global Archer LLC | Harbour planning principles | 8 |
| 09 | R N Das | Global Archer LLC | Introduction on Oceanographic parameter | 8 |
| 10 | R N Das and Nandinee Goswami | Global Archer LLC | Site Selection | 8 |
| 11 | Prakash Kr Pd | Global Archer LLC | Types of breakwaters | 8 |
| 12 | Prakash Kr Pd | Global Archer LLC | Port Planning | 8 |
| 13 | Prakash Kr Pd | Global Archer LLC | Docks and its function | 8 |
| 14 | Manoj Verma | Global Archer LLC | Ocean in the earth | 8 |

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| | | | system | |
| 15 | Manoj Verma | Global Archer LLC | Marine Sediments | 8 |
| 16 | Saroj Nayak | Global Archer LLC | Oceanographic Investigation | 8 |
| 17 | Saroj Nayak | Global Archer LLC | Forecasting cargo and passenger demand | 8 |
| 18 | Saroj Nayak | Global Archer LLC | Economic evaluation of port project | 8 |
| 19 | Saroj Nayak | Global Archer LLC | Port operations | 8 |
| 20 | Saroj Nayak | Global Archer LLC | Siltation study | 8 |
| 21 | Saroj Nayak | Global Archer LLC | Design of port infrastructure | 4 |
| 22 | Sanjay Lakhe | Global Archer LLC | Communication at port | 8 |
| 23 | Sanjay Lakhe | Global Archer LLC | Electrification and instrumentation | 8 |
| 24 | Anshuman | Global Archer LLC | Construction of port at river/ocean | 8 |
| Total hours of interaction | | | | 150 |

Details of Visiting/Adjunct/Emeritus Faculty: 2018-2019

| Sl. No. | Name | Institution or University or Retired Professor | Subject | Hours of interaction with visiting faculty |
|---------|--------------|---|----------------------------|--|
| 01 | Sachidananda | | to lead a successful Life” | 2 |
| 02 | . T.P. Singh | Director-Symbiosis Institute of Geoinformatics, | patial Technology and | 2 |

| | | Pune | Career" | |
|----|------------------------|--|---|---|
| 03 | Amitava Mitra | AGM- Technical Services and Er. Tushar Mohapatra, Regional Head-Technical Services | cal Talk on "World of Cement, Concrete and Career Scopes in Cement Marketing" | 2 |
| 04 | Mr. T.L. Sharma | Patel Engineering | Emerging Trends in Infrastructure Development | 2 |
| 05 | Mr. A. Patnaik | AABSYS | Emerging Trends in Infrastructure Development | 2 |
| 06 | Mr. Sambit De | Peri India | Emerging Trends in Infrastructure Development | 2 |
| 07 | Ms. Ketki Pradhan | Peri India | Emerging Trends in Infrastructure Development | 2 |
| 08 | Mr. Subhadarshi Mishra | SPARC | Emerging Trends in Infrastructure Development | 2 |
| 09 | Atul Agarwal | Balaji Infratech | Emerging Trends in Infrastructure Development | 2 |
| 10 | Col. P. Srivastava - | Adani Port | Emerging Trends in Infrastructure Development | 2 |
| 11 | Mr. Ajay Kumar Singh - | Simplex Infrastructures Ltd. | Emerging Trends in Infrastructure Development | 2 |
| 12 | Mr. Sachindra Tripathy | JMC Projects | Emerging Trends in Infrastructure Development | 2 |
| 13 | Dr. Sarvesh Mishra | NICMAR | Emerging Trends in Infrastructure Development | 2 |

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|----|--------------------------------|-----------------------|---|----|
| 14 | Mr. Bijoy Kr. Roy | VP, Ashwin Seth Group | Emerging Trends in Infrastructure Development | 2 |
| 15 | Dr. Pandu Ranga Rao | IVRCL | Emerging Trends in Infrastructure Development | 2 |
| 16 | Priyanka Sinha | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Introduction and Fundamentals | 14 |
| 17 | Shailendra Jha | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Natural Phenomena | 6 |
| 18 | Dayanand Pegu | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Port Infrastructures | 6 |
| 19 | Jali Debnath / Manoj Verma | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Introduction and Fundamentals/Site Selection | 15 |
| 20 | Mr. Prakash Prasad | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Design of port infrastructure | 12 |
| 21 | Mayur Bhatt | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Surveying and Study | 6 |
| 22 | Saroj Nayak | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Design of port infrastructure | 3 |
| 23 | Shubham Banerjee / Manoj Verma | Global Archer LLC | Fundamentals of Port and Harbour Engineering-Design of port infrastructure | 6 |

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|----|--------------------------------|-------------------|--|----|
| 24 | Saroj Nayak | Global Archer LLC | amentals of Port and Harbour Engineering-Traffic Study, Demand Assessment/Forecast | 3 |
| 25 | Shubham Banerjee / Manoj Verma | Global Archer LLC | amentals of Port and Harbour Engineering-Traffic Study, Demand Assessment/Forecast | 3 |
| 26 | Jali Debnath / Manoj Verma | Global Archer LLC | amentals of Port and Harbour Engineering- Introduction and Fundamentals/Site Selection | 15 |
| 27 | Mayur Bhatt | Global Archer LLC | amentals of Port and Harbour Engineering- Surveying and Study | 5 |
| 28 | Mr. Prakash Prasad | Global Archer LLC | amentals of Port and Harbour Engineering- Surveying and Study | 12 |
| 29 | Shubham Banerjee / Manoj Verma | Global Archer LLC | amentals of Port and Harbour Engineering-Design of port infrastructure | 6 |
| 30 | Saroj Nayak | Global Archer LLC | amentals of Port and Harbour Engineering-Design of port infrastructure | 3 |
| 31 | Shubham Banerjee | Global Archer LLC | amentals of Port and Harbour Engineering-Design of port infrastructure | 6 |
| 32 | Saroj Nayak | Global Archer LLC | amentals of Port and Harbour Engineering-Traffic Study, Demand Assessment/Forecast | 3 |

| | | | | |
|----------------------------|-------------|-------------------|--|-----|
| 33 | Manoj Verma | Global Archer LLC | amentals of Port and Harbour Engineering-Traffic Study, Demand Assessment/Forecast | 3 |
| Total hours of interaction | | | | 157 |

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|--------------------|---|-----------|
| CRITERION 6 | Facilities and Technical Support | 80 |
|--------------------|---|-----------|

6.1 Adequate and well equipped laboratories, and technical manpower (40)

| Sr. No. | Name of the Laboratory | No. of students per setup (Batch Size) | Name of the Important equipment | Weekly utilization status (all the courses for which the lab is utilized) | Technical Manpower support | | |
|---------|----------------------------|--|--|---|-----------------------------|--------------------|---------------|
| | | | | | Name of the technical staff | Designation | Qualification |
| 1. | Structural Engineering Lab | 34/Batch | 1. Beam Testing 2. Machine, Bench grinder 3. Buoyancy Balance 4. Compression testing machine 5. Concrete pan Mixture 6. Crane 7. Drilling machine 8. Hot Air Oven 9. Humidity Chamber 10. Hydraulic Jack (Capacity: 200 kN) 11. Muffle Furnace 12. Needle Vibrator 13. Plate vibrator 14. Power Hacksaw | 40hrs | Mr. Alok Das | Technical Assitant | B.tech |

| | | | | | | | |
|---|--|----------|---|-------|------------------------|---------------------|--------|
| 2 | Concrete and Material Testing Lab | 34/Batch | 1.Compression testing Machine(Digital) 2.Flexural Testing Machine(Motorized) 4.Sieve Shaker 5.Accelerated Curing Tank 6.Humidity Chamber 7.Concrete Permeability 8.Mortar Vibrator 9.Table Mould Vibrator | 40hrs | Mr. Prassan Kumar Rout | Technical Assistant | B.tech |
| 3 | Geotechnical Engineering Lab | 30/Batch | 1.Andresson pipette stand 2.Consolidation test 3.CBR test apparatus 4.Cone penetrometer 5.Cross permeability & in-plane permeability 6.Direct shear test m/c with digital indicator 7.Geogauge for stiffness testing 8.Mechanical sieve Permeability apparatusshaker 9.Relative density apparatus | 40hrs | Mr. Monoj Kumar Nayak | Technical Assistant | B.tech |

| | | | | | | | |
|---|---|----------|---|-------|---------------------|---------------------|--------|
| 4 | Hydraulic and Water resource Engineering Lab | 34/Batch | 1.Apparatus for Orifice and Mouthpiece 2.Bernoulli's Theorem Apparatus 3.Friction Loss Apparatus 4.Impact of JET on Vane Apparatus 5.Kaplan Turbine 6.Minor Loss Apparatus 7.Metacentric Height Apparatus 8.Orifice-meter and Venturimeter Apparatus 9.Pelton Wheel Turbine | 40hrs | Mrs Subhalaxmi Jena | Technical Assistant | B.tech |
| 5 | Transportation Engineering lab | 34/Batch | 1.Abrasion Testing Machine 2.Ductility Testing Machine 3.Bitumen Extractor 4.Road Profilo Graph 5.C.B.R Testing Machine 6.Impact Testing Machine 7.Say Bolt Viscometer 8.Penetrometer 9.Pine And B.H | 40hrs | Mrs.Alora Choudhry | Technical Assistant | B.tech |

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|---|--------------------------------------|----------|--|-------|---------------------|----------------------|---------|
| 6 | Survey/Geomatics lab | 34/Batch | 1.Total Station 2.G.P.S Handset 3.Transite Theodolite 4.Auto Level 5.Prismatic Compass 6.Metric Chain (30 m and 20 m) 7.Plane Table 8.Measuring Tape (30 m) | 40hrs | Mr.Bijay Kumar Dora | Teachnical Assistant | B.tech |
| 7 | Environmental Engineering lab | 34/Batch | 1.BOD Incubator 2.Burette Stand 3.Jar Test Apparatus (DIGITAL) 4.Turbidity Meter 5.Sound Level Meter 6.High Volume Air Sampler 7.Weighing Balance (accuracy: 0.0001 g) 8.Hot Air Oven 9.Water Bath 10 Chamber 10.BOD Incubator Shaker 11.Sonicator- Rectangular chamber, | 40hrs | Mrs.saswati Sasmal | Technical Assistant | M..tech |

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|---|--|----------|---|-------|---------------------|---------------------|--------|
| 8 | Computational lab (Auto Desk KIIT-BIM Lab) | 34/Batch | <ol style="list-style-type: none"> 1. Bentley's software in bundle 2. 3D CAD design and modeling for basic engineering 3. Micro Station Power Draft and Micro Station 4. Building information modeling for architecture/plannin 5. AECOSim Building Designer, AECOSim Energy Simulator, Bentley Navigator and Bentley Connections Passport 6. 3D Imaging, Point Clouds and Mapping for GIS engineering 7. Bentley Descartes, Bentley Map Enterprise and Bentley Point tools 8. Transportation for Civil Engineering 9. Bentley MXROAD V8i Suite and Bentley Power Civil for Country 10. Offshore for advance Structural Engineering 12. Bentley Maxsurf Enterprise, SACS Marine Enterprise and SACS Offshore Structure Enterprise. 13. Structural solution for Applied Mechanics/Structural Engineering 14. STAAD Pro. | 40hrs | Mrs. Elora Choudhry | Technical Assistant | B.tech |
|---|--|----------|---|-------|---------------------|---------------------|--------|

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|-----|----------------------------|----------|--|-------|-------------|---------------------|--------|
| 9. | Engineering drawing Hall-1 | 75/Batch | Drawing Board Desktop Monitor projector | 40hrs | Mr.Alok Das | Technical Assistant | B.tech |
| 10. | Engineering drawing Hall-2 | 75/Batch | Drawing Board Desktop Monitor projector | 40hrs | Mr.Alok Das | Technical Assistant | B.tech |
| 11. | Engineering drawing Hall-3 | 75/Batch | Drawing Board Desktop Monitor projector | 40hrs | Mr.Alok Das | Technical Assistant | B.tech |

6.2. Laboratories maintenance and overall ambiance (10)

Maintenance of academic infrastructure and facilities

- ✓ KIIT DU is equipped with full time skilled staff members for operation and maintenance of academic infrastructure, equipment and facilities.
- ✓ There is an Annual maintenance contracts (AMC) with companies for equipment and accessories available in laboratories, classrooms and seminar hall etc.
- ✓ The Building maintenance (internal & exterior) and Gardens are done by the assigned construction contractor through instruction of the periodic review of authorized architecture in consultation with experts from School of Civil Engineering of the University.
- ✓ Regular review by the competent authority.

The officer and staff deployment for maintenance repair and services are given below

| Sl. No | Items | Officers concerned for development, maintenance and repair |
|--------|------------------------------|---|
| 1. | Land, building and furniture | Estate and Establishment Officer, Development Officer, Addl. Development Officer, Support Staff |
| 2. | Electrical Maintenance | Development Officer, Chief Maintenance Electrical Engineer, Support Staff |
| 3. | AC maintenance | Development Officer, Head AC Maintenance and Support Staff |
| 4. | Transportation | Transport Manager, Support Staff |

| | | |
|----|---------------------------|---|
| 5. | Computer | Head ICT Cell, System Engineers and Technical Support Staff |
| 6. | Laboratory Equipment | HOD, Faculty-in-charge, Store & purchase Officer, Administrator and Technical Support Staff |
| 7. | Other Resource Management | Resource Management Officer and Support Staff |

6.3 Safety measures in laboratories (10)

It describe how students in the program are provided appropriate guidance regarding the use of the tools, equipment, computing resources, and laboratories. Following steps are taken to guide the student to use tools, equipment, computing resources, and laboratories.

1. Proper orientations are arranged at Labs to adopt safety practices. The necessary aprons, gloves, glasses and safety manuals are issued to the students.
2. Proper instruction is given to students regarding safety majors before commencement of clam.
3. Use of safety devices and dresses has been made mandatory.
4. Equipment and accessories such as pro-pipettes are used to handle the chemicals and avoid accident.
5. The students are usually informed about the safety norms during their induction program in to the university.
6. The laboratories are also provided with first aid box for any emergency.
7. Further additional support is extended to the critical cases and is handled in the 2500 bedded super specialty hospital of the Medical College of the university.

| Sr. No. | Name of the Laboratory | Safety measures |
|---------|----------------------------|--|
| 1. | Structural Engineering Lab | <ol style="list-style-type: none"> 1. Steel toed shoe 2. Safety Goggles 3. Face Shield 4. Rubber Gloves 5. Cotton Gloves 6. Welding Apron 7. Cotton Apron 8. Dust Proof Mask 9. Surgical Cap,Gum boot 10. Reflective safety jacket 11. Safety Goggles (Black) 12. Safety Helmet (White) 13. Asbestos Gloves |

| | | |
|----|--|---|
| 2. | Concrete and Material Testing Lab | <ol style="list-style-type: none"> 1. Steel toed shoe 2. Safety Goggles 3. Face Shield 4. Rubber Gloves 5. Cotton Gloves 6. Welding Apron 7. Cotton Apron 8. Dust Proof Mask 9. Surgical Cap 10. Gum boot 11. Reflective safety jacket 12. Safety Goggles (Black) 13. Safety Helmet (White) 14. Asbestos Gloves |
| 3. | Geotechnical Engineering Lab | <ol style="list-style-type: none"> 1. Steel toed shoe 2. Safety Goggles 3. Face Shield 4. Rubber Gloves 5. Cotton Gloves 6. Welding Apron 7. Cotton Apron 8. Dust Proof Mask 9. Surgical Cap 10. Gum boot 11. Reflective safety jacket 12. Safety Goggles (Black) 13. Safety Helmet (White) 14. Asbestos Gloves |
| 4. | Hydraulic and Water resource Engineering Lab | <ol style="list-style-type: none"> 1. Steel toed shoe 2. Safety Goggles 3. Face Shield 4. Rubber Gloves 5. Cotton Gloves 6. Welding Apron 7. Cotton Apron 8. Dust Proof Mask 9. Surgical Cap 10. Gum boot 11. Safety Goggles (Black) 12. Asbestos Gloves |

| | | |
|----|--------------------------------|---|
| 5. | Transportation Engineering lab | <ol style="list-style-type: none"> 1. Steel toed shoe 2. Safety Goggles 3. Face Shield,Rubber Gloves 4. Cotton Gloves 5. Welding Apron 6. Cotton Apron 7. Dust Proof Mask 8. Surgical Cap 9. Gum boot 10. Reflective safety jacket 11. Safety Goggles (Black) 12. Safety Helmet (White) 13. Asbestos Gloves |
| 6. | Survey/Geomatics lab | <ol style="list-style-type: none"> 1. Steel toed shoe 2. Safety Goggles 3. Face Shield 4. Rubber Gloves 5. Cotton Gloves 6. Welding Apron 7. Cotton Apron 8. Dust Proof Mask 9. Surgical Cap 10. Gum boot 11. Reflective safety jacket 12. Safety Goggles (Black) 13. Umbrella 14. Safety Helmet (White) 15. Asbestos Gloves |
| 7. | Environmental Engineering lab | <ol style="list-style-type: none"> 1. Steel toed shoe 2. Safety Goggles 3. Face Shield 4. Rubber Gloves 5. Cotton Gloves 6. Welding Apron 7. Cotton Apron 8. Dust Proof Mask 9. Surgical Cap 10. Gum boot 11. Reflective safety jacket 12. Safety Goggles (Black) 13. Safety Helmet (White) 14. Asbestos Gloves |

6.3. Project laboratory (20)

Facilities and utilization:

The primary purpose of the project laboratory in civil engineering department is to provide the space and resource needed by students to complete their main project and minor projects work. The laboratory also serves as meeting location for group of students working on team projects.

Most of the students are utilized this project laboratory to work on supplemental learning projects to enhance their understanding of class and lab assignment.

This project laboratory is utilized by third year fifth and six semester and fourth year seven and eight semester students and research persons.

| Sr.no | Name of facility | Name of equipment/software | Purpose | Faculty Lab incharge | Qualification |
|-------|----------------------------|---|-----------------------|----------------------|---------------|
| 1 | Structural Engineering Lab | 1. Beam Testing 2. Machine,Bench Grinder 3.Buoyancy Balance 4.Compression testing machine 5.Concrete pan Mixture 6.Crane 7.Drilling machine 8.Hot Air Oven 9.Humidity Chamber 10.Hydraulic Jack (Capacity: 200 kN) 11.Muffle Furnace 12.Needle Vibrator 13.Plate vibrator 15.Rebound Hammer 16.Tile abrasion Testing M/C 17.Table Vibrator | UG ,PG & PhD RESEARCH | Dr.Kirti Kanta Sahoo | PhD. |

| | | | | | |
|----|--|---|-----------------------|--------------------------|--------|
| 2. | Concrete and Material Testing Lab | 1.Compression testing Machine(Digital) 2.Flextural Testing 3.Machine(Motorized) 4.Sieve Shaker 5.Accelerated Curing Tank 6.Humidity Chamber 7.Concrete Permeability 8.Mortar Vibrator 9.Table Mould Vibrator 10.Concrete cutter Machine | UG ,PG & PhD RESEARCH | Professor Ispita Mohanty | M.tech |
| 3. | Geotechnical Engineering Lab | 1.Andresson pipette stand 2.Consolidation test 3.CBR test apparatus 4.Cone penetrometer 5..Direct shear test m/c with digital indicator 6.Mechanical sieve Permeability apparatus 7.Relative density apparatus 8..Triaxial testing machine 9.Unconfined compression shear test apparatus 10.Vane shear testing machine | UG ,PG & PhD RESEARCH | Dr.Bandita Paikray | PhD |
| 4. | Hydraulic and Water resource Engineering Lab | 1. Bernoulli's Theorem Apparatus 2. .Friction Loss Apparatus 4.Kaplan Turbine 5.Metacentric Height | UG ,PG & PhD RESEARCH | Dr paromita Chakroberty | PhD. |

| | | | | | |
|----|--------------------------------|--|-----------------------|-------------------------|--------|
| | | <p>Apparatus</p> <p>6.Orifice-meter and Venturimeter Apparatus</p> <p>7.Pelton Wheel Turbine</p> <p>8.Pitot Tube Apparatus</p> <p>9.Pressure Plate Apparatus</p> <p>10.Reynolds Apparatus</p> <p>11.Rectangular & Triangular Notch Apparatus</p> | | | |
| 5. | Transportation Engineering lab | <p>1.Abrasion Testing Machine</p> <p>2.Ductility Testing Machine</p> <p>3.Bitumen Extractor</p> <p>4.Road Profile Graph</p> <p>5.C.B.R Testing Machine</p> <p>6.Impact Testing Machine</p> <p>7.Say Bolt Viscometer</p> <p>8.Penetrometer</p> <p>9.Ring And Ball Apparatus</p> <p>10.Buoyancy Balance</p> <p>11.Bitumen Extractor</p> <p>13.Marshall Stability Apparatus</p> | UG ,PG & PhD RESEARCH | Dr Amit Kumar Das | PhD. |
| 6. | Survey/Geomatics lab | <p>1.Total Station</p> <p>2.G.P.S Handset</p> <p>3.Transite Theodolite</p> <p>4.Auto Level and staff</p> <p>5.Prismatic Compass</p> <p>6.Metric Chain (30 m and 20</p> <p>7.Measuring Tape (30 m)</p> | UG ,PG & PhD RESEARCH | Prof Satya Ranjan Samal | M.tech |
| 7. | Environmental Engineering lab | <p>1.BOD Incubator</p> | UG ,PG & PhD RESEARCH | Dr Kundan Samal | PhD. |

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|----|------------------------|---|-----------------------|---------------------|--------|
| | | <p>2. Burette Stand</p> <p>3. Jar Test Apparatus (DIGITAL)</p> <p>4. Turbidity Meter</p> <p>5. Sound Level Meter</p> <p>6. High Volume Air Sampler</p> <p>7. Weighing Balance (accuracy: 0.0001 g)</p> <p>8. Hot Air Oven</p> <p>9. Water Bath 10 Chamber</p> <p>10. BOD Incubator Shaker</p> <p>11. Sonicator-Rectangular chamber, Capacity - 5 L</p> <p>12. Water Purification System</p> <p>13. Digital Photo Fluorometer</p> <p>14. Steam Sterilizer (Auto Clave)</p> | | | |
| 8. | Auto Desk KIIT-BIM Lab | <p>1. 3D CAD design and modeling for basic engineering</p> <p>2..Micro Station Power Draft and Micro Station</p> <p>3..Building information modeling for architecture/planning</p> <p>4..AECOSim Building Designer, AECOSim Energy Simulator, Bentley Navigator and Bentley Connections Passport</p> <p>5.3D Imaging, Point Clouds and Mapping for GIS engineering</p> | UG ,PG & PhD RESEARCH | Prof. Sunny Jaiswal | M.tech |

| | | | | | |
|--|--|--|--|--|--|
| | | <p>6. Bentley Descartes, Bentley Map Enterprise and Bentley Point tools</p> <p>7. Bentley MXROAD V8i Suite and Bentley Power Civil for Country</p> <p>8. Offshore for advance Structural Engineering</p> <p>9. Bentley Maxsurf Enterprise, SACS Marine Enterprise and SACS Offshore Structure Enterprise.</p> <p>10. STAAD Pro, STAAD Foundation Advanced, STAAD Global Design Code, Bentley Power Rebar and RAM Concept.</p> <p>11. Resource Management Engineering Sewer GEMS, WaterGEMS, StormCAD, Civil Storm and Hammer.</p> <p>12. PLAXIS 2D and 3D.</p> <p>13. Arc-GIS</p> <p>14. Erdas Imagine, Geomedia and Photogrammetry.</p> <p>15. Erdas Imagine, Geomedia and Photogrammetry.</p> <p>16. Mat lab</p> | | | |
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|-------------|------------------------|----|
| CRITERION 7 | Continuous Improvement | 75 |
|-------------|------------------------|----|

7.1. Actions taken based on the results of evaluation of each of the COs, POs & PSOs (30)

Identify the areas of weaknesses in the program based on the analysis of evaluation of COs, POs & PSOs attainment levels. Measures identified and implemented to improve POs& PSOs attainment levels for the assessment year including curriculum intervention, pedagogical initiatives, support system improvements, etc.

Actions to be written as per table in 3.3.2

Examples of analysis and proposed action Sample 1-Course outcomes for a laboratory course did not measure up, as some of the lab equipment did not have the capability to do the needful (e.g., single trace oscilloscopes available where dual trace would have been better, or, non-availability of some important support software etc.). Action taken-Equipment up-gradation was carried out (with details of up-gradation)

Sample 2-In a course on EM theory student performance has been consistently low with respect to some COs. Analysis of answer scripts and discussions with the students revealed that this could be attributed to a weaker course on vector calculus.

Action taken-revision of the course syllabus was carried out (instructor/text book changed too has been changed, when deemed appropriate).

Sample 3-In a course that had group projects it was determined that the expectations from this course about PO3 (like: “to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations”) were not realized as there were no discussions about these aspects while planning and execution of the project. Action taken- Project planning, monitoring and evaluation included in rubrics related to these aspects.

POs & PSOs Attainment Levels and Actions for improvement – CAYm1 only

| POs | Target Level | Attainment Level | Observations |
|--|--------------|------------------|-----------------|
| PO1: Engineering knowledge: Ability to apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. | | | |
| PO1 | 2.50 | 2.74 | Target attained |
| Action 1: Attainment level is positive, still steps should be taken to give more challenging questions on Engineering concepts. Additional classes to be conducted improve the mathematical fundamental basics. More problems will be given for practice. | | | |
| PO2: Problem analysis: Ability to identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. | | | |
| PO2 | 2.50 | 2.75 | Target attained |
| Action 1: Attainment level is commendable at the same time more numerical intensive exercises must be conducted to enhance the skills of students to do comprehensive problem analysis related to Science and Engineering field of study. Students are encouraged to raise questions which are solved in the classes. Students are motivated to observe their homes and surroundings to gain insight into real-life engineering problems and think of possible approaches/solutions to these problems. | | | |

| | | | |
|--|------|------|-----------------|
| PO3: Design/Development of solutions: Ability to design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. | | | |
| PO3 | 2.50 | 2.75 | Target attained |
| Action 1: Attainment level is high and is an encouraging attainment level especially in case of Design. Students will be inspired to critically observe the real-life engineering problems surrounding them and think of possible approaches/solutions to these problems through technical workshops, internships, and conferences. | | | |
| PO4: Conduct investigations on complex problems: Ability to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. | | | |
| PO4 | 2.50 | 2.8 | Target attained |
| Action 1: Attainment level is satisfactory due to excellent laboratory infrastructure comprising state-of-the-art equipment. Visit to different industries for practical exposure to various on-site laboratories. | | | |
| PO5: Modern tool usage: Ability to create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations. | | | |
| PO5 | 2.50 | 2.83 | Target attained |
| Action 1: The students are exposed to professional software and modern tools like AUTOCAD, REVIT, BENTLEY SOFTWARE BUNDLE, etc. Computational labs are strengthened by addition of cutting-edge software and modern tools like ANSYS, FEAST, PLAXIS 3D, GIS, to fulfill the requirement in engineering applications in the new industrial era. | | | |
| PO6 : The engineer and society: Ability to apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice. | | | |
| PO6 | 2.50 | 2.80 | Target attained |
| Action 1: All the Engineering theory as well as laboratory courses directly or indirectly enable students to build sustainable engineering systems and solutions for society at large. | | | |
| PO7: Environment and sustainability: Ability to understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. | | | |
| PO7 | 2.50 | 2.77 | Target attained |
| Action 1: All the Engineering theory as well as laboratory courses directly or indirectly sensitize students to be develop engineering solutions and applications for being environmentally friendly. To increase the awareness about environment and sustainability from the basic level, Environmental Science and Yoga and Human Consciousness has been introduced in the first year B.Tech. program. | | | |
| PO8: Ethics: Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. | | | |

| | | | |
|--|------|------|-----------------|
| PO8 | 2.50 | 2.79 | Target attained |
| <p>Action 1:</p> <p>This attainment level indicates the students are implicate as well as explicitly exposed to various scenario to be test their judgmental skills to be more ethical for the entire environment, stakeholders and most importantly the society at large. Corporate lectures and motivational talks are arranged periodically to address professional ethics and responsibilities.</p> | | | |
| <p>PO9 : Individual and team: Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</p> | | | |
| PO9 | 2.50 | 2.82 | Target attained |
| <p>Action 1: The assignment, Quiz in theory courses and group wise experiments are conducted in laboratory sessions to expose students to different working scenarios and deliver their best as an individual or a team member of a group. 6th semester onwards, students are divided into groups for performing projects.</p> | | | |

PO10 : Communication: Ability to communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

| | | | |
|------|------|------|-----------------|
| PO10 | 2.50 | 2.80 | Target attained |
|------|------|------|-----------------|

Action 1:
 Apart from explicit course on Professional Communication, Business Communications, CAT-I and II some exercises like Presentation in class, Seminar, Grand Viva, group experiment sessions in laboratory are the curricular components which help students to become a effective communicator, which is highly required for their professional career ahead.

PO11 : Project management and finance: Ability to demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

| | | | |
|------|------|------|-----------------|
| PO11 | 2.50 | 2.80 | Target attained |
|------|------|------|-----------------|

Action 1:
 Results show the students are very effective in Project management, resource planning and forming strategy in construction management. The Minor Project, Project preparation & Project expose students to enhance their skills of Project Management & Finance planning.

PO12 : Life-long learning: Ability to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

| | | | |
|------|------|------|-----------------|
| PO12 | 2.50 | 2.79 | Target attained |
|------|------|------|-----------------|

Action 1:
 Students are given various challenging contents beyond syllabus problems and assignments. Alumni and guest lectures are conducted for imparting life-long learning to students.

Similar information is to be provided for PSOs

PSO1: Sustainable low-cost alternate material

| | | | |
|------|------|------|-----------------------|
| PSO1 | 2.50 | 2.82 | Target level attained |
|------|------|------|-----------------------|

Actions taken
 Attainment level of 2.61 is a good score.
 The design specific theory courses like Civil Engineering materials and Construction, Concrete Technology, DCS-I, Material Testing Lab and Concrete and Structure Lab helps students to enhance their design skills.

| | | | |
|--|-------------|-------------|-----------------------|
| PSO2: Sustainable Environment | | | |
| PSO2 | 2.50 | 2.78 | Target level attained |
| Actions taken Attainment level is a positive score. Students will be able to design sustainable design systems for environmental projects related to water and waste water management etc. Students were sent to industrial visits and encouraged to participate in workshops and seminars. Laboratories were made available to students in off hours also. | | | |
| PSO3: Sustainable water resources strategy | | | |
| PSO3 | 2.50 | 2.80 | Target level attained |
| Actions taken The attained attainment level is more than target level and is satisfactory. This result shows the students are able to develop strategies for sustainable management of water resources with respect to climate change. Students were imparted in-house training on various software like STAAD Pro. and REVIT. | | | |

Table B.7.1

7.2. Academic Audit and actions taken thereof during the period of Assessment (15)

Handbook, and academic audit report, compliance report (P Saha Sir)

(Academic Audit system/process and its implementation in relation to Continuous Improvement)

Academic Audit is conducted by school every year to accomplish the following objectives.

- To promote self reflection among units / schools being audited.
- To promote self improvement measures among units / schools being audited.
- To conduct quality checks on different activities undertaken by units/ schools to meet expected outcomes.
- To promote adoption of best practices.

The scope of the academic audit is as follows.

- All Schools of University: The schools are expected to have developed a strong outcome based approach in teaching-learning. The audit team will assess the activities involved in developing learning outcomes, design and development activities in curriculum, teaching-learning process, student learning assessment process and student engagement programs. The audit team will also assess the quality and quantity of research outcomes during last three years. The audit team will also assess the quality of resources and general ambience from perspective of meeting the learning outcome.
- Examination Section: The audit team will assess the process of conduct and document archrival in the examination section.
- Student Support Centre: The audit team will assess the process of conduct, document archival and promotion of student support activities and services.

The Academic audit team will comprise of members who are usually nominated by Dean of School or Competent authority of the University. Secondly, the members must be of equivalent rank of Associate Professor or above.

The Audit process shall proceed as follows.

- Each School / unit will prepare a self-study report.
- The Audit team will visit and conduct onsite evaluation through check of documents and interaction with stakeholders.
- The audit report will be prepared citing commendation, affirmation and recommendation for each school/unit.
- The report will be shared.

Action Taken Report of School of Civil Engineering

Action Taken Report on the basis of Recommendations suggested in Academic Audit 2019-2020

| Sl. No | Recommendations | Action Taken by the School |
|--------|---|---|
| 1 | Teaching and learning activities are excellent. Tutorial sessions should be supplemented by videos. | In the last semesters Faculty Members have supplemented the teaching through certain videos and virtual lab of Ministry of Education. In the Spring semester also, the course |

| | | |
|----|--|---|
| | | instructors are advised to use relevant videos/animations during the course delivery of all the theory courses and practical classes. |
| 2 | Laboratory procedures should be made available to the students well in advance | <ul style="list-style-type: none"> • In the last semester, procedures to undertake experiments were provided in advance for all laboratory experiments (Laboratory Experiment Manual) • For the Spring semester 2020, the same procedure is going to be repeated as last semester. Already the process has started and video recording of the class will start in the 1st week of December 2020. |
| 3 | Conduct of examinations, evaluations and students feed-back redressals are excellent. However, increase the number of take-home examinations for the higher semester students. | <p>Students are provided with sufficient number of activities during the semester. Besides, problem solving in the class is also adopted. However, the personnel involved in the academic management of the School will further deliberate and explore how to increase such activities in the coming semester.</p> <p>Minimum 6 numbers of activities are conducted to test the different learning abilities (like Critical Thinking, Problem Solving, Creation, Interactivity Focus and Reflection) of the student.</p> |
| 4 | Laboratory facilities are very good. More equipments are required to be added for good quality EXPERIMENTAL RESEARCH. | <p>Purchasing process is under progress for the advance equipments for the School laboratories as well as Central Research Laboratory. This is temporarily delayed due to COVID19. However, during COVID19 lockdown period also high end research based equipment was setup in certain laboratories of the School.</p> <p>Following equipment are added for good quality experimental research:</p> <ol style="list-style-type: none"> 1. Servo Hydraulic Dynamic Testing System (TE, GE & SE) 2. CHN analyser (EE) 3. Ion Chromatography (EE, SE & CEM) 4. Resonant column device, Large diameter cyclic tri-axial and Dynamic simple shear (under process, GE) |
| 5 | A little more strengthening is needed on the computational aspects of the research currently being undertaken by the school. | <p>The proposal on the computation aspect of different specialisations are being prepared and will be executed in the coming semester.</p> <p>FEAST software purchased. More high end software purchasing are under process</p> |
| 6 | School should act proactively to strengthen the sponsored research projects as well as the socially relevant projects. | <ul style="list-style-type: none"> • Already the School R&D Committee has finalized modalities, steps, procedures to prepare at least 8 (eight) number of research project proposals by February 2021. An elaborate process has already been finalized and it will be communicated to the relevant Faculty Members of different specializations in the 1st week of December. • Interdisciplinary Project proposals will be prepared and submitted to the funding agencies. • Project proposals will be prepared in collaboration with other reputed institutions. • Project proposal writing workshops will be conducted to encourage and guide young faculty members. • 16 Projects have been submitted to SERB, DST in 2020-2 |
| 7. | A concerted effort is needed to improve the quality and quantity of the research publications. | <ul style="list-style-type: none"> • Peer reviewed journal papers written from the M. Tech. and Ph. D. thesis to be increased. • International conferences are organized by the School for increasing the quantity of publication. • Paper writing workshops will be conducted for guiding the young |

| | | |
|-----|---|--|
| | | <p>faculty members and students.</p> <p>Details of quality publication in the academic year 2020-21.</p> <ol style="list-style-type: none"> 1. Journal:25 2. Book Chapter: 60 <p>Publication By</p> <ol style="list-style-type: none"> 1. Research Scholar:18 2. Master's Student:29 3. B. Tech Students:12 |
| 8. | The more FDP's in the advanced topics of civil engineering field are to be conducted on a regular basis. | <p>Plan and programs will be prepared for conducting the FDPs on advanced topics in the coming academic session.</p> <p>2 numbers of FDP conducted, another ATAL FDP is already approved. Details are</p> <ol style="list-style-type: none"> 1.FDP on Statistical analysis and Computer Aided Design organized by KIIT DU 2. FDP on Finite Element Analysis of Structures (FEAST) organized by KIIT DU 3. ATAL FDP on Recent Advances in Forensic Analysis in Civil Engineering, 27th September - 1st October, 2021. organized by KIIT DU |
| 9. | A proper mechanism should be at place to confirm the know-how attained by the B. Tech. and M. Tech. students with regard to project evaluations. | <p>B. Tech. Evaluation process</p> <p>Students choose their own area of research work and after that guides are allocated as per the research area.</p> <p>Mid Semester Examination - 15 marks- Guide and 15 marks- Panel</p> <p>End Semester Examination - 35 marks- Guide and 35 marks- Panel</p> <p>M. Tech. Evaluation process</p> <p>Guides are allocated to the students as per their preference.</p> <p>Mid Semester Examination - 15 marks- Guide and 15 marks- Panel</p> <p>End Semester Examination - 35 marks- Guide and 35 marks- Panel</p> <p>External examiners conduct the thesis examination in the presence of Faculty members before the submission of final dissertation.</p> |
| 10. | With regard to research scholars, a rigorous viva-voce examination should be conducted and ensure that a complete understanding of the boundaries of the current knowledge in the chosen field is attained. | <p>Rigorous viva voce examinations conducted as per the University Guidelines (Regulations) for the research scholars.</p> <p>The School conducts monthly review through presentation and viva voce for the Research Scholars getting University Fellowship.</p> <p>For other Research Scholars, mid-semester and end-semester presentation and viva voce is conducted.</p> |
| 11 | More MOU's with IIT's and other international universities are needed. This can be taken up in a phased manner. | It will be explored in the coming years. |

7.3. Improvement in Placement, Higher Studies and Entrepreneurship (10)

Assessment is based on improvement in:

- Placement: number, quality placement, core industry, pay packages etc.

| Year | Percentage of Students placed | Average Package | Maximum Package | Major core industry recruiters |
|-------|-------------------------------|-----------------|-----------------|---|
| CAY | 80 | 5.00 | 12.0 | Jindal Steel, Tata Power, HCC, Shapoorji Pallonji & Co. Ltd., ITC |
| CAYm1 | 75 | 5.05 | 12.5 | Autodesk (civil), Shapoorji |

| | | | | |
|--------------|-----------|-------------|-----------|---|
| | | | | <i>Pallonji & Co. Ltd., Road Safety Department, Govt. of Odisha</i> |
| <i>CAYm2</i> | <i>81</i> | <i>4.75</i> | <i>10</i> | <i>Maia Estate, Nagarjuna Construction Corporation, Shapoorji Pallonji & Co. Ltd.</i> |

- *Higher studies: performance in GATE, GRE, GMAT, CAT etc., and admissions in premier institutions*

| Year | Number of Students in higher studies |
|--------------|--------------------------------------|
| <i>CAY</i> | <i>25</i> |
| <i>CAYm1</i> | <i>19</i> |
| <i>CAYm2</i> | <i>45</i> |

7.4. Improvement in the quality of students admitted to the program (20)

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

| Item | | CAY(2022-2023) | CAYm1(2021-2022) | CAYm2(2020-2021) |
|---|--------------------------|----------------|------------------|------------------|
| National Level Entrance Examination (Name of the Entrance Examination) | No. of Students admitted | - | 5 | 5 |
| | Opening Score/Rank | - | 113844 | 28176 |
| | Closing Score/Rank | - | 659164 | 524682 |
| State/Institute/Level Entrance Examination/Others (Name of the Entrance Examination) | No. of Students admitted | 178 | 175 | 175 |
| | Opening Score/Rank | 678 | 519 | 811 |
| | Closing Score/Rank | 26540 | 25637 | 27430 |
| Name of the Entrance Examination for Lateral Entry or lateral entry details | No. of Students admitted | 18 | 18 | 18 |
| | Opening Score/Rank | 30 | 24 | 8 |
| | Closing Score/Rank | 680 | 704 | 738 |
| Average CBSE/Any other Board Result of admitted students (Physics, Chemistry & Mathematics) | | | | |

| | | |
|--------------------|-----------------------------|-----------|
| CRITERION 8 | First Year Academics | 50 |
|--------------------|-----------------------------|-----------|

8.1 First Year Student-Faculty Ratio (FYSFR)(5)

First Year Faculty Profile considering load

| Name of the faculty member | PAN No. | Qualification | Date of Receiving Highest Degree | Area of Specialization | Designation | Date of joining | Teaching load (%) | | | Currently Associated(Yes/No) | Nature Of Association(Regular/Contract) | Date Of leaving(In case Currently Associated is 'No') |
|----------------------------|------------|---------------|----------------------------------|--|---------------------|-----------------|-------------------|-------|-------|-------------------------------|---|---|
| | | | | | | | CAY | CAYm1 | CAYm2 | | | |
| Mrutyunjay Das | AGXPD2175J | M.Sc. and PhD | 21/03/2014 | Computational Fluid Dynamics | Associate Professor | 10/07/1999 | 50 | 50 | 75 | Yes | Regular | |
| Narmada Behera | AOOPB9968G | M.Sc. and PhD | 19/05/2008 | Applied Functional Analysis and Optimization | Assistant Professor | 22/07/2013 | 75 | 75 | 75 | Yes | Regular | |
| Rajashree Mishra | AKQPM5504R | M.Sc. and PhD | 29/11/2014 | Optimization Technique | Associate Professor | 01/07/2006 | 75 | 75 | 75 | Yes | Regular | |
| UtkalKeshari Dutta | BPJPD2233M | M.Sc. and PhD | 31/12/2021 | Number Theory | Assistant Professor | 27/07/2021 | 75 | 75 | 0 | Yes | Regular | |
| SATYA KUMAR MISHRA | AHCPM5374Q | M.Sc. and PhD | 06/11/2014 | Reliability | Associate Professor | 10/10/1995 | 75 | 75 | 75 | Yes | Regular | |
| Jashashree Ray | AWMPR6499N | M.Sc. and PhD | 27/07/2015 | Experimental Condensed Matter Physics | Assistant Professor | 25/01/2020 | 80 | 80 | 80 | Yes | Regular | |
| SuvasisNayak | AZIPN6060A | M.Sc. and PhD | 04/12/2020 | Optimization Techniques | Assistant Professor | 20/06/2018 | 80 | 80 | 80 | Yes | Regular | |
| LalatuBiswal | AFXPB6640K | M.Sc. and PhD | 22/07/2014 | Experimental Condensed Matter Physics | Assistant Professor | 29/07/2010 | 86 | 86 | 88 | Yes | Regular | |
| Ranjan Kumar Nayak | AQJPN1118M | M.Sc. and PhD | 13/11/2017 | Machine Learning | Assistant Professor | 02/07/2018 | 70 | 70 | 70 | Yes | Regular | |

| | | | | | | | | | | | | |
|------------------------|------------|--------------------|------------|---|---------------------|------------|-----|-----|----|-----|---------|--|
| Jyoti Prakash Maity | CKYPM2127A | M.Sc. and PhD | 22/11/2006 | Environmental Science | Professor | 02/08/2021 | 100 | 100 | 0 | Yes | Regular | |
| S. Praharaj | BFIPP3118L | ME/M. Tech and PhD | 11/11/2017 | Material Science | Associate Professor | 03/08/2009 | 82 | 82 | 82 | Yes | Regular | |
| B. P. Padhy | ARPPP2365K | M.Sc. and PhD | 13/09/2011 | Summability Theory | Assistant Professor | 01/08/2015 | 67 | 67 | 50 | Yes | Regular | |
| Sapan Kumar Samal | ALFPS0789L | M.Sc. and PhD | 28/02/1993 | Theoretical Seismology | Professor | 15/04/2009 | 40 | 40 | 40 | Yes | Regular | |
| Maya Devi | ATOPD5752D | M.Sc. and PhD | 18/03/2017 | Condensed Matter Physics | Assistant Professor | 15/07/2008 | 80 | 80 | 80 | Yes | Regular | |
| Tapas Ranjan Sahoo | CTPPS4937N | M.Sc. and PhD | 06/01/2011 | Materials Chemistry | Associate Professor | 14/09/2011 | 86 | 86 | 88 | Yes | Regular | |
| Saumya Ranjan Jena | AFMPJ7622L | M.Sc. and PhD | 12/04/2012 | Numerical Integration | Associate Professor | 22/10/2013 | 70 | 70 | 70 | Yes | Regular | |
| Manas Ranjan Mohapatra | BMCPM2872F | M.Sc. and PhD | 04/11/2017 | Geometric Function Theory | Assistant Professor | 27/07/2021 | 29 | 29 | 0 | Yes | Regular | |
| Madhusmita Sahoo | BQSPS8790N | M.Sc. and PhD | 24/02/2014 | Operator Theory | Associate Professor | 26/07/2010 | 44 | 44 | 43 | Yes | Regular | |
| Rakesh Mohan Das | BCUPD0518B | M.Sc. and PhD | 25/03/2019 | Quantum Optics | Assistant Professor | 17/01/2022 | 73 | 73 | 0 | Yes | Regular | |
| Sutanu Mangal | BMEPM0162O | M.Sc. and PhD | 12/09/2012 | Semiconductor Physics and Devices | Assistant Professor | 05/09/2011 | 80 | 80 | 80 | Yes | Regular | |
| Gopal K Pradhan | AYKPP0718N | M.Sc. and PhD | 30/09/2010 | Experimental Condensed Matter Physics | Assistant Professor | 06/07/2018 | 80 | 80 | 80 | Yes | Regular | |
| Shuvendu Singh | CGSPY4034C | M.Sc. and PhD | 09/05/2016 | Protein purification Biophysical Study of Protein | Associate Professor | 07/08/2017 | 76 | 76 | 76 | Yes | Regular | |
| Madhusudan Bera | BREP3984N | M.Sc. and PhD | 12/06/2019 | Complex Analysis | Assistant Professor | 08/07/2019 | 48 | 48 | 69 | Yes | Regular | |
| Biranchi Kumar Mahala | AKCPM9572H | M.Sc. and PhD | 30/01/2016 | Weather Research and Forecasting | Assistant Professor | 01/08/2015 | 85 | 85 | 75 | Yes | Regular | |

| | | | | | | | | | | | | |
|--------------------------------|----------------|------------------|----------------|--|------------------------|------------|-----|-----|-----|-----|---------|--|
| MitaliMadh umita Acharya | CHRPS2627 P | M.Sc. and PhD | 26/12/20 11 | Numerical Functional Analysis and Operations Research | Assistant Professor | 10/07/2011 | 85 | 85 | 75 | Yes | Regular | |
| Srikumar Acharya | APIPA5483 R | M.Sc. and PhD | 06/06/20 11 | Operations Research | Associate Professor | 05/01/2011 | 85 | 85 | 75 | Yes | Regular | |
| Nikita Mahapatra | BGEPM409 5A | M.Sc. and PhD | 27/07/20 16 | Regenerative medicine | Assistant Professor | 12/07/2018 | 100 | 100 | 100 | Yes | Regular | |
| RAJIB MIA | BXFPM619 4Q | M.Sc. and PhD | 10/08/20 17 | Celestial Mechanics | Assistant Professor | 24/08/2017 | 31 | 31 | 77 | Yes | Regular | |
| BhavyaBhu shan | AULPB787 0L | M.Sc. and PhD | 20/12/20 11 | Experimental Condensed Matter Physics and Nanotechnolo gy | Associate Professor | 08/10/2012 | 100 | 100 | 100 | Yes | Regular | |
| Prakash Kumar Sahu | FDZPS9689 J | M.Sc. and PhD | 21/01/20 17 | Numerical Analysis | Assistant Professor | 13/12/2016 | 75 | 75 | 75 | Yes | Regular | |
| Joydeb Pal | CCDPP8635 B | M.Sc. and PhD | 04/03/20 20 | Algebraic Coding Theory | Assistant Professor | 24/06/2019 | 85 | 85 | 85 | Yes | Regular | |
| B. B. Mishra | AKEPM394 5J | M.Sc. and PhD | 05/03/20 03 | Delay Differential Equation | Professor | 10/10/1995 | 60 | 60 | 60 | Yes | Regular | |
| Dibyanjan Rout | BGMPR239 0M | M.Sc. and PhD | 28/07/20 06 | Materials Science | Associate Professor | 15/07/2011 | 100 | 100 | 100 | Yes | Regular | |
| Sudipta K. Ghosh | BRZPG228 0D | M.Sc. and PhD | 01/09/20 22 | Functional AnalysisOper ator Theory | Assistant Professor | 30/07/2021 | 73 | 73 | 0 | Yes | Regular | |
| Dr. Sanjoy Kumar Maji | BQAPM576 5K | M.Sc. and PhD | 25/07/20 08 | Environment al Chemistry | Assistant Professor | 01/12/2014 | 90 | 90 | 90 | Yes | Regular | |
| Prasanta Kumar Das | AMRPD532 9G | M.A and Ph.D | 16/12/20 06 | Nonlinear Functional Analysis | Assistant Professor | 30/07/2011 | 50 | 50 | 50 | Yes | Regular | |
| RojalinSaha u | DFZPS4684 K | M.Sc. and PhD | 25/05/20 12 | Inorganic Chemistry | Associate Professor | 10/08/2011 | 90 | 90 | 90 | Yes | Regular | |
| Jatin K Sinha | EAPPS5142 L | M.Sc. and PhD | 05/03/20 08 | Electrochemi stry | Associate Professor | 08/02/2018 | 87 | 87 | 82 | Yes | Regular | |
| JasaswiniTri pathy | AHEPT630 6P | M.Sc. and PhD | 12/08/20 08 | Ring Theory | Associate Professor | 02/07/2013 | 88 | 88 | 87 | Yes | Regular | |

| | | | | | | | | | | | | |
|---------------------|-------------|--------------------|------------|-----------------------------|---------------------|------------|----|----|----|-----|---------|--|
| Anirudha Jena | APJPJ4032 K | M.Sc. and PhD | 03/12/2013 | Inorganic Chemistry | Assistant Professor | 10/06/2022 | 0 | 0 | 0 | Yes | Regular | |
| ARUN KUMAR GUPTA | ATBPG724 5D | M.Sc. and PhD | 21/01/2017 | Numerical Analysis | Assistant Professor | 13/12/2016 | 16 | 16 | 48 | Yes | Regular | |
| Bibhu Prasad Sahoo | CADPS156 2E | M.Sc. and PhD | 11/05/2013 | Polymer Nanocomposites | Associate Professor | 18/02/2013 | 90 | 90 | 90 | Yes | Regular | |
| Supriya Roy | BUWPR030 5L | M.Sc. and PhD | 19/12/2013 | Computational Physics | Assistant Professor | 12/12/2014 | 80 | 80 | 0 | Yes | Regular | |
| Bijan Kumar Patel | DMOPP695 9L | M.Sc. and PhD | 31/10/2018 | Number Theory | Assistant Professor | 01/08/2019 | 49 | 49 | 64 | Yes | Regular | |
| Anita Pati | BTVPP7664 J | M.Sc. and PhD | 30/08/2010 | Organic Chemistry | Associate Professor | 18/11/2013 | 90 | 90 | 90 | Yes | Regular | |
| AmulyaRatna Swain | BHNPS638 3K | ME/M. Tech and PhD | 25/07/2013 | Wireless sensor network | Associate Professor | 01/02/2013 | 20 | 20 | 20 | Yes | Regular | |
| Krishna Chakravarty | AESPC1901 J | MS | 27/05/2020 | Software Engineering | Assistant Professor | 19/06/2017 | 40 | 40 | 40 | Yes | Regular | |
| KunalAnand | APLPA4667 H | M.E/M.Tech | 15/12/2014 | Software Engineering | Assistant Professor | 01/06/2018 | 40 | 40 | 40 | Yes | Regular | |
| Rajdeep Chatterjee | AJTPC5965 C | ME/M. Tech and PhD | 21/11/2020 | Brain Computer Interface | Associate Professor | 18/06/2012 | 40 | 40 | 40 | Yes | Regular | |
| Satyaranjan Dash | AFTPD9526 Q | ME/M. Tech and PhD | 20/01/2015 | Natural Language Processing | Associate Professor | 29/07/2004 | 20 | 20 | 20 | Yes | Regular | |
| SantwanaSagnika | DFTPS8524 C | M.E/M.Tech | 26/05/2014 | Artificial Intelligence | Assistant Professor | 10/07/2014 | 40 | 40 | 40 | Yes | Regular | |
| Saurabh Bilgaiyan | BBWPB839 8G | ME/M. Tech and PhD | 10/11/2018 | Software Engineering | Assistant Professor | 01/07/2015 | 40 | 40 | 40 | Yes | Regular | |
| BinduAgarwalla | AVIPA0815 G | M.E/M.Tech | 15/06/2010 | Computer Architecture | Assistant Professor | 13/09/2010 | 20 | 20 | 20 | Yes | Regular | |
| Chinmaya Misra | AWVPM95 36C | ME/M. Tech and PhD | 08/11/2014 | Cloud Computing | Associate Professor | 21/07/2008 | 20 | 20 | 20 | Yes | Regular | |
| Amiya Kumar Dash | AUKPD221 4M | M.E/M.Tech | 15/06/2015 | Machine Learning | Assistant Professor | 18/08/2015 | 40 | 40 | 40 | Yes | Regular | |
| Banchhanidhi Dash | ATEPD018 4B | ME/M. Tech and PhD | 05/10/2017 | Machine Learning | Assistant Professor | 22/07/2019 | 20 | 20 | 20 | Yes | Regular | |

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|-------------------------|-------------|-------------------|------------|---|---------------------|------------|----|----|----|-----|---------|--|
| Bibhuti Bhusan Dash | AHWPDP8581A | M.E/M.Tech | 05/06/2009 | Wireless Sensor Network | Assistant Professor | 11/12/2003 | 40 | 40 | 40 | Yes | Regular | |
| Kamakhya Narain Singh | BYGPS5645J | M.E/M.Tech | 10/02/2015 | Software Engineering | Assistant Professor | 01/04/2013 | 40 | 40 | 40 | Yes | Regular | |
| Kumar Devadutta | AHSPD1514D | M.E/M.Tech | 22/06/2006 | Software Engineering | Assistant Professor | 01/09/2006 | 40 | 40 | 40 | Yes | Regular | |
| Manas Kumar Rath | ALKPR6407R | M.E/M.Tech | 12/06/2010 | Machine Learning | Assistant Professor | 06/08/2007 | 40 | 40 | 40 | Yes | Regular | |
| ParthaSarthiPattnayak | AVYPP7061K | ME/M.Tech and PhD | 27/08/2018 | Machine Learning | Assistant Professor | 20/06/2011 | 40 | 40 | 40 | Yes | Regular | |
| PrachiVijayeta | AFIPV1002N | M.E/M.Tech | 27/05/2022 | Software Engineering | Assistant Professor | 05/02/2007 | 40 | 40 | 40 | Yes | Regular | |
| SadhnaSudershana | BVFP9528E | ME/M.Tech and PhD | 28/06/2022 | OB | Assistant Professor | 07/02/2012 | 40 | 40 | 40 | Yes | Regular | |
| Shaswati Patra | CPPPP1118E | M.E/M.Tech | 30/05/2014 | Software Engineering | Assistant Professor | 18/08/2015 | 40 | 40 | 40 | Yes | Regular | |
| Sudhanshu Shekhar Patra | AGBPP7081P | ME/M.Tech and PhD | 12/03/2013 | Cloud Computing | Professor | 26/07/2004 | 40 | 40 | 40 | Yes | Regular | |
| Utpal Chandra De | AHIPD9448A | M.E/M.Tech | 12/05/2009 | Artificial Intelligence | Assistant Professor | 07/09/2009 | 40 | 40 | 40 | Yes | Regular | |
| Pradeep Kandula | CPAPK3386Q | M.E/M.Tech | 01/06/2012 | Wireless Sensor Network | Assistant Professor | 16/06/2016 | 40 | 40 | 40 | Yes | Regular | |
| Deepanjali Mishra | ARCPM7258B | M.A and Ph.D | 14/06/2015 | Culture Studies Linguistics and Feminism | Associate Professor | 06/09/2012 | 90 | 90 | 90 | Yes | Regular | |
| ArpitaGoswami | BEBPG4778R | M.A and Ph.D | 11/07/2022 | Applied linguistics sociolinguistics and folklore | Assistant Professor | 01/06/2019 | 90 | 90 | 90 | Yes | Regular | |
| KhushbooKuddus | BVXPK8714J | M.A and Ph.D | 16/07/2016 | ELT and Linguistics | Assistant Professor | 01/12/2016 | 90 | 90 | 90 | Yes | Regular | |
| Seema K. Ladsaria | AIRPL3777A | M.A and Ph.D | 14/01/2017 | Semiotics | Associate Professor | 19/06/2017 | 90 | 90 | 90 | Yes | Regular | |

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|-----------------------|------------|--------------------|------------|--|---------------------|------------|----|----|----|-----|---------|--|
| S. D. Chaudhuri | ARCPD0705E | M.A and Ph.D | 04/09/2013 | Speculative Fiction Mythology Translation Studies and Hindustani Classical Music | Assistant Professor | 17/07/2017 | 90 | 90 | 90 | Yes | Regular | |
| Pallavi Kiran | BIQPK1154G | M.A and Ph.D | 24/08/2020 | Indian English Literature Poetry Studies and Translation Studies | Assistant Professor | 02/01/2018 | 90 | 90 | 90 | Yes | Regular | |
| Abhilas Swain | BOAPS0452P | ME/M. Tech and PhD | 27/04/2018 | Thermal Engineering | Assistant Professor | 20/06/2017 | 20 | 20 | 20 | Yes | Regular | |
| Achinta Sarkar | JPUPS6847P | ME/M. Tech and PhD | 18/07/2019 | Thermal Engineering | Assistant Professor | 17/06/2019 | 20 | 20 | 20 | Yes | Regular | |
| Ajay Kumar Behera | ASJPB1318F | ME/M. Tech and PhD | 12/06/2012 | Design Engineering | Assistant Professor | 16/07/2012 | 20 | 20 | 20 | Yes | Regular | |
| Akhilesh Kumar Tiwari | AMSPT3908L | M.E/M.Tech | 12/07/2017 | CAD or CAM | Assistant Professor | 05/07/2021 | 30 | 30 | 20 | Yes | Regular | |
| Ambesh Kumar | BOMPK6947R | ME/M. Tech and PhD | 08/06/2018 | Design Engineering | Assistant Professor | 01/12/2017 | 20 | 20 | 20 | Yes | Regular | |
| Amlana Panda | AURPP8014G | ME/M. Tech and PhD | 27/12/2016 | Production Engineering | Assistant Professor | 23/01/2017 | 20 | 20 | 20 | Yes | Regular | |
| Anil Kumar Rout | BOMPR2948F | ME/M. Tech and PhD | 24/12/2013 | Thermal Engineering | Assistant Professor | 24/07/2013 | 20 | 20 | 0 | Yes | Regular | |
| Anish Pandey | BOKPP2972M | ME/M. Tech and PhD | 20/07/2016 | Design Engineering | Assistant Professor | 27/06/2017 | 20 | 20 | 0 | Yes | Regular | |
| Ashwani Kumar | CUWPK9684C | ME/M. Tech and PhD | 03/10/2019 | Mechatronics Engineering | Assistant Professor | 24/06/2019 | 0 | 0 | 20 | Yes | Regular | |
| Asit Behera | BZRPB5674G | M.E/M.Tech | 15/06/2018 | Production Engineering | Assistant Professor | 20/06/2019 | 30 | 30 | 20 | Yes | Regular | |
| Barun Sharma | FEUPS8452F | M.E/M.Tech | 12/06/2017 | Design Engineering | Assistant Professor | 14/07/2017 | 20 | 20 | 20 | Yes | Regular | |

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|------------------------|------------|--------------------|------------|------------------------|---------------------|------------|----|----|----|-----|---------|--|
| Basanta Kumar Rana | ARGPR5477B | ME/M. Tech and PhD | 05/03/2018 | Thermal Engineering | Assistant Professor | 19/06/2017 | 20 | 20 | 20 | Yes | Regular | |
| BijayaBijeta Nayak | AHLPN2585R | ME/M. Tech and PhD | 19/03/2016 | Production Engineering | Assistant Professor | 04/07/2016 | 20 | 20 | 20 | Yes | Regular | |
| Chinmaya Mishra | BFUPM6970B | ME/M. Tech and PhD | 13/11/2021 | Thermal Engineering | Assistant Professor | 18/06/2014 | 20 | 20 | 0 | Yes | Regular | |
| DebjyotiSahu | BXSPS2113N | ME/M. Tech and PhD | 08/06/2015 | Automobile Engineering | Assistant Professor | 09/07/2018 | 20 | 20 | 20 | Yes | Regular | |
| Deepak Singhal | DDXPS0444B | ME/M. Tech and PhD | 22/10/2019 | Industrial Engineering | Assistant Professor | 14/07/2010 | 20 | 20 | 20 | Yes | Regular | |
| GyanSagar Sinha | BYIPS9274F | ME/M. Tech and PhD | 21/11/2017 | Thermal Engineering | Assistant Professor | 27/06/2018 | 20 | 20 | 20 | Yes | Regular | |
| Hemalata Jena | ALKPJ1715E | ME/M. Tech and PhD | 05/10/2015 | Production Engineering | Assistant Professor | 24/11/2014 | 20 | 20 | 30 | Yes | Regular | |
| Jitendra Ku. Patel | DXLPP0353Q | ME/M. Tech and PhD | 20/06/2018 | Thermal Engineering | Assistant Professor | 03/07/2017 | 20 | 20 | 20 | Yes | Regular | |
| Kamal Kishore Joshi | AIUPJ2438F | ME/M. Tech and PhD | 23/05/2013 | Design Engineering | Assistant Professor | 19/07/2013 | 20 | 20 | 30 | Yes | Regular | |
| Madhumita Mohanty | BZDPM1485N | M.E/M. Tech | 08/11/2016 | Design Engineering | Assistant Professor | 20/06/2016 | 40 | 40 | 20 | Yes | Regular | |
| ManojUkamanal | ABLPU5573C | ME/M. Tech and PhD | 04/11/2019 | Thermal Engineering | Assistant Professor | 08/12/2015 | 20 | 20 | 0 | Yes | Regular | |
| Mantra Prasad Satpathy | CEPPS0669E | ME/M. Tech and PhD | 05/04/2017 | Production Engineering | Assistant Professor | 27/06/2017 | 0 | 0 | 20 | Yes | Regular | |
| Matruprasad Rout | APQPR7559N | ME/M. Tech and PhD | 12/10/2018 | Thermal Engineering | Assistant Professor | 20/07/2018 | 20 | 20 | 0 | Yes | Regular | |
| Md. Ehtesham Hasan | AERPH0779N | ME/M. Tech and PhD | 02/12/2016 | Design Engineering | Assistant Professor | 19/06/2017 | 20 | 20 | 20 | Yes | Regular | |
| NilotpalaBej | APLPB9497E | ME/M. Tech and PhD | 30/03/2016 | Thermal Engineering | Assistant Professor | 18/06/2018 | 20 | 20 | 20 | Yes | Regular | |
| Pintu Kumar | BVDPK7497J | ME/M. Tech and | 02/11/2020 | Production Engineering | Assistant Professor | 02/08/2019 | 20 | 20 | 20 | Yes | Regular | |

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|------------------------|------------|-------------------|------------|------------------------|---------------------|------------|----|----|----|-----|---------|--|
| | | PhD | | | | | | | | | | |
| Pooja Chaudhar | AYXPC8555F | M.E/M.Tech | 18/06/2018 | Aero Propulsion | Assistant Professor | 25/06/2018 | 0 | 0 | 0 | Yes | Regular | |
| Prakash Ghosh | ASMPG9284C | ME/M.Tech and PhD | 07/07/2006 | Thermal Engineering | Assistant Professor | 15/07/2008 | 20 | 20 | 20 | Yes | Regular | |
| Prakash Kumar Sahu | GKNPS5019E | ME/M.Tech and PhD | 23/06/2017 | Production Engineering | Assistant Professor | 03/07/2017 | 0 | 0 | 0 | Yes | Regular | |
| Priyabrata Mohapatra | AVEPM9705D | ME/M.Tech and PhD | 15/11/2013 | Industrial Engineering | Assistant Professor | 01/08/2013 | 20 | 20 | 20 | Yes | Regular | |
| PruthwirajSahu | CHPPS4565L | ME/M.Tech and PhD | 14/08/2021 | Design Engineering | Assistant Professor | 19/06/2014 | 20 | 20 | 20 | Yes | Regular | |
| PushkarJha | AKHPJ9914D | ME/M.Tech and PhD | 05/10/2017 | Design Engineering | Assistant Professor | 24/07/2017 | 30 | 30 | 50 | Yes | Regular | |
| Rahul | ANKPR7575A | ME/M.Tech and PhD | 19/09/2017 | Production Engineering | Assistant Professor | 19/06/2017 | 0 | 0 | 20 | Yes | Regular | |
| Rajiv LochanMohanty | BGSPM4619J | ME/M.Tech and PhD | 15/05/2013 | Thermal Engineering | Assistant Professor | 24/06/2019 | 20 | 20 | 30 | Yes | Regular | |
| Ram Kumar Kesharwani | BTZPK6083Q | ME/M.Tech and PhD | 07/08/2017 | Production Engineering | Assistant Professor | 30/06/2017 | 0 | 0 | 0 | Yes | Regular | |
| Ramanuj Kumar | BPHPK4297J | ME/M.Tech and PhD | 05/11/2018 | Production Engineering | Assistant Professor | 02/07/2012 | 0 | 0 | 20 | Yes | Regular | |
| Ranjan Kumar Behera | AUIPB9432H | ME/M.Tech and PhD | 28/02/2022 | Design Engineering | Assistant Professor | 07/07/2014 | 0 | 0 | 20 | Yes | Regular | |
| Rasmi Ranjan Behera | AXWPB8432C | ME/M.Tech and PhD | 10/06/2019 | Production Engineering | Assistant Professor | 26/06/2019 | 20 | 20 | 20 | Yes | Regular | |
| Rishitosh Ranjan | AXHPR4595H | ME/M.Tech and PhD | 01/05/2013 | Thermal Engineering | Assistant Professor | 01/07/2013 | 20 | 20 | 0 | Yes | Regular | |
| Rita KumariSahu | BQLPS2362D | ME/M.Tech and PhD | 11/01/2020 | Production Engineering | Assistant Professor | 13/08/2012 | 20 | 20 | 20 | Yes | Regular | |
| Sambit Kumar Mohapatra | AVRPM0797J | ME/M.Tech and PhD | 27/07/2017 | Production Engineering | Assistant Professor | 06/07/2017 | 20 | 20 | 20 | Yes | Regular | |

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| SamiranSamanta | DUKPS2524E | ME/M. Tech and PhD | 04/03/2018 | Thermal Engineering | Assistant Professor | 24/07/2017 | 20 | 20 | 0 | Yes | Regular | |
| Santosh Kumar Hotta | AEWPH0641E | ME/M. Tech and PhD | 01/07/2013 | Thermal Engineering | Assistant Professor | 06/08/2019 | 20 | 20 | 20 | Yes | Regular | |
| SasmitaSahu | CZQPS9557K | ME/M. Tech and PhD | 20/12/2016 | Design Engineering | Assistant Professor | 03/02/2017 | 0 | 0 | 0 | Yes | Regular | |
| Shanta Chakrabarty | AMKPC5617M | ME/M. Tech and PhD | 24/02/2016 | Material Science and Engineering | Assistant Professor | 31/07/2018 | 20 | 20 | 20 | Yes | Regular | |
| Shivaraman | ARDPT0353P | ME/M. Tech and PhD | 13/07/2017 | Production Engineering | Assistant Professor | 20/07/2017 | 20 | 20 | 20 | Yes | Regular | |
| Siba Prasad Behera | BUOPB5071M | M.E/M.Tech | 15/07/2015 | Thermal Engineering | Assistant Professor | 07/07/2017 | 20 | 20 | 40 | Yes | Regular | |
| Smaranika Nayak | AFNPN8025J | ME/M. Tech and PhD | 20/06/2022 | Design Engineering | Assistant Professor | 06/07/2015 | 20 | 20 | 20 | Yes | Regular | |
| Smita Rani Panda | CPJPP0372N | M.E/M.Tech | 24/12/2012 | Production Engineering | Assistant Professor | 01/07/2019 | 40 | 40 | 40 | Yes | Regular | |
| Smitirupa Pradhan | ASXPP3835H | ME/M. Tech and PhD | 05/12/2018 | Design Engineering | Assistant Professor | 02/01/2019 | 20 | 20 | 20 | Yes | Regular | |
| SpandanGuha | AYIPG7424Q | ME/M. Tech and PhD | 28/11/2018 | Production Engineering | Assistant Professor | 20/07/2018 | 20 | 20 | 20 | Yes | Regular | |
| SrikantPani grahi | AKZPP8785A | M.E/M.Tech | 20/10/2015 | Avionics | Assistant Professor | 29/01/2020 | 40 | 40 | 0 | Yes | Regular | |
| SudhansuS ekharPatro | BNDPP3433P | M.E/M.Tech | 30/08/2014 | Design Engineering | Assistant Professor | 30/06/2015 | 20 | 20 | 20 | Yes | Regular | |
| Surendra Ku. Ghadei | AMRPG5982C | ME/M. Tech and PhD | 03/07/2019 | Thermal Engineering | Assistant Professor | 18/07/2012 | 20 | 20 | 0 | Yes | Regular | |
| Swarup Kumar Nayak | APGPN8418Q | ME/M. Tech and PhD | 10/09/2019 | Thermal Engineering | Assistant Professor | 24/11/2014 | 20 | 20 | 20 | Yes | Regular | |
| SwayamBikash Mishra | BDTPM4417J | ME/M. Tech and PhD | 05/10/2016 | Production Engineering | Assistant Professor | 05/12/2016 | 20 | 20 | 20 | Yes | Regular | |
| Tarak Kumar Sahoo | BKRPS4392H | ME/M. Tech and PhD | 07/08/2010 | Thermal Engineering | Assistant Professor | 24/11/2014 | 20 | 20 | 20 | Yes | Regular | |

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|-------------------------|------------|--------------------|------------|----------------------------------|---------------------|------------|----|----|----|-----|---------|--|
| UsharaniRath | BIWPR9015B | ME/M. Tech and PhD | 15/10/2021 | Production Engineering | Assistant Professor | 01/07/2013 | 20 | 20 | 20 | Yes | Regular | |
| Vijay Kumar Mishra | ARXPM6335L | ME/M. Tech and PhD | 08/02/2017 | Thermal Engineering | Assistant Professor | 20/06/2016 | 20 | 20 | 20 | Yes | Regular | |
| Atal Bihari Harichandan | AGDPH1046E | ME/M. Tech and PhD | 23/08/2010 | Aerodynamics | Associate Professor | 18/06/2018 | 20 | 20 | 20 | Yes | Regular | |
| B. Surekha | AJGPB8519E | ME/M. Tech and PhD | 09/06/2015 | Production Engineering | Associate Professor | 03/01/2014 | 20 | 20 | 20 | Yes | Regular | |
| DiptiKanta Das | ANBPD0690H | ME/M. Tech and PhD | 04/11/2015 | Production Engineering | Associate Professor | 25/07/2011 | 20 | 20 | 20 | Yes | Regular | |
| IshamPanigrahi | AHYPP5646A | ME/M. Tech and PhD | 04/10/2014 | Design Engineering | Associate Professor | 04/04/2006 | 0 | 0 | 20 | Yes | Regular | |
| Mohd. Sadique Khan | AJAPK2614H | ME/M. Tech and PhD | 12/10/2018 | Industrial Engineering | Associate Professor | 02/12/2013 | 20 | 20 | 20 | Yes | Regular | |
| Nitin Sharma | DEWPS9529P | ME/M. Tech and PhD | 16/10/2018 | Design Engineering | Associate Professor | 02/07/2010 | 0 | 0 | 20 | Yes | Regular | |
| RadhaKanta Sarangi | ADUPS7565H | ME/M. Tech and PhD | 11/06/2016 | Thermal Engineering | Associate Professor | 02/08/2017 | 20 | 20 | 20 | Yes | Regular | |
| Ruby Mishra | ALDPM5215B | ME/M. Tech and PhD | 19/10/1977 | Design Engineering | Associate Professor | 20/10/2010 | 0 | 0 | 0 | Yes | Regular | |
| Santosh Ku. Nayak | AEAPN4869G | ME/M. Tech and PhD | 31/10/2016 | Thermal Engineering | Associate Professor | 10/04/2010 | 20 | 20 | 20 | Yes | Regular | |
| Satya Prakash Kar | AMOPK2795E | ME/M. Tech and PhD | 12/09/2015 | Thermal Engineering | Associate Professor | 26/06/2007 | 20 | 20 | 20 | Yes | Regular | |
| Suchismita Satapathy | CEJPS2747M | ME/M. Tech and PhD | 09/07/2014 | Industrial Engineering | Associate Professor | 04/02/2013 | 20 | 20 | 20 | Yes | Regular | |
| Sudesna Roy | ABYPR0821P | ME/M. Tech and PhD | 27/08/2009 | Material Science and Engineering | Associate Professor | 24/08/2015 | 20 | 20 | 20 | Yes | Regular | |
| SumantaChoudhuri | AFBPC6436J | ME/M. Tech and PhD | 27/08/2019 | Thermal Engineering | Associate Professor | 13/07/2012 | 20 | 20 | 20 | Yes | Regular | |

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|----------------------|------------|--------------------|------------|------------------------|---------------------|------------|----|----|----|-----|---------|--|
| Akshaya Ku. Rout | AHYPR1179C | ME/M. Tech and PhD | 11/07/2011 | Thermal Engineering | Professor | 05/08/2010 | 20 | 20 | 0 | Yes | Regular | |
| Ashok Ku. Sahoo | ALRPS2041P | ME/M. Tech and PhD | 03/11/2010 | Production Engineering | Professor | 15/11/1997 | 0 | 0 | 0 | Yes | Regular | |
| Basant Ku. Nanda | ABSPN1194M | ME/M. Tech and PhD | 07/07/2006 | Production Engineering | Professor | 31/03/2007 | 20 | 20 | 20 | Yes | Regular | |
| Bharat Ch. Routara | ABYPR0885M | ME/M. Tech and PhD | 24/12/2008 | Production Engineering | Professor | 18/03/2009 | 0 | 0 | 0 | Yes | Regular | |
| Kunja Bihari Sahu | AHZPS1481M | ME/M. Tech and PhD | 29/07/2009 | Thermal Engineering | Professor | 15/09/2010 | 0 | 0 | 0 | Yes | Regular | |
| Lalit Kumar Pothal | AEIPP0201J | ME/M. Tech and PhD | 09/11/2019 | Industrial Engineering | Professor | 31/01/2014 | 0 | 0 | 20 | Yes | Regular | |
| Mrutyunjay Jena | ADQPJ1555L | ME/M. Tech and PhD | 30/01/1997 | Aero Propulsion | Professor | 01/10/2015 | 20 | 20 | 20 | Yes | Regular | |
| P.ChandraSekhar | ALDPP8328C | ME/M. Tech and PhD | 13/10/2006 | Design Engineering | Professor | 18/10/2001 | 0 | 0 | 0 | Yes | Regular | |
| Purna Ch. Mishra | AXIPM9967H | ME/M. Tech and PhD | 24/12/2011 | Thermal Engineering | Professor | 01/07/2009 | 0 | 0 | 0 | Yes | Regular | |
| Saranjit Singh | AOMPS8904F | ME/M. Tech and PhD | 04/09/2007 | Production Engineering | Professor | 15/05/2009 | 0 | 0 | 0 | Yes | Regular | |
| Sushant Ku. Tripathy | ABDPT5002B | ME/M. Tech and PhD | 22/08/2011 | Industrial Engineering | Professor | 16/07/2012 | 0 | 0 | 20 | Yes | Regular | |
| TanmoyMahanty | AHAPM9806F | ME/M. Tech and PhD | 19/07/2012 | Production Engineering | Professor | 04/03/1999 | 0 | 0 | 0 | Yes | Regular | |
| AparupaPani | BFIPP3393B | ME/M. Tech and PhD | 09/07/2019 | Geotech Engineering | Assistant Professor | 02/08/2010 | 20 | 20 | 20 | Yes | Regular | |
| Asish Kumar Pani | AUAPP2236R | ME/M. Tech and PhD | 02/09/2021 | Structural Engineering | Associate Professor | 17/04/2007 | 20 | 20 | 20 | Yes | Regular | |
| BanditaPai karay | APVPP9756L | ME/M. Tech and PhD | 09/11/2019 | Geotech Engineering | Associate Professor | 31/07/2008 | 20 | 20 | 20 | Yes | Regular | |

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|----------------------|------------|--------------------|------------|-----------------------------|---------------------|------------|----|----|----|-----|---------|--|
| Amit Kumar Das | AUHPD9235D | ME/M. Tech and PhD | 07/03/2022 | Transportation Engineering | Assistant Professor | 03/12/2018 | 20 | 20 | 20 | Yes | Regular | |
| Bhagyashree Panda | BKEPP7201F | M.E/M.Tech | 18/01/2014 | Transportation Engineering | Assistant Professor | 06/07/2013 | 0 | 0 | 20 | Yes | Regular | |
| Brundaban Beriha | BELPB0104G | ME/M. Tech and PhD | 20/10/2020 | Transportation Engineering | Assistant Professor | 27/06/2019 | 30 | 30 | 20 | Yes | Regular | |
| Dipti Ranjan Biswal | ANWPB6652Q | ME/M. Tech and PhD | 18/05/2018 | Transportation Engineering | Associate Professor | 18/06/2018 | 20 | 20 | 20 | Yes | Regular | |
| DudamBharath Kumar | BCMPB1322F | ME/M. Tech and PhD | 07/08/2017 | Environmental Engineering | Assistant Professor | 01/07/2017 | 20 | 20 | 20 | Yes | Regular | |
| Gaurav Udgata | AEZPU3397R | M.E/M.Tech | 31/05/2016 | Structural Engineering | Assistant Professor | 23/06/2016 | 20 | 20 | 20 | Yes | Regular | |
| IpsitaMohanty | AVCPM0742J | M.E/M.Tech | 05/02/2016 | Structural Engineering | Assistant Professor | 23/06/2017 | 20 | 20 | 20 | Yes | Regular | |
| Ipsita Panda | CWSPP9150L | M.E/M.Tech | 16/01/2016 | Geotech Engineering | Assistant Professor | 04/07/2017 | 20 | 20 | 20 | Yes | Regular | |
| KalpanaSahoo | ESMPS2701A | M.E/M.Tech | 07/03/2022 | Transportation Engineering | Assistant Professor | 27/06/2017 | 20 | 20 | 20 | Yes | Regular | |
| KirtikantaSahoo | DELPS8005F | ME/M. Tech and PhD | 07/01/2017 | Structural Engineering | Assistant Professor | 18/06/2012 | 20 | 20 | 20 | Yes | Regular | |
| KshyanaPravaSamal | BNNPK6597B | ME/M. Tech and PhD | 14/11/2009 | Water Resources Engineering | Associate Professor | 17/06/2016 | 20 | 20 | 20 | Yes | Regular | |
| KundanSamal | DQDPS7888L | ME/M. Tech and PhD | 10/01/2020 | Environmental Engineering | Assistant Professor | 02/07/2018 | 20 | 20 | 20 | Yes | Regular | |
| Madhulisha Pattanaik | BHZPP4836J | ME/M. Tech and PhD | 04/06/2019 | Transportation Engineering | Assistant Professor | 19/07/2019 | 20 | 20 | 0 | Yes | Regular | |
| Malaya Mohanty | BRUPM4756R | ME/M. Tech and PhD | 20/03/2020 | Transportation Engineering | Assistant Professor | 02/07/2018 | 20 | 20 | 20 | Yes | Regular | |
| Mohibullah | AYAPM2515J | M.E/M.Tech | 30/06/2012 | Construction Management | Assistant Professor | 09/01/2017 | 30 | 30 | 20 | Yes | Regular | |
| Paromita Chakraborty | AJHPC1855F | ME/M. Tech and PhD | 30/10/2010 | Water Resources Engineering | Assistant Professor | 13/07/2012 | 20 | 20 | 20 | Yes | Regular | |

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|-------------------------|------------|--------------------|------------|------------------------------|---------------------|------------|----|----|----|-----|---------|--|
| Prateeksha Mahamallik | BJWPM4843D | ME/M. Tech and PhD | 27/07/2013 | Environmental Engineering | Assistant Professor | 31/07/2017 | 20 | 20 | 20 | Yes | Regular | |
| Preetyandana Nanda | AMRPN0876E | M.E/M.Tech | 09/06/2014 | Geotech Engineering | Assistant Professor | 23/07/2014 | 20 | 20 | 20 | Yes | Regular | |
| Rachita Panda | BSUPP6733J | M.E/M.Tech | 08/11/2016 | Transportation Engineering | Assistant Professor | 19/06/2017 | 20 | 20 | 20 | Yes | Regular | |
| Rana Chattaraj | AIPPC4084P | ME/M. Tech and PhD | 27/02/2017 | Geotech Engineering | Assistant Professor | 03/01/2017 | 20 | 20 | 20 | Yes | Regular | |
| Sananda Sarkar | BZWPS8843P | M.E/M.Tech | 02/02/2015 | Environmental Engineering | Assistant Professor | 16/06/2016 | 20 | 20 | 20 | Yes | Regular | |
| Satya Ranjan Samal | EEHPS2603E | M.E/M.Tech | 15/07/2014 | Transportation Engineering | Assistant Professor | 23/07/2014 | 20 | 20 | 20 | Yes | Regular | |
| Satyajeet Nanda | ADYPN6744M | ME/M. Tech and PhD | 11/03/2013 | Geotech Engineering | Associate Professor | 20/02/2017 | 20 | 20 | 0 | Yes | Regular | |
| Sunny Jaiswal | EANPS0722L | M.E/M.Tech | 22/07/2017 | Structural Engineering | Assistant Professor | 19/06/2017 | 20 | 20 | 20 | Yes | Regular | |
| SushreeSangita Panda | ANOPP6897K | M.E/M.Tech | 24/07/2015 | Structural Engineering | Assistant Professor | 19/06/2017 | 0 | 0 | 20 | Yes | Regular | |
| Chinmoy Kumar Panigrahi | AIJPP7246G | ME/M. Tech and PhD | 11/07/2003 | Power System | Professor | 30/04/2009 | 30 | 30 | 30 | Yes | Regular | |
| Sarat Chandra Swain | AYAPS5862N | ME/M. Tech and PhD | 24/10/2010 | Power System | Professor | 11/01/1996 | 30 | 30 | 30 | Yes | Regular | |
| Babita Panda | APWPP5711J | ME/M. Tech and PhD | 14/03/2017 | Power Electronics and Drives | Associate Professor | 16/08/2012 | 30 | 30 | 30 | Yes | Regular | |
| Chitrallekha Jena | ADXPJ5640B | ME/M. Tech and PhD | 01/07/2017 | Power and Energy System | Associate Professor | 01/12/2012 | 30 | 30 | 30 | Yes | Regular | |
| Lipika Nanda | AHEPN2469D | ME/M. Tech and PhD | 09/11/2019 | Power Electronics and Drives | Associate Professor | 19/06/2007 | 30 | 30 | 30 | Yes | Regular | |
| Pampa Sinha | BZHPS5476F | ME/M. Tech and PhD | 10/04/2017 | Power System | Associate Professor | 20/06/2016 | 30 | 30 | 30 | Yes | Regular | |
| Pradeep Kumar Sahu | AZIPS4641N | ME/M. Tech and PhD | 16/11/2016 | Power Electronics | Associate Professor | 23/06/2017 | 30 | 30 | 30 | Yes | Regular | |

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|----------------------|------------|--------------------|------------|--|---------------------|------------|----|----|----|-----|---------|--|
| Rudra Narayan Dash | AMGPD9035Q | ME/M. Tech and PhD | 05/11/2018 | Electrical Machines | Associate Professor | 21/07/2011 | 30 | 30 | 30 | Yes | Regular | |
| Satyaranjan Jena | AHYPJ6801B | ME/M. Tech and PhD | 09/11/2016 | Power control and Drives | Associate Professor | 18/06/2012 | 30 | 30 | 30 | Yes | Regular | |
| Sriparna Roy Ghatak | AQMPG3193J | ME/M. Tech and PhD | 02/11/2018 | Power System Engineering | Associate Professor | 09/04/2007 | 30 | 30 | 30 | Yes | Regular | |
| SubhraDebdas | AHLPD7002M | ME/M. Tech and PhD | 13/08/2018 | Power System Engineering | Associate Professor | 06/10/2019 | 30 | 30 | 30 | Yes | Regular | |
| AlivaraniM ohapatra | AUPPM3105M | ME/M. Tech and PhD | 12/06/2018 | Energy system | Associate Professor | 20/07/2009 | 30 | 30 | 30 | Yes | Regular | |
| Anil Kumar Behera | BSJPB7951D | M.E/M.Tech | 22/04/2017 | Power Electronics and Drives | Assistant Professor | 31/07/2017 | 30 | 30 | 30 | Yes | Regular | |
| Ankit Kumar Soni | CQAPS8654L | M.E/M.Tech | 06/07/2017 | Power and Energy System | Assistant Professor | 21/06/2017 | 30 | 30 | 30 | Yes | Regular | |
| Deepak Kumar Gupta | BJAPG1813K | ME/M. Tech and PhD | 24/02/2018 | Power System Engineering | Assistant Professor | 07/11/2017 | 30 | 30 | 30 | Yes | Regular | |
| K.V.V.S.R Chowdary | BITPK4849P | ME/M. Tech and PhD | 06/05/2014 | Power Electronics and Drives | Assistant Professor | 21/07/2011 | 30 | 30 | 30 | Yes | Regular | |
| Padarbinda Samal | BOZPS5346M | ME/M. Tech and PhD | 20/01/2018 | Power System Engineering | Assistant Professor | 23/06/2017 | 30 | 30 | 30 | Yes | Regular | |
| Ranjeeta Patel | BHHPP0139E | ME/M. Tech and PhD | 31/05/2017 | Power Electronics and Drives | Assistant Professor | 12/03/2018 | 30 | 30 | 30 | Yes | Regular | |
| SatyabrataSahoo | BYEPS1070D | ME/M. Tech and PhD | 26/06/2012 | Control and protection of Electrical Apparatus | Assistant Professor | 26/06/2012 | 30 | 30 | 30 | Yes | Regular | |
| Swagat Das | BDJPD3185N | MS | 16/05/2016 | Power Electronics Device Reliability | Assistant Professor | 21/08/2017 | 30 | 30 | 30 | Yes | Regular | |
| TapaswiniBiswal | BFWPB7491C | M.E/M.Tech | 20/05/2016 | Power System Engineering | Assistant Professor | 03/09/2016 | 30 | 30 | 30 | Yes | Regular | |
| Subodh Kumar Mohanty | AWLPM3405E | M.E/M.Tech | 22/05/2013 | Power System Engineering | Assistant Professor | 24/11/2014 | 30 | 30 | 30 | Yes | Regular | |

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|----------------------|------------|--------------------|------------|---|---------------------|------------|-----|-----|-----|-----|---------|--|
| ShubhashreeKundu | AWAPK4226G | ME/M. Tech and PhD | 16/03/2016 | Automation and Robotics | Assistant Professor | 04/01/2016 | 30 | 30 | 30 | Yes | Regular | |
| Samita Rani Pani | BQFPP1220H | M.E/M.Tech | 04/06/2014 | Power System Engineering | Assistant Professor | 17/06/2014 | 30 | 30 | 30 | Yes | Regular | |
| KRUSHNA GOPAL MISHRA | AJWPM3483A | M.Sc. and PhD | 12/09/1988 | Electrochemistry | Professor | 22/07/2003 | 40 | 40 | 40 | Yes | Regular | |
| Alok Ranjan Patnaik | DVGPP6761M | M.Sc. and PhD | 11/01/1987 | Astronomy | Professor | 02/12/2019 | 40 | 40 | 40 | Yes | Regular | |
| Samaresh Jana | AOFPJ8123G | M.Sc. and PhD | 24/12/2007 | Organic chemistry | Associate Professor | 19/02/2013 | 100 | 100 | 100 | Yes | Regular | |
| Chandana Mohanty | AEMPM3551J | M.Sc. and PhD | 09/11/2001 | Nanotechnology Drug delivery and Tissue engineering | Assistant Professor | 09/07/2018 | 100 | 100 | 100 | Yes | Regular | |
| Pratap Kumar Deheri | DOWPD6481R | M.Sc. and PhD | 09/11/2012 | Material Science | Assistant Professor | 23/07/2018 | 85 | 85 | 85 | Yes | Regular | |
| Sushant Kumar Sahoo | BJLPS9986A | M.Sc. and PhD | 03/09/2014 | Condensed matter theory | Associate Professor | 17/07/2008 | 67 | 67 | 67 | Yes | Regular | |
| PrasantaRath | AMRPD5329G | M.Sc. and PhD | 11/05/2004 | Environmental geochemistry | Professor | 01/12/1999 | 40 | 40 | 40 | Yes | Regular | |
| BiswabanditaKar | AHGPK1039C | M.Sc. and PhD | 04/04/2001 | Chemical metallurgy and environmental chemistry | Professor | 03/01/2005 | 40 | 40 | 40 | Yes | Regular | |
| PriyadarshiniParida | AVZPP1627Q | M.Sc. and PhD | 26/01/2016 | Computational Condensed matter Physics | Assistant Professor | 01/01/2019 | 80 | 80 | 80 | Yes | Regular | |
| A K Paul | ALDPP5523H | M.Sc. and PhD | 20/11/2012 | Numerical Analysis | Assistant Professor | 15/07/2014 | 70 | 70 | 70 | Yes | Regular | |
| Debasis Sharma | IRBPS4942F | M.Sc. and PhD | 09/11/2021 | Numerical Analysis | Assistant Professor | 26/07/2021 | 46 | 46 | 0 | Yes | Regular | |
| Tapan Kumar Bastia | AHFPB4366A | M.Sc. and PhD | 08/05/1993 | composite materials | Associate Professor | 03/08/2009 | 60 | 60 | 60 | Yes | Regular | |
| PuspalataPattojoshi | AGQPP7764A | M.Sc. and PhD | 07/01/1987 | Physics | Professor | 20/06/2014 | 30 | 30 | 30 | Yes | Regular | |

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|------------------------|------------|--------------------|------------|--|---------------------|------------|-----|-----|-----|-----|---------|--|
| SubhadarshanSahoo | DPNPS8597K | M.Sc. and PhD | 19/01/2019 | Differential equation | Assistant Professor | 17/10/2017 | 70 | 70 | 70 | Yes | Regular | |
| Jagnyaseni Tripathy | AQTPT8686J | M.Sc. and PhD | 06/05/2011 | Biophysics | Assistant Professor | 10/01/2012 | 87 | 87 | 87 | Yes | Regular | |
| BidhubhusanSahu | EJPPS3096J | M.Sc. and PhD | 30/03/2011 | Nuclear Physics | Associate Professor | 04/08/2012 | 75 | 75 | 75 | Yes | Regular | |
| Akshaya Kumar Panda | AMMPP2929H | M.Sc. and PhD | 17/03/2017 | Number Theory | Assistant Professor | 05/01/2017 | 78 | 78 | 78 | Yes | Regular | |
| Manoranjan Sahoo | CCXPS0915H | M.Sc. and PhD | 28/05/2011 | Fractal and OR | Assistant Professor | 14/03/2011 | 50 | 50 | 50 | Yes | Regular | |
| KajalParashar | AXKPP1089R | M.Sc. and PhD | 05/09/2004 | Nano materials | Associate Professor | 10/08/2009 | 60 | 60 | 60 | Yes | Regular | |
| Laxmipriya Nayak | ASGPN0300G | M.A and Ph.D | 25/05/2015 | Fourier Analysis | Assistant Professor | 03/09/2012 | 80 | 80 | 80 | Yes | Regular | |
| MitaliRoutaray | BPBPR3224Q | M.Sc. and PhD | 20/01/2018 | Topology | Assistant Professor | 07/01/2017 | 62 | 62 | 77 | Yes | Regular | |
| Sarbari Acharya | ANIPA9387K | M.Sc. and PhD | 17/07/2017 | Nanotechnology and cancer drug delivery | Assistant Professor | 07/09/2018 | 100 | 100 | 100 | Yes | Regular | |
| Sohini Sarkar | CSFPS8703P | M.Sc. and PhD | 29/11/2013 | Inorganic Chemistry | Assistant Professor | 20/07/2016 | 84 | 84 | 88 | Yes | Regular | |
| Sushma Singh | EDRPS9100P | M.Sc. and PhD | 27/11/2019 | Ring Theory | Assistant Professor | 17/06/2019 | 88 | 88 | 88 | Yes | Regular | |
| DibakarBehera | ARFPB2801G | ME/M. Tech and PhD | 04/07/2009 | Materials Science | Associate Professor | 25/07/2008 | 100 | 100 | 100 | Yes | Regular | |
| Ch. Vinod | AVEPC8967B | M.Sc. and PhD | 01/10/2016 | Chronobiology and Neurochemistry | Assistant Professor | 17/07/2018 | 100 | 100 | 100 | Yes | Regular | |
| Debdulal Panda | AIFPP5844E | M.Sc. and PhD | 10/07/2010 | Operations research | Associate Professor | 10/01/2012 | 25 | 25 | 50 | Yes | Regular | |
| R N MUKHARJEE | AFUPM6770J | M.Sc. and PhD | 02/02/1996 | Experimental Nuclear Physics | Associate Professor | 02/12/2013 | 90 | 100 | 100 | Yes | Regular | |
| Prasanta Kumar Mohanty | AHAPM2752L | ME/M. Tech and PhD | 21/11/2014 | Numerical Analysis | Assistant Professor | 20/02/2011 | 25 | 25 | 50 | Yes | Regular | |
| Pramod Kumar Das | ACEPD2546G | M.A and Ph.D | 11/10/1989 | Combinatorics and Graph Theory and Fuzzy Logic | Professor | 27/07/2016 | 50 | 50 | 50 | Yes | Regular | |

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|-------------------------|------------|--------------------|------------|---|---------------------|------------|-----|-----|-----|-----|---------|------------|
| ManasMukul | AJPPM8535N | ME/M. Tech and PhD | 01/11/2016 | Software Engineering | Professor | 07/08/2010 | 20 | 20 | 20 | Yes | Regular | |
| Sudhansu Dubey | CLTPD7631L | M.E/M.Tech | 28/06/2017 | Machine Design | Associate Professor | 07/10/2021 | 20 | 20 | 20 | Yes | Regular | |
| Rabindra Kumar Barik | BMPPB7357F | MCA and PhD | 07/09/2014 | Database Engineering | Assistant Professor | 18/06/2012 | 20 | 20 | 20 | Yes | Regular | |
| Jagori Dutta | APFPD3424F | ME/M. Tech and PhD | 22/06/2016 | Geotech Engineering | Assistant Professor | 27/06/2016 | 0 | 0 | 20 | No | Regular | 10.08.2021 |
| Shiv Shankar Kumar | HLXPK7687A | ME/M. Tech and PhD | 25/06/2018 | Geotech Engineering | Assistant Professor | 30/07/2018 | 0 | 0 | 0 | No | Regular | 15.02.2020 |
| Subrat Kumar Barik | AKHPB8732B | ME/M. Tech and PhD | 15/06/2016 | Power and Energy System | Associate Professor | 01/02/2011 | 30 | 30 | 30 | No | Regular | |
| Sanjaya Kumar Panda | AXEPP1772D | M.A and Ph.D | 01/09/2017 | Yoga and Spiritualism | Assistant Professor | 01/09/2017 | 100 | 100 | 100 | Yes | Regular | |
| Kriti Raj | BEMPR7752B | MA | 24/05/2019 | Yoga and Spiritualism | Assistant Professor | 21/01/2020 | 90 | 100 | 100 | Yes | Regular | |
| RituparnaKar | DZCPK3929J | MA | 12/08/2017 | Yoga | Assistant Professor | 20/11/2017 | 90 | 100 | 100 | Yes | Regular | |
| Sashikanta Khuntia | BJLPK3305H | MA | 23/02/2015 | Yoga and Spiritualism | Assistant Professor | 27/11/2017 | 90 | 100 | 100 | Yes | Regular | |
| SwapnamoyeePalit | AUEPP8658H | M.A and Ph.D | 01/12/2016 | Econometrics and mathematical economics | Assistant Professor | 10/10/2017 | 90 | 90 | 90 | Yes | Regular | |
| Chetna Sinha | BVAPS4153G | MBA &Ph.D | 15/12/2014 | ELT and Linguistics | Assistant Professor | 07/03/2022 | 90 | 90 | 0 | Yes | Regular | |
| Sahel MdDelabul Hossain | ADTPH2061G | M.A and Ph.D | 09/10/2018 | Postcolonial Studies and Film Studies and Race Relation and Gender Studies and Migration and Diaspora and ELT | Assistant Professor | 02/01/2022 | 90 | 90 | 0 | Yes | Regular | |
| SourabhRajwade | BSFPR8215Q | M.E/M.Tech | 15/11/2017 | CAD or CAM | Assistant Professor | 07/04/2021 | 60 | 60 | 60 | Yes | Regular | |

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|-------------------------|------------|--------------------|------------|--|---------------------|------------|----|-----|-----|-----|---------|--|
| KalyaniMohanata | AHAPM9601Q | ME/M. Tech and PhD | 15/09/2007 | Material Science and Engineering | Professor | 18/06/2021 | 30 | 30 | 20 | Yes | Regular | |
| Amulya Kumar Mahto | DFRPM1000K | ME/M. Tech and PhD | 04/01/2021 | Statistical Inferences | Assistant Professor | 26/07/2021 | 60 | 60 | 0 | Yes | Regular | |
| Ajay Kumar Mishra | BBPPM0837E | M.Sc. and PhD | 24/02/2007 | Nanotechnology | Professor | 21/06/2021 | 88 | 88 | 88 | Yes | Regular | |
| Chandan Kumar Mohapatra | AVZPM7242A | MA | 01/05/2020 | Yoga and Spiritualism | Assistant Professor | 12/10/2020 | 90 | 100 | 100 | Yes | Regular | |
| AparajitaSahoo | BYVPS7356H | MA | 01/05/2020 | Yoga and Spiritualism | Assistant Professor | 12/10/2020 | 90 | 100 | 100 | Yes | Regular | |
| Pradyumna Kumar Behera | BZRPB1667H | MA | 01/05/2020 | Yoga | Assistant Professor | 12/10/2020 | 90 | 100 | 100 | Yes | Regular | |
| ARATRIK AGANGULY | BFEPG7204N | M.Phil | 24/12/2018 | Comparative Literature | Assistant Professor | 01/02/2022 | 90 | 90 | 0 | Yes | Regular | |
| SHRADDHA DHAL | AXLPD9830H | M.A and Ph.D | 30/01/2020 | Postcolonial Literature and Diaspora Studies | Assistant Professor | 23/07/2018 | 60 | 60 | 90 | Yes | Regular | |
| Manoranjan Sahoo | EQGPS0576B | M.A and Ph.D | 16/04/2018 | International Trade and Applied Econometrics | Assistant Professor | 08/01/2018 | 60 | 60 | 90 | Yes | Regular | |
| Dhyanaditya Panda | ARLPP4507H | MBA &Ph.D | 10/03/2022 | Human Resource Management | Assistant Professor | 01/02/2011 | 90 | 90 | 90 | Yes | Regular | |
| Arijit Patra | FZVPP7498Q | M.Sc. and PhD | 03/12/2020 | Reliability Theory | Assistant Professor | 03/08/2022 | 60 | 0 | 0 | Yes | Regular | |

Data for first year courses to calculate the FYSFR:

| Year | Number of students (approved intake strength) | Number of faculty members (considering fractional load) | FYSFR | *Assessment = $(5 \times 20) / \text{FYSFR}$ (Limited to Max. 5) |
|-------------------|---|---|-------|--|
| 2022-2023 (CAY) | 1500 | 108 | 13.9 | 5 |
| 2021-2022) CAYm1 | 1620 | 108 | 15 | 5 |
| (2020-2021) CAYm2 | 1620 | 102 | 15.9 | 5 |
| Average | 1580 | 106 | 14.9 | 5 |

TableB.8.1.

*Note:If FYSFR is greater than 25, then assessment equal to zero.

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Assessment of qualification = $(5x + 3y) / RF$, x = Number of Regular Faculty with Ph.D., y = Number of Regular Faculty with Post-graduate qualification RF = Number of faculty members required as per SFR of 20:1, Faculty definition as defined in 5.1

| Year | x (No of Regular Faculty with PhD) | y (No of Regular Faculty with Post Graduate Qualification) | RF (No of Faculty Members required as per SFR 20:1) | Assessment of Faculty Qualification $[(5x+3y)/RF]$ |
|-------|-------------------------------------|--|---|--|
| CAY | 195 | 48 | 81 | 14 |
| CAYm1 | 194 | 48 | 81 | 13 |
| CAYm2 | 185 | 43 | 81 | 13 |

TableB.8.2

8.3 First Year Academic Performance(10)

Academic Performance = ((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year.

| Academic Performance | CAYm1 (2021-22) | CAYm2 (2020-21) | CAYm3 (2019-20) |
|---|-----------------|-----------------|-----------------|
| Mean of CGPA or mean percentage of all successful students(X) | 8.67 | 8.74 | 8.62 |
| Total Number of successful students(Y) | 180 | 180 | 180 |

| | | | |
|---|------|------|------|
| Total Number of students appeared in the examination(Z) | 180 | 180 | 180 |
| API [X*(Y/Z)] | 8.67 | 8.74 | 8.62 |

Average API= $[(AP1+AP2+AP3)/3]=8.68$

Assessment= Average API: 8.68

8.4 Attainment of Course Outcomes of first year courses(10)

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done(5)

(Examples of data collection processes may include, but are not limited to, specific exam questions, laboratory tests, internally developed assessment exams, oral exams assignments, presentations, tutorial sheets etc.)

The performance of student in each semester is assessed for a maximum of 100 marks for theory, practical and sessional/project components. These different categories of courses have different assessment schemes as discussed in the table below

Course category:

Theory courses (assessed out of 100 marks)

Assessment Methods:

- **Continuous assessment of 30 marks:**

- Assessment is done through student's performance in different assignments/tests/tasks/learning activities given by the course faculty-member. The tasks are designed to address all the course outcomes almost uniformly. These tasks are given at different times in the semester.

- **Mid semester examination/assessment of 20 marks (questions corresponding to attainment of different COs):**

- Assessment is done through student's performance in the mid-semester examination which is conducted once in a semester which is currently of one hour duration. As the name implies, this examination is conducted in the middle of the semester.
- Frequency: once in a semester.
- Questions are set to assess the attainments of certain course outcomes defined for the course, through the students' marks or scores.

- **End semester examination/assessment of 50 marks (questions correspond to attainment of different COs):**

- Assessment is done through student's performance in the end-semester examination which is conducted at the end of every semester. This examination is currently of two hours duration.
- Frequency: once in a semester.
- Questions are set to assess the attainments of course outcomes defined for the course through the students' marks or scores.

Practical courses (assessed out of 100 marks)

- **Continuous assessment of 60 marks**

- Assessment is done through student performance in day to day laboratory activities where the student's involvement, conduct of the experiment, recording of observations and analysis/ design outputs,

documentation of results and observations, clarity of concept is taken into account by the designated laboratory faculty member.

- All the laboratory tasks are designed to assess the attainments of different course outcomes defined for the course through students' marks or scores.

- **End semester examination/ assessment of 40 marks**

- Assessment is done through conduct of a given experiments tasks, viva, etc. This is normally conducted at the end of the semester and is normally of three hour duration.
- Frequency: once in a semester.
- The tasks, questionnaires are mapped to course outcomes and the students' marks or score is used to compute the attainment.

Sessional courses (assessed out of 100 marks)

- **Continuous assessment of 100 marks:**

- Assessment is done through student's performance in different assignments/tests/tasks/learning activities given by the course faculty-member. The tasks are designed to address all the course outcomes almost uniformly.
- Frequency: Assessed throughout the semester.
- Different tasks are mapped to different outcomes and the students' marks or score in that category is used to compute the attainment

Every course has a defined set of course outcome statements which describes the abilities a student will develop after successfully completing the course. The assessment methods are used to evaluate the attainment of the course outcomes on a scale of 0-3 lead to the direct attainment of program outcomes. The attainments of course outcomes are measured from marks obtained by the students in different examinations, course related assessments (different assessment and examination questions are framed to test the attainment of different course outcomes for a course).

Class average is the average percentage of marks secured by all the students in a assessment component in a specific CO

Targets are quantized into three different levels (Level 1, Level 2 and Level 3) based on Class average in each CO as per the rubrics given below.

| Threshold Levels for CO Attainment | | | | |
|------------------------------------|----------|-------------|-------------------------------------|-------------|
| Level | 0 | 0 | \leq Class Average in each CO $<$ | Threshold 1 |
| Level | 1 | Threshold 1 | \leq Class Average in each CO $<$ | Threshold 2 |
| Level | 2 | Threshold 2 | \leq Class Average in each CO $<$ | Threshold 3 |
| Level | 3 | Threshold 3 | \leq Class Average in each CO $<$ | 100 |

Thresholds 1, 2, and 3 are normally set at 25%, 50% and 75% respectively. However, if the course coordinator and course committee involved in ascertaining the attainment levels can raise the thresholds if required.

Data Acquisition Process:

- All the questions of mid semester and end semesters are mapped with course outcomes during the preparation of question paper.
- All the activities/assignments/quiz/ experiments are mapped with course outcomes by the course coordinator.
- Exam papers are assessed and marks of obtained by all the students are saved in ediquity software which is shared with the course coordinator for further CO attainment analysis.
- During Covid 19, marks obtained by all the students are saved in Moodle which is shared with the course coordinator for further CO attainment analysis.
- Final computation of course outcome is done through spreadsheets and also through SAP.

CO attainment information will be compiled by the course coordinators and information passed on to the School Quality Assurance Cell and Program Assessment Committee for subsequent decisions and actions. The calculation for attainments is performed after declaration of end semester examination results. All documentations related to attainments are maintained by the course coordinators.

Course outcome attainment for each type of courses are discussed below.

Attainment of course outcomes for theory courses:

The course outcomes attainment is assessed based on students’ performance in cumulative internal examination (which included continuous assessment and mid-sem) and semester end examination. A summary of different assessment components and respective weightage is given in the table below.

| Course Category | Assessment Tools | Marks | Category | Weightage |
|-----------------|--------------------------|-------|---------------------------------------|-----------|
| Theory Course | Continuous Evaluation | 30 | Cumulative Internal Examination (CIE) | 50 |
| | Mid-Semester Examination | 20 | | |
| | End Semester Examination | 50 | Semester End Examination (SEE) | 50 |

The students’ marks in different questions are mapped to different Course Outcomes (COs) and are used to compute the class average corresponding to every CO in the course as described below:

Cumulative Internal Examination: Class average corresponding to each CO is assessed as below.

| | | | |
|---------------|-----------------------|--------------------------|---------------------------------|
| Course Outcom | Continuous Evaluation | Mid Semester Examination | Cumulative Internal Examination |
|---------------|-----------------------|--------------------------|---------------------------------|

| es | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Class Average |
|-----------------|--|--|--|--|--|--|--------------------------------|
| CO _x | X' | X | Y' | Y | X'+Y' | X+Y | $\frac{X'+Y'}{X+Y} \times 100$ |

Semester End Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Semester Internal Examination | | |
|-----------------|--|--|-------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Class Average |
| CO _x | Z' | Z | $Z'/Z \times 100$ |

Targets are quantized into three different levels (Level 1, Level 2 and Level 3) based on Class Average in each CO as per the rubrics given below. The course outcome attainment is assessed based the set target levels as given below.

The course outcome attainment is assessed based on the set threshold levels as given below.

| Threshold Levels for CO Attainment | | | | |
|------------------------------------|----------|----|-----------------------------------|-----|
| Level | 0 | 0 | \leq Class Average in each CO < | 25 |
| Level | 1 | 25 | \leq Class Average in each CO < | 50 |
| Level | 2 | 50 | \leq Class Average in each CO < | 75 |
| Level | 3 | 75 | \leq Class Average in each CO < | 100 |

The CO attainment is assessed separately for CIE and SEE. The final CO attainment is measured based the weighted average of CIE (C) and SEE (S). For the theory course, the weightage of CIE and SEE is 50 % and 50%.

Final Attainment level=

Weightage in CIE (=0.5) * CO Attainment in Cumulative Internal Exam (CIE) +

Weightage in CIE (=0.5) * CO Attainment in Semester End Exam (SEE)

Attainment of course outcomes for Practical courses:

The course outcome attainment is assessed based on the students' performance in cumulative internal examination (which included continuous assessment through experimental

activities/tasks) and semester end examination. A summary of different assessment components and respective weightage is given in the table below.

| Course Category | Assessment Tools | Marks | Category | Weightage |
|------------------|--|-------|---------------------------------------|-----------|
| Practical Course | Continuous Evaluation (Experimental activities/ tasks) | 60 | Cumulative Internal Examination (CIE) | 60 |
| | End Semester Examination | 40 | Semester End Examination (SEE) | 40 |

The experimental activities and tasks are mapped to different Course Outcomes (COs) and are used to compute the class average corresponding to every CO in the course as described below:

Cumulative Internal Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Cumulative Internal Examination | | |
|-----------------|--|--|-------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Class Average |
| CO _x | X' | X | $X'/X \times 100$ |

Semester End Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Semester End Examination | | |
|-----------------|--|--|-------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Class Average |
| CO _x | Z' | Z | $Z'/Z \times 100$ |

The course outcome attainment is assessed based on the set threshold levels as given below.

| Threshold Levels for CO Attainment | | | | |
|------------------------------------|----------|----|-----------------------------------|-----|
| Level | 0 | 0 | \leq Class Average in each CO < | 25 |
| Level | 1 | 25 | \leq Class Average in each CO < | 50 |
| Level | 2 | 50 | \leq Class Average in each CO < | 75 |
| Level | 3 | 75 | \leq Class Average in each CO < | 100 |

The CO attainment is assessed separately for CIE and SEE. The final CO attainment is measured based the weighted average of CIE (C) and SEE (S). For the practical theory course, the weightage of CIE and SEE is 60 % and 40%.

Final Attainment level= Weightage in CIE (=0.6) * CO Attainment in CIE + Weightage in SEE (=0.4) * CO Attainment in SEE

Attainment of course outcomes for Sessional courses:

The course outcome attainment is assessed based on the students' performance in cumulative internal examination (which included continuous assessment through different activities like design, development, analysis or any other tasks) and semester end examination. A summary of different assessment components and respective weightage is given in the table below.

| Course Category | Assessment Tools | Marks | Category | Weightage |
|------------------|--|-------|---------------------------------------|-----------|
| Sessional Course | Continuous Evaluation (Experimental activities/ tasks) | 100 | Cumulative Internal Examination (CIE) | 100 |

The experimental activities and tasks are mapped to different Course Outcomes (COs) and are used to compute the class average corresponding to every CO in the course as described below:

Cumulative Internal Examination: Class average corresponding to each CO is assessed as below.

| Course Outcomes | Cumulative Internal Examination | | |
|-----------------|--|--|-------------------|
| | Total marks obtained by all the student corresponding to each CO | Total marks allotted to each CO (considering all the students) | Class Average |
| CO _x | X' | X | $X'/X \times 100$ |

The course outcome attainment is assessed based on the set threshold levels as given below.

| Threshold Levels for CO Attainment | | | | |
|------------------------------------|----------|----|-------------------------------------|-----|
| Level | 0 | 0 | \leq Class Average in each CO $<$ | 25 |
| Level | 1 | 25 | \leq Class Average in each CO $<$ | 50 |
| Level | 2 | 50 | \leq Class Average in each CO $<$ | 75 |
| Level | 3 | 75 | \leq Class Average in each CO $<$ | 100 |

Final Attainment level= CO Attainment in CIE

8.4.2 Record the attainment of Course Outcomes of all first year courses(5)

Program shall have set attainment levels for all first year courses.

(The attainment levels shall be set considering average performance levels in the institution level examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the COs of a subject plus the performance in the institution level examination)

Refer to 3.1.1 for further details

Course Outcome attainment of all the first year courses is given below.

Academic Year 2021-2022

| Sl. No. | NBA Course Code | Course Title | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | Target CO | Remark |
|---------|-----------------|----------------------------------|-----|-----|-----|-----|-----|-----|-----------|------------|
| 1 | C101 | Mathematics-I | 2 | 2.5 | 2.5 | 2 | 2 | 2 | 2 | Target met |
| 2 | C102 | Chemistry | 2.5 | 2.5 | 2.5 | 2 | 2.5 | 2 | 2 | Target met |
| 3 | C103 | Professional Communication | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Target met |
| 4 | C104 | Biology | 2.5 | 2.5 | 2.5 | 2.5 | 2 | 2 | 2.5 | Target met |
| 5 | C105 | Chemistry Lab | 3 | 3 | 3 | 3 | 2.6 | 3 | 2.5 | Target met |
| 6 | C106 | Computer Programming | 2.5 | 2.5 | 2.5 | 2 | 2 | 2 | 2 | Target met |
| 7 | C107 | Language Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Target met |
| 8 | C108 | Engineering Graphics | 3 | 3 | 3 | 3 | 2.8 | 2.8 | 2.5 | Target met |
| 9 | C109 | Mathematics-II | 2.5 | 2 | 2 | 2 | 2 | 2 | 2 | Target met |
| 10 | C110 | Physics | 2.5 | 3 | 2 | 2 | 2.5 | 2 | 2 | Target met |
| 11 | C111 | Basic Electrical Engineering | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2 | 2 | Target met |
| 12 | C112 | Engineering Mechanics | 2.5 | 3 | 2.5 | 2 | 2 | 2.5 | 2 | Target met |
| 13 | C113 | Physics Lab | 3 | 3 | 2.6 | 3 | 3 | 3 | 2 | Target met |
| 14 | C114 | Basic Electrical Engineering Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2 | Target met |
| 15 | C115 | Basic Manufacturing Systems | 3 | 3 | 3 | 3 | 2.8 | 2.8 | 2 | Target met |
| 16 | C116 | Environmental Science | 2.5 | 2.5 | 2.5 | 2 | 2 | 3 | 2 | Target met |
| 17 | C117 | Yoga and Human Consciousness | 3 | 3 | 3 | 3 | 3 | 3 | 2.5 | Target met |

8.5 Attainment of Program Outcomes from first year courses(20)

8.5.1. Indicate results of evaluation of each relevant PO and/or PSO if applicable(10)

The relevant program outcomes that are to be addressed at first year need to be identified by the institution

Program Outcome attainment levels shall be set for all relevant POs and/or PSOs through first year courses.

(Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained through first year courses and document the attainment levels. Also include information on assessment processes used to gather the data upon which the evaluation of each Program Outcome is based indicating the frequency with which these processes are carried out)

PO/PSO Attainment: Mention first year courses

Academic Year 2021-2022

| Sl. No. | NBA Course | Course Title | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|---------|------------|--------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| | | | | | | | | | | | | | | |

| | Code | | | | | | | | | | | | | |
|----|------|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | C101 | Mathematics-I | 2.28 | 2.27 | 2.25 | 2.28 | 2.25 | 2.31 | 2.25 | | 2.00 | | | 2.21 |
| 2 | C102 | Chemistry | 2.39 | 2.39 | 2.33 | 2.29 | | 2.50 | 2.50 | | 2.40 | | | 2.42 |
| 3 | C103 | Professional Communication | | | | | | | 3.00 | 3.00 | | 3.00 | 3.00 | 3.00 |
| 4 | C104 | Biology | 2.33 | | | 2.33 | | 2.33 | 2.33 | 2.33 | | | | 2.33 |
| 5 | C105 | Chemistry Lab | 2.89 | 2.91 | | 2.92 | 2.92 | | 2.93 | | | | | |
| 6 | C106 | Computer Programming | 2.25 | 2.26 | 2.25 | 2.19 | 2.11 | | | 2.00 | | 2.00 | | 2.00 |
| 7 | C107 | Language Lab | | | | | | 3.00 | | | | 3.00 | | 3.00 |
| 8 | C108 | Engineering Graphics | 2.91 | 2.89 | | | 2.85 | 2.90 | | | | | 2.89 | 2.93 |
| 9 | C109 | Mathematics-II | 2.08 | 2.08 | 2.08 | 2.08 | | | | | | | | 2.09 |
| 10 | C110 | Physics | 2.29 | 2.13 | 2.33 | 2.33 | | | | | | | | 2.33 |
| 11 | C111 | Basic Electrical Engineering | 2.46 | 2.46 | 2.46 | 2.45 | | 2.44 | 2.40 | | | | | 2.36 |
| 12 | C112 | Engineering Mechanics | 2.42 | 2.42 | 2.42 | 2.42 | | | | | | | | 2.54 |
| 13 | C113 | Physics Lab | 2.93 | 2.92 | 3.00 | | | | | | | | | 2.94 |
| 14 | C114 | Basic Electrical Engineering Lab | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| 15 | C115 | Basic Manufacturing Systems | 2.93 | 2.90 | 2.91 | 2.91 | 2.90 | 2.95 | 2.93 | 3.00 | 2.91 | 2.93 | 2.93 | 2.95 |
| 16 | C116 | Environmental Science | 2.30 | 2.30 | 2.30 | 2.00 | 2.50 | 2.30 | 2.30 | 2.50 | 2.50 | 2.50 | 2.32 | 2.30 |
| 17 | C117 | Yoga and Human Consciousness | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |

PO Attainment Level

PSOs Attainment Level

| NBA Course Code | PSO1 | PSO2 | PSO3 |
|-----------------|------|------|------|
| C101 | PSO1 | PSO2 | PSO3 |
| C102 | PSO1 | PSO2 | PSO3 |
| C103 | PSO1 | PSO2 | PSO3 |

| | | | |
|------|------|------|------|
| C104 | PSO1 | PSO2 | PSO3 |
| C105 | PSO1 | PSO2 | PSO3 |
| C106 | PSO1 | PSO2 | PSO3 |
| C107 | PSO1 | PSO2 | PSO3 |
| C108 | PSO1 | PSO2 | PSO3 |
| C109 | PSO1 | PSO2 | PSO3 |
| C110 | PSO1 | PSO2 | PSO3 |
| C111 | PSO1 | PSO2 | PSO3 |
| C112 | PSO1 | PSO2 | PSO3 |
| C113 | PSO1 | PSO2 | PSO3 |
| C114 | PSO1 | PSO2 | PSO3 |
| C115 | PSO1 | PSO2 | PSO3 |
| C116 | PSO1 | 2.35 | PSO3 |
| C117 | PSO1 | PSO2 | PSO3 |

PSO Attainment Level

| Course | PO1 | PO2 | PO3 |
|-------------------|-----|------|-----|
| Direct attainment | 0 | 2.5 | 0 |
| PSO attainment | 0 | 2.35 | 0 |

8.5.2 Actions taken based on the results of evaluation of relevant POs and PSOs (10)

(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)

PO Attainment Levels and Actions for improvement – CAYm1 only – Mention for relevant POs

| POs | Target Level | Attainment Level | Observations |
|--|--------------|------------------|--------------|
| PO1: Engineering knowledge: Ability to apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. | | | |
| PO1 | 2.5 | 2.4 | |
| Action 1: Students are advised to participate in technical events where their basic knowledge should be used in engineering oriented problems. Action 2: Activity based learning system is implemented in both theory and laboratory courses. | | | |
| PO2: Problem analysis: Ability to identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. | | | |
| PO2 | 2.5 | 2.45 | |
| Action 1: Small prototype projects are given to the students to develop complex engineering problems in their mind and try to find a solution. Action 2 Motivate the students to learn on their own and give presentations in class. Action 3: Solving tutorial problems as typical examples on all topics within the class room. | | | |
| PO3:Design/Development of solutions: Ability to design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and | | | |

| | | | |
|--|-----|------|--|
| PO3 | 2.5 | 2.56 | |
| <p>Action 1: Attainment level is high and is an encouraging attainment level especially in case of Design. Study tours will be arranged to expose the students to the actual field condition and provide them opportunities to interact with the field engineers and understand the need of the society.</p> | | | |
| <p>PO4: Conduct investigations on complex problems: Ability to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.</p> | | | |
| PO4 | 2.5 | 2.65 | |
| <p>Action:1 Attainment level is satisfactory due to excellent laboratory infrastructure comprising state-of-the-art equipment. Visit to different industries for practical exposure to various on-site laboratories.</p> | | | |
| <p>PO5: Modern tool usage: Ability to create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.</p> | | | |
| PO5 | 2.5 | 2.65 | |
| <p>Action 1:The students are exposed to professional software like AUTOCAD, Hence, more emphasis can be given to use software for drawing of different types of simple structure like one storied building.</p> <p>Action N:</p> | | | |
| <p>PO6 :The engineer and society: Ability to apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.</p> | | | |
| PO6 | 2.5 | 2.7 | |
| <p>Action 1: The professional communication, yoga and human consciousness and physics, basic electrical lab, basic manufacturing system etc directly or indirectly enable students to build sustainable engineering systems and solutions for society at large.</p> | | | |
| <p>PO7:Environment and sustainability: Ability to understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</p> | | | |
| PO7 | 2.5 | 2.69 | |
| <p>Action 1: To increase the awareness about environment and sustainability from the basic level, Environmental Science and Yoga and Human Consciousness has been introduced in the first year B.Tech. program.</p> | | | |
| <p>PO8:Ethics: Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</p> | | | |
| PO8 | 2.5 | 2.75 | |
| <p>Action 1:This attainment level indicates the students are implicate as well as explicitly exposed to various scenario to be test their judgmental skills to be more ethical for the entire environment, stakeholders and most importantly the society at large. Corporate lectures and motivational talks are arranged periodically to address professional ethics and responsibilities.</p> <p>Action N:</p> | | | |
| <p>PO9 :Individual and team: Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</p> | | | |

| | | | |
|--|-----|------|--|
| PO9 | 2.5 | 2.54 | |
| Action 1: The group wise activity classes in theory as well as practical course and group wise experiments are conducted in laboratory sessions to expose students to different working scenarios and deliver their best as an individual or a team member of a group. | | | |
| PO10 :Communication: Ability to communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. | | | |
| PO10 | 2.5 | 2.6 | |
| Action 1: Apart from explicit course on Professional Communication, exercises like Presentation in class, Seminar, Grand Viva, group experiment sessions in laboratory are the curricular components which help students to become an effective communicator, which is highly required for their professional career ahead. | | | |
| PO11 :Project management and finance: Ability to demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. | | | |
| PO11 | 2.5 | 2.55 | |
| Action 1: Not applicable | | | |
| PO12 :Life-long learning: Ability to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. | | | |
| PO12 | 2.5 | 2.65 | |
| Action 1: Environmental science and yoga and human consciousness are directly link to life long learning process . Alumni and guest lectures are periodically conducted for imparting life-long learning to students. | | | |

Similar information is to be provided for PSOs

PSO1: Sustainable low-cost alternate material

| | | | |
|------|----|----|-----|
| PSO1 | NA | NA | NAS |
|------|----|----|-----|

Actions taken

Professional core and elective courses shall be taught to the students as per the curriculum for the better attainment of program specific outcomes

PSO2: Sustainable Environment

| | | | |
|------|------|------|-----------------------|
| PSO2 | 2.35 | 2.58 | Target level attained |
|------|------|------|-----------------------|

| | | | |
|---|-----------|-----------|-----------|
| Actions taken Professional core and elective courses shall be taught to the students as per the curriculum for the better attainment of program specific outcomes | | | |
| PSO3: Sustainable water resources strategy | | | |
| PSO3 | NA | NA | NA |
| Actions taken Professional core and elective courses shall be taught to the students as per the curriculum for the better attainment of program specific outcomes | | | |

| | | |
|--------------------|--------------------------------|-----------|
| CRITERION 9 | Student Support Systems | 50 |
|--------------------|--------------------------------|-----------|

9.1 Mentoring system to help at individual level (5)

Type of mentoring: Professional guidance/career advancement/course work specific/laboratory specific/all-round development.

Number of faculty mentors: Number of students per mentor: Frequency of meeting:

(The institution may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system)

9.1.0 Mentoring System

The KIIT DU has institutionalized the Tutor- Mentor system since 1997, the year of establishment as institution. In the system the student is termed as mentee and the faculty member as mentor.

Excerpts from the guidelines for the mentors towards effective mentoring system is furnished below. In this section the generic issues to be addressed by mentors are furnished. An overall introduction to category of mentors is also furnished.

Excerpts from the Guidelines for tutor mentors

9.1.1 Background

Effective and Close teacher-learner interaction has proved to be a key factor in learning and success of a student. In recognition of this, The KIIT University has institutionalized the Tutor-Mentor system since the beginning. In the system the student is termed as mentee and the faculty member as mentor. This document prescribes the guidelines for the mentors towards effective mentoring. In this section the generic issues to be addressed by mentors are furnished. An overall introduction to category of mentors is also furnished.

9.1.1.1 The Issues

Academics (regarding the status of classes, attendance, course progress, difficulties in understanding the subjects of study, registration, marks etc.)

Career (issues relating to placement / higher studies / entrepreneurship)

Emotion (issues relating to anyone in family/friends or a person whom he/she gives the utmost importance, quarrel/misunderstandings, money, recent happenings etc.)

Discipline (altercations/fights, threats, bunking, fines, complaint from the hostel/teachers etc)

Grievances (regarding any problem faced by the student during and/or after the classes which may not be addressed properly)

Any other issue(s) not coming under the above categories.

9.1.1.2 Mentor categories

Mentor: The mentors are to take care of the following activities related to the mentees: Registration, Academic information, interaction with guardians, attendance status, health conditions, general conduct and etiquettes, Brand awareness promotion. They are the first tier contacts to receive and initiate appropriate steps towards grievance redressal.

Counseling mentor: The counseling mentors are to take care of the emotional stability upon recommendation of the mentors.

Senior mentors: The senior mentors are supposed to groom mentors and counseling mentors. They may conduct sessions/workshops periodically towards ensuring effective mentoring program.

9.1.2 Mentor's Appointment

At the beginning of the academic year, the Dean/Director of the Schools will notify the mentors, counseling mentors and senior mentors from among the faculty members of the school. Following guidelines may be followed during mentors' appointment.

- For a group of students a faculty may be nominated as mentor. The head of the school may nominate a demonstrator only if he/she is sure of potential of the demonstrator to work as an effective mentor.
- The group size for undergraduate students should preferably be thirty. Deans / Directors are however empowered to choose the group size.
- For female students, in no case a male faculty member will be nominated as mentor.

- The head of school will nominate counseling mentors from among the faculty. The faculty member with good rapport establishing skills and rational decision making skills may be preferred.
- The number of counseling mentors will be one for a student group size of 200.
- Senior mentors will be nominated by the Head of Schools from among the senior professors.

9.1.3 Mentors' Responsibilities

9.1.3.1 Mentor

- To ensure a cooperative and supportive environment to the mentees towards facilitating learning and engagement in active scholastic work.
- To hold frequent and regularly scheduled meetings with the mentees and make himself/herself available or accessible for the mentees as often as needed.
- To keep the guardians informed on student's academic progress, attendance and discipline related issued (if any).
- To keep the students and guardians informed of organizational achievements.
- To help the mentees develop a thorough understanding of the academic programs and the required regulations.
- To identify opportunities for students to disseminate their skill in discipline specific or extra-curricular activities.
- To provide direction to enhance and reinforce the mentee's discipline specific or interdisciplinary methods and skills.
- To identify need of counseling and arrange regular interaction with the counseling mentors. The number of mentees in need of counseling should not be more than 1/4th of group size

9.1.3.2 Counseling mentor

- To recognize that each mentee is unique and needs tailored mentoring. This involves learning and respecting mentee's personality, style of work and expectations.
- To help the students passing through a hard phase of life through providing adequate emotional support, motivation and inspiration.

9.1.3.3 Senior mentor

- To interact with mentors and counseling mentors. They are expected to provide support towards enhancing effectiveness of the system.

9.1.4 Documentation Requirement

| | | | | |
|---|--------------------------------------|----------------|-----------------------|--|
| 1 | Notification of mentors' appointment | Dean/ Director | Beginning of semester | The notification intended to students to offer name and contact details of the mentor. |
|---|--------------------------------------|----------------|-----------------------|--|

| | | | | |
|---|---|---------------------|-----------------------|--|
| 2 | Primary data sheet | Compliance cell | Beginning of semester | Mentee's name, address, mail, phone, guardian's name, mail and phone number |
| 3 | Notification of mentees' meeting schedule | Mentor | Beginning of semester | The routine meeting schedule with the group of mentees |
| 4 | Interaction register | Mentor | Routine | The register should record interactions made with group of mentees, individual mentees and guardians |
| 5 | Individual files | Counselling mentors | As and when required | The file should have documents of evidences of interaction, any professional support taken and the recommendations |
| 6 | Mentoring development workshop notification | Senior Mentors | At least once a year | The notification should offer schedule, venue and resource persons. |

9.1.5 What Do Good Mentors Do?

They interact daily with some of mentees

They do not counsel mentees in front of friends

They prefer to hold mentoring sessions not during class timing

They follow-up with appropriate authorities on behalf of the mentee

The mentoring services do have weightage in the performance appraisal. Further, The University is devising a module to recognize mentoring services and reward best of the mentors.

Number of students per mentor: 25-30

Frequency of meeting: 1/ week of one hour direction with the group.

5 minutes per individual mentee in a week (Each mentor interacts with 5 mentees each day, individually)

Counselor interacts with Identified critical mentee each week

Efficacy of the System: The mentoring activities lead to multiple outcomes across a broad spectrum of activities. The mentee-mentor relationship can be complex and thus efficacy is not easily measurable. The University collects feedback from mentees on mentors and also from mentors on mentees. The efficacy is assessed from the following parameters.

- % of mentees without any backs (From examination results)
- Achievements of mentees (From mentors)
- Mentor contacts used (From mentees)

The University has a student friendly atmosphere. In spite of more than hundred program catering to 27000 students, the University is proud of its recognition as a disciplined institution. The number of student unrest is zero since 2014. The placement is 100% and the number of students pursuing higher education is increasing rapidly. All of these indicate to the efficacy of the mentoring system.

9.2 Feedback analysis and reward /corrective measures taken, if any (10)

Feedback collected for all courses: YES/NO; Specify the feedback collection process; Average Percentage of students who participate; Specify the feedback analysis process; Basis of reward/ corrective measures, if any; Indices used for measuring quality of teaching & learning and summary of the index values for all courses/teachers; Number of corrective actions taken.

Feedback collected for all courses: YES (Twice a year)

Average Percentage of students participate in the feedback process: 95-100%

9.2.1 Feedback Collection Process:


The institute has a well-defined process for feedback collection with respect to all the courses, which is required to ensure continuous improvement and refinement of teaching learning process and curriculum. The detail of feedbacks collected from the students and the process of collection is given below.

| Sl. No. | Type of feedback collected | Feedback on Curriculum, Teaching & learning | Feedback on facilities |
|---------|--|---|---|
| 1. | Process of collection | Online submission through SAP portal | Google form/ Through SAP |
| 2. | Medium of notification to students and follow up | Via mail from IQAC via Dean and tutor mentors | Via mail from IQAC via Dean and tutor mentors |
| 3. | Frequency of collection | Once after end of each semester | Once in every year |
| 4. | Department responsible for collection, analysis and action taken | IQAC | IQAC |

Thus SAP portal is opened or student feedback after end of each semester for online submission of students' feedback on curriculum and teaching-learning. The feedback form is so designed to collect information on the curriculum, attributes of teachers and their teaching learning methodologies and effectiveness of the methodology. The feedback form shown in Fig. xxx collects the satisfaction of the students in Likert scale of 1 to 5. Following major components are covered in the feedback analysis process which is given below.

- Course Objectives
- General observation
- Skill Development
- Innovations and Methodology
- Commitment and Command
- Help and Motivation

9.2.2. Sample Feedback form

| | | | | | |
|--|--|--|--------------------|----------------------|-------------|
|  KIIT UNIVERSITY <small>(Declared U/S 3 of UGC Act, 1956)</small> Bhubaneswar, Odisha, India | | | | | |
| FEED BACK FROM STUDENTS | | | | | |
| QUALITY ASSURANCE CELL | | | | | |
| Form No | | | | KIIT/QAC/01 | |
| Instructions: | | | | | |
| 1 – Put a Tick (Ö) mark in the following table that reflects your choice. | | | | | |
| 2 – Give your opinion based on your observation / experience with an open and unbiased mind. | | | | | |
| 3 – Do not disclose your personal identity anywhere in the questionnaire. | | | | | |
| Name of the School & Branch | | | | | |
| Name of the teacher assessed | | | | | |
| Programme | | | Section | Semester | |
| Subject / Paper taught | | | Course Code | | |
| Course Objective | | | | Yes | No |
| 1 | The course so far has provided new knowledge. | | | | |
| 2 | After attending the course awareness or insight of the subject has improved. | | | | |
| 3 | The course is interesting and relevant. | | | | |
| 4 | The course is up to date and Industry designed. | | | | |
| 5 | The course may be helpful in future goal. | | | | |
| RATING ON TEACHER | | | Excellent [5] | Very Good [4] | Good [3] |
| SUBJECT | | | Average [2] | Below Average [1] | |
| GENERAL OBSERVATIONS | | | | | |

| | | | | | | |
|--------------------------------------|--|--|--|--|--|--|
| 6 | Punctuality & Regularity in taking Classes | | | | | |
| 7 | Communication skills | | | | | |
| 8 | Delivery of structured lectures | | | | | |
| 9 | Completes the entire syllabus in time | | | | | |
| SKILL DEVELOPMENT | | | | | | |
| 10 | Skill of linking subject to life experience and creating interest in the subject | | | | | |
| 11 | Refers to latest developments in the related field | | | | | |
| 12 | Scheduled organization of Assignments, Class tests, Quizzes, Seminars etc. | | | | | |
| 13 | Helps the students through Instructions/ Demonstrations | | | | | |
| INNOVATIONS & METHODOLOGY | | | | | | |
| 14 | Use of innovative teaching methods (Case Study, Group Discussion, Problem Solving etc.). | | | | | |
| 15 | Use of open education resources. | | | | | |
| 16 | Use of teaching aids (OHP, PPT etc.). | | | | | |
| 17 | Blackboard / White board work in terms of legibility, visibility and structure. | | | | | |
| COMMITMENT & COMMAND | | | | | | |
| 18 | Effective control mechanism to conduct the class. | | | | | |
| 19 | Tendency of inviting opinion and questions on subject matter from students. | | | | | |
| 20 | Skill of addressing inappropriate behavior of student. | | | | | |

| | | | | | | |
|---|--|--|--|--|--|--|
| 21 | Inspires students to maintain discipline. | | | | | |
| HELP & MOTIVATION | | | | | | |
| 22 | Availability / willingness to guide the students beyond regular lecture hours. | | | | | |
| 23 | Gives equal attention to all students | | | | | |
| 24 | Helps students facing physical, emotional and learning challenges. | | | | | |
| 25 | Motivate students for their future goals in realizing their strengths and needs. | | | | | |
| | Total | | | | | |
| Suggestions (if any) for the improvement in Teaching / Learning process: | | | | | | |
| For Office Use (Quality Assurance Cell) | | | | | | |
| Comments: | | | | | | |
| (Authorized Signatory) | | | | | | |

9.2.3 Feedback analysis process;

The feedback collected through SAP portal is shared to Internal Quality Assurance Cell of University for further analysis by a feedback analysis committee. The Analysis of the feedback is obtained in following components.

- Course Objectives
- General observation
- Skill Development
- Innovations and Methodology
- Commitment and Command
- Help and Motivation

Based on the students' feedback, a score index is computed by using following formula.

$$S_i = \frac{\sum_{i=1}^N m_i}{5N}$$

Where N represents the total number of students m_i is the mark assigned for i th component.

9.2.4 Basis of reward/ corrective measures, if any;

- The course teachers committee is offered the score on course.
- The IQAC Cell shares the scores with the Deans and the faculty members including course coordinators. IQAC also share specific feedbacks with the individual faculty members to know their specific strength or weakness and improve the teaching skills. The close view of the score and interaction usually results in improvement in teaching-learning aspects.
- In case of a particular course, whose teachers have not got a satisfactory score index, the IQAC representative and the Dean discuss with the Course Coordinator. Subsequently the Course Coordinator and teachers are required to bring changes in content delivery and communicate the information back to the Dean.
- The feedback score of each faculty is also taken as cut-off during faculty promotion activities.
- The faculty who get low index, are counselled by Dean and IQAC.

9.2.5 Number of corrective actions taken.

Corrective actions were taken as per the students' feedback and further analysis. The actions are programme/subject specific.

9.3 Feedback on facilities (5)

Assessment is based on student feedback collection, analysis and corrective action taken.

9.3.1 Students Feedback Collection Process

The Quality Assurance Cell collects student feedback on the facilities of the University and school annually once. The feedback collection is conducted during the month of November.

The form of the feedback asks students' opinion on various facilities of school and university. The feedback format is attached in Table 9.3.1. Different facilities for which feedbacks are taken from students are given below.

- Classrooms and labs (seating, lighting, fans, A/C, ventilation, cleanliness, etc.)
- Teaching aids (Projectors, blackboards, computers, posters, display boards, drawing boards)
- Washrooms, drinking water, water supply, first aid, etc.
- Hostel
- Telephone & internet
- Canteen and other services
- Sports facilities (Sports items, ground facility, etc.)
- Library facilities
- Transport facilities

- Medical Facilities

Table 9.3.1 Feedback on facilities

| Students Name | | | | | | |
|---------------|--|----------------|-------|---------|----------|-------------------|
| Roll No | | | | | | |
| Sl. No. | Indicators | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
| 1 | The lighting, ventilation and acoustics in class rooms/demonstration rooms/laboratory rooms present an inviting setup for learning | | | | | |
| 2 | The audio-visual capability in classrooms have enhanced learning | | | | | |
| 3 | The resources to impart practice sessions are adequate, of good quality and mostly operational | | | | | |
| 4 | The students have access to research and development facilities of the School | | | | | |
| 5 | The faculty and research scholars are approachable when a new idea develops | | | | | |
| 6 | The sanitation standard in the campus is excellent | | | | | |
| 7 | Book resources at the library are adequate to meet prescribed reading in the course. | | | | | |
| 8 | The book resources at the central library cater to the learning needs in diverse areas. | | | | | |
| 9 | Most student users are aware of journals and access these for learning/research activities | | | | | |
| 10 | A learner friendly ambience prevails in the reading room of library | | | | | |
| 11 | The quality of hostel accommodation in context of space and facilities meets expectations | | | | | |
| 12 | The learning ambience in hostel reading room is well maintained | | | | | |
| 13 | The hostel staff are student friendly | | | | | |

| | | | | | | |
|----|---|--|--|--|--|--|
| 14 | Facilities including equipment and trainers prevailing in gym, swimming pool, indoor games, outdoor games meet requirement of amateurs and professionals. | | | | | |
| 15 | Student administered societies are functional and atmosphere is usually inviting | | | | | |
| 16 | The availability of a computer/laptop for use any time is never an issue | | | | | |
| 17 | Internet connectivity is everywhere in the University campus | | | | | |
| 18 | Medical facilities are of good quality and can be availed by students | | | | | |

9.3.2 Feedback Analysis

The feedback collected is analyzed by school level quality assurance cell and a score is determined based on the following equation.

$$S_K = \frac{\sum_{i=1}^N \sum_{k=1}^m P_{Q_{ki}}}{5N}$$

Where $P_{Q_{ki}}$ =Points scored for question components marked to kth category

N= Number of students who offer feedback

S_K= Score for kth category

Table 9.3.2 provides the scoring pattern and the responsible office being shared with the score.

Table 9.3.2: Scoring pattern and Action Centers

| Aspect | Action Centre |
|------------------------------------|---|
| Academic Resources (Q1-5) | Dean of School, Administrative Officer of School and Joint Registrar (Administration) |
| Hygiene (Q2) | Development Office |
| Central Library resources (Q 7-10) | Senior Librarian, Central Library |
| Hostel Facilities (13, 14, 15) | Dy. Registrar (Hostels), Senior AO (Girls Hostel) |
| Sports Facilities (Q14) | Director, Sports |
| Student Societies (Q15) | Director, Student Support Services |
| ICT Facilities (Q16-17) | Head, ICT Cell |
| Medical Facilities (Q 18) | General Manager, KIMS |

Corrective Actions taken

If the score obtained is less than 90%, actions may be triggered as per the requirement.

9.4 Self-Learning (5)

(The institution needs to specify the facilities, materials and scope for self-learning / learning beyond syllabus, Webinars, Podcast, MOOCs etc. and evaluate their effectiveness)

KIIT-DU provides wide scope, opportunities and facilities to its students for self-learning and learning beyond syllabus. During 2004, the KIIT became youngest Deemed to be University (Within 7 years of inception as institution) with a special mention to the innovative measure the organization has initiated. And the measure was providing wi-fi enabled laptop to each student (During 2004, it is an innovation and now adopted at many organizations). KIIT students have access to internet and computing facilities any-where in the University premises round the clock, round the year.

KIIT DU, made the library 24X7 during 2005, another remarkable innovative measure to promote self learning. The students can go through books of any domain, wherever they wish to venture in. Specific.

Support to students for self learning activities

- Integrated library web portal for searching of subscribed e-resources as well as open access e-content.
- RSS Feed and Email alert services.
- LCD projectors for self learning and demonstration.
- Access to the Lecture videos from NPTEL and other open course wares
- Access to the National Digital Library of India.
- **The institute has introduced a framework of learning activities which promotes self learning among students with the following focus areas in all streams:**
 - **Interactive focus:** Activities include synchronous and collaborative discussions, group activities and assignments, etc.
 - **Critical thinking:** Activities include undertaking case studies, field surveys, problem identification, reviewing impacts created by previous researchers, identifying gaps and scope for further improvement and strategy formulation.
 - **Problem solving:** Activities include implementation of strategies under real life circumstances, developing an understanding of constraints, realizing relevant social, environmental, legal and economic implications and analyzing the impact created; activities also include solving real life open ended problems supported by simulations and modeling relevant to the purpose.
 - **Creation:** Activities include design and implementation tasks both at simulation level followed by hardware implementation, real time deployment and study of the impacts.
 - **Preparedness for competitive examinations and higher studies:** Activities include extra studies (self-learning) and problem solving as preparation for competitive examinations and higher studies.
- In laboratories, students are allowed to take up open ended tasks either at individual or group basis in the form of micro-projects to hone their analytical and design skills which can be further explored during final year major design projects.
- Students undertake field/industry visits and undergo internships/trainings to acquaint themselves with the industry and job requirements and develop an understanding of the real time issues. Students are also engaged in live and interdisciplinary projects (in different Centers of Excellence) as well as product innovation and entrepreneurship supported by the Technology Business Incubator Cell.

- Open course wares including NPTEL, and MITopen coursewares are promoted by teachers, what students can access anytime.
- The institute has also entered into collaboration with MOOCs giant Coursera offering more course options and learning avenues for students.
- Students can opt for a foreign language learning at the School of Language. School of Leadership caters to requirements of students desirous to appear Civil Service Examinations.
- Career Augmentation and Advisory services prepares students for industry-readiness; School of leadership prepares students for higher studies, competitive and civil services examination.
- Students are encouraged to be active component in organizing Symposia, conferences, workshops etc. Student Societies are operational, where students plan, execute and coordinate the activities, which are immensely contributing towards self learning. In this section, some societies are mentioned.
 - **Model UN Society:** A society where one gets to know the world, world politics, societies and obviously all of that through a multitude of never ending fun. A society meant for the strong of heart, meant for the listener, the speaker in you. With the flagship event of KIIT International Model UN 2015, the society promises to deliver many grilling session over the coming year.
 - **TEDx:** KIIT students have got the licence to organise TEDx in 2015 for KIITUniversity (Reg. No. 17657). The students hosted the first ever TEDx event in any technical university in the state of Orrisa and probably 2nd after IIT KGP in Eastern India . Since the event like TEDx which is new to the University may have some rules that we need to abide but that will surely give a world class university like ours a mileage and be counted among the elite ones .It was the grandest TEDx event in India with speakers from various fields. TEDX is a spin off conference of independent talks of technology demonstrations, art performances, research lectures and world changing ideas that are organized locally by the volunteers, free of any commercial, religious or political agenda.
 - **“KHWAAAB”(Society on Philosophy of the Founder KIIT & KISS)-** In service to humanity ‘is a society solely dedicated to help people. The innovative grass root approach is to transform citizens into agents of change who will rejuvenate the spaces disinvested, into new generation of helping, loving and inspiring destinations in line with the philosophy of Dr A. Samanta, Founder of KIIT and KISS.
 - The three basic foundation tools include:
 - Art of giving
 - Garment Bank
 - India against negativity
 - **Entrepreneurship Cell:** The KIIT Entrepreneurship-Cell is primarily responsible for fostering the business mind among students and assisting budding entrepreneurs by providing them with necessary resources.

- **The Quizzing society ~ Qutopia:** Established with the motto of ‘Quiz for Quiz's Sake’, the society claims to be a perfect haven for all the quizzers. Born out of a desire to learn more about the world and beyond, as well as an urge to share what we know.
- **The Music & Dance Society (Korus):** For the sprinkling joy of the ushered music and dance within, we have the Korus Society to unleash the attached strings. There's a Michael Jackson in one corner and a Zakir Hussain crooning in the other and a whole family of instrumented passion to accompany them.
- **Automobile Society:** It offers a rich and varied examination of automobiles, automotive culture and design, and the personalities that shape the industry to inform and entertain consumers who are passionate about cars.
- **Aeronautical Society (Apogeo):** KIIT Aeronautical Society named "APOGEIO" aims to promote scientific and educational activities towards the advancement of the theory and practice of Aeronautical Engineering.
- **Robotics Society (KRS):** The Robotics Society focuses on research, knowledge sharing and learning with the aim of embracing new technology and making new discoveries in the field of Robotics with a high standard of ethics in service to the community.
- **The Cooking Society (Keurig):** The Cooking Society of KIIT University, where food becomes cuisine and the kitchen becomes a platter in the hands of budding chefs and the enthusiasts at heart.
- **Photography and Painting Society (Kreative Eye):** Kreative eye is a society which provides you a platform to hone your photographic & painting skills, express yourselves through your lenses and colours. When your soul can dream and your heart can desire, you will be able to create.
- **Differently Able Society (Karma):** This society aims to perceive, build and conceive what the world normally cannot. It welcomes members who are strongly motivated to work for the differently able populace of the world, any form, any kind.
- **Social Responsibility Cell (Kartavya):** SRC acts as a motivator for young students to come together from all walks of life and join together to be the harbinger of light in the lives of those who have been deprived of it.
- **Women's Society (Kamakshi):** The women's society of KIIT promotes equality for women. They not only believe in providing women a better platform but also in encouraging them to be the torch bearers.
- **KIIT International Students Society (Khetshan):** It is the society that has students from outside India who come together and work. They not only learn and grow but also promote their culture, traditions and heritage.
- **The Hindi Society (Khwahishein):** The Hindi Society of KIIT believes in promoting our mother tongue. It brings out the best poets and writers of the college to portray their dreams on papers and rest its magic.
- **Film Society:** It gives platform to the students to bring out the most expressive and creative skills of film making. The society also plays a major role in the making of the official videos of the University.
- **Dramatics Society (Kalakaar):** Creativity is the food for imagination and spark for thought. With this inspiration, the dramatics society is the place for the polishing and the nourishing of skills of those with the flare to perform both on and off stage, for those to

see the light, which others cannot even grasp, for those to whom drama is life.

- **Society of Web Development & IT Society: (Social & Digital Branding)Konnexions:** The society which prepares you for the new ultra modern world of internet, the destination for development of applications and websites/domains of daily use and a place for those professionals to be. IT Society encourages students to take a step ahead in the enigmatic information technology world. The need of the hour is the ever-growing technology and all that is informed here.
- **Society for Alumni Connect (K-Konnect):** The past meets with the present for a better tomorrow- This is what connection is and this is how our most dynamic society for our alumni members would be; a place for them to connect with the present members of the University.
- **KIIT-Wordsmith (The Writing Society):** The pen often proves to be mightier than the sword. Wordsmith is the platform where the students of the University can express their ingenious, unorthodox, profound thoughts through the pen. Kritika - the annual magazine, Kirti- women's magazine, monthly newsletters, e-magazines to name a few are our flagship projects.
- **Fashion Society (Kzarshion):** Fashion helps define tastes and shape tastes of individuals. And can be very influential in personality development of a person. Fashion is a necessary item in day to day schedule. It is the newly created society to inculcate proper dressing sense according to the occasion in students.
- **Marketing Society(kraya):** “Sell me this pen”, said once the famous Jordan Belford. All events conducted by Marketing Society shall be designed to give students a deep working insight into what Marketing is really about. This society will provide students an all-round experience of marketing through industry exposure and on-campus fun marketing activities.
- **Finance Society(Kuber):** Business, market, society, entrepreneur- all have that one thing in common- funds and finance. They hone the student's management skills by organizing events related to the various aspects of management. This society brings together group-work, leadership skills, creativity, hard work, management principles and general camaraderie in an entertaining way.
- **Medical Society(Kimaya):** Kimaya “An Endeavour To Understand”, aims to provide a platform for the congregation of the entire medical fraternity of odisha and major Universities and beyond.
- **Science & Spiritual Society:** A new society committed to a spiritual way of life based on meditation and service to others. It's a scientific look at the nature of spirituality, including meditation, near death experience, religion and altered states of consciousness. To create an awareness that a thin line exist between science & Spiritual.
- **Society for Civil Engineering:** This is the society for all civil engineers who work regarding the development of building, monuments, bridges, planning of structures, city, etc with constructive and new technologies.The society organizes different seminar and workshops for students to increase their creative skills and to provide ideas on recent technologies.
- **KIITFEST:** KIIT organizes Annual Fest of the University to promote the showcase of technical, cultural, spiritual, literary, dramatics, artistic, professional skills and innovation. Various competitions among the students at national level are being held. 20,000+

students participate every year.

- Effectiveness of the self learning measures is directly visible from the achievements of the students in academic, professional and extra-academic domains. Not only the achievements, but also the satisfaction of the students, the informal communication with teachers and mentors, contact retention after years of passing out, zero indiscipline records speak volumes of the effectiveness of the self-learning modes keeping students engaged in creative thinking and aided exploration.

9.5 Career Guidance, Training, Placement (10)

(The institution may specify the facility, its management and its effectiveness for career guidance including counseling for higher studies, campus placement support, industry interaction for training/internship/placement, etc.)

Career guidance, training and placement is one of the advantages that KIIT offers since its inception. It has an impeccable record in campus placement. KIIT has always been much favored talent hunting ground for corporate world as it delivers industry-ready students. KIIT has an established structure for guiding the students for training and placement i.e, Industry Engagement Cells and KIIT Career School (CAAS).

9.5.1 Industry Engagement Cell (IEC)

9.5.1.1 Purpose

The Industry Engagement Cell (IEC), KIIT DU would be responsible to create and nurture an enduring and sustainable environment to foster and maintain a symbiotic relationship with the industry and other external agencies that are mutually beneficial and value-adding. The major goal is to create and sustain a positive impact on the Corporate World and other organizations of repute at National and International levels, primarily in the space of academic excellence and the overall knowledge ecology within the University.

9.5.1.2 Management:

The department functions under a widely-experienced Pro Vice-chancellor, KIIT DU with cognizance of various industry-academia collaboration and career opportunities. Two able Deans lead the administrative, strategic, academic collaboration activities of the department. Two verticals with capable and qualified staff and faculty to address all end-to-end placement activities and Industry Academia collaboration with concerned Schools/Departments. To address the aspiration of each student a dedicated Career School (CAAS) headed by Director and Dean has been consciously formed and running successfully.

9.5.1.3 Activities:

Beginning with continuous monitoring of end-to-end execution of industry academia collaboration and campus recruitment activities related of constituent schools and consulting partners of the University, Industry Engagement Cell (IEC) delivers a range of duties. To address the ever changing industry requirements our major objective is to bringing in more intervention of industry into academic with following activities:

- ✧ *Collaborating with Technical Heads / CTOs / Operational Heads of the industry for all possible Industry Engagement activities including placements of the students.*
- ✧ *Setting up and initiating the student-focused 'Innovation & IPR Cell' within the University & fostering a culture of 'Innovations & Entrepreneurship' among the students by organizing a series of the state-of-art lectures/seminars/workshops in the said area/topic in collaborations with the*

industry/repute academicians of foreign Universities (aim is to create an entrepreneur pipeline for KIIT TBI for encouraging more students from SOT to go for start-ups)

- ✧ *Encouraging researchers within the University to develop strong ties with the Industry, Government / Non-Government Organizations, and associated Community Groups with the purpose of collaborating on new research frontiers.*
- ✧ *Promoting awareness for creation of IPR and commercialization of the same including the protection and management of Patents from research findings.*
- ✧ *Generating sponsored research consultancy corpus fund in association with various corporate houses.*
- ✧ *Developing state-of-art laboratories for experimentation and knowledge incubation by corporate funding.*
- ✧ *Forging ties with Corporate for training and certification of students, arranging technical lectures by SME's (Subject Matter Experts), organizing industry-sponsored workshops/symposiums for students and faculty.*
- ✧ *Offering opportunities to the corporate for Leadership/Executive Development Programs and/or customized learning programs in selected areas of specialization to leverage from the expertise resident with the KIIT faculty.*
- ✧ *Generating recruitment-related database of Corporate and reaching them for the same by sharing the data with Corporate Relations team.*
- ✧ *Creating Advisory Bodies for various Schools across KIIT University with experienced professionals from the corporate world with prime responsibility to craft appropriate corporate tie-ups and courses-of-study, syllabus, and curriculum development synergized with current industry needs.*
- ✧ *Communicating the contemporary industry requirements and needs especially for fresher's recruitment by industry research to internal stakeholders and to act as a proactive link between the corporate world and university.*
- ✧ *Augmenting the University branding process by promoting all classes of constructive and productive activities as and when advised by University leadership.*
- ✧ *Creation of in-house industry forums at KIIT and promotion of associated technical societies.*
- ✧ *Creation and maintenance of KIIT Alumni database, which would help us in tapping people from the industry.*
- ✧ *Providing teaching/research opportunities to the industry professionals on sabbaticals and creating opportunities for KIIT faculty to work in corporate on sabbaticals.*

9.5.1.4 IEC Flagship Initiatives:

- Industry Electives and Minor
- Capstone Projects
- Internship & Projects
- Centre of Excellence (CoE)
- K-Hub
- Power Talk
- Tech Talk
- Pep Talk

9.5.1.5 Impact/Effectiveness:

- The initiative & interventions that IEC has been providing over the years have cemented the industry-academia relationship elevating the students strength, capability and readiness. Having the corporate presence in the campus has certainly given the students a real-time opportunity to intern in the campus itself thereby getting billable in all aspects much before they get graduated

9.5.2 KIIT Career School – CAAS

9.5.2.1 Purpose:

Kareer School (CAAS) was instituted with a solitary purpose of improving the career-readiness of Engineering & Management students of KIIT University. Its purpose has evolved to cater to all other disciplines like Law, Medical, Biotech and more. It is now also tasked with skill enhancement for in-house staff, partner institution and even foreign universities.

9.5.2.2 Management:

The department functions under a widely-experienced Director with cognizance of various career avenues and their dynamics. An astute Dean leads the administrative, strategic and academic activities of the department. Three verticals with capable and qualified faculty fulfil Quantitative, Technical and Verbal demands of career-concerned candidates.

9.5.2.3. Activities:

Beginning with continuous monitoring of job related requirements of constituent schools and consulting partners of the University, Kareer School (CAAS) delivers a range of duties. It on boards, trains, tests and finally supports aspirants of various professional goals. With its tech-focused approach, it seamlessly conducts physical, virtual and phy-gital courses, sessions and events.

✧ **Counseling for Higher Education (GATE/GRE, GMAT etc.)**

- Workshops & Webinars
- Various workshops and webinars are being arranged for the students to guide and assist them in preparation of higher education like GATE/GRE/GMAT etc. This is purely in choice basis by the student.
- Counseling and Orientation
- These are continuous process and goes on as per the need.

✧ **Placement Training**

1. Assessment

Students are being assessed at various periods by national level partners viz. Elitmus, CoCubes, SHL Aspiring Minds etc. To know the students eligibility according to the industry standards which leads to prepare then in the shortfall areas.

2. Company Specific Training

Before every upcoming placement drives company specific training is being provided to the students in order to make them specific company ready.

3. Soft Skill (HR PI /GD)

Mock GD and PI sessions are being arranged for the students frequently to groom the students for HR round interviews of the original placements.

4. Tech PI/ Industry focused project review session

These sessions go on round the year continuously one after another in order to make students ready for technical round interviews of original placements. Project review helps a student to get his minor/major

projects evaluated in various parameters eventually makes the student industry ready.

5. Summer Training

Need base training programs run during summer seasons where a student get opportunity to enroll himself/herself in the course(s) in which he or she is poor. For an example if a student is good in JAVA but not very good in Python, then he/she can learn it. Courses are also customized according to the requirements of the students. The core benefit is all the trainings are available for the students inside campus and a student need not to go outside by taking burden to learn.

6. SIP review

Students get opportunity to produce their SIP document and get it reviewed in various parameters and eventually are able to make themselves placement ready. This guidance also helps them to groom themselves for HR round interviews. This is specifically done for the MBA students.

7. Pre placement training (Tec/VA/QA)

These are the training classes on the subjects of Programming, Quantitative Aptitude, Logical Reasoning, Verbal Ability etc. which happen the whole year as per the time table prepared.

Semester wise preparation break up is given below for your better understanding. Note that it is subject to change in nature.

1st year

2nd semester :

- Orientation and platform onboarding
- Highlighting the Roadmap including the pre-requisites

2nd year

3rd semester :

- 2-3 Nos of Base Line Assessment on Cognitive and Communication Skills including Soft skills.

4th semester :

- Orientation and Base-Level Training on Technical, Cognitive, Communication Writing Skills and Soft skills.

3rd year

5th Semester:

- Base Line Assessment on core Domain areas
- Regular Training Sessions on Technical, Cognitive, Communication and Core-Domain Area.
- Certifications
- Live Workshops on Resume Building GD, PI and Writing Ability.
- Orientation on Internship Document Preparation and Presentation
- End semester Assessment (Exit Test-1)

6th Semester :

- Onboarding to Global Assessment Platforms.
- Regular Training Sessions on Technical, Cognitive, Communication and Core-Domain Area.
- Domain Training Sessions and Workshops on key domain Areas with assessments.

- Students Dossier Publication highlighting journey from the 1st year including participation, performance with a predictive analysis presentation followed by recommended learning and certification.
- Creation of Buckets @ Different levels of standard and niche-area competency
- Video Resume Building, Resume Document Creation and Portfolio Creation
- End Semester Assessment (Exit Test-2)

4th year

7th Semester :

- Publication of List of placement eligible students.
- Launching of Assessments Packages
- One to one Internship Evaluation
- Technical /HR PI & GD evaluation and grooming sessions
- Level-validation Assessments on both Domain and Cognitive skills.
- Resume validation, Profile Validation and Portfolio Validation
- Case Study Presentation and analysis on niche area proficiency
- Company Specific Trainings
- Placement Focused Internship Document Creation, Presentation and Assessment
- ExitTest-3

8th Semester :

- Company Specific Training for yet to be placed students.
- Remedial Sessions and Need base Training.

NB: The above Semester wise Training road map is specially designed for SOT. Similar kind of interventions are designed for SOM, KSRM, KSOL, KSBT and other Schools as per their need.

8. K200: This is a group of special top 200 students who are being selected for the off campuses in top notch companies like Google, Amazon etc.

9. Platform On boarding and Certification

Students get guidance regarding various Online Competitive Coding Platforms like HackerRank, LeetCode, HackerEarth, CodeChef etc etc. to on board, register themselves and go for certification. They get bit by bit assistance and information to complete the process.

Impact/Effectiveness:

The interventions that Career School has been providing over the last 9 years have progressively raised the collective standard of the graduate's industry-readiness. Despite pandemic-induced economic slowdown, inconsistent hiring trends and remote learning channels, Career School has fulfilled its obligations and kept the success indicators rising with one-to-one approach as well as digital outreach.

9.6 Entrepreneurship Cell (5)

(The institution may describe the facility, its management and its effectiveness in encouraging entrepreneurship and

incubation) (Success stories for each of the assessment years are to be mentioned)

KIIT DU encourages the development of entrepreneurs in a structured manner through Entrepreneurship Cell and KIIT Technology Business Incubator (KIIT TBI).

9.6.1 Entrepreneurship Cell:

Founded in 2013, KIIT E-CELL is dedicated to nurturing entrepreneurship culture among young and enthusiastic minds and helping them develop the perseverance muscle to walk the extra mile. We are keen to uphold budding entrepreneurs who seek to tackle the challenges of people through groundbreaking technological solutions; by implementing the assistance required with India's largest inbuilt technology business incubator, KIIT TBI. We ensure holistic development and a conducive learning environment for our students by hosting start-up talks, innovation challenges, workshops, techno-business sessions by celebrated entrepreneurs besides internship camps, and much more. The Cell is drawn to enhancing the hustle of young minds who are determined and driven.

9.6.1.1 Committee:

| Sl. No. | Name | Post |
|----------------|--------------------|-------------------------------|
| 1 | Adrita Chatterjee | Chairperson |
| 2 | Asmita Hobisyachi | ED-HR |
| 3 | Om Chaitanya | Managing Director |
| 4 | Pranab Das | Chief Operating Officer (COO) |
| 5 | Rupabarna Dastidar | Chief Marketing Officer (CMO) |
| 6 | Barneet Panda | Director-PCR |
| 7 | Smriti Srivastava | Director-R&D |
| 8 | Nishtha Konwar | Director-Content |
| 9 | Sambhavi Bhavya | Director-Design |
| 10 | Aarushi Shanker | Director-Tech |
| 11 | Vishwanath Akash | Director-T&P Associate |
| 12 | Abhilasha Sahoo | Director- ESC |
| 13 | Ayush Raj | Director-TAC |
| 14 | Shreya Prachi | Advisory(PCR) |
| 15 | Bitan Datta | Advisory(PCR) |
| 16 | Siddharth Prusty | Advisory(R&D) |
| 17 | Purba Dey | Advisory(R&D) |
| 18 | SN Surajbhan | Advisory(Content) |
| 19 | Aditya Singh | Advisory(Design) |
| 20 | Devansh Shaw | Advisory(Tech) |
| 21 | Mithilesh Mishra | Advisory(Tech) |

| | | |
|----|----------------------|---------------------------|
| 22 | Akshita Agarwal | Advisory(Tech) |
| 23 | Sumit Kumar Sahu | Advisory(Tech) |
| 24 | Shashank Shekhar | Senior Executive(PCR) |
| 25 | Khushi Kumari | Senior Executive(PCR) |
| 26 | Rishabh Bharadwaj | Senior Executive(PCR) |
| 27 | Pragya Pranjal | Senior Executive(PCR) |
| 28 | Navnil Das | Senior Executive(PCR) |
| 29 | Yash Vardhan Gupta | Senior Executive(PCR) |
| 30 | Srijita Bhattacharya | Senior Executive(PCR) |
| 31 | Avinav Kumar Roy | Senior Executive(PCR) |
| 32 | Aditya Srivastava | Senior Executive(R&D) |
| 33 | Pranshu Sharma | Senior Executive(R&D) |
| 34 | Debankur Das | Senior Executive(R&D) |
| 35 | Yuvika Singh | Senior Executive(R&D) |
| 36 | Abhiraj Singh | Senior Executive(R&D) |
| 37 | Bhavya Mittal | Senior Executive(Content) |
| 38 | Diksha Pranjali | Senior Executive(Content) |
| 39 | Bhawya Sinha | Senior Executive(Content) |
| 40 | Parth Maheshwari | Senior Executive(Content) |
| 41 | Mayank Jain | Senior Executive(Content) |
| 42 | Bibek Ranjan Biswal | Senior Executive(Design) |
| 43 | Cyrus Bhandari | Senior Executive(Design) |
| 44 | Antarik Dutt | Senior Executive(Design) |
| 45 | Durgesh Kumar | Senior Executive(Tech) |
| 44 | Aditya Sinha | Senior Executive(Tech) |
| 45 | Shubham Kumar | Senior Executive(Tech) |
| 46 | Swayam Kumar | Senior Executive(Tech) |
| 47 | Soham Raj Jain | Executive(PCR) |
| 48 | Alisha Panigrahi | Executive(PCR) |
| 49 | Shreya Roy | Executive(Design) |
| 50 | Marvis | Executive(Design) |
| 51 | Shubh Mittal | Executive(Tech) |
| 52 | Deeksha Lakhotia | Intern(PCR) |
| 53 | Suryansh Kumar Singh | Intern(PCR) |
| 54 | Abhishek Dutta | Intern(PCR) |

| | | |
|----|---------------------|-----------------|
| 55 | Aman Kumar | Intern(PCR) |
| 56 | Ayushi Mohanty | Intern(PCR) |
| 57 | Ryan Alam | Intern(PCR) |
| 58 | Shivli Singh | Intern(PCR) |
| 59 | Anish Singh | Intern(PCR) |
| 60 | Krish Batra | Intern(PCR) |
| 61 | Abhipsha Das | Intern(PCR) |
| 62 | Mudit Yadav | Intern(PCR) |
| 63 | Pranjal Biswas | Intern(PCR) |
| 64 | Rahul Raj | Intern(R&D) |
| 65 | Aviral Kishore | Intern(R&D) |
| 66 | Aaryak Prasad | Intern(R&D) |
| 67 | Abhyuday Upadhyay | Intern(R&D) |
| 68 | Varanya Dwivedi | Intern(R&D) |
| 69 | Tushar Bhattarai | Intern(R&D) |
| 70 | Sohini Joarder | Intern(Content) |
| 71 | Vaidehi Gupta | Intern(Content) |
| 72 | Sachi Verma | Intern(Content) |
| 73 | Sarvagya | Intern(Design) |
| 74 | Sanu Verma | Intern(Design) |
| 75 | Dipta Talukdar | Intern(Design) |
| 76 | Rishit Divyam | Intern(Design) |
| 77 | Vineet Kumar Pilani | Intern(Tech) |
| 78 | Bhaskar Gupta | Intern(Tech) |
| 79 | Ashish Mahapatra | Intern(Tech) |
| 80 | Saptaswa Mistri | Intern(Tech) |

9.6.1.2. Activities:

- a. **E-Summit:** KIIT E-Summit is E-Cell's annual mega event bringing in number of speakers, investors, incubators, early entrepreneurs, students, corporates, venture capitalists and start-ups from all over the country to one platform sharing their entrepreneur ventures and wisdom and delegates to plunge into a memorable and splendid frenzy of the startup world with competitions with huge cash prizes, number of speaker sessions by CEO's and other top level executives in India.
- b. **Internship Camp:** A 3 Day workshop aimed to develop entrepreneurial aptitude among students by holding events with recognized start-up giants. E-Summit falls under this

initiative. The Internship Camp facilitates a symbiotic relationship between companies and the students of KIIT University. In this camp we focus on providing the best set of talents to the companies keeping in mind their needs, simultaneously we offer students bag internships in various domains

- c. **Startup Konclave:** KIIT Startup Konclave stands for bringing together people from all around KIIT University and India who are interested in starting their own business and are showcasing their skills and strengths to the world. This will aid in fostering an entrepreneurship temperament and culture among participants as well as their professional development.
- d. **Hult Prize:** The Hult Prize Foundation transforms how young people envision their own possibilities as leaders of change in the world around them. With a US\$1,000,000 global startup prize as its anchor activity, the Hult Prize has brought impact-focused programs, events and training to over a million students globally, creating a pathway for youth everywhere to take action to build a better world. KIIT E-Cell organizes the on-campus round of Hult Prize.
- e. **Entrepreneurship Awareness Camp:** A 3 Day workshop aimed to develop entrepreneurial aptitude among students by holding events with recognized start-up giants. E-Summit falls under this initiative.
- f. **Community Learning:** A 3 Day workshop aimed to develop entrepreneurial aptitude among students by holding events with recognized start-up giants. E-Summit falls under this initiative.
- g. **Bizzand Bytes:** KIIT E-CELL brings you "Bizz & Bytes", a unique hackathon for both tech junkies as well as budding entrepreneurs!
- h. **WOW:** We hope to give a platform to engage with women in the field of technology, raise them as a brand, launch an app, or change jobs by connecting to Women Who Code in the global network through the Women on the Web project
- i. **MAKER'S LAB:** Our newest initiative is the Maker's Lab. We hope to establish an incubator place for entrepreneurs where they may come and collaborate. We will also provide them with the necessary mentorship, technological support, and resources. This would serve as a platform for the institution to produce successful enterprises in the future.
- j. **CAMPUSPRENEUR:-** We believe that when our talented and motivated people work with us towards the same goal, we can increase our efficiency and influence. Our CAMPUSPRENEUR program aims to achieve the above goals.

9.6.1.3 List of Entrepreneurs:

| Sl. No. | Name | Name of Company |
|---------|-------------------|-----------------|
| 1 | Divyanshu Shekhar | TyUp |
| 2 | Rahul Anand | Eduflick |
| 3 | Rajat | Exavaganza |
| 4 | Deviprasad Nayak | Fetch Giant |
| 5 | Prince Raj | Notescare |

| | | |
|----|-------------------|----------------------|
| 6 | Sarthak Mishra | Plates |
| 7 | Sourav Rout | ReadyGo Cabs |
| 8 | Prateek Kunwar | Yoken Online |
| 9 | Aman Kumar | PaperMart |
| 10 | Biswadeep Sarkar | BrandAd |
| 11 | Niket Raj Dwivedi | The Write Order |
| 12 | Prince Raj | Ozy Foods |
| 13 | Akshat Anurag | TayBill |
| 14 | Oismita Mishra | A Bow on Top |
| 15 | Sourav Dhal | Adore Beings |
| 16 | Vivek Kumar | EduHill Technologies |
| 17 | Shubham Saurav | Financialfancier |

9.6.2. KIIT-Technology Business Incubator (KIIT-TBI)

KIIT-Technology Business Incubator (KIIT-TBI), recipient of National Award for TBI in 2017 is a not-for-profit incubator established in 2009, as an initiative of KIIT DU, Bhubaneswar and is supported by government bodies like NSTEDB, DST, MeitY, MSME, BIRAC, TDB to boost the entrepreneurial ecosystem in the country.

Today KIIT-TBI is recognized as a “Centre of Excellence in Incubation” awarded by DST, Govt of India. As a Technology Business Incubator, it has been networked with all TBIs in the country through various networks like ISBA through which the organization is networked with AABI (Asia Pacific), European UKBI and US NBIA. It is also a member of the Asia Pacific Incubator Network (APIN). Over the years, KIIT-TBI has been working as an implementing partner of various government sponsored flagship funding and fellowship programs like DST - NIDHI EIR and PRAYAS, DBT BIRAC - Biotechnology Ignition Grant, Boeing India - BUILD Program, DBT BIRAC – Social Innovation Immersion Programme, Invest India – Agriculture Grand Challenge and many more. Recently, KIIT-TBI has been recognized as one of the satellite centers for DST-CAWACH Program and MeitY SASACT Program. The DBT BIRAC has established one of its regional centers (BRTC) at KIIT -TBI to promote the startup ecosystem in east and northeast regions of India and SPARSH center to address the problems of societal relevance through technological solutions. MSME, Govt. of India has established SFURTI Centre at KIIT-TBI to promote cluster development. KIIT-TBI is also identified as the Nodal Incubator to set up Food Testing Lab facility by Startup Odisha. Recently, DBT BIRAC announced to establish one of the Technology Transfer Offices in KIIT-TBI.

KIIT-TBI provides an appropriate platform and environment with a world-class infrastructure of around 120,000 sq. ft. that offers a wide range of incubation facilities and services to the prospective entrepreneurs to convert their innovative ideas into commercially viable products and till date, it has already incubated and mentored 200+ startups and filed 80+ IPs.

KIIT-TBI is incubating startups in the domain of IT and Engineering, Cleantech, Healthcare and Life Sciences, Biotechnology, Agri and Food Tech and other social innovation areas. KIIT-TBI

always holds the door wide open to welcome innovations to grow in to businesses by its stimulating and enterprising ecosystem.

9.6.3 Objectives:

- Create awareness among the students & graduates of the importance of small and medium business houses towards community development.
- Identify potential entrepreneur and nurture and support them to develop independent self-sustaining business.
- To foster linkages between the parent institution, industries and R & D institutions in the region and other related organizations engaged in promoting small and medium enterprises including NGOs & other voluntary organizations.
- To catalyze and promote development of S & T based enterprises and promote employment opportunities.
- To provide a platform for speedy commercialization of the research and technologies developed in the institutes.

9.6.4 Function:

- Build appropriate training programmes suitable for socio – economic culture of odisha.
- Identify market niche for technology products and services to be addressed.
- Train the entrepreneurs in technology and business management.
- Offer the professional business development services for the entrepreneurs who have mature concepts for unique and innovative products assessed to have strong commercial viability.
- Provide platform for IPR protection, technology transfer and commercialization facility for the innovators.

9.6.5 Facilities

| Sl. No. | Start up life cycle / feature | Ideation | Prototyping | Commercialization |
|---------|-------------------------------|--|---|--|
| 1 | Advisory Support | <input type="checkbox"/> Conducting outreach programs for idea spotting | <input type="checkbox"/> Providing mentoring: human resources | <input type="checkbox"/> Conducting training on marketing skills, finance etc. |
| | | <input type="checkbox"/> Validating viability/potential of various ideas | <input type="checkbox"/> Assistance in conducting marketing trails: marketing & related ideas | <input type="checkbox"/> Assistance in developing business growth strategy. |
| | | <input type="checkbox"/> Providing mentoring support | <input type="checkbox"/> Developing client entry & exit criteria | <input type="checkbox"/> Providing recruitment advice. |
| | | <input type="checkbox"/> Conducting business training program | <input type="checkbox"/> Conducting training on marketing skills, finance etc | <input type="checkbox"/> Customized mentor clinics for innovators on IP, Regulatory, |

| | | | | |
|---------------|-------------------------|--|--|--|
| | | | | Business, etc. |
| | | <input type="checkbox"/> Team Building resource planning | <input type="checkbox"/> Design Thinking Workshops | <input type="checkbox"/> Product Piloting & Launch |
| | | <input type="checkbox"/> Team Building resource planning | <input type="checkbox"/> Buisness Model Canvas | <input type="checkbox"/> Creating fund raising plan & building the runway the right way. |
| | | <input type="checkbox"/> Market opportunity Analysis | <input type="checkbox"/> Product design & Prototyping | <input type="checkbox"/> Product Sales strategy |
| | | <input type="checkbox"/> Competitive Landscape Analysis | <input type="checkbox"/> Product Validation | <input type="checkbox"/> Cost benefits Analysis |
| Sl No. | Support Features | FUNDING AGENCIES | | |
| 2 | Funding support | The National Science and Technology Entrepreneurship Development Board (NSTEDB) | Technology Development Board, Department of Science & Technology (DST), GOI. | Biotechnology Industry Research Assistance Council. |
| | | <u>TIDE</u> | <u>MSME</u> | <u>SIDBI</u> |
| | | Technology Incubation & Development of Entrepreneurs Scheme, Department of Electronics & Information Technology (DeitY). | Ministry of Micro Small & Medium Enterprises, Government of India. | <u>Small Industries Development Bank of India</u> |
| | | Invest India | Startup Odisha | Meity (Ministry of Electronics & Information Technology) |
| | | India Health Fund | Public Serving Unit | Social Alpha |
| | | Neotech Hub | Ankur Capital | IDEX |
| | | | | Ministry of Defense, Government of India |
| | | HDFC Bank | Design Alpha | Boeing |
| | | Erasmus | Agnii | YES Bank |
| | | Programme of the European Union | | |
| | | Department of International Development | CARPEDIEM | India Patent Foundation |

| | |
|------------------------|---|
| Infrastructure Support | 1) Digital Fabrication lab-PRAYASHALA (Supported By DST) |
| | Design & Prototyping lab |
| | Electronics lab |
| | Heavy Machinery lab |
| | |
| | 2) BioNEST Lab (Supported by DBT BIRAC) |
| | Cell Culture lab |
| | Bioprocess lab |
| | Analytical lab |
| | Central Instrumentation lab |
| | 3) NIDHI-CoE Digital Health Lab (Supported by DST) |
| | Analytical Facility, Fablab, Digital Health Lab, Digital Health Lab |
| | Digital Health Lab |
| | 4) Food Testing Lab (Supported by Startup Odisha) |
| | Food Testing Facilities |
| | Water Testing Facilities |

9.6.6 The impact of the KIIT TBI

| | | | |
|---|----------------------------------|--------------------------------|---|
| Total Incubation Space 130000 sq.ft. | Total IP Generated 170+ | Product Commercialised 100+ | Total External Investment Raised 13 Billion+ |
| Total Valuation of start-ups -80 Billion | Direct Jobs Created 4500+ | Technologies Developed 250+ | Awards & Recognition by start-ups 90+ |
| Total Start-ups supported 350+ | Total Start-ups supported 352 | Start-ups Graduated 160+ | Stakeholders Partners 150+ |
| Women led start-ups supported 70+ | Products in the Market 90+ | Mentors Engaged 200+ | |

9.6.7 Workshop Conducted by KIIT TBI (2018-2019 to 2021-2022)

| Sl. No. | Date | Name of the Event | Resource Person |
|---------|------------|--|-----------------|
| 1 | 02.08.2021 | BIG-19th Call Sensitization Session Series- 01 | BIG Team |
| 2 | 04.08.2021 | BIG-19th Call Sensitization Session Series- 02 | BIG Team |
| 3 | 06.08.2021 | BIG-19th Call Sensitization Session Series- 03 | BIG Team |
| 4 | 09.08.2021 | BIG-19th Call Sensitization Session Series- 04 (Northeast) | BIG Team |
| 5 | 11.08.2021 | BIG-19th Call Sensitization Session Series- 05 | BIG Team |
| 6 | 14.08.2021 | BIG-19th Call Sensitization Session Series- 06 | BIG Team |

| | | | |
|----|-------------------------------|---|----------|
| 7 | 17.08.2021 | BIG-19th Call Sensitization Session Series- 07 | BIG Team |
| 8 | 18.08.2021 | BIG-19th Call Sensitization Session Series- 08 | BIG Team |
| 9 | 20.08.2021 | BIG-19th Call Sensitization Session Series- 09 | BIG Team |
| 10 | 23.08.2021 | BIG-19th Call Sensitization Session Series- 10 | BIG Team |
| 11 | 24.08.2021 | BIG-19th Call Sensitization Session Series- 11 | BIG Team |
| 12 | 26.08.2021 | BIG-19th Call Sensitization Session Series- 12 | BIG Team |
| 13 | 28.08.2021 | BIG-19th Call Sensitization Session Series- 13 | BIG Team |
| 14 | 30.08.2021 | BIG-19th Call Sensitization Session Series- 14 (Northeast) | BIG Team |
| 15 | 31.08.2021 | BIG-19th Call Sensitization Session Series- 15 | BIG Team |
| 16 | 01.09.2021 | BIG-19th Call Grant Writing Session Series- 01 | BIG Team |
| 17 | 02.09.2021 | BIG-19th Call Grant Writing Session Series- 02 | BIG Team |
| 18 | 03.09.2021 | BIG-19th Call Grant Writing Session Series- 03 | BIG Team |
| 19 | 06.09.2021 | BIG-19th Call Grant Writing Session Series- 04 | BIG Team |
| 20 | 07.09.2021 | BIG-19th Call Grant Writing Session Series- 05 | BIG Team |
| 21 | 08.09.2021 | BIG-19th Call Grant Writing Session Series- 06 | BIG Team |
| 22 | 09.09.2021 | BIG-19th Call Grant Writing Session Series- 07 | BIG Team |
| 23 | 13.09.2021 | BIG-19th Call Grant Writing Session Series- 08 | BIG Team |
| 24 | 14.09.2021 | BIG-19th Call Grant Writing Session Series- 09 | BIG Team |
| 25 | 15.09.2021 | BIG-19th Call Grant Writing Session Series- 10 | BIG Team |
| 26 | 17.09.2021 | 360 Degree Overview Biotechnology Ignition Grant (BIG) | BIG Team |
| 27 | 22.09.2021 - 23.09.2021 | Capacity building Training program on Innovation and Entrepreneurship | BRTC |
| 28 | 27.09.2021 - 28.09.2021 | Capacity building Training program on Innovation and Entrepreneurship | BRTC |
| 29 | 03.01.2022 | BIG-20th Call Sensitization Session Series- 01 | BIG Team |
| 30 | 06.01.2022 | BIG-20th Call Sensitization Session Series- 02 | BIG Team |
| 31 | 10.01.2022 | BIG-20th Call Sensitization Session Series- 03 | BIG Team |
| 32 | 13.01.2022 | BIG-20th Call Sensitization Session Series- 04 (Northeast) | BIG Team |
| 33 | 17.01.2022 | BIG-20th Call Sensitization Session Series- 05 | BIG Team |
| 34 | 19.01.2022 | BIG-20th Call Sensitization Session Series- 06 | BIG Team |
| 35 | 21.01.2022 | BIG-20th Call Sensitization Session Series- 07 | BIG Team |
| 36 | 24.01.2022 | BIG-20th Call Sensitization Session Series- 08 | BIG Team |
| 37 | 27.01.2022 | BIG-20th Call Sensitization Session Series- 09 | BIG Team |
| 38 | 29.01.2022 | BIG-20th Call Sensitization Session Series- 10 | BIG Team |
| 39 | 02.02.2022 | BIG-20th Call Grant Writing Session Series- 01 (Bionest CITAR) | BIG Team |
| 40 | 02.02.2022 | BIG-20th Call Grant Writing Session Series- 02 (AIC-SKU) | BIG Team |
| 41 | 03.02.2022 | BIG-20th Call Grant Writing Session Series- 03 (RiiDL, Somaiya Vidhyavihar) | BIG Team |
| 42 | 03.02.2022 | BIG-20th Call Grant Writing Session Series- 04 (AIC-Nalanda) | BIG Team |

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|-----|-------------------------|---|-----------------------------|
| 43 | 04.02.2022 | BIG-20th Call Grant Writing Session Series- 05 (IIITM-K) | BIG Team |
| 44 | 04.02.2022 | BIG-20th Call Grant Writing Session Series- 06 (AIC-SEED IISER Pune) | BIG Team |
| 45 | 07.02.2022 | 360 Degree Overview Biotechnology Ignition Grant (BIG) | BIG Team |
| 46 | 2-3 March 2022 | Capacity building Training program on Innovation and Entrepreneurship | BRTC |
| 47 | 25-26 March 2022 | Capacity building Training program on Innovation and Entrepreneurship | BRTC |
| 48 | 09.07.2022 | BIG-21st Call Sensitization Session Series- 01 | BIG Team |
| 93 | 26.11.2021 | Technical Validation & NABL Accreditation | Riya Roy & Ray SaiSoubhagya |
| 94 | 29.12.2021 | Product Compliance | Riya Roy & Ray SaiSoubhagya |
| 95 | 03.01.2022 | Discussion on Required API | Riya Roy & Ray SaiSoubhagya |
| 96 | 29-12-2021 - 27.01.2022 | BIG-19 Pre-Mentoring Sessions | Aryan Jaiswal |
| 97 | 17.05.2022 - 4.06.2022 | BIG-20 Pre-Mentoring Sessions | Aryan Jaiswal |
| 98 | 21.05.2022 | Tricks of Effective Branding & Social Media Outreach | Riya Roy |
| 99 | 23.05.2022 | SIIP: Building a social Enterprise | Riya Roy |
| 100 | 26.05.2022 | SIIP: Team Building | Riya Roy |
| 101 | 27.05.2022 | SIIP: Idea Validation & Building MVP | Riya Roy |
| 102 | 30.05.2022 | Design Thinking to Choose Need Area & drafting your innovative need Statement | Riya Roy |
| 103 | 30.05.2022 | Environmanetal Impact of agri waste | Riya Roy |
| 104 | 31.05.2022 | Tools for Identifying Value Proposition and USP | Riya Roy |
| 105 | 31.05.2022 | Story Telling | Riya Roy |
| 106 | 02.06.2022 | Market Competitive Landscape Analysis | Riya Roy |
| 107 | 02.06.2022 | Sustainable Business Plan | Riya Roy |
| 108 | 03.06.2022 | Business communication skills for entrepreneurs | Riya Roy |
| 109 | 06.06.2022 | Problem statement canvas for startups | Riya Roy |
| 110 | 06.06.2022 | Essentials for successful Prototyping | Riya Roy |
| 111 | 07.06.2022 | Insights on existsting innovation in waste related to pharma based companies | Riya Roy |
| 112 | 07.06.2022 | Grassroot level existsting innovation on waste to value sector | Riya Roy |
| 113 | 08.06.2022 | Existing innovation in agrowaste sector | Riya Roy |
| 114 | 08.06.2022 | Waste to Value: Priority Areas, Ecosystem Partners, Funding landscape | Riya Roy |

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|-----|---------------------------|--|-----------------------------|
| 115 | 09.06.2022 | Waste to Value: Facts, Priority Areas & Government Initiatives | Riya Roy |
| 116 | 17.05.2022 - 4.06.2022 | BIG-20 Pre-Mentoring Sessions | Aryan Jaiswal |
| 117 | 21.05.2022 | Tricks of Effective Branding & Social Media Outreach | Riya Roy |
| 118 | 23.05.2022 | SIIP: Building a social Enterprise | Riya Roy |
| 119 | 26.05.2022 | SIIP: Team Building | Riya Roy |
| 120 | 27.05.2022 | SIIP: Idea Validation & Building MVP | Riya Roy |
| 121 | 30.05.2022 | Design Thinking to Choose Need Area & drafting your innovative need Statement | Riya Roy |
| 122 | 30.05.2022 | Environmanetal Impact of agri waste | Riya Roy |
| 123 | 31.05.2022 | Tools for Identifying Value Proposition and USP | Riya Roy |
| 124 | 31.05.2022 | Story Telling | Riya Roy |
| 125 | 02.06.2022 | Market Competitive Landscape Analysis | Riya Roy |
| 126 | 02.06.2022 | Sustainable Business Plan | Riya Roy |
| 127 | 03.06.2022 | Business communication skills for entrepreneurs | Riya Roy |
| 128 | 06.06.2022 | Problem statement canvas for startups | Riya Roy |
| 129 | 06.06.2022 | Essentials for successful Prototyping | Riya Roy |
| 130 | 07.06.2022 | Insights on existng innovation in waste related to pharma based companies | Riya Roy |
| 131 | 07.06.2022 | Grassroot level existng innovation on waste to value sector | Riya Roy |
| 132 | 08.06.2022 | Existing innovation in agrowaste sector | Riya Roy |
| 133 | 08.06.2022 | Waste to Value: Priority Areas, Ecosystem Partners, Funding landscape | Riya Roy |
| 134 | 09.06.2022 | Waste to Value: Facts, Priority Areas & Government Initiatives | Riya Roy |
| 135 | 03.12.2021 | Business Model & Business Plan | Riya Roy & Ray SaiSoubhagya |
| 136 | 13.01.2022 | The art to VC negotiation | Riya Roy & Ray SaiSoubhagya |
| 137 | 14.01.2022 | Investor Connect:Social Alpha | Riya Roy & Ray SaiSoubhagya |
| 138 | 17.01.2022 | Funding opportunities for product commercialization | Riya Roy & Ray SaiSoubhagya |
| 139 | 01.02.2022 | Deployment & Market connect for technology-led startups in lifeline sectors like water | Riya Roy & Ray SaiSoubhagya |
| 140 | 23.03.2022 | Session on Technology Development Board , GoI support in funding and product development and commercialization | Riya Roy & Ray SaiSoubhagya |

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|-----|-------------------------------|---|--------------------------------|
| 141 | 26.03.2022 | Masterclass on Investor Aligned Pitch Deck | Riya Roy & Ray SaiSoubhagya |
| 142 | 29.03.2022 | BIG-Investment :Pitch Perfect | Dr. Bhaskar Das |
| 143 | 19.11.2021 | Intellectual Property Rights | Riya Roy & Ray SaiSoubhagya |
| 144 | 18.01.2022 | Support in IP & Technology Development | Riya Roy & Ray SaiSoubhagya |
| 145 | 26.02.2022 | Intellectual Property & Its Significance in Academia | Dr. Amaresh & Dr. Samuel |
| 146 | 04.03.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 147 | 11.03.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 148 | 20.04.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 149 | 18.05.2022 - 19.05.2022 | IP Formation Workshop | Dr. Bhaskar Das |
| 150 | 27.05.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 151 | 09.06.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 152 | 13.06.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 153 | 22.06.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 154 | 28.06.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 155 | 26.07.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 156 | 27.07.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 157 | 28.07.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 158 | 02.08.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 159 | 03.08.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 160 | 05.08.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 161 | 10.08.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 162 | 26.09.2022 | The Role of IP in Biotechnology Innovation @Bootcamp | Dr. Amaresh & Dr. Samuel |

| | | | |
|-----|-------------------------------|--|--------------------------|
| 163 | 27.09.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 164 | 30.09.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 165 | 13.09.2022 - 14.09.2022 | Reasearch to Reality 2.0 (2 days workshop for IP & TT) | Dr. Amaresh & Dr. Samuel |
| 166 | 30.09.2022 | IPR Awareness Program | Dr. Amaresh & Dr. Samuel |
| 167 | 29.01.2021 | Road Show | Riya Roy |
| 168 | 17.03.2021 | Road Show | Riya Roy |
| 169 | 11.05.2021 | Road Show | Riya Roy |
| 170 | 06.08.2021 | Road Show | Riya Roy |
| 171 | 16.12.2021 | TTO Road Show | Dr. Amaresh & Dr. Samuel |
| 172 | 10.03.2022 | TTO Road Show | Dr. Amaresh & Dr. Samuel |
| 175 | 19.04.2022 | TTO Road Show (BOOT CAMP) | Dr. Amaresh & Dr. Samuel |
| 177 | 20.04.2022 | TTO Road Show (BOOT CAMP) | Dr. Amaresh & Dr. Samuel |
| 178 | 06.07.2022 | Road Show | Riya Roy |
| 179 | 15.07.2022 | Road Show | Riya Roy |
| 180 | 30.07.2022 | Road Show | Riya Roy |

9.6.8 List of Entrepreneurs

| Name of Entrepreneur | Company Name/PI name | Project details |
|-------------------------|---|---|
| Mr. Sambit Tripathy | Workoff Industries Pvt. Ltd. | Agropac- converting crop residues (corn cob, corn stalk, rice husk, rice straw) into self binding natural fiber through mechanical process. |
| Mr. Surjeet Singh Gour | IVEYS Innovation Pvt Ltd | Automation of Welding Machines |
| Mr. Pritam Dhalla | Larkai Innovations Pvt Ltd | CardioTrack - A handheld cardiac abnormalities screening device based on acoustics |
| Mr. Sudipta Pathak | Shyama Projection Engineering And Research | 3-AXIS STABILIZED BIPOD MOUNT |
| Dr. Ashok Badamali | INFINITY RESEARCH AND DEVELOPMENT PRIVATE LIMITED | SANJIVANI: Compression Only Life Support (COLS) Assist Gadget for Community use |
| Dr. Kanika Singh Dhull | K First Biotech Pvt. Ltd. | A Impregnated Disposable Baby Tooth Cleaning and Gum Massaging Device |
| Dr. Nivedita Sahoo | RN Biomedical Pvt Ltd | Cranio-mandibular Brace: A novel device for Myo-facial Pain Dysfunction Syndrome (MPDS) |
| Mr. Prithwiraj Dasgupta | VENOM PLASMA LLP | VENOM - our Air De-Toxifier provides Bio-Oxygen Plasma. |
| Mr. Rudra Prasad Das | Orassia Biotechnology Private Limited | Probiotics from millets |

| | |
|------------------|--|
| Mr. Shikha Singh | The project is to make low-cost temporary utensils using plant leaves. |
|------------------|--|

9.7 Co-curricular and Extra-curricular Activities (10)

(The institution may specify the co-curricular and extra-curricular activities) (Quantify activities such as NCC, NSS etc.)

9.7.1 Introduction

The Institute has a fully functional nominated students' Council i.e. KIIT Student Activity Centre that aims to bring all the students of the Institute under one roof with the objective of establishing a common ground for extracurricular activities as well as providing a platform for sharing talent, culture, and innovative ideas. In addition to that, KIIT Student Activity Centre organizes a handful of events comprising different genres such as delegation, workshops, cultural, etc which help students working as Organizers to develop interpersonal skills such as leadership, positive attitude, relationship management, and team management. In addition to this, KIIT has KIIT NSS, KIIT NCC, KIIT Youth Red Cross. Brief details of each society along with activity details are given

9.7.2 KIIT NSS Bureau

NSS trains the body and mind of young men and women to rise to help others in distress, voluntarily, without being asked or without a personal motive.

- Programme Coordinator - 1
- Units of NSS - 35
- Programme Officers - 20
- NSS Volunteers - 1750



Clothes Distribution



World Cancer Day During COVID 19



Jal Diwas



Sanitary Napkin Distribution



Addhyayan (Teaching in Slum Area)



Animal Care (Food Donation Drive)

Fig. 9.7.2.1: Snapshots of NSS activities

9.7.2.1 List of Events conducted by KIIT NSS (2018-2019)

| Sl. No. | Date | Activity |
|---------|------------|---|
| 1 | 8/1/2019 | Founder's Cup Debate |
| 2 | 23/03/2019 | Tata cracable campus quiz |
| 3 | 1/4/2019 | Pratijja (National level oratory competition) |
| 4 | 28/08/2018 | Sweden India Memorial Quiz |
| 5 | 1/10/2018 | Sweden India Memorial Quiz |

| | | |
|----|--------------------------|--|
| 6 | 23/10/2018 | KIIT MUN |
| 7 | 26/01/2018 | Observation of Republic Day |
| 8 | 2/2/2019 | KIIT TEDX Event |
| 9 | 16/02/2019 | Foundation Day |
| 10 | 8/3/2019 | Observation of International Women's Day |
| 11 | 19/03/2019 | Observation of International Student's Day |
| 12 | 1/4/2019 | Observation of Utkal Divas |
| 13 | 8/4/2019 | Observation of Telugu New Year |
| 14 | 14/04/2019 | Observation of Regional New Year |
| 15 | 17/05/2019 | Observation of International Art of Giving Day |
| 16 | 21/06/2019 | Observation of International Yoga Day |
| 17 | 1/7/2018 | Iftar Party Celebration |
| 18 | 15/07/2018 | Observation of World Youth Skill Day |
| 19 | 5/8/2018 | Suhana Safar Event |
| 20 | 15/08/2018 | Observation of Independence Day |
| 21 | 19/08/2018 | Fest on Global Village |
| 22 | 25/08/2018 | Observation of Onam |
| 23 | 5/9/2018 | Observation of Teacher's Day |
| 24 | 14/9/2018 | Observation of Hindi Divas |
| 25 | 21/9/2018 | Observation of International Peace Day |
| 26 | 24/9/2018 | Observation of NSS Day |
| 27 | 18/9/2018 to 30/9/2018 | KIIT International MUN |
| 28 | 12/10/2018 to 14/10/2018 | Kritarth Event |
| 29 | 09/11/2018 to 11/11/2018 | Chimera Event |
| 30 | 14/11/2018 | Observation of Children's Day |
| 31 | 1/12/2018 | Observation of World Aids Day |
| 32 | 3/12/2018 | Differently able Day Celebration |
| 33 | 13/12/2018 to 16/12/2018 | KIIT Fest |
| 34 | 25/12/2018 | Christmas Day Celebration |
| 35 | 26/12/2018 | Grand Alumni Meet |

9.7.2.2 List of Events conducted by KIIT NSS (2019-2020)

| Sl. No. | Date | Activity |
|---------|-------------|--|
| 1 | 13/01/2019 | Swachhata Pakhwada |
| 2 | 9/1/2019 | Swachh Bharat Abhiyan |
| 3 | 10/2/2019 | Sarva Shiksha Abhiyan |
| 4 | 24/02/2019 | Swachh Bharat Mission |
| 5 | 10/3/2019 | Program on Eat Right India |
| 6 | 26/03/2019 | Awareness Program on Prevention of Alcoholism and Substance (Drug) Abuse |
| 7 | 4/4/2019 | Swachh Bharat Abhiyan |
| 8 | 19/04/ 2019 | Anti-drug addiction drive |
| 9 | 27/04/ 2019 | Cancer awareness program |
| 10 | 04/05/ 2019 | NukkadNaatak – women's empowerment |
| 11 | 20/05/2019 | Jal Sakti Abhiyan |
| 12 | 31/05/2019 | Swachh Bharat Abhiyan |
| 13 | 11/6/2019 | Green India mission |
| 14 | 25/06/2019 | Daan Seva |
| 15 | 7/7/2019 | Prashanti Vihar School Visit |
| 16 | 10/7/2019 | Swachh Bharat Village Visit at Padmakesharipur |
| 17 | 13/07/2019 | Mega Plantation Utsav |

9.7.2.3 List of Events conducted by KIIT NSS (2020-2021)

| Sl. No. | Date | Activity |
|---------|------------|---|
| 1 | 11/1/2020 | Swachhata Pakhwada |
| 2 | 18/01/2020 | Cyclathon |
| 3 | 19/01/2020 | Personal Health and Hygiene Drive (Barang village) |
| 4 | 23/01/2020 | NSS: Nukkad Natak |
| 5 | 23/01/2020 | Nukkad Natak at Sri Sri University |
| 6 | 23/01/2020 | Nukkad Natak at KIIT Campus 3 |
| 7 | 26/01/2020 | Silent March KIIT campus and KIIT road |
| 8 | 26/01/2020 | Happiness concert |
| 9 | 26/01/2020 | Kaizer 2.0 Event |
| 10 | 26/01/2020 | Observation of Republic Day 2020 |
| 11 | 30/01/2020 | Talk Show |
| 12 | 1/2/2020 | Traffic Awareness (KIIT Chowk) |
| 13 | 1/2/2020 | Awareness about Corona Virus and Bird Flu (Shikharchandi slums) |
| 14 | 1/2/2020 | Prashanti Vihar School |
| 15 | 01/02/2020 | Shri Krishna Old Age Home Visit |
| 16 | 1/2/2020 | Army Day Celebration with 120 Infantry Battalion(TA), Bihar |
| 17 | 2/2/2020 | Manna Wisdom School Visit |
| 18 | 08/02/2020 | Nandankanan Cleanliness Drive |

9.7.2.4 List of Events conducted by KIIT NSS (2021-2022)

| Sl. No. | Date | Activity |
|---------|--------------------------|--|
| 1 | 20/2/2021 | Awareness Program on First Aid In Emergencies; Saftey Measures To Prevent Home Accidents |
| 2 | 20/2/2021 | Awareness Campaign On Basic Hygiene And Sanitation At Tangibanta Village |
| 3 | 8/3/2021 | International Women's Day Celebration |
| 4 | 14/3/2021 | Plantation Drive |
| 5 | 24/3/2021 | Awareness Programme: "Violence Against Women" |
| 6 | 13/4/2021 | Awareness Program: Tika Utsav |
| 7 | 14/4/2021 | Tika Utsav (Distribution Of Masks And Motivating Eligible People To Get Vaccinated) |
| 8 | 24/05/2021 to 31/05/2021 | Observation of World No Tobacco Day |
| 9 | 31/05/2021 | Bharat Ka Amrut Mahotsav |
| 10 | 5/6/2021 | Environment Day Celebration |
| 11 | 6/06/2021 | Webinar On Summer Diet And Covid |
| 12 | 12/6/2021 | World Day Against Child Labour |
| 13 | 14/06/2021 | Blood Donors Celebration |
| 14 | 21/06/2021 | Observation of International Day Of Yoga |
| 15 | 25/06/2021 | National Symposium On 'Bharat Ka Amrut Mahotsav' |
| 16 | 17/7/2021 | Bharatka Amrut Mahotsav |
| 17 | 23/07/2021 | Tokyo Olympics # Cheer For India Campaign |
| 18 | 26/07/2021 | Kargil Vijay Diwas 2021 |
| 19 | 1/8/2021 | Swachhta Pakhwada Celebration |
| 20 | 4/8/2021 | Plantation Drive |
| 21 | 5/8/2021 | Observation of Oral Hygiene Day |
| 22 | 05/08/2021 | World Breastfeeding Week 2021 |

| | | |
|----|----------------------------|---|
| 23 | 8/8/2021 | Delta Covid Variant |
| 24 | 15/8/2021 | Swacchhta Pakhwada |
| 25 | 15/8/2021 | Observation of Independence Day |
| 26 | 16/8/2021 | Spreading Awareness To Villages Of Bhubaneswar And Similipal |
| 27 | 19/8/2021 | Observation of World Humanitarian Day |
| 28 | 26/8/2021 | Women's Equality Celebration |
| 29 | 16/09/2021 | Rashtriya Poshan Maah 2021 |
| 30 | 16/09/2021 | NSS Week-2021 |
| 31 | 18/09/2021 | Vitamin Vs Covid 19 Awareness |
| 32 | 20/09/2021 | KINS & KIDS NSS Celebrate NSS Week-2021 |
| 33 | 11/10/2021 | Observation of International Girl Child Day 2021 |
| 34 | 21/10/2021 | International Cyber Security Awareness Month |
| 35 | 30/10/2021 | Observation of National Unity Day |
| 36 | 24/10/2021to 30/10/2021 | Waste Management Week |
| 37 | 1/11/2021 | Awareness On Malnutrition |
| 38 | 02/11/21 to 03/11/21 | Campaign on Vocal For Local |
| 39 | 8/11/2021 | Kids' Canvas: An Art Competition For Children |
| 40 | 14/11/21 | Children's Day Event |
| 41 | 22/11/21 | Cyber Security Awareness Month Pledge |
| 42 | 26/11/21 | Constitution Day Pledge: NSS SoEE |
| 43 | 28/11/2021 | Plogging |
| 44 | 30/11/2021 | Kangaroo Mother Care |
| 45 | 7/12/2021 | World Aids Day 2021 Kids Organizes Health Education Programme |
| 46 | 11/12/2021 | School Health Program |

9.7.3 NCC Activities

NCC trains students to stay disciplined and united in all the tasks they undertake.

- **Army Wing**
- **NCC Cadet Strength- 50**
- **2 Certificate Programmes in NCC : B & C**



Youth Exchange Program



World Cancer Day During COVID 19



Republic Day Camp



Republic Day Celebration



NSS Cadet received golden medal from Hon'ble Prime Minister



Republic Day Parade

Fig. 9.7.3.1: Snapshots of NCC activities

9.7.3.1 List of Programme conducted by KIIT NCC

| Sl. NO | YEAR | NAME OF THE CADETS | RDC/SNIP/AMC/BMC/AAC | YEP |
|----------------|---------|-------------------------|----------------------|----------------------------|
| | | | | (Youth Exchange Programme) |
| 2018-19 | | | | |
| 1 | 2018-19 | SUO Debajit Datta | RDC-2018,New Delhi | Kazakhstan(May-18) |
| 2 | 2018-19 | SUO Koyal Chattopadhyay | RDC-2018,New Delhi | Sri Lanka(Oct-18) |
| 3 | 2018-19 | SUO Prasanta Jaiswal | RDC-2018,New Delhi | Kazakhstan(May-18) |
| 4 | 2018-19 | SUO Avantika | RDC-2018,New Delhi | Singapore(Nov-18) |
| 5 | 2018-19 | SUO Siddharth Singh | RDC-2018,New Delhi | Russia(Oct-18) |
| 6 | 2018-19 | SUO Ananya Shahi | RDC-2018,New Delhi | - |

| | | | | |
|----------------|---------|-------------------------------|------------------------------------|---------------------------|
| 7 | 2018-19 | SER Lakshya Arya | SNIC-2018,Port Blair | - |
| 8 | 2018-19 | CDT Yaashi Jain | i)AMC, Uttarkashi-2017 | |
| | | | ii)BMC, Darjeeling-2016 | |
| | | | iii)Mt Everest Base Camp trek-2017 | |
| | | | iv) Mt. Jogin III peak summit-2018 | |
| 9 | 2018-19 | JUO Abhishek Rai | Army attachment Camp, Ramgarh | - |
| 10 | 2018-19 | CDT Gaurav Sahoo | Para Basic Course,Agra | Agra(Sept-18) |
| 2019-20 | | | | |
| 1 | 2019-20 | SUO Adil Ahmad | RDC-2019,New Delhi | Kazakhstan(May-18) |
| 2 | 2019-20 | SUO Ashutosh Barik | RDC-2019,New Delhi | |
| 3 | 2019-20 | SUO Himansu Basanta Choudhary | RDC-2019,New Delhi | Bhutan(Dec-19) |
| 2020-21 | | | | |
| 1 | 2020-21 | SUO Debamalya Gupta | RDC-2020,New Delhi | Cancelled due to Covid-19 |
| 2 | 2020-21 | SUO Ameet Singh Manyal | RDC-2020,New Delhi | |
| 3 | 2020-21 | SUO Anikate Sharma | RDC-2020,New Delhi | |
| 4 | 2020-21 | SUO Adityaa Acharya | RDC-2020,New Delhi | |
| 5 | 2020-21 | SUO Divya Singh | RDC-2020,New Delhi | |
| 2021-22 | | | | |
| 1 | 2021-22 | SUO Akash Kumar Nayak | RDC-2021,New Delhi | Cancelled due to Covid-19 |
| 2 | 2021-22 | JUO Neelashis Banerjee | RDC-2021,New Delhi | |
| 3 | 2021-22 | JUO Barnali Bera | RDC-2021,New Delhi | |
| 4 | 2021-22 | JUO Abhishek Bhardwaj | Army attachment Camp, Ramgarh,JH | |
| 5 | 2021-22 | JUO Akash Chand | Army attachment Camp, Ramgarh,JH | |

| | | | | |
|------------------|-----------|---------------------|---|-------------------|
| 4 | 2021-22 | JUO Ashutosh Kumar | Army attachment Camp, Ramgarh,JH | |
| 2022-2023 | | | | |
| 1 | 2022-2023 | CDT. Diksha Singh | RDC-2022, New Delhi | Nominated for YEP |
| 2 | 2022-2023 | CDT.Sumedha Tiwari | Made in OTA Chennai (NCC batch 2017-2020) | |
| 3 | 2022-2023 | CDT. Shivani Tiwari | Made in OTA Chennai (NCC batch 2017-2020) | |

9.7.4 Red Cross and Rotaract Club

The Red Cross and Rotaract Club have the spirit of NSS with a global vision and local or crossborder volunteering work. These forums help in developing the students' empathy and appreciation for other people's need and also to show consideration towards other living beings which in turn could help them contribute towards society. The volunteers work for a cause not for applause. However the volunteers are recognized and motivated at different levels. Also, it gives students an opportunity to apply and if selected partake in Youth Delegations visiting different countries.

9.7.5 KIIT Student Activity Centre

The University has 28 student societies at the University level. Detail are available at: <https://ksac.kiit.ac.in/kiit-societies/>. Different schools also have their individual student societies as in School of Management has Marketing Club, Finance Club, Entrepreneurship Club, Energy Club, Optix (Operations, IT Club), Bookhive, Aequitas (Sports club) etc. and School of Law has IPR society, Moot Court Society, Legal Aid Society and Trial advocacy society etc.

9.7.5.1 Societies under KSAC:

□ **Cultural:** KORUS (Music & Dance Society), Kreative Eye (Photography & Painting Society), Kzarshion (Fashion Society), Kalakaar (Dramatic Society), Film Society, Keuring (The Cooking Society), Khetshan (International Students Society), K-Konnect (Society for Alumni Connect), Khwahishein (The Hindi Society), Kamakshi (Women Society)

□ **Technical/ professional:** E-labs, Apogeio (Aeronautical Society), KRS (Robotic Society), Automobile Society, Society for Civil Engineers, Kimaya- Medical Society, IoT society, IET student chapter, IEEE Student chapter, CSI Student Chapter, Konnexions (Web & IT Society), and Entrepreneurship Cell

□ **Academic:** Qutopia (The Quizzing Society), Kraya- Marketing Society, Kuber- Finance Society, KIIT Wordsmith (The Writing Society), and Kronice (Literary Society)

□ **Social :** Spiritual Society, TEDX Society, Khwaab (Society on philosophy of Founder Dr. A. Samanta), Kartavya (Social Responsibility Cell), Karma (Differently abled Society), MUN Society (Model United Nation Society), NSS, NCC and Red cross society.

| | | |
|---------------------|--|------------|
| CRITERION 10 | Governance, Institutional Support and Financial Resources | 120 |
|---------------------|--|------------|

10.1 Organization, Governance and Transparency (55)

10.1.1 State the Vision and Mission of the Institute (5)

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

Vision of the Institution:

To create an advanced centre of professional learning of international standing where pursuit of knowledge and excellence shall reign supreme, unfettered by the barriers of nationality, language, cultural plurality and religion.

Mission of the Institution:

- Imparting quality value based education of international standard and imbibing skill for solving real life problems.
- Inculcating global perspective in attitude.
- Creating leadership qualities with futuristic vision.
- Fostering spirit of entrepreneurship and realisation of societal responsibilities.
- Cultivating adaptation of ethics, morality and healthy practices in professional life.
- Instilling habit of continual learning.
- Encouraging and supporting creative abilities and research temperament.
- Establishing and promoting close interaction with industries and other utility sectors and keep abreast with state-of-the-art technology.

10.1.2 Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring (25)

A. Teaching-Learning Environment

| Parameter | Present Status | Target at 10 years | Target at 15 years | Implementation | Monitoring |
|-------------------------------|----------------|--------------------|--------------------|---|------------------------------|
| Faculty to Student Ratio | 1:13 | 1:10 | 1:08 | <ul style="list-style-type: none"> • Recruitment of international faculty • Recruitment of faculty with qualifications acquired at top ranked universities • Retention policy incorporating schemes to ensure better life | Review by IQAC in every year |
| Doctorate-to-bachelor's ratio | 1:30 | 1:15 | 1:10 | <ul style="list-style-type: none"> • Starting Doctoral programs in inter-disciplinary area • Starting Doctoral programs for persons experienced in industry/administration/social sectors • Admitting more students in Ph.D. Programs, Scholarship policy to benefit more students | Review by IQAC in every year |

B. Research (Volume, Income, Reputation)

| Parameters | Present Status | Target at 10 years | Target at 15 years | Implementation | Monitoring |
|---------------------|----------------|--------------------|--------------------|---|-------------------------------------|
| Indexed publication | 1.25 | 2.5 | 4 | Sustained motivation and institution of attractive research | Review by IQAC in every six months. |

| | | | | | |
|---|------|------|------|---|--|
| per faculty per year | | | | recognition system · Financial award for faculty with average 5 publications per year | Brief report is submitted to Registrar |
| Average cite score in Scopus indexed journals | 2.73 | 4 | 6 | <ul style="list-style-type: none"> Engagement in high end research Engagement in collaborative research Selection of journals in which publications are to be encouraged | Review by IQAC in every six months. |
| Citations per publication | 2.33 | 5 | 10 | Emphasis on Content factor Involvement of research group member | Review by IQAC in every six months. |
| Number of patents | 338 | 2300 | 3000 | <ul style="list-style-type: none"> Workshops are being conducted on patent filing by KIIT TBI and KIIT TEC Technical support, legal support and financial support is provided by the institutions for patent filing | Review by Director, R&D and IQAC in every six months |

C. International Outlook (Staff, Students and Research)

| Parameters | Present Status | Target at 10 years | Target at 15 years | Implementation | Monitoring |
|--|---|---|---|---|--|
| International to domestic student ratio | 1:20 | 1:15 | 1:10 | Float of academic programs to attract international students Strengthening amenities to cater to the international student needs | Review by Registrar in every six months. |
| International to domestic staff ratio | | | | Recruitment Planning | Review by Registrar once in every year |
| International collaboration | Number of MoU: 284 Effective usage of 90 | Additional 150 MoUs with Universities/or ganisation and effectiveness thereof | Additional 200 MoUs with Universities and effectiveness thereof | Faculty are inspired to carryout joint research and visit to top Universities as pdf. Guest faculty base expansion | Review by Vice Chancellor once in every year |
| Proportion of faculty presenting research paper abroad | 3% | 25% | 75% | <ul style="list-style-type: none"> Enhancing grant to travel Strengthening faculty exchange programs Strengthening effectiveness of MoUs | Review by IQAC in every six months. |

D. Industry and Academia Collaboration

| Parameter | Present Status | Target at 10 years | Target at 15 years | Implementation | Monitoring |
|----------------|--|--|--|---|---|
| Number of MoUs | <ul style="list-style-type: none"> Number of MoU: 467 ; Effective usage of 300 | MoUs with 550 Universities/organisations and effectiveness thereof | MoUs with 600 Universities/organisations and effectiveness thereof | Faculty are inspired with industry for research, consultancy, projects, student internship. | Review by Vice Chancellor once in every |

E. Institutional Income from Research and Consultancy

| Parameter | Present Status | Target at 10 years | Target at 15 years | Implementation | Monitoring |
|--|----------------|--------------------|--------------------|--|--|
| Institutional Income from Consultancy and Research | 1% | 10% | 15% | <ul style="list-style-type: none"> Selection of industry specific research objectives Funded Programs Industry Oriented Programs Reskilling programs for industry professionals Consultancy Services | Reviewed by Registrar once in every six months |

10.1.3 Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies (10)

List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed.

The published rules including service rules, policies and procedures; year of publication shall be listed. Also state the extent of awareness among the employees/students.

The details of governing bodies of KIIT DU is given below.

10.1.3.1 Details of Governing bodies

| Governing Body | | |
|----------------------------|--------------------------------|---|
| Board of Management | Memberships | List is attached (Cl. 10.1.3.2) |
| | Functions and Responsibilities | Descriptions given (Cl. 10.1.3.2 A) |
| | Frequency of meetings | 4 times in a year |
| | Attendance | 99% |
| Academic Council | Memberships | List is attached (Table 10.1.3.3) |
| | Functions and Responsibilities | Descriptions given (Section 10.1.3.3 A) |
| | Frequency of meetings | 95% |
| | Attendance | 5 times in a year |
| Finance Committee | Memberships | List is attached (Table 10.1.3.4) |
| | Functions and Responsibilities | Descriptions given (Section 10.1.3.4 A) |

| | | |
|--|-----------------------|-------------------|
| | Frequency of meetings | 3 times in a year |
| | Attendance | 99% |

10.1.3.2: Members of Board of Management

| Sl. No. | Constitution of the Board | Name of the Members |
|---------|-----------------------------------|---|
| 1. | Vice-Chancellor-Chairperson | Prof. Sasmita Samanta |
| 2. | Eminent Academicians (External) | Prof.(Dr.) M. C. Mishra, Emeritus Professor, J P N Apex Trauma Centre, AIIMS, New Delhi Prof. Saswat Chakraborty, Professor, G. S. Sanyal School of Technology Prof. (Dr.) Shankar Acharya, Sr. Consultant, Sri Gangaram Hospital, Delhi |
| 3. | Two Deans/ Directors of Faculties | Prof. Saroj Kumar Mohapatra, Director, School of Management Prof. Biswajit Sahoo, Director, School of Computer Engineering |
| 5. | Two teachers of the Institution | Maj. Gen. (Dr.) P. K. Pattnaik, Director General, KIMS Prof. Mrutyunjay Suar, Director General, R& D |
| 6. | Nominee of the Sponsoring Society | Mr. S. Samir Panda, Vice President, Corporate Relations Mr. D. N. Diwedy, Vice President, IT & Operations |
| 7. | Registrar - Secretary | Prof. J. R. Mohanty, Registrar |

10.1.3.2 A: Functions and Responsibilities of the Board of Management

The Board of Management shall be the principal organ of Management and principal executive body of the Deemed to be University and shall have the following powers, namely:

- To establish, on the advice of the Academic Council, Divisions and Departments for the academic work and functions of the Deemed to be University and to allocate areas of study, teaching and research to them;
- To create teaching and academic posts, to determine the number, cadres and qualifications thereof as approved by the Commission, and statutory body concerned and the emoluments of such posts in consultation with the Finance Committee;
- To appoint such Professors, Associate Professors, Assistant Professors and other academic staff as may be necessary on the recommendation of the selection Committee;
- To lay down the duties and conditions of service of the Professors, Associate Professors and Assistant Professors and other academic staff of the Deemed to be University in consultation with the Academic Council;

- To provide for appointment of Visiting fellows and Visiting Professors;
- To create administrative, ministerial and other necessary posts in terms of the cadres laid down and to make appointment thereof in consultation with the Finance Committee;
- To constitute, for the benefit of the teaching, academic, technical, administrative and other staff, such pension, insurance, provident fund and gratuity as it may deem fit and aid in the establishment and support of Association, Institutions, Funds, Trusts and conveyances calculated to benefit the staff and the students of the Deemed to be University;
- To regulate and enforce discipline among the employees of the Deemed to be University and to take appropriate disciplinary action, wherever necessary;
- To entertain and adjudicate upon and, if thought fit, to redress the grievances of the employees and students of the Deemed to be University;
- To grant leave of absence to the Vice-Chancellor and to make necessary arrangements for carrying on his/her functions during the period of absence;
- To approve the award of Degrees and diplomas based on the results of examinations and tests and to confer, grant or award Degrees, Diplomas, Certificates and other academic titles and distinctions;
- To fix the emoluments and traveling and other allowances of examiners, moderators, tabulators and such other personnel appointed for examinations in consultation with the Academic Council and the Finance Committee;
- To institute Fellowships, including Travel Fellowships, Scholarships, Studentships, Medals and Prizes in accordance with the Rules to be framed for the purpose;
- To advise the Holding Trustees (if any) on matters regarding acquisition, management and disposal of any immovable property on behalf of the Deemed to be University;
- To purchase, take on lease or accept as gift or otherwise any land or buildings or works which may be necessary or convenient for the purpose of the Deemed to be University, on such terms and conditions as it may deem fit and proper, and to construct or alter and maintain any such building(s) or work(s);
- To transfer or accept transfers of any movable property on behalf of the Deemed to be University, provided that the Board of Management shall not transfer or alter ownership in any manner whatsoever of any moveable or immoveable property of the Institution Deemed to be University without the approval of the sponsoring Society / Trust / Company.
- To execute in consultation with the Holding Trustees (if any) conveyance, transfer Government Securities, re-conveyances, mortgages, leases, bonds, licenses and agreements in respect of property, movable or immovable, belonging to the Deemed to be University or to be acquired for the purposes of the Deemed to be University;
- To issue appeals for funds for carrying out the objectives of the Deemed to be University and, consistent with the provisions of the objectives, to receive grants, donations, contributions, gifts, prizes, scholarship, fees and other moneys, to give grants and donations, to award prizes, scholarships, etc.;

- To raise and borrow in consultation with the Holding Trustee (if any) money on bonds, mortgages, promissory notes or other obligations or securities founded or based on any of the properties and assets of the Deemed to be University, or without any securities, upon such terms and conditions as it may think fit and to pay out of the funds of the Deemed to be University, all expenses incidental to the raising of money and to repay and redeem the money borrowed;
- To draw and accept and make and endorse discount and negotiate Government of India's and other promissory notes, bills of exchange, cheques or other negotiable instruments;
- To maintain a fund to which shall be credited:
 - All moneys provided by the Central or State / UT Government / University Grants Commission;
 - All fees and other charges received by the Deemed to be University;
 - All money received by the Deemed to be University as grants, gifts, donations, benefactions, bequest or transfers and
 - All money received by the Deemed to be University in any other manner or from any other source;
- To open account or accounts of the Deemed to be University with anyone or more scheduled banks and to lay down the procedure for operating the same;
- To deposit all moneys credited to the funds in scheduled banks or to invest them in consultation with the Finance Committee;
- To invest the funds of the Deemed to be University or money entrusted to the Deemed to be University in or upon such securities and in such manner as it may deem fit and from time to time transpose any investment;
- To maintain proper accounts and other relevant records and prepare Annual Statements of Accounts, including the balance sheet for every previous financial year, in such form as may be prescribed by the Regulations / Bye-Laws;
- To manage, regulate and administer the revenue, the finance, accounts, investments, properties, business and all other administrative affairs of the Deemed to be University and for that purpose to appoint such agent or agents as it may deem fit;
- To provide building or buildings, premises, furniture, fittings, equipments, appliances and other facilities required for carrying on the work of the Deemed to be University;
- To establish, maintain and manage residencies for faculty and staff and hostels for the students of the Deemed to be University;
- To recognize and maintain control and supervision on hostels owned and managed by other agencies for the students of the Deemed to be University and to rescind such recognition;
- To appoint such committees for such purpose and with such powers as the Board of Management may think fit and to co-opt such persons on these Committees as it thinks fit;
- To appoint in order to execute an instrument or transact any business of the Deemed to be University, any person as attorney of the Deemed to be University with such powers as it may deem fit.

- To appoint Auditor(s) for the ensuing year;
- To select an emblem and to have a common seal for the Deemed to be University and to provide for the custody and use of such seal;
- To delegate all or any of its powers to any Committee or sub- Committee constituted by it or the Vice-Chancellor of the Deemed to be University or any other person;
- To conduct all administrative affairs of the Deemed to be University not otherwise specifically provided for;
- To take all necessary decisions for the smooth and efficient functioning of the Deemed to be University.

10.1.3.3: Members of Academic Council

| Sl. No | Name | Designation |
|--------|---|---|
| 1. | Prof. Sasmita Samanta, Vice Chancellor | Chairperson |
| 2. | Prof. Faizan Mustafa, Vice Chancellor, Nalsar, Hyderabad | External Member as Educationist nominated by Vice Chancellor |
| 3. | Prof. Amol A Gokhale, Professor, IIT Mumbai | |
| 4. | Dr. Sanghamitra Pati, Director, ICMR | |
| 5. | Dr. Bhimaraya Metri, Director, IIM Nagpur | |
| 6. | Mr. M. Sasikumar, Executive Director, C – DAC, Mumbai | |
| 7. | Mr. Indrajit Sanyal, Head – Ericsson Global India, Kolkata | External Member as from other field nominated by Vice Chancellor |
| 8. | Mr. Amit Sharma, VP & Head HR, Volvo Group India, Bangalore | |
| 9. | Mr. Suraj Chettri, Head – HR, Airbus Group India, Bangalore | |
| 10. | Mr. Kumar Amarendra Narayan Singh, Director, KPMG | |
| 11. | Mr. Sambit Sahu, Vice President, IoT Group | |
| 12. | Prof. Sudarsan Nanda | Research Head |
| 13. | Prof. Mrutyunjay Suar | Director General, R & D |
| 14. | Prof. Gopal C. Kundu | Director, R&D |
| 15. | Prof. Damodar Suar | Chairman, Social Science Research |
| 16. | Prof. Asish Kumar Sen | UG Chairman |
| 17. | Dr. Santosh Kumar Pani | Controller of Examinations |
| 18. | Dr. Ambika Prasad Mohanty Principal, Kalinga Institute of Medical Sciences | Deans of the Schools / Head of the Departments |
| 19. | Prof. Saranjit Singh Director, IEC | |
| 20. | Prof. Saroj Kumar Mohapatra, Director, School of Management | |
| 21. | Prof. Nishit Parida, Director, School of Rural Management | |
| 22. | Prof. Veena Goswami, Director, School of Computer Applications | |

| | | | |
|-----|--|--|------------|
| 23. | Prof. Bhavani Prasad Panda, Director, School of Law | | |
| 24. | Prof. Soumyendu Shankar Ray Director General, School of Architecture | | |
| 25. | Mr. Himansu Sekhar Khatua Director General, KSFT | | |
| 26. | Prof(Dr) Sudhir Kumar Satpathy, Director, School of Public Health | | |
| 27. | Prof. Jayanta Kumar Parida, Director, School of Social, Financial & Human Sciences | | |
| 28. | Prof. Biswajit Sahoo, Director General, School of Computer Engg. | | |
| 29. | Prof. (Dr.) Beerendra Pandey, Dean, School of Language | | |
| 30. | Prof. Prasant Rath, Dean, School of Applied Sciences | | |
| 31. | Prof. Satya Narayan Mishra Dean, School of Management | | |
| 32. | Prof. Sanjib Moulick, Dean, School of Civil Engg | | |
| 33. | Prof. Byamakesh Nayak, Dean, School of Electrical Engg | | |
| 34. | Prof. Bharat Chandra Routra, Dean, School of Mechanical Engineering | | |
| 35. | Prof. Suprava Patnaik, Dean, School of Electronics Engg | | |
| 36. | Dr. Srinivas Patnaik, Dean, School of Biotechnology | | |
| 37. | Prof. Biswa Bandita Kar, Dean, School Of Yoga | | |
| 38. | Prof. P. K. J. Mohapatra, Head, Department of Public Policy | | |
| 39. | Dr. Aswini Kar Principal, KIDS | | |
| 40. | Prof. Niyati Das, Principal, KINS | | |
| 41. | Academic Head KISS | | |
| 42. | Prof. Nirmal Kumar Rout Professor & Director (SRC) School of Electronics Engineering | | Professors |
| 43. | Prof. Pradip Kumar Sarkar Professor, School of Law | | |
| 44. | Prof. Koustubh Kanti Ray, Professor, School of Management | | |
| 45. | Prof. Arun Kumar Ray, Director, Academics | | |
| 46. | Prof. Ashok Kumar Sahoo, Director, R & D (Technology) | | |
| 47. | Prof. Chinmay Kumar Panigrahi, Director, QA Cell | | |
| 48. | Prof. Samaresh Mishra, | | |

| | | |
|-----|---|----------------------|
| | Director, Student Affairs | |
| 49. | Prof. Benu Gopal Mohapatra, Director, Consultancy Services | |
| 50. | Prof. Suresh Chandra Satapathy, Professor & Dean, R&D, School of Computer Engineering | |
| 51. | Dr. Pramod Kumar Das, Professor, School of Applied Science | |
| 52. | Dr. Ram Chandra Das, Professor, Dept of Psychiatry, Vice Principal, KIMS | |
| 53. | Dr. Shruti Vishal Dev, Professor, KIDS | |
| 54. | Dr. Krishna Padarabinda Tripathy Department of General Medicine, KIMS | |
| 55. | Dr. Amaresh Mishra, Department of General Surgery, KIMS | |
| 56. | Dr. Kabi Kant Samantaray, Department of ENT, KIMS | |
| 57. | Dr. Dayanidhi Meher, Department of Endocrinology, KIMS | |
| 58. | Dr. Tribikram Mohanty, School of Civil Engineering | |
| 59. | Dr. Anita Pati, Dean, International Students Relations, School of Applied Science | |
| 60. | Dr. Arindam Deb, School of Electronics Engineering | |
| 61. | Dr. Visakha Raina, School of Biotechnology | Associate Professors |
| 62. | Dr. Arup Abhinaa Acharya, Dean, School of Computer Engineering | |
| 63. | Dr. Amulya Ratna Swain, Dean, School of Computer Engineering | |
| 64. | Dr. Bhabani Shankar Prasad Mishra, Dean, School of Computer Engineering | |
| 65. | Dr. Debashis Mishra, Department of Orthopedics, KIMS | |
| 66. | Dr. Santosh Das, Department of Neurology, KIMS | |
| 67. | Prof. Tanmoy Roy Chaudhury, School of Electrical Engineering | Assistant Professors |
| 68. | Prof. Rishi Khanna, School of Electronics Engineering | |
| 69. | Dr. Sanket Nayak | Alumni |
| 70. | Ms. Nidhi Singh | |
| 71. | Mr. Dipankan Bandopadhyay | Student |
| 72. | Ms. B. Swetali Subudhi | |
| 73. | Ms. Zikshita Patni | |
| 74. | Prof. Jnyana Ranjan Mohanty, Registrar | Member Secretary |

10.1.3.3 A: Functions and Responsibilities of the Academic Council

The Academic Council shall have the following powers and duties, namely

- i. To consider matters of academic interest either on its own initiative or at the instance of the Board of Management or those proposed by the departments/ faculties and to take proper action thereon,
- ii. To exercise general supervision over the academic work of the Deemed to be University and to give direction regarding methods of instruction, evaluation, and improvements in academic standards;
- iii. To promote research within the Deemed to be University, acquire reports on such researches from time to time;
- iv. To prescribe courses of study leading to degrees and diplomas of the Deemed to be University;
- v. To make arrangements for the conduct of examinations in conformity it with the Bye-Laws;
- vi. To appoint examiners, moderators, tabulators and such other personnel for different examinations;
- vii. To maintain proper standards of the examinations;
- viii. To recognize diplomas and degrees of universities and other Institutions and to determine equivalence with the diplomas and degrees of the Deemed to be University;
- ix. To suggest measures for departmental co-ordination;
- x. To make recommendations to the Board of Management on:
 - a) measures for improvement of standards of teaching research and training;
 - b) institution of Fellowships, Travel Fellowships, Scholarships, Medals, Prizes etc.;
 - c) to recommend to the Board of Management, the establishment or abolition of departments/ centres; and
 - d) To frame rules covering the academic functioning of the Deemed to be University, admissions, examinations, award of fellowships and studentships, free-ships, concessions, attendance, discipline, residence etc.
 - e) To appoint sub-committees to advise on such specific matters as may be referred to it by the Board of Management;
 - f) To consider the recommendations of the sub-committees and to take such action as the circumstances of each case may require;
 - g) To take periodical review of the activities of the Departments/Centres and to take appropriate action with a view to maintaining and improving standards of instruction;
 - h) To recommend institution of teaching posts (Professors, Associate Professors and Assistant Professors) to the Board of Management; and
 - i) To exercise such other powers and perform such other duties as may be conferred or imposed upon it by the Rules.

10.1.3.4: Members of Finance Committee

| Sl. No | Name | Designation |
|---------------|---------------------|-----------------------------|
| 1 | Prof. S. Samanta | Vice Chancellor & Chairman |
| 2 | Mr. D. N. Dwivedy | Vice President |
| 3 | Prof. J. R. Mohanty | Registrar |
| 4 | Mr. S. C. Satapathy | Finance Officer & Secretary |

10.1.3.4 B: Functions and Responsibilities of the Finance Committee

- To look into Bank Loans, Taxes, Insurances, Matters, Statutory dues and liaisoning with different financial institution
- To make policy planning of finance, communications with statutory financial bodies, day – to day transactions, disbursement, coordination with Chartered Accountant.

- Develop an annual operating budget with staff.
- Approve the budget within the finance committee.
- Monitor adherence to the budget.
- Set long-range financial goals along with funding strategies to achieve them.
- Develop multi-year operating budgets that integrate strategic plan objectives and initiatives.
- Present all financial goals and proposals to the board of directors for approval.

10.1.3.5. Rules, Policies and procedures

| Published Rules, Policies and Procedures | Year of publication |
|---|----------------------------|
| Quality Policy | 2022 |
| Academic Regulation | 2016 |
| Working Guideline | Published every year |
| IPR Policy | 2021 |
| Research and Consultancy Policy | 2022 |
| HR Manual | 2022 |
| Anti-Corruption and Anti-Bribery Policy | 2020 |
| Academic Freedom Policy | 2020 |
| Anti-Discrimination and Equal Opportunity | 2020 |
| Stakeholder Engagement Policy | 2020 |
| Smoke-Free and Tobacco-Free policy | 2018 |
| Policy for differently abled | 2018 |
| Continuous Improvement Evaluation Policy | 2022 |
| KIIT Sustainable Policy | 2018 |

Extent of Awareness

Formal Modes of promoting awareness:

- Hard copy circulation in all Schools
- Presentation during beginning of the Academic year during Faculty Development Programs
- Detail elaboration in faculty council meeting and staff council meeting

10.1.4 Decentralization in working and grievance redressal mechanism (5)

List the names of the faculty members who have been delegated powers for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievance redressal cell including Anti Ragging Committee & Sexual Harassment Committee.

List the names of the faculty members who have been delegated powers for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievance redressal cell including Anti Ragging Committee & sexual harassment Committee.

10.1.4.1 The academic and administrative head of Schools involved in BTech programmes are given below.

| Faculty Member | Administrative Responsibility |
|--|---|
| Prof. Sanjib Moulick Dean, School of Civil Engg. | 1. Job chart of the functionaries i.e. SOP 2. Capital Assets |
| Prof. Suprava Pattanaik Dean, School of Electronics Engg. Prof. Sarita Nanda Associate Dean, School of Electronics Engg. | 3. Personnel Administration Staff Description Service Book, Personal files and PARs Accountability and value addition 4. Office Management |
| Prof. Bharat Chandra Routara Dean, School of Mechanical Engg. Prof. Nitin Sharma Associate Dean, School of Mechanical Engg. | Attendance, Disciplinary action & Punctuality Security & Safety arrangement Registers - Cash Book - Bill Register & Drawal Register - Pay Acquittance Register - CL/EL Register |
| Prof. Byamakesh Nayak Dean, School of Electrical Engg | Library Workshops & Labs |
| Prof. Biswajit Sahoo, Director, School of Computer Engg. Prof. Bhabani Shankar Prasad Mishra, Dean Prof. Amulya Ratna Swain, Dean-I Prof. Arup Abhinna Acharya, Dean-II School of Computer Engg. | Space Management Transport Management Office infrastructure Financial Management |
| Prof. Prasanta Rath Dean, School of Applied Sciences | |
| Prof. A. K. Sen Dean, School of Humanities | |

10.1.4.2: The mechanism and composition of grievance redressal cell including Anti Ragging Committee & Grievance Redressal Forum for Women

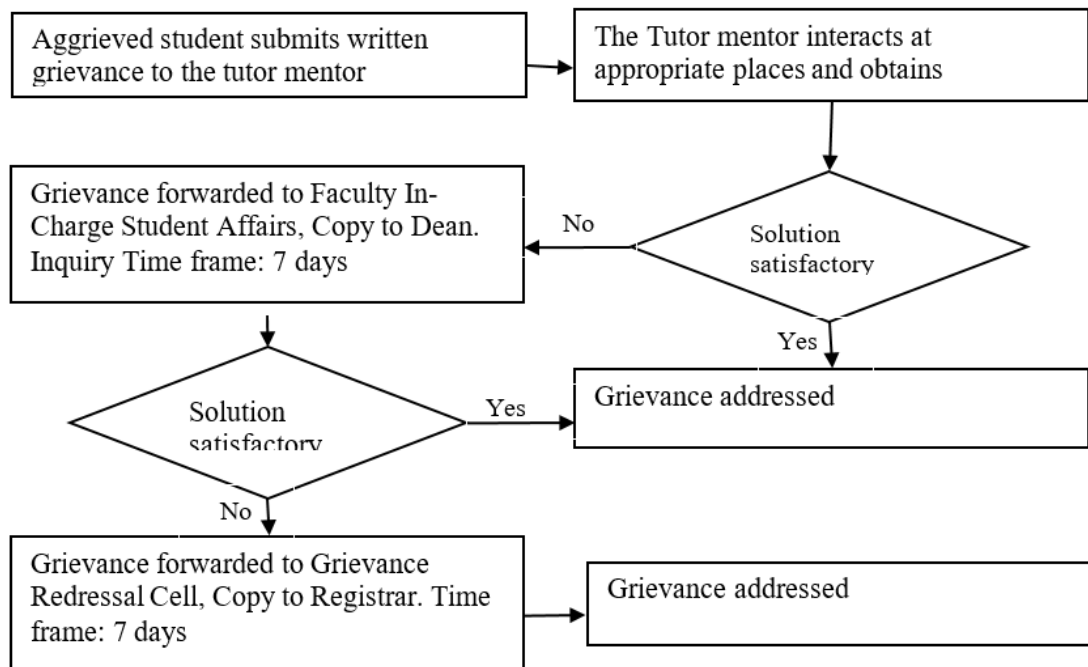
| | | |
|-------------------------------------|-------------|---|
| Grievance Redressal Cell | Mechanism | Description is given (Section 10.1.4.3 A) |
| | Composition | List is attached (Table 10.1.4.3) |
| Anti ragging Committee | Mechanism | Description is given (Section 10.1.4.4 A) |
| | Composition | List is attached (Table 10.1.4.4) |
| Grievance Redressal forum for women | Mechanism | Description is given (Section 10.1.4.5 A) |
| | Composition | List is attached (Table 10.1.4.5) |

10.1.4.3: Member List of University Level Grievance Redressal Cell

| Sl. No. | Name | Designation |
|---------|--|-------------|
| 1. | Prof. Damodar Suar, Chairperson, Social Science Research | Chairman |
| 2. | Prof. Samaresh Mishra, Director, Student Affairs | Member |
| 3. | Dr. Sucheta Priyabadani, Director, Student Counselling | Member |
| 4. | Dr. Sanjib Moulick, Dean, School of Civil Engineering | Member |

| | | |
|----|---|----------|
| 5. | Dr. Srinivas Pattanaik, Dean, School of Biotechnology | Member |
| 6. | Dr. Sumita Mishra, Dean, School of Management | Convener |

10.1.4.3 A: Mechanism of Grievance Redressal Cell



The Decisions are made considering the existing rules and regulations and expected students conduct aspects. In case the grievance is not acceptable legally, the student is counseled.

The University level Committee shall consider the appeal of the student and make appropriate recommendations to the Registrar within a reasonable time, preferably within 15 days. On approval by the Registrar, the final decision shall be communicated to the student through the Director Student Affairs.

The University level Committee, if needed, may recommend to the Director Counseling Cell, necessary corrective action as it may deem fit, to ensure avoidance of recurrence of similar grievance at any of the Schools under the University.

While dealing with the complaint, the Committee at all levels shall observe law of natural justice and hear the complainant and concerned people.

While passing an order on any Grievance at any level, the relevant provisions of the Act/Regulations would be kept in mind and no such order would be passed in contradiction of the same.

Table 10.1.4.4: Member List of University Level Anti Ragging Committee

| Sl. No | Name | Designation |
|--------|------|-------------|
|--------|------|-------------|

| | | |
|-----|---|-------------|
| 1. | Prof. Sasmita Samanta, Vice Chancellor | Chairperson |
| 2. | Prof. Saranjit Singh, Pro Vice Chancellor | Member |
| 3. | Prof. Jnyana Ranjan Mohanty, Registrar | Member |
| 4. | Dr. Sucheta Priyabadini, Director, Student Counseling | Member |
| 5. | Prof. Prasant Rath, Dean SAS | Member |
| 6. | Prof. Bhavani Prasad Panda, Director, Law | Member |
| 7. | Mr. P. K. Chamupaty, Jt. Registrar(Admin.) | Member |
| 8. | Mr. Sudhir Rath, Director, Hostels | Member |
| 9. | Ms. Jayanti Nath, Joint Director, Girls' Hostel & Student Affairs | Member |
| 10. | Mr. P. K. Pattnaik, Chief Proctor | Member |
| 11. | Dr. Shyam Sunder Behura, Dy Director(SS) | Member |
| 12. | Prof. Ambika Prasad Mohanty, Principal, KIMS | Member |
| 13. | Mr. Bijay Swain, Reporter-The Samaja News Paper | Member |
| 14. | Mr. Ramesh Chandra Bisoi, ACP, Zone – 6 , Police Commissionerate | Member |
| 15. | Mr. Rashmi Mohanty, Odisha Chapter Head, Tech Mahindra Foundation | Member |
| 16. | Mr. Babloo Sharma, DGM, IOC, Parent | Member |
| 17. | Shayari Halder, Student(1st Year), CSE | Member |
| 18. | Ankit Dhar, Student (2nd Year), CSE | Member |
| 19. | Auro Prasad Nanda, Student (3rd Year), CSE | Member |
| 20. | Prof. Samaresh Mishra, Director, SA | Convenor |

Section 10.1.4.4 A: Mechanism for Anti Ragging committee (Towards preventing ragging)

| | ACTIVITIES | Frequency |
|--------------------|---|------------------|
| Publicity | Students' Orientation meetings | Annually twice |
| | Parents' meeting | Annually twice |
| | Mentees' meeting | Monthly once |
| | Published Student hand book | Annually once |
| | Display of help line | |
| | Display of posters promoting good will among batches | |
| Group constitution | Anti ragging committee | |
| | Anti ragging squad | |
| | School level committees | |
| Security features | CCTVs across locations | |
| | Security staff engaged at strategic locations | |
| | Staff member deployment at strategic locations | |
| Student Counseling | During tutor-mentor meeting | |
| | During hostel visit | |
| | Referral of potential trouble initiators to Counseling cell | |

| | ACTIVITIES | Frequency |
|-----------------|--------------------|------------------|
| Surprise visits | Accommodation area | |
| | Recreational areas | |
| | Rest areas | |

Table 10.1.4.5: Member List of University Level Grievance Redressal Forum For Women (GRFW)

| Sl. No. | Name | Position |
|----------------|---|-----------------|
| 1. | Dr. Sucheta Priyabadani, Director, Student Counselling | Chairperson |
| 2. | Dr. Anita Pati, Associate Professor, School of Applied Sciences | Member |
| 3. | Ms. Jayanti Nath, Joint Director, Girls' Hostel & Student Affairs | Member |
| 4. | Dr. Sumita Mishra, Dean, School of Management | Convener |

10.1.4.5 A: Mechanism for Grievance Redressal Forum for Women:

- The grievance redressal forum for women is empowered to entertain application and complain from working woman for sexual harassment. According to supreme court definition sexual harassment in any unwelcome sexually determined behavior such as
 - (a) Physical contact and advances
 - (b) A demand or request for sexual favors
 - (c) Sexually colored remarks
 - (d) Showing pornography
 - (e) Any other unwelcome, physical verbal or non – verbal conduct of sexual nature
- Where any of these acts is committed in circumstances where under the victim of such conduct has a reasonable apprehension that such conduct can be humiliating and may constitute a health and safety problem
- For instance when the woman has reasonable grounds to believe that her objection would disadvantage her in connection environment. Adverse consequence might be inferred if the victim does not consent to the conduct in question or to raise any objection thereto.
- **Penalties:** If any of the offence mentioned above is proved against the offender the same shall be treated as grave misconduct and punishment shall be imposed for grave misconduct as prescribed by the University in its rules and regulation adhering to the appropriate procedure mentioned therein.
- **Preventive Steps:** GRFW shall take appropriate steps to prevent sexual harassment within the premises of KIIT which includes:
 - (a) Express prohibition of sexual harassment as defined above should be notified, published.
 - (b) The rules and regulation for grave misconduct under KIIT, society shall be involved and appropriate penalties shall be awarded against the offender.

- **Time Frame:** Any complain or application received by the GRFW as per the rules mentioned has to deal with after giving a reasonable opportunity of being heard to the accused concerned and submit its report within a period of three months.
- **Appeal:** Any person aggrieved by the decision of the GRFW may appeal to the chairperson within a period of fifteen days from the date of decision. The chairperson of GRFW shall dispose.

10.1.5 Delegation of financial powers (5)

Institution should explicitly mention financial powers delegated to the Principal, Heads of Departments and relevant in-charges. Demonstrate the utilization of financial powers for each of the assessment years.

Financial Power delegation

| Designated Authority | Financial Power delegated | Utilization % |
|----------------------|---------------------------|---------------|
| Vice-Chancellor | 1 Crore | 100% |
| Registrar | 10 Lakhs | 100% |
| Deans | 1 Lakh | 85% |
| Directors | 1 Lakh | 80% |

10.1.6 Transparency and availability of correct/unambiguous information in public domain (5)

(Information on policies, rules, processes and dissemination of this information to stakeholders is to be made available on the web site)

The exact information of KIIT DU related to academics, policies, committee are displayed in the university websites and are updated regularly. The University website furnished all relevant information through AQAR and audited financial statement.

University Website: www.kiit.ac.in

For the internal stake holders, vital information are available in SAP portal.

- The registered users can log in through the SAP portal and have access to the academic data, financial data and the resource usage statistics.
- The examination paper evaluation is through online mode, where students can view their evaluated answer scripts and interact with the evaluator, in case they find some errors in evaluation.
- The parents can also log in the SAP portal and can access attendance, academic status and financial dues of the student.

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (15)

Summary of current financial year's budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years.

Total Income at Institute level: For CFY, CFYm1, CFYm2 & CFYm3

CFY: Current Financial Year – CFYm1 (Current Financial Year minus 1), CFYm2 (Current Financial Year minus 2), CFYm3 (Current Financial Year minus 3)

Tabel 1: CFY 2021:2022

| Total Income in CFY: | | | | Actual expenditure in CFY (till ...): | | | Total No. of students in CFY: |
|----------------------|-------|------------|----------------------------|---------------------------------------|----------------|-------------------------------------|-------------------------------|
| 13,110,192,997 | | | | 12,887,072,860 | | | 27071 |
| Fee | Govt. | Grant(s) | Other Sources (specify) | Recurring including Salaries | Non- recurring | Special Projects/Any other, specify | Expenditure per student |
| 10,321,676,032 | - | 99,470,484 | 2,689,046,481 | 8,563,501,905 | 4,237,170,169 | 86,400,785 | 476,047.17 |

Tabel 2: CFY 2020:2021

| Total Income in CFY: | | | | Actual expenditure in CFY (till ...): | | | Total No. of students in CFY: |
|----------------------|-------|-------------|----------------------------|---------------------------------------|----------------|-------------------------------------|-------------------------------|
| 11,824,872,825 | | | | 11,441,886,391 | | | 27071 |
| Fee | Govt. | Grant(s) | Other Sources (specify) | Recurring including Salaries | Non- recurring | Special Projects/Any other, specify | Expenditure per student |
| 9,289,988,494 | - | 158,908,536 | 2,375,975,795 | 7,665,272,143 | 3,689,296,359 | 87,317,889 | 422,662.13 |

Tabel 2: CFY 2019:2020

| Total Income in CFY: | | | | Actual expenditure in CFY (till ...): | | | Total No. of students in CFY: |
|----------------------|-------|-------------|----------------------------|---------------------------------------|----------------|-------------------------------------|-------------------------------|
| 11,987,273,956 | | | | 11,179,808,806 | | | 26024 |
| Fee | Govt. | Grant(s) | Other Sources (specify) | Recurring including Salaries | Non- recurring | Special Projects/Any other, specify | Expenditure per student |
| 9,688,277,517 | - | 250,060,636 | 2,048,935,803 | 8,076,983,610 | 2,857,898,348 | 244,926,848 | 429,596.10 |

Tabel 2: CFY 2018:2019

| Total Income in CFY: | | | | Actual expenditure in CFY (till ...): | | | Total No. of students in CFY: |
|----------------------|-------|-------------|----------------------------|---------------------------------------|----------------|-------------------------------------|-------------------------------|
| 11,108,869,700 | | | | 10,862,572,394 | | | 25791 |
| Fee | Govt. | Grant(s) | Other Sources (specify) | Recurring including Salaries | Non- recurring | Special Projects/Any other, specify | Expenditure per student |
| 9,069,388,423 | - | 287,399,351 | 1,752,081,926 | 7,269,712,622 | 3,350,890,186 | 241,969,586 | 421,176.86 |

| Budgeted and Actual Expenses | | | | | | | | |
|------------------------------|-----------------|-----------------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
| Year | 2021-2022 | | 2020-2021 | | 2019-2020 | | 2018-2019 | |
| Item s | Budgeted in CFY | Actual expenses in CFY (till ...) | Budgeted in CFYm1 | Actual Expenses in CFYm1 | Budgeted in CFYm2 | Actual Expenses in CFYm2 | Budgeted in CFYm3 | Actual Expenses in CFYm3 |

| | | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Infrastructure Built-Up | 3,310,700,000 | 3,214,966,639 | 2,805,200,000 | 2,712,182,771 | 1,738,200,000 | 1,680,213,522 | 2,614,900,000 | 2,566,245,419 |
| Library | 187,500,000 | 167,661,902 | 191,000,000 | 113,270,691 | 152,700,000 | 149,131,157 | 144,000,000 | 141,176,794 |
| Laboratory equipment | 1,124,950,000 | 946,498,554 | 1,104,800,000 | 923,695,581 | 1,151,800,000 | 1,088,782,527 | 711,000,000 | 688,411,150 |
| Laboratory consumables | 365,250,000 | 361,522,577 | 350,000,000 | 245,985,223 | 405,500,000 | 395,457,887 | 270,000,000 | 265,225,724 |
| Teaching and non-teaching staff salary | 3,987,500,000 | 3,535,017,767 | 3,513,000,000 | 3,161,925,920 | 3,192,500,000 | 3,135,513,635 | 2,681,500,000 | 2,640,281,165 |
| Maintenance and spares | 1,405,400,000 | 1,072,155,372 | 772,250,000 | 644,695,514 | 708,500,000 | 675,270,974 | 685,100,000 | 677,909,512 |
| R&D | 302,100,000 | 173,794,174 | 279,660,000 | 176,805,706 | 381,625,000 | 365,343,437 | 428,650,000 | 416,880,241 |
| Training and Travel | 85,500,000 | 33,305,898 | 127,800,000 | 23,026,570 | 130,000,000 | 113,875,918 | 126,000,000 | 124,556,813 |
| Miscellaneous Expenses | 2,500,000 | 2,491,921 | 1,800,000 | 1,671,330 | 1,500,000 | 1,447,601 | 3,000,000 | 3,027,062 |
| Others Specify | 4,092,800,000 | 3,379,658,055 | 3,931,590,000 | 3,438,627,085 | 3,969,000,000 | 3,574,772,147 | 3,288,650,000 | 3,338,858,515 |
| | 14,864,200,000 | 12,887,072,860 | 13,077,100,000 | 11,441,886,391 | 11,831,325,000 | 11,179,808,806 | 10,952,800,000 | 10,862,572,394 |

Table B.10.2b

10.2.1 Adequacy of budget allocation (5)

(The institution needs to justify that the budget allocated over the years was adequate)

Annual budget is prepared by statutory Finance Committee before beginning of the financial year by collecting individual budget from all departments, schools and central accounts. Directions have been issued to give thrust on research, academic development programme, development of infrastructure etc. On receipt of the due from all departments, school, the same is finalized on the basis of past experience and future projects.

10.2.2 Utilization of allocated funds (5)

(The institution needs to state how the budget was utilized during the last three years)

The utilization heads are available on the audited statements of accounts of each year. The Budget amount is used for creation of capital assets & to meet operational expenses as per the budget guidelines. The Capital assets also includes Laboratory Equipments, Study Resources & Laboratories etc. The operational expenses includes Salaries, Research promotion, Maintenance, spares & other relevant expenses.

10.2.3 Availability of the audited statements on the institute's website (5)

(The institution needs to make audited statements available on its website)

The audited statement is available in University website in the link given below.

<https://kiit.ac.in/balancesheet/>

10.3 Program Specific Budget Allocation, Utilization (30)

Total Budget at program level: For CFY, CFYm1, CFYm2 & CFYm3

CFY: Current Financial Year – CFYm1 (Current Financial Year minus 1) CFYm2 (Current Financial Year minus 2) CFYm3 (Current Financial Year minus 3)

Table 1: CFY 2021-2022

| Total Income in CFY: | | Actual expenditure in CFY (till ...): | | Total No. of students in CFY: |
|----------------------|-------------|---------------------------------------|-------------|-------------------------------|
| 324,471,972 | | 315,211,713 | | 769 |
| Non-recurring | Recurring | Non-recurring | Recurring | Expenditure per student |
| 54,604,000 | 269,867,972 | 64,848,757 | 250,362,956 | 409,898.20 |

Table 2: CFY 2020-2021

| Total Income in CFY: | | Actual expenditure in CFY (till ...): | | Total No. of students in CFY: |
|----------------------|-------------|---------------------------------------|-------------|-------------------------------|
| 318,150,444 | | 299,344,856 | | 771 |
| Non-recurring | Recurring | Non-recurring | Recurring | Expenditure per student |
| 52,705,000 | 265,445,444 | 86,104,672 | 213,240,184 | 388,255.33 |

Table 3: CFY 2019-2020

| Total Income in CFY: | | Actual expenditure in CFY (till ...): | | Total No. of students in CFY: |
|----------------------|-------------|---------------------------------------|-------------|-------------------------------|
| 353,945,997 | | 317,343,817 | | 786 |
| Non-recurring | Recurring | Non-recurring | Recurring | Expenditure per student |
| 54,401,400 | 299,544,597 | 82,664,670 | 234,679,147 | 403,745.31 |

Table 4: CFY 2018-2019

| Total Income in CFY: | | Actual expenditure in CFY (till ...): | | Total No. of students in CFY: |
|----------------------|-------------|---------------------------------------|-------------|-------------------------------|
| 332,937,312 | | 303,107,090 | | 806 |
| Non-recurring | Recurring | Non-recurring | Recurring | Expenditure per student |
| 52,685,400 | 280,251,912 | 74,881,330 | 228,225,760 | 376,063.39 |

| Year | 2021-2022 | | 2020-2021 | | 2019-2020 | | 2018-2019 | |
|----------------------|-----------------|-----------------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
| Items | Budgeted in CFY | Actual expenses in CFY (till ...) | Budgeted in CFYm1 | Actual Expenses in CFYm1 | Budgeted in CFYm2 | Actual Expenses in CFYm2 | Budgeted in CFYm3 | Actual Expenses in CFYm3 |
| Laboratory equipment | 44,500,000 | 40,400,037 | 50,000,000 | 46,328,090 | 59,000,000 | 53,634,256 | 34,860,000 | 33,656,135 |

| | | | | | | | | |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| t | | | | | | | | |
| Software | 500,000 | 446,250 | - | - | 1,000,000 | 973,795 | 1,500,000 | 1,284,276 |
| Laboratory consumables | 5,000,000 | 4,735,946 | 15,000,000 | 5,682,259 | 12,000,000 | 9,135,078 | 8,100,000 | 7,956,772 |
| Maintenance and spares | 60,000,000 | 59,887,056 | 45,000,000 | 36,010,561 | 40,000,000 | 37,718,405 | 38,236,000 | 37,865,785 |
| R&D | 15,000,000 | 11,609,876 | 35,000,000 | 11,811,054 | 30,000,000 | 24,405,835 | 28,580,000 | 27,848,620 |
| Training and Travel | 2,000,000 | 1,510,384 | 7,000,000 | 1,044,228 | 6,000,000 | 5,164,140 | 5,740,000 | 5,648,506 |
| Miscellaneous Expenses | 200,000 | 149,516 | 200,000 | 100,280 | 200,000 | 86,856 | 180,000 | 181,624 |
| Total | 127,200,000 | 118,739,065 | 152,200,000 | 100,976,472 | 148,200,000 | 131,118,365 | 117,196,000 | 114,441,718 |

10.3.1 Adequacy of budget allocation (10)

(Institution needs to justify that the budget allocated over the assessment years was adequate for the program)

Budget requirements under ‘recurring’ and ‘non-recurring’ heads are collected from all the departments and units before the commencement of the financial year. Allocations are made as per the availability of funds. Spending is monitored by the accounts section. Supplementary allocations are made in special cases. The institution carefully monitors the expenses such that the necessities are met without affecting the smooth working of the institution.

10.3.2 Utilization of allocated funds (20)

(Institution needs to state how the budget was utilized during the last three assessment years)

All the Heads of the departments are intimated of the extent of funds allocated against their budget proposals in the beginning of the academic session. Major works like construction, up gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping, procurement of furniture, etc., are controlled directly by Management in consultation with the Deans/ Directors.

10.4 Library and Internet (20)

(Indicate whether zero deficiency report was received by the Institution for all the assessment years. Effective availability/purchase records and utilization of facilities/equipment etc. to be documented and demonstrated)

10.4.1 Quality of learning resources (hard/soft) (10)

- Relevance of available learning resources including e-resources
- Accessibility to students
- Support to students for self-learning activities

Library Overview

Library facilities and services are offered to students, research scholars and faculty members of different schools through 20 well established independent school libraries located at respective schools of KIIT DU as well as from the Central Library that is located in an independent campus. The Central Library, an eight storied building functions as the main learning resource centre of the University. The total area of all the libraries is 7771 sqm with a total seating capacity of 3000.

Bird's eye-view of the Print & e-Resources

- ***Print Resource***

| Print Resources | |
|----------------------------|-----------|
| Books Titles | 53,521 |
| Books Volumes | 14,21,474 |
| Print Journals | 571 |
| World Bank Reports | 46 |
| Periodicals | 94 |
| Bound Volumes | 16,806 |
| Theses , Dissertations | 2659 |
| In-house Reports (UG & PG) | 3828 |

- ***E-Resource***

| e-Resources | |
|--------------------------|--------------|
| eBooks | 1,69,470+ |
| e-Journal Database | 45 |
| e-Journals | 43,193+ |
| e-Theses & Dissertations | 4.3 million+ |
| Rare Books | 29,821 |

Titles and Volumes

| Details | | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------------------|----------------|----------------|----------------|----------------|----------------|
| Engineering, Man age ment & Com pute r | Books Title | 5137 | 4021 | 2895 | 2355 | 1335 |
| | Books Volu me | 1,69,764 | 1,74,744 | 1,42,607 | 1,70,280 | 1,70,912 |
| | Print Journals | 314 | 408 | 595 | 595 | 571 |
| | Online Journ | 43,193+ | 29,031+ | 28,195+ | 28,117+ | 28,000+ |

| | | | | | | |
|-----------------|-----|--|--|--|--|--|
| Applicati on | als | | | | | |
|-----------------|-----|--|--|--|--|--|

1. Relevance of available learning resources including e-resources

E-Journals & Databases Collections:

- **IEL Online:** Electronics, Electrical & Computer Engineering: 22916 IEEE & IET full text journals & magazines and conference proceedings, 3043 IEL standards.
- **Science Direct:** 3984 e-Journals & 42 e-Books on Computer Science, Engineering, Engineering, Health Sciences, Materials Science, Business, Management and Accounting & Economics, Econometrics and Finance.
- **ASME:** 29 e-journals on Mechanical Engineering.
- **ASCE:** 38 e-journals on Civil Engineering.
- **ACM Digital University:** 61+ e-Journals and Magazines, 2537+ Scholarly Materials and Newsletters.
- **ABI Inform Complete:** 4,200+ e-journals and magazines on Business Management and allied subjects.
- **ProQuest Medical Sciences:** 594 e-journals on Health Science.
- **Wiley online Journals:** 12 e-journals from Dental Sc. & 1 e-journal from Architecture.
- **AAPD:** 2 e-journal on Dental Sc. Access available since 1998.
- **Fluoride Research:** 1 e-journal on Dental Sc. Access available since 1968.
- **JCO Online:** 1 e-journal on Dental Sc. Access available since 1967.
- **Springer:** 1 e-journal on Dental Sc. Access available since 2009.
- **Emerald :** 310 e-journals on Accounting Finance & Economics (41), Business, Management & Strategy (55), Education Collection (23), Engineering Collection (26), Health & Social Care Collection (32), HR, Learning & Organization Studies (25), Information & Knowledge Management (12), Library Sciences (16), Marketing (23), Operations, Logistics & Quality (16), Property Management & Built Environment (20), Public Policy & Environmental Management (13), Tourism & Hospitality Management (8).
- **EBSCO Business Source Complete:** Business Source Complete is the world's definitive scholarly business database, providing the leading collection of bibliographic and full text content. As part of the comprehensive coverage offered by this database, indexing and abstracts for the most important scholarly business journals back as far as 1886 are included. `With premium full-text content and peer-reviewed business journals, this database is an essential tool for business students. It covers all disciplines of business, including marketing, management, accounting, banking, finance and more. 6934 number of journals & magazines indexed and abstracted (3887 are peer-reviewed), 3761 number of journals & magazines in full text LexisNexis-Indian-Commentaries-2020 (1876 are peer-reviewed).
- **Taylor & Francis:** 1500 e-journals on Engineering, Architecture, Arts & Humanities, Law, Management, Health Sc., Geography, Museum & Heritage Studies.
- **Lexis Nexis:** 1000+ international journals, 300+ Indian Commentaries, Cases & Legislation from nine jurisdictions, All England Law Reports, Supreme Court of India judgements, Central Legislation and more than 40000 other sources.

- **SCC Online:** Legal Research Database covering Indian Case Law, Indian Statutory Law, Indian Secondary Materials, International Law.
- **Manupatra:** Legal Research Database covering Supreme Court cases and orders (1950-Current), cases and orders of all High Courts of India and other Courts, Inception of Each Court-Current, Privy Council Cases, Orders of Tribunals & Commissions, International Law Database, Bare Acts/Statutes, Bills in Parliament and Ordinances, Notifications & Circulars, e-books and others.
- **Hein Online:** 31 e-journals on law and allied subjects.
- **Westlaw India:** 1174 + e-journals available in the database with cases, legislation forms & reports.
- **AIR Online:** Case law from Supreme Court of India, All High Courts of India, Privy Council, federal Courts from 1900 onwards.
- **JCR:** Incites JCR Journal Citation Reports- Most comprehensive tool for citation based research evaluation.
- **Sage Journals:** 35 e-journals from Dental Sciences, Management, Law and Social Sciences.
- **JSTOR:** access to more than 3000 journals, books, images, and primary sources in 75 disciplines.
- **UpToDate Anywhere:** UpToDate Anywhere: is an evidence-based clinical resource. It includes a collection of medical and patient information, access to Lexi-comp drug monographs and drug-to-drug interactions, and a number of medical calculators.
- **INDIASTAT:** Socio-Economic Statistical Information about India.
- **CMIE-Prowess:** Contains information on financial performance, Annual Reports, Time Series Data of over 2700 Indian companies.
- **CMIE-Industry Outlook:** Provides an incisive analysis of about 100 + types of industries.
- **ETIG:** Database on Macro-Economic and Sectoral Research.
- **IS CHD Online (Academic):** IS- Chemical Engineering Division consisting of 1,783 standards with Campus wide access published by Bureau of Indian Standards.

Bibliographic E-Database

- **Scopus Indexing database** of 22500+ e-journals from 5000+ publishers.
- **Web of Science:** KCI-Korean Journal Database: 1980-present; Russian Science Citation Index: 2005-present; SciELO Citation Index: 1997-present; Web of Science Core Collection: Science Citation Index Expanded: 1985-present; Social Sciences Citation Index: 1985-present; Arts & Humanities Citation Index: 1985-present; Book Citation Index; Science: 2005-present; Conference Proceedings Citation Index; Science: 2005-present; Emerging Sources Citation Index: 2005-present.

Patent Database

- **Derwent Innovation:** Full text Patents from USA, UK, Australia, WIPO, France, Germany etc.

E-Books

- **E-Brary:** 1,36,268 + e-books
- **Thomson Reuter's E-Book:** 20 UK Books & 63 Indian Books on Law.
- **Elsevier e-books:** Bioprocess Engineering Principles By Pauline M. Doran, Second Edition; Data Mining: Practical Machine Learning Tools and Techniques, by Jiawei Han,

Micheline Kamber and Jian Pei, Fourth Edition 2017. ISBN 978-0-12-804291-5
The Finite Element Method in Engineering by Singiresu S. Rao, Fifth Edition, 2018. ISBN 978-0-12-811768-2.

Rare Books

- **EBSCO Atla Historical Monographs Collection: Series 1:** The Atla Historical Monographs Collection: Series 1 provides religious and theological literature from the late 13th century to 1922. Series 1 includes monographs prior to the 1893 World Parliament of Religions.
- **EBSCO Atla Historical Monographs Collection: Series 2:** The Atla Historical Monographs Collection: Series 2 provides religious and theological literature from the late 13th century to 1922. Series 2 includes monographs covering 1893 through 1922.

E-Dissertations and Theses

- **PQDT (Proquest Dissertation & Theses):** Contains 4.3 million+ dissertation and theses from 1700 leading academic institutes of the world. The subjects covered are Business & Economics; Medical Sciences; Science & Technology, Agriculture, Social Sciences, Arts, Humanities and Law.

Library Automation & Information Management Tools

- **Web Centric Libsys 10:** Library Automation Software
- **D-Space:** IR Software
- **Turnitin:** Anti-Plagiarism Software
- **EndNote X8:** Citation Management Tool
- **SPSS:** Statistical Analysis Tool
- **STATA:** Statistical Analysis Tool

2. Library Services

- 24x7 library services
- Fully automated library operation with Libsys 10 LMS
- Web based 24x7 digital library services
- Remote Access Services
- Library Web Portal
- Library outreach programs
- Orientation programs
- Inter-Library Loan
- Research Support
- Showcase of latest impact publications on regular basis
- Citation Management
- Service to visually challenged users
- Magazine Lounge
- Open Air Learning
- Plagiarism Check
- CAS & SDI Services
- Web OPAC for online catalogue
- Institutional repository using D-space software for online access to the in-house publications.
- Cyber Lab
- Collaborative Zone

- Mini Conference Room
- 30 nos. of public access printers for print services

2.1 Support to students for self learning activities

- Integrated library web portal for searching of subscribed e-resources as well as open access e-content.
- RSS Feed and Email alert services.
- LCD projectors for self learning and demonstration.
- Access to the Lecture videos from NPTEL and other open course wares
- Access to the National Digital Library of India.

10.4.2 Internet (10)

- Name of the Internet provider:
- Available bandwidth:
- Wi Fi availability:
- Internet access in labs, classrooms, library and offices of all Departments:
- Security arrangements

Name of the Internet provider and Bandwidth: Currently 4 ISPs provider and bandwidth provided by the ISPs providers are as follows:

- 1Gbps Internet connectivity from NKN (under NMEICT)
- 4 Gbps internet connectivity from Bharti Airtel Ltd.
- 4 Gbps internet connectivity from Powergrid.
- 100Mbps internet connectivity from NKN (Powergrid)

Currently KIIT is having a dedicated internet connectivity of 9.1 Gbps.

Note: - At present we have 9.1 Gbps internet connectivity above four ISPs.

Wi Fi availability:

The Aruba Controller and access points which supports IEEE 802.11ac (1G) and IEEE 802.11n (2*300Mbps) is used in the Hostels of the University to provide uninterrupted internet access to the students for their academic and research work. Wi-Fi and Wlan is provided by using Motorola and Aruba Access points to the academic and administrative buildings for faculty and staff members for their research and administrative work. From the session 2015-2016 the WLAN is converted to Wi-Fi. Aruba access points. AP205 is a multifunctional and affordable 802.11ac wireless AP that maximizes mobile device performance in medium-density enterprise Wi-Fi environments.

The details of Access Points are as follows:

| Session | Make | Model | Specification | Qty |
|-----------|----------|-------|---|-----|
| 2010-2011 | Motorola | 5131 | maximum 54Mbps data transfer rate, 802.11a/g radio, external antenna | 200 |
| 2011-2012 | Aruba | 93 | One 2×2 MIMO dual-band 2.4-GHz or 5-GHz radio with internal antenna, with 802.11a/b/g/n | 150 |

| | | | | |
|-----------|-------|-----|---|-----|
| 2012-2013 | Aruba | 105 | Two dual-band 2.4-GHz and 5-GHz radios with 2x2 MIMO and four integrated Omni directional down tilt antennas with 802.11n | 450 |
| 2013-2014 | Aruba | 105 | Two dual-band 2.4-GHz and 5-GHz radios with 2x2 MIMO and four integrated Omni directional down tilt antennas with 802.11n | 500 |
| 2015-2016 | Aruba | 205 | Dual-radio, 867Mbps to 5 GHz with 802.11ac leveraging two spatial MIMO streams | 768 |
| 2017-2018 | Aruba | 305 | Dual-band down tilt Omni-directional antennas for 3x3 MIMO with maximum antenna gain of 4.7dBi in 2.4GHz and 6.4dBi in 5GHz. | 384 |
| 2017-2018 | Aruba | 315 | Four integrated dual-band down tilt Omni-directional antennas for 4x4 MIMO with peak antenna gain of 3.6dBi in 2.4 GHz and 6.0dBi in 5 GHz. | 128 |
| 2019-2020 | Aruba | 315 | Four integrated dual-band down tilt Omni-directional antennas for 4x4 MIMO with peak antenna gain of 3.6dBi in 2.4 GHz and 6.0dBi in 5 GHz. | 256 |
| 2019-2020 | Aruba | 515 | Four integrated dual-band down tilt Omni-directional antennas for 4x4 MU-MIMO with peak antenna gain | 15 |
| 2022-2023 | Aruba | 515 | Four integrated dual-band down tilt Omni-directional antennas for 4x4 MIMO with peak antenna gain | 320 |

We had also implemented the Aruba Clear pass Guest, for providing Wi-Fi connectivity to the delegates and guests who visit KIIT for seminar, workshop and different events.

Networking: 10-1Gbps OFC / Ethernet connection from ICT Cell to all campuses. It is a secure network and each user has authentication for accessing our network. Our campus network currently uses 250 VLANs and can be extended to 1500 VLANS with current configurations. The networking switches that are used at different campuses are given below:

| Make/Model | Qty | Session |
|--------------|-----|-----------|
| Aruba 3810M | 3 | 2019-2020 |
| Aruba 2930M | 3 | 2019-2020 |
| Aruba 2930F | 3 | 2019-2020 |
| Aruba 2930F | 46 | 2019-2020 |
| Aruba 2930F | 103 | 2018-2019 |
| Aruba 1920S | 38 | 2018-2019 |
| Aruba 2930F | 116 | 2017-2018 |
| Aruba S2500 | 40 | 2015-2016 |
| Cisco C2960 | 50 | 2014-2015 |
| Aruba S2500 | 35 | 2014-2015 |
| Aruba S2500 | 28 | 2013-2014 |
| Cisco C2960s | 34 | 2012-2013 |
| Cisco 2960 | 160 | 2008-2016 |

| | | |
|----------------|----|-----------|
| Juniper EX2200 | 34 | 2009-2016 |
|----------------|----|-----------|

Internet access in labs, classrooms, library and offices of all departments are through LAN.

Security arrangements: As far as the security is concerned KIIT provided the security at different levels of from distribution to the client level. It has Core Layer III switch, Firewall and UTM, Aruba controller and CPPM (Clear Pass Policy manager) for protecting students' and staffs' members from being affected from any DOA attack, hacking from outside and inside KIIT. It also prevent malware and virus attacks. Intrusion Prevention System threat-detection, URL filtering, Web content filtering, application filtering, signature based filtering. The user has dot1.x authentication and captive portal authentication. The user emails has a mailer with dual authentication. The details of switch and firewall are as follows

Network Switches and Firewall:

| Make | Model | Qty | Session |
|---------------------------|---------------------------|-----|----------------|
| Core Switch LIII | | | |
| D-link | D Link 7210 | 1 | 2008-2013 |
| Cisco | 6509 | 1 | 2005-till date |
| Cisco | C6509 | 1 | 2013-2014 |
| Cisco | C4500-10G(40 Ports) | 1 | 2014-2016 |
| Cisco | Nexus 7009 | 2 | 2017-2018 |
| Aruba | HPE Aruba 8320 | 2 | 2019-2020 |
| Layer III switch | | | |
| CISCO | C3750X/C3750 | 4 | 2010-2011 |
| CISCO | C3750X | 2 | 2014-2015 |
| CISCO | WS-C4500X-40X-ES | 1 | 2010-2011 |
| CISCO | WS-C4500X-40X-ES | 1 | 2014-2015 |
| CISCO | One Nexus 3172PQ | 2 | 2017-2018 |
| CISCO | One Nexus 317T | 2 | 2017-2018 |
| Firewall/UTM | | | |
| Juniper firewall | SRX 5600 +IPS | 1 | 2010-2011 |
| Juniper UTM | SRX650 | 1 | 2010-2011 |
| Cyberoam | 2500iNG | 4 | 2013-2014 |
| Cisco | Firepower 4120 | 2 | 2017-2018 |
| Palo alto | PA 7050 | 2 | 2019-2020 |
| LINK LOAD BALANCER | | | |
| RADWARE | Link Proof 2016 ODS2 | 1 | 2010-2011 |
| Wi-Fi Controller | | | |
| Aruba | 7240 controller | 1 | 2012-2013 |
| Aruba | 7240 controller | 1 | 2013-2014 |
| CPPM | Clear Pass Policy Manager | 2 | 2015-2016 |
| Aruba | 7205 Controller | 2 | 2019-2020 |



Kalinga Institute of Industrial Technology (KIIT)
Deemed to be University

(Established U/S 3 of UGC Act, 1956)
Bhubaneswar, Odisha, India

Ref. KIIT/VC/149/2023-02

Date 21/02/2023


DECLARATION

I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institute shall fully abide by them.

It is submitted that information provided in this Self-Assessment Report is factually correct.

I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA in case any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

Date: 21.02.2023
Place: Bhubaneswar


Prof. (Dr.) Sasmita Samanta
Vice Chancellor
KIIT Deemed to be University

ANNEXURE I

(A) PROGRAM OUTCOMES

Engineering Graduates will be able to:

1. **Engineering knowledge:** Ability to apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Ability to identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/Development of solutions:** Ability to design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations on complex problems:** Ability to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Ability to create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Ability to apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Ability to understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team:** Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Ability to communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Ability to demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Ability to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

The program specific outcomes are:

1. Ability to select and utilize sustainable low-cost alternate materials contributing to environment friendly construction practices.
2. Ability to understand and adopt methodologies and actions for sustainable environment.
3. Ability to understand and develop strategies for sustainable water resources in the context of climate change.



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