SELF-ASSESSMENT REPORT (SAR)

For Accreditation of Undergraduate Engineering Programme (Tier-I)

Bachelor of Technology

in

Electrical 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

SAR Contents

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	
Deemed to be University	√
Autonomous	
Any other (Please specify)	

Note:

1. In case of Autonomous and Deemed to be 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	
State Government	
Government Aided	
Self - financing	√

Trust ☐

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 Electrical 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:

Table A.7

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 Electrical Engineering	UG	1997	1997	60	Yes	180	Granted accreditation for 6+1+1 years for the period	07-01-2014	30/07/2022	Yes	4
M.Tech in Electrical Engineering	PG	2006	2006	18	Yes	25	Eligible but not applied			No	2

Write applicable one:

- 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
Table A.8

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

9. Total number of employees:

A. Regular Employees (Faculty and Staff):

Table A.9a

Year of Study	CAY (2022-2023)		CAYm1 (2021-2022)		CAYm2 (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

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 (2021-2022)		CAYm1 (2020-2021)		CAYm2 (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 EngineeringStudents:

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, ifdesignated:**

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

NBA Coordinator, If Designated

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

Name of the program: B.Tech. in Electrical Engineering

Criteria No.	Criteria	Mark/Weightage
Program Level Criteria		
1.	Vision, Mission and Program Educational Objectives	50
2.	Program Curriculum and Teaching –Learning Processes	100
3.	Course Outcomes and Program Outcomes	175
4.	Students' Performance	93.287
5.	Faculty Information and Contributions	200
6.	Facilities and Technical Support	80
7.	Continuous Improvement	75
Institute Level Criteria		
8.	First Year Academics	48.45
9.	Student Support Systems	50
10.	Governance, Institutional Support and Financial Resources	120
	Total	**991.737**

PART B: Program Level Criteria

CRITERION 1	Vision, Mission and Program Educational Objectives	50

1. VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50) TOTAL MARKS 50.00

1.1 State the Vision and Mission of the Department and Institute **(5)** Total Marks 5.00

Institute Marks: 5.00

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

(Here Institute Vision and Mission statements have been asked to ensure consistency with the department Vision and Mission statements; the assessment of the Institute Vision and Mission will be taken up in Criterion 10)

<table>
<tr><td>Vision of the institute</td><td>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.</td></tr>
<tr><td>Mission of the institute</td><td>• 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.</td></tr>
<tr><td>Vision of the Department</td><td>To deliver world-class education and research in Electrical Engineering, with particular regard to their application in industry, healthcare and commerce in a diverse society.</td></tr>
<tr><td>Mission of the Department</td><td>
<table>
<tr><th>Mission No.</th><th>Mission Statements</th></tr>
<tr><td>M1</td><td>To prepare students for professional career, higher studies and entrepreneurship.</td></tr>
<tr><td>M2</td><td>To facilitate students in Electrical Engineering for utilization of technical knowledge and skills, to analyze, solve problems and generate new ideas and products in academia and industry.</td></tr>
<tr><td>M3</td><td>To motivate students in multi-disciplinary research work through continuous learning and to build skills beyond curriculum in the areas of emerging Technologies.</td></tr>
<tr><td>M4</td><td>To impart the essential skills of leadership, teamwork, communication and ethics.</td></tr>
</table>
</td></tr>
</table>

Mission of School/Mission of university	M 1	M 2	M3	M4	M5	M6	M7	M8
MU 1	√			√		√		
MU 2	√							√
MU 3							√	√
MU 4		√	√		√			

1.2 State the Program Educational Objectives (PEOs) (5) Total Marks 5.00

(State the PEOs (3 to 5) of program seeking accreditation)

PEO No.	**Program Educational Objectives Statements**
PEO1	Graduates will be able to address complex problems and apply learned skills in wide range of career opportunities in industries and academics.
PEO2	Graduates will be able to fulfill the needs of society in solving technical problems using engineering principles, tools and practices, in an ethical and responsible manner.
PEO3	Graduates will develop leadership skills in the workplace and function professionally in a globally competitive world.

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

Total Marks 15.00
Institute Marks: 15.00

(Describe where (websites, curricula, posters etc.) the Vision, Mission and PEOs are published and detail the process which ensures awareness among internal and external stakeholders with effective process implementation) (Internal stakeholders may include Management, Governing Board Members, faculty, support staff, students etc. and external stakeholders may include employers, industry, alumni, funding agencies, etc.)

- The vision and mission of the Deemed to be University is available at: http://www.kiit.ac.in
- The vision and mission of the Deemed to be University are also displayed through notice boards across the campus.
- The vision and mission of the school is available at: https://electrical.kiit.ac.in/about-us/
- 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 Electrical Engineering is available at: https://electrical.kiit.ac.in/b-tech-in-electrical-engineering/
- 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 to be 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, Student Handbook, Induction programs, Tutor mentor meetings Implementation Schedule

Display vide boards	Throughout the year in the School corridor
Induction Programs	Conducted annually
Tutor Mentor Meetings	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 e-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-teachers Interactions
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)

Total Marks 15.00
Institute Marks: 15.00

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

The School of Electrical 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 to be University. The draft statements are subsequently revised based on the feedback of internal and external stake holders.

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.

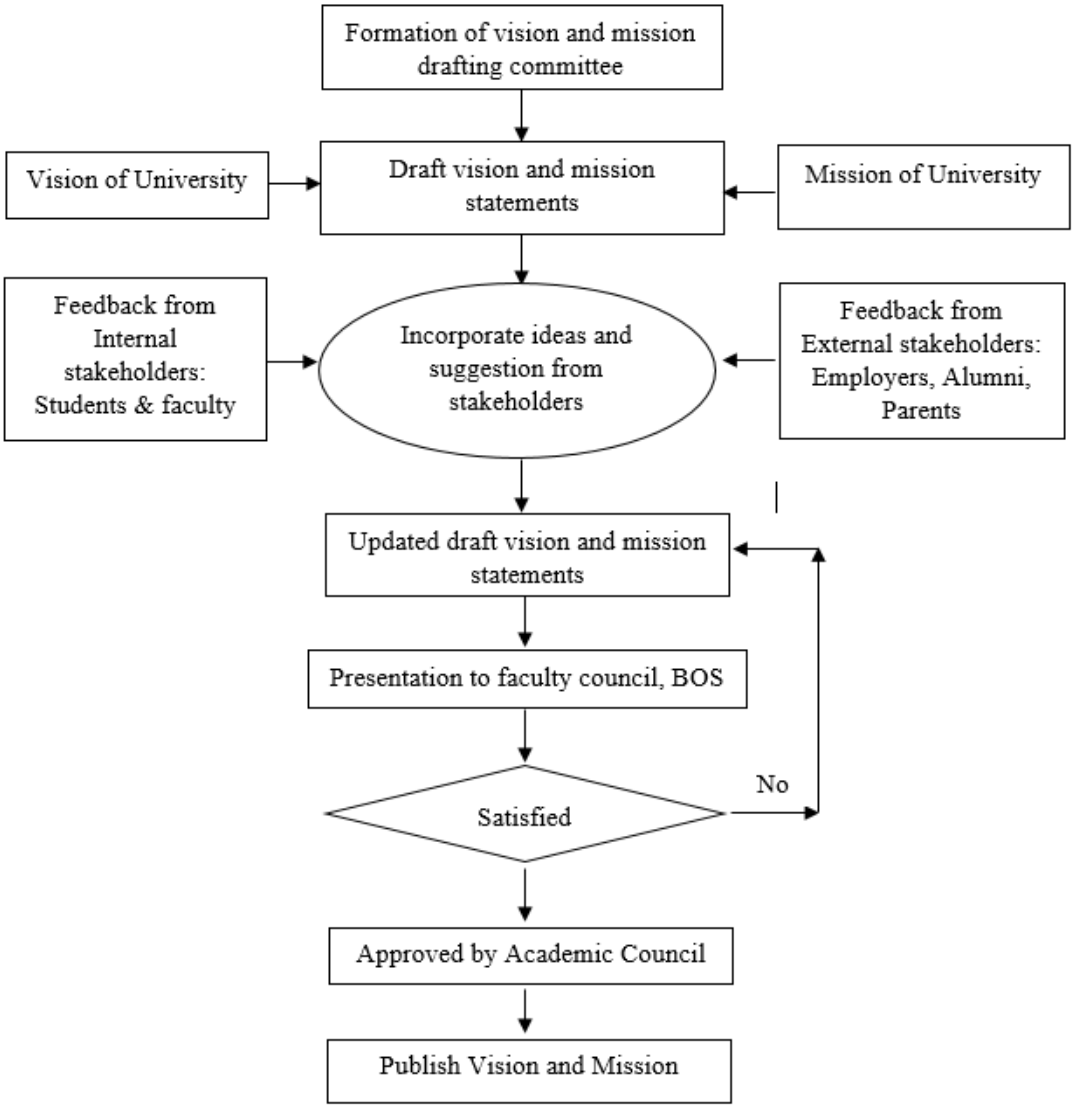


Figure 1.1: Process for defining Vision and Mission statements

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

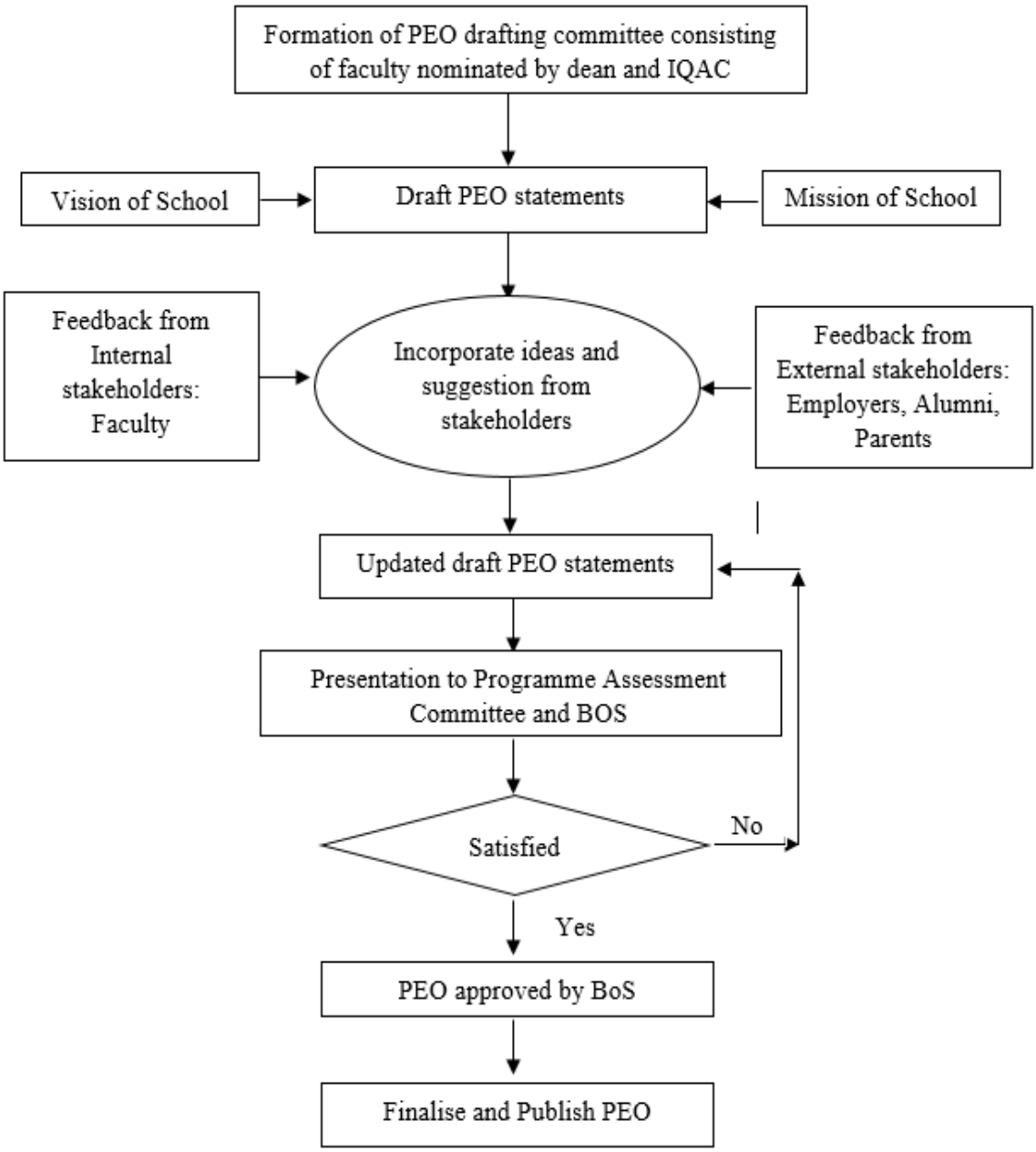


Figure 1.2: Process for defining Programme Educational Objectives

1.5 Establish consistency of PEOs with Mission of the Department (10) Total Marks 10.00
Institute Marks: 10.00

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

PEO1: Graduates will be able to address complex problems and apply learned skills in wide range of career opportunities in industries and academics.

- This objective statement is consistent and aligned with the following mission statements of the school" To prepare students for professional career, higher studies and entrepreneurship".

- This objective statement is also consistent and aligned with the following mission statements of the school: "To facilitate students in Electrical Engineering for utilization of technical knowledge and skills, to analyze, solve problems and generate new ideas and products in academia and industry".

- 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 Electrical Engineering problems, and lead a successful career in their domain.

PEO 2: Graduates will be able to fulfill the needs of society in solving technical problems using engineering principles, tools and practices, in an ethical and responsible manner.

- This objective statement is also consistent and aligned with the following mission statements of the school: "To facilitate students in Electrical Engineering for utilization of technical knowledge and skills, to analyze, solve problems and generate new ideas and products in academia and industry".
- This objective statement is also consistent and aligned with the following mission statements of the school: "To motivate students in multi-disciplinary research work through continuous learning and to build skills beyond curriculum in the areas of emerging Technologies."
- The graduates will be able to perceive the limitation and impact of engineering solutions in different contexts 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 multi-disciplinary perspective in the field of Engineering.

PEO 3: Graduates will develop leadership skills in the workplace and function professionally in a globally competitive world.

- This objective statement is also consistent and aligned with the following mission statements of the school: "To impart the essential skills of leadership, teamwork, communication and ethics"
- 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**
Graduates will be able to address complex problems and apply learned skills in wide range of career opportunities in industries and academics.	3	3	2	1
Graduates will be able to fulfill the needs of society in solving technical problems using engineering principles, tools and practices, in an ethical and responsible manner.	2	3	3	2
Graduates will develop leadership skills in the workplace and function professionally in a globally competitive world.	2	1	1	3

Note: M1, M2. . . Mn are distinct elements of Mission statement. Enter correlation levels 1, 2 or 3 as defined below:
1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) *If there is no correlation, put "-" Note: Wherever the word "process" is used in this document its meaning is process formulation, notification to all the concerned, and implementation*

CRITERION 2	Program Curriculum and Teaching –Learning Processes	100

2.1. Program Curriculum (30) **Total Marks-30**

2.1.1. State the process for designing the program curriculum (10) **Institute Marks-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 Deemed to be University 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.

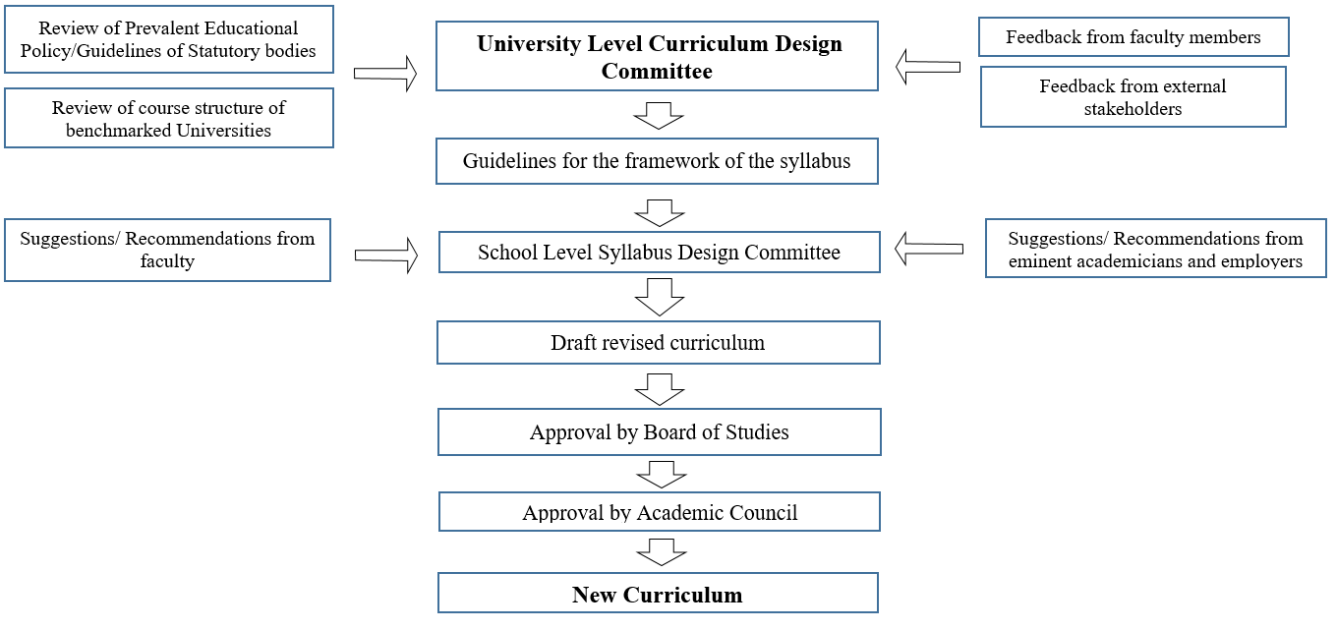


Figure 2.1: Process for Curriculum Design

2.1.2. Structure of the Curriculum (5) **Institute Marks-5**

Table B.2.1.2

ID	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	Theory Credits	Practical Credits	Total Credits
1	C101	Mathematics – I	3	1		4	4		4
2	C102	Chemistry	3			3	3		3
3	C103	Professional Communication	2			2	2		2
4	C104	Biology	2			2	2		2
5	C105	Computer Programming		2	4	6		*4*	4
6	C106	Chemistry Lab			3	3		1.5	1.5
7	C107	Language Lab			2	2		1	1

8	C108	Engg. Graphics		1	2	3		2	2
9	C109	Mathematics – II	3	1		4	4		4
10	C110	Physics	3	1		4	4		4
11	C111	Basic Electrical Engineering	3			3	3		3
12	C112	Engineering Mechanics	3			3	3		3
13	C113	Physics Lab			3	3		1.5	1.5
14	C114	Basic Electrical Engineering Lab			2	2		1	1
15	C115	Basic Manufacturing Systems		1	2	3		2	2
16	C116	Environmental Science			2	2		1	1
17	C117	Yoga & Human Consciousness			2	2		1	1
18	C201	Mathematics –III	3	1		4	4		4
19	C202	Electrical Circuits Analysis	3			3	3		3
20	C203	Transformers and Induction Motors	3			3	3		3
21	C204	Analog Electronic Circuits	3			3	3		3
22	C205	Electrical and Electronics Measurements	3			3	3		3
23	C206	Data Structure and Algorithm	3	1		4	4		4
24	C207	Network and Electronics Circuit Laboratory			2	2		1	1
25	C208	Data structure Laboratory			2	2		1	1
26	C209	Electrical Measurements Laboratory			2	2		1	1
27	C210	Business Communication			2	2		1	1
28	C211	DC Machines and Synchronous Machines	3			3	3		3
29	C212	Digital Circuits	3			3	3		3
30	C213	Linear Control System	3			3	3		3
31	C214	Signals and System	3			3	3		3
32	C215	Generation, Transmission and Distribution of Electric Power	3	1		4	4		4
33	C216	Power Electronics	3	1		4	4		4
34	C217	Electrical Machines Laboratory			3	3		1.5	1.5
35	C218	Power Electronics Laboratory			3	3		1.5	1.5
36	C219	Digital Circuits Laboratory			2	2		1	1
37	C301	Renewable Energy Sources	3			3	3		3
38	C302	Microprocessors and Interfacing	3			3	3		3
39	C303	Power System Operation and Control	3	1		4	4		4
40	C304	HS Elective-1	3			3	3		3
41	C305	Department Elective-I	3			3	3		3
42	C306	Department Elective-II	3			3	3		3
43	C307	Control System Laboratory			3	3		1.5	1.5
44	C308	Microprocessor Laboratory			3	3		1.5	1.5
45	C309	PLC Laboratory			2	2		1	1
46	C310	Electrical System Modelling			2	2		1	1

		using MATLAB							
47	C311	Power Carrier Communication System	3			3	3		3
48	C312	Power System Protection	3			3	3		3
49	C313	Inferential Statistics	3	1		4	4		4
50	C314	Department Elective-III	3			3	3		3
51	C315	Department Elective-IV	3			3	3		3
52	C316	Department Elective-V	3			3	3		3
53	C317	Open Elective-I	3			3	3		3
54	C318	Power Systems Laboratory			3	3		1.5	1.5
55	C319	Electric Drives Laboratory			3	3		1.5	1.5
56	C320	Minor Project			4	4		2	2
57	C401	Professional Practice, Law and Ethics	2			2	2		2
58	C402	Open Elective-II	3			3	3		3
62	C403	Project-I / Internship			6	6		3	3
63	C404	Practical Training			0	0		2	2
65	C405	HS Elective-II	3			3	3		3
70	C406	Project-II / Internship			20	20		10	10
		Total	**105**	**13**	**84**	**202**	**114**	**48**	**162**

Seminars, project works may be considered as practical

2.1.3. State the components of the curriculum (5) **Institue Marks-5**

Program curriculum grouping based on course components
Table B.2.1.3

Course components	**Curriculum content (% of total number of credits of the program)**	**Total number of contact hours**	**Total number of credits**
Mathematics and Basic Sciences	16.05	29	26
Engineering Sciences	12.35	26	20
Humanities and Social Sciences	9.87	20	16
Program Core	38.27	76	62
program Electives	9.26	15	15
Open Electives	3.71	6	6
Projects	9.26	30	15
Internships, practical training	1.23	0	2
Any other (CAT-I, CAT-II, Seminar, Grand Viva)	0.00	0	0
Total number of Credits			**162**

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)

The curriculum for B. Tech. in Electrical 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). (Example given in 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 are 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 analyzed in the Programme Assessment Committee and BOS meeting; recommendations are suggested.

Table 2.1: Course Outcome with PO/PSO Mapping of Power System Operation and Control

CO Number	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	1	2	1	0	0	0	1	1	0	2	0	2	3
CO2	3	3	0	2	1	0	0	0	1	1	0	2	1	2	3
CO3	3	3	1	2	1	0	0	0	1	1	0	2	0	2	3
CO4	3	2	2	2	0	0	0	0	1	1	0	2	1	2	3
CO5	3	3	1	1	1	0	0	0	1	1	0	2	0	2	3
CO6	3	3	1	2	1	0	0	0	1	1	0	2	0	2	3

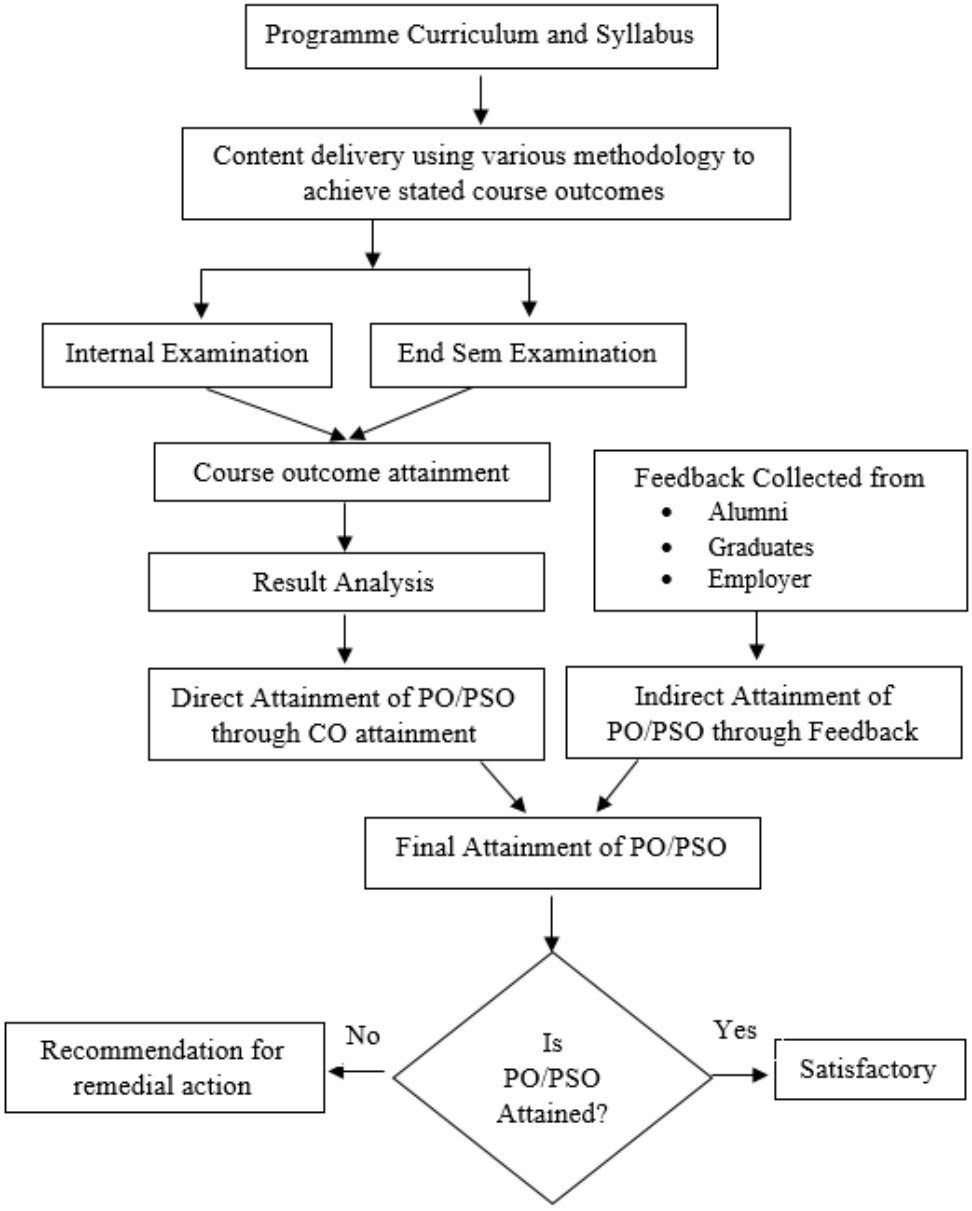


Fig. 2.2 Process for Identifying attainment gap of PO/PSO

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 Electrical 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 B. Tech 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. All academic activities are being done in time without any disruption in the Academic Calendar.

Subject allotment

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.

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 devlops 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 solutions provided by the industry.

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

Smart Classrooms: The classooms are well equiped with advanced projector and smart writing board. Every classroom having PC system internet connectivity. All the laboratories are well equipped with the equipment and 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 devlopment 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.

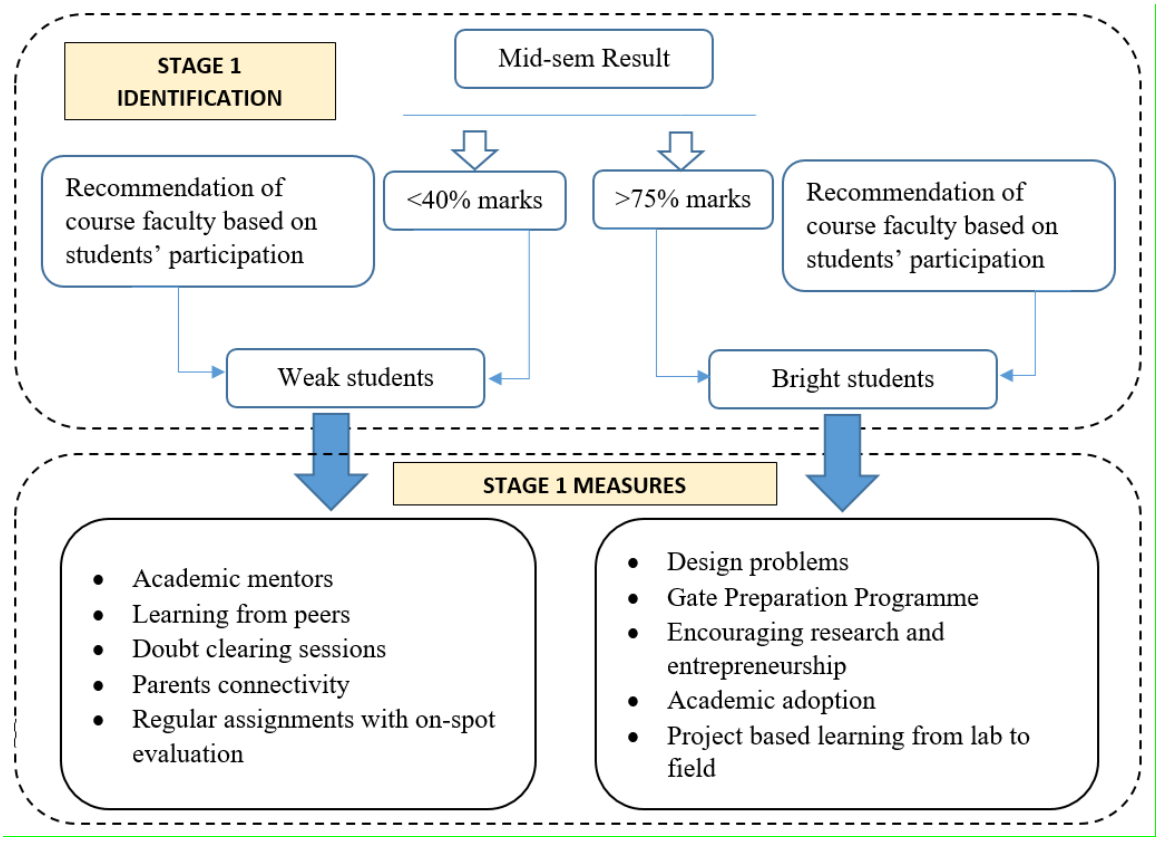


Fig. 2.3: Identification and measures for weak and bright students in stage 1

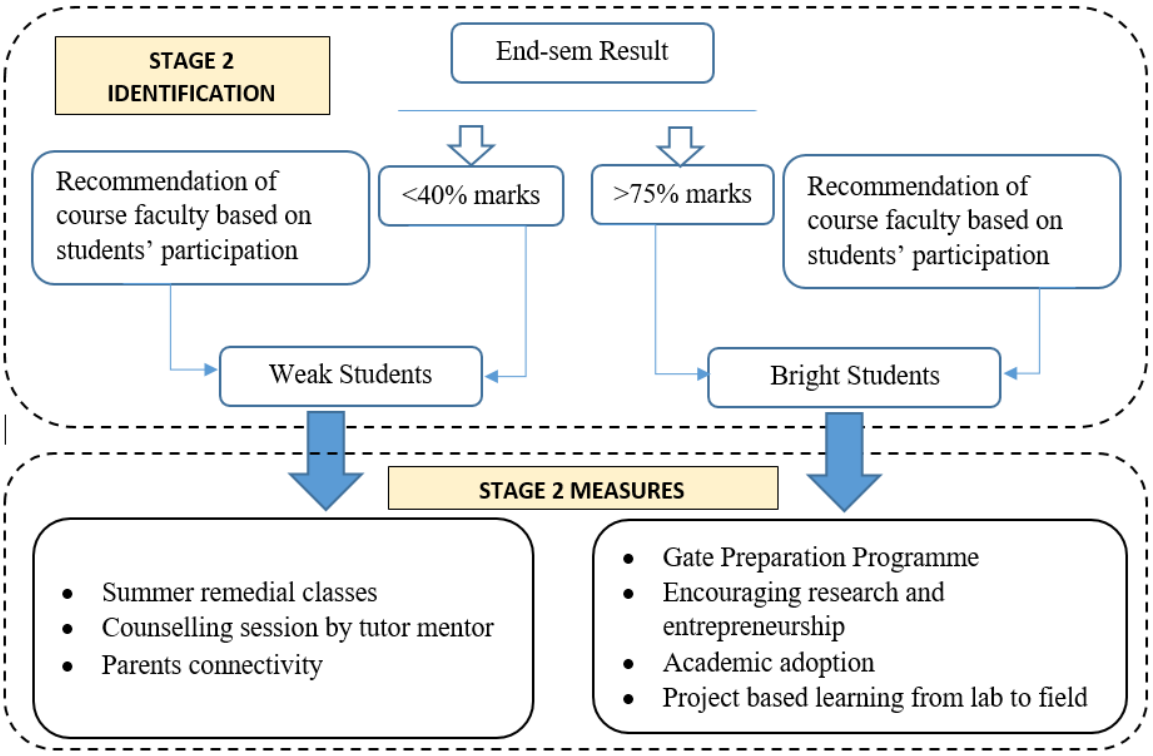


Fig. 2.4: Identification and measures for weak and bright students in stage 2

Special Programmes for Bright & Weak Learners

Measures taken for slow and advanced learners

D.1 Activities for Bright learners

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 Electrical 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 learners

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 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 with students and parents.**

H. Library and Internet Facilities

Library facilities: College has 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 classes are 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 by 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 deliver lecture on improving the efficiency of teaching-learning process. In case of any negative comment related to attitude or approach of faculty members, a counselling session is organized by the Dean 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	The assessment is done in three stages: 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. 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. 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. 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.
Practical courses	The assessment is done in 2 stages: 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. 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.
Sessional Courses	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.

KIIT Deemed to be University 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.

A. Continuous Evaluation through learning activities for each theory course:

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 able 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 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 Examinations 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.	✓ All COs ✓ PI s related to Learning levels 1 and 2as per Bloom's taxonomy	
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	✓ All COs ✓ PI s related to Learning levels 1, 2 and 3 as per Bloom's taxonomy	The questions in SECTION-B,C and D should collectively cover all COs defined for the Course.
Q2 Q3	Learning levels 1,2, and 3	Questions based on remembering, understanding and application			
Section C				✓ All COs ✓ PI s related to Learning levels 3 and 4 as per Bloom's taxonomy	
Q4 Q5 Q6	Learning Levels 3 and 4	Questions based on application and analysis.			
Section D				✓ 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. The question quality assessment sheets are handed over to the course coordinators to be retained in the course file.

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~~ chief examiner/ third examiner 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 throughthe projects with justification)

As per B. Tech Electrical curriculum for 2015, 2016 and 2017 admitted batches, each student has to undertake one project during 6^{th}, 7^{th} and 8^{th} semester as mentioned below

SL no.	Semester	Course code	Course name	Credits
1	6	EE 3082	Minor Project	2
2	7	EE 4081	Project -I	2
3	8	EE 4082	Project-II	6

Similarly, as per B. Tech Electrical curriculum for 2018, 2019 and 2020 and 2021 admitted batches, each student has to undertake one projects during 6^{th}, 7_{th} and 8_{th} semester as mentioned below

SL no.	Semester	Course code	Course name	Credit
1	6	EE 3082	Minor Project	2

2	7	EE 4081	Project -I	3
3	9	EE 4082	Project-II	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.

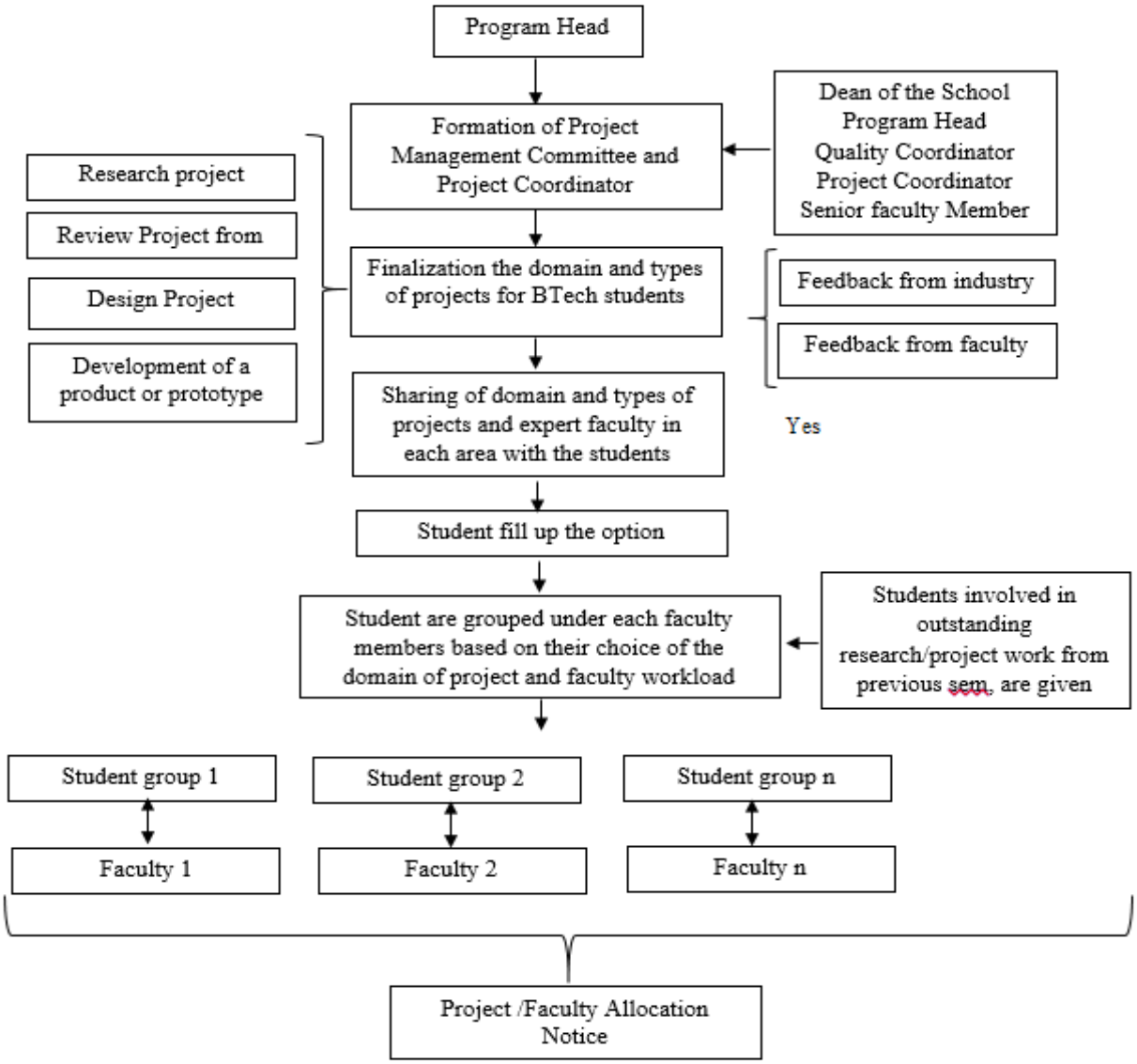


Figure 2.5. Process for Project Allocation methodology

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 has 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).**
- **T**he 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.
- 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 ≤ 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 at least 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	70 (Panel – 35, Guide – 35)	Report – 30 Presentation skills & content – 20

		submission		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	Ability to perform a background study on certain scientific aspect and formulate a project objective
CO2	Ability to outline a pathway for the implementation of the project within the time line
CO3	Ability to apply fundamental mathematical concepts, advanced technical know-how, use modern tools, perform experiments and critically analyze the data
CO4	Ability to provide solutions with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
CO5	Ability to function effectively as an individual, and as a member or leader in a team under multidisciplinary settings following ethical practices
CO6	Ability to 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
3	CO3	PO1, PO2, PO3, PO4, PO5
4	CO4	PO6, PO7, PO11
5	CO5	PO9
6	CO6	PO9, PO10

A list of major projects addressing various POs A list of major projects addressing various POs

Group No	**Topic**	**Relevance to PO/PSO**	**Year**
G1	DESIGN AND DEVELOPMENT OF AN IOT BASED SMART SOLAR CHARGE CONTROLLER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G2	VERTICAL FARMING USING IOT	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G3	RENEWABLE ENERGY INTEGRATION WITH SMART GRID	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G4	ENHANCEMENT OF EFFICIENCY AND RELIBILITY OF RENEWABLE GENERATION	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G5	ANALYSIS AND CONTROLLING OF DISTRIBUTION TRANSFORMER PARAMETER USING AVR MICROCONTROLLER IOT SYSTEM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022

G6	AUTOMATIC STAR DELTA STARTER USING RELAY AND ADJUSTABLE ELECTRONIC TIMERFOR INDUCTION MOTOR	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G7	MAXIMUM POWER POINT FOR PV SYSTEM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G 8	ENERGY MANAGEMENT IN MICROGRID USING HYBRID ENERGY STORAGE	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-9	IOT BASED ELECTRICITY ENERGY METER USING ESP12 AND ARDUINO	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-10	DESIGN AND CONTROL OF SINGLE-PHASE SOLAR PV INVERTER WITH MPPT ALGORITHM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-11	STUDY AND ANALYSIS OF A NOVEL STEP-UP 17 LEVEL SWITCHED CAPACITOR MULTILEVEL INVERTER WITH REDUCED DEVICE COUNT	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-12	ANALYSIS OF HYBRID PV ARRAY CONFIGURATIONS UNDER PARTIAL SHADING CONDITIONS	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-13	AI BASED FAULT DETECTION IN THREE PHASE TRANSMISSION LINE	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-14	SOLAR POWERED WIRELESS BATTERY CHARGER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-15	ANALYSISANDSIMULATIONSTUDYOFSOLARINVERTER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-16	UNDERGROUND FAULT DETECTION USING ARDUINO	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-17	ELECTRICAL DESIGN OF FORMULA AND E-BAJA STUDENT VEHICLES	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-18	LOAD CONTROL SYSTEM USING DTMF	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-19	AUTOMATIC CAR NUMBER PLATE RECOGNITION/IDENTIFICATION	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-20	ANALYSIS AND SIMULATION STUDY OF NOVEL REDUCED DEVICE COUNT ULTILEVEL INVERTER USING INTEGRATED POWER SUPPLIES	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-21	HOME AUTOMATION USING ARDUINO	PO1,PO2,PO3,PO4,PO9,PSO2	2022
G-22	SOLAR POWERED TRASH COLLECTOR	PO2,3,4 and PSO 3	2022

G-23	A HIGH STEP-UP DC/DC CONVERTER BY USING PV POWER SYSTEM AND ITS APPLICATIONS	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-24	SOLAR POWERED WIRELESS BATTERY CHARGER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-25	SMART SOLAR WIND HYBRID POWER GENERATION SYSTEM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-26	OVERVIEW OF ELECTRIC VEHICLE & DESIGN & ANALYSIS OF DC-DC CONVERTER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-27	AUTOMATED BOX-STRETCH WRAPPER USING PLC	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-28	AN INVESTIGATION INTO THE IMPACT OF EV FAST CHARGING STATION IN THE DISTRIBUTION GRID	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-29	STOCKWELL TRANSFORM AND DATA MINING BASED FAULT DIAGNOSIS METHOD TO PROTECT MICROGRID	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-30	SOLAR PV MAXIMUM POWER POINT TRACKER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-31	AUTOMATED GUIDE VEHICLE (LINE FOLLOWER ROBOT)	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-32	REACTIVE POWER CONTROL USING FC-TCR	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-33	KEY-LESS OPERATION OF ELECTRIC VEHICLE	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-34	CONTROLLING SOLAR ENERGY CHARGE	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-35	HARMONIC ANALYSIS AND SIMULATION STUDY OF A SERIES RESISTANCE CAPACITANCE (RC) FILTER BASED MULTILEVEL INVERTER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-36	IMPACTS OF EV ON POWER DISTRIBUTION NETWORK	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-37	FAST CHARGING OF ELECTRIC VEHICLES	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-38	ARDUINO BASED DUAL AXIS SOLAR TRACKER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-40	AUTOMATIC TRACK BASED ROBOTIC CAR WITH AUTOMATIC ACCIDENTAL BRAKING	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022

	SYSTEM		
G-41	SMART HOME AUTOMATION	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-42	HYBRID ELECTRIC BICYCLE UNDER ELECTRIC VEHICLES	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-43	SIMULATION OF CONSTANT CURRENT(CC)& CONSTANT VOLTAGE(CV) BATTERY CHARGING FOR ELECTRIC VEHICLE	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-44	STUDY OF SOLAR INVERTER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-45	IMPROVING THE EFFICIENCY OF SOLAR PANEL USING DIFFERENT ROBUST TECHNIQUES	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-46	SINGLE AXIS SOLAR TRACKING SYSTEM USING 555 IC	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-47	MODELLING OF COST EFFECTIVE SOLAR EV CHARGER WITH MPPT TECHNIQUE	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-48	UTILIZATION OF GREEN ENERGY FOR DISASTER MANAGEMENT	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-49	DESIGNING AN ARDUINO BASED SPEED CONTROL DC MOTOR DRIVE SYSTEM POWERED BY SOLAR PANEL USING MPPT TRACKING	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-50	L-ZSI INTERLEAVED BOOST CONVERTER	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-51	“IOT BASED SMART SOLAR FENCING SYSTEM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-52	IOT BASED SOLAR ENERGY MONITORING SYSTEM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-53	SMART WIRELESS BATTERY WITH CHARGE MONITOR	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-54	MODELLING AND SIMULATION OF PHOTOVOLTAIC CHARGING STATION FOR ELECTRIC VEHICLES	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022
G-55	IOT BASED SOLID STATE RELAY WITH DIMMING AND ON-OFF CONTROL SYSTEM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9,PO10,PSO2	2022

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 is given below.

Sl.No	Title of the technical paper	Author Name	Name of Technical Magazine/Conference	Year
1.	Impact of Gallium Nitride Semiconductor Devices in Tri-state Boost Converter	M. Bhattacharya, K. Kumar, S. Garlapati, and S. Banerjee	IEEE International Conference on Sustainable Energy Technologies and Systems (ICSETS-2019), KIIT DU, Bhubaneswar-2019	2019
2.	Modelling and Efficiency Analysis of Microwave Wireless Power Transfer System	M. Bhattacharya and K. Kumar	IEEE International Conference on Innovations in Power and Advanced Computing Technology (i-PACT), VIT Vellore, March 2019	2019
3.	Comparative Analysis of AC - AC Power Converters for Primary Side Wireless Power Transfer System	A. De, S. R. Singh, M. Bhattacharya, K Kumar, and J. M. Kumbhare	IEEE International Conference on Innovations in Power and Advanced Computing Technology (i-PACT), VIT Vellore, March 2019	2019
4.	Analysis and simulation of Boost Converter versus Tri-State Boost Converter	S Pal, D Kumar, and K Kumar	International Conference on Emerging Trends and Advances in Electrical Engineering and Renewable Energy (ETAEERE-2020), Springer, KIIT DU, Bhubaneswar	2020
5.	Comparative Analysis of different PV Array Configurations under Partial Shading Conditions	S. M. Maharana, A. Mohapatra, C. Saiprakash and A. Kundu	2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, 2021	2021
6.	Decision Tree Supported Distance relay for Fault Detection and Classification in a series compensated line	S. K. Mohanty, A. Karn and S. Banerjee	2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020)	2020
7.	Performance Analysis of Different PV Array Configurations under Partial Shading Condition	S. M. Maharana, A. Mohapatra, C. Saiprakash and A. Kundu	2020 International Conference on Computational Intelligence for Smart Power System and Sustainable Energy (CISPSSE), 2020	2020
8.	Soil Analysis and its Type Prediction with Speech Enabled Output using IoT and AWS	S. Mohapatra, A. Mohapatra and A. Patil	2020 IEEE 17th India Council International Conference (INDICON), 2020	2020
9.	A Novel 15-Level Asymmetric Modified T-Type Inverter with Reduced Device count	P. R. Mishra, S. Jha and T.Roy, pp. 1-6, doi: 10.1109/INDICON52576.2021.9691644.	2021 IEEE 18th India Council International Conference (INDICON)	2021
10.	A Novel Asymmetric Multilevel Inverter with Reduced Components and Lower Source Variety	R. Mohanty, S. R. Sahoo and T. Roy, doi: 10.1109/INDISCON54605.2022.9862870.	2022 IEEE India Council International Subsections Conference (INDISCON), 2022	2022
11.	Cloud based Home Automation	Anurag Kumar Verma &Divyanjal Kumar	KIIT Electrical project expo-2020(KEPE 2020)	2020
12.	Smart Irrigation System	Bhaskar Shaw & Bhartendra Yadav	KIIT Electrical project expo-2020(KEPE 2020)	2020
13.	IoT based Home Automation	Rupayan Chakraborty, Rounak Dey, Rajat	KIIT Electrical project expo-2020(KEPE 2020)	2020

		Majumder & Souradeep Sarkar		
14.	Study the Impact of DG penetration on voltage stability in an IEEE 14 Bus System	H.Sai Roshan, HimangkaDuarah, Swarup Das & PrithwisBhunia	KIIT Electrical project expo-2020(KEPE 2020)	2020
15.	High Efficiency Wireless Power	Arkao Prava Ghosh, Prateek Singh, SourasishDandapat, Sourav Brahma, Yusuf Sk& Abhijit Jasu	KIIT Electrical project expo-2020(KEPE 2020)	2020
16.	Speed Control of DC motor using CUK converter	Bibhudutta Pradhan, Navojit Mondal & Rishav Kumar Pathak	KIIT Electrical project expo-2020(KEPE 2020)	2020
17.	Development of Hybrid Tricycle for Differently-able Persons	G Rahul Rao, Richa Singh, Rishabh Singh, Daksh & Abhishek Pradhan	KIIT Electrical project expo-2020(KEPE 2020)	2020
18.	Electric Vehicle: Mechanism of Solar Car	Ichha Roy, Ritik Raj & SoumitaChattaraj	KIIT Electrical project expo-2020(KEPE 2020)	2020
19.	Solar Battery Charger For Charging a Electric Vehicle	Abhishek Kumar, Aditya Roy Anupam Rana & Arpan Bangal	KIIT Electrical project expo-2020(KEPE 2020)	2020
20.	Development of Solar Powered Charging Station for Electric Vehicles	Raghuraj Pratap Singh, SreyashiSaha, Priyadarshini Das & Upasana Pradhani	KIIT Electrical project expo-2020(KEPE 2020)	2020
21.	Design of Maximum Power Point Tracking	Prem Shankar Pathak &Asad Nasim	KIIT Electrical project expo-2020(KEPE 2020)	2020
22.	Feasibility Study on Installing Wind/Solar Generating Units for Domestic Supply	Anksuman Dutta, Snehasish Ghosh & Srija Bhowmik	KIIT Electrical project expo-2020(KEPE 2020)	2020
23.	Simulation of Solar MPPT Controller using Boost Converter	Swapnadip Datta, Supriyo Nag, Sudeshna Chakraborty, Subhadeep Barat & Surajit Mondal	KIIT Electrical project expo-2020(KEPE 2020)	2020
24.	Solar Powered Light with Auto Intensity Control	Debopriya Das & Annuaya Manoj T	KIIT Electrical project expo-2020(KEPE 2020)	2020
25.	Solar Water Purifier using Reverse Osmosis	Sourav Saha, Keshav Saha, Kuldeep Nagar & Nikhil Raj	KIIT Electrical project expo-2020(KEPE 2020)	2020
26.	Solar Water Purifier	Kundan Kumar Singh , Deepshikha Chakraborty, Zeeshan Shovan, Souvik Dey & Abhishek	KIIT Electrical project expo-2020(KEPE 2020)	2020
27.	Speed & Direction Control of DC Motor using Bluetooth	Sheershendu Kishor Bhattacharjee & Soumya Ranjan Dash	KIIT Electrical project expo-2020(KEPE 2020)	2020

28.	Vector Control of Permanent Magnet Synchronous Motor	Md Hanzala Ansari & Aniket Salui	KIIT Electrical project expo-2020(KEPE 2020)	2020
29.	Performance Analysis of Step Up DC to DC Converter in MATLAB/Simulink	Saurabh Kumar Baghel& Omkar Mittal	KIIT Electrical project expo-2020(KEPE 2020)	2020
30.	The Analysis of Different Techniques for Speed Control of Permanent Magnet Synchronous Motor	Surajkumar& Ranadeep Chakrabarti	KIIT Electrical project expo-2020(KEPE 2020)	2020
31.	Multilevel Inverter	Yash Anand, Srijit Basu, Sumesh Gupta & Subhash	KIIT Electrical project expo-2020(KEPE 2020)	2020
32.	Solar Power Inverter	Deep Prakash, Gourav Prakash Patra, Prakash Chandra & Shashi Bhusan Rai	KIIT Electrical project expo-2020(KEPE 2020)	2020
33.	Analysis and Simulation Study of a novel Multi-level Inverter Structure	Kumar Ayush, Saikat Maity, Sajid Islam Mondal, Sougata Seth &Subhrajyoti Ghosh	KIIT Electrical project expo-2020(KEPE 2020)	2020
34.	Detection of Harmonic Sources in Distribution System using Non Active Power Quantities	Siddharth Sharma, Mohit Sahni& Vaibhav Verma	KIIT Electrical project expo-2020(KEPE 2020)	2020
35.	Power Quality Improvement using Dynamic Voltage Restorer	Subash Chandra Bahuk ,Laxman Soren, Amit Agrawal,Manasij Sarkar	KIIT Electrical project expo-2020(KEPE 2020)	2020
36.	Automatic Generation Control of Interconnected Power System incorporating Fractional order PID Controller	SambeetParida , aritrabhattacharyya, Debraj Mondal	KIIT Electrical project expo-2020(KEPE 2020)	2020
37.	Foot Step Power Generation	Rudrendu Chakraborty, Sagardeep Das, Shubharthee Chanda, Rajdeep Dhar	KIIT Electrical project expo-2020(KEPE 2020)	2020
38.	Water-Tree Phenomenon in Underground Cables	PrabinKujur, RishavParamanik, Rishav Anand, Satyam Umarvaishya	KIIT Electrical project expo-2021(KEPE 2021)	2021
39.	Speed control of Single-Phase Induction Motor using Arduino (PWM control Technique)	Manish Kumar, Manas Mahanta, Bhavesh Jaswal, Manas Kumar	KIIT Electrical project expo-2021(KEPE 2021)	2021
40.	Harmonic Mitigation in PV tied Microgrid System	Amartya Verma, Amit Prakash Sahoo, Chinmay Rishu, Rohit Raj	KIIT Electrical project expo-2021(KEPE 2021)	2021
41.	Fault Detection and Classification	AnshudipKarn	KIIT Electrical project expo-2021(KEPE 2021)	2021

	in a Series Compensated Line Using Decision Tree and Support Vector Machine Algorithms – A Comparison			
42.	Solar energy based wireless power transmission system	Sayanjit Roy, Sanjib Kotal, Rishav Kumar Gupta, Sabyasachi Maiti	KIIT Electrical project expo-2021(KEPE 2021)	2021
43.	Short-Term Load Forecasting Using Time-Series Algorithm	Anuska Roy, Barsha Dey	KIIT Electrical project expo-2021(KEPE 2021)	2021
44.	Study on sizing of components of solar power (caes) system	Satyam Bhanu, Pratyush Kumar Sinha, Rahul Das, Manav	KIIT Electrical project expo-2021(KEPE 2021)	2021
45.	Six phase symmetrical induction machine under fault state	AbhigyaanMajumder,RitabrataGhorai,SubhradeepChowdhury,SouvikKumar,soumaydipmondal	KIIT Electrical project expo-2021(KEPE 2021)	2021
46.	Modelling and design of automated electric vehicle	Anirban Jana, Auraag Sarkar, Shrideep Das, Shreyasee Jana	KIIT Electrical project expo-2021(KEPE 2021)	2021
47.	Maximum power point tracking in a solar photovoltaic system using p&o method	Swagata Das, Subhadip Roy, Raika Bhattacharya	KIIT Electrical project expo-2021(KEPE 2021)	2021
48.	Effect of partial shading on pv array configuration: its analysis and methods to mitigate its effect	Smruti Madhura Maharana, Abhinaba Kundu	KIIT Electrical project expo-2021(KEPE 2021)	2021
49.	Maximum power pointtracking in a solar photovoltaic system	Nikunjsinha, dushyantsahu,ankitbhardwaj,ankushkumar,Aditya Raj	KIIT Electrical project expo-2021(KEPE 2021)	2021
50.	Design of wireless charging circuit for electric vehicles	Jyotirmoy Pal,Jyotirmoy Maitra, Ankit Behera,Chandrashekhar Sahoo	KIIT Electrical project expo-2021(KEPE 2021)	2021
51.	Electric traction system of electric vehicles	Debasmita Majumdar, Dwitipriya Ghosh	KIIT Electrical project expo-2021(KEPE 2021)	2021
52.	Analysis and design of non-isolated charging system of electric vehicle	Anshula Thakur, Chandra Kishor Singh, Siddharth Chandravanshi ,Akriti Nanda	KIIT Electrical project expo-2021(KEPE 2021)	2021
53.	Iot Based Vehicle Tracking	DevaroonB.Roy ,	KIIT Electrical project expo-	2021

	System	Harshit Sharma, Ankit Kumar, Anubhab Ghosh	2021(KEPE 2021)	
54.	Controlling spread of COVID-19 using IOT	Gourav Bhattacharjee, Aakash Kumar, Adarsh Joshi, Kartikkey Shrivastava	KIIT Electrical project expo-2021(KEPE 2021)	2021
55.	Stand Alone Solar PV Based Battery Charger For Smart Irrigation System	Soumya Shreechandan Biswal, Soumya Ranjan Dey, Ayush Patnaik, AsutoshPallai	KIIT Electrical project expo-2021(KEPE 2021)	2021
56.	Transformer health monitoring using iot	Ambit priyadarshi sarangi, Raman singh,Sahilsahu, aakankshakumari	KIIT Electrical project expo-2021(KEPE 2021)	2021
57.	Maximum Power Point Tracking of PV Array Under Partial Shading Conditions	Souranil Chakraborty, Neel Ganguly, Vineet Kumar Singh	KIIT Electrical project expo-2021(KEPE 2021)	2021
58.	Smart Temperature & Humidity Monitoring using IOT /Thingspeak	MusharifMasroor, Atisha Mohanty	KIIT Electrical project expo-2021(KEPE 2021)	2021
59.	Study and Analysis of A Novel Step-up 17 Level Switched Capacitor Multilevel Inverter with Reduced Device Count	Sagar Jha, Prashant Raj Mishra	KIIT Electrical Project HandBook 2022	2022
60.	Smart Solar Wind Hybrid Power Generation System	Aman Sharma, Sudip Nandi	KIIT Electrical Project HandBook 2022	2022
61.	Vertical Farming Using IOT	SidhantPatnaik , Prem Panigrahi	KIIT Electrical Project HandBook 2022	2022
62.	Harmonic analysis and simulation study of a series resistance capacitance(RC) filter based multilevel inverter	ChiranjitBhatacharjee, JyotismoyeGuchhait	KIIT Electrical Project HandBook 2022	2022
63.	Electric Vehicle and design analysis of DC-DC Converter	MAYANK KUMAR, SHUBHAM RAI	KIIT Electrical Project HandBook 2022	2022
64.	Renewable energy integration with smart grid	Ayush Anand, Sabarish Nair, SubiaFarheen	KIIT Electrical Project HandBook 2022	2022
65.	Stockwell Transform and Data mining based Fault Diagnosis Method to Protect Microgrid	Alok Mishra , Ashutosh Roy	KIIT Electrical Project HandBook 2022	2022

66.	Solar PV Maximum Power Point Tracker	DebajyotiPharikal	KIIT Electrical Project HandBook 2022	2022
67.	Smart home automation system	Ashraydey, bikramjitgorai	KIIT Electrical Project HandBook 2022	2022
68.	Arduino based dual axis solar tracker	Ashutosh yadav, jyotirmayasahu	KIIT Electrical Project HandBook 2022	2022
69.	Solar powered trash collector	Kumar shivam, sachinchaudhary	KIIT Electrical Project HandBook 2022	2022
70.	Maximum Power Point for PV System	Mritunjay Kumar Roy, Sanglap Roy	KIIT Electrical Project HandBook 2022	2022
71.	Analysis and Controlling of Distribution Transformer Parameter using AVR microcontroller Iot system	Apurva Ashish, Aditya Virat	KIIT Electrical Project HandBook 2022	2022
72.	Snake game by manually & Ai technique	Raushan Kumar, Vikash Kumar	KIIT Electrical Project HandBook 2022	2022
73.	Single Axis Solar Tracking System Using 555 IC	Soumyajeet Sengupta, Vishwas Maurya	KIIT Electrical Project HandBook 2022	2022
74.	Home automation using arduino	Harshit kumarprem Prakash Kumar	KIIT Electrical Project HandBook 2022	2022
75.	Automatic track based robotic car with automatic Accidental braking system	Shubhanjoybiswas ,subhankarbiswas	KIIT Electrical Project HandBook 2022	2022
76.	Automatic Car Number Plate Recognition/Identification	Aritra Kr Choudhury, Rahul Debnath	KIIT Electrical Project HandBook 2022	2022
77.	Improving the efficiency of solar panel using different robust techniques	SayakRoy,Manali Mandal	KIIT Electrical Project HandBook 2022	2022
78.	Solar power wireless battery charger	SoumyaranjanBehura,SmrutiranjanPradhann	KIIT Electrical Project HandBook 2022	2022
79.	Load control System using DTMF	Jhanakesh Chandra Sahu,Dixtanttiwari	KIIT Electrical Project HandBook 2022	2022
80.	Design and Control of Single-Phase Solar PV Inverter with MPPT Algorithm	Raj laxmi	KIIT Electrical Project HandBook 2022	2022
81.	Underground fault detection Using arduino	Soubhagyakar, Sudeshna Das	KIIT Electrical Project HandBook 2022	2022

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 Electrical Engineering has developed a strong industry-academia partnership in order to maximize the benefit to the students. A dedicated Industry Engagement Cell (IEC) is established in the school to organize industry visits for students, arrange training on different technical domains, inform students on different technical training programs and groom them for industry placements. Different industry visits are arranged for the students by the IEC.The School has taken the following initiatives for a vibrant industry interaction, some of which are given below.

1. Industry Involvement in the Program Design and Curriculum
2. Industry involvement in Industry Supported Laboratories
3. Partial delivery of course:
4. Invited lectures by Industry Experts
5. Industrial visits
6. Industry Electives
7. MoUs with Industry
8. Industry in the Evaluation process

1. Industry Involvement in the Program Design and Curriculum

   Industry-related persons are members of the Board of Studies (BoS). Any modification depending on the industry need has to be suggested by the Board of Studies members which will be sanctioned in the academic council meeting after a thorough inspection. Mr. SubratPadhi (Regional Head, Bajaj Electricals Ltd, Varanasi), Mr. Sai Krishna Rao (General Manager Education & Training Field Services, Schneider Electric)are eminent members in the Board of Studies for School of Electrical Engineering.

2. Industry involvement in Industry Supported Laboratories

Sl. No	Name of the Laboratory	Name of the associated industry	Brief detail about laboratory (Equipment's Present)
1.	Energy and Control Laboratory	NI Instruments/ PRDC /Ener vision	The energy system laboratory is devoted to the development and innovations of the sustainable energy system, mainly in the field of solar and wind energy, analyze and improve conventional energy systems, provision of scope for entrepreneurship and new startup companies in this area. Provides knowledge of conversions, utilization and grid integrations of different kinds of energy. energy system lab is collaborated with Ener vision, Mumbai and National Instruments indie for development and up-gradation of the laboratory according to the cutting-edge technology. Major Equipment:

			• NI-cRIO-9082 Controller and Different Sensor modules • DSP-TMS320F2812, Vis-Sim software • 4 Channel PV Emulator, PV Trainer Kit(80W) • Lab-VIEW Software, Solar Grid tied Inverter(500W) • Solar thermal water heater(100lt) • Wind energy trainer kit(250W turbine).
2.	Industrial Automation Laboratory	Siemens	Provides knowledge of basic function of SIMATIC S7-1200 Model like Main Block Diagram, Description of the Blocks of the Main Block Diagram, Input Module, output Module, Field Modules, CPU, Control Elements, Counters, Timers, Addressing protocols, Memories, Function Blocks. Develop project applications for entrepreneurial ventures and render consultancy services to the industries for fund generation. Major Equipment: • Siemens PLC (S71200 with HM1KTP700 Accessories). • Siemens PLC (S-7-200CN). • Allen Bradley plc (Allen Bradley Micro logic -1000PLC).
3.	Schneider electric Laboratory	Schneider electric	Residential modular, Residential modular with energy efficiency module, Stand-alone emergency lighting unit system, Entry level fibre optic bench, IPTV option, Machine safety offer, Motor starter modular, Basic motor starter pack, Variable speed controller, 230/400v training &synchous motor, 400/690v training &synchous motor, Earthing diagram bench earthing diagram bench, Ventilation energy efficiency modular, BIP BOP reactive energy compensation, Harmo chem elect. Network, Power supply unit, M340 board + IHMSTU, Water of the sun cabinet, Stand alone emergency lighting unit system, Industrial wiring bench, Domestic wiring bench, Building automation system.

3. Partial delivery of course:

Sl. No.	Industry Expert/Academia Expert	Designation including Affiliated organization	Affiliated Organisation	Topic	Dated
1	MrSanjevHandoo	Functional Head-Electric Power System & Automation Technology	Andritz	Modern Technology in Electrical Engineering	25th September'2021
2	MrAshisParida	CEO	Grinity Intellect pvt ltd	Creation of visionary leadership in the 'phygital 'workplace	25th September'2021
		Plant HR Manager &	Exicom Power	Continuous learning in the	25th

3	Mr Kailash Kumar	Hiring		Phygital workspace	September'2021
4	Dr. Shafali	AVP-HR	Exicom	What Comptetencies Govern Hybrid Workforce in Electrical Industries	25th September'2021
5	Surya Jeedigunta	CEO	SNJ Solar Energy Sol	What Comptetencies Govern Hybrid Workforce in Electrical Industries	25th September'2021
6	Purna Sadashiv	Chief Manager HR	Genus Innovation Ltd	What Comptetencies Govern Hybrid Workforce in Electrical Industries	25th September'2021
7	Shishir Sahay	Head Engineering	KPIT	What Comptetencies Govern Hybrid Workforce in Electrical Industries	25th September'2021
8	Satish Mohapatra	Head HR	Siemens Infra	What Comptetencies Govern Hybrid Workforce in Electrical Industries	25th September'2021
9	Vijayant Ranjan	Chief Trombay	Tata Power	What Comptetencies Govern Hybrid Workforce in Electrical Industries	25th September'2021
10	MrRamakanthKumathe	Deputy Manager-Product Application Engineer	Schneider India Pvt Ltd	Home Automation	1st July 2020
11	MrRamakanthKumathe	Deputy Manager-Product Application Engineer	Schneider India Pvt Ltd	Home Automation	2nd July 2020
12	MrsMissreeVaschhani	Assistant Manager-Offer Marketing	Schneider India Pvt Ltd	Power Monitoring	3rd July 2020
13	Mr Roshan Vardarajan	Manager-Product Application Expert	Schneider India Pvt Ltd	Upgrading An Existing Installation to IOT	3rd July 2020
14	Mr Sai Krishna Rao/Mr Amarnath Durgale	General Manager/Deputy Manager-Education and Didactic	Schneider India Pvt Ltd	Industry 4.0	4th July 2020
15	Mr Rajesh Sawant	Associate General Manager-Solutions Architect	Schneider India Pvt Ltd	Integrated Building Management System	4th July 2020
16	Somasundaram R	Head New Innitiatives, Strategy	Mytrah Energy - Hyd	Emerging technologies, cutting edge tools, technical skills, or something else?	29th August'2020
17	Niraj Kumar	GM - Corporate HR	Havells India Ltd	Becoming industry ready - Preparing for Placements & Competency development for better Employability	29th August'2020
18	Ms. Shivani Talesara, Ms. Nisha Tiwari, Mr. Swetaketu Baidya	International Speaker and Thought Leader, Singapore HR & Operations (Manager) India Director (Technology & Operations) Singapore	Inovaantage	Career & Personal Branding	29th August'2020
19	Subrat Das	Chief Financial Officer	Sembcorp Green Infra Ltd	Current status of Indian Economy & its effect on the Job Market	29th August'2020
20	Debajyoti Mohanty	General Manager Global HRBP	AP Moller Maersk	Global HR Strategies for Gen Z	29th August'2020

			Technology		
21	Mukesh Tiwari	CHRO	Hengtong Optic - Electric India	Leading in a Diverse and Inclusive Culture	29th August'2020
22	Varinder Singh	Chief Manager - HR	FortumIndia Pvt. Ltd.	Renewable Energy: The Sun-Shine Sector to be IN	29th August'2020
23	Asutosh Rath	Deputy General Manager (Corporate Communication)	Nalco	Role of Technocrats in Building Organisational Culture"	29th August'2020
24	MrPrashanta Patra	Head (Engg)	Astronergy	Smart Energy Stimulus Means Thinking Small	29th August'2020
25	AshisParida	Founder & CEO	Grinity Intellect	Circular Economy in Green Energy Sector and Future Ahead	29th August'2020
26	Ruvalma Fernandes	Sr. Officer Global Talent Acquisition	Essar Group	Design thinking	29th August'2020
27	Dr. Parijat Bhowmick	Assistant Professor	IIT Guwahati, India	Distributed Control of Networked AC Microgrids	2nd July 2022
28	Dr. Panos Kotsampopoulos	Research Associate	National Technical University of Athens(NTUA)	Real-time simulation advancing active distribution network & microgrid research and testing	20 July, 2022
29	Mr. Soumya Prakash Patra	General Manager & HOD, Electrical Department	NALCO, Angul	Sustainable Mining	18th April, 2022
30	Mr. Bishwajit Pradhan	Start-Up Director	KEIWIT, Lenexa, Kansa, USA	Grid Management	4th November 2022
31	Mr. Meghdut Bhattacharya	IPR Attorney, ISO Lead Auditor, Kolkata	IPR Attorney, ISO Lead Auditor, Kolkata	Leveraging of IPR	11th October 2022

4. Invited lectures by Industry Experts

Sl. No.	Industry Expert	Designation including Affiliated organization+	Affiliated Organisation
1	MrSanjevHandoo	Functional Head-Electric Power System & Automation Technology	Andritz
2	MrAshisParida	CEO	Grinity Intellect pvt ltd
3	Mr Kailash Kumar	Plant HR Manager & Hiring	Exicom Power
4	Somasundaram R	Head New Innitiatives, Strategy	Mytrah Energy - Hyd
5	Niraj Kumar	GM - Corporate HR	Havells India Ltd.
6	Ms. Shivani Talesara, Ms. Nisha Tiwari, Mr. Swetaketu Baidya	International Speaker and Thought Leader, Singapore HR & Operations (Manager) India Director (Technology & Operations) Singapore	Inovaantage

7	Subrat Das	Chief Financial Officer	Sembcorp Green Infra Ltd.
8	Debajyoti Mohanty	General Manager Global HRBP	AP Moller Maersk Technology
9	Mukesh Tiwari	CHRO	Hengtong Optic - Electric India
10	Varinder Singh	Chief Manager - HR	FortumIndia Pvt. Ltd.
11	Asutosh Rath	Deputy General Manager (Corporate Communication)	Nalco
12	MrPrashanta Patra	Head (Engg)	Astronergy
13	AshisParida	Founder & CEO	Grinity Intellect
14	Ruvalma Fernandes	Sr. Officer Global Talent Acquisition	Essar Group
15	Mr. Soumya Prakash Patra	General Manager & HOD, Electrical Department	NALCO, Angul
16	Mr. Bishwajit Pradhan	Start-Up Director	KEIWIT, Lenexa, Kansa, USA
17	Mr. Meghdut Bhattacharya	IPR Attorney, ISO Lead Auditor, Kolkata	IPR Attorney, ISO Lead Auditor, Kolkata

5. Industrial visits

Sl. No.	Industry Visited	Site Details/Project details	Date
1	SNM Solar	1.2 MW Ground Mounted Solar Plant-Grid Tied	29-01-2019
2	SNM Solar	1.2 MW Ground Mounted Solar Plant-Grid Tied	28-04-2019
3	SNM Solar	1.2 MW Ground Mounted Solar Plant-Grid Tied	03-01-2019
4	SNM Solar	1.2 MW Ground Mounted Solar Plant-Grid Tied	25-10-2019
5	SNM Solar	1.2 MW Ground Mounted Solar Plant-Grid Tied	11-01-2019
6	NTPC	NA	29-01-2019
7	NTPC	NA	28-04-2019
8	NTPC	NA	03-01-2019
9	NTPC	NA	25-10-2019
10	Parle biscuits pvt.ltd, Bhubaneswar	Process Plant Unit	5-11-2022

6. Industry Electives

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
B.Tech.	Solar GAT	6th December	Solar PV System and	6th December 2019

Electrical Engineering		2019	Energy Storage (EE-4048)	
B.Tech. Electrical Engineering	Solar GAT	6th December 2019	Design of Solar PV System (EE-4050)	6th December 2019

7. MoUs with Industry

Sl No	Full Name of Company/Institute/Organization	DD-MM-YY	Purpose of MoU
1	SHNEIDER ELCTRIC	04.05.2017	Creation of knowledge based quality work force in the market by feeding quality curriculum backed by systematic experiments through practical exercise. Setting of a laboratory in the field of Automation and energy management with Schneider electric for imparting industrial training to the B.Tech students.
2	SIEMENS LTD	17.09.2016	Hands on practice on industrial tool kit which is in lines of Industrial practice. This gives realization of industrial operation in core sectors. This training programme offered to students from various core branches.
3	GRINITY INTELLECT	18.12.2019	Activity based industry engagement in the area of solar in been conducted by industry experts. This programme has a vision of skill up-gradation in the areas of design, development, installation, operation & maintenance, projects in the field of solar and other associated work. Student practice modules in software and hardware for technology realization.
4	PRDC	09.03.2017	Short term refresher courses for students in the area of power. Training programmes in both software as well as hardware to realization the power system operation are imparted to B.Tech students. Help in curriculum design and revision as applicable.
5	NATIONAL INSTRUMENTS		Setting up of NI center of excellence to meet goals of training on lab value tool kit. This helps in B. Tech, M. Tech and research students to analyze and verify result analysis with a pre define problem statement. It provides professional guidance in setting up the facility of NI center of excellence.
6	JS Renewable	19.01.2018	Research, Training and Education
7	Green Energy (JS Renewable) New Delhi	18.01.2018	For GET Program of Solar Energy Storage
8	Manya Education Pvt. Ltd. New Delhi	28.04.2017	Coaching for GRE, GMAT, TOFEL and Consultancy
9	Power Research and Development Consultants Pvt. Ltd. (PRDC), Bangalore	09.03.2017	Seminar/Training Nominate Expert
10	Ener Vision,	09.03.2017	Joint program on seminar workshop.

Sl No	Full Name of Company/Institute/Organization	DD-MM-YY	Purpose of MoU
	Mumbai		Short term refresher PG Program
11	CTTC, Bhubaneswar	18.03.2016	To Jointly provide training on PLC/SCADA

8. Industry in the Evaluation process

The Final Evaluation of B. Tech. Project is done through project School level Project Expo by Experts from industry and institute of repute

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 Electrical Engineering has also conducted a number of internship programme for the students' whish are given below.

Batch/Year(2nd/3rd/4th)	**Summer internship Title(one or more can be added which is already done in industries or educational organizations)**	**Duration of Training(15 days/30 days/45 days)**	**Year of internship/ training**	**Name of Organization**	**Location(India/ Abroad)**
3rd	Transmission And Distribution System	30	2019	OPTCL (Odisha Power Transmission Corporation Limited)	INDIA
3rd	Hindalco Industries.Ltd,Belur	30	2019	CttcBhubaneswar,PLC	Bhubaneswar,India
3rd	1.INDUSTRIAL TRAINING IN POWER PLANT . 2.PLC COURSE.	51	Power Plant training-2019 PLC training-2020	1.Power Plant Internship at Mejia Thermal Power Plant. 2. PLC at Central Tool and Training Center ,Bhubaneswar.	India
3rd	1.Power Plant Industrial Training. 2.PLC Training.	51	2019-2020	1.Power Plant Training at Mejia Thermal Power Plant 2.PLC training at Central Tool & Training Center, Bhubaneswar.	India
3rd	PLC and SCADA training	30	2018	IITCA (international institute for Advanced Training on Control and Automation)	Saltlake, Kolkata
3rd	Vocational training at MTPC,PLC	51	2019, 2020	MTPC,CTTC	India
3rd	Super thermal power plant	30		NTPC	INDIA
3rd	Power Generation	30	2019	Bhartiya Rail Bijlee Company Limited(BRBCL)	India
3rd	Power Transmission	30	2019	Power Grid Corporation Limited	India
3rd	Super thermal power project	30	2019	NTPC	India

3rd	PLC training	30	2019	Ontogenesys automation	India
3rd	PLC	30	2019	kiit university	India
3rd	CTTC BHUBANESWAR, TSECL TRIPURA	30	2019	CTTC, BHUBANESWAR	India
3rd	Introduction to Power Generation, Turbines and Grid	15	2019	APGCL (Namrup Thermal Power Station), Assam	India, Assam
3rd	PLC	30	2019	MECON limited	India
3rd	Industrial training	30	2019	Mejia Thermal Power station,DVC	India
3rd	(COKE OVEN AND ITS BY PRODUCT)	30	2019	NEELACHAL ISPAT NIGAM LIMITED	INDIA (ODISHA)
3rd	Generation of power and Operation control	15	2019	BRBCL-Bhartiya rail bijlee company limited	India
3rd	Reliance Mumbai Metro one Pvt.Ltd	30	2019	Reliance	Mumbai,India
3rd	(CAPTIVE POWER PLANT:A STUDY WITH REFERENCE TO BHEL)	30	2019	Bharat Heavy Electricals Limited (BHEL)	India (Delhi)
3rd	Transmission and Distribution System	30	2019	OPTCL	India
3rd	Power transmission and distribution	30	2019	Odisha Power Transmission Corporation Limited	India
3rd	Divisional Railway Manager (Electrical/TRD)	30	2019	Office of the Divisional Railway Manager (Electrical/TRD) ECR/Samastipur	India
3rd	Global navigator-No more gender inequality (Aiesec)	45	2019	AIESEC	Vietnam (Abroad)
3rd	Project work on Oil and gas exploration,drilling techniques and basic electrical components	30	2019	Oil and Natural Gas Corporation Limited(ONGC),Kolkata	India
3rd	Industrial training in power plant. Businesses training (entrepreneurship)	51	2019	Mejia Thermal Power station, DVC University of Moratuwa, Srilanka	India ,Srilanka
3rd	Industrial training in power plant (15) Internship in ONGC (30) PLC training (30)	15	2019	CESC; ONGC; CTTC	India
3rd	Industrial	30	2019	SBPDCL	India
3rd	1)INDUSTRIAL VISIT OF RSP & STEEL SMELTING SHOP, RESEARCH & CONTROL LAB, POWER DISTRIBUTION SECTION 2)VISIT TO THERMAL POWER PLANT & THOROUGH STUDY ON RAW MATERIALS SECTION, E&I SECTION, MAINTENANCE SECTION, BOILER & TURBINE..	45	2019	1) ROURKELA STEEL PLANT [R.S.P] (30 days). 2)CALCUTTA ELECTRIC SUPPLY CORPORATION [C.E.S.C] (15days)	INDIA

3rd	1) INDUSTRIAL VISIT OF RSP and thorough visit on Steel Smelting Shop, BOF SHOP, power distribution section. 2)Thermal Power Plant Visit of C. E. S. C and thorough visit on each section of thermal Power plant.	46	2019	1)ROURKELA STEEL PLANT (RSP) (30 days) 2)CALCUTTA ELECTRIC SUPPLY CORPORATION (C.E.S.C) (15 days)	INDIA
3rd	TSECL (Tripura) Grid substation	30	2019	TSECL	TRIPURA
3rd	1) Industrial training in power plant and i have learnt there about power generation and distribution. 2) Industrial visit in steel plant and i have learnt there about the steel manufacturing procedure and the power distribution inside steel plant.	30	2019	1) DVC, 2) ASP(SAIL)	INDIA
3rd	Study On PLC	30	2019	ITC Limited Munger	ITC Road, Basudevpur, Munger, Bihar, India
3rd	West Bengal State Electricity Distribution Company Limited	15	2019	WBSEDCL	West Bengal
3rd	NALCO(cast House) / Autodesk(Autocad)/ CTTC (PLC)	30	2019/2018/ 2019	NALCO/AUTOCAD/CTTC	India
3rd	Vocational training	30	2019	NATIONAL ALUMINIUM COMPANY LTD.	India
3rd	Power transmission and distribution	30	2019	OPTCL,	India,Bhubaneswar
3rd	Oil and gas exploration, drilling techniques and basic Electrical components	30	2019	Oil and Natural Gas Corporation	India
3rd	Oil and gas exploration, drilling techniques and basic Electrical components.	30	2019	ONGC	India
3rd	Two	45	1)2019 2)2019	1)Damodar Valley Corporation(DSTPS-Andal) 2) Industrial Automation PLC (KIIT)	India
3rd	Aluminium Smelter	30	2019	Nalco	India
3rd	Aluminium Smelter PLC	30	3rd	Nalco CTTC	India
3rd	Electrical maintenance	30	2019	NALCO	India
3rd	Power Systems	30	2019	Gannon Dunkerley&Co.Ltd	India
3rd	Power System	60	2019	India Power	India
3rd	1.Power systems 2. Power distribution	60	2019-20	1.Gannon Dunkerley& Co. LTD 2.India Power Corporation Limited	India

3rd	1.SUMMER TRAINING PROGRAM FROM COAL INDIA LTD.(DANKUNI,W.B) for 30days 2.PROGRAMMABLE LOGIC CONTROL WITH CTTC,BHUBANESWAR for 30days	60	2019	1.COAL INDIA LTD.(DANKUNI,WB) AND 2.CENTRAL TOOL ROOM AND TRAINING CENTER(BHUBANESWAR)	INDIA
3rd	NALCO, CPP ; CTTC, PLC ; CTTC, MatLab .	30	2018/2019	NALCO; CTTC	India
3rd	Discussion on: Unit Operation Boiler, Turbine, Generator & auxiliaries Process parameters measurement & control system Coal Handling system & PLC Ash Disposal system Power Evacuation System	30	2019	Kolaghat Thermal Power Station and Bakreshwar Thermal Power Station	India
3rd	-	0	0	0	-
3rd	PLC VFD and CSU Machines	28	2019	BHEL	India
3rd	Industrial training in Electric Loco Shed, Santragachi	15	2019	Indian Railways	India
3rd	Lucknow Metro	30	2019	Lucknow metro	India
3rd	Industrial Training on Thermal Power Plant .(Vocational Training)	26	2019	The West Bengal Power Development Corporation Limited	West Bengal , India
3rd	Power distribution	30	2019	ROURKELA STEEL PLANT	India
3rd	Power distribution	30	2019	Southco utility	India
3rd	Training on Electrical machinery at Alloy Steels plant, Durgapur. PLC at NIIT Kolkata. MATLAB at CTTC BHUBANESWAR.	64	2019	Alloy Steels Plant, Durgapur, NIIT Kolkata, CTTC Bhubaneswar	India
3rd	1) Industrial Automation PLC(45 days). 2) MATLAB(30 days). 3) ESLD for Electrical Power Distribution Training(30 days). 4) E-learning Program on Power System Power Cables(15 days). 5) E-learning Program on Power System Protection(15 days).	30	2019-2020	1) KIIT , TATA Steel -- PLC. 2) I-Skills -- MATLAB. 3) BHEL -- ESLD for Electrical Power Distribution Training. 4) TATA Steel -- Power System Power Cables. 5) TATA Steel -- Power System Protection.	India
3rd	Alloy Steel Plant(Durgapur),PLC(CTTC)	48	2019	SAIL(Alloy Steel Plant), Central Tool Room and Training Cenre(CTTC)	India
3rd	None	0	N/a	N/a	N/a
3rd	one	30	2018	DVC Chandrapura Thermal Power Station	India
3rd	Switchyard	30	2019	Kahalgaon Super Thermal	Kahalgaon, Bihar

				Power Station	
3rd	CTTC(PLC)	30	2019	CTTC	India
3rd	PLC, Python language, Data Science, Hybrid and electric vehicle	30	2019	CTTC, IBM corporation, VERZEO with IIT Delhi	India
3rd	1. Core Java with blockchain technology 2. Control system with Matlab 3. PLC 4. Winter vocational training in telecommunications 5. Hybrid and Electric vehicle	30	2019	NIIT KOLKATA, KIIT, BSNL KOLKATA, VERZEO (IN COLLABORATION WITH IIT DELHI)	India
3rd	Industrial training in power plant (DPL , CESC) , MATLAB, PLC	87	2019	Durgapur Project Limited Calcutta Electric Supply Corporation CTTC Bhubaneswar National Institute for Industrial Training (Kolkata)	India
3 rd	PLC Training in Tata Steel	30	2019	Tata Steel	India
3rd	Industrial Training on Power Transmission and Distribution	30	2019	Rourkela Steel Plant, Rourkela, Odisha	India
3rd	SBPDCL	30	2019	SBPDCL	Infia
3rd	SBPDCL	30	2019	SBPDCL	India
3rd	1)Industrial Training in Power Plant(There i have learnt about the generation and distribution of electric power) 2)Industrial Training in Steel Plant (Here i have learnt manufacturing of steel and its processing into a finished good). 3)PLC training(Winter vacation)	45	2019	1)DAMODAR VALLEY CORPORATION 2)SAIL(ALLOYS STEEL PLANT) 3)CTTC	1)ANDAL, PASCHIM BARDDHAMAN 2) DURGAPUR, PASCHIM BARDDHAMAN 3) BHUBANESWAR
3rd	1. Vocational training at Durgapur Steel Thermal Power Station 2. PLC Training	45	2019	1. Damodar Valley Corporation, Andal 2. KIIT Deemed to be University (An Institute of Eminence), Bhubaneswar	India
3rd Year	Industrial training	30	2019	CSPGCL(Chhattisgarh State Power Generation Company Limited)	CSEB East Korba, Chhattisgarh, India
3rd	PLC and SCADA	30	2019	CTTC	India, Bhubaneswar
3rd	S.A.I.L(Steel Authority Of India Limited), D.V.C(Damodar Valley Corporation)	30	2019	Steel Authority Of India Limited, Damodar Valley Corporation	India
3rd	Training in AutoCAD	30	2018	Twintech	India
3rd	intern	30	2019	Coal India and CTTC Bhubaneswar	India
3rd	PLC	30	2019	KIIT	BBSR
3rd	Industrial training at NTPC (BARH)	30	2019	NTPC (BARH)	Patna (India)

3rd	Transmission and distribution	30	2019	Power Grid Corporation of India Limited	Gaya state-Bihar
3rd	One	30	2019	Kiit	India
3rd	Summer training in SAIL Bokaro	30	2019	SAIL BOKARO (BOKARO STEEL LIMITED)	Bokaro Steel City
3rd	NEEPCO and PLC	45	2019	NEEPCO and CTTC	India
3rd	Two	60	2019	Diesel Locomotive works, Varanasi and PLC,KIIT	India
3rd	Two	60	2019-2020	Diesel Locomotive works, Varanasi and PLC training, KIIT	India
3rd	Two	60	2019	Diesel Locomotive Works, Varanasi and PLC training,KIIT	India
3rd	Analysis of the products, raw materials and machinery division	30	2019	JINDAL STAINLESS LIMITED	India
3rd	Study of Automation System in Coal Coke Area	45	2019	TATA STEEL LTD.	India
3rd	Analysis of the products and raw materials and machinery division	30	2019	JINDAL STAINLESS LIMITED	INDIA
3rd	Mejia Thermal power station, Bankura	21	2019	DVC(Damodar valley corporation),MTPS	India
3rd	Substation	30	2019	BCCl India	Dhanbad,Bihar Patna India
3rd	Substation	30	2019	BCCL Dhanbad, Bihar, Patna, India	BCCL Dhanbad, Bihar, Patna, India
3rd	1. Vocation Training at Durgapur Steel Thermal Power Plant 2. PLC Training	45	2019	1. Damodar Valley Corporation, Andal 2. KIIT Deemed To Be University, Bhubaneswar	India
3rd	SOUTH BIHAR POWER DISTRIBUTION COMPANY LTD	30	2019	SOUTH BIHAR POWER DISTRIBUTION COMPANY LTD	India
3rd	1. Built a responsive website using HTML and CSS after completion of online training under Udemy. 2.Building an Android app using skills learnt in online training on Android App Development under Internshala	45	2019-2020	Udemy and Internshala	India(remote internship)
3rd	Industrial Training on Teesta low dam power station-4	30	2019	National Hydroelectric power corporation	Kalijhora, Darjeeling, West Bengal
3rd	PYTHON & AUTOCAD	30	2019	Whizzo Infotech pvt.Ltd	INDIA
3rd	Digital marketing	30	2019	Instadata systems	Pune, india
3rd Year	Vocational training at Durgapur Steel Thermal Power Station.	15	2019	Damodar Valley Corporation, Andal, Durgapur, west Bengal	India
3rd	1.Electrical Maintenance (220kV) 2.PROGRAMMABLE LOGIC CONTROL	60	2019	1.NALCO,ANGUL,ODISHA 2.CTTC, BHUBANESWAR	India
3rd	In Plant Training	30	2019	SOUTH BIHAR POWER	INDIA

				DISTRIBUTION COMPANY LTD.	
3rd	Vocational training at SAIL BOKARO JHARKHAND	15	2019	SAIL BOKARO	India
3rd	In Plant Training	30	2019	South Bihar Power Distribution Private Limited	India
3rd	Internship at Thermal Power Plant	30	2019	Mejia Thermal Power Plant	Bankura,WestBengal,India
3rd	LabVIEW and interfacing-Kalinga Institute of Industrial Technology	45	2019	Kalinga Institute of Industrial Technology	India
3rd	Tata prashikshan	30	2019	Tata steel limited	India
3rd	Upgradation of C300 controller	30	2019	Tata steel limited	India
3rd	Programmable Logic Control (PLC)	30	2019	Central Tool Room and Training Centre	India
3rd	Training on trasmission and distribution	30	2019	OPTCL(Odisha Power Transmission Corporation Limited	India
3rd	Power plant	30	2019	Inland Power Limited	India
3rd	Power Plant Familiarisation	30	2019	NTPC Limited	Barh Super Thermal Power Project, India
3rd	Summer internship at rengali hydro power plant	15	2019	Rengali hydro power corporation, ohpc	India
3rd	Industrial training on Thermal Power Plant (Vocational Training)	30	2019	NTPC Kahalgaon	Bihar,India
3rd	Meter reading and testing	30	2019	SBPDCL,PATNA	India
3rd	1.Thermal Power Plant(NINL) 2.Programmable logic control(CTTC)	30	2019	1.Neelachal Ispat Nigam Limited 2.Central Tool Room & Training Center	India
3rd	1. Steel Melting Shop(RSP) 2. Programmable Logic Control	30	2019	1.Rourkela Steel Plant 2. Central Tool Room and Training Centre	India
3rd	n/a	0	2019	n/a	n/a
3rd	Maintainancearea , Loco assembly shop , COLONY , Central transport shop	30	2019	Diesel Locomotive Works , Varanasi	INDIA
3rd	Pot line	30	2019	NALCO	India
3rd	1)Internship in Programmable logic controller. 2)Internship in Chittaranjan Locomotive Works.	45	1.2019 2.2019	1)Central Tool Room and Training Centre,Bhubaneswar 2)Chittaranjan Locomotive Works,West Bengal	1)Bhubaneswar, Odisha,India 2)Chittaranjan,WestBengal,India
3rd	Core Java(Internshala)	45	2019	Internshala	India
3rd	Nil	0	0	Nil	Nil
3rd	Power distribution plant visit	30	2019	SBPDCL(SOUTH BIHAR POWER DISTRIBUTION COMPANY LTD?	India,Bihar,Patna

3rd	Generation,transmission, distribution system of a thermal power plant Programmable Logic Controller training (PLC) MATLAB Simulink Training	75	2019	Durgapur Projects Ltd, Durgapur, West Bengal. Central Tool Room & Training Centre (CTTC) Central Tool Room & Training Centre (CTTC)	India
3rd	Traction Assembly Shop Main Reserving Station Locomotive Assembly Shop And many other	30	2019	Diesel Locomotive Works	Varanasi
3rd	1. Drilling Rigs and their operation 2. Programmable Logic Control	30	2019	1. Oil and Natural Gas Corporation limited (ONGC). 2. Central Tool Room and Training Centre (CTTC)	India
3rd	Transmission and distribution	30	2019	Power Grid Corporation Of India Limited	India
3rd	Power Grid(TSECL) PLC(CTTC) MATLAB(CTTC)	75	2019	Power grid, SLDC, TSECL, Tripura PLC&MATLAB, CTTC, Bhubaneswar	India
3rd	1) Vocational Trainee (PGCIL) 2) Vocational Trainee (DRDO)	60	2019	(1) Power Grid Corporation of India Limited (2) Defense Research & Development Organization	India
3rd	1. Engine testing shop 2. Central transport shop 3. Maintenance receiving substation.	30	2019	Diesel locomotive works, Varanasi(UP).	India
3rd	Matlab modelling	30	2019	NIIT(NATIONAL INSTITUTE OF INDUSTRIAL TRAINING)	India
3rd	(1)Electricalequipments and power distribution system in plant. (study and hands on) (2) Programmable Logic Control(PLC)	30	2019	(1)South Eastern Coalfield Limited (2)Central Tool Room and Training Centre(CTTC)	India
3rd	1. Online Training on IOT and Machine learning (Bolt) 2. Python Programming(Eduonix) 3. Career Edge- Knockdown the Lockdown (TCS ion)	30	2020	1. Bolt 2. Eduonix 3. TCS ion	India
3rd	HighRadius- Sales and Marketing	36	2019	High Radius	India
3rd	Summer Training (ELECTRICAL)	15	2019	BSNL	India
3rd	C3-100 controller server upgradation	30	2019	TATA STEEL LTD.	INDIA
3rd	Industrial Training in National Thermal Power Corporation (NTPC).	30	2019	NATIONAL THERMAL POWER CORPORATION (NTPC)	INDIA
3rd	Vocational training in DLW Varanasi.	30	2019	Diesel Locomotive Works, Varanasi	India
3rd	OTPC summer internship	30	2019	Tripura ONGC	India

3rd	1. Training at CESC LTD 2. Training at Coal India Ltd	30	2019	Cesc & CIL	India
3rd	Power systems	30	2019	NTPC	India
3rd	Divisional Railway Manager (Electrical/TRD)	30	2019	Office of the Divisional Railway Manager (Electrical/TRD) ECR /Samastipur	India
3rd	1)PLC 2)PROGRAMMING IN PYTHON	45	2019	KIIT AND LAKSHAYA INSTITUTE BBSR	india
3rd	1) PLC 2)PROGRAMMING IN PYTHON	45	2019	KIIT AND LAKSHYA INSTITUTE BBSR	INDIA
3rd	Course learning in python	20	2019	Spectrum technologies.	India
3rd	Refrigeration System And Different type of Ac Coaches. Programmable Logic Controller (PLC)	30	2019	Mechanical Workshop,N.E. Railway -Gorakhpur And other Internship at Central Tool Room And Training Centre-Bhubaneshwar	India
3rd	1)Electrical Repair Shop in TCIL(THE TINPLATE COMPANY OF INDIA LIMITED) 2)PLC (CENTRAL TOOL ROOM AND TRAINING CENTRE)	30	2019	1)TCIL (THE TINPLATE COMPANY OF INDIA LIMITED) 2)CTTC (CENTRAL TOOL ROOM AND TRAINING CENTRE)	India
3rd	Coke oven by product plant in steel plant.	30	2nd year	NeelachalIspat Nigam Limited	Jajpur road
3rd	1.Thermal powerplant (NINL) 2.Programmable logic control	30	2019	1.NEELACHAL ISPAT NIGAM LIMITED(NINL) 2.CENTRAL TOOL ROOM AND TRAINING CENTER	INDIA
3rd	Durgapur projects limited	30	2019	Durgapur projects limited	India
3rd	Coal power station vocational training	30	2019	Durgapur power limited	India
3rd	West Bengal State Electricity Distribution Company Limited	15	2019	WBSEDCL	West Bengal
3rd	No	0	No	No	No
3rd	1) marathon India Pvt Ltd 2) CESC 3) PLC 4) LabVIEW	30	1st 2nd	Marathon India Pvt Ltd CESC Kiit Cttc	India
3rd	Vocational Training at Diesel Locomotive Works	58	2019	DLW, Varanasi	India
3rd	Two	60	2019 and 2019	Diesel Locomotive Works, Varanasi PLC Training, KIIT	India
3rd	Diesel loco maintenance in diesel shed, Samastipur	30	2019	Diesel shed, Samastipur, East central railway	India
3rd	Diesel Loco maintenance in diesel shed, Samastipur	30	2019	Diesel shed, Samastipur, East central Railway	India
3rd	1.Vocational trainning	30	2019	The Durgapur projects Limited	Durgapur,India

3rd	1.Vocational Trainning 2.PLC	60	1.2019 2.2020	1.Durgapur projects Limited 2.Central Tool room and trainning center	India
3rd	1) Internship in Assam Electricity Grid Corporation Limited, NTPS, NAMRUP, Assam	30	2020	ASSAM ELECTRICITY GRID CORPORATION LIMITED, NTPS, NAMRUP, ASSAM	220 KV GSS, ASSAM ELECTRICITY GRID CORPORATION LIMITED, NTPS, NAMRUP, ASSAM, INDIA
3rd	Distribution System	30	2018	Tripura State Electricity Corporation Limited Agartala,Tripura (W)	India
3rd	CESC Vocational training(15 days) Plc Automation(30 days)	45	2019	KIIT	India
3rd	Vocational Training	30	2019	The Durgapur Project Limited (DPL)	India
3rd	Power plant	30	2019	Inland power ltd.	India
3rd	Hirakud Hydro Power plant OHPC	30	2019	OHPC	India
3	1.Coke Oven and By-product Plant functionality in a steel plant. 2. Marketing & Sales in SaaS Company.	30	2019	1.NINL Jajpur, 2.High Radius INC	India
3rd	Abstract IOT	30	2019	VerzeoEdutech	India
3rd	Power transmission distribution	30	2019	OPTCL	India
3rd	1. Damodar Valley Corporation (DVC) 2. Alloy Steels Plant(ASP-SAIL)	30	2019	1. Damodar Valley Corporation (DVC),Andal(West Bengal) 2. Alloy Steels Plant (ASP-SAIL), Durgapur (West Bengal)	1. Damodar Valley Corporation is located in Andal,West Bengal. 2 Alloy Steels Plant (SAIL) is located in Durgapur,West Bengal.
4th	Vacational Training, Industrial Visit	30	2019	Rourkela Steel Plant, Rourkela &ITRI TAIWAN	Rourkela/Taiwan
3rd	Steel Plant	30	2019	Rourkela steel plant	India
4th	Steel plant	30	2018	Rourkela steel plant	India
4th	Thermal power station	30	2019	NTPC	India
4th	Overview of a Steel Power Plant in SAIL , Overview of a Thermal Power Plant in MPL (Maithan Power Limited)	45	2019	Steel Authority of India (SAIL) ,Maithan Power Limited (MPL)	India
3rd	Power plant	30	2019	THE DURGAPUR PROJECT LIMITED	India
3rd	Railway internship	30	2019	East Coast Railway Mancheswar workshop	India
3rd	DEPT:C&S NIT AGARTALA, TRIPURA	30 days	2022 (2020AB)	NIT AGARTALA,TRIPURA	India

3rd	Captive Power Plant, Nalco Nagar - 759145, Angul, Odisha	15 days	2022(2020 AB)	Nalco Nagar - 759145, Angul, Odisha	India
3rd	Captive Power Plant, Nalco Nagar - 759145, Angul, Odisha	15 days	2022(2020 AB)	Nalco Nagar - 759145, Angul, Odisha	India
3rd	ASL, DRDO Hyderabad-500058	25 Days	2022 (2020AB)	DRDO Hyderabad-500058	India
3rd	Captive Power Plant, Nalco Nagar - 759145, Angul, Odisha	15 days	2022(2020 AB)	Nalco Nagar - 759145, Angul, Odisha	India
3rd	Training Human Resource Development Centre Nalco	30 days	2022 (2020AB)	Nalco Nagar - 759145, Angul, Odisha	India
3rd	NTPC HEADQUARTERS, NTPC KANIHA Angul, Orissa	30 Days	2022(2020 AB)	NTPC KANIHA Angul, Orissa	India

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)

The Program Outcomes and Program Specific Outcomes are:

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)

13. Demonstrate knowledge and hands-on competence in the area of characteristics, operations, analysis, design of electrical machines and their applications in industry and other fields.
14. Demonstrate knowledge of analysis, design and implementation of electrical circuits, electronic circuits, power electronic circuits, measurements, control systems in different electrical systems.
15. Enhance the knowledge in generation, transmission, distribution, protection of electric power, installation, operation and maintenance of power system components with respect to competitive tariff for economic project viability and climate change issues and to understand the need for renewable energy systems for developing clean energy and sustainable technologies.

Program Articulation Matrix

Table B.3.1a

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	3.00	2.83	3.00	2.67	1.50	1.60	2.00	0.00	1.00	0.00	0.00	2.00
C102	2.83	2.67	3.00	2.00	0.00	1.50	1.50	0.00	1.00	0.00	0.00	1.00
C103	0.00	0.00	0.00	0.00	0.00	0.00	3.00	2.25	0.00	3.00	1.00	2.00
C104	1.00	1.00	1.00	1.00	1.00	1.60	1.00	1.60	0.00	1.50	1.00	2.50
C105	2.67	2.83	2.67	2.17	2.25	0.00	0.00	1.00	0.00	1.67	0.00	1.67
C106	2.20	2.33	3.00	2.50	1.40	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C107	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	3.00	0.00	2.00
C108	1.50	1.75	0.00	0.00	2.67	1.00	0.00	0.00	0.00	0.00	1.75	1.00
C109	3.00	3.00	1.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.67
C110	2.40	1.33	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
C111	2.00	2.00	1.67	1.50	0.00	1.33	1.50	0.00	0.00	0.00	0.00	1.40
C112	3.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C113	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C114	2.60	3.00	1.80	1.83	2.25	1.75	1.60	1.00	3.00	1.00	0.00	1.25
C115	1.67	1.33	1.33	1.83	1.60	1.17	1.33	1.00	2.67	1.00	1.50	1.17
C116	1.00	1.00	2.00	3.00	2.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00
C117	1.00	0.00	0.00	0.00	0.00	3.00	2.00	1.67	2.00	2.00	0.00	3.00
C201	3.00	3.00	1.57	2.71	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.75
C202	3.00	2.67	1.20	1.67	1.00	0.00	0.00	0.00	1.00	1.00	0.00	2.00
C203	2.50	2.17	2.00	2.67	2.00	0.00	0.00	0.00	2.00	2.00	0.00	2.00
C204	2.67	1.50	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.33	0.00
C205	3.00	1.67	2.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
C206	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C207	3.00	1.67	2.00	1.00	0.00	1.00	0.00	1.00	2.00	2.00	0.00	2.00
C208	2.17	2.67	2.83	2.50	1.60	0.00	0.00	1.00	2.00	1.00	0.00	1.67
C209	2.17	2.67	2.83	2.50	1.60	0.00	0.00	1.00	2.00	1.00	0.00	1.67
C210	2.17	2.67	2.83	2.50	1.60	0.00	0.00	1.00	2.00	1.00	0.00	1.67
C211	3.00	2.75	2.00	2.25	1.00	2.00	0.00	0.00	1.00	1.00	0.00	2.00
C212	3.00	2.00	2.40	1.40	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
C213	2.83	2.60	2.33	1.80	2.00	0.00	0.00	0.00	1.00	1.00	0.00	1.17
C214	3.00	2.67	2.67	2.67	1.67	1.00	1.00	1.00	2.00	1.00	1.00	2.00
C215	3.00	2.33	1.33	2.33	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.67

C216	2.33	1.33	1.33	1.33	1.00	1.00	0.00	0.00	1.00	1.00	0.00	2.00
C217	2.00	2.00	0.00	0.00	0.00	2.17	0.00	1.00	2.00	2.00	0.00	1.00
C218	3.00	1.80	0.00	1.00	1.00	2.00	0.00	1.00	2.00	2.00	0.00	2.00
C219	2.00	1.75	2.00	1.00	0.00	2.00	0.00	1.00	2.00	2.00	0.00	1.00
C301	1.00	1.00	2.50	1.00	2.33	2.25	1.50	1.33	0.00	0.00	0.00	1.17
C302	3.00	1.83	2.00	1.25	1.00	1.00	0.00	0.00	1.00	1.00	0.00	2.00
C303	2.83	2.83	2.00	2.00	1.83	1.00	1.00	0.00	0.00	1.00	0.00	1.67
C304	1.00	1.50	2.00	2.00	0.00	2.25	2.00	0.00	3.00	0.00	2.33	1.00
C305	2.50	2.83	2.67	2.83	2.83	1.67	1.83	1.20	2.33	1.33	1.67	2.67
C306	3.00	1.33	1.00	1.40	1.00	0.00	0.00	0.00	1.00	1.00	0.00	2.00
C307	2.83	1.80	1.33	1.60	2.00	1.00	0.00	1.00	2.00	2.00	0.00	1.00
C308	3.00	1.67	1.00	1.00	1.00	1.00	0.00	1.00	2.00	2.00	0.00	2.00
C309	2.00	1.00	2.00	0.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00
C310	2.00	1.00	2.00	0.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00
C311	2.00	2.00	2.00	1.50	2.33	1.67	1.50	0.00	0.00	0.00	0.00	1.40
C312	3.00	2.00	2.00	1.20	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
C313	1.50	1.50	1.33	1.00	1.50	2.00	1.00	1.00	1.00	1.00	1.00	1.83
C314	2.33	2.00	2.17	1.67	2.33	1.83	1.50	0.00	0.00	0.00	0.00	1.40
C315	1.67	1.67	1.20	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
C316	2.67	2.83	2.33	1.83	1.83	1.00	1.00	0.00	0.00	1.00	0.00	2.00
C317	1.00	1.00	1.00	1.20	1.33	1.25	1.67	1.50	1.25	2.00	2.00	1.00
C318	3.00	2.00	1.00	1.50	1.50	1.00	0.00	1.00	2.00	2.00	0.00	1.00
C319	2.83	1.40	1.00	1.00	1.50	1.40	0.00	1.17	1.83	1.83	0.00	1.83
C320	2.00	1.75	2.50	1.00	2.00	1.00	0.00	2.00	2.00	2.17	0.00	2.00
C401	0.00	0.00	0.00	0.00	0.00	1.00	0.00	3.00	1.00	0.00	1.00	1.00
C402	1.00	1.00	1.00	1.20	1.33	1.25	1.67	1.50	1.25	2.00	2.00	1.00
C403	1.83	1.50	1.67	1.67	1.67	3.00	2.50	2.50	2.83	3.00	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	0.00	0.00	0.00	0.00	0.00	1.00	1.75	1.00	1.00	1.00	2.00	1.20
C406	2.00	1.75	2.50	1.00	2.00	1.00	2.00	2.00	2.00	2.17	0.00	2.00

Course Articulation Matrix

Table B.3.1b

Course Name: Transformers and Induction Motors **Course Code:** C203 **Course Year: 2019-20**

Course Name	Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C2 02.1	Know the construction, principle, losses, efficiency and Phasor diagram of transformers and induction motors.	3	3	2	2	2	0	0	0	2	2	0	2	3	0	0
C2 02.2	Perform the different testing to develop the equivalent circuit of transformer and	3	3	2	3	2	0	0	0	2	2	0	2	3	0	0

	induction motor.															
C2 02.3	Know the parallel operation of single phase and three phase transformers.	2	2	0	0	0	0	0	0	2	2	0	0	3	0	0
C2 02.4	Know the different connections and conversions of three phase transformers.	2	1	0	0	0	0	0	0	2	2	0	2	3	0	0
C2 02.5	Know the performance characteristics, different methods of starting and speed control of three phase induction motor.	3	3	2	3	2	0	0	0	2	2	0	2	3	0	0
C2 02.6	know the construction and principle of operation of different single phase induction motors	2	1	0	0	0	0	0	0	2	2	0	0	3	0	0
Average		2.50	2.17	2.00	2.67	2.00	0.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	0.00	0.00

Course Name: Linear Control Systems **Course Code:** C213 **Course Year: 2020-2021**

Course Name	**Statement**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
C213.1	Know the terminology of control system	3	0	0	0	0	0	0	0	1	1	0	1	0	2	0
C213.2	Compute the mathematical model of physical systems.	3	3	3	2	0	0	0	0	1	1	0	1	1	3	1
C213.3	Analyze the time domain response of different systems.	3	3	3	3	2	0	0	0	1	1	0	1	1	3	1
C213.4	Determine the stability of a system by classical methods.	3	3	1	2	2	0	0	0	1	1	0	1	1	3	2
C213.5	Analyze frequency domain response and different compensators	3	3	0	1	0	0	0	0	1	1	0	1	1	3	1
C213.6	Understand the state space modeling of different systems.	2	1	0	1	0	0	0	0	1	1	0	2	1	3	2
Average			2.83	2.60	2.33	1.80	2.00	0.00	0.00	0.00	1.00	1.00	0.00	1.17	1.00	2.83

Course Name: Renewable Energy Sources **Course Code:** C301 **Course Year: 2020-2021**

Course Name	Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C301.1	Understand the need of renewable energy sources for future requirements globally.	1	0	0	0	0	0	1	0	0	0	0	2	3	1	3
C301.2	Reflect the concept of alternate energy sources.	1	1	2	0	0	0	1	0	0	0	0	1	3	3	3
C301.3	Demonstrate on various solar PV and thermal systems for energy efficiency.	0	1	0	0	0	2	2	0	0	0	0	1	1	0	3
C301.4	Analyze the scope of Geothermal and Ocean energy.	0	0	3	1	3	3	3	1	0	0	0	1	3	3	3
C301.5	Describe the process of extraction of power from wind and biomass energy.	0	0	3	1	3	2	1	1	0	0	0	1	3	3	3
C301.6	Study standalone Photovoltaic systems	1	1	2	0	1	2	1	2	0	0	0	1	2	2	2
Average			1.00	1.00	2.50	1.00	2.33	2.25	1.50	1.33	0.00	0.00	0.00	1.17	2.50	2.40

Course Name: Microprocessors and Interfacing **Course Code:** C302 **Course Year: 2020-2021**

Course Name	Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C302.1	understand the building blocks of 8085 and 8086 Microprocessors.	3	2	0	0	1	0	0	0	1	1	0	2	1	1	1
C302.2	write different assembly language programs in 8085 and 8086 microprocessors.	3	2	0	1	1	0	0	0	1	1	0	2	1	1	1
C302.3	learn the architecture and programming of 8051 microcontroller.	3	2	0	1	1	0	0	0	1	1	0	2	1	1	1
C302.4	understand the building of AVR microcontrollers.	3	2	2	2	1	0	0	0	1	1	0	2	1	2	1
C302.5	analyze the different programs of AVR microcontrollers.	3	2	0	1	1	0	0	0	1	1	0	2	1	1	1
C302.6	learn the different applications of microprocessor and	3	1	0	0	0	1	0	0	1	1	0	2	1	1	1

	microcontrollers.															
Average			3.00	1.83	2.00	1.25	1.00	1.00	0.00	0.00	1.00	1.00	0.00	2.00	1.00	1.17

Course Name: Power Carrier Communication **Course Code:** C311 **Course Year: 2021-2022**

Course Name	Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C311.1	Describe the importance of signal to noise ratio and properties of Fourier series transform in communication	3	3	3	1	3	3	3	0	0	0	0	0	1	1	2
C311.2	Distinguish between analog and digital modulation techniques.	3	3	3	2	2	1	1	0	0	0	0	1	2	3	1
C311.3	Evaluate pulse modulation and demodulation technique.	1	3	2	2	2	1	1	0	0	0	0	1	1	3	1
C311.4	Analyze different digital modulation techniques.	3	1	2	2	3	2	1	0	0	0	0	1	1	3	0
C311.5	Demonstrate on the architecture of communication (Wide Area Network) Network in electric grid.	1	1	1	1	2	2	2	0	0	0	0	2	2	2	1
C311.6	Examine the basic techniques in wireless and wire line communication in electric grid.	1	1	1	1	2	1	1	0	0	0	0	2	1	3	1
Average			2.00	2.00	2.00	1.50	2.33	1.67	1.50	0.00	0.00	0.00	0.00	1.40	1.33	2.50

Course Name: Power System Protection **Course Code:** C312 **Course Year: 2021-2022**

Course Name	Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C312.1	Describe the need of protective devices in power system.	3	2	0	1	0	0	0	0	1	1	0	1	0	1	3
C312.2	Distinguish in different types of	3	2	0	1	0	0	0	0	1	1	0	1	0	1	3

	Circuit Breakers.															
C312.3	Demonstrate the principle of operation of different relays.	3	2	0	1	0	0	0	0	1	1	0	1	0	1	3
C312.4	Realize the different scheme of protection for alternator, transformer.	3	2	0	2	0	0	0	0	1	1	0	1	1	1	3
C312.5	Understand the protection schemes of bus bar, feeder and transmission line	3	2	0	1	0	0	0	0	1	1	0	1	0	1	3
C312.6	Know the protection against surges.	3	2	2	0	0	0	0	0	1	1	0	1	0	1	3
Average			3	2	2	1.2	0	0	0	0	1	1	0	1	1	1

Add and delete rows for Course Outcomes as needed

Note:

1. Enter correlation levels 1, 2 or 3 as defined below:

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

If there is no correlation, put "-"

2. *Add more columns for PSOs*
3. *The table 3.1 can be prepared in landscape mode if required.*

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 (assessed out of 100 marks)	• **Continuous assessment of 30 marks:** o 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):** o 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. o Frequency: once in a semester. o 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):** o 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. o Frequency: once in a semester. o Questions are set to assess the attainments of course outcomes defined for the course through the students' marks or scores.	• Continuous assessment is done by the concerned faculty member for the course teaching the student. • 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	• **Continuous assessment of 60 marks** o Assessment is done through student	• Continuous assessment

marks)	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. o 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** o 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. o Frequency: once in a semester. o The tasks, questionnaires are mapped to course outcomes and the students' marks or score is used to compute the attainment.	is done by the concerned faculty member for the laboratory course teaching the student. • 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.
Sessional courses (assessed out of 100 marks)	• **Continuous assessment of 100 marks:** o 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. o Frequency: Assessed throughout the semester. o Different tasks are mapped to different outcomes and the students' marks or score in that category is used to compute the attainment	• 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 processing.
Projects (assessed out of 100 marks)	• 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 :	• Evaluators are already mentioned. The logistics for undergraduate programs are looked

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).

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.

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.

Threshold Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	Threshold 1
Level	**1**	Threshold 1	≥ Class Average in each CO <	Threshold 2
Level	**2**	Threshold 2	≥ Class Average in each CO <	Threshold 3
Level	**3**	Threshold 3	≥ 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

COx	X'	X	Y'	Y	X'+Y'	X+Y	X'+Y'/(X+Y) x100

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 questions mapped each CO (considering all the students)	Class Average
COx	Z'	Z	Z'/Z x 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.

Attainment levels and threshold levels of course outcomes

Thresholds Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	25
Level	**1**	25	≥ Class Average in each CO <	50
Level	**2**	50	≥ Class Average in each CO <	75
Level	**3**	75	≥ 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	Continuous Evaluation	60	Cumulative Internal Examination	60

Course	(Experimental activities/ tasks)		(CIE)	
	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 questions mapped each CO (considering all the students)	Class Average
COx	X'	X	X'/X x100

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 questions mapped each CO (considering all the students)	Class Average
COx	Z'	Z	Z'/Z x 100

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

Thresholds Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	25
Level	**1**	25	≥ Class Average in each CO <	50
Level	**2**	50	≥ Class Average in each CO <	75
Level	**3**	75	≥ 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 CIE (=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 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
COx	X'	X	X'/X x100

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

Threshold Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	25
Level	**1**	25	≥ Class Average in each CO <	50
Level	**2**	50	≥ Class Average in each CO <	75
Level	**3**	75	≥ Class Average in each CO <	100

Final Attainment level= CO Attainment in CIE

EXAMPLE OF COURSE OUTCOME ATTAINMENT OF A THEORY COURSE :

EE 2018, Digital Circuits

Course Outcomes of Digital Circuits

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

CO1: Understand the different types of number systems and logic gates.

CO2: Formulate Digital circuits using Boolean algebra and K-Maps.

CO3: Design Combinational circuits.

CO4: Understand Flip-Flops based design for Counters and Shift registers.

CO5: Apply the fundamental knowledge of Analog and Digital Electronics to get different types of ADC and DAC.

CO6: Compare different Logic Families of Digital Circuits and their characteristics.

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

Mark Calculation of Continuous Evaluation									
Programme	**Branch**	**Batch**	**Academic Year**	**Semester**		**Course Code**		**Course Name**	
B.Tech	**Electrical Engg.**	**2017-2021**	**2020-2021**	**4th**		**EE2018**		**Digital Circuits**	
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						191	890.75
Activity 2	5		5					191	892.75
Activity 3	5			5				191	675.25
Activity 4	5				5			191	838.5
Activity 5	5					5		191	835.375
Activity 6	5						5	191	808.75

CO Number	Total marks allotted corresponding to each CO	Total marks secured corresponding to each CO
CO1	955	890.75
CO2	955	892.75
CO3	955	675.25
CO4	955	838.5
CO5	955	835.375
CO6	955	808.75

Table 3: Mark Calculation of Mid Semester Evaluation

Mark Calculation of Mid Semester Evaluation										
Programme	Branch	Batch	Academic Year		Semester		Course Code		Course Name	
B.Tech	**Electrical Engg.**	**2017-2021**	**2020-2021**		**4th**		**EE2018**		**Digital Circuits**	
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						191	149.5
	1b	1	1						191	140
	1c	1		1					191	115.5
	1d	1		1					191	138.5
Q2	2	4	4						184	398
Q3	3	4		4					173	405
Q4	4a	2		2					136	160
	4b	2			2				136	150
Q5	5a	2	2						122	159.5
	5b	2		2					111	136
Q6	6a	2	2						107	155.5
	6b	2			2				101	129.5

CO Number	Total marks allotted corresponding to specific CO	Total marks secured to specific CO
CO1	1576	1002.5
CO2	1568	955
CO3	474	279.5
CO4	0	0
CO5	0	0
CO6	0	0

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

Calculation of Class average in Cumulative Internal Examination (CIE)							
Programme	Branch	Batch	Academic Year	Semester	Course Code	Course Name	
B.Tech	**Electrical Engg.**	**2017-2021**	**2020-2021**	**4Th**	**EE2018**	**Digital Circuits**	
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	955	890.75	1576	1002.5	2531	1893.25	**74.80**

CO2	955	892.75	1568	955	2523	1847.75	**73.24**
CO3	955	675.25	474	279.5	1429	954.75	**66.81**
CO4	955	838.5	0	0	955	838.5	**87.80**
CO5	955	835.375	0	0	955	835.375	**87.47**
CO6	955	808.75	0	0	955	808.75	**84.69**

Table 5: Calculation of Class average in Semester End Examination (SEE)

Calculation of Class average (%) in Semester End Examination (SEE)										
Programme	Branch	Batch	Academic Year		Semster		Course Code		Course Name	
B.Tech	**Electrical Engg.**	**2017-2021**	**2020-2021**		**4th**		**EE2018**		**Digital Circuits**	
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						191	182
	1b	1		1					191	126.75
	1c	1			1				191	135
	1d	1		1					191	145
	1e	1				1			191	114.75
	1f	1			1				191	95.25
	1g	1					1		191	149.75
	1h	1						1	191	71.25
	1i	1					1		191	158.5
	1j	1						1	191	94.25
Q2	2a	4			4				174	482
	2b	4				4			171	424.5
Q3	3a	4			4				117	217.5
	3b	4			4				123	239.75
Q4	4a	4					4		119	247.5
	4b	4					4		104	217.25
Q5	5a	4						4	136	340.25
	5b	4						4	128	341.5
Q6	6a	4					4		92	187
	6b	4				4			109	233.25
Q7	7a	4					4		160	427.5
	7b	4			4				150	417.25
Q8	8a	4						4	110	253.5
	8b	4					4		102	249.75

Table 6. Final Co Attainment

Final CO Attainment Calculation					
Programme	Branch	Batch	Academic Year		Semester
B.Tech	**Electrical Engg.**	**2017-2022**	**2020-2022**		**4th**
Course Code	**EE2018**	Course Name	**Digital Circuits**		
Target Levels for CO Attainment					
Level	**1**	20	≥ Class Average <		50
Level	**2**	50	≥ Class Average <		75
Level	**3**	75	≥ 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	74.80	2	95.29	3	**2.5**
CO2	73.24	2	71.14	2	**2**
CO3	66.81	2	60.15	2	**2**
CO4	87.80	3	58.92	2	**2.5**
CO5	87.47	3	60.86	2	**2.5**
CO6	84.69	3	58.61	2	**2.5**

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

Program shall set Course Outcome attainment levels for all courses.

Measuring Course Outcomes attained through Semester End Examinations (SEE)

Target may be stated in terms of percentage of students getting equal or more than the target set by the Program in SEE for each CO.

Measuring CO attainment through Cumulative Internal Examinations (CIE)

Target may be stated in terms of percentage of students getting more than class average marks or set by the program in each of the associated COs in the assessment instruments (midterm tests, assignments, mini projects, reports and presentations etc. as mapped with the COs)

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.

Table-1. Attainment of course outcome in cumulative internal examination

Sl No.	Course Code	Course Name	CO1	CO2	CO3	CO4	CO5	CO6
1	C101	Mathematics – I	3.00	3.00	3.00	2.00	3.00	2.00
2	C102	Chemistry	3.00	2.00	3.00	3.00	3.00	2.00
3	C103	Professional Communication	3.00	3.00	3.00	3.00	3.00	3.00
4	C104	Biology	3.00	3.00	3.00	3.00	3.00	3.00
5	C105	Computer Programming	2.00	3.00	2.00	3.00	3.00	2.00
6	C106	Chemistry Lab	3.00	3.00	3.00	3.00	3.00	3.00
7	C107	Language Lab	3.00	3.00	3.00	3.00	3.00	3.00
8	C108	Engg. Graphics	3.00	3.00	3.00	3.00	3.00	3.00
9	C109	Mathematics – II	2.00	3.00	2.00	2.00	3.00	3.00
10	C110	Physics	2.00	3.00	3.00	2.00	3.00	3.00
11	C111	Basic Electrical Engineering	3.00	3.00	2.00	3.00	3.00	2.00
12	C112	Engineering Mechanics	3.00	3.00	2.00	3.00	3.00	2.00
13	C113	Physics Lab	3.00	3.00	3.00	3.00	3.00	3.00
14	C114	Basic Electrical Engineering Lab	3.00	3.00	3.00	3.00	3.00	3.00
15	C115	Basic Manufacturing Systems	3.00	3.00	3.00	3.00	3.00	3.00
16	C116	Environmental Science	3.00	3.00	3.00	3.00	3.00	3.00
17	C117	Yoga & Human Consciousness	3.00	3.00	3.00	3.00	3.00	3.00
18	C201	Mathematics –III	3.00	2.00	3.00	3.00	2.00	3.00
19	C202	Electrical Circuits Analysis	3.00	2.00	3.00	3.00	3.00	3.00
20	C203	Transformers and Induction Motors	3.00	3.00	3.00	3.00	2.00	2.00
21	C204	Analog Electronic Circuits	3.00	3.00	3.00	3.00	2.00	2.00
22	C205	Electrical and Electronics Measurements	3.00	2.00	2.00	3.00	2.00	3.00
23	C206	Data Structure and Algorithm	2.00	3.00	2.00	2.00	2.00	2.00
24	C207	Network and Electronics Circuit Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
25	C208	Data structure Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
26	C209	Electrical Measurements Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
27	C210	Business Communication	3.00	3.00	3.00	3.00	3.00	3.00
28	C211	DC Machines and Synchronous Machines	3.00	3.00	3.00	3.00	2.00	2.00
29	C212	Digital Circuits	3.00	2.00	3.00	3.00	2.00	3.00
30	C213	Linear Control System	2.00	3.00	3.00	3.00	3.00	2.00
31	C214	Signals and System	2.00	2.00	3.00	3.00	3.00	3.00
32	C215	Generation, Transmission and Distribution of Electric Power	3.00	3.00	3.00	3.00	3.00	3.00
33	C216	Power Electronics	3.00	3.00	3.00	2.00	2.00	3.00
34	C217	Electrical Machines Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
35	C218	Power Electronics Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
36	C219	Digital Circuits Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
37	C301	Renewable Energy Sources	3.00	3.00	3.00	3.00	3.00	2.00
38	C302	Microprocessors and Interfacing	3.00	3.00	3.00	2.00	2.00	3.00
39	C303	Power System Operation and Control	3.00	3.00	3.00	3.00	3.00	3.00
40	C304	HS Elective-1	3.00	3.00	3.00	3.00	3.00	3.00
41	C305	Department Elective-I	3.00	3.00	3.00	3.00	3.00	3.00
42	C306	Department Elective-II	3.00	3.00	3.00	2.00	2.00	3.00

43	C307	Control System Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
44	C308	Microprocessor Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
45	C309	PLC Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
46	C310	Electrical System Modeling using MATLAB	3.00	3.00	3.00	3.00	3.00	3.00
47	C311	Power Carrier Communication System	3.00	2.00	2.00	3.00	3.00	3.00
48	C312	Power System Protection	3.00	3.00	3.00	3.00	3.00	3.00
49	C313	Inferential Statistics	3.00	2.00	2.00	3.00	2.00	3.00
50	C314	Department Elective-III	3.00	3.00	3.00	3.00	3.00	3.00
51	C315	Department Elective-IV	3.00	3.00	3.00	2.00	3.00	2.00
52	C316	Department Elective-V	3.00	3.00	3.00	3.00	3.00	3.00
53	C317	Open Elective-I	3.00	3.00	3.00	3.00	3.00	2.00
54	C318	Power Systems Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
55	C319	Electric Drives Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
56	C320	Minor Project	3.00	3.00	3.00	3.00	3.00	3.00
57	C401	Professional Practice, Law and Ethics	3.00	3.00	3.00	3.00	3.00	3.00
58	C402	Open Elective-II	3.00	3.00	3.00	3.00	3.00	3.00
59	C403	Project-I / Internship	3.00	3.00	3.00	3.00	3.00	3.00
60	C404	Practical Training	3.00	3.00	3.00	3.00	3.00	3.00
61	C405	HS Elective-II	3.00	3.00	3.00	3.00	3.00	3.00
62	C406	Project-II / Internship	3.00	3.00	3.00	3.00	3.00	3.00

Table-2. Attainment of course outcome in semester end examination is given below

Sl No.	Course Code	Course Name	CO1	CO2	CO3	CO4	CO5	CO6
1	C101	Mathematics – I	2.00	3.00	2.00	2.00	2.00	2.00
2	C102	Chemistry	3.00	2.00	3.00	2.00	2.00	2.00
3	C103	Professional Communication	3.00	3.00	3.00	3.00	3.00	2.00
4	C104	Biology	2.00	3.00	3.00	2.00	2.00	3.00
5	C105	Computer Programming	2.00	2.00	2.00	2.00	2.00	2.00
6	C106	Chemistry Lab	3.00	3.00	3.00	3.00	3.00	2.00
7	C107	Language Lab	3.00	3.00	3.00	3.00	3.00	3.00
8	C108	Engg. Graphics	3.00	3.00	3.00	3.00	3.00	3.00
9	C109	Mathematics – II	2.00	2.00	2.00	2.00	2.00	2.00
10	C110	Physics	2.00	2.00	3.00	2.00	3.00	2.00
11	C111	Basic Electrical Engineering	2.00	2.00	2.00	2.00	2.00	2.00
12	C112	Engineering Mechanics	2.00	2.00	2.00	2.00	3.00	2.00
13	C113	Physics Lab	2.00	3.00	3.00	3.00	3.00	3.00
14	C114	Basic Electrical Engineering Lab	2.00	3.00	3.00	2.00	3.00	3.00
15	C115	Basic Manufacturing Systems	3.00	3.00	3.00	3.00	3.00	3.00
16	C116	Environmental Science	2.00	3.00	3.00	2.00	2.00	3.00
17	C117	Yoga & Human Consciousness	3.00	3.00	3.00	3.00	3.00	3.00
18	C201	Mathematics –III	2.00	2.00	2.00	2.00	2.00	2.00
19	C202	Electrical Circuits Analysis	2.00	2.00	2.00	2.00	2.00	2.00
20	C203	Transformers and Induction Motors	2.00	2.00	3.00	2.00	2.00	2.00
21	C204	Analog Electronic Circuits	2.00	2.00	3.00	2.00	2.00	2.00
22	C205	Electrical and Electronics Measurements	2.00	2.00	2.00	2.00	2.00	2.00

23	C206	Data Structure and Algorithm	2.00	2.00	2.00	2.00	1.00	2.00
24	C207	Network and Electronics Circuit Laboratory	2.00	3.00	3.00	3.00	3.00	3.00
25	C208	Data structure Laboratory	3.00	3.00	3.00	3.00	3.00	2.00
26	C209	Electrical Measurements Laboratory	3.00	3.00	3.00	3.00	2.00	3.00
27	C210	Business Communication	3.00	3.00	3.00	3.00	3.00	2.00
28	C211	DC Machines and Synchronous Machines	2.00	2.00	2.00	2.00	2.00	2.00
29	C212	Digital Circuits	2.00	2.00	2.00	2.00	2.00	2.00
30	C213	Linear Control System	2.00	2.00	2.00	3.00	2.00	2.00
31	C214	Signals and System	2.00	2.00	2.00	2.00	3.00	2.00
32	C215	Generation, Transmission and Distribution of Electric Power	2.00	2.00	3.00	2.00	2.00	2.00
33	C216	Power Electronics	2.00	2.00	2.00	2.00	2.00	2.00
34	C217	Electrical Machines Laboratory	3.00	3.00	3.00	2.00	3.00	3.00
35	C218	Power Electronics Laboratory	2.00	3.00	3.00	3.00	3.00	2.00
36	C219	Digital Circuits Laboratory	2.00	3.00	3.00	2.00	3.00	3.00
37	C301	Renewable Energy Sources	3.00	2.00	3.00	3.00	3.00	1.00
38	C302	Microprocessors and Interfacing	2.00	2.00	2.00	2.00	2.00	2.00
39	C303	Power System Operation and Control	3.00	2.00	3.00	2.00	2.00	2.00
40	C304	HS Elective-1	2.00	3.00	3.00	3.00	2.00	3.00
41	C305	Department Elective-I	3.00	3.00	2.00	3.00	3.00	3.00
42	C306	Department Elective-II	2.00	2.00	3.00	2.00	2.00	3.00
43	C307	Control System Laboratory	2.00	3.00	3.00	3.00	3.00	3.00
44	C308	Microprocessor Laboratory	3.00	2.00	2.00	2.00	3.00	3.00
45	C309	PLC Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
46	C310	Electrical System Modeling using MATLAB	3.00	3.00	3.00	3.00	3.00	3.00
47	C311	Power Carrier Communication System	2.00	2.00	2.00	2.00	3.00	3.00
48	C312	Power System Protection	3.00	2.00	3.00	2.00	2.00	3.00
49	C313	Inferential Statistics	2.00	2.00	2.00	2.00	2.00	2.00
50	C314	Department Elective-III	3.00	2.00	2.00	3.00	3.00	3.00
51	C315	Department Elective-IV	2.00	2.00	2.00	2.00	2.00	2.00
52	C316	Department Elective-V	2.00	3.00	3.00	2.00	2.00	3.00
53	C317	Open Elective-I	2.00	3.00	3.00	3.00	2.00	2.00
54	C318	Power Systems Laboratory	2.00	3.00	3.00	3.00	3.00	3.00
55	C319	Electric Drives Laboratory	3.00	3.00	3.00	2.00	3.00	3.00
56	C320	Minor Project	3.00	3.00	3.00	2.00	3.00	3.00
57	C401	Professional Practice, Law and Ethics	2.00	3.00	3.00	3.00	3.00	2.00
58	C402	Open Elective-II	2.00	2.00	2.00	2.00	3.00	3.00
59	C403	Project-I / Internship	3.00	3.00	3.00	3.00	3.00	3.00
60	C404	Practical Training	3.00	3.00	3.00	3.00	3.00	3.00
61	C405	HS Elective-II	3.00	3.00	3.00	3.00	3.00	3.00
62	C406	Project-II / Internship	3.00	3.00	3.00	2.00	2.00	3.00

Table-3. Final CO Attainment

Sl No.	Course Code	Course Name	CO1	CO2	CO3	CO4	CO5	CO6
1	C101	Mathematics – I	2.50	3.00	2.50	2	2.5	2
2	C102	Chemistry	3.00	2.00	3.00	2.5	2.5	2

3	C103	Professional Communication	3.00	3.00	3.00	3	3	2.5
4	C104	Biology	2.50	3.00	3.00	2.5	2.5	3
5	C105	Computer Programming	2.00	2.60	2.00	2.60	2.60	2.00
6	C106	Chemistry Lab	3.00	3.00	3.00	3.00	3.00	2.60
7	C107	Language Lab	3.00	3.00	3.00	3.00	3.00	3.00
8	C108	Engg. Graphics	3.00	3.00	3.00	3.00	3.00	3.00
9	C109	Mathematics – II	2.00	2.50	2.00	2.00	2.50	2.50
10	C110	Physics	2.00	2.50	3.00	2.00	3.00	2.50
11	C111	Basic Electrical Engineering	2.50	2.50	2.00	2.50	2.50	2.00
12	C112	Engineering Mechanics	2.50	2.50	2.00	2.50	3.00	2.00
13	C113	Physics Lab	2.60	3.00	3.00	3.00	3.00	3.00
14	C114	Basic Electrical Engineering Lab	2.60	3.00	3.00	2.60	3.00	3.00
15	C115	Basic Manufacturing Systems	3.00	3.00	3.00	3.00	3.00	3.00
16	C116	Environmental Science	2.50	3.00	3.00	2.50	2.50	3.00
17	C117	Yoga & Human Consciousness	3.00	3.00	3.00	3.00	3.00	3.00
18	C201	Mathematics –III	2.50	2.00	2.50	2.50	2.00	2.50
19	C202	Electrical Circuits Analysis	2.50	2.00	2.50	2.50	2.50	2.50
20	C203	Transformers and Induction Motors	2.50	2.50	3.00	2.50	2.00	2.00
21	C204	Analog Electronic Circuits	2.50	2.50	3.00	2.50	2.00	2.00
22	C205	Electrical and Electronics Measurements	2.50	2.00	2.00	2.50	2.00	2.50
23	C206	Data Structure and Algorithm	2.00	2.50	2.00	2.00	1.50	2.00
24	C207	Network and Electronics Circuit Laboratory	2.60	3.00	3.00	3.00	3.00	3.00
25	C208	Data structure Laboratory	3.00	3.00	3.00	3.00	3.00	2.60
26	C209	Electrical Measurements Laboratory	3.00	3.00	3.00	3.00	2.60	3.00
27	C210	Business Communication	3.00	3.00	3.00	3.00	3.00	2.50
28	C211	DC Machines and Synchronous Machines	2.50	2.50	2.50	2.50	2.00	2.00
29	C212	Digital Circuits	2.50	2.00	2.50	2.50	2.00	2.50
30	C213	Linear Control System	2.00	2.50	2.50	3.00	2.50	2.00
31	C214	Signals and System	2.00	2.00	2.50	2.50	3.00	2.50
32	C215	Generation, Transmission and Distribution of Electric Power	2.50	2.50	3.00	2.50	2.50	2.50
33	C216	Power Electronics	2.50	2.50	2.50	2.00	2.00	2.50
34	C217	Electrical Machines Laboratory	3.00	3.00	3.00	2.60	3.00	3.00
35	C218	Power Electronics Laboratory	2.60	3.00	3.00	3.00	3.00	2.60
36	C219	Digital Circuits Laboratory	2.60	3.00	3.00	2.60	3.00	3.00
37	C301	Renewable Energy Sources	3.00	2.50	3.00	3.00	3.00	1.50
38	C302	Microprocessors and Interfacing	2.50	2.50	2.50	2.00	2.00	2.50
39	C303	Power System Operation and Control	3.00	2.50	3.00	2.50	2.50	2.50
40	C304	HS Elective-1	2.50	3.00	3.00	3.00	2.50	3.00
41	C305	Department Elective-I	3.00	3.00	2.50	3.00	3.00	3.00
42	C306	Department Elective-II	2.50	2.50	3.00	2.00	2.00	3.00
43	C307	Control System Laboratory	2.60	3.00	3.00	3.00	3.00	3.00
44	C308	Microprocessor Laboratory	3.00	2.60	2.60	2.60	3.00	3.00
45	C309	PLC Laboratory	3.00	3.00	3.00	3.00	3.00	3.00
46	C310	Electrical System Modeling using MATLAB	3.00	3.00	3.00	3.00	3.00	3.00
47	C311	Power Carrier Communication System	2.50	2.00	2.00	2.50	3.00	3.00

48	C312	Power System Protection	3.00	2.50	3.00	2.50	2.50	3.00
49	C313	Inferential Statistics	2.50	2.00	2.00	2.50	2.00	2.50
50	C314	Department Elective-III	3.00	2.50	2.50	3.00	3.00	3.00
51	C315	Department Elective-IV	2.50	2.50	2.50	2.00	2.50	2.00
52	C316	Department Elective-V	2.50	3.00	3.00	2.50	2.50	3.00
53	C317	Open Elective-I	2.50	3.00	3.00	3.00	2.50	2.00
54	C318	Power Systems Laboratory	2.60	3.00	3.00	3.00	3.00	3.00
55	C319	Electric Drives Laboratory	3.00	3.00	3.00	2.60	3.00	3.00
56	C320	Minor Project	3.00	3.00	3.00	2.50	3.00	3.00
57	C401	Professional Practice, Law and Ethics	2.50	3.00	3.00	3.00	3.00	2.50
58	C402	Open Elective-II	2.50	2.50	2.50	2.50	3.00	3.00
59	C403	Project-I / Internship	3.00	3.00	3.00	3.00	3.00	3.00
60	C404	Practical Training	3.00	3.00	3.00	3.00	3.00	3.00
61	C405	HS Elective-II	3.00	3.00	3.00	3.00	3.00	3.00
62	C406	Project-II / Internship	3.00	3.00	3.00	2.50	2.50	3.00

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)

(Describe the assessment tools and processes used to gather the data upon which the evaluation of each of the Program Outcomes and Program Specific Outcomes is based indicating the frequency with which these processes are carried out. Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained and document the attainment levels)

B. Attainment of Program Outcomes

The Programme 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 Programme 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 semetser	Course coordinator & School quality Cell
Indirect Assessment	20	Graduate survey, Alumni Survey and Employer Survey		Once in a year	Quality Cell & Programme 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 DC Machines and Synchronous Machines

Course Outcome and Programme Outcome mapping of DC Machines and Synchronous Machines

CO Number	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	0	0	0	0	0	0	0	1	1	0	2
CO2	3	3	0	2	1	0	0	0	1	1	0	2
CO3	3	0	0	0	0	2	0	0	1	1	0	2
CO4	3	3	1	2	1	0	0	0	1	1	0	2
CO5	3	3	2	3	1	0	0	0	1	1	0	2
CO6	3	2	3	2	0	0	0	0	1	1	0	2

The calculation of Programme Outcome Attainment of DC Machines and Synchronous Machines is given below.

Programme	Branch		Batch		Academic Year			Semester		Course Code		Course Name	
BTech	Electrical Engineering		2018-2022		2020-2021			4th		EE 2020		DC Machines and Synchronous Machines	
CO Number	CO Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2.5	3	0	0	0	0	0	0	0	1	1	0	2
CO2	2.5	3	3	0	2	1	0	0	0	1	1	0	2
CO3	2.5	3	0	0	0	0	2	0	0	1	1	0	2
CO4	2.5	3	3	1	2	1	0	0	0	1	1	0	2
CO5	2	3	3	2	3	1	0	0	0	1	1	0	2
CO6	2	3	2	3	2	0	0	0	0	1	1	0	2
Sum Product		42	25	12.5	20	0	0	14	14	0	28	42	25
Sum of mapping		18	11	6	9	0	0	6	6	0	12	18	11
Attainment		2.33	2.27	2.08	2.22	-	-	2.33	2.33	-	2.33	2.33	2.27

Attainment of PO1= (3x2.5+3x2.5+3x2.5+3x2.5+3x2+3x2)/(3+3+3+3+3+3) = 2.33

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 Survey Attainment level corresponding to question number (Section B)	Graduate Survey Attainment level corresponding to List (Section C)	Alumni survey Attainment level corresponding to question number	Employer Survey Attainment level corresponding to parameter/rubric
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*Direct Assessment (attainment level) + 0.2*Indirect Assessment (attainment level)

Target Attainment Level
The target attainment level for 2022 graduating batch is 2.5

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,

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):

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.

Web link 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.

≪Web links 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):

RATING ⇨ / SUBJECT ⇩		Excellent [5]	Very Good [4]	Good [3]	Average [2]	Below Average [1]
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:						

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……

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

(The attainment levels by direct (student performance) and indirect (surveys) are to bepresented through Program level Course-PO&PSO matrices as indicated).

Final PO & PSO attainment

PO Attainment

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	2.42	2.41	2.42	2.41	2.50	2.38	2.50	0.00	2.50	0.00	0.00	2.46
C102	2.47	2.53	2.50	2.31	0.00	2.67	2.67	0.00	2.50	0.00	0.00	2.50
C103	0.00	0.00	0.00	0.00	0.00	0.00	3.00	2.83	0.00	2.92	2.83	2.92
C104	2.75	2.75	2.67	2.75	2.75	2.81	2.80	2.81	0.00	2.78	2.50	2.77
C105	2.30	2.28	2.30	2.28	2.27	0.00	0.00	2.30	0.00	2.36	0.00	2.36
C106	3.00	2.97	3.00	2.97	2.94	0.00	2.93	0.00	0.00	0.00	0.00	0.00
C107	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	3.00	0.00	3.00
C108	3.00	3.00	0.00	0.00	3.00	3.00	0.00	0.00	0.00	0.00	3.00	3.00
C109	2.25	2.25	2.25	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.22
C110	2.38	2.25	2.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50
C111	2.33	2.33	2.35	2.33	0.00	2.38	2.33	0.00	0.00	0.00	0.00	2.29
C112	2.42	2.42	2.42	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C113	2.92	2.89	2.84	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C114	2.85	2.90	2.91	2.93	2.82	2.77	2.75	2.87	2.80	2.87	0.00	2.92
C115	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C116	2.75	2.75	2.75	2.75	3.00	2.75	2.75	3.00	3.00	3.00	2.79	2.75
C117	3.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	3.00	3.00	0.00	3.00
C201	2.33	2.33	2.28	2.30	0.00	0.00	0.00	0.00	2.25	0.00	0.00	2.34
C202	2.42	2.41	2.42	2.40	2.50	0.00	0.00	0.00	2.42	2.42	0.00	2.42
C203	2.40	2.42	2.33	2.31	2.33	0.00	0.00	0.00	2.42	2.42	0.00	2.38
C204	2.19	2.17	2.17	0.00	0.00	0.00	0.00	2.17	2.17	0.00	2.19	0.00
C205	2.25	2.30	2.00	2.33	0.00	0.00	0.00	0.00	2.25	2.25	0.00	2.25
C206	2.00	2.05	2.04	2.00	1.92	0.00	0.00	1.83	2.00	2.00	0.00	1.95
C207	2.93	2.92	3.00	3.00	0.00	2.93	0.00	2.93	2.93	2.93	0.00	2.93
C208	2.91	2.95	2.93	2.95	2.90	0.00	0.00	2.90	2.80	2.90	0.00	2.92
C209	2.93	2.94	0.00	0.00	0.00	2.94	0.00	2.93	2.93	2.93	0.00	2.93
C210	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	2.88	2.91	2.83	2.83
C211	2.33	2.27	2.08	2.22	2.33	2.50	0.00	0.00	2.33	2.33	0.00	2.33
C212	2.33	2.33	2.29	2.36	2.50	0.00	0.00	0.00	2.33	2.33	0.00	2.33
C213	2.44	2.58	2.57	2.56	2.75	0.00	0.00	0.00	2.42	2.42	0.00	2.36
C214	2.42	2.47	2.47	2.47	2.50	2.42	2.42	2.50	2.42	2.42	2.42	2.42
C215	2.58	2.61	2.63	2.61	0.00	2.50	0.00	0.00	2.58	2.58	0.00	2.60
C216	2.36	2.38	2.38	2.38	2.50	2.50	0.00	0.00	2.33	2.33	0.00	2.33
C217	2.93	3.00	0.00	0.00	0.00	2.94	0.00	2.93	2.93	2.93	0.00	2.93
C218	2.87	2.91	0.00	2.87	2.87	2.87	0.00	2.87	2.87	2.87	0.00	2.87
C219	2.87	2.89	3.00	3.00	0.00	2.87	0.00	2.87	2.87	2.87	0.00	2.87

C301	2.33	2.33	2.60	3.00	2.79	2.67	2.78	2.25	0.00	0.00	0.00	2.71
C302	2.33	2.32	2.00	2.20	2.30	2.50	0.00	0.00	2.33	2.33	0.00	2.33
C303	2.68	2.58	2.57	2.56	2.75	0.00	0.00	0.00	2.42	2.42	0.00	2.36
C304	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C305	2.90	2.91	2.91	2.91	2.91	2.90	2.91	2.83	2.89	2.94	2.90	2.91
C306	2.50	2.75	0.00	2.75	0.00	3.00	0.00	0.00	2.50	2.50	0.00	2.50
C307	2.08	2.06	2.50	2.07	2.25	0.00	0.00	0.00	2.08	2.08	0.00	2.08
C308	2.93	2.96	3.00	2.95	3.00	2.93	0.00	2.93	2.93	2.93	0.00	2.93
C309	2.80	2.76	3.00	2.60	2.80	2.80	0.00	2.80	2.80	2.80	0.00	2.80
C310	3	3	3	0	3	0	0	3	3	3	0	3
C311	2.42	2.33	2.38	2.39	2.50	2.55	2.56	0.00	0.00	0.00	0.00	2.64
C312	2.75	2.75	3.00	2.67	0.00	0.00	0.00	0.00	2.75	2.75	0.00	2.75
C313	2.33	2.33	2.25	2.25	2.28	2.50	2.50	2.20	2.20	2.25	2.25	2.23
C314	2.79	2.75	2.81	2.80	2.86	2.91	2.89	0.00	0.00	0.00	0.00	2.86
C315	2.35	2.35	2.33	2.50	2.38	0.00	0.00	2.30	2.25	2.25	2.50	2.33
C316	2.75	2.76	2.75	2.82	2.82	2.75	2.50	0.00	0.00	2.83	0.00	2.83
C317	2.67	2.80	2.80	2.67	2.63	2.70	2.70	3.00	2.70	2.67	2.67	2.67
C318	2.93	2.93	3.00	2.87	2.93	2.93	0.00	2.93	2.93	2.93	0.00	2.93
C319	2.93	2.94	3.00	2.87	2.80	2.94	0.00	2.94	2.93	2.93	0.00	2.93
C320	2.92	2.93	2.80	3.00	2.75	3.00	0.00	2.92	2.92	2.92	0.00	2.92
C401	0.00	0.00	0.00	0.00	0.00	2.75	0.00	2.83	2.83	0.00	2.83	2.83
C402	2.67	2.60	2.60	2.67	2.75	2.70	2.60	2.50	2.70	2.67	2.67	2.67
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	0.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
C406	2.83	2.79	2.80	2.50	2.67	3.00	2.83	2.83	2.83	2.85	0.00	2.83

PO Attainment Level

Table B.3.3.2a

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
Alumni Survey	3	3	3	3	3	3	3	3	3	3	3	3
Employer Survey	3	3	2		3	2	2	2	2.5	3		2.6

Table B.3.3.2b

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Indirect Attainment	3	3	2.75	3	3	2.75	2.75	2.75	2.875	3	3	2.9
Direct Attainment	2.58	2.58	2.57	2.56	2.71	2.84	2.81	2.82	2.73	2.78	2.78	2.64

PSO Attainment

Course Code	PSO1	PSO2	PSO3
C101	2.42	2.42	2.42
C102	0.00	3.00	2.75
C103	0.00	0.00	0.00
C104	2.75	2.75	0.00
C105	2.30	2.30	2.30
C106	0.00	0.00	3.00
C107	0.00	0.00	0.00
C108	3.00	3.00	3.00
C109	2.25	2.25	2.25
C110	3.00	2.50	2.50
C111	2.33	2.33	2.33
C112	2.50	2.50	2.41
C113	2.60	3.00	2.93
C114	2.87	2.87	2.87
C115	3.00	3.00	3.00
C116	0.00	0.00	2.75
C117	0.00	0.00	0.00
C201	2.40	2.40	2.33
C202	2.33	2.42	2.44
C203	2.42	0.00	0.00
C204	2.17	0.00	2.20
C205	2.00	2.25	2.00
C206	2.06	2.00	2.00
C207	0.00	2.93	0.00
C208	3.00	2.92	2.90
C209	3.00	2.90	3.00
C210	0.00	0.00	0.00
C211	2.33	2.50	2.50
C212	0.00	2.30	2.33
C213	2.50	2.44	2.50
C214	2.46	2.42	2.46
C215	0.00	2.60	2.59
C216	2.50	2.33	2.50
C217	2.95	3.00	3.00
C218	0.00	2.87	2.92
C219	0.00	2.89	0.00
C301	2.70	2.63	2.74
C302	2.33	2.29	2.33
C303	2.50	2.44	2.50
C304	3.00	3.00	3.00
C305	2.90	2.92	2.83
C306	2.63	2.83	2.50
C307	2.08	2.08	2.25

C308	3.00	2.93	2.94
C309	0.00	2.80	2.87
C310	3	3	3
C311	2.50	2.47	2.50
C312	2.50	2.75	2.75
C313	2.50	2.25	2.25
C314	2.85	2.80	2.75
C315	2.35	2.36	2.25
C316	0.00	2.78	2.77
C317	0.00	0.00	0.00
C318	0.00	2.93	2.93
C319	3.00	2.95	3.00
C320	2.92	2.92	2.92
C401	0.00	0.00	0.00
C402	0.00	0.00	0.00
C403	3.00	3.00	3.00
C404	3.00	3.00	3.00
C405	0.00	0.00	0.00
C406	2.83	2.83	2.83

PO Attainment Level
Table B.3.3.2c

Course	PSO1	PSO2	PSO3
Graduate Survey	3	3	3
Alumni Survey	3	3	3
Employer Survey	2	2	2

Table B.3.3.2d

Course	PSO1	PSO2	PSO3
Indirect Attainment	2.67	2.67	2.67
Direct Attainment	2.61	2.61	2.62

CRITERION 4	Students' Performance	100

Table 4.1

Item(Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY	CAYm1	CAYm2	CAYm3	CAYm4	CAYm5	CAYm6	CAYm7
Sanctioned intake of the program (*N*)	120	180	180	180	180	180	180	180
Total number of students admitted in first year *minus* number of students migrated to other programs/institutions, plus no. of students migrated to this program (*N*1)	120	180	180	180	180	180	180	180
Number of students admitted in 2nd year in the same batch via lateralentry (*N*2)	0	6	11	12	10	11	10	20
Separate division students, if applicable (N3)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Total number of students admitted to the Program (*N*1 + *N*2 + N3)	120	186	192	192	190	191	190	200

CAY – Current Academic Year
CAYm1- Current Academic Year minus1= Current Assessment Year
CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1LYG – Last Year Graduate
LYGm1 – Last Year Graduate minus 1
LYGm2 – Last Year Graduate minus 2

Table 4.2

Year of entry	*N*1 + *N*2 + N3 (As defined above)	Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartmentor failures in any semester/year of study)			
		I Year	II Year	III Year	IV Year
CAY(2022-23)	120(120+0+0)				
CAYm1(2021-22)	186(180+6+0)	186			
CAYm2(2020-21)	191(180+11+0)	180	191		

CAYm3(2019-20)	192(180+12+0)	180	192	192	
CAYm4(LYG) (2018-19)	190(180+10+0)	180	190	190	190
CAYm5(LYGm1) (2017-18)	191(180+11+0)	180	191	191	191
CAYm6 (LYGm2) (2016-17)	190(180+10+0)	180	190	190	190
CAYm7 (LYGm3) (2015-16)	200(180+20+0)	180	200	200	200

Table 4.3

Year of entry	***N*1 + *N*2 + 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)	180(180+0+0)				
CAYm1(2021-22)	186(180+6+0)	186			
CAYm2(2020-21)	191 (180+11+0)	191	191		
CAYm3(2019-20)	192(180+12+0)	192	192	192	
CAYm4(2018-19) (LYG)	190(180+10+0)	190	190	190	190
CAYm5(2017-18) (LYGm1)	191(180+11+0)	191	191	191	191
CAYm6(2016-17) (LYGm2)	190(180+10+0)	190	190	190	190
CAYm7(2015-16) (LYGm3)	200(180+20+0)	200	200	200	200

4.1 Enrolment Ratio (20)

Enrolment Ratio= N1/N

	N (From Table 4.1)	N1 (From Table 4.1)	EE enrollment ratio N(((N1/N*100)
2022-23(CAY)	120	120	100
2021-22(CAYm1)	180	180	100
2020-21(CAYm2)	180	180	100

Table B.4.1

Average = [(ER1+ER2+ER3)/3]: 100.00

Assessment : 20

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	190	191	190
Number of students who have graduated without backlogs in the stipulated period	190	191	190
Success Index (SI)	1	1	1

Table B.4.2.1

Average SI[(SI1+SI2+SI3)/3]: 1.00
Assessment: 15*Average SI-15.00

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 courseduration)/ (Number of students admitted in the first year of that batch and actually admitted in 2nd yeavia lateral entry and separate division, if applicable)

Table B.4.2.2

Item	Last Year of Graduate, LYG (CAYm4)	Last Year of Graduate minus 1, LYG*m*1 (CAYm5)	Last Year of Graduate minus 2, LYG*m*2 (CAYm6)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	190	191	190
Number of students who have graduated in the stipulated period	190	191	190
Success Index (SI)	1	1	1
Average Success Index	1		

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

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** = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)*
Successful students are those who are permitted to proceed to the Third year.

Academic Performance	**CAYm2 2020-21**	**CAYm3 2019-20**	**LYG 2018-19**
Mean of CGPA or Mean Percentage of all successful students (X)	8.50	8.42	8.24
Total no. of successful students (Y)	191	192	190
Total no. of students appeared in the examination (Z)	191	192	190

API = X* (Y/Z)	8.50	8.42	8.24
Average API = (AP1 + AP2 + AP3)/3	8.387		

Table B.4.3

Placement, Higher Studies and Entrepreneurship (30)

4.4 Assessment Points = 30 × average placement

Item	**LYG (2018AB)**	**LYGm1 (2017AB)**	**LYGm2 (2016AB)**
Total No. of Final Year Students (N)	190	191	190
No. of students placed in companies or Government Sector (x)	151	152	160
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	**2**	**2**	**7**
No. of students turned entrepreneur in engineering/technology (z)	**0**	**0**	**0**
x + y + z =	153	154	167
Placement Index : (x + y + z)/N	P1=0.805	P2=0.806	P3=0.88
Average placement= (P1 + P2 + P3)/3	0.830		
Assessment Points = 30 × average placement	24.9		

Table B.4.4

4.4a. Provide the placement data in the below mentioned format with the name of the programand the assessment year:

Assessment year(2021-22) (LYG):

Sl no	**Student Name**	**Enrollment No**	**Employer Name**	**Appointment Letter**
1	Abhishek Dey	1803001	HighRadius Technologies	HighRadius Technologies
2	Abhranil Manna	1803003	Infosys	Infosys
3	Adamya Digpal	1803004	Visa Steel	Visa Steel
4	Aditya Virat	1803005	Cognizant	Cognizant
5	Aman Mishra	1803006	HighRadius Technologies	HighRadius Technologies
6	Aman Sharma	1803007	Capgemini	Capgemini
7	Amlan Musib	1803008	Deloitte USI Consulting	Deloitte USI Consulting
8	Anish Pal	1803009	Deloitte Salesforce	Deloitte Salesforce
9	Apurva Ashish	1803011	Amazon Non Tech	Amazon Non Tech
10	Arindam Nandi	1803012	KPIT	KPIT

11	Aritra Kumar Choudhury	1803013	Cognizant	Cognizant
12	Arnab Kumar Maity	1803014	SkillVertex	SkillVertex
13	Debdeep Das	1803015	Wipro	Wipro
14	Debajyoti Pharikal	1803016	Wipro	Wipro
15	Debangshu Goswami	1803017	SkillVertex	SkillVertex
16	Dibya Pullak Singh	1803018	Andritz Hydro (P) Ltd	Andritz Hydro (P) Ltd
17	Dipanjan Panda	1803019	Happiest Minds Technologies	Happiest Minds Technologies
18	Divyanshi Shukla	1803020	Climber knowledge and Careers (P) Ltd.	Climber knowledge and Careers (P) Ltd.
19	Dixant Tiwari	1803021	Accenture	Accenture
20	Harsh Raj	1803022	Asiczen Technologies India	Asiczen Technologies India
21	Nikita Lahon	1803027	Cummins India Ltd.	Cummins India Ltd.
22	Pradeep Kumar Goswami	1803029	SkillVertex	SkillVertex
23	Prashant Patel	1803030	Voltas Ltd	Voltas Ltd
24	Prateek Singh	1803031	HighRadius Technologies	HighRadius Technologies
25	Prem Panigrahi	1803032	Unschool	Unschool
26	Rahul Debnath	1803035	Ernst & Young	Ernst & Young
27	Rahul Krishna Patel	1803036	Capgemini	Capgemini
28	Raj Laxmi	1803037	Tata Electronics	Tata Electronics
29	Razi Ahmad	1803038	Cognizant	Cognizant
30	Rishav	1803039	Mindtree	Mindtree
31	Rohit Mohanty	1803042	Amazon Non Tech	Amazon Non Tech
32	Roshan Kumar Gupta	1803043	Cognizant	Cognizant
33	Roshan Soni	1803044	Crompton Greaves Consumer Electricals Ltd.	Crompton Greaves Consumer Electricals Ltd.
34	Sabarish Nair	1803045	Ernst & Young (EY)	Ernst & Young (EY)
35	Sagnik Ganguly	1803046	Cognizant	Cognizant
36	Samrat Ghosh	1803048	JLL Work Dynamics and PAM	JLL Work Dynamics and PAM
37	Sarthak Nayak	1803050	Wipro	Wipro
38	Sayan Roy Basunia	1803051	Verzeo	Verzeo
39	Shivangi Dash	1803052	HighRadius Technologies	HighRadius Technologies
40	Shuvranil Dey	1803053	Andritz Hydro (P) Ltd	Andritz Hydro (P) Ltd
41	Sidhant Patnaik	1803054	Cognizant	Cognizant
42	Soubhagya Kar	1803055	Ernst & Young (EY)	Ernst & Young (EY)

43	Sourav Ghosh	1803058	Cognizant	Cognizant
44	Subhradip Mukherjee	1803059	Cognizant	Cognizant
45	Sudeshna Das	1803061	Cognizant	Cognizant
46	Aditya Arya	1803066	Tata Power Odisha DISCOMs	Tata Power Odisha DISCOMs
47	Akshat Tewary	1803068	Voltas Ltd	Voltas Ltd
48	Alok Mishra	1803069	Ernst & Young (EY)	Ernst & Young (EY)
49	Anmol Soni	1803073	Capgemini	Capgemini
50	Ashutosh Dubey	1803076	Akon Group of Industries	Akon Group of Industries
51	Ayush Anand	1803080	Cognizant	Cognizant
52	Bikramjit Gorai	1803082	Deloitte Salesforce	Deloitte Salesforce
53	Dipanjana Bhowmick	1803086	Capgemini	Capgemini
54	Harsh Kumar	1803087	HighRadius Technologies	HighRadius Technologies
55	Harshit Kumar	1803088	Cognizant	Cognizant
56	Himanshu Kumar Dhara	1803090	Nexturn Technologies	Nexturn Technologies
57	J Vishnu	1803091	HighRadius Technologies	HighRadius Technologies
58	Jaya Kumari	1803093	TPNODL	TPNODL
59	Jyotismoy Guchhait	1803094	Cognizant	Cognizant
60	Kumar Shivam	1803095	Climber knowledge and Careers (P) Ltd.	Climber knowledge and Careers (P) Ltd.
61	Mayank Shahabadee	1803096	Deloitte Salesforce	Deloitte Salesforce
62	Mitu Sarma	1803097	Capgemini	Capgemini
63	Prem Prakash Kumar	1803100	Johnson Tiles (H&R Johnson)	Johnson Tiles (H&R Johnson)
64	Raj Keshri	1803103	Cognizant	Cognizant
65	Saket Pathak	1803106	Cognizant	Cognizant
66	Sanglap Roy	1803109	Cognizant	Cognizant
67	Sayak Roy	1803111	Capgemini	Capgemini
68	Sharthak Singh	1803112	HighRadius Technologies	HighRadius Technologies
69	Shubhanjoy Biswas	1803114	Wipro	Wipro
70	Smrutiranjan Pradhan	1803115	Exicom	Exicom
71	Soumyajeet Sengupta	1803117	Turing Minds	Turing Minds
72	Srigovind Patnaik	1803118	Ericsson India Global Services	Ericsson India Global Services
73	Subham Rai	1803120	Verzeo	Verzeo
74	Subhankar Biswas	1803121	SkillVertex	SkillVertex

75	Vikash Kumar	1803124	Agelix Consulting	Agelix Consulting
76	Vishwas Maurya	1803125	Cognizant	Cognizant
77	Yuvraj Shekhar Gupta	1803126	Verzeo	Verzeo
78	Ashray Dey	1803127	Wipro	Wipro
79	Mayank Kumar	1803130	SkillVertex	SkillVertex
80	Mayank Dubey	1803131	Capgemini	Capgemini
81	Magna Panda	1803134	HighRadius Technologies	HighRadius Technologies
82	Aastha Kirti	1803135	Capgemini	Capgemini
83	Amit Kumar Ray	1803136	Verzeo	Verzeo
84	S Sivananda Dora	1803137	HighRadius Technologies	HighRadius Technologies
85	Raushan Kumar	1803138	Orissa Sponge Iron & Steel Ltd	Orissa Sponge Iron & Steel Ltd
86	Rishav Bhagat	1803144	AMNS(ArcelorMittal Nippon Steel India)	AMNS(ArcelorMittal Nippon Steel India)
87	Abhedya Shukla	1803145	HighRadius Technologies	HighRadius Technologies
88	Abir Ghosh	1803146	KPMG(Microsoft)	KPMG(Microsoft)
89	Aditi Srivastava	1803147	HighRadius Technologies	HighRadius Technologies
90	Anirban Khara	1803148	Ernst & Young (EY)	Ernst & Young (EY)
91	Avik Kundu	1803149	HighRadius Technologies	HighRadius Technologies
92	Ayushi Tripathy	1803150	HighRadius Technologies	HighRadius Technologies
93	Chandan Mishra	1803151	Oracle Financial Software Services	Oracle Financial Software Services
94	Dipankar Jana	1803152	Happiest Minds Technologies	Happiest Minds Technologies
95	Gautam Vijay	1803153	ION Group	ION Group
96	Himanshu	1803154	HighRadius Technologies	HighRadius Technologies
97	Jayabrata Karmakar	1803155	Tredence Analytics	Tredence Analytics
98	Krishna Sarkar	1803156	Tek Travel	Tek Travel
99	Meghdut Mandal	1803157	Autodesk	Autodesk
100	Muskaan Walia	1803158	Providence Global Center	Providence Global Center
101	Nilanjan Nandi	1803159	Digite Infotech	Digite Infotech
102	Nivish Verma	1803160	Legato	Legato
103	Piyush Kumar Singh	1803161	Mærsk Global Service Centres (India) Ltd.	Mærsk Global Service Centres (India) Ltd.
104	Preet Anurag	1803162	CradlePoint	CradlePoint
105	Sanurag Gupta	1803163	Cognizant	Cognizant
106	Sarbajit Baul	1803164	Cognizant	Cognizant
107	Sarthak Satpathy	1803165	Accenture	Accenture
108	Shivam Mittal	1803166	Accenture	Accenture

109	Shubham Rawat	1803167	TransUnion	TransUnion
110	Siladitya Dash	1803168	Deloitte USI Consulting	Deloitte USI Consulting
111	Sonam	1803169	Cognizant	Cognizant
112	Subhajit Mahanti	1803170	Deloitte USI Consulting	Deloitte USI Consulting
113	Sudhanshu Tewari	1803171	PhysicsWallah	PhysicsWallah
114	Swarnava Bhattacharyya	1803172	Wipro	Wipro
115	Vaibhav Sinha	1803173	KPMG(Digital Trust)	KPMG(Digital Trust)
116	Aayush Jaswani	1803174	Cognizant	Cognizant
117	Abhinav Srivastava	1803175	KPMG(Microsoft)	KPMG(Microsoft)
118	Abhishek Raj	1803176	KPMG(Oracle)	KPMG(Oracle)
119	Amit Kumar	1803177	Cognizant	Cognizant
120	Amlan Roy	1803178	HighRadius	HighRadius
121	Ananya Majumder	1803179	Capgemini	Capgemini
122	Aniket Kumar Gupta	1803180	Cognizant	Cognizant
123	Anirved Jha	1803181	Deloitte USI Consulting	Deloitte USI Consulting
124	Ankan Mukherjee	1803182	Robert Bosch	Robert Bosch
125	Ankit Raj	1803183	Jade Global Software	Jade Global Software
126	Ankita Kumari	1803184	Keka-Quality Analyst	Keka-Quality Analyst
127	Anmol Sinha	1803185	Wipro	Wipro
128	Anshul Chaudhary	1803186	Tredence Analytics	Tredence Analytics
129	Anubhav Mishra	1803187	Kaar Technologies	Kaar Technologies
130	Arkadeep Mitra	1803188	Ernst & Young (EY)	Ernst & Young (EY)
131	Ashutosh Sharda	1803189	HighRadius Technologies	HighRadius Technologies
132	Astha Kumar	1803190	HighRadius Technologies	HighRadius Technologies
133	Avi Mishra	1803191	HighRadius Technologies	HighRadius Technologies
134	Ayush Pandey	1803192	Ernst & Young (EY)	Ernst & Young (EY)
135	Ayush Jaiswal	1803193	Digit General Insurance	Digit General Insurance
136	Ayush Padia	1803194	HighRadius	HighRadius
137	Ayushi Kumari	1803195	Mphasis	Mphasis
138	Bishal Kumar Patel	1803196	Capgemini	Capgemini
139	Debalina Mazumder	1803197	Dell (PPO)	Dell (PPO)
140	Devtanu Majumder	1803198	Wipro	Wipro

141	Dia Mukherjee	1803199	HighRadius Technologies	HighRadius Technologies
142	Esha Singh	1803200	HighRadius Technologies	HighRadius Technologies
143	Harsh Chandra Jha	1803201	Deloitte USI Consulting	Deloitte USI Consulting
144	Ishika Bhaumik	1803202	Novartis	Novartis
145	Jyoteermaya Hota	1803203	Cognizant	Cognizant
146	Keshav Kumar	1803204	Capgemini	Capgemini
147	Khushi Yadav	1803205	Robert Bosch	Robert Bosch
148	Animesh Shukla	1903601	Collabera Services Ltd	Collabera Services Ltd
149	Kuntal Ghosh	1903602	Blue Star Ltd	Blue Star Ltd
150	Amlan Mohanty	1903606	SkillVertex	SkillVertex
151	Jagat Jyoti biswal	1903610	TPNODL	TPNODL

Assessment year(2020-21)(LYGm1):

Sl No	Student Name	Enrollment No	Employer Name	Appointment No
1	Ankit Karmakar	17059452346	Cognizant	Cognizant
2	Anshudip Karn	17059752349	Cognizant	14996337
3	Anuska Roy	17590157676	Accenture	Accenture
4	Ayush Singh	17060052352	Infosys	Infosys
5	Ayush Choudhary	17630558092	BYJU'S-Think and learn	BYJU'S-Think and learn
6	Barsha Dey	17590257677	Tata Power (TPWODL)	TPWODL/HR/2021/REC-426
7	Bhavesh Jaswal	17060152353	Wipro	Wipro
8	Deeptadeep Roy	17060252354	Infosys	Infosys
9	Diptanil Karmakar	17060352355	PIGEON TECHNOLOGY(Oda Class)(Allow)	PIGEON TECHNOLOGY(Oda Class)(Allow)
10	Emon Konwar	17630658093	Verzeo	Verzeo
11	Gaurav Kumar	17060452356	TCS(Ninja)-2	TCSL/DT20207197210/ KOLKATA
12	Sudhananda Pal	17060552357	Cognizant	Cognizant
13	Jeevan Jyoti Mekap	17060752359	BYJU'S-Think and learn(10.00)	BYJU'S-Think and learn(10.00)
14	Kanak Lata Kumari	17060852360	Tata Power DDL (PPO)	Tata Power DDL (PPO)
15	Manas Kumar	17061152363	Accenture	Accenture
16	Manish Kumar	17061452366	Verzeo	Verzeo
17	Neha Kundu	17061552367	DXC	DXC

18	Nitish Kumar Singh	17061752369	Accenture	Accenture
19	Rakesh Ranjan	17062252374	Infosys	HRD/3T/1001714408/21-22
20	Ranit Datta	17062352375	HCL Technology	HCL Technology
21	Rishav Anand	17062552377	Infosys	Infosys
22	Rishav Kumar Gupta	17062652378	Infosys	Infosys
23	Rohit Raj	17380555561	Trisys IT Services	Trisys IT Services
24	Saheb Ghosh	17062852380	Cognizant	Cognizant
25	Sanjib Kotal	17063052382	Cytiva	Cytiva
26	Saptamendu Roy	17063252384	Cognizant	14996355
27	Sarnajit Santra	17063352385	Cognizant	Cognizant
28	Satyam Bhanu	17063652388	Cognizant	Cognizant
29	Sayanjit Roy	17063752389	Capgemini	Capgemini
30	Shekhar Thakur	17063852390	Deloitte (USI Consulting)	Deloitte (USI Consulting)
31	Sibasish Pradhan	17064052392	Cognizant	Cognizant
32	Sneh Sparsh	17590357678	Cognizant	Cognizant
33	Soumita Pal	17064152393	DXC	DXC
34	Sourin Bisal	17590457679	BYJU'S-Think and learn	BYJU'S-Think and learn
35	Subhradeep Chowdhury	17064452396	PIGEON TECHNOLOGY(Oda Class)(Allow)	PIGEON TECHNOLOGY(Oda Class)(Allow)
36	Vivesh Singh	17064752399	Infosys	Infosys
37	Abhijeet Ghosh	17065052402	Cognizant	Cognizant
38	Shrideep Das	17065652408	Jindal Steel & Power Ltd.	Jindal Steel & Power Ltd.
39	Kumar Shubham	17649858285	Verzeo	Verzeo
40	Ishutosh Narayan	17065852410	Cognizant	Cognizant
41	Ritabrata Ghorai	17066252414	Cognizant	Cognizant
42	Abhigyan Punj	17066652418	DreamGains	DreamGains
43	Smruti Maharana	17066752419	Wipro	Wipro
44	Saswata Das	17067052422	Cytiva	Cytiva
45	Subhadip Roy	17067852430	BYJU'S-Think and learn	BYJU'S-Think and learn
46	Kaustubh Srivastava	17068552437	Wipro	Wipro
47	Pratik	17068652438	Verzeo	Verzeo
48	Raika Bhattacharya	17068752439	DXC	DXC

49	Shikha Kumari	17630758094	Verzeo	Verzeo
50	Amartya Aditya	17069052442	Verzeo -2	Verzeo -2
51	Akshay kumar singh	17069152443	Tata Power (TPWODL)	TPWODL/HR/2021/REC-422
52	Sagnik Chakraborty	17069252444	Deloitte(Digital)	Deloitte(Digital)
53	Anshula Thakur	17069452446	Accenture	C9282857
54	Lakshyajeet Pradhan	17535557125	Tata Power (TPWODL)	TPWODL/HR/2021/REC-431
55	Sanket Sanjay	17070452456	Cognizant	Cognizant
56	Parivesh Kurrey	17070652458	Verzeo	Verzeo
57	Mayank Verma	17535857128	Accenture	C9282858
58	Saswat Swayam Pragyan	17070752459	BYJU'S-Think and learn	BYJU'S-Think and learn
59	Arkarup Biswas	17590857683	Infosys	Infosys
60	Aakash Kumar	17070952461	Accentur	C9282861
61	Adarsh Joshi	17590957684	TechEra Knowledge and Careers(Allow)	TechEra Knowledge and Careers(Allow)
62	Akriti Nanda	17591057685	Capgemini	Capgemini
63	Aniket Raj	17071252464	Verzeo -2	Verzeo -2
64	Ankit Kumar	17071352465	Everest	Everest
65	Ankit Behera	17071452466	Infosys	Infosys
66	Anubhab ghosh	17649958286	BYJU'S-Think and learn	BYJU'S-Think and learn
67	Arghyadeep Deb	17071752469	Tata Power (TPWODL)	TPWODL/HR/2021/REC-424
68	Arkaprabha Mandal	17071852470	DreamGains	DreamGains
69	Arunangshu Banerjee	17071952471	Cognizant	14996443
70	Asif Ikbal	17650058287	Cognizant	14996444
71	Atul Kumar	17072152473	TCS(Ninja)-2	TCS(Ninja)-2
72	Atul Singh	17072252474	BYJU'S-Think and learn	BYJU'S-Think and learn
73	Ayaskanta Rout	17072352475	Accenture	Accenture
74	Bishnu Sankar Nandi	17072452476	Verzeo -2	Verzeo -2
75	Devaroon Bardhan Roy	17072652478	CRMNEXT-2nd Visit	CRMNEXT-2nd Visit
76	Divyendra Kumar	17072752479	Jindal Steel & Power Ltd.	Jindal Steel & Power Ltd.
77	Dwitipriya Ghosh	17591157686	Accenture	Accenture
78	Gourav Bhattacharjee	17676958576	Deloitte (USI Consulting)	Deloitte (USI Consulting)

79	Harshit Sharma	17072852480	Escort	Escort
80	Harshit Singh	17072952481	Verzeo	Verzeo
81	Jyotirmoy Maitra	17073052482	Capgemini	Capgemini
82	Jyotirmoy Pal	17073152483	Capgemini	Capgemini
83	Kundan Kumar	17073552487	Wipro	Wipro
84	Kushagra Agrawal	17073652488	Cognizant	Cognizant
85	Neel Ganguly	17074052492	ANDRITZ HYDRO Ltd.	ANDRITZ HYDRO Ltd.
86	Dewal Agrawal	17630958096	Verzeo	Verzeo
87	Prabhanshu Tripathi	17074152493	Tata Power (TPWODL)	TPWODL/HR/2021/REC-433
88	Raghav Dubey	17074352495	Wipro	Wipro
89	Raman Singh	17074452496	Cognizant	Cognizant
90	Rishav Kumar	17074552497	Cognizant	Cognizant
91	Hosan Mahapatra	17074652498	CRMNEXT-2nd Visit	CRMNEXT-2nd Visit
92	Sahil Sahu	17074752499	MUVI	MUVI
93	Sambit Priyadarshi Sarangi	17074852500	Infosys	Infosys
94	Saptadip Kundu	17075052502	Verzeo	Verzeo
95	Saumya Kanti Bandyopadhyay	17075152503	Verzeo	Verzeo
96	Sevanti Pal	17075252504	Wipro	Wipro
97	Shekhar Suman Rout	17075352505	CRMNEXT	CRMNEXT
98	Soumya Shreechandan Biswal	17075652508	Cognizant	Cognizant
99	Souranil Chakraborty	17075752509	Capgemini	Capgemini
100	Sourav Dutta	17075852510	Accenture	Accenture
101	Sudhanshu Ranjan	17076052512	Verzeo -2	Verzeo -2
102	Tiyasha Bandyopadhyay	17076352515	CBRE South Asia Pvt. Ltd	CBRE South Asia Pvt. Ltd
103	Tridip Konwar	17076452516	High-Technext Engineering	High-Technext Engineering
104	Saikat Mandal	17684358657	Cognizant	Cognizant
105	Shivanshu Singh	17076752519	Capgemini	Capgemini
106	Baibhav Raj	17076852520	Cognizant	Cognizant
107	Ratiranjan Behera	17077252524	Infosys	Infosys
108	Neha	17077452526	CBRE South Asia Pvt. Ltd	CBRE South Asia Pvt. Ltd
109	Sneha Das	17077552527	DXC	DXC

110	Aakanksha Kumari	17077752529	Verzeo	Verzeo
111	Rakesh Debnath	18649465288	Verzeo	Verzeo
112	Bishnu Kundu	18649565289	PIGEON TECHNOLOGY(Oda Class)(Allow)	PIGEON TECHNOLOGY(Oda Class)(Allow)
113	Atisha Mohanty	18004758824	CBRE South Asia Pvt. Ltd	CBRE South Asia Pvt. Ltd
114	Pratik Chatterjee	17287454626	Cognizant	Cognizant
115	Sourav Sinha	17287554627	HCL Technology	HCL Technology
116	Debaditya Mukhopadhyay	17287754629	Cognizant	Cognizant
117	Aditya Maheswari	17288054632	HighRadius	HighRadius
118	Dyutimoy Kumar	17288454636	Infosys	Infosys
119	Debanjali Nag	17579857568	HighRadius	HighRadius
120	Sneha Chakraborty	17288754639	DXC	DXC
121	Samarth Jajodia	17400055756	HighRadius	HighRadius
122	Sumitra Panda	17289254644	Accenture	C9307336
123	Avipsa Muskan Bal	17290154653	Infosys	Infosys
124	Rishika Priyam	17290254654	HighRadius	HighRadius
125	Sujaan Kumar	17636458151	HighRadius	HighRadius
126	Gauri Sachan	17290854660	Verzeo	Verzeo
127	Gargi Goel	17290954661	Accenture	Accenture
128	Pushpita Jyoti	17291054662	Accenture	Accenture
129	Pratyaya Roy	17291254664	Wipro	Wipro
130	Abhishek Mondal	17291454666	Accenture	Accenture
131	Saptami Das	17291654668	Accenture	Accenture
132	Dibyasa Ray	17291754669	Accenture	Accenture
133	Kaushik Saraiya	17292354675	HighRadius	HighRadius
134	Anmol Sharma	17292454676	Cognizant	Cognizant
135	Sreejon Samanta	17292554677	Accenture	Accenture
136	Atul Gupta	17292754679	Wipro	Wipro
137	Utkarsh Umang	17292954681	Accenture	Accenture
138	Rohan Khatwani	17293054682	Cognizant	Cognizant
139	Vanshu Johari	17400155757	Accenture	Accenture
140	Manish Rath	17293454686	HighRadius	HighRadius
141	Devendra Kumar	17293554687	TCS(Ninja)-2	TCS(Ninja)-2
142	Doyel Saha	17293754689	Accenture	Accenture
143	Aikansh Jain	17294054692	HighRadius	HighRadius
144	Animesh Pandey	17636558152	BYJU'S-Think and learn	BYJU'S-Think and learn
145	Pooja Bharti	17294254694	DXC	DXC
146	Shivam Kumar	17294454696	Wipro	Wipro
147	Snigdha Mukherjee	17294654698	HighRadius	HighRadius
148	Manish Panda	17294854700	Wipro	Wipro
149	Subhangi Swain	17295154703	HighRadius	HighRadius

150	Subhasis Saha	17295554707	Wipro	Wipro
151	Deepanshu Jayswal	17295754709	Accenture	Accenture
152	Sohini Kar	17295854710	DXC	DXC

Assessment year(2019-20)(LYGm2):

Sl.No	Student Name	Enrollment No	Name of Employer	Appointment no
1	Abhijit Kumar Das	16112246077	Wipro	Wipro
2	Aditi Patnaik	16112446079	Accenture	C8391800
3	Anurag Abhinav	16112746082	Accenture	C8391801
4	Arkao Prava Ghosh	16112846083	Ener Vision	Ener Vision
5	Bibhudatta Pradhan	16113146086	Accenture	Accenture
6	Chirashri Bhattacharya	16113246087	Accenture	Accenture
7	Debojit Dutta	16113446089	HCL	HCL
8	Hemant Kumar	16113846093	Global Archer	Global Archer
9	Ireena Singh	16113946094	Capgemini	Capgemini
10	Joydeep Karmakar	16114146096	Global Archer	GAC/REC/KIIT-Elec-5/2020-21
11	Karabi Bairagi	16605951037	Accenture	C8712149
12	Manjima Dutta	16114246097	Accenture	C8712150
13	Mayuresh Bhattacharjee	16114346098	CEAT	CEAT
14	Md Hanzala Ansari	16114446099	Global Archer	Global Archer
15	Narendra Nath Dubey	16114546100	Pristyn Care	Pristyn Care
16	Navojit Mondal	16114646101	Xcell Corp	Xcell Corp
17	Prateek Singh	16114846103	gRuhaps.com	gRuhaps.com
18	Priyambada Mangaraj	16115146106	Accenture	C8712151
19	Pujita Bhattacharjee	16115246107	HighRadius	HighRadius
20	Rishav Pathak	16115446109	Accenture	C8394296
21	Sayan Ghosh	16115546110	Cognizant	13949482
22	Shahbaz Alam	16115746112	DXC Technology	DXC Technology
23	Shrinjoy Gon	16115846113	DXC Technology	DXC Technology
24	Snehasish Ghosh	16116046115	Tata Power	Tata Power
25	Soumyajit Ram	16116146116	Aveva	Aveva
26	Sourav Brahma	16116346118	Wipro	Wipro
27	Srija Bhowmik	16116546120	RAO Edusolutions	RAO Edusolutions

28	Subhadip Kar	16116646121	HCL	HCL
29	Suparno Bandhu	16116746122	Accenture	Accenture
30	Swarnatrisha Saha	16116846123	Cognizant	Cognizant
31	Sweta Shekhar	16116946124	ITC Infotech	ITC Infotech
32	Yusuf Sk	16606151039	Global Archer	GAC/REC/2020-21
33	Abhijit Jasu	16608551063	Accenture	Accenture
34	Abhya Vishwakarma	16117046125	Accenture	Accenture
35	Annuaya Manoj.T	16117746132	DreamGain Financial Ltd.	DreamGain Financial Ltd.
36	Anurag Kumar Verma	16117846133	Jayaswal Neco	Jayaswal Neco
37	Anushka Upadhyay	16117946134	Capgemini	2588065/499493
38	Asmita Das	16118146136	Accenture	C8712152
39	Debadrita Ghosh	16118246137	Capgemini	Capgemini
40	Deep Prakash	16118546140	Global Archer	GAC/REC/2020-21
41	Divyanjal Kumar	16118646141	Cognizant	Cognizant
42	G.Rahul Rao	16118746142	Global Archer	Global Archer
43	Gourav Prakash Patra	16118846143	Shapoorji Pallonji	Shapoorji Pallonji
44	Gyandeep Hazarika	16118946144	Accenture	C8394297
45	Prasanta Paul	16119446149	DXC Technology	DXC Technology
46	Rajat Majumder	16119746152	DXC Technology	DXC Technology
47	Richa Singh	16119846153	Global Archer	Global Archer
48	Rishabh Singh	16587050840	Accenture	C8391807
49	Rounak Dey	16119946154	Xcell Corp	Xcell Corp
50	Saikat Maity	16120146156	HCL 2nd Visit	HCL 2nd Visit
51	Sajid Islam Mondal	16120246157	GR Infraprojects	GR Infraprojects
52	Sayan Laha	16120346158	Wipro	Wipro
53	Sayantan Hati	16120446159	DXC Technology	DXC Technology
54	Sayed Zulfiquar Haider	16120546160	Capgemini	Candidate ID-2585870/544855
55	Shreya Mukherjee	16120846163	Gyansys	Gyansys
56	Shubhayu Gupta	16121046165	Deloitte USI Consulting	Deloitte USI Consulting
57	Siddharth Kumar Mishra	16121146166	Gyansys	Gyansys
58	Sougata Seth	16121246167	Cognizant	Cognizant
59	Srobonti Pal	16121446169	Highradius	Highradius

60	Subhrajyoti Ghosh	16121546170	Accenture	Accenture
61	Supriyo Nag	16606451042	Global Archer	GAC/REC/2020-21
62	Swapnil Majee	16121946174	Tata Power	Tata Power
63	Tridib Mukherjee	16122046175	Tata Power	Tata Power
64	Abhishek Pradhan	16122346178	Wipro	Wipro
65	Aditi Gupta	16122446179	Xcell Corp	Xcell Corp
66	Ananya Goswami	16122646181	Cognizant	Cognizant
67	Arka Das	16558250547	Tata Power	Tata Power
68	Ashish Raj Gupta	16123046185	Edupolics	Edupolics
69	Baisali Mukherjee	16123146186	DreamGain Financial Ltd.	DreamGain Financial Ltd.
70	Bharatrendra	16123246187	Extramarks	Extramarks
71	Bhaskar Shaw	16123346188	Gyansys	Gyansys
72	Chindrella Kashyap	16123446189	Accenture	Accenture
73	Deepak Kumar	16123546190	Simplex Infrastructures	Simplex Infrastructures
74	Gaurab Paul	16123646191	GR Infraprojects	GR Infraprojects
75	Gurudeep Samantaray	16123746192	Wipro	Wipro
76	Ichha Roy	16123946194	Accenture	Accenture
77	Kaustav Das	16124046195	Accenture	c8391812
78	KUMAR SAURAV RAJ	16124146196	Global Archer	Global Archer
79	Mrityunjoy Bhattacharya	16558450549	Wipro	Wipro
80	omkar mittal	16124346198	Global Archer	Global Archer
81	Preetam Kumar Giri	16124446199	Highradius	Highradius
82	Ritik Raj	16124646201	Climber	Climber
83	Saikat Manna	16124746202	Collabera Services Ltd.	Collabera Services Ltd.
84	SANCHITA DAS	16124946204	Decathlon Full Time	Decathlon Full Time
85	Saurabh Kumar Baghel	16125046205	Tata Power	Tata Power
86	Sayantani Adak	16125146206	Tata Power	Tata Power
87	Sheershendu Kishorbhattacharjee	16125346208	Cognizant	13949487
88	Shubhrajit Deb Barman	16125446209	Edupolics	Edupolics
89	Siddhant Mishra	16125546210	Accenture	Accenture
90	Siddharth Goutam	16125646211	Samsung Heavy	Samsung Heavy
91	Simran	16558650551	Extramarks	Extramarks

92	Snigdha Roy	16125746212	Accenture	C8712156
93	Soumya Ranjan Dash	16125946214	Global Archer	Global Archer
94	Soumyajit Banerjee	16126146216	Simplex Infrastructures	Simplex Infrastructures
95	Sourasis Chattopadhyay	16126246217	Global Archer	Global Archer
96	Srijit Basu	16126446219	Collabera Services Ltd.	Collabera Services Ltd.
97	Subhash	16126546220	GR Infraprojects	GR Infraprojects
98	Sumesh	16126646221	Extramarks	Extramarks
99	Suraj Kumar	16126746222	Toppers	Toppers
100	Varun Vineet	16126846223	ITC Agri	ITC Agri
101	YASH ANAND	16126946224	Ener Vision	Ener Vision
102	Zeeshan Shovan	16127046225	Capgemini	Capgemini
103	Abhishek Kumar	16558750552	DXC Technology	DXC Technology
104	Aditya Roy	16127246227	Global Archer	GAC/REC/2020-21
105	Ankan Ghosh	16127346228	Accenture	Accenture
106	Aparna Gupta	16127546230	Alstom	Alstom/S788/sridity/67237/2019-20
107	Dalton Mahato	16128046235	Accenture	Accenture
108	Debraj Mondal	16128246237	Gyansys	Gyansys
109	Deepshikha Chakraborty	16606551043	Accenture	Accenture
110	Dharmendra Singhyadav	16128346238	Cognizant	13949426
111	Diganta Deshmukh	16128446239	Wipro	Wipro
112	Himangka Duarah	16128546240	Accenture	Accenture
113	Ishan Khatri	16128746242	Accenture	Accenture
114	Nilanjan Mitra	16129246247	Simplex Infrastructures	Simplex Infrastructures
115	Prasun Mukhopadhyay	16129346248	Highradius	Highradius
116	Pratik Ghosh	16129446249	Highradius	Highradius
117	Rudrendu Chakraborty	16130046255	Simplex Infrastructures	Simplex Infrastructures
118	Sagardeep Das	16130146256	Accenture	Accenture
119	Saptarshi Mukherjee	16130246257	Capgemini	Capgemini
120	Shubhankar	16558850553	Shapoorji Pallonji	Shapoorji Pallonji
121	Smruti Ranjan Mohapatra	16130746262	Highradius	Highradius
122	Sourav Saha	16130946264	Accenture	Accenture

123	Sreyashi Saha	16131046265	Accenture	Accenture
124	Subarna Adak	16131146266	HCL	HCL
125	Subhrajit Dutta	16131346268	Highradius	Highradius
126	Swapnadip Ray	16131646271	Maithon Power limited	Maithon Power limited
127	D Sshubham	16132046275	Cognizant	Cognizant
128	Devadarsi Devasis	16132146276	Capgemini	Capgemini
129	Rajdeep Dhar	16132346278	DXC Technology	DXC Technology
130	Priyadarshini Das	16132546280	Capgemini	Capgemini
131	Upasana Pradhani	16132746282	Capgemini	Capgemini
132	Amit Kumar	17400855764	Extramarks 2nd Visit	Extramarks 2nd Visit
133	Debidatta Mallick	17003851790	Accenture	Accenture
134	Suranjan Das	17004151793	HUL	HUL
135	Niti Singh Goutam	16345548410	Wipro	Wipro
136	Pallav Srivastava	16345648411	HighRadius	HighRadius
137	Pratyashi Chowdhury	16345748412	Accenture	Accenture
138	Pujan Kumar Patel	16345848413	HighRadius	HighRadius
139	Rahul Pandey	16345948414	Accenture	Accenture
140	Rishav Raj	16346048415	Accenture	Accenture
141	Rittika Baksi	16346148416	Wipro	Wipro
142	Rituparna Mazumder	16346248417	Capgemini	Capgemini
143	Rohit Sain	16346348418	Wipro	Wipro
144	Sagnik Chakraborty	16346448419	Highradius	Highradius
145	Salma Mondal	16346548420	Accenture	Accenture
146	Sameeksha Nanda	16649751494	Deloitte USI Consulting	Deloitte USI Consulting
147	Sangeeta Padhy	16346648421	Wipro	Wipro
148	Sarfaraz Hussain	16346748422	Highradius	Highradius
149	Satwak Satpathy	16562150586	Accenture	Accenture
150	Shanaya Zafar	16346848423	Highradius	Highradius
151	Shivam Bhardwaj	16346948424	Accenture	Accenture
152	Shruti Mishra	16347048425	Accenture	Accenture
153	Shyamal Kumar	16347148426	Accenture	Accenture
154	Somsuvro Mandal	16347248427	Accenture	Accenture
155	Soumyajyoti Kundu	16347348428	Wipro	Wipro
156	Souvik Das	16347448429	Accenture	Accenture
157	Sukarna Nandy	16638751367	Accenture	Accenture
158	Surya Prakash Mohanty	16347548430	Highradius	Highradius
159	Swapnil Tripathi	16347648431	Highradius	Highradius
160	Yashraj Baruah	16347748432	Accenture	Accenture

Assessment year(2018-19)(LYGm3):

Sl NO	Name of the student	Enrollment No	Name of Employer	Appointment No.
1	Abhishek Ranjan	15106939196	Cognizant SLPP	Cognizant SLPP
2	Akansha Tripathy	15107039197	Extra Marks	Extra Marks
3	Akshat Choudhary	15107139198	Mphasis	Mphasis
4	Aman Todi	15107239199	High Radius Technologies	High Radius Technologies
5	Amlan Das	15107339200	Wipro	Wipro
6	Ankhi Chakraborty	15107539202	TSPDL	TSPDL
7	Ankit Sahu	15107639203	Adani Wilmar	AWL/ Campus/offer letter/GET/2019 /7
8	Arnab Chattopadhyay	15108139208	Wipro	Wipro
9	Dibyalochan Samantaray(Allow Other Company)	15108539212	Ener Vision	Ener Vision
10	Ekta Debnath	15108639213	Chola MS	Chola MS
11	Garima Singh	15108739214	Tech Mahindra	Tech Mahindra
12	Harsh Chandra	15654744699	Collabera	Collabera
13	Kamna Sinha	15108839215	Artech	Artech
14	Kumar Raj	15109039217	Wipro	Wipro
15	Manjeet Baral	15109339220	Grinity	Grinity
16	Nandita Nayak	15109539222	Wipro	Wipro
17	Nayara Faruque	15109639223	My Perfectice (Operations)	My Perfectice (Operations)
18	Neelanjana Das	15109739224	Cognizant	Cognizant
19	Pallavi Roy	15109939226	Deloitte (Advisory)	Deloitte (Advisory)
20	Parthana Das	15110139228	Wipro	Wipro
21	Payasti Aich	15110239229	Wipro	Wipro
22	Prachi Pragya	15110439231	Cognizant	12485600
23	Pradip Kumar Singh	15110539232	Full Creative	Full Creative
24	Rishab Agarwal	15110939236	Wipro	Wipro
25	Rohit R Nair	15111039237	TCS	TCS
26	Sagar Roy	15555243690	Cognizant	Cognizant
27	Sakshi Agrawal	15111139238	TCS	TCS
28	Sambit Rout	15111239239	Infosys.	HRD/3T/19-

				20/12688775
29	Shakha Mohanty	15111639243	Collabera	Collabera
30	Shardul Gunjal	15111739244	Collabera	Collabera
31	Shourya Sengupta	15111839245	Lancesoft	Lancesoft
32	Shubham	15111939246	Essar Power	Essar Power
33	Shubham Raj Singh	15112039247	Infosys.	HRD/3T/19-20/12688777
34	Shubham Singh	15112139248	Wipro	Wipro
35	Sidharth Sahoo	15112239249	Citrix	Citrix
36	Soumit Mohanty	15112439251	Wipro	Wipro
37	Soumyajit	15112539252	Tech Mahindra	Tech Mahindra
38	Sourin Panda	15555443692	Cognizant	Cognizant
39	Sreya Munshi	15112639253	Essar Power	Essar Power
40	Srijee Biswas	15112739254	Lancesoft	Lancesoft
41	Sumona Bhattacharjee	15113039257	TCS	Ref: TCSL/CT20182539721/KOLKATA
42	Swapneel Das	15113239259	Jaro Education	Jaro Education
43	Sweta Roy	15113339260	Infosys	HRD/3T/19-20/12688778
44	Titly Saha	15625444394	Cognizant	12485877
45	Utkarsh Rana	15113439261	Cognizant	12485880
46	Abhijeet Parida	15113739264	Vaaman Engg	Vaaman Engg
47	Abhisek Acharya	15113839265	Just Dial (Only for Eastern zone Posting)	Just Dial (Only for Eastern zone Posting)
48	Aditya Sinha	15114239269	Infosys	HRD/3T/19-20/12688780
49	Ajay Singh	15555643694	Britania	Britania
50	Akash Adak	15114339270	Cognizant	12485698
51	Amarjyoti Gogoi	15555743695	Infosys.	Infosys.
52	Ankita Bhattacharya	15114939276	Tech Mahindra	Tech Mahindra
53	Ankur Kumar Singh	15115039277	Diageo	Diageo
54	Anurag Swain	15115139278	Collabera	Collabera
55	Arko Roy	15115239279	Wipro	Wipro
56	Belal Hasan Khan	15115539282	Infosys.	Infosys.
57	Bikash Jha	15115639283	Essar Power	Essar Power

58	Devesh Shukla	15115839285	Tata Projects	TPL/2005/197
59	Divyanshu Pandey	15115939286	Wipro	Wipro
60	Gargee Sarkar	15116039287	Lancesoft	Lancesoft
61	Gourav Pandey	15116239289	Cognizant SLPP	12995521
62	Himanshu Raj	15116339290	Essar Power	Essar Power
63	Jishnu Pal	15555843696	Wipro	Candidate Id-12485778
64	Kannagi Kumari	15116439291	Essar Power	Essar Power
65	Manas Ranjan Pramanik	15116639293	Tech Mahindra	Tech Mahindra
66	Nandita Ghosh	15116839295	Cognizant	Cognizant
67	Niladri Chaudhury	15116939296	Ener Vision	Ener Vision
68	Niranjan Chakravarty	15117039297	Cognizant	Candidate Id-12485804
69	Prerna Sharma	15117339300	Cognizant	Cognizant
70	Raju Gupta	15117539302	Just Dial (Only for Eastern zone Posting)	Just Dial (Only for Eastern zone Posting)
71	Renu Singh	15117639303	Capgemini	Capgemini
72	Sagarika Banik	15117839305	CGI 2nd Visit	CGI 2nd Visit
73	Sakshi Kumari	15117939306	Sterling & Wilson	HR/19-20/24369
74	Sambit Gupta	15118039307	Wipro	Wipro
75	Satwik Pattanayak	15118239309	Cognizant	Cognizant
76	Shalini Biswas	15118639313	Wipro	Wipro
77	Shiv Shankar	15118739314	Capgemini	Capgemini
78	Shivangi Sinha	15118839315	Net2Source	Net2Source
79	Shreya Nandy	15645544598	Deloitte (Advisory)	Deloitte (Advisory)
80	Shubham Bharadwaj	15118939316	Wipro	Wipro
81	Shubham Sharma	15119039317	Hind Rectifier(Sure)	Hind Rectifier(Sure)
82	Siddharth Singh	15625544395	Wipro	Wipro
83	Souvik Nayak	15556043698	Wipro	Wipro
84	Sreya Mukherjee	15119339320	Infosys	HRD/3T/19-20/12688786
85	Sudhanshu Shekhar Panda	15119539322	Infosys.	Infosys.
86	Swarajdeep Saha	15119739324	HSBC (Striker)	HSBC (Striker)
87	Syed Ashiyan Ahmad	15120039327	Wipro	Wipro
88	Tanya Dayal	15120139328	Cognizant	Cognizant

89	Abhijeet Patro	15120439331	Tech Mahindra	Tech Mahindra
90	Aishani Das	15121039337	Infosys.	HRD/3T/19-20/12688790
91	Amrut Kumar Panda	15121239339	Infosys.	Infosys.
92	Ananya	15121339340	Just Dial (Only for Eastern zone Posting)	Just Dial (Only for Eastern zone Posting)
93	Anjali Kumari	15121439341	Capgemini	Capgemini
94	ANUBHAV DEY	15121539342	Just Dial (Only for Eastern zone Posting)	Just Dial (Only for Eastern zone Posting)
95	Anusha Jana	15121639343	2nd Visit Artech	2nd Visit Artech
96	Arghadip Chaudhuri	15121739344	Infosys.	Infosys.
97	Avantika Mohan	15121939346	Collabera	Collabera
98	Ayush Prakash	15122039347	Tech Mahindra	Tech Mahindra
99	Chirag Bose	15122139348	Wipro	Wipro
100	Ekta	15122239349	Extra Marks	Extra Marks
101	Harsh Bisen	15653944690	Tech Mahindra	Tech Mahindra
102	K. Anwesh Patra	15122339350	Eduvirtuso	Eduvirtuso
103	Kanchan Chhotelal	15122439351	TCS	Ref. TCSL/CT2018/2551903/KOLKATA
104	Kaushik Chatterjee	15122539352	Wipro	Wipro
105	Moumita Roy	15122939356	TSPDL	TSPDL
106	Nikita Kashyap	15123039357	Collabera	Collabera
107	Prateeksha Bohidar	15123139358	Clear tax	Clear tax
108	Purvi Mishra	15123339360	Carrier Midea	Carrier Midea
109	Rajlaxmi Swain	15123439361	Citrix	Citrix
110	Ritankar Talukdar	15123539362	Infosys.	HRD/3T/19-20/12688798
111	Saif Islam	15123939366	Wipro	Wipro
112	Sauparna Bairagi	15630944449	Wipro	Wipro
113	Sayani Chatterjee	15124239369	Tata Power	Tata Power
114	Shalini Dey	15124339370	Deloitte (USI - Consulting)	Deloitte (USI - Consulting)
115	Shatadruti Duttagupta	15124439371	Jaro Education	Jaro Education
116	Shivam Kumar	15124539372	Wipro	Wipro
117	Shobhan Banerjee	15124639373	Deloitte (USI - Consulting)	Deloitte (USI - Consulting)

118	Shrey Sharma	15124739374	Mphasis	Mphasis
119	Shreya Sinha	15596144099	Essar Power	Essar Power
120	Shuvam De	15124839375	Vaaman Engg	Vaaman Engg
121	Soham Bhattacharya	15124939376	Zentron Labs	Zentron Labs
122	Priyanka Ghosh	15125039377	Collabera	Collabera
123	Sourav Dhal	15125139378	Tech Mahindra	Tech Mahindra
124	Subhajit Pattanaik	15125339380	Tech Mahindra	Tech Mahindra
125	Sunandita Chaudhuri	15125539382	Highradius	Highradius
126	Sunipa Samanta	15631044450	TCS	Ref. TCSL/DT20184 566401/KOLKA TA
127	Tanisha Das	15125739384	Citrix	Citrix
128	Abhisek Mohanty	15125839385	Infosys.	HRD/3T/19-20/12688803
129	Abhishek Na	15125939386	Wipro	Wipro
130	Abhishek Anand	15126039387	Wipro	Wipro
131	Abhishek Anand	15126139388	Ener Vision	Ener Vision
132	Abinash Mishra	15126239389	Collabera	Collabera
133	Anamika Das	15126539392	Mu-Sigma	Mu-Sigma
134	Anantika Chakraborty	15126639393	Lancesoft	Lancesoft
135	Angana Majumder	15126739394	Mu-Sigma	Mu-Sigma
136	Anijita Pandit	15126839395	Cognizant	Cognizant
137	Anindam Datta	15126939396	Cognizant	Cognizant
138	Anjali Pandey	15127039397	Cognizant	1234670
139	Anjishnu Dasgupta	15127139398	Wipro	Wipro
140	Anubhav Mohanty	15127239399	Deloitte (Advisory)	Deloitte (Advisory)
141	Ashutosh Nayak	15127439401	Mu-Sigma	Mu-Sigma
142	Aveek Manna	15127539402	Eduvirtuso	Eduvirtuso
143	Ayushi Singh	15127639403	Tech Mahindra	Tech Mahindra
144	Debangana Chakraborty	15127739404	Cognizant	Cognizant
145	Himanshu Tripathi	15127939406	Wipro	Wipro
146	Nabina Goswami	15127839405	Wipro	Wipro
147	Narottam Das	15128139408	Wipro	Wipro
148	Ponnadaprakash Rao	15556343701	Wipro	Wipro

149	Pranjal Mehrotra	15128739414	Wipro	Wipro
150	Pratik Singh	15128939416	Byju's	Byju's
151	Priyajit Patra	15129039417	Wipro	Wipro
152	Subhashree Sarangi	15129239419	Collabera	Collabera
153	Ratnesh Kumar Tiwary	15596244100	Wipro	Wipro
154	Rituparna Dani	15129439421	Deloitte (Advisory)	Deloitte (Advisory)
155	Shaiwal Singh	15129739424	Rockwell Automoation	Rockwell Automoation
156	Sitaparna Roy	15130339430	Lancesoft	Lancesoft
157	Sneha Das	15130439431	Cognizant	Cognizant
158	Sneha Sinha	15130539432	Collabera	Collabera
159	Soaham Ganguly	15130639433	Wipro	Wipro
160	Sreejita De Sarkar	15130839435	Cognizant	Cognizant
161	Srijan Pandey	15130939436	Wipro	Wipro
162	Sukanya Sen	15131139438	Wipro	Wipro
163	Suraj Rout	15131239439	Wipro	Wipro
164	Sweta Singhal	15634444484	Cognizant	Cognizant
165	Akanksha Kumari	15131939446	Mphasis	Ref. No-MPHTH2019-0456
166	Akanksha Nikita Khalkho	15132039447	Wipro	Wipro
167	Akashdeep Nandi	15132139448	Infosys	HRD/3T/19-20/12688812
168	Aman Kumar	15132239449	Just Dial (Only for Eastern zone Posting)	Just Dial (Only for Eastern zone Posting)
169	Aniruddha Karmakar	15132539452	Vaaman Engg	Vaaman Engg
170	Ankita Roy	15132639453	TCS	TCS
171	Anwesha Panda	15132839455	HFFC	HFFC
172	Anwesha Saha	15132939456	Lancesoft	Lancesoft
173	Ashank Singh	15654044691	Wipro	Wipro
174	Avinash Sahu	15133239459	RDC Concrete	RDC Concrete
175	Ayush Kumar Pushkar	15133339460	Collabera	Collabera
176	Buddharoop Giri	15133639463	CGI 2nd Visit	CGI 2nd Visit
177	Chhavi Priya	15133739464	Infosys	HRD/3T/19-20/12688815
178	Debi Roy	15133839465	Asahi India Glass Ltd.	Asahi India Glass Ltd.

179	Dharmanshu Deshmukh	15133939466	Mu-Sigma	Mu-Sigma
180	Himanshu Pandey	15134039467	Infosys.	Infosys.
181	Abhinaba Bhattacharjee	16007645025	Cognizant	Cognizant
182	Anubhav Das	16007745026	Infosys.	HRD/3T/19-20/12688865
183	Pranjit Das	16008045029	Pie Infocomm	Pie Infocomm
184	Sagarjit Adhikari	16008245031	Sterling & Wilson	Sterling & Wilson
185	Shobek Das	16555850523	Pie Infocomm	Pie Infocomm
186	Sohini Sen	16607651054	Tech Mahindra	Tech Mahindra
187	Subrajit Sen	16008645035	Lancesoft	Lancesoft

4.5 Professional Activities (20)

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

Professional societies of school of Electrical Engineering are as follows:

Sl no.	Name of the society	Position held	Name of the faculty/student
1	Students Chapter of IEEE Industrial Electronics society	Student Branch Advisor	Prof. Kundan kumar
		Student Branch Counselor	Prof. Subhendu Bikash Santra
		Student Branch Chapter chair	Mr.A. Das
		Member	Students
2	Students Chapter of IEEE Power and Energy society	Student Branch Advisor	Prof. Satyaranjan jena
		Student Branch Counselor	Prof. Subodh Kumar Mohanty
		Student Branch Chapter chair	Mr. Prasad Ranjan Ghosh
		Member	Students
3	IEEE IES Odisha chapter	Chair	Prof. Chinmoy kumar Panigrahi(KIIT DU)
		Joint secretary	Prof. Ranjeeta Patel(KIIT DU)
		Member	Faculties of our university
4	IET Student chapter	Faculty Coordinator	Prof. Rudra Narayan Dash
		Student Coordinator	Prof. Tapas Roy
		Member	Faculties and

			students

5	**NSS**	**Programme officer**	**Prof. Snehalika**
		Member	**Faculties and students**

6	**YRC**	**Counsellor**	**Prof. Tanmoy Roy Choudhury**
		Counsellor	**Prof. Chitralekha jena**
		Member	**students**

Some of the activities of the society are given below:

1	**KIIT Electrical Society** The official Electrical Society of KIIT has the aim to design and develop state of the art electrical products, with distinctive characteristics and to promote social and intellectual benefits.It also intent to direct the knowledge and interest towards research activities involving robotics and interdisciplinary domain.It is no doubt the hardest but a great path to follow. It has missions to develop a sustainable learning culture among students, to train students to think critically and encourage their creativity and to motivate students to go across borders and explore new technologies. To encourage product oriented work

Sl. No.	**Name of the events**	**Date of event**	**Number of participants**
i	Konnect 2.0 on Microcontrollers, Big Data and Metaverse, Ogranized by: KIIT Electrical Society (KES)	03.09.2022	127
ii	KIIT Electrical Society(KES), KIIT University organized its first offline event in the new normal, KES Konnect 1.0: ML with robotics seminar.	15.05.2022	130
iii	KES Alumni connect talk by Mr.Akash Roy Choudhary, currently working in JLNPHENIX ENERGY PVT. LTD.	09/04/2022	43
iv	KES Seminar on " Application	05/03/2022	89

	of power electronic drives in industry" (Virtual platform) by Mr.Shaon Kanti Bera, Manager,Centre of Excellence for Power Electronics in BHEL.		
v	Tech Expo by KES (Virtual platform)	26/02/2022 & 27/02/2022	150
vi	Technical exhibition of projects by KES	02.11.2019	56
2	**NSS Unit (consisting of 200 NSS Volunteers)**		
Sl.No	**Name of the Event**	**Date of Event and Venue**	
i	Violence against Women (An awareness to fight against violence)	14.09.2018 Government School near Nandankanan,Patia, Bhubaneswar	
ii	DaanUtsav (An initiative of distributing the essentials for daily usage)	17.11.2018 Slum area near RawaAcademy orphange	
iii	Pakdam Pakdai (Promoting Healthy Living through field games)	22.09.2019 Campus 15, A-Block, Kabaddi Ground	
iv	DaanUtsav (An initiative of distributing the essentials to the needy)	04.02.2020-06.02.2020 Slum area near RawaAcademy orphange	
v	NSS Special camp 2020 (An initiative to promote healthy living through cleaning the school under Swachh Bharat)	05.02.2020 Rangamatia, Mancheswar,Bhubaneswar	
vi	NSS Special camp 2020 (An initiative to promote healthy living and Green India Mission through planting tree saplings)	06.02.2020 Rangamatia, Mancheswar, Bhubaneswar	
vii	NSS Special camp 2020 (An initiative of Promoting awareness and Healthy Lifestyle through campaigning	09.02.2020 Dasaraja Basti, Bhubaneswar	

	followed by Lunch of 100+ students).	
viii	Fit India Movement (An initiative to encourage people to include physical activity and sports in their everyday lives)	15.08.2020-02.10.2020
ix	Art Mela (An initiative to promote Fit India, Clean & Green India, Atmanirbhar Bharat and also to encourage the students to be active in this pandemic scenario through Drawing competition)	28.08.2020 Virtual Platform
x	Art Mela (An initiative to promote Fit India, Clean & Green India, Atmanirbhar Bharat and also to encourage the students to be active in this pandemic scenario through Poster making competition)	24.08.2020 Virtual Platform
xi	Art Mela (An initiative to promote Fit India, Clean & Green India, Atmanirbhar Bharat and also to encourage the students to be active in this pandemic scenario through Photography making competition)	26.08.2020 Virtual Platform
xii	Plantation Drive (An plantation drive to make surrounding green and healthy)	14.03.2021 (Virtually in their own location)
xiii	Orientation and Recruitment of new NSS volunteers (An initiative to provide a platform to the students for social welfare through organizing a recruitment drive)	29.08.2020 (Virtual platform)
xiv	NSS Electrical Challenges (Challenge Yourself)	14.08.2020-28.09.2020 (Virtual Platform)
xv	Fit India Movement (Yoga For Easy Living In A Busy Life)	03.10.2020 (Virtual Platform)
xvi	Being Someone's Secret Santa (An initiative of distributing the essentials for daily usage to the needy on the eve of	25.12.2020 (Slum Area)

	Christamas and becoming someone's secret Santa)	
xvii	Tika Utsav(Distribution of Masks and Motivating eligible people to get vaccinated)	14.04.2021 (Slum Area)
xviii	Feel Yoga To Heal (initiative to promote healthy living during the prevailing COVID-19 pandemic through an Online Yoga Event)	21.06.2021 (Virtual Platform)
xviv	Swachta Pakhwada	24.07.2021 (Near their surrounding places)
xvv	Swachhata Pakhwada (Fortnight) (Cleanliness is next to Godliness)	09.08.2021 (Home state)
xvvi	Plantation Drive	04.08.2021 (Berhampur, Odisha)
xvvii	Bezubaan (Feed the Voiceless)	21.09.2021-28.09.2021 Respective home premises
xvviii	Plogging (To clean Mother nature and also create awareness)	28.11.2021 (Shikhar Chandi, Patia, Bhubaneswar)
xvix	Every Day Counts (7 Days Challenge	01.10.2021 (Virtual Platform)
xvx	Plogging	11.10.2021 Simli waterfall, Nayagarh
xvxi	Plogging	26.12.2021 Trisulia Bridge, Cuttack

3	**Students Chapter of IEEE Industrial Electronics Society** Student Branch Chapter formed on November 7, 2017 is continuously working to inspire its member to innovate for the betterment of the Institution through highly cited publications, conferences, technology standards, and professional and educational activities.Students here are working beyond geographic boundaries on various projects and have been to different International Platforms for the paper presentations.		
Sl no.	**Name of the event**	**Date of Event and Venue**	**No of Participant**
i	One day meet up on the Benefits of being a member of IEEE and Planning the Future Roadmap for KIIT-IEEE Student Branch Chapter	02.12.2017 Campus 3, Block-A, Conference Hall, KIIT Deemed to be University	30
ii	One Day Workshop on 3D Printing and	20.12.2017 Campus 3,	40

	Product Design	Block-A, SOEE, KIIT Deemed to be University	
iii	One Day Workshop on Introduction to Internet of Things (IoT)	29.03.2018 Campus 3, Block-B, SOEE, KIIT Deemed to be University	50
iv	One-day workshop on Smart Grid Issues and Challenge	13.04.2018 Campus 3, Block-A, SOEE, KIIT Deemed to be University	30
v	Innovations in Electrical, Electronics & Communication Engineering-ICRIEECE	27.04.2018 to 29.04.2018 Campus 6, Auditorium, KIIT Deemed to be University	450
4	**Youth Red Cross Society**		

Sl no.	**Name of the event**	**Date of Event and Venue**
i	INTERSTATE YOUTH RED CROSS STUDY CUM TRAINING CAMP-2018	25^{th} – 30^{th} December 2019 KIIT Deemed to be University, Bhubaneswar
ii	NUKKAD NATAK ON GENDER EQUALITY AND SUPERSTITIONS AT RAILWAY STATION	17.09. 2019 Bhubaneswar Railway station
iii	CLOTHES DISTRIBUTION TO SLUMS	22.09.2019 Sampark Vihar ,Lane -2, Aryapalli
iv	OLD AGE HOME VISIT AND SOCKS AND FRUITS DISTRIBUTION	07.12.2019 Shri Krishna Old Age Home
v	MULTIPLE AWARENESS POSTER AGAINST CORONA VIRUS AND ITS PREVENTIVE MEASURE; BLOOD DONATION MYTHS AND FAQs; AND ON RARE BLOOD GROUPS	06.04.2020 Virtual
vi	RELIEF CAMPS FOR MIGRANT WORKERS AMIDST LOCKDOWN 1.0	15.04.2020

vii	VIDEOS ON HOW TO MAKE A FACE MASK, AND ON PROTECTIVE MEASURES AGAINST CORONAVIRUS WAS MADE	19.04.2020 Virtual
viii	AWARENESS EVENT AGAINST CORONAVIRUS WAS ORGANISED THROUGH A GLOBAL ONLINE PAINTING COMPETITION	12.05.2020 Virtual
viv	AWARENESS ON SAY NO TO PLASTICS	25.08.2020 Virtual
vv	PROBLEMS FACED BY POOR PEOPLE AND DAILY WAGE WORKERS AMID COVID PANDEMIC AND AWARE PEOPLE HOW TO HELP THEM IN EVERY SMALL POSSIBLE WAY	02.10.2020 Virtual
vvi	AWARENESS ON MENTAL HEALTH	10.10.2020 Virtual
vvii	AWARENESS ON GENDER EQUALITY	03.11.2020 Virtual
vvii	AWARENESS ON “VOCAL FOR LOCAL” DURING DIWALI 2020	12.11.2020 Virtual
vviii	AWARENESS ON “HAR GHAR SHIKSHA, GHAR GHAR SHIKSHA”	27.11.2020 Virtual
vviv	CHRISTMAS CAROL PREPARED BY YRC VOLUNTEERS	25.12.2020 Virtual
vvv	NEW YEAR DANCE COVER FOR THE REFRESHMENT OF ITS OWN VOLUNTEERS	01.01.2021 Virtual
vvvi	ROAD SAFETY AWARNESS	04.02.2021 Bhubaneswar
vvvii	VISIT TO SHELTER HOME FOR WOMEN TO CELEBRATE WOMEN’S DAY	08.03.2021

vvviii	AWARENESS ON “STOP VIOLENCE AGAINST DOCTORS”	01.07.2021 Virtual
vvix	VANMAHOTSAV ORGANIZED BY THE COUNSELLORS	05.07.2021
vvx	INDUCTION PROGRAM OF NEWLY RECRUITED VOLUNTEERS 2021	01.08.2021 Virtual
vvxi	ONLINE COMPETITION ON PHOTOGRAPHY,DRAWING, POETRY AND NUKKAD.	06.08.2021-14.08.2021 Virtual
vvx	VIRTUAL EVENT ORGANISED BY YRC KIIT ON THE OCCASION OF 75TH INDEPENDENCE DAY - “A TRIBUTE TO THE PROTECTOR OF THE TRICOLOR	15.08.2021 Virtual
vvxi	VIDEO PRESENTED BY NUKKAD TEAM YRC KIIT ON WOMENS EQUALITY ON WOMENS DAY.	26.08.2021 Virtual
vvxii	IS IT GOOD TO HAVE A COMPETITION IN EACH AND EVERY ASPECT OF LIFE? AN AWARNESS VIDEO BY NUKKAD TEAM YRC KIIT	01.10.2021 Virtual
vvxiii	TYPES OF PEOPLE IN FSTIVE SEASON- BY NUKKAD TEAM ON THE OCCASION OF DIWALI IN LOCKDOWN YRC KIIT	01.11.2021 Virtual
vvxiv	VIRTUAL EVENT ORGANISED BY YRC KIIT ON THE OCCASION OF CHRISTAMS DAY ON AWARNESS ON BLOOD DONATION	25.12.2021 Virtual
vvxv	HOW SOCIAL MEDIA IS ADVERSELY AFFECTING OUR LIVES-VIDEO BY NUKKAD TEAM YRC KIIT	15.01.2022
vvxvi	KRANTI - ONLINE POSTER MAKING AND POSTER COMPETITION YRC KIIT	05.03.2022-08.03.2022
vvxvii	TEAM NUKKAD PRESENTING VIDEO ON THE MYTH AND REALITY OF BLOOD DONATION	22.03.2022 Virtual

vvxviii	YRC KIIT AT IRCS-OSB IN WORLD RED CROSS DAY EVENT	06.05.2022 Virtual
vvxviv	BLOOD DONATION AWARNESS ON THE OCCASION OF WORLD RED CROSS DAY	13.05.2022 Virtual

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

Sl.No	Title of the technical paper	Author Name	Name of Technical Magazine/Conference	Year
1	Cloud based Home Automation	Anurag Kumar Verma & Divyanjal Kumar	KIIT Electrical project expo- 2020(KEPE 2020)	2020
2	Smart Irrigation System	Bhaskar Shaw & Bhartendra Yadav	KIIT Electrical project expo- 2020(KEPE 2020)	2020
3	IoT based Home Automation	Rupayan Chakraborty, Rounak Dey, Rajat Majumder & Souradeep Sarkar	KIIT Electrical project expo- 2020(KEPE 2020)	2020
4	Study the Impact of DG penetration on voltage stability in an IEEE 14 Bus System	H.Sai Roshan, Himangka Duarah, Swarup Das & Prithwis Bhunia	KIIT Electrical project expo- 2020(KEPE 2020)	2020
5	High Efficiency Wireless Power	Arkao Prava Ghosh, Prateek Singh, Sourasish Dandapat, Sourav Brahma, Yusuf Sk & Abhijit Jasu	KIIT Electrical project expo- 2020(KEPE 2020)	2020
6	Speed Control of DC motor using CUK converter	Bibhudutta Pradhan, Navojit Mondal & Rishav Kumar Pathak	KIIT Electrical project expo- 2020(KEPE 2020)	2020
7	Development of Hybrid Tricycle for Differently-able Persons	G Rahul Rao, Richa Singh, Rishabh Singh, Daksh & Abhishek Pradhan	KIIT Electrical project expo- 2020(KEPE 2020)	2020
8	Electric Vehicle: Mechanism of Solar Car	Ichha Roy, Ritik Raj & Soumita Chattaraj	KIIT Electrical project expo- 2020(KEPE 2020)	2020
9	Solar Battery Charger For Charging a Electric Vehicle	Abhishek Kumar, Aditya Roy Anupam Rana & Arpan Bangal	KIIT Electrical project expo- 2020(KEPE 2020)	2020
10	Development of Solar Powered Charging Station for Electric Vehicles	Raghuraj Pratap Singh, Sreyashi Saha, Priyadarshini Das & Upasana Pradhani	KIIT Electrical project expo- 2020(KEPE 2020)	2020
11	Design of Maximum Power	Prem Shankar Pathak	KIIT Electrical project	2020

	Point Tracking	& Asad Nasim	expo- 2020(KEPE 2020)	
12	Feasibility Study on Installing Wind/Solar Generating Units for Domestic Supply	Anksuman Dutta, Snehasish Ghosh & Srija Bhowmik	KIIT Electrical project expo- 2020(KEPE 2020)	2020
13	Simulation of Solar MPPT Controller using Boost Converter	Swapnadip Datta, Supriyo Nag, Sudeshna Chakraborty, Subhadeep Barat & Surajit Mondal	KIIT Electrical project expo- 2020(KEPE 2020)	2020
14	Solar Powered Light with Auto Intensity Control	Debopriya Das & Annuaya Manoj T	KIIT Electrical project expo- 2020(KEPE 2020)	2020
15	Solar Water Purifier using Reverse Osmosis	Sourav Saha, Keshav Saha, Kuldeep Nagar & Nikhil Raj	KIIT Electrical project expo- 2020(KEPE 2020)	2020
16	Solar Water Purifier	Kundan Kumar Singh , Deepshikha Chakraborty, Zeeshan Shovan, Souvik Dey & Abhishek	KIIT Electrical project expo- 2020(KEPE 2020)	2020
17	Speed & Direction Control of DC Motor using Bluetooth	Sheershendu Kishor Bhattacharjee & Soumya Ranjan Dash	KIIT Electrical project expo- 2020(KEPE 2020)	2020
18	Vector Control of Permanent Magnet Synchronous Motor	Md Hanzala Ansari & Aniket Salui	KIIT Electrical project expo- 2020(KEPE 2020)	2020
19	Performance Analysis of Step Up DC to DC Converter in MATLAB/Simulink	Saurabh Kumar Baghel & Omkar Mittal	KIIT Electrical project expo- 2020(KEPE 2020)	2020
20	The Analysis of Different Techniques for Speed Control of Permanent Magnet Synchronous Motor	Surajkumar & Ranadeep Chakrabarti	KIIT Electrical project expo- 2020(KEPE 2020)	2020
21	Multilevel Inverter	Yash Anand, Srijit Basu, Sumesh Gupta & Subhash	KIIT Electrical project expo- 2020(KEPE 2020)	2020
22	Solar Power Inverter	Deep Prakash, Gourav Prakash Patra, Prakash Chandra & Shashi Bhusan Rai	KIIT Electrical project expo- 2020(KEPE 2020)	2020
23	Analysis and Simulation	Kumar Ayush, Saikat		2020

	Study of a novel Multi-level Inverter Structure	Maity, Sajid Islam Mondal, Sougata Seth & Subhrajyoti Ghosh	KIIT Electrical project expo- 2020(KEPE 2020)	
24	Detection of Harmonic Sources in Distribution System using Non Active Power Quantities	Siddharth Sharma, Mohit Sahni & Vaibhav Verma	KIIT Electrical project expo- 2020(KEPE 2020)	2020
25	Power Quality Improvement using Dynamic Voltage Restorer	Subash Chandra Bahuk ,Laxman Soren, Amit Agrawal,Manasij Sarkar	KIIT Electrical project expo- 2020(KEPE 2020)	2020
26	Automatic Generation Control of Interconnected Power System incorporating Fractional order PID Controller	Sambeet Parida , aritrabhattacharyya, Debraj Mondal	KIIT Electrical project expo- 2020(KEPE 2020)	2020
27	Foot Step Power Generation	Rudrendu Chakraborty, Sagardeep Das, Shubharthee Chanda, Rajdeep Dhar	KIIT Electrical project expo- 2020(KEPE 2020)	2020
28	Water-Tree Phenomenon in Underground Cables	Prabin Kujur, Rishav Paramanik, Rishav Anand, Satyam Umarvaishya	KIIT Electrical project expo- 2021(KEPE 2021)	2021
29	Speed control of Single-Phase Induction Motor using Arduino (PWM control Technique)	Manish Kumar, Manas Mahanta, Bhavesh Jaswal, Manas Kumar	KIIT Electrical project expo- 2021(KEPE 2021)	2021
30	Harmonic Mitigation in PV tied Microgrid System	Amartya Verma, Amit Prakash Sahoo, Chinmay Rishu, Rohit Raj	KIIT Electrical project expo- 2021(KEPE 2021)	2021
31	Fault Detection and Classification in a Series Compensated Line Using Decision Tree and Support Vector Machine Algorithms – A Comparison	Anshudip Karn	KIIT Electrical project expo- 2021(KEPE 2021)	2021
32	Solar energy based wireless power transmission system	Sayanjit Roy, Sanjib Kotal, Rishav Kumar Gupta, Sabyasachi	KIIT Electrical project expo- 2021(KEPE 2021)	2021

		Maiti		
33	Short-Term Load Forecasting Using Time-Series Algorithm	Anuska Roy, Barsha Dey	KIIT Electrical project expo- 2021(KEPE 2021)	2021
34	Study on sizing of components of solar power (caes) system	Satyam Bhanu, Pratyush Kumar Sinha, Rahul Das, Manav	KIIT Electrical project expo- 2021(KEPE 2021)	2021
35	Six phase symmetrical induction machine under fault state	Abhigyaan Majumder,Ritabrata Ghorai,Subhradeep Chowdhury,Souvik Kumar,soumaydipmondal	KIIT Electrical project expo- 2021(KEPE 2021)	2021
36	Modelling and design of automated electric vehicle	Anirban Jana, Auraag Sarkar, Shrideep Das, Shreyasee Jana	KIIT Electrical project expo- 2021(KEPE 2021)	2021
37	Maximum power point tracking in a solar photovoltaic system using p&o method	Swagata Das, Subhadip Roy, Raika Bhattacharya	KIIT Electrical project expo- 2021(KEPE 2021)	2021
38	Effect of partial shading on pv array configuration: its analysis and methods to mitigate its effect	Smruti Madhura Maharana, Abhinaba Kundu	KIIT Electrical project expo- 2021(KEPE 2021)	2021
40	Maximum power pointtracking in a solar photovoltaic system	Nikunjsinha, dushyantsahu,ankitbhardwaj,ankushkumar,Aditya Raj	KIIT Electrical project expo- 2021(KEPE 2021)	2021
41	Design of wireless charging circuit for electric vehicles	Jyotirmoy Pal, Jyotirmoy Maitra, Ankit Behera,Chandrashekhar Sahoo	KIIT Electrical project expo- 2021(KEPE 2021)	2021
42	Electric traction system of electric vehicles	Debasmita Majumdar, Dwitipriya Ghosh	KIIT Electrical project expo- 2021(KEPE 2021)	2021
43	Analysis and design of non-isolated charging system of electric vehicle	Anshula Thakur, Chandra Kishor Singh, Siddharth Chandravanshi , Akriti Nanda	KIIT Electrical project expo- 2021(KEPE 2021)	2021

44	Iot Based Vehicle Tracking System	Devaroon B.Roy , Harshit Sharma, Ankit Kumar, Anubhab Ghosh	KIIT Electrical project expo- 2021(KEPE 2021)	2021
45	Controlling spread of COVID-19 using IOT	Gourav Bhattacharjee, Aakash Kumar, Adarsh Joshi, Kartikkey Shrivastava	KIIT Electrical project expo- 2021(KEPE 2021)	2021
46	Stand Alone Solar PV Based Battery Charger For Smart Irrigation System	Soumya Shreechandan Biswal, Soumya Ranjan Dey, Ayush Patnaik, Asutosh Pallai	KIIT Electrical project expo- 2021(KEPE 2021)	2021
47	Transformer health monitoring using iot	Ambit priyadarshi sarangi, Raman singh,Sahil sahu, aakankshakumari	KIIT Electrical project expo- 2021(KEPE 2021)	2021
48	Maximum Power Point Tracking of PV Array Under Partial Shading Conditions	Souranil Chakraborty, Neel Ganguly, Vineet Kumar Singh	KIIT Electrical project expo- 2021(KEPE 2021)	2021
49	Smart Temperature & Humidity Monitoring using IOT /Thingspeak	Musharif Masroor, Atisha Mohanty	KIIT Electrical project expo- 2021(KEPE 2021)	2021
50	Study and Analysis of A Novel Step-up 17 Level Switched Capacitor Multilevel Inverter with Reduced Device Count	Sagar Jha, Prashant Raj Mishra	KIIT Electrical Project HandBook 2022	2022
51	Smart Solar Wind Hybrid Power Generation System	Aman Sharma, Sudip Nandi	KIIT Electrical Project HandBook 2022	2022
52	Vertical Farming Using IOT	Sidhant Patnaik , Prem Panigrahi	KIIT Electrical Project HandBook 2022	2022
53	Harmonic analysis and simulation study of a series	Chiranjit Bhatacharjee, Jyotismoye Guchhait	KIIT Electrical Project HandBook 2022	2022

	resistance capacitance(RC) filter based multilevel inverter			
54	Electric Vehicle and design analysis of DC-DC Converter	MAYANK KUMAR, SHUBHAM RAI	KIIT Electrical Project HandBook 2022	2022
55	Renewable energy integration with smart grid	Ayush Anand, Sabarish Nair, Subia Farheen	KIIT Electrical Project HandBook 2022	2022
56	Stockwell Transform and Data mining based Fault Diagnosis Method to Protect Microgrid	Alok Mishra , Ashutosh Roy	KIIT Electrical Project HandBook 2022	2022
57	Solar PV Maximum Power Point Tracker	Debajyoti Pharikal	KIIT Electrical Project HandBook 2022	2022
58	Smart home automation system	Ashray dey, bikramjit gorai	KIIT Electrical Project HandBook 2022	2022
59	Arduino based dual axis solar tracker	Ashutosh yadav, jyotirmaya sahu	KIIT Electrical Project HandBook 2022	2022
60	Solar powered trash collector	Kumar shivam, sachin chaudhary	KIIT Electrical Project HandBook 2022	2022
61	Maximum Power Point for PV System	Mritunjay Kumar Roy, Sanglap Roy	KIIT Electrical Project HandBook 2022	2022
62	Analysis and Controlling of Distribution Transformer Parameter using AVR microcontroller Iot system	Apurva Ashish, Aditya Virat	KIIT Electrical Project HandBook 2022	2022
63	Snake game by manually & Ai technique	Raushan Kumar, Vikash Kumar	KIIT Electrical Project HandBook 2022	2022
64	Single Axis Solar Tracking System Using 555 IC	Soumyajeet Sengupta, Vishwas Maurya	KIIT Electrical Project HandBook 2022	2022
65	Home automation using arduino	Harshit kumarprem Prakash Kumar	KIIT Electrical Project HandBook 2022	2022
66	Automatic track based	Shubhanjoy biswas ,		

	robotic car with automatic Accidental braking system	subhankar biswas	KIIT Electrical Project HandBook 2022	2022
67	Automatic Car Number Plate Recognition/Identification	Aritra Kr Choudhury, Rahul Debnath	KIIT Electrical Project HandBook 2022	2022
68	Improving the efficiency of solar panel using different robust techniques	Sayak Roy,Manali Mandal	KIIT Electrical Project HandBook 2022	2022
69	Solar power wireless battery charger	Soumyaranjan Behura,Smruti ranjanPradhann	KIIT Electrical Project HandBook 2022	2022
70	Load control System using DTMF	Jhanakesh Chandra Sahu,Dixtant tiwari	KIIT Electrical Project HandBook 2022	2022
71	Design and Control of Single-Phase Solar PV Inverter with MPPT Algorithm	Raj laxmi	KIIT Electrical Project HandBook 2022	2022
72	Underground fault detection Using arduino	Soubhagya kar, Sudeshna Das	KIIT Electrical Project HandBook 2022	2022
73	Impact of Gallium Nitride Semiconductor Devices in Tri-state Boost Converter	M. Bhattacharya, K. Kumar, S. Garlapati, and S. Banerjee	IEEE International Conference on Sustainable Energy Technologies and Systems (ICSETS-2019), KIIT DU, Bhubaneswar-2019	2019
74	Modelling and Efficiency Analysis of Microwave Wireless Power Transfer System	M. Bhattacharya and K. Kumar	IEEE International Conference on Innovations in Power and Advanced Computing Technology (i-PACT), VIT Vellore, March 2019	2019
75	Comparative Analysis of AC - AC Power Converters for Primary Side Wireless Power Transfer System	A. De, S. R. Singh, M. Bhattacharya, K Kumar, and J. M. Kumbhare	IEEE International Conference on Innovations in Power and Advanced Computing Technology (i-PACT), VIT Vellore, March 2019	2019
76	Analysis and simulation of	S Pal, D Kumar, and K	International Conference	2020

	Boost Converter versus Tri-State Boost Converter	Kumar	on Emerging Trends and Advances in Electrical Engineering and Renewable Energy (ETAEERE-2020), Springer, KIIT DU, Bhubaneswar	
77	Comparative Analysis of different PV Array Configurations under Partial Shading Conditions	S. M. Maharana, A. Mohapatra, C. Saiprakash and A. Kundu	2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, 2021	2021
78	Decision Tree Supported Distance relay for Fault Detection and Classification in a series compensated line	S. K. Mohanty, A. Karn and S. Banerjee	2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020)	2020
79	Performance Analysis of Different PV Array Configurations under Partial Shading Condition	S. M. Maharana, A. Mohapatra, C. Saiprakash and A. Kundu	2020 International Conference on Computational Intelligence for Smart Power System and Sustainable Energy (CISPSSE), 2020	2020
80	Simulation and Experimental Investigation of a Smart MPPT based Solar Charge Controller	Sarita Samal, Prasanta Kumar Barik, Roshan Kumar Soni & Sarthak Nayak	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 44:3, 7748-7763	2022

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

SL no.	Year	Name of the student	Name of the award/ medal	Team / Individual	Interuniversity / State / National / International	Name of the event
1	2017	Sudarshan swain	Certificate of participation	individual	National	Odisha cricket association prequarter final
2	2018	Sudarshan swain	Certificate of participation	individual	National	Odisha cricket association prequarter final
3	2018	Sevanti Pal	Honorary Mention Award	Individual	National	Ecosoc Committee of KIIT MUN Conference

4	2018	Avantika Singh	NCC Cadet - Youth Exchange Prog	Team	National	Youth Exchange Program
5	2018	Avantika Singh	Visweswaraya Prativa Puraskar 2018	Individual	National	Engineers Day 2018
6	2018	Avantika Singh	Republic Day Parade	Team	National	Republic Day, New Delhi
7	2019	Raman Singh	Rs 5000(team) and E certificate	Team	Interuniversity	SUIT Event
8	2019	Divyendra kumar	Cultural events	Team	Interuniversity	nss sports(pakkadam pakarai)
9	2019	Divyendra kumar	Republic day cultural activities	Team	National	Republic day activities represent for Electrical enggenering
10	2019	Divyendra kumar	Best acting award at bhubneswar station	Individual	Interuniversity	Swachh Bharat Nukkad nattak
11	2019	Akshat Tewary	Best delegate	Individual	International	KIIT MUN 2019
12	2019	Avantika Singh	Best Student Award	Individual	University	Republic Day 2019
13	2019	Sparsh Sharma	Certificate of merit	individual	Interuniversity	Badminton
14	2019	Sparsh Sharma	Certificate of merit	individual	Interuniversity	Badminton
15	2019	Sparsh Sharma	Certificate of internship	individual	Interuniversity	Electricity Bill Analysis of Textile industry
16	2019	Sparsh Sharma	Certificate of training	individual	Interuniversity	MATLAB Fundamentals
17	2019	Sparsh Sharma	Certificate of training	individual	Interuniversity	PYTHON 101 For Data Science
18	2019	Sparsh Sharma	Certificate of completion	individual	Interuniversity	Consulting Business Essential Program
19	2019	Sparsh Sharma	Certificate of Capability Development	individual	Interuniversity	power system transmission and

						distribution
20	2019	Supratika Ghosh	Certificate of training	individual	Interuniversity	MATLAB Fundamentals
21	2019	Supratika Ghosh	Certificate of excellence	individual	Interuniversity	Coding Ninjas
22	2019	Supratika Ghosh	Certificate of excellence	individual	Interuniversity	Data Structures in C++
23	2019	Sudarshan swain	Certificate of participation	individual	National	Odisha cricket association prequarter final
24	2019	Anirban Sadhukhan	Nasa Mission to Mars Student Challenge	Individual	International	Nasa Mission to Mars Student Challenge
25	2019	Anirban Sadhukhan	Nasa Mission to Mars(Team Lead)	Team	International	Nasa Mission to Mars Student Challenge (Tram Lead)
26	2019	Anirban Sadhukhan	Google Cloud Certificate Completion	Individual	National	Google cloud platform business professional Accreditation
27	2019	Anirban Sadhukhan	KSAC Student Coordinator (KES)	Individual	National	KIIT Electrical Society Coordinator (Under KSAC)
28	2020	Abhinav	Runner's up in Republic Day Parade,2020	Team	Interuniversity	Republic Day Parade,2020
29	2021	Yashveen	Certificate of training	individual	Interuniversity	MATLAB

		Priyadarshi				Fundaments als
30	2021	Malayaj Kumar Anshu	Certificate of completion	individual	National	Basics of Geocomput ation and Geoweb services
31	2021	Malayaj Kumar Anshu	Certificate of completion	individual	National	Basics of Geographic al Informatio n system
32	2021	Ms. Raj laxmi	Certificate of appreciation	Team	InterUniversity	All Women B-Plan Competitio n
33	2021	Kunal kumar	Certificate of completion	individual	National	PYTHON and Data Science
34	2022	Pravin Panda	Certificate of training	individual	National	Vocational training
35	2022	Yashveen Priyadarshi	Certificate of appreciation	individual	Interuniversity	Republic day parade
36	2022	Yashveen Priyadarshi	Vocational training	individual	National	Vocational training
37	2022	Malayaj Kumar Anshu	Certificate of participation	individual	National	EE Summer school IISC Bangalore
38	2022	Malayaj Kumar Anshu	Certificate of Internship	individual	National	German to English language completion
39	2022	Amit Kaiborta	Certificate of participation	Team	Interuniversity	11th Project Innovation Contest 2022
40	2022	Abhishek kumar	HackerRank certificate	individual	National	Hacker rank problem solving
41	2022	Sudarshan Swain	Certificate of participation	individual	National	Odisha cricket association prequarter final
42	2022	Abhinav	Best Volunteer Certificate by NSS KIIT	Individual	Interuniversity	NSS Best Volunteer Awards,

						KIIT 2022
43	2022	Tejaswini Panda	certificate of training	individual	National	internship in NALCO
44	2022	Tejaswini Panda	Certificate of Training	Individual	National	VT in OHPC

CRITERION 5	Faculty Information and Contributions	200

Name	PAN No.	University Degree	Date of Receiving Highest Degree	Area of Specialization	Research Paper Publications (last three years including CAY)	PhD Guidance	PhD Granted during the Assessment year	Current Designation	Date (Designated as Prof / Assoc. Prof.).	Initial Date of Joining	Association Type	At present working with the Institution (Yes / No)	In case of NO, Date of Leaving	IS HOD / Principal ?
Chinmoy Kumar Panigrahi	AIJPP7246G	Jadavpur University	2007	Power System	66	13	6	Professor	30-04-2009	07-11-2017	Regular	Y		no
Sarat Chandra Swain	AYAPS5862N	KIIT Deemed to be University	2010	Power System	48	13	2	Professor	01-03-2018	18.06.2018	Regular	Y		no
Byamakesh Nayak	AAYPN1259L	KIIT Deemed to be University	2011	Drives and Control	41	14	2	Professor	12-01-2019	20-06-2017	Regular	Y		yes
Manoj Kumar Maharana	AKYPM7679M	IIT, Madras	2010	Power System	26	11	2	Professor	25.04.2011	22.06.2012	Regular	Y		no
Alivarani Mohapatra	AUPPM3105M	NIT, Rourkela	2018	Energy system	22	6	0	Associate Professor	01.03.2015	21.07.2011	Regular	Y		no
Babita Panda	APWPP5711J	KIIT Deemed to be University	2017	Power Electronics and Drives	42	6	1	Associate Professor	01.09.2015	3.07.2017	Regular	Y		no
Banishree Mishra	AKWPM0302K	KIIT Deemed to be University	2018	Power Quality	8	2	0	Associate Professor	15.09.2015	19-06-2017	Regular	Y		no

Chitralekha Jena	ADXPJ5640B	Jadavpur University	2017	Power and Energy System	49	5	1	Associate Professor	15.09.2015	23.06.2017	Regular	Y		no
Lipika Nanda	AHEPN2469D	KIIT Deemed to be University	2019	Power Electronics and Drives	30	1	0	Associate Professor	15.09.2015	4.7.2014	Regular	Y		no
Pampa Sinha	BZHPS5476F	Jadavpur University	2017	Power System	34	4	0	Associate Professor	20-06-2016	15.07.2013	Regular	Y		no
Pradeep Kumar Sahu	AZIPS4641N	NIT, Rourkela	2016	Power Electronics	22	4	0	Associate Professor	23.06.2017	12-03-2018	Regular	Y		no
Rudra Narayan Dash	AMGPD9035Q	KIIT Deemed to be University	2018	Electrical Machines	12	3	0	Associate Professor	18.09.2016	17.06.2014	Regular	Y		no
Rudra Narayan Senapati	BBXPS2610H	KIIT Deemed to be University	2018	Power System Engineering	17	3	0	Associate Professor	15.09.2015	24-06-2012	Regular	Y		no
Satyaranjan Jena	AHYPJ6801B	KIIT Deemed to be University	2017	Power control and Drives	19	4	0	Associate Professor	18.09.2016	04.01.2016	Regular	Y		no
Sriparna Roy Ghatak	AQMPG3193J	NIT, Durgapur	2018	Power System Engineering	26	3	0	Associate Professor	15.09.2015	3.7.2017	Regular	Y		no
Subhra Debdas	AHLPD7002M	Sai Nath University	2018	Power System Engineering	15	3	0	Associate Professor	10.06.2019	17.06.2019	Regular	Y		no
Subrat Kumar Barik	AKHPB8732B	SOA University	2016	Power and Energy System	19	5	1	Associate Professor	15.09.2015	01.07.2015	Regular	Y		no
Anil Kumar Behera	BSJPB7951D	NIT, Rourkela	2017	Power Electronics and Drives	0	0	0	Assistant Professor	NA	24-04-2018	Regular	Y		no

Ankit Kumar Soni	CQAPS8654L	IIT (ISM) Dhanbad	2017	Power and Energy System	3	0	0	Assistant Professor	NA	24.11.2014	Regular	Y		no
Deepak Kumar Gupta	BJAPG1813K	IIT (BHU), Varanasi	2017	Power System Engineering	18	4	0	Assistant Professor	NA	25-07-2009	Regular	Y		no
Deepak Kumar Yadav	AGZPY9589M	IIT Bhubaneswar	2018	Power System Engineering	0	0	0	Assistant Professor	NA	21-08-2017	Regular	N	30.08.2021	no
Geetanjali Dei	AXBPD0408M	VSSUT, Burla	2010	Control System	8	0	0	Assistant Professor	NA	19.07.2016	Regular	Y		no
Jyotismita Mishra	BECPM2302C	BIT, Mesra	2012	Power Electronics and Drives	0	0	0	Assistant Professor	NA	16.07.2012	Regular	Y		no
K.V.V.S.R Chowdary	BITPK4849P	KIIT Deemed to be University	2011	Power Electronics and Drives	10	0	0	Assistant Professor	NA	09-02-2013	Regular	Y		no
Kundan Kumar	AZNPK9187A	University of Padova	2017	Power Electronics and Drives	0	0	0	Assistant Professor	NA	03.09.2016	Regular	N	29.10.2020	no
Lipsa Subhadarshini	FAAPS4524J	NIT, Rourkela	2017	Electronics system and communication	0	0	0	Assistant Professor	NA		Regular	Y		no
Padarbinda Samal	BOZPS5346M	NIT, Rourkela	2017	Power System Engineering	18	4	1	Assistant Professor	NA		Regular	Y		no
Pallav Kumar Bera	DINPS6903L	IIT, Roorkee	2014	Control System	0	0	0	Assistant Professor	NA		Regular	Y		no
Rakesh Kumar Panda	CNMPP0894C	NIT, Warrangal	2013	Power System Engineering	0	0	0	Assistant Professor	NA		Regular	Y		no

Ranjeeta Patel	BHHPP0139E	NIT, Rourkela	2017	Power Electronics and Drives	15	4	0	Assistant Professor	NA		Regular	Y		no
Samita Rani Pani	BQFPP1220H	VSSUT, Burla	2014	Power System Engineering	6	0	0	Assistant Professor	NA		Regular	Y		no
Satyabrata Sahoo	BYEPS1070D	NIT, Hamirpur	2012	Control and protection of Electrical Apparatus	10	0	0	Assistant Professor	NA		Regular	Y		no
Shubhashree Kundu	AWAPK4226G	NIT, Rourkela	2016	Automation and Robotics	6	5	0	Assistant Professor	NA		Regular	Y		no
Silpashree Sahu	CVOPS5672M	IIT, Roorkee	2017	Electric Drives and Power Electronics	0	0	0	Assistant Professor	NA		Regular	N	31.12.2021	no
Srikanth Allamsetty	BJOPK9036N	IIT, Bhubaneswar	2020	High voltage Engineering	6	0	0	Assistant Professor	NA		Regular	Y		no
Subhendu Bikash Santra	edaps9514q	Jadavpur University	2015	Machine and Drive	23	0	0	Assistant Professor	NA		Regular	Y		no
Subhendu Mishra	BERPM9514B	Florida State University, USA	2017	Power Electronics and Drives	1	0	0	Assistant Professor	NA		Regular	N	31.03.2022	no
Subodh Kumar Mohanty	AWLPM3405E	IIT, Kharagpur	2013	Power System Engineering	9	0	0	Assistant Professor	NA		Regular	Y		no
Subrat Behera	AUXPB5274G	IIT, Roorkee	2009	Power Electronics and Drives	11	0	0	Assistant Professor	NA		Regular	Y		no

Swagat Das	BDJPD3185N	University of Missouri - Kansas City, USA	2016	Power Electronics Device Reliability	8	0	0	Assistant Professor	NA		Regular	Y		no
Swati Smaranika Mishra	BIQPM9858P	KIIT Deemed to be University	2016	Power System Engineering	1	0	0	Assistant Professor	NA		Regular	Y		no
Tanmoy Roy Choudhury	AKJPC7548J	KIIT Deemed to be University	2018	Power Electronics and Drives	17	3	0	Assistant Professor	NA		Regular	Y		no
Tapas Roy	AQXPR7972H	IISc Bangalore	2013	Power Electronics and Drives	19	0	0	Assistant Professor	NA		Regular	Y		no
Tapaswini Biswal	BFWPB7491C	IIT (ISM) Dhanbad	2016	Power System Engineering	7	0	0	Assistant Professor	NA		Regular	Y		no

5.1. Student Faculty Ratio (20 marks)

No. of UG Programs in the Department (n): 1
No. of PG Programs in the Department (m: 1
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 student
(The above data to be provided considering all the UG and PG programs of the department)
S=Number of Students in the Department = U1 + U2 + U3 + P1 + P2
F = Total Number of Faculty Members in the Department (excluding first year faculty)

Year	**CAY**	**CAYm1**	**CAYm2**
u1.1	186	191	192
u1.2	191	192	190
u1.3	192	190	191
UG1	569	573	573
p1.1	25	25	25
p1.2	25	25	25
PG1	50	50	50
Total No. Of Students in the Department (S)	619	623	623
No. Of Faculty in the Department (F)	41	42	43
Student Faculty Ratio (SFR)	15.09	14.83	14.49
Average SFR	SFR=(SFR1+SFR2+SFR3)/3		14.8

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. the information about the regular and contractual faculty as per the format

mentioned below:

	Total number of regular faculty in the department	**Total number of contractual faculty in the department**
CAY	**41**	**0**
CAYm1	**42**	**0**
CAYm2	**43**	**0**

5.2. Faculty Cadre Proportion

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)
F1: Number of Professors required = 1/9 x 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 x 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 x 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 F1	Required F2	Available F2	Required F3	Available F3
CAY	3	4	7	13	21	24
CAYm1	3	4	7	13	21	25
CAYm2	3	4	7	13	21	26
Average numbers	RF1=3	AF1=4	RF2=7	AF2=13	RF3=2	AF3=25

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

=29.23= 20 marks

5.3. Faculty Qualification (20)

FQ = 2.0 x [(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)

	X	**Y**	**F**	**FQ = 2.0 x [(10X +4Y)/F)]**
CAY	26	15	31	20.64
CAYm1	26	16	31	20.90
CAYm2	26	17	31	21.16
Average Assessment				20.9

5.4. Faculty Retention (10 MARKS)

No. of regular faculty members in CAYm1= 42 CAY= 41

Description	**2022-21 (CAYm1)**	**2022-23 (CAY)**
No. Of faculty retained	42	41
Total no. Of faculty	43	43
% of faculty retained	98	95

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	Chinmoy Kumar Panigrahi	Basic Electrical Engineering, Power System Stability	Power System	80	Course handouts, PPTs	PSO1,PSO3
2	Sarat Chandra Swain	Electrical Machines, Electrical Measurement and Measuring Instruments	Power System	50	Course handouts, PPTs	PSO1,PSO3
3	Byamakesh Nayak	Electical Machines, Power Electronics	Drives and Control	47	Course handouts, PPTs	PSO1,PSO2
4	Manoj Kumar Maharana	Power System Operation and Control, Computer Aided Power System Protection	Power System	25	Course handouts, PPTs, Lecture Videos	PSO3
5	Alivarani Mohapatra	Control System, Network Theory	Energy system	26	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
6	Babita Panda	Power Electronics, Renewable Energy	Power Electronics and Drives	43	Course handouts, PPTs, Lecture Videos	PSO2,PSO3

7	Banishree Mishra	Electric Drives, Power Electronics	Power Quality	10	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
8	Chitralekha Jena	Electrical Machines, Power Electronics	Power and Energy System	50	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
9	Lipika Nanda	Power Electronics, Basic Electrical Engineering	Power Electronics and Drives	32	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
10	Pampa Sinha	Power Quality, Power System Operation and Control	Power System	33	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
11	Pradeep Kumar Sahu	Power Electronics, Renewable Energy	Power Electronics	25	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
12	Rudra Narayan Dash	Electrical Machines, Network Analysis	Electrical Machines	8	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
13	Rudra Narayan Senapati	Digital Electronics, Control System	Power System Engineering	20	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
14	Satyaranjan Jena	Energy Audit, Network Theory	Power control and Drives	21	Course handouts, PPTs, Lecture Videos	PSO1,PSO2,PSO3
15	Sriparna Roy Ghatak	Power System Operation and Control, Power System Protection	Power System Engineering	31	Course handouts, PPTs, Lecture Videos	PSO1,PSO3
16	Subhra Debdas	IoT, Basic Electrical Engineeri	Power System Engineering	15	Course handouts, PPTs, Lecture Videos	PSO2,PSO3

		ng, Professional Ethics				
17	Subrat Kumar Barik	Machine Learning, Electrical Machines, Basic Electrical Engineering, Electromagnetics	Power and Energy System	21	Course handouts, PPTs, Lecture Videos	PSO1,PSO3
18	Anil Kumar Behera	Electrical Measurement and Measuring Instruments, Power Electronics	Power Electronics and Drives	0	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
19	Ankit Kumar Soni	Power System Operation and Control, IoT, Solar Power	Power and Energy System	3	Course handouts, PPTs, Lecture Videos	PSO1,PSO2,PSO3
20	Deepak Kumar Gupta	Power System Operation and control, Smart Grid	Power System Engineering	15	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
21	Deepak Kumar Yadav	Electrical Machines, Network theory	Power System Engineering	0	Course handouts, PPTs, Lecture Videos	PSO1,PSO2,PSO3
22	Geetanjali Dei	Netywork Theory, Control ystem	Control System	6	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
23	Jyotismita Mishra	Power Electronics, Electric Drives	Power Electronics and Drives	0	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
24	K.V.V.S.R Chowdary	Power Station Engineeri	Power Electronics and Drives	12	Course handouts, PPTs, Lecture	PSO2,PSO3

		ng, Electric Vehicles, Smart Grid			Videos	
25	Kundan Kumar	Power Electronics, Electric Drives	Power Electronics and Drives	0	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
26	Lipsa Subhadarshini	Analog Electronics, Digital Electronics	Electronics system and communication	0	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
27	Padarbinda Samal	Power Station Engineering, Electric Power Transmission and Distribution	Power System Engineering	22	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
28	Pallav Kumar Bera	Control System, Electrical Machines	Control System	0	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
29	Rakesh Kumar Panda	Microprocessor and Microcontroller	Power System Engineering	0	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
30	Ranjeeta Patel	HVDC, Power Quality	Power Electronics and Drives	14	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
31	Samita Rani Pani	Power System Protection, Network Theory	Power System Engineering	4	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
32	Satyabrata Sahoo	Electrical Engineering Materials, Renewable Energy Sources	Control and protection of Electrical Apparatus	10	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
33	Shubhashree Kundu	Control System,	Automation and Robotics	8	Course handouts,	PSO2,PSO3

		Electrical Measurements and Measuring Instruments			PPTs, Lecture Videos	
34	Silpashree Sahu	Power Electronics, analog Electronics	Electric Drives and Power Electronics	0	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
35	Srikanth Allamsetty	Renewable Energy HVDC	High voltage Engineering	8	Course handouts, PPTs, Lecture Videos	PSO1,PSO3
36	Subhendu Bikash Santra	Analog Electronics, Electrical Machines	Machine and Drive	25	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
37	Subhendu Mishra	Power Electronics. Electrical Machines	Power Electronics and Drives	2	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
38	Subodh Kumar Mohanty	Power System Operation and Control, Power System Protection	Power System Engineering	14	Course handouts, PPTs, Lecture Videos	PSO1,PSO3
39	Subrat Behera	Electric Drives and Control,	Power Electronics and Drives	9	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
40	Swagat Das	Energy Storage Technology, Electric Power generation Technology	Power Electronics Device Reliability	10	Course handouts, PPTs, Lecture Videos	PSO2,PSO3
41	Swati Smaranika Mishra	Power System Engineering	Power System Engineering	1	Course handouts, PPTs, Lecture Videos	PSO1,PSO3

42	Tanmoy Roy Choudhury	Electrical Measurements and Measuring Instruments	Power Electronics and Drives	18	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
43	Tapas Roy	Microprocessor and Microcontroller, Digital Circuit	Power Electronics and Drives	20	Course handouts, PPTs, Lecture Videos	PSO1,PSO2
44	Tapaswini Biswal	Basic Electrical Eng, Electric Power Transmission and Distribution	Power System Engineering	7	Course handouts, PPTs, Lecture Videos	PSO1,PSO3

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

Faculty members of school of electrical follows innovative teaching methodologies in the classroom in addition to the usual methods. Several activities are included which contribute towards enhancement of learning, at the same time facilitating ease of understanding in students with variegated learning styles. These activities involve innovative use of trending technologies, customized instruction module and techniques, Online/Offline assessment, evaluation and inclusive class rooms that lead to effectiveness of instruction delivery. The members of the faculty provide high quality learning materials to enrich students. Use of modern teaching aids such as Smart touch turn on LED screen, smart projector. Laptops are provided to each student for better learning. These innovative methods employed helps the students to actively involved in the classroom.

1. The course handouts are distributed among the students by the subject faculty well in advance of the commencement of the class. Faculty shares the study materials among the students via e-mail, in KIIT Moodle, SAP portal, websites, Google Classroom etc.
2. Students are encouraged to visit NPTEL lectures, browse different internet sites to increase their knowledge base about the subject.
3. The students are encouraged to refer to journals and conference proceedings from the digital library facility in the campus for their projects and research seminars
4. Smart Class room facilities are provided to students for the better understanding of concepts
5. Arranging live Webinars by foreign and eminent Professors. Displaying Videos which effectively communicate the working of actual engineering solutions and their impact.
6. Students are encouraged to participate / present papers at national / international conferences and publish their articles to enhance their knowledge.
7. Group assignments are provided in labs and in classes also to ensure healthy competition, team work and new, improved outcomes of the existing problem while promoting peer to peer learning.

8. Research papers are used to teach student latest technologies to bridge research gap and help students to gain knowledge of trends and advanced techniques as well to select a viable project for the final terms.
9. Technical Quizzes Online and offline test, Workshops etc. are adopted to support assessment process.
10. Innovations in Evaluations include use presentation skills and such process which can enhance the understanding level and assure fair outcomes.
11. 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.

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: 3 Points
Participation >5 days Faculty/ Faculty development program: 5 points

Name of the Faculty	**Max. 5 per Faculty**		
	CAY	**CAYm1**	**CAYm2**
Chinmoy Kumar Panigrahi	5	5	5
Sarat Chandra Swain	5	5	5
Byamakesh Nayak	5	5	5
Manoj Kumar Maharana	5	5	5
Alivarani Mohapatra	5	5	5
Babita Panda	5	5	5
Banishree Mishra	5	5	5
Chitralekha Jena	5	5	5
Lipika Nanda	5	5	5
Pampa Sinha	5	5	5
Pradeep Kumar Sahu	5	5	5
Rudra Narayan Dash	5	5	5
Rudra Narayan Senapati	5	5	5
Satyaranjan Jena	5	5	5
Sriparna Roy Ghatak	5	5	5
Subhra Debdas	5	5	5
Subrat Kumar Barik	5	5	5
Anil Kumar Behera	5	5	5
Ankit Kumar Soni	5	5	5
Deepak Kumar Gupta	5	5	5
Deepak Kumar Yadav	0	5	5
Geetanjali Dei	5	5	5
Jyotismita Mishra	0	0	0
K.V.V.S.R Chowdary	5	5	5
Kundan Kumar	0	0	0
Lipsa Subhadarshini	5	5	5
Padarbinda Samal	5	5	5

Pallav Kumar Bera	0	0	0
Rakesh Kumar Panda	0	0	0
Ranjeeta Patel	5	5	5
Samita Rani Pani	5	5	5
Satyabrata Sahoo	5	5	5
Shubhashree Kundu	5	5	5
Silpashree Sahu	0	5	5
Srikanth Allamsetty	0	5	5
Subhendu Bikash Santra	5	5	5
Subhendu Mishra	5	5	5
Subodh Kumar Mohanty	5	5	5
Subrat Behera	5	5	5
Swagat Das	5	5	5
Swati Smaranika Mishra	5	5	5
Tanmoy Roy Choudhury	5	5	5
Tapas Roy	5	5	5
Tapaswini Biswal	5	5	5
Sum	185	200	200
***RF*= Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1**	31	31	31
Assessment = 3 × (Sum/0.5 RF) (Marks limited to 15)	35.80	38.71	38.71
Average assessment over last three years (Marks limited to 15) =			15

5.8. Research and Development(75)

5.8.1. Academic Research (20)
(i) List of Publications (during assessment period)

Sl No.	Name of the Faculty	No. Of publications (CAY)	No. Of publications (CAYm1)	No. Of publications (CAYm2)	Citation
1	Chinmoy Kumar Panigrahi	4	34	28	611
2	Sarat Chandra Swain	7	24	17	500
3	Byamakesh Nayak	7	22	12	870
4	Manoj Kumar Maharana	5	15	6	125
5	Alivarani Mohapatra	4	11	7	610
6	Babita Panda	5	31	6	133
7	Banishree Mishra	2	2	4	146
8	Chitralekha Jena	7	34	8	89
9	Lipika Nanda	4	19	7	49
10	Pampa Sinha	5	17	12	104
11	Pradeep Kumar Sahu	2	11	9	82
12	Rudra Narayan Dash	6	1	5	95
13	Rudra Narayan Senapati	3	9	5	108
14	Satyaranjan Jena	2	9	8	80
15	Sriparna Roy Ghatak	3	11	12	289
16	Subhra Debdas	3	8	4	18
17	Subrat Kumar Barik	4	8	7	154
18	Anil Kumar Behera	0	0	0	0
19	Ankit Kumar Soni	0	1	2	32
20	Deepak Kumar Gupta	5	7	6	126
21	Deepak Kumar Yadav	0	0	0	3
22	Geetanjali Dei	3	3	2	21
23	Jyotismita Mishra	0	0	0	0

24	K.V.V.S.R Chowdary	2	3	5	27
25	Kundan Kumar	0	0	0	193
26	Lipsa Subhadarshini	0	0	0	0
27	Padarbinda Samal		12	6	87
28	Pallav Kumar Bera	0	0	0	0
29	Rakesh Kumar Panda	0	0	0	0
30	Ranjeeta Patel	5	7	3	166
31	Samita Rani Pani	3	2	1	13
32	Satyabrata Sahoo	0	7	3	48
33	Shubhashree Kundu	0	4	2	181
34	Silpashree Sahu	0	0	0	0
35	Srikanth Allamsetty	0	3	3	205
36	Subhendu Bikash Santra	1	8	14	209
37	Subhendu Mishra	0	0	1	0
38	Subodh Kumar Mohanty	0	5	4	57
39	Subrat Behera	2	4	5	2
40	Swagat Das	1	4	3	53
41	Swati Smaranika Mishra	0	1	0	6
42	Tanmoy Roy Choudhury	4	6	7	138
43	Tapas Roy	2	13	4	232
44	Tapaswini Biswal	1	4	2	31

(ii) PhD Guidance

Name of the faculty (Research Guide)	**No. Of students during assessment**
Chinmoy Kumar Panigrahi	6
Byamakesh Nayak	2
Sarat Chandra Swain	2
Manoj Kumar Maharana	2

5.8.2. Sponsored Research (20)

CAY 2022-23			
Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
Analysis and Design of AC-DC bidirectional converter for EV wired charging using SiC-MOSFETs	3 years	DST-SERB	**1830000**

CAYm1 2021-2022			
Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
Development of cost-effective energy management strategies for a green hydrogen based electric vehicle charging station.	3 years	DST-SERB	1830000
Development of GaN-FET Based high efficiency Bidirectional DC-DC Converter with zero input current ripple for PV application	3 years	DST-SERB	1830000

CAYm2 2020-21			
Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
Thermal Screening door with face recognition and tracking	6 months	M/s AKON group of industries	50000

CAYm3 2019-2020

Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
Performance Improvement of Solar Powered Water Pumping System for Rural Application by using Fish Search Optimization MPPT Technique	9 months	Institute of Engineers	20000

5.8.3. Development activities (15)

1. Product Development

Sl No.	Full Name of the inventor	Full name of Co-inventors	Title of the patent	Patent filed application no	To whom applied	Present Status (Filed/ Published/ Granted)	Published (Year)
1	Dr. Arjyadhara Pradhan	Dr.Babita Panda Dr. Srikanta Mohapatra Biswaranjan Acharya	Photovoltaic cleaning and cooling system	202031037764 A	IP India	Published	2020
2	Dr. Pampa Sinha	Dr. Chitralekha Jena Biswaranjan Acharya	Thermal screening method	202031025572	IP India	Published	2,020
3	Prof Ramesh chandra Panda	Dr. Chandrabhanu Malla Dr. Ranjeeta Patel Dr. Vikrant Sharma Dr. Anurag Sharma Er. Varun Sharma Dr. S. Dinesh Mohan Dr. K. Bhavyasri Dr.R.INDIRA Dr.K. S.V.K.S.MADHAVI RANI Dr.R.Aruna Dr. B.B.R.G.Vijaya Lakshmi Dr Lakshmi D 14 . Dr P Karthigeyan	A novel phenotypic antimicrobial resistance testing using cost effective integrated biochip.	202031036654	IP India	Published	2,020
4	Arjyadhara Pradhan	Babita Panda Biswaranjan Acharya Srikanta Mohapatra Lipika Nanda Gopal Krishna Dash	Cost effective solar house	2020103608	IP Australia	Granted	2020
5	Alivarani Mohapatra	Suman Mohapatra Priti Ranjan Sahoo Aniket Patil Biswaranjan Acharya	Onsite Automated Soil Testing System	202031047625	IP India	Published	2,020
6	Aditi Sharma	Achyuth Sarkar Shivlal Mewada Arjun Choudhary Yudhvir Singh Biswaranjan Acharya Souvik Ganguli Nirav Karelia Arjyadhara Pradhan Babita Panda Korhan Cengiz Vishal Kumar	Technique for multilayer protection from quantifiable vulnerabilities in industrial cyber physical system	2020102142	IP Australia	Granted	2020

7	Ritesh Dash	Sitendra Tarmakar Sanhita Mishra Sarat chandra Swain Ramakant Jena Ganesh prasad Khuntia Debashis Pattnaik	A method for prediction of the type and yield of the crop by mapping soil macronutrients using a cluster based SAS.	2020102904	IP Australia	Granted	2020
8	Subhra Debdas	Kumarjit Das Madhuja Raha	A novel artificial intelligence based measuring device	202031031710	IP India	Published	2020
9	Dr.Subhra Debdas	Sayantan Kundu, Biswarup Biswas, Srikanta Mohapatra , Sarbani Mohanty, Shalini Chouhan, Shivangi Mohanty, Subhankar Samanta,	AI based Smart face mask	336057-001	IP India	Published	2020
10	Dr.Subhra Debdas	Sarbani Mohanty, Dr. Srikanta Mohapatra, Anuska Roy, Barsha Dey, Anik Pal, Swarnendu Dey,	Rural solar home lighting device	336853-001	IP India	Published	2020
11	Mr. Bibhu prasad Ganthia	.Dr. Subrat kumar Barik Dr. Byamakesh Nayak Mr. Subash ranjan Kabat	Modified rotor for wind turbine to enhance the efficiency.	202031056823	IP India	Published	2,020
12	Prof. Ramesh Chandra Panda	Dr. Bhupesh Kumar Singh Dr. Sudeshna Chakraborty Dr. Ranjeeta Patel NEERAJ CHANDNANI Surbhi Vijh Dr. Suyash Y. Mullemwar Dr. Sushil Kalyani Dr. Krishna Kumar Singh Santosh Kumar Dr.Chandrabhanu Malla Akshay Ashokrao Kakde Dr.Amrita Dr. Poonam Tanwar Dr P Karthigeyan	A novel hybrid renewable power platform to harvests wind , solar and water current power from running water channel.	202031036679	IP India	Published	2020
13	Prof. Ramesh Chandra Panda	Nadeem Ahmad Khan Dr.Chandrabhanu Malla	A Novel nanosilver	202031037352	IP India	Published	2020

		Dr Lakshmi D Dr. Krishna Kumar Singh Dr. Ranjeeta Patel Anitha R Dr Kondi Vanitha Dr.K. Kavita Dr. K. Bhavyasri Dr. Sushil Kalyani Saiful Islam Arshad husain Afzal Husain Khan Dr P Karthigeyan	hand rub sanitizer gel				
14	Prof Ramesh chandra Panda	Dr.Ranjeeta Patel Dr.Babita Panda Sanhita Mishra Geetanjali Dei Dr.Arjyadhara Pradhan Dr.Lipika Nanda Dr.Sarita Samal Gyanendra kumar Panda Subrat Behera Dr.Rudra Narayan Dash Dr.Banishree Mishra Dr. P Karthigeyan	IoT Based Sustainable Cost Effective Disinfectant Sanitizer Tunnel	332241-001	IP India	Published	2020
15	Bibhu Prasad Ganthia	Mr. Prashanta Kumar Rana Mrs. Jayashree Nayak Ms. Aradhana Khillo Ms. Dibyajyoti Mohapatra Ms. Arnapurna Das Ms. Anwesha Jena Mr. Subash Ranjan Kabat Mrs. Linkan Priyadarshini Ms. Rosalin Pradhan Ms. Subhashree Priyadarshini Ms. Akankshya Subhadarshini Dr. Subrat Kumar Barik Dr. Byamakesh Nayak	Wearable and smart phone coupled women safety device	202031051817	IP India	Published	2020
16	Prof Ramesh chandra Panda	Biswaranjan Acharya Dr.Loveleen Gaur Dr.Prasant kumar Pattnaik Dr. Pampa Sinha Dr. Chitralekha Jena Aurobinda Das Dr.Viyatprajna Acharya Dr.Sonali Mishra	A novel cost effective portable ventilator mechanism for medical and health care	202031026645	IP India	Published	2020

		Dr.P.Karthigeyan					
17	Dr. Pampa Sinha	Dr.Chitralekha Jena ,Biswaranjan Acharya, Ponukumati Balamurali Krishna , Ms. Priya Bhaskar Pandharbale	An IOT based quality analysing system for rectifying faults in a electrical distribution system	202031036019	IP India	Published	2020

Sl No	Full Name of the inventor	Full name of Co-inventors	Title of the patent	Patent filed application no	To whom applied	Present Status (Filed/ Published/ Granted)	Published (Year)
1	Dr. Arjyadhara Pradhan	Dr.Babita Panda Biswaranjan Acharya	Vegetable and Fruit Washer	334280-001	IP India	Granted	2021
2	Puja Das	Biswaranjan Acharya,Dr.Chitralekha jena, Dr.Babita Panda, Dr.Sarita Samal, Dr.Ranjeeta Patel, Dr. Alivarani Mohapatra, Dr. Arjyadhara Pradhan	Low cost portable and chargeable laser security system for property protection	2020104209	IP Australia	Granted	2021
3	Aliva rani Mohapatra	Srikanta Mohapatra Biswaranjan Acharya Puja Das Asik rahman Jamadar Arjyadhara Pradhan Babita Panda Lipika Nanda Satyabrata Sahoo.	Intelligent Circuit portable testing apparatus for servo motor	2021101296	IP Australia	Granted	2021
4	Acharya, Biswaranjan;	Pradhan, Arjyadhara; Ateeq, Karamath; Mohapatra Alivarani; Das Puja; Jamader Asik Rahaman; Sahoo Satyabrata; Pani,Samita Rani Biswal, Tapaswini	Portable apparatus for underground fault detection	2021102407	IP Australia	Granted	2021
5	DR. ABHINAV SAXENA	DR. MD. ABUL KALAM DR. SRIKANTH ALLAMSETTY MR. MUKESH YADAV MR. TARUN RATHI MR. AMIT KUMAR DASH DR. NATWAR SINGH RATHOR DR. GURULINGAPPA M. PATIL	An Implicit Approach for Power Quality Assessment and Controlling of Solar Photovoltaic Integrated	202211013318 A	IP India	Published	2021

6	*Biswaranjan Acharya*	*Geetanjali Dei* *Banishree Mishra* *Srikanta Mohapatra* *Lipika Nanda* *Babita Panda* *Arjyadhara Pradhan* *Soubhagya Ranjan Prusty* *Sarita Samal*	Solar based double channel water purification system for rural people	AU2021101066A	IP Australia	Granted	2021
7	Srikanth Allamsetty	Mr. Veeresalingam Guruguntla,	Method and apparatus for continuous electric power generation using compressed air	202131009459	IP India	Published	2021
8	Senapati, Rudranarayan	Sahu, Pradeep Kumar; Jena, Satya Ranjan; Mohapatra, Sraddhanjali; Kar, Tejaswini;Behera, Subrat and Ranjan Prusty, Soubhagya	A system and method for improving current profile in hybrid energy source	CN102983589	IP Australia	Published	2021
9	Dr.Subhra Debdas	Biswarup Biswas , Prantik Dutta, Aniket Biswas, Ayndrilla Roy, Biswadip Saha, Sabahat Jabeen, Sarbani Mohanty , Premankur Ghosh, Dr P Karthigeyan	Artificial Intelligence based counter virus grid	338398-001	IP India	Published	2021
10	Biswaranjan Acharya	Priya Manas ranjan Pradhan Aliva rani Mohapatra	Internet of Things (IOT) Sensor Based Smart Fan	2020104345	IP Australia	Granted	2021

Sl No	**Full Name of the inventor**	**Full name of Co-inventors**	**Title of the patent**	Patent filed application no	**To whom applied**	**Present Status (Filed/ Published/ Granted)**	**Published (Year)**
1	Dr. Srikanta Mohapatra	Dr.PedakolmiVenkateswarlu Mr. Joydeep Banerjee Dr.S. Sree Hari Raju Ms. A. Reyana	IoT gateway, a method for bridging various wireless sensor networks over the internet	202231030959	IP India	Published	2022

		A.Vijayaraj Dr.B.Doraswamy Mr Navin Dhinnesh Adc Dr. N. A. Sheela Selvakumari Mr.JLogeshwaran Dr. V.Kannan					
2	Dr.Dinesh G	Mrs. Kavitha S Dr.M.Suja Dr D Menaga Dr. Subhra Debdas Mr. Subhrajit Singha Roy Dr. S. Saravanan Dr. L. Ashok Kumar Dr.K.E.Poorni Dr. Brijesh Sathian Deepak Rajaram Patil Dr. Yuvraj Dhondiram Kengar Dr B Gayathri	Artificial Intelligence based Prediction and prevention of Kidney disease using machine learning Algorithms for Health care management	202241007443	IP India	Published	2022
3	. E. Elamaran	Dr.Renuka Agrawal Saroj Kumar Nanda Dr. Srikanta Mohapatra Dr.M Rajan Babu Dr.K.Ravikumar Dunna Suresh Kumar Ravindra Kumar Moningi Shaik Azeez Dr. Brijesh Sathian Dr B Laxmi Kantha	Artificial Intelligence Based Automatic Healthcare Management System for Detection and Prevention of Pancreatic Cancer Using Multi Detector Computer Tomography, Image Processing and Machine Learning Algorithms.	202241021628	IP India	Published	2022
4	Dr. Subhra Debdas	NA	Zigbee-based interconnected electrical vehicle battery condition monitoring system	202231059054	IP India	Published	2022
5	Dr. Subrat Kumar Barik	NA	LoRacommunication based water level monitoring and motor control system	202231059051	IP India	Published	2022
6	Rudranarayan Senapati,	Smitirupa Pradhan Arjyadhara Pradhan, Chitralekha Jena, Banishree Misra, Babita Panda, Sanhita Mishra	Improvisation of Current Contour in PV-tied Grid System	202231059052	IP India	Published	2022

7	Babita Panda,	Chitralekha Jena, Arjyadhara Pradhan, Lipika Nanda, Rudranarayan Senapati	Next generation Bio friendly economical solar powered drinking Water Purifier for rural areas	202231059840	IP India	Published	2022
8	Padarbinda Samal	NA	Application of FPGA-based neural networks for occupancy detection of an educational Building	202231059839	IP India	Published	2022
9	Dr. Shubhasri Kundu	Dr. Arjyadhara Pradhan, Mr. Surya Narayan Tripathy	Development of IOT based Smart Solar panel Cleaner Robot	202231060590	IP India	Published	2022
10	Dr. Lipika Nanda,	Dr.Babita Panda, Dr. Arjyadhara Pradhan, Dr. Chitralekha Jena, Dr. Banishree Mishra	Solar PV interfaced high gain DC to DC converter suitable for Electric vehicle application.	202231060591	IP India	Published	2022
11	Arjyadhara Pradhan,	Rudra narayan senapati, Babita Panda, Lipika Nanda, Chitralekha Jena	Umbrella type tracker based solar cooker	202231060864	IP India	Published	2022
12	Subhendu Bikash Santra	NA	Three port high gain power converter for residential microgrid.	202231061037	IP India	Published	2022
13	Chitralekha Jena	Rakshit Kumar, Hritvik Kumar Srivastava, Nidhi, Satyaranjan Jena, Babita Panda, Lipika Nanda, Arjyadhara Pradhan, Rudranarayan Senapati, Pampa Sinha	Sol: Remote Control Solar Drone water cleaner for floating waste.	202231060593	IP India	Published	2022
14	Chinmoy Kumar Panigrahi,	Chitralekha Jena, Sunita Pahadasingh	Frequency stability analysis of Micro Grid with virtual inertia control	202231061035	IP India	Published	2022
15	Pampa Sinha	Sriparna Roy Ghatak, S.R Prusty	Sol: IOT Based data Acquisition Technique	202231061036	IP India	Published	2022

Sl No	**Full Name of the inventor**	**Title of the patent**	Patent filed application no	**To whom**	**Present Status (Filed/ Published/**	**Published (Year)**

				applied	**Granted)**	
1	Tapas Roy and Ranjeeta Patel	A Novel 7-level Multilevel Inverter based on Switched Capacitor Technique	202331001897	Indian	Published	2023
2	SATYABRATA SAHOO	Smart Solar Charge Controller for small scale domestic Applications.	202331006334	Indian	Published	2023
3	Subodh Kumar Mohanty	Protection scheme of TCSC compensated line integrated with wind farm.	202331006336	Indian	Published	2023

2. Research Laboratories:

Name of the Research Laboratory	**Faculty In Charge (FIC)& Technical assistant In Charge (TIC)**	**Name of the Important Equipment.**	**Scope**	**Current Ongoing Work**
Energy system laboratory	1.Satyaranjan Jena (FIC) 2. K C Barik.(TIC)	1.Smart grid & power System setup 2. NI power electronics rapid control (smart grid) 3. Pyranomometer Meter with Integral Sensor Model 4. Ultraviolet Radiometer Model 5. Solar Power Meter Taiwan Model 6. Solar Flat Plate Water Heating System 7. Solar Evacuated Tube Collector Setup 8. DC Micro Voltmeter 9. Thermocouples with Indicator, Thermopiles 10. Rotameter for water upto 5 LPM, Rotameter For Air upto 250 LPM 11. Solar Cooker 12. Thermal Anemometer 13. Solar Photovoltaic Module(5W) 14. Solar Training & Development System With Solar Panel Model 15. 3-Φ Energy Meter 16. Insight Solar Thermal Kit 17. Frequency Meter 18. Regulated DC Power Supply Unit 19. Wind Energy Training System 20. Solar PV GRID tied training system 21. Solar PV Emulator 22. Solar PV Module Trainer KIT	The energy system laboratory is devoted to the development and innovations of the sustainable energy system, mainly in the field of solar and wind energy, analyze and improve conventional energy systems, provision of scope for entrepreneurship and new startup companies in this area. Provides knowledge of conversions, utilization and grid integrations of different kinds of energy. Energy system lab is collaborated with Enervation, Mumbai and National Instruments for development and up-gradation of the laboratory according to the cutting-edge technology.	1. PV tied single phase grid connected system. 1. Novel Maximum Power Point Tracking (MPPT) algorithms for PV system. 2. DC/AC Micro-grid Control Techniques 3. Bidirectional DC-DC Converter. 4. High Power Density DC-DC Converter. 5. Intelligent Control for PMSM Motor drive. 6. Performance improvement of PMSM, BLDC drive using SiC, GaN-FET devices for EV.

Power electronics and drives laboratory	1. Tapas Roy (FIC) **2.** K C Barik.(TIC)	1. Dspace-1104 2. channel isolated MSO 3. Hall sensor based current sensors 4. LCR meter 5. Isolated and regulated DC power supply 6. Non-isolated power supply 7. Arbitrary function generator In build driver circuit based on IR2110	Enhance knowledge in the field of Power Electronics and Drives for exploring the innovative ideas and Hardware implementation of different converter topologies and control methodologies. This laboratory is specially build for the student and faculty research work. Carry out real time research in different fields.	This lab mainly focuses on the research work on the following major thrust area of Power Electronics and Electric Vehicles: DC to DC converter topology, Multilevel Inverter, Z-source Inverter, Matrix Converter, Switched Capacitor Converters, Interfacing with Renewable sources, Traction Inverter, Propulsion Drive System, Gallium Nitride Devices: investigation and application, Wireless Charging System: Static Charging System as well as Dynamic Charging System.
Industrial Automation Laboratory	1. Subrat Behera (FIC) 2. Aftab Alam (TIC)	**1.** Siemens PLC (S71200 with HM1KTP700 Accessories). **2.** Siemens PLC (S-7-200CN). **3.** Allen Bradley plc (Allen Bradley Micro logic - 1000PLC).	4. Provides knowledge of basic function of SIMATIC S7-1200 Model like Main Block Diagram, Description of the Blocks of the Main Block Diagram, Input Module, output Module, Field Modules, CPU, Control Elements, Counters, Timers, Addressing protocols, Memories, Function Blocks. Develop project applications for entrepreneurial ventures and render consultancy services to the industries for fund generation.	1. Linear Bottle Filling Plant 2. Training programme to train B.Tech and M.Tech students
Simulation Laboratory	1. Manoj Kumar Moharana (FIC) 2. Surya Narayan Mohapatra (TIC)	1. MATlAB, 2. Power world, 3. MI Power 4. ETAP 5. LabVIEW 6. MULTISIM	Electrical Power Systems simulation is an important technology forthe energy production industry with goals encompassing generation andtransmission planning, short-term operational assessment, financial analysis,control algorithm development, and power quality assurance. Common usesof simulation for power systems include power or load flow	1. Load flow (power flow study) 2. Short circuit or fault analysis 3. Protective device coordination, discrimination or selectivity 4. Transient or dynamic stability 5. Harmonic or power quality analysis 6. Optimal power flow

			estimation,machine initialization, short and open circuit fault injection, transient analysis,control of generating units, and optimization of power flow and quality.Laboratory has industrial collaboration with PRDC.	

3. A. Instructional Materials

Course Faculty	Course Title	Course Material Developed
Tapaswini Biswal	Basic Electrical Engineering	PPTs, Activity Questions, Lecture Videos
Lipika Nanda	Basic Electrical Engineering Lab	Instruction Manual, Video Lectures, PPTs
Rudra Narayan Dash	DC Machines and Transformers	PPTs, Activity Questions, Lecture Videos
Suchismita Roy	Network Analysis	PPTs, Activity Questions, Lecture Videos
Subhendu Bikash Santra	Analog Circuits	PPTs, Activity Questions, Lecture Videos
Samita Rani Pani	Networks and Electronics Circuit Lab	Instruction Manual, Video Lectures, PPTs
Banishree Mishra	AC Machines	PPTs, Activity Questions, Lecture Videos
Rudra Narayan Senapati	Digital Circuits	PPTs, Activity Questions, Lecture Videos
Tanmoy Roy Choudhury	Electrical Measurements and Measuring Instrument	PPTs, Activity Questions, Lecture Videos
Tapas Roy	Linear Control Theory	Instruction Manual, Video Lectures, PPTs
Subrat Kumar Barik	Electromagnetics	PPTs, Activity Questions, Lecture Videos
Tanmoy Roy Choudhury	Electrical Measurements Lab	Instruction Manual, Video Lectures, PPTs
Rudra Narayan Senapati	Digital Circuit Lab	Instruction Manual, Video Lectures, PPTs
Rudra Narayan Dash	Electrical Machines Lab	Instruction Manual, Video Lectures, PPTs
Sarita Samal	Power Transmission and Distribution	PPTs, Activity Questions, Lecture Videos

Babita Panda	Power Electronics	PPTs, Activity Questions, Lecture Videos
Tapas Roy	Microprocessors and Interfacing	PPTs, Activity Questions, Lecture Videos
Soubhagya Ranjan Prusty	Professional Ethics and code of conduct	PPTs, Activity Questions, Lecture Videos
	Power Electronics Lab	Instruction Manual, Video Lectures, PPTs
Alivarani Mohapatra	Control System Lab	Instruction Manual, Video Lectures, PPTs
Tapas Roy	Microprocessor Lab	Instruction Manual, Video Lectures, PPTs
Sriparna Roy Ghatak	Power System Operation and Control	PPTs, Activity Questions, Lecture Videos
Banishree Mishra	Electric Drives and Control	PPTs, Activity Questions, Lecture Videos
Prof. Padarbinda Samal	Power Systems Lab	Instruction Manual, Video Lectures, PPTs
Banishree Mishra	Electric Drives Lab	Instruction Manual, Video Lectures, PPTs
Subodh Ku Mohanty	Switch Gear and Protection	PPTs, Activity Questions, Lecture Videos
Arjyadhara Pradhan	Electrical Machine Design	PPTs, Activity Questions, Lecture Videos

3.B. Instructional Materials (Contents developed by faculties)

Name of the Faculty	**Name of the module developed**	**Platform on which module is developed**
Prof. Subhra Devdas	IoT From Scratch to Advanced	**KIITX**
Prof. Tanmoy Roy Choudhury & Prof. Subhendu Bikash Santra	Power Converters for EV & PV	**KIITX**
Prof. K.V.V.S.R. Chowdary	Hybrid Electric Vehicle	**KIITX**
Prof. Chitralekha jena	Basics Of Electrical Engineering	**KIITX**
Prof. Banishree Mishra and Snehalika	Power Electronics	**KIITX**
Prof. Pradeep Kumar Sahu & Prof. Alivarani Mohapatra	Solar Photovoltaic (SPV) System	**KIITX**

4. Working Models/ Charts/ Monograms etc.

Sl No	**Name of the Laboratory**	**Working Charts**
1	Basic Electrical Engineering Laboratory	Covid Protocol Chart
		Emergency Response for Electrical Fire

		DO's and DON't in the Lab
		Laboratory Regulation and Safety Rules
		Instruction for writing Laboratory Booklet
		Program Outcomes
		Program Educational Objectives(PEOs)
		Electrical Hazards
		Safety Precaution to be taken in Laboratory
		Electric Shock :First Aid procedures
		Different Part of DC Motor and 3-phase Slip ring Induction Motor
		Different part of AC Machine
		First and Guide -Electrical Shock
		List of Experiment
2	Electrical Machine Laboratory	Covid Protocol Chart
		Rules for working safety around Machine
		Electrical Hazards
		Vision and Mission
		Emergency Response for Electrical Fire
		Safety Precaution to be taken in Laboratory
		Instruction for writing Laboratory Booklet
		List of Experiment
		Program Outcomes
		Program Educational Objectives(PEOs)
3	Electric Drives Laboratory	Covid Protocol Chart
		Electric Shock: First Aid procedures
		Emergency Response for Electrical Fire

		Safety Precaution to be taken in Laboratory
		Program Educational Objectives(PEOs)
		Program Outcomes
		Vision and Mission
		List of Experiment
		Scope and Application
4	Power Electronics Laboratory	Covid Protocol Chart
		List of Experiment
		Laboratory Regulation and Safety Rules
		Electric Shock: First Aid procedures
		First and Guide -Electrical Shock
		Safety Precaution to be taken in Laboratory
		Scope and Application
5	Microprocessor Laboratory	Covid Protocol Chart
		Instruction for writing Laboratory Booklet
		Electric Shock: First Aid procedures
		List of Experiment
		DO's and DON't in the Lab
		Safety Precaution to be taken in Laboratory
		Emergency Response for Electrical Fire
		Laboratory Regulation and Safety Rules
		Scope and Application

6	Networks and Electronics Circuit Laboratory	Covid Protocol Chart
		List of Experiment
		Safety Precaution to be taken in Laboratory
		Sope and Appliication
		Electric Shock :First Aid procedures
		Program Outcomes
7	Digital Laboratory	Covid Protocol Chart
		Instruction for writing Laboratory Booklet
		Electric Shock: First Aid procedures
		List of Experiment
		DO's and DON't in the Lab
		Safety Precaution to be taken in Laboratory
		Emergency Response for Electrical Fire
		Laboratory Regulation and Safety Rules
		Scope and Application
8	Electrical Measurement Laboratory	Covid Protocol Chart
		List of Experiment
		Electrical Hazards
		Laboratory Regulation and Safety Rules
9	Control System Laboratory	Covid Protocol Chart
		List of Experiment
		Safety Precaution to be taken in Laboratory
		Scope and Application
		Electric Shock :First Aid procedures
		Program Outcomes

		Vision and Mission
10	Power System Laboratory	Covid Protocol Chart
		Laboratory Regulation and Safety Rules
		Instruction for writing Laboratory Booklet
		Scope and Application
		List of Experiment
		First and Guide -Electrical Shock
		Electrical Hazards
		Vision and Mission
		Program Educational Objectives(PEOs)
		Program Outcomes
		Safety Precaution to be taken in Laboratory
		Emergency Response for Electrical Fire
		DO's and DON't in the Lab
11	Energy System Laboratory	Covid Protocol Chart
		Program Outcomes
		Laboratory Regulation and Safety Rules
12	Simulation Laboratory	Emergency Response for Electrical Fire
		Vision and Mission
		Program Outcomes
		List of sotware
		Electric Shock :First Aid procedures
		List of Experiment
13	Programmable Logic Circuit Laboratory	Covid Protocol Chart

		Emergency Response for Electrical Fire
		Program Outcomes
		List of Experiment
		Electric Shock :First Aid procedures
		First and Guide -Electrical Shock
14	Internet of Thing Laboratory	Covid Protocol Chart
		Program Outcomes
		Program Educational Objectives (PEOs)
		Electrical Hazards
		Electric Shock :First Aid procedures
		List of Experiment

5.8.4. Consultancy from Industry (20)

CAY 2022-2023			
Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
Energy Audit and Optimization	2 years	SOUL Ltd, BBSR	16,00,000
Survey, Planning of Electrical Wiring Design of Smart Classroom of KIIT and KISS University	4 years	SOUL Ltd, BBSR	40,00,000
CAYm1 2021-2022			
Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
skill development training programme for Vedanta Limited Lanjigarh.	4 years	Vedanta Limited, Lanjigarh,	Rs. 3,77,47,161
Summer Training	1 month	Student Self Sponsored	1,25,000
CAYm2 2020-21			
Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
Suryamitra Skill Development Program (1 Batch)	3 months	NISE, MNRE (GoI)	16,76,850
Summer Training	1 month	Student Self Sponsored	245000

CAYm3 2019-2020

Project Title	**Duration**	**Funding Agency**	**Amount (in Rupees)**
Summer Training	1 month	Student Self Sponsored	312000
Suryamitra Skill Development Program (2 Batches)	3 months	NISE, MNRE (GoI)	3353700

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)

Write Up

KIIT Deemed to be University 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

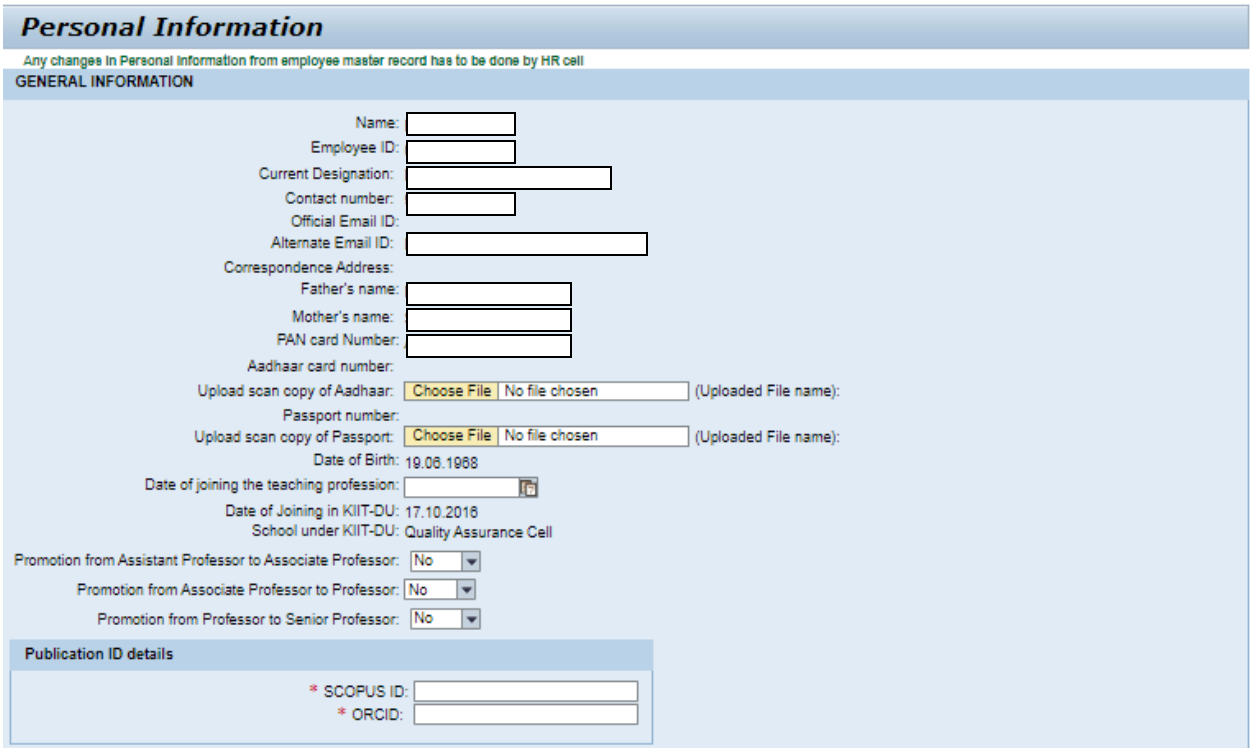
- Faculty members are encouraged, appreciated and recognized for their academic, research, administrative and outreach activities performance by University Management.
- Faculty members with significant contributions are awarded as Best staff, Best Researcher, Best faculty.
- Faculty members who upgrade 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- Assesment



Personal Information

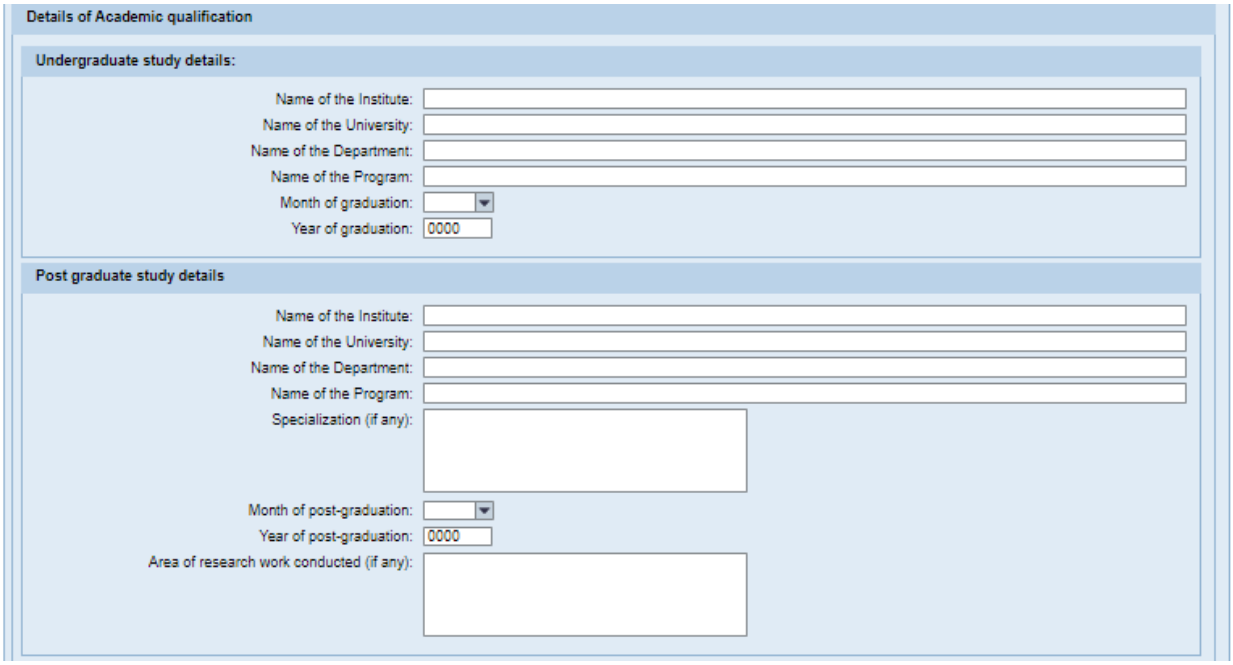
Any changes in Personal Information from employee master record has to be done by HR cell

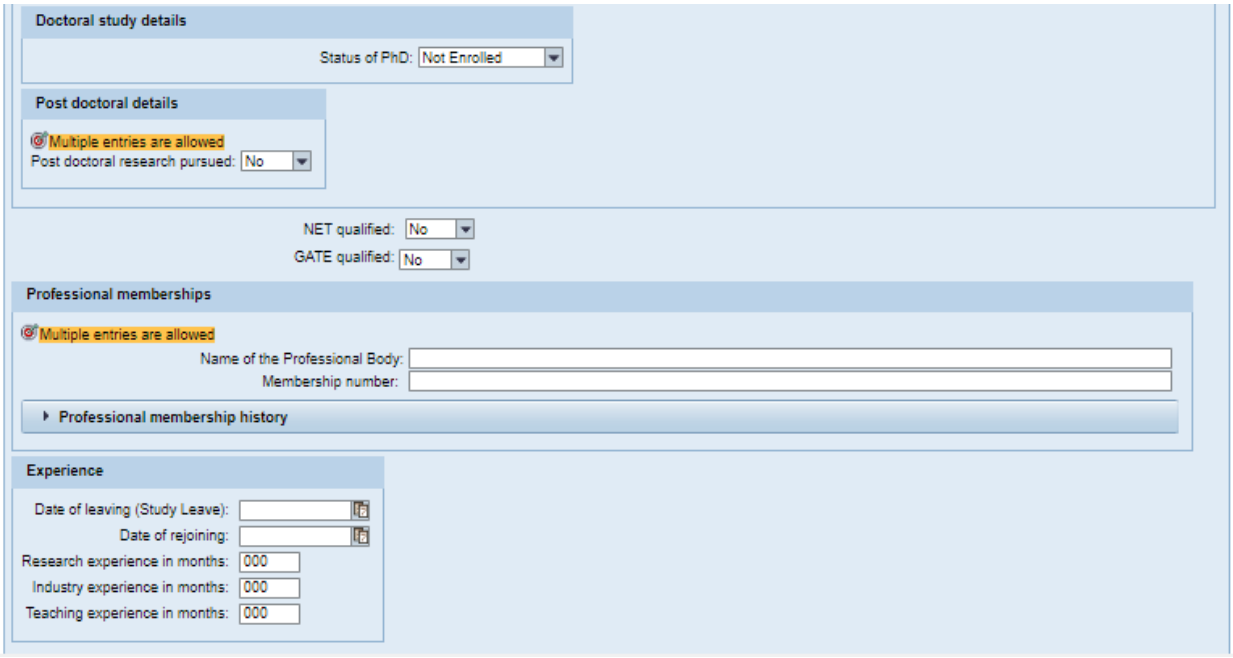
GENERAL INFORMATION

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

Publication ID details

* SCOPUS ID:
* ORCID:





Pedagogical Activities:-

Theory Course | Practical Course | Project/Thesis | Sessional Course | Course Coordinator - Theory | Course Coordinator - Practical | Course Coordinator - Sessional/Project

Theory Course Details

Multiple entires are allowed :-

Do you want to enter theory course details: Yes

* Academic year:	
* Level of the Course:	
* Course code:	
* Course name:	
* Semester:	Autumn
* Course credits:	0.00000
* Number of hours assigned for the course in the semester:	0.00
* Total Number of contact hours in the entire semester:	0.00
* Number of learning activities conducted:	000
Upload a single PDF document comprising descriptions/questions for: different learning activities, mapping with COs and their detailed evaluation schemes	Choose File | No file chosen
* Total number of students in this course under your tutelage:	00000
* Number of students under your tutelage who have successfully completed: the course	00000
* Number of hours spent in the entire evaluation process for this course:	0.00
* Number of Question papers set:	0
* Number of Question papers moderated:	0
* Total hours of invigilation duty:	0.00

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 entires are allowed :-

Do you want to enter theory course details: Yes

* Academic year:	
* Level of the Course:	
* Course code:	
* Course name:	
* Semester:	Autumn
* Course credits:	0.00000
* Number of hours assigned for the course in the semester:	0.00
* Total Number of contact hours in the entire semester:	0.00
* Number of learning activities conducted:	000
Upload a single PDF document comprising descriptions/questions for: different learning activities, mapping with COs and their detailed evaluation schemes	Choose File | No file chosen
* Total number of students in this course under your tutelage:	00000
* Number of students under your tutelage who have successfully completed: the course	00000
* Number of hours spent in the entire evaluation process for this course:	0.00

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 entires are allowed :-

Do you want to enter theory course details: Yes

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

Sessional Course Details

Multiple entires are allowed :-

Do you want to enter theory course details: Yes

* Academic year:
* Level of the Course:
* Course code:
* Course name:
* Semester: Autumn
* Course credits: 0.00000
* Number of hours assigned for the course in the semester: 0.00
* Total Number of contact hours in the entire semester: 0.00

Upload a single PDF document comprising descriptions/questions for: different learning activities, mapping with COs and their detailed evaluation schemes — Choose File | No file chosen

* Total number of students in this course under your tutelage: 00000
* Number of students who have successfully completed the course: 00000
* Number of hours spent in the entire evaluation process for this course: 0.00

Attainment of COs

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

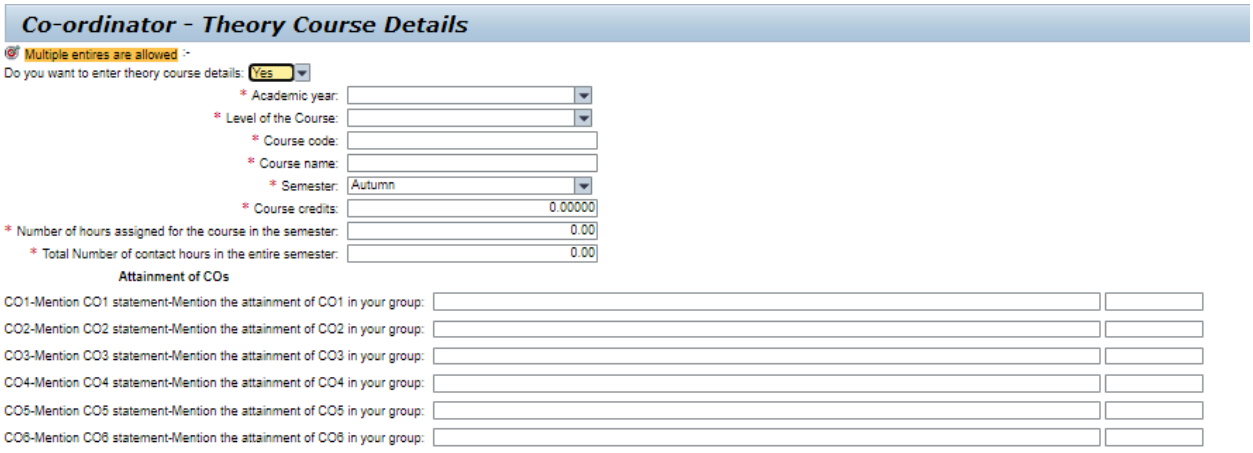
CO2-Mention CO2 statement-Mention the attainment of CO2 in your group:

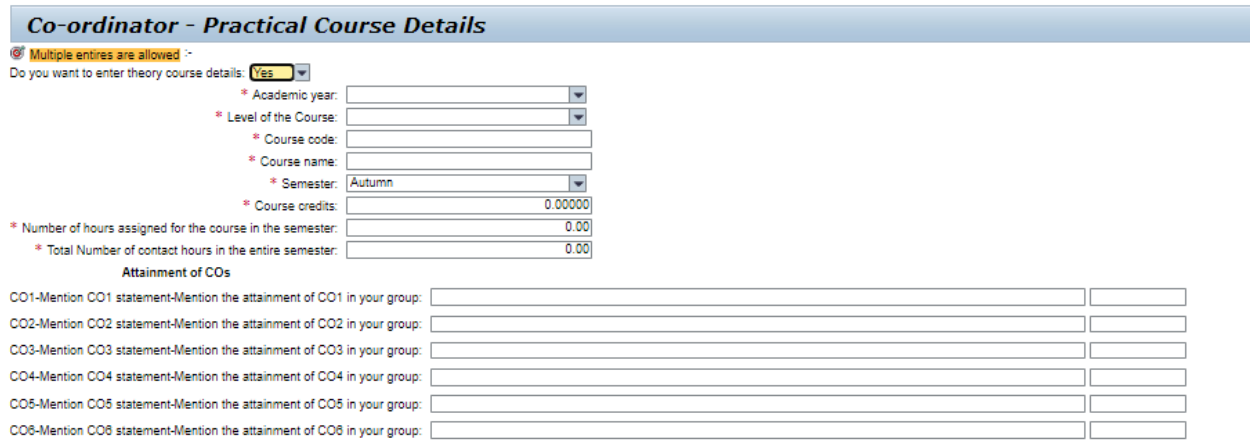
CO3-Mention CO3 statement-Mention the attainment of CO3 in your group:

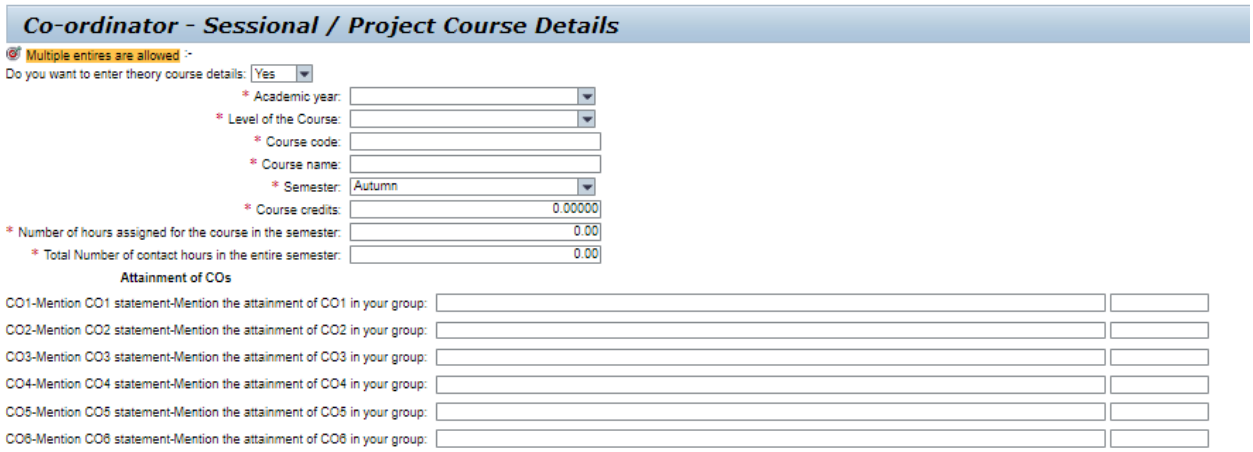
CO4-Mention CO4 statement-Mention the attainment of CO4 in your group:

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

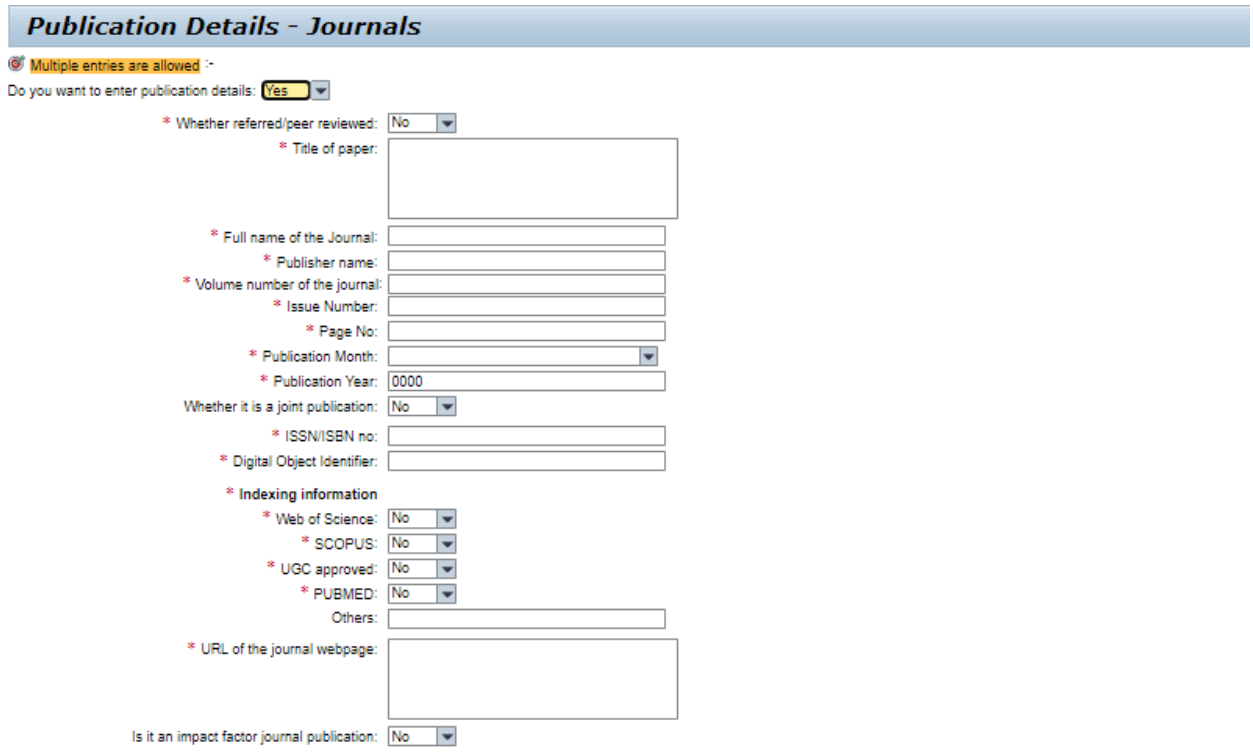
CO6-Mention CO6 statement-Mention the attainment of CO6 in your group:



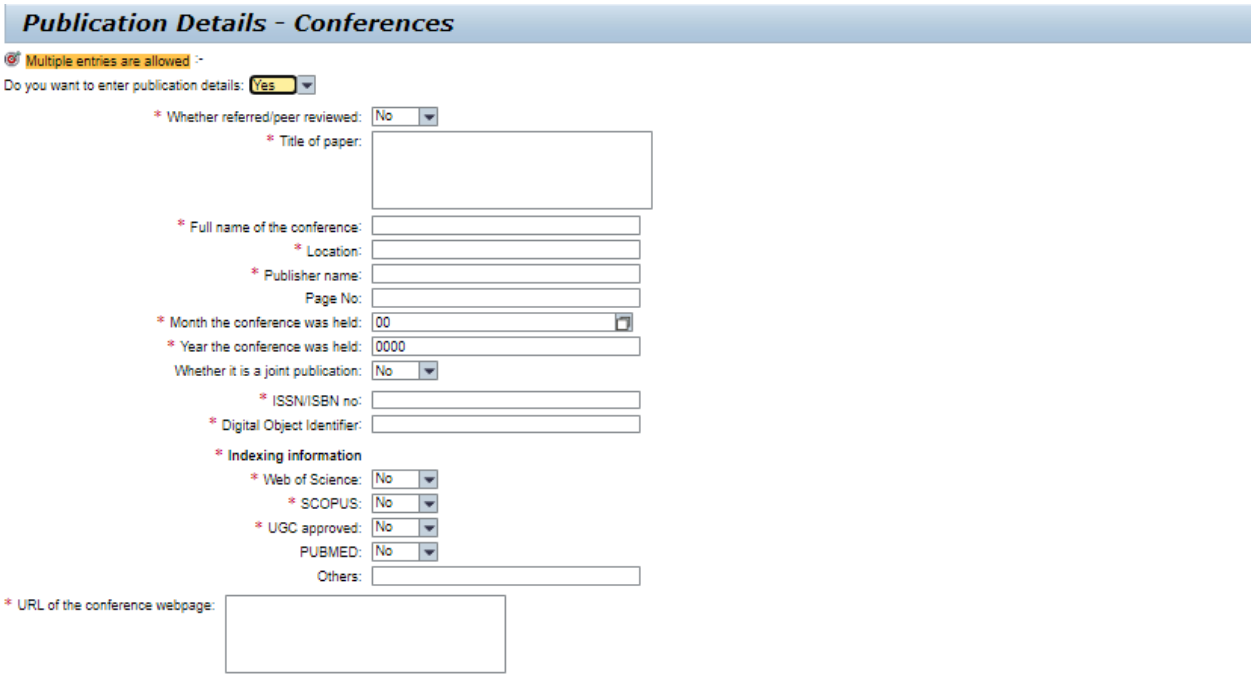




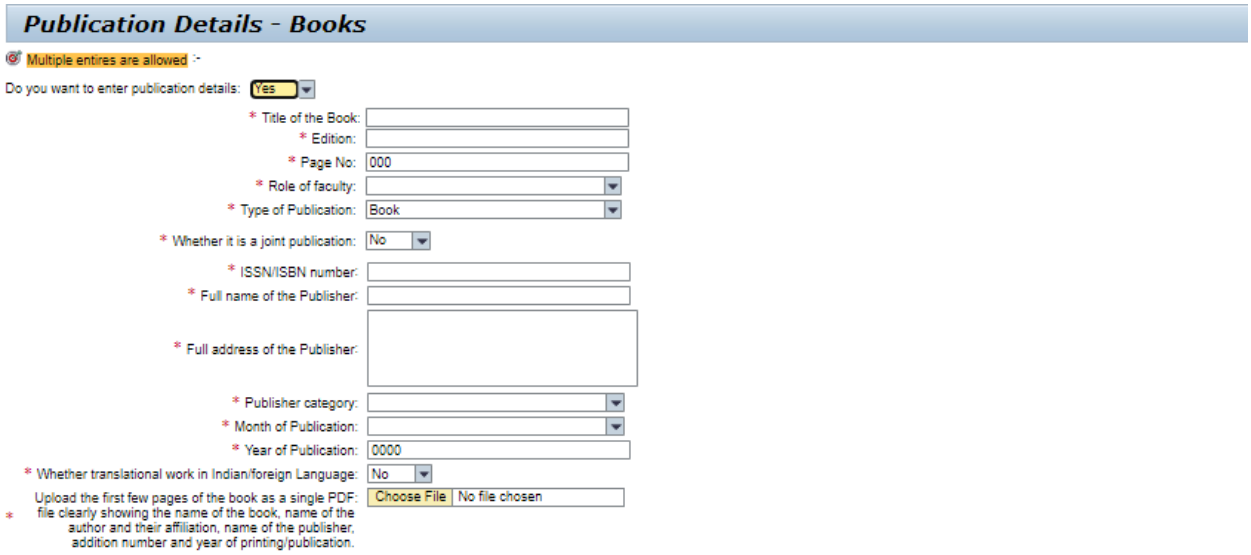
Publication Details-Journals



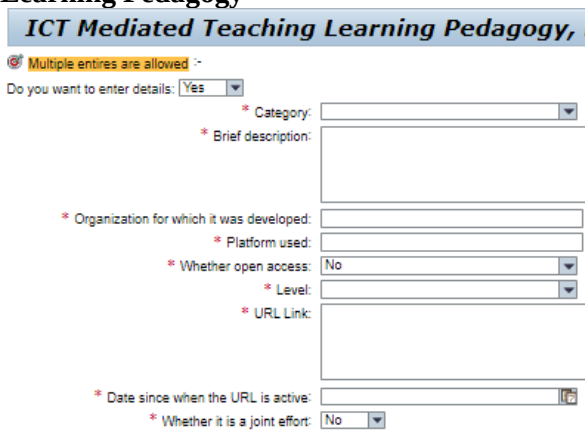
Publication Details-Conferences



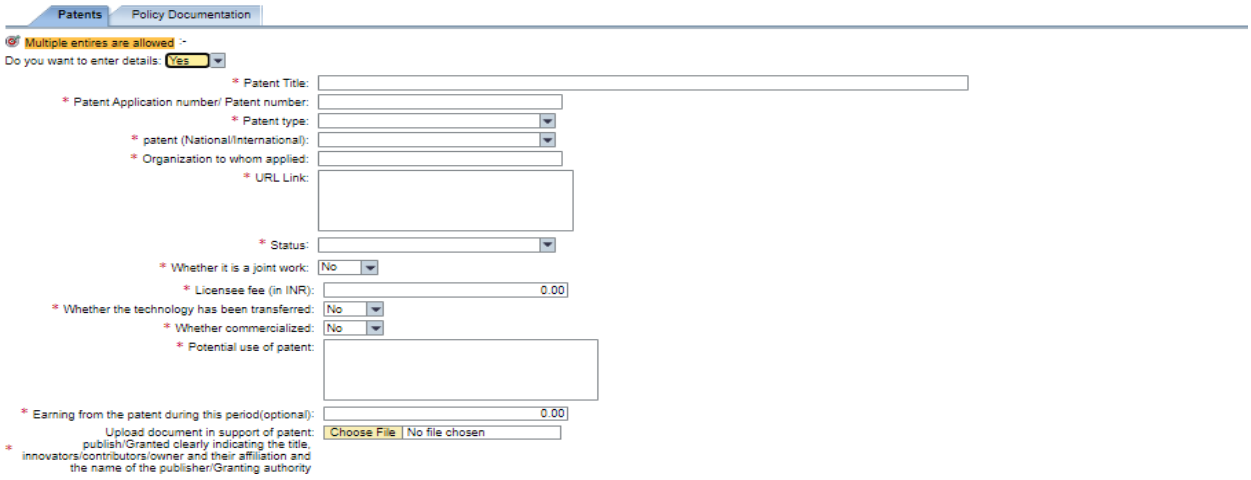
Publication Details-Books

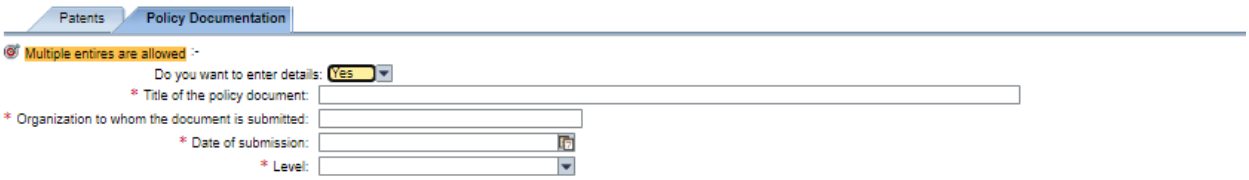


Learning Pedagogy

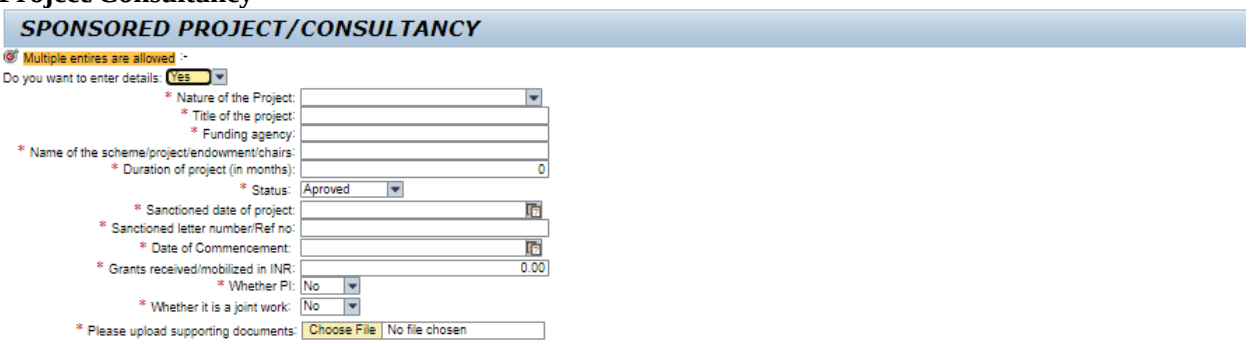


Patents

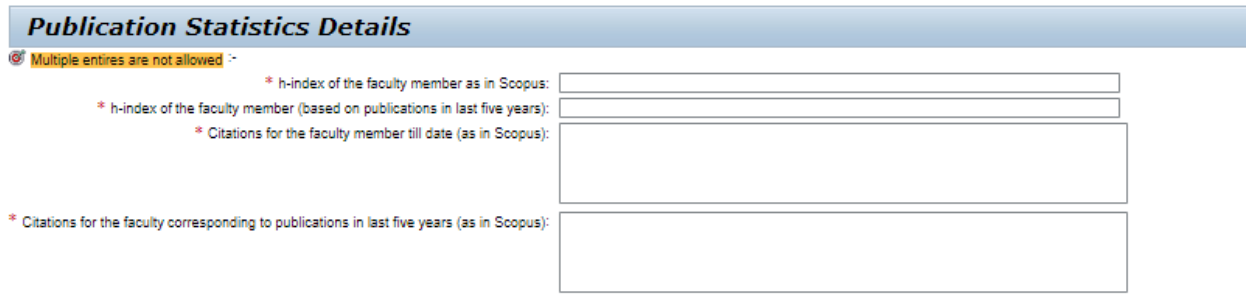




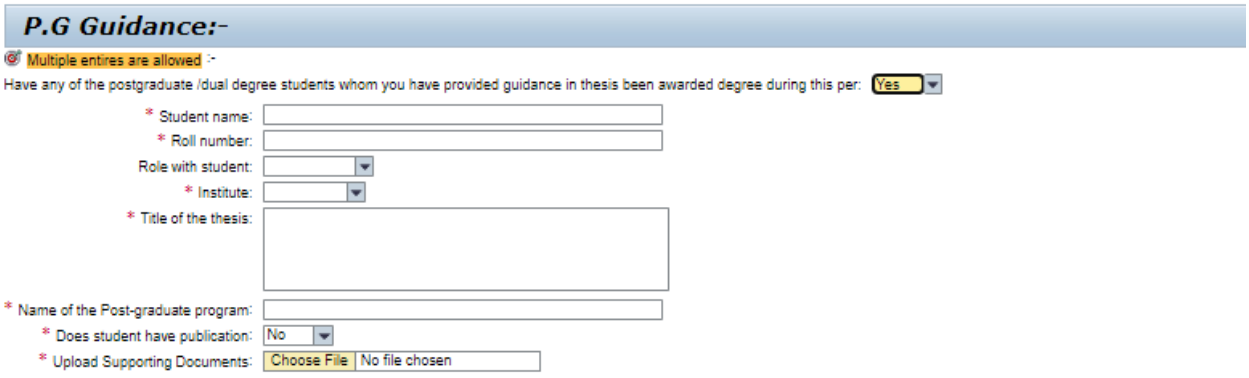
Project/Consultancy



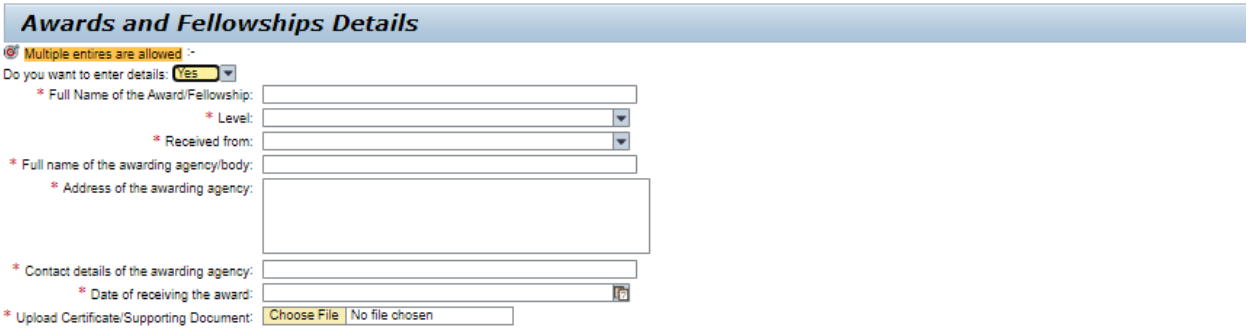
Publication Statistics



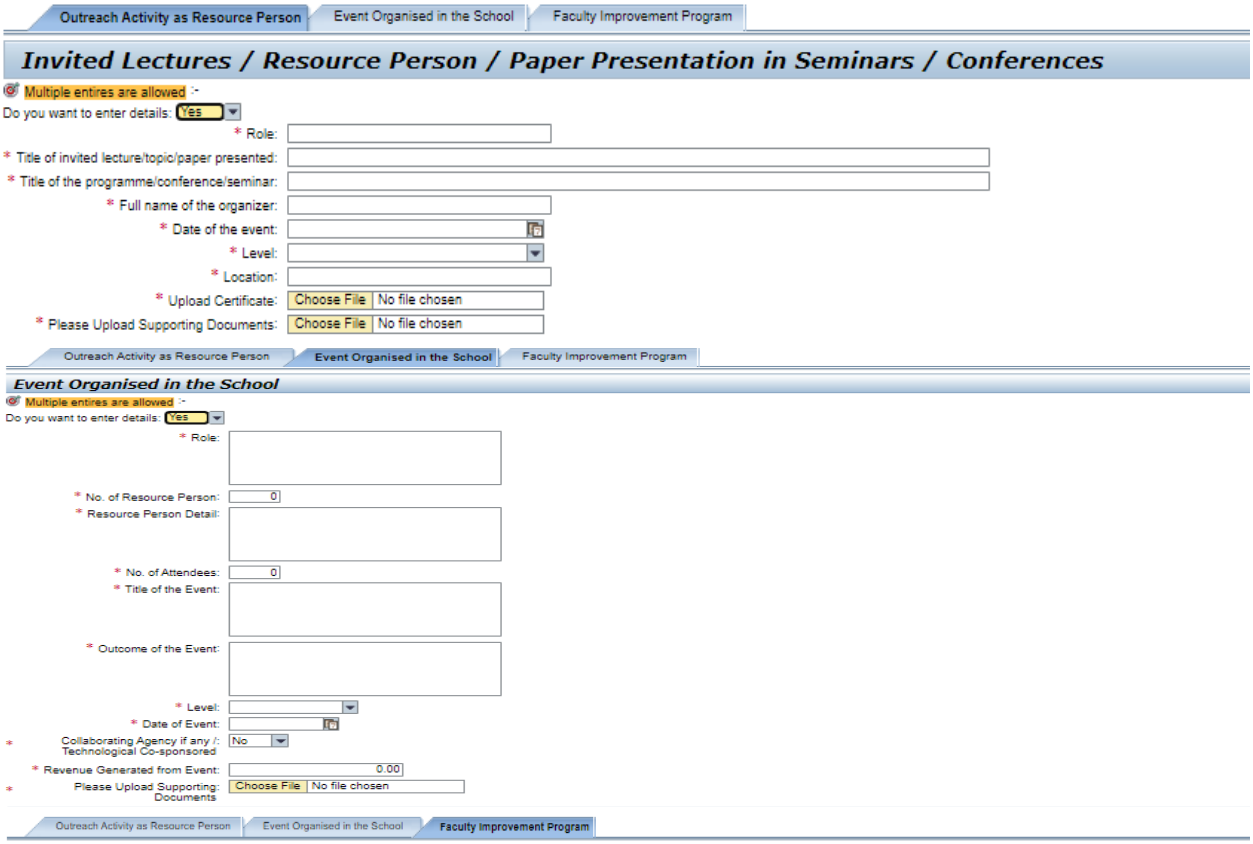
P.G Guidance



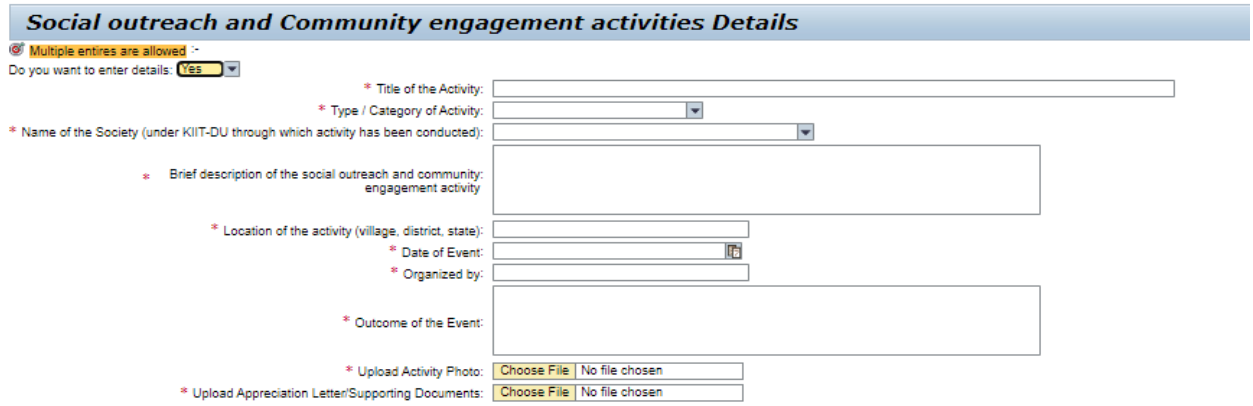
Awards and Fellowships



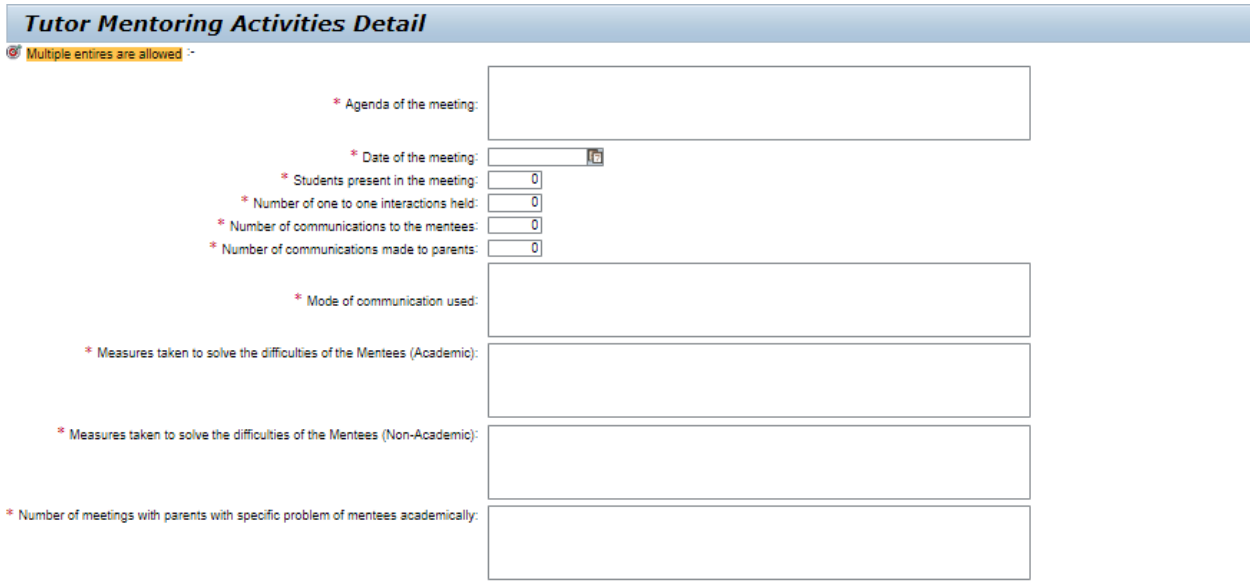
Interaction with Outside World



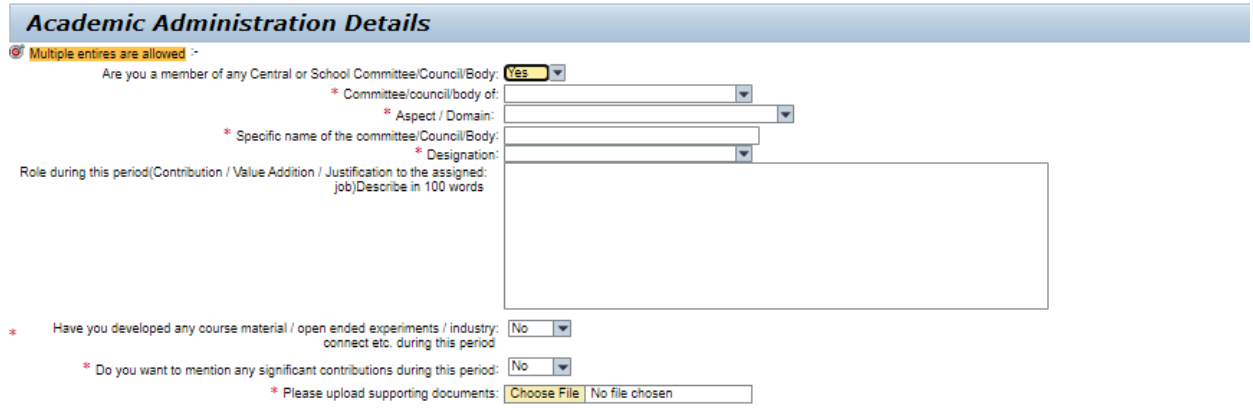
Social Outreach



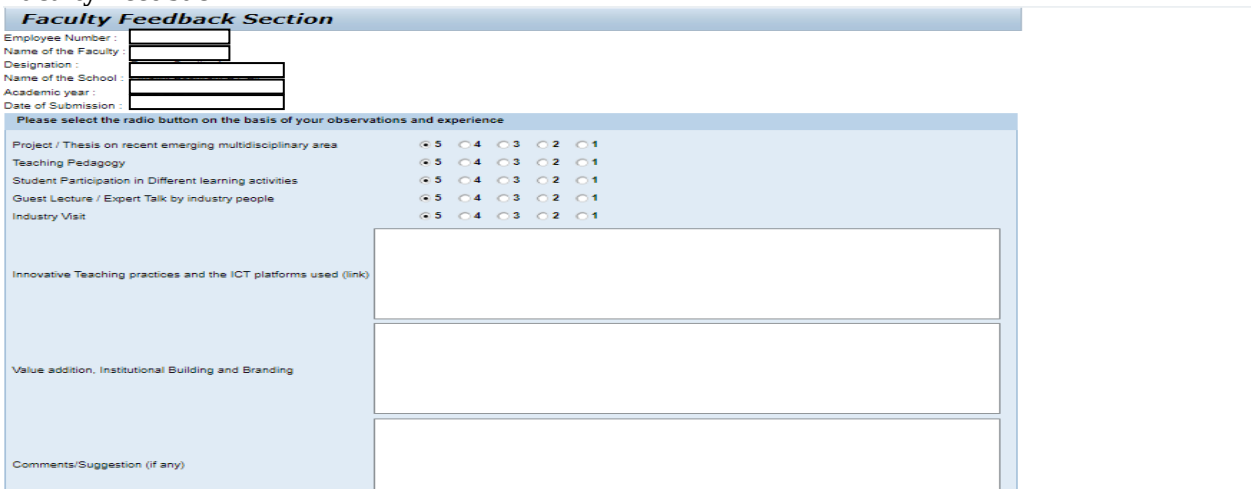
Tutor Mentoring



Academic Administration



Faculty Feedback



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 Deemed to be University 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/emeritus faculty are given below for three assessment years.

Details of Visiting/Adjunct/Emeritus Faculty: 2021-2022

Sl. No.	Name	Institution or University or Retired Professor	Subject	Hours of interaction with visiting faculty
01	Prof. N. K. Kishore	IIT Kharagpur	Pulse Generators for Electrochemotherapy	3 hours
02	Mr. Soumya Prakash Patra	General Manager & HOD, Electrical Department, NALCO,	Sustainable Mining	5 hours
03	Mr. Souvik Hazra	Infineon Technologies AG , Munich	Role of Electrical Engineers in making digital india	3 hours
04	Ms Aratrika Roy	JRF at IIT Kharagpur	A brief introduction to IC design	3 hours
05	Dr. Nidhi Mishra	Hong Kong Polytechnic University, Hong Kong.	Power Quality Improvement in Converters for Grid Tied Applications	3 hours
06	Dr. Rojalin Pradhan	Alliance School of Business	selection of right career after engineering	3 hours
07	Ansuman Dash	Tahasildar cum Executive Magistrate, Biramitrapur in Dist: Sundergarh.	career guidance to prepare for government jobs	3 hours
08	Rahul Kumar Singh	Mahindra Electric	Technical and HR skills to crack interview	3 hours
09	Kaushal K. Vaishnav	Black & Veatch	Taking ownership of your career	3 hours
10	Mr.Prakhar Agarwal	T2Reality Solutions Pvt Ltd	Tips and Tricks to become Enterpreneur	3 hours
			Total hours of interaction	32 hours

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. V. S. S. Pavan Kumar Hari	IIT, Bombay	Control and Modulation Methods for Variable Frequency Drives	5 hours
02	Dr. D. P. Kothari	VIT, Vellore	Energy and Environment problems facing the third world and their probable solutions for sustainable development and poverty alleviation	5 hours
03	Dr. (Mrs.) Premalata Jena	IIT, Roorkee	Protection of Smart Grid	5 hours
04	Dr. S Mohapatro,	IIT, Bhubaneswar	Application of High Voltage for Air Pollution Control	5 hours
05	Mr. Kanagaraj Krishnomorrthy	Syngient Technologies (P) Limited, India	Internet of Things (IoT), Networks, Wireless Sensor Networks (WSN), 5G mmWave Networks, 4G LTE Networks, Cognitive Radio Networks, Software Defined Networks (SDN), Mobile Ad-hoc Networks (MANET), Vehicular Ad-hoc Networks (VANET), GSM, CDMA, Advance Routing &	5 hours

			Switching	
06.	Dr. Sudip Sen	Uttaran ETC	Reskill of Qualities and Career Opportunity in Present Challenging Context	5 hours
07.	Prof. Josep M. Guerrero	Retired Professor	Microgrids from land, to the sea, and out in space	5 hours
08.	Thanga Raj Chelliah	IIT, Roorkee	Power Electronics in Hydro-Electric Systems: Configurations, Challenges, and Future Scopes	5 hours
09.	Prof. Celia Shahnaz,	BUET, Dhaka	Signal and Biomedical Applications Based on Deep Learning	5 hours
			Total hours of interaction	45 hrs

Details of Visiting/Adjunct/Emeritus Faculty: 2019-2020

Sl. No.	Name	Institution or University or Retired Professor	Subject	Hours of interaction with visiting faculty
01	Prof. B D Subudhi	IIT Goa	Control of autonomous under water vehicles	3 hours
02	Dr. A.K. Rathore	Concordia University, Canada	Power Electronics	3 hours
03	Dr. Srinivas Karanki	IIT Bhubaneswar	Power Electronics	3 hours
04	Dr. Amit Kumar Mishra	University of Cape town, South Africa	Coexistence of Radar and Telecommunication : Some recent	3 hours

			trends	
05	Dr. L. Behera	IIT Kanpur	Control System	3 hours
06	Ashok Kumar Pradhan	IIT Kharagpur	Smart Grid	3 hours
07	Ashok Kumar Tripathy	Ex - Director General CPRI	Smart Grid	3 hours
08	Dr. Sandeep Anand	IIT Kanpur	Solar Power Technology	3 hours
09	Aviral Mahajan	Solar Technical Head IB SOLAR	Solar Power Technologies	3 hours
10	Dr. Dipankar De	IIT Bhubaneswar	AC Machines	3 hours
11	Sibabrata Das	Co-founder Atomberg Technologies Private Limited.	AC Machines	3 hours
12	Prof GopalaKrishna Srungavarapu	NIT ROURKELA	PSOC/ AC Machines	3 hours
13	Ujwal Verma	General Manager POSOCO,POWERGRID	Power system operation and control	3 hours
14	Baylon G. Fernandes	IIT Bombay	EDC	3 hours
15	Saroj Sahoo	Delta Electronics	EDC	3 hours
16	Dr. Sankarsan Mohapatro	IIT Bhubaneswar	Utilization of electric power	3 hours
17	Dr. **M.L.Kothari**	IIT Delhi	Neural Network	3 hours
18	Dr. Sukumar mishra	IIT Delhi	Wind power	3 hours
19	Himanshu J. Bahirat	IIT Bombay	Solar Power	3 hours
20	B.K. Panigrahi	IIT Delhi	Linear Control Theory	3 hours
21	Dr P.K.Ray	NIT Rourkela	Renewable energy sources	3 hours
			Total hours of interaction	63 hours

6 FACILITIES AND TECHNICAL SUPPORT (80) Total Marks 80.00

6.1 Adequate and well equipped laboratories, and technical manpower (40) T0tal Marks: 40

Sl.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	Basic Electrical Engineering Lab	3(30)	1. Transformer 2. DC Shunt M/C 3. Choke Coil, 4. 1-Φ and 3- Φ Variac 5. Megger. 6. 3-Φ Rectifier Unit 7. 3 Phase Squirrel Cage and Slip Ring induction motor.	30hrs	Pradipta Ku.Sahoo (TIC) Anjana Satapathy (TIC)	TS STA	Diploma Diploma
2	Network Electronic Ckt.	3(30)	1. CRO/DSO 2. choke coil 3. Function generator 4. 3-Φ Variac 5. DC regulated power supply 6. Thevenin Theorem trainer kit 7. Norton Theorem trainer kit 8. Milliman Theorem trainer kit 9. Max Power Transfer Theorem trainer kit.	10hrs.	Santosh Ku.Nayak (TIC) Priyamaya Rath	STA TA	Diploma M.Tech
3	Electrical Measurement	3(30)	1. LVDT 2. RTD 3. CT& PT 4. Kelvin double bridge 5. Speed measurement by Magnetic and photoelectric pick up. 6. Wheatstone Bridge 7. Anderson's Bridge	7hrs.	Monalisa Dash (TIC) Sasmita Kar	TA TA	Diploma Diploma
4	Control System	3(30)	1. PID Controller Kit 2. Process control trainer 3. Linear system simulator Kit 4. Syncro Tranmitter & Reciever Transformer kit 5. Setup to design lead-lag Compensator 6. DC position control kit 7. DC Servo Motor Control System 8. Temperature Controller	15hrs.	Surath Ch.Behera (TIC) Sasmita Kar.	STA TA	Diploma Diploma

			System 9. Setup for Compensation Design 10. DSO 11. Analog Oscilloscope 12. Power scope 13. Function Generator				
5	Power Electronic	3(30)	1.3-Φ Half wave and Full wave controlled rectifier 2. 3-Φ Full/half uncontrolled Bridge Converter 3. 1-Φ half/full wave controlled converter 4. 1-Φ AC to AC converter 5. Fly back Converter 6. DC to DC series Resonant Converter 7. Microcontroller based sine wave MOSFET Inverter 8. 1-Φ IGBT inverter 9. step-down Chopper Experimental 10. MOSFET, SCR, IGBT & TRAIC -STATIC CHARACTRISTICS MODULE 11. dsPIC4011 based 3-PHASE PWM INVERTER 12. DSO(50 MHz) 13. Analog Oscilloscope 14. 3-Φ Variac, 1-Φ Variac, CRO 15. 1-Φ Isolation Transformer	20 hrs	Kamala Kanta Swain (TIC) Manoranjan Das	STA STA	Diploma. Diploma
6	Electrical Drive	3(30)	1. Vector Controller of 3-Φ Induction Motor 2. IPM Based Power module 3. Static rotor resistance control o slip ring Induction Motor 4. 3-Ø Multilevel Inverter with mo load 5. 1- Ø Dual converter Power Kit SDP 6. 1- Ø full controlled converter with motor load 7. 3- Ø Half & Full control Thyristo Converter Trainer kit 8. 2- Ø AC Servo Motor 9. 3- Ø IGBT Inverter with 3- Ø Induction Motor & Slip ring induction motor	20 hrs	Ajay Ku.Sahu (TIC) Bapin Baral.	TA STA	Diploma,a mie Diploma

			10. 1- Ø cyclo-Converter Four quadrant Chopper with DC motor load 11. Stepper Motor control kit 12. 1- Ø Ac To Ac Regulator 13. Power Scope (30 MHz) 14. DSO				
7	Electrical Machine Lab	3(30)	1. DC Generator(Shunt, Series, Compound) 2. DC Motor(Shunt, Series, Compound) 3. 3-Φ Alternator 4. 3-Ø Squirrel Cage Induction Mo & Slip ring Induction Motor 5. 3- Ø AC Synchronous Motor 6. 1-Ø Capacitor Induction Motor 7. 1-Ø AC Series Motor 8. Electric Machine Trainer 3-Phas Integrated-Xpo-Emt/Dc+3-Ph. Int 9. Electric Machine Trainer With Universal Ac /Dc Motor-Xpo-Emt/Dc+Uni 10. Electric Machine Trainer 3 Pha Ac Sql.-Xpo-Emt/Dc+3-Ph. Ac 11. Electric Machine Trainer Dc+D Xpo-Emt/Dc+Dc 12. Electric Machine Trainer 3Ph.Sal.Alt+Xpo-Emt/Dc+3Ph.Sal.Alt, 13. 1-Ø& 3 -Ø Transformer Trainer Xpo Tt(1Kva/3Kva) 14. Motor Fault Simulator/Low Voltage Fault Simulator Traine XPO-MFS 15. 1-Φ Transformer & 3-Φ Transformer	10hrs.	Mirza Ainul Haque (TIC) Sudhamaya Behera	TS TA	Diploma Diploma
8	Power System	3(30)	1. Electro Mechanical type over Voltage Relay, over Current Relay, Earth Fault Relay, Differential Relay 2. Oil Test Machine 3. Microcontroller Based IDMT/DM Type Over Current Relay 4. Negative Sequence Relay 5. Microcontroller Based 6. Directional Over Current Relay 7. Varley loop test Trainer 8. Different Protection Scheme of Alternator	30 hrs	Sibananda Sahoo (TIC) SuryaNarayan Mohapatra (TIC)	TS STA	Diploma Diploma

			9. Study of VAR Compensator 10. Adaptive Power Factor Contro 11. Ferro Resonance Effect of 1-Φ Transformer 12. Active & Reactive Power contr of an Alternator 13. Generalized Constant ABCD of long transmission line model 14. Numerical over current Relay, Digital distance Relay, Over/Unde frequency Relay, Numerical differential Relay 15. Power Scope 16. 1-Φ Transformer & 3-ΦTranformer				

6.2 Laboratories maintenance and overall ambiance (10)

The laboratory maintenance schedule in school of Electrical Engineering, KIIT Deemed to be University is as below

Sl. No	Task	Frequency Daily/Weekly /Monthly/yearly	Performed By
1	Laboratory cleaning	Daily	House Keeping
2	Checking, repairing and zero point adjustment of measuring meters	Monthly	Technical Assistant
3	Alignment and greeezing of machines	Yearly	Technical Assistant
4	Winding and brush repairing of Variac	Half Yearly	Technical Assistant
5	Fuse and MCB Checking and repairing	Weekly	Technical Assistant
6	Soldering of various cables, patch cords, probes and crocodile clamps	Weekly	Technical Assistant
7	Checking and repairing of rectifier unit	Quarterly	Technical Assistant
8	Electro-mechanical relays alignment checking	Half Yearly	Technical Assistant
9	dielectric strength testing of insulating oil and replacement for oil testing kit	Yearly	Technical Assistant
10	Checking of thyristors in different converter kit	Quarterly	Technical Assistant
11	Checking and repairing of Triac in different module	Quarterly	Technical Assistant
12	Testing and Repairing of power and control unit of different testing kits	Quarterly	Technical Assistant
13	Testing and Repairing of Krammer Drive circuit	Quarterly	Technical Assistant
14	Testing and Repairing Rheostat, digital oscilloscope, Multi meter, DSO	Quarterly	Technical Assistant
15	Testing and repairing 8085,8086 and Serial cables	Half Yearly	Technical Assistant
16.	Use of blowers for cleaning of Computer accessories	Monthly	Attendant/Sub-staff

17.	UPS maintenance	Monthly	ICT Cell
18.	Desktop table and accessories repairing	Monthly	Development wing
19.	Testing and repairing of Computer accessories	Quarterly	ICT Cell
20	Projectors and other ICT facility maintenance	Monthly	ICT Cell
21	Testing of Earthling and Loose wiring	Quarterly	Technical Assistant

Overall ambience

In KIIT Deemed to be University Cleanliness and good academic ambience is the main focus since its inception. All laboratories are centralized AC (except machine related lab where ventilation is a prime concern).Any laboratory has several equipments specific to its own domain. Each of such equipments is well maintained in the due course of time. Any deficit of equipment/ test kit is noted at the beginning of the semester and efforts are taken to procure the same. These items need to be purchased periodically as when need arises. Annually each laboratory is monitored for their assets and a status report is prepared. Some components which are obsolete are disposed from time to time. For better learning purpose the number of students allotted per set up is maximum four.

6.3 Safety measures in laboratories (10)

Sr. No	Laboratory Name	Safety Measures
1	Basic Electrical Engineering Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup
2	Power System Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4. Fire Extinguisher / Emergency response for electrical fire 5. Electric shock : First Aid Procedure 6.Rubber mat 7. Proper earthling in Experimental setup 8.Hand Gloves 9. Student maintains sufficient distance from the rotating part of the machines. 10. Proper rating of MCB installed in each experimental tables.
3	Network and Electronics Circuit Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4. Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup 7. Proper rating of MCB installed in each experimental tables
4	Electrical Machine Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3.First Aid Box 4. Fire Extinguisher / Emergency response for electrical fire 5. Electric shock : First Aid Procedure 6. Rubber mat 7. Proper earthling in Experimental setup 8.Hand Gloves 9. Student maintains sufficient distance from the rotating part of the machines. 10. Brake drum must be cooled down by using water while performing the load test, otherwise it will damage the belts 11. Proper rating of MCB installed in each experimental tables
5	Power Electronics Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup 7. Proper rating of MCB installed in each experimental tables
6	Electric Drive Laboratory	1.Laboratory regulation and Safety rule 2.Do's and don'ts display in the laboratory 3. First Aid Box 4. Fire Extinguisher / Emergency response for electrical fire 5 Electric shock : First Aid Procedure 6.Rubber mat 7. Proper earthling in Experimental setup 8. Hand Gloves 9. Student maintains sufficient distance from the rotating part of the machines. 10. Proper rating of MCB installed in each experimental tables
7	Control System Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup 7. Proper rating of MCB installed in each experimental tables

8	Microprocessor laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup
9	Digital Circuit Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup
10	Electrical Measurement Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup
11	Energy System Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup 7. Proper rating of MCB installed in each experimental tables
12	Simulation Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup
13	Simulation Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup
14	IoT Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in Experimental setup
15	IoT Laboratory	1. Laboratory regulation and Safety rule 2. Do's and don'ts display in the laboratory 3. First Aid Box 4.Fire Extinguisher 5. Electric shock : First Aid Procedure 6. Proper earthling in

6.4 Project laboratory (20)

No.	Name of Laboratory	Name of Equipment/software	Utilization	Faculty Lab in charge	Qualification
1	Energy system Laboratory	1.Smart grid & power System setup 2. NI power electronics rapid control (smart grid) 3. Pyranomometer Meter with Integral Sensor Model 4. Ultraviolet Radiometer Model 5. Solar Power Meter Taiwan Model 6. Solar Flat Plate Water Heating System 7. Solar Evacuated Tube Collector Setup 8. DC Micro Voltmeter 9. Thermocouples with Indicator, Thermopiles 10. Rotameter for water upto 5 LPM, Rotameter For Air upto 250 LPM 11. Solar Cooker 12. Thermal Anemometer 13. Solar Photovoltaic Module(5W) 1. Solar Training & Development System With	Academic/Research for M.Tech &Ph.D	Satyaranjan Jena	Ph.D

		Solar Panel Model 2. 3-Φ Energy Meter 3. Insight Solar Thermal Kit 4. Frequency Meter 5. Regulated DC Power Supply Unit 6. Wind Energy Training System 7. Solar PV GRID tied training system 8. Solar PV Emulator 21. Solar PV Module Trainer KIT			
2	Power electronics and drives Laboratory	1. Dspace-1104 2. channel isolated MSO 3. Hall sensor based current sensors 4. LCR meter 5. Isolated and regulated DC power supply 6. Non-isolated power supply 7. Arbitrary function generator In build driver circuit based on IR2110	Academic/Research for B.Tech, M.Tech & Ph.D	Tapas Roy	M.Tech
3.	Industrial Automation Laboratory	**1.** Siemens PLC (S71200 with HM1KTP700 Accessories). **2.** Siemens PLC (S-7-200CN). Allen Bradley plc (Allen Bradley Micro logic -1000PLC).	Academic/Research for B.Tech, M.Tech & Ph.D/Trainings	Subrat Behera	M.Tech
4	Internet of Things Laboratory	1. Hub Based home automation system 2. BLYNK automation 3. TASMOTA OPEN SERVER	Academic/Research for B.Tech, M.Tech & Ph.D/ Trainings	Subhra Devdas	Ph.D
5	Simulation Laboratory	1. MATlAB, 2. Power world, 3. MI Power 4. ETAP 5. LabVIEW	Academic/Research for B.Tech, M.Tech & Ph.D/ Trainings	M. K. Maharana	Ph.D

CRITERION7	Continuous Improvement	75

7 CONTINUOUS IMPROVEMENT (75) Total Marks 75.00

7.1 Actions taken based on the results of evaluation of each of the COs, POs & PSOs (30) Total Marks 30.00

Institute Marks : 30.00

POs Attainment Levels and Actions for Improvement- (2021-22)

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge			
PO1	2.50	2.58	Attainment target is achieved. The threshold value can be enhanced in futur. The future actions are as follows.
Action 1: Classes are taken through animation, simulation and video based lectures. It helps students for clear understanding. **Action 2:**More field and Industry visits can be conducted to showcase their theoretical knowledge. **Action 3:** Poor students are identified and remedial classes have been conducted for them. Students are encouraged through Two-way learning. **Action 4:** Tutorials based on application of Engg. Mathematics to be taught for average students to improve their performance.			
PO2:Problem Analysis			
PO2	2.50	2.58	Overall attainment target has been met. Students are engaged in more number of problem solving for the all the core subjects.
Action 1: Students are engaged with periodical tutorial classes with smaller group size on problem solving for the core engineering areas. **Action 2:** More industrial visits are conducted for the students to gain the knowledge on complex engineering problems. **Action 3:** Students are encouraged to refer the literature survey for analyzing and solving complex engineering problems. **Action 4:** Introducing Mini project as a part of evaluation in identified laboratory courses. **Action 5:** Individual and group assignments are conducted for the students.			
PO3:Design/development of Solutions			
PO3	2.50	2.57	Overall attainment target has been met. Students must be exposed to more challenging Engineering design problems to foster their engineering analytical capabilities.
Action1: Students are motivated to include all standard parameters and constraints according to National and International safety norms and to address environmental concerns **Action2:** Design classes are conducted in the tutorial classes through different software platform like Matlab/ETAP/MiPower etc. **Action3:** The students were encouraged to take part in product development/exhibition/Techfest contests.			
PO4:Conduct Investigation of Complex Problems			
PO4	2.50	2.56	Attainment target has been achieved. Students are encouraged to carry out detailed technical investigation based on real world engineering problem statements and solve complex problems

			through the rigorous literature survey..
Action1: Students are encouraged to be familiar with various software for designing the real engineering designs/problems.. **Action2:** Students are motivated to go for training/internship in industries/premier institutions for finding out the design issues of electrical system.			
PO5:Modern Tool Usage			
PO5	2.5	2.71	Overall attainment target is achieved. Further actions should be taken to enhance quality laboratory sessions to enhance practical engineering skills. The students should be exposed to cutting edge , state of the art laboratory facilities and encouraged to work beyond contact hours to foster their hands on skills on modern hardware and softwaretools.
Action1: The students are motivated to handle the modern tool/research facilities available in department. **Action2:** Students are encouraged to apply various modern tools like Labview, IoT, dSpace, etc for hardware and software simulation like Matlab,ETAP,MiPower of the engineering system.			
PO6:The Engineer and Society			
PO6	2.5	2.84	Overall attainment target has been attained. 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.
Action1: Live projects are introduced in Labs which gives solution for societal needs. **Action2:** To understand the safety concerns and social aspects of the society, students were encouraged to do projects on real time problems. **Action 3:**Field visits are conducted toexpand their practical knowledge and to observe the improved practices in engineering.			
PO7:Environment and Sustainability			
PO7	2.5	2.81	Overall attainment target is met. Engineering theory courses as well as laboratory courses directly or indirectly sensitize students to develop engineering solutions and applications for being environmental friendly.
Action1: Short local trips are arranged within the campus like Substation, Effluent treatment, hazard and waste management plants. **Action 2:** Students were motivated to work on projects of renewable energy sources and Electric Vehicles etc. **Action 3:** Students are introduced with prototype projects in renewable energy and electric vehicle course.			
PO8:Ethics			
PO8	2.5	2.82	Attainment target is aattained. 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.
Action1: It is observed that students were found lagging in analytical part. Several workshops were conducted to overcome this issue with experts from Industry. In addition to that tutorial hours are handled by two faculty members **Action 2:** Yoga and PT classes are introduced to improve the moral values of the students.			

Action 3: The plagiarism report for all B. Tech. project reports are compulsory and technical papers is mandatory to encourage ethical practices.

Action 4: Students are engaged with the extra classes beyond the regular planned classes.

PO9:Individual and Team Work

PO9	2.50	2.73	Overall attainment target is achieved. This target can further improved by exposing students to more complex and design assignments and exercises.

Action1: Students are motivated to participate in national and international workshops and guest lecturers with their course faculties.

Action2: More group activities like ppt presentation, poster presentation are included in each subject activity to enhance the team activity. Further, Open-ended experiments are conducted which will be a group activity.

Action 3: Students are organizing technical events and non-technical events at department as well as university level.

PO10:communication

PO10	2.50	2.78	Overall attainment target has been met. Apart from explicit course on Professional Communication, Business Communications, CAT-I and II some exercises like slide Presentation in class, Seminar, Grand Viva, group experiment sessions in laboratory are the curricular components which help students to become a effective communicator.

Action1: Group discussions, presentation and new learning outcomes are regularly introduced in the curriculum to work on the communication skills of the student

Action2:. Soft skill training helps to students to improve various aspects of communication.

Action 3: Students are motivated to present/attend in National/ International conferences/webinar.

PO11:Project Management and Finance

PO11	2.50	2.78	Overall attainment target is achieved. More classes are dedicated for B. Tech. project classes. The minor project, project art-I & Part-II helps students to enhance their technical skills of project management & finance planning.

Action1: The students are studied more management papers which enhance their managerial and management skill.
Action2: The awareness created trough seminar/group discussion among the student regarding the management principles and managing projects.
Action 3: The techno-economical analysis will be included as a part of project assessment; this will improve the knowledge regarding project management and finance.

PO12: Life-long Learning

PO12	2.50	2.64	Overall attainment target is achieved It can be further improved by discussing complex technical problems beyond syllabus and assignments to students.

Action1: Invited talk/ Guest lecturers are frequently conducted for the students to equip them with the recent trends
Action2:. The use of ICT facilities, such as PPTs, live demonstrations of current topics imparted using video lectures to habituate students for lifelong learning.

PSOs Attainment Level and Action For Improvement (2021-22)

PSOs	Target Level	Attainment Level	Observations
PSO 1: Demonstrate knowledge and hands-on competence in the area of characteristics, operations, analysis, design of electrical machines and their applications in industry and other fields.			
PSO1	2.50	2.55	Overall attainment target has been met. The specific theory like; ac machine, DC machines, transformer and special machines are floated to the students to enhance their design skills for Electrical machines.
Action 1: The design classes are conducted through animation, simulation and video based lectures. It helps students for clear the design understanding. **Action 2:** Problem solving capability of the students can be enhanced through the different design software tools like Matlab, ETAP, LabView etc..			
PSO2: Demonstrate knowledge of analysis, design and implementation of electrical circuits, electronic circuits, power electronic circuits, space measurements, control systems in different electrical systems.			
PSO2	2.50	2.62	Attainment target has been attained. The students are able to understand the skills and engineering concepts which is highly essential for higher education and research.
Action 1: All the Laboratories were made available for the students in off hours. **Action 2**: Identify engineering challenges, approach using cutting edge research tools and execute innovative solutions by getting knowledge in the core subjects like; electrical and electronics circuit, power electronics circuit and its control schemes.			
PSO3: Enhance the knowledge in generation, transmission, distribution, protection of electric power, installation, operation and maintenance of power system components with respect to competitive tariff for economic project viability and climate change issues and to understand the need for renewable energy systems for developing clean energy and sustainable technologies.			
PSO3	2.50	2.62	Overall attainment target has been met. This result shows the students are able to perform well in solving real-world engineering problems through their innovative projects and exercises on the electrical power system and the renewable energy system.
Action 1: Students are motivated to do mini – projects on recent technologies on the field of conventional and renewable energy based power system. **Action 2.** Students are encouraged to follow the professional ethics and national and international standards used in the electrical fields **Action 3.** Students are suggested to take summer training/ workshop for improving their technical skills. **Action 4:** Students were sent to industrial visits to the industry and the power grid and encouraged to participate in workshops and seminars.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (15)

Total Marks 15.00
Institute Marks : 15.00

Academic Audit

Purpose of the Audit	• 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.
Scope of academic audit	• 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 have following composition:

Who will audit	• The members may be nominated by Dean of School or Competent authority of the University • The members must be of equivalent rank of Associate Professor or above.
Process of audit	• 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.

Academic Audit 2020-21 **Action Taken Report**	
Name of the School: **School of Electrical Engineering** Academic Audit of school for 2021-22 was conducted on:	
Recommendations	**Action Taken**
The minor and honors program should be vibrant and the program should be according to cutting-edge technology.	The students are encouraged to take the Minor courses and the honours courses. The course contents of honours and minor was discussed with the students and its benefits after completion of the courses.
To introduce more advanced courses in the field of data science, IoT, communication, Electric vehicle, and more industry elective courses in the B.Tech and M.Tech curriculum.	The School of Electrical Engineering has already introduced IoT and Communication related subjects in B.Tech and B.Tech Minor curriculum and is further planning to introduce more computer related courses such as data science and it will be placed in the next board of studies.
B.Tech and M.Tech projects should be industry-	Already started to link the industries for B.Tech and

linked projects.	M.Tech project. Students are motivated to consult the industries and do the project as required by the industrial need. So the students are motivated to do the capstone project and filling the patents.
The school should float specialized M.Tech courses in the area of data science, IoT, and other advanced areas as per foreign universities.	A number of meetings were held in order to float the difference M.Tech specialized courses as per suggestions. It will be finalised and proposal to be submitted to the higher authority.
The guide allotment process for the M.Tech Student must be completed after 1st semester so that the student can get some more time to interact with their guide.	As per suggestion, School of Electrical Engineering has already started the allotment process of M.Tech project guide after 1st semester.
The question in the examination should be design-oriented wherever possible.	As per the University norms, the different formats of question papers are used depending upon the content of the courses. Format six question papers must be designed oriented paper and it is practiced throughout the year.
The faculty members and TA should design the basic experimental kit to perform the experiment in the lower semester.	The number of experiments to be conducted for B.Tech and M.Tech students are designed by the faculty members and TA. As per Example:Different type of converters/pulse generation for inverters/Smart energy meter developed by the faculty members and TA.
The faculty member to visit different industries, other universities, and different laboratories to upgrade themselves with the current trends.	These practices (to visit different industries) are already adopted and the school is planning to make it more vibrant in near future.
Completely satisfied with the quality of publication and no of papers. However to increase the quality of the publication, the school should minimum 20 numbers of journals where the faculty and Ph.D. students are encouraged to publish their research work.	Already achieved and planning for increase of quality publication and numbers.
Dean and Director Quality assurance to maintain a proper ratio of professor, Associate Professor, and Assistant professor in the school.	Planning to bring in proper ratio of professor, Associate Professor, and Assistant professor in the school.
The minor and honors program should be vibrant and the program should be according to cutting-edge technology.	The students are encouraged to take the Minor courses and the honours courses. The course contents of honours and minor was discussed with the students and its benefits after completion of the courses.
To introduce more advanced courses in the field of data science, IoT, communication, Electric vehicle, and more industry elective courses in the B.Tech and M.Tech curriculum.	The School of Electrical Engineering has already introduced IoT and Communication related subjects in B.Tech and B.Tech Minor curriculum and is further planning to introduce more computer related courses such as data science and it will be placed in the next board of studies.
B.Tech and M.Tech projects should be industry-linked projects.	Already started to link the industries for B.Tech and M.Tech project. Students are motivated to consult the industries and do the project as required by the industrial need. So the students are motivated to do the capstone project and filling the patents.
The school should float specialized M.Tech courses in the area of data science, IoT, and other advanced areas as per foreign universities.	A number of meetings were held in order to float the difference M.Tech specialized courses as per suggestions. It will be finalised and proposal to be submitted to the higher authority.
The guide allotment process for the M.Tech Student must be completed after 1st semester so that the student can get some more time to interact with their	As per suggestion, School of Electrical Engineering has already started the allotment process of M.Tech project guide after 1st semester.

guide.	
The question in the examination should be design-oriented wherever possible.	As per the University norms, the different formats of question papers are used depending upon the content of the courses. Format six question papers must be designed oriented paper and it is practiced throughout the year.
The faculty members and TA should design the basic experimental kit to perform the experiment in the lower semester.	The number of experiments to be conducted for B.Tech and M.Tech students are designed by the faculty members and TA. As per Example:Different type of converters/pulse generation for inverters/Smart energy meter developed by the faculty members and TA.
The faculty member to visit different industries, other universities, and different laboratories to upgrade themselves with the current trends.	These practices (to visit different industries) are already adopted and the school is planning to make it more vibrant in near future.
Completely satisfied with the quality of publication and no of papers. However to increase the quality of the publication, the school should minimum 20 numbers of journals where the faculty and Ph.D. students are encouraged to publish their research work.	Already achieved and planning for increase of quality publication and numbers.

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)

Total Marks 10.00

Institute Marks :10.00

Placement: number, quality placement, core industry, pay packages etc.

Year	Percentage of Students placed	Average Package	Maximum Package	Major core industry recruiters
CAY (2022-2023)	79.47	13LPA	13.08LPA	Schlumberger, Rockwell Automation, Jindal Steel works, Tata Power distribution Companies (TPNODL, DDL), Voltas, Adani Power
CAYm1 (2021-2022)	79.58	7LPA	13.08LPA	Tata Power distribution Companies (TPNODL,DDL), Voltas, Schlumberger, Crompton Greaves, Rockwell Automation, Jindal Steel works
CAYm2 (2020-2021)	84.21	6LPA	10LPA	Tata Power distribution Companies (TPWODL), Jindal Steel & Power, Global Archer
CAYm3 (2019-2020)	93.5	4LPA	7LPA	Global Archer, GR Infra Projects, Tata Power, Samsung Heavy Industry, Shapoorji Pallonji, Alstom

- *Higher studies: performance in GATE, GRE, GMAT, CAT etc., and admissions in premier institutions*

Year	GATE	GRE/GMAT	CAT	others	Total
CAY (2022-2023)			1	1	2
CAYm1 (2021-2022)	1		1		2
CAYm2 (2020-2021)	1	4	1	1	7

7.4 Improvement in the quality of students admitted to the program (20)

Total Marks 20.00

Institute Marks :20.00

Item		**2022-23**	**2021-22**	**2020-21**
National Level EntranceExamination JEE	**No of Students admitted**	2	4	5
	Opening Score/Rank	378700	368713	127016
	Closing Score/Rank	398680	388640	702981
State/Institute/Level EntranceExamination/ Others KIITEE	**No.of Students admitted**	178	176	175
	Opening Score/Rank	3050	2940	2557
	Closing Score/Rank	3705	25438	24879
Name of the EntranceExamination for Lateral Entry or lateral entry details	**No.of Students admitted**	6	10	12
	Opening Score/Rank	112	98	128
	Closing Score/Rank	75554	70007	1587
AverageCBSE/AnyotherBoardResultofadmittedstudents(Physics,Chemistry&Mathematics)		76.2	76.4	74.3

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	
Utkal Keshari 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	Reliabilty	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	
Suvasis Nayak	AZIPN6060A	M.Sc. and PhD	04/12/2020	Optimization Techniques	Assistant Professor	20/06/2018	80	80	80	Yes	Regular	
Lalatendu Biswal	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 Singha	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	BREPB3984N	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	
Mitali Madhumita Acharya	CHRPS2627P	M.Sc. and PhD	26/12/2011	Numerical Functional Analysis and Operations Research	Assistant Professor	10/07/2011	85	85	75	Yes	Regular	
Srikumar Acharya	APIPA5483R	M.Sc. and PhD	06/06/2011	Operations Research	Associate Professor	05/01/2011	85	85	75	Yes	Regular	
Nikita Mahapatra	BGEPM4095A	M.Sc. and PhD	27/07/2016	Regenerative medicine	Assistant Professor	12/07/2018	100	100	100	Yes	Regular	
RAJIB MIA	BXFPM6194Q	M.Sc. and PhD	10/08/2017	Celestial Mechanics	Assistant Professor	24/08/2017	31	31	77	Yes	Regular	
Bhavya Bhushan	AULPB7870L	M.Sc. and PhD	20/12/2011	Experimental Condensed Matter Physics and Nanotechnology	Associate Professor	08/10/2012	100	100	100	Yes	Regular	
Prakash Kumar Sahu	FDZPS9689J	M.Sc. and PhD	21/01/2017	Numerical Analysis	Assistant Professor	13/12/2016	75	75	75	Yes	Regular	
Joydeb Pal	CCDPP8635B	M.Sc. and PhD	04/03/2020	Algebraic Coding Theory	Assistant Professor	24/06/2019	85	85	85	Yes	Regular	
B. B. Mishra	AKEPM3945J	M.Sc. and PhD	05/03/2003	Delay Differential Equation	Professor	10/10/1995	60	60	60	Yes	Regular	
Dibyaranjan Rout	BGMPR2390M	M.Sc. and PhD	28/07/2006	Materials Science	Associate Professor	15/07/2011	100	100	100	Yes	Regular	
Sudipta K. Ghosh	BRZPG2280D	M.Sc. and PhD	01/09/2022	Functional Analysis Operator Theory	Assistant Professor	30/07/2021	73	73	0	Yes	Regular	
Dr. Sanjoy Kumar Maji	BQAPM5765K	M.Sc. and PhD	25/07/2008	Environmental Chemistry	Assistant Professor	01/12/2014	90	90	90	Yes	Regular	
Prasanta Kumar Das	AMRPD5329G	M.A and Ph.D	16/12/2006	Nonlinear Functional Analysis	Assistant Professor	30/07/2011	50	50	50	Yes	Regular	

Rojalin Sahu	DFZPS4684K	M.Sc. and PhD	25/05/2012	Inorganic Chemistry	Associate Professor	10/08/2011	90	90	90	Yes	Regular	
Jatin K Sinha	EAPPS5142L	M.Sc. and PhD	05/03/2008	Electrochemistry	Associate Professor	08/02/2018	87	87	82	Yes	Regular	
Jasaswini Tripathy	AHEPT6306P	M.Sc. and PhD	12/08/2008	Ring Theory	Associate Professor	02/07/2013	88	88	87	Yes	Regular	
Aniruddha Jena	APJPJ4032K	M.Sc. and PhD	03/12/2013	Inorganic Chemistry	Assistant Professor	10/06/2022	0	0	0	Yes	Regular	
ARUN KUMAR GUPTA	ATBPG7245D	M.Sc. and PhD	21/01/2017	Numerical Analysis	Assistant Professor	13/12/2016	16	16	48	Yes	Regular	
Bibhu Prasad Sahoo	CADPS1562E	M.Sc. and PhD	11/05/2013	Polymer Nanocomposites	Associate Professor	18/02/2013	90	90	90	Yes	Regular	
Supriya Roy	BUWPR0305L	M.Sc. and PhD	19/12/2013	Computational Physics	Assistant Professor	12/12/2014	80	80	0	Yes	Regular	
Bijan Kumar Patel	DMOPP6959L	M.Sc. and PhD	31/10/2018	Number Theory	Assistant Professor	01/08/2019	49	49	64	Yes	Regular	
Anita Pati	BTVPP7664J	M.Sc. and PhD	30/08/2010	Organic Chemistry	Associate Professor	18/11/2013	90	90	90	Yes	Regular	
Amulya Ratna Swain	BHNPS6383K	ME/M.Tech and PhD	25/07/2013	Wireless sensor network	Associate Professor	01/02/2013	20	20	20	Yes	Regular	
Krishna Chakravarty	AESPC1901J	MS	27/05/2020	Software Engineering	Assistant Professor	19/06/2017	40	40	40	Yes	Regular	
Kunal Anand	APLPA4667H	M.E/M.Tech	15/12/2014	Software Engineering	Assistant Professor	01/06/2018	40	40	40	Yes	Regular	
Rajdeep Chatterjee	AJTPC5965C	ME/M.Tech and PhD	21/11/2020	Brain Computer Interface	Associate Professor	18/06/2012	40	40	40	Yes	Regular	
Satyaranjan Dash	AFTPD9526Q	ME/M.Tech and PhD	20/01/2015	Natural Language Processing	Associate Professor	29/07/2004	20	20	20	Yes	Regular	
Santwana Sagnika	DFTPS8524C	M.E/M.Tech	26/05/2014	Artificial Intelligence	Assistant Professor	10/07/2014	40	40	40	Yes	Regular	
Saurabh Bilgaiy	BBWPB8398G	ME/M.Tech and	10/11/2018	Software Engineering	Assistant Profes	01/07/2015	40	40	40	Yes	Regular	

an		PhD			sor							
Bindu Agarwalla	AVIPA0815G	M.E/M.Tech	15/06/2010	Computer Architecture	Assistant Professor	13/09/2010	20	20	20	Yes	Regular	
Chinmaya Misra	AWVPM9536C	ME/M.Tech and PhD	08/11/2014	Cloud Computing	Associate Professor	21/07/2008	20	20	20	Yes	Regular	
Amiya Kumar Dash	AUKPD2214M	M.E/M.Tech	15/06/2015	Machine Learning	Assistant Professor	18/08/2015	40	40	40	Yes	Regular	
Banchhanidhi Dash	ATEPD0184B	ME/M.Tech and PhD	05/10/2017	Machine Learning	Assistant Professor	22/07/2019	20	20	20	Yes	Regular	
Bibhuti Bhusan Dash	AHWPD8581A	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	
Partha Sarathi Pattnayak	AVYPP7061K	ME/M.Tech and PhD	27/08/2018	Machine Learning	Assistant Professor	20/06/2011	40	40	40	Yes	Regular	
Prachi Vijayeeta	AFIPV1002N	M.E/M.Tech	27/05/2022	Software Engineering	Assistant Professor	05/02/2007	40	40	40	Yes	Regular	
Sadhna Sudershana	BVFPS9528E	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	
Arpita Goswami	BEBPG4778R	M.A and Ph.D	11/07/2022	Applied linguistics socioling uistics and folklore	Assistant Professor	01/06/2019	90	90	90	Yes	Regular	
Khushboo Kuddus	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	
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	27/12/2016	Production	Assistant	23/01/2017	20	20	20	Yes	Regular	

		and PhD		Engineering	Professor							
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	
Basanta Kumar Rana	ARGPR5477B	ME/M.Tech and PhD	05/03/2018	Thermal Engineering	Assistant Professor	19/06/2017	20	20	20	Yes	Regular	
Bijaya Bijeta 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	
Debjyoti Sahu	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	
Gyan Sagar 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	
Manoj Ukamanal	ABLPU5573C	ME/M.Tech and	04/11/2019	Thermal Engineering	Assistant Profes	08/12/2015	20	20	0	Yes	Regular	

		PhD			sor							
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	
Nilotpala Bej	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 PhD	02/11/2020	Production Engineering	Assistant Professor	02/08/2019	20	20	20	Yes	Regular	
Pooja Chaubdar	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	
Pruthwiraj Sahu	CHPPS4565L	ME/M.Tech and PhD	14/08/2021	Design Engineering	Assistant Professor	19/06/2014	20	20	20	Yes	Regular	
Pushkar Jha	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 Lochan Mohanty	BGSPM4619J	ME/M.Tech and PhD	15/05/2013	Thermal Engineering	Assistant Professor	24/06/2019	20	20	30	Yes	Regular	
Ram Kumar Keshar wani	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	28/02/2022	Design Engineering	Assistant Profes	07/07/2014	0	0	20	Yes	Regular	

		PhD			sor							
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 Kumari Sahu	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	
Samiran Samanta	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	
Sasmita Sahu	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	
Spandan Guha	AYIPG7424Q	ME/M.Tech and PhD	28/11/2018	Production Engineering	Assistant Professor	20/07/2018	20	20	20	Yes	Regular	
Srikant Panigrahi	AKZPP8785A	M.E/M.Tech	20/10/2015	Avionics	Assistant Professor	29/01/2020	40	40	0	Yes	Regular	

Sudhansu Sekhar Patro	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	
Swayam Bikash 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	
Usharani Rath	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	
Dipti Kanta Das	ANBPD0690H	ME/M.Tech and PhD	04/11/2015	Production Engineering	Associate Professor	25/07/2011	20	20	20	Yes	Regular	
Isham Panigrahi	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	
Radha Kanta 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	
Sumanta Choudhuri	AFBPC6436J	ME/M.Tech and PhD	27/08/2019	Thermal Engineering	Associate Professor	13/07/2012	20	20	20	Yes	Regular	
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.Chandra Sekhar	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	
Tanmoy Mahanty	AHAPM9806F	ME/M.Tech and PhD	19/07/2012	Production Engineering	Professor	04/03/1999	0	0	0	Yes	Regular	

Aparupa Pani	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	
Bandita Paikaray	APVPP9756L	ME/M.Tech and PhD	09/11/2019	Geotech Engineering	Associate Professor	31/07/2008	20	20	20	Yes	Regular	
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	
Dudam Bharath 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	
Ipsita Mohanty	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	
Kalpana Sahoo	ESMPS2701A	M.E/M.Tech	07/03/2022	Transportation Engineering	Assistant Professor	27/06/2017	20	20	20	Yes	Regular	
Kirtikanta Sahoo	DELPS8005F	ME/M.Tech and PhD	07/01/2017	Structural Engineering	Assistant Professor	18/06/2012	20	20	20	Yes	Regular	
Kshyana Prava Samal	BNNPK6597B	ME/M.Tech and PhD	14/11/2009	Water Resources Engineering	Associate Professor	17/06/2016	20	20	20	Yes	Regular	
Kundan Samal	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	
Prateeksha Mahamallik	BJWPM4843D	ME/M.Tech and PhD	27/07/2013	Environmental Engineering	Assistant Professor	31/07/2017	20	20	20	Yes	Regular	
Preetynanda 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	
Sanandra 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	
Sushree Sangita 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	
Chitralekha Jena	ADXPJ5640B	ME/M.Tech and	01/07/2017	Power and Energy	Associate Profes	01/12/2012	30	30	30	Yes	Regular	

		PhD		System	sor							
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	
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	
Subhra Debdas	AHLPD7002M	ME/M.Tech and PhD	13/08/2018	Power System Engineering	Associate Professor	06/10/2019	30	30	30	Yes	Regular	
Alivarani Mohapatra	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	
Satyabrata Sahoo	BYEPS1070D	ME/M.Tech and PhD	26/06/2012	Control and protection of Electrical Apparatu	Assistant Professor	26/06/2012	30	30	30	Yes	Regular	

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Swagat Das	BDJPD3185N	MS	16/05/2016	Power Electronics Device Reliability	Assistant Professor	21/08/2017	30	30	30	Yes	Regular	
Tapaswini Biswal	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	
Shubhashree Kundu	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	
Prasanta Rath	AMRPD5329G	M.Sc. and PhD	11/05/2004	Environmental geochemistry	Professor	01/12/1999	40	40	40	Yes	Regular	
Biswabandita Kar	AHGPK1039C	M.Sc. and PhD	04/04/2001	Chemical metallurgy and environmental chemistr	Professor	03/01/2005	40	40	40	Yes	Regular	

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Priyadarshini Parida	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	
Puspalata Pattojoshi	AGQPP7764A	M.Sc. and PhD	07/01/1987	Physics	Professor	20/06/2014	30	30	30	Yes	Regular	
Subhadarshan Sahoo	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	
Bidhubhusan Sahu	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	
Kajal Parashar	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	
Mitali Routaray	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	
Dibakar Behera	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	
Manas Mukul	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	######
Shiv Shankar Kumar	HLXPK7687A	ME/M.Tech and PhD	25/06/2018	Geotech Engineering	Assistant Professor	30/07/2018	0	0	0	No	Regular	######
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 Spirituali	Assistant Profes	01/09/2017	100	100	100	Yes	Regular	

				sm	sor							
Kriti Raj	BEMPR7752B	MA	24/05/2019	Yoga and Spiritualism	Assistant Professor	21/01/2020	90	100	100	Yes	Regular	
Ritupar na Kar	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	
Swapnamoyee Palit	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 Md Delabul 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	
Sourabh Rajwade	BSFPR8215Q	M.E/M.Tech	15/11/2017	CAD or CAM	Assistant Professor	07/04/2021	60	60	60	Yes	Regular	
Kalyani Mohanta	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	
Aparajita Sahoo	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	
ARATRIKA GANGULY	BFEPG7204N	M.Phil	24/12/2018	Comparative Literature	Assistant Professor	01/02/2022	90	90	0	Yes	Regular	
SHRADDHADHAL	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	
Dhyanadipta 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 ×20)/ FYSFR (Limited to Max. 5)
2022-2023 (CAY)	1500	108	13.9	5
2021-2022) CAYm1	1620	108	15.0	5
(2020-2021) CAYm2	1620	102	15.9	5
Average	1580	106	14.9	5

Table B.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 = (5*x* +3*y*)/*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

Table B.8.2

8.3 First Year Academic Performance (10)

Total Marks 10
Institute Mark. 8.45

Academic Performance	CAYm1 (2021-22)	CAYm2 (2020-21)	CAYm3 (2019-20)
Mean of CGPA or mean percentage of all successful students(X)	8.23	8.92	8.20
Total Number of successful students(Y)	180.00	180.00	180.00
Total Number of students appeared in the examination(Z)	180.00	180.00	180.00
API [X*(Y/Z)]	8.23	8.92	8.20
Average API[(AP1+AP2+AP3)/3] : 8.45 Assessment = Average API : 8.45			

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.)

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 (assessed out of 100 marks)	• **Continuous assessment of 30 marks:** o 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):** o Assessment is done through student's performance in the mid-semester examination which is conducted once in a semester which	• Continuous assessment is done by the concerned faculty member for the course teaching the student. • Answer script for mid

	is currently of one hour duration. As the name implies, this examination is conducted in the middle of the semester. o Frequency: once in a semester. o 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):** o 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. o Frequency: once in a semester. o Questions are set to assess the attainments of course outcomes defined for the course through the students' marks or scores.	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)	• **Continuous assessment of 60 marks** o 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. o 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** o 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. o Frequency: once in a semester. o The tasks, questionnaires are mapped to course outcomes and the students' marks or score is used to compute the attainment.	• Continuous assessment is done by the concerned faculty member for the laboratory course teaching the student. • 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.
Sessional courses (assessed out of 100 marks)	• **Continuous assessment of 100 marks:** o 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. o Frequency: Assessed throughout the semester. o Different tasks are mapped to different outcomes and the students' marks or score in that category is used to compute the attainment	• 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 processing.
Projects (assessed out of 100 marks)	• 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 : 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). 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.	• 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.

Target Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	Threshold 1
Level	**1**	Threshold 1	≥ Class Average in each CO <	Threshold 2
Level	**2**	Threshold 2	≥ Class Average in each CO <	Threshold 3
Level	**3**	Threshold 3	≥ 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 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
COx	X'	X	Y'	Y	X'+Y'	X+Y	X'+Y'/(X+Y) x100

Semester 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
COx	Z'	Z	Z'/Z x 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

Target Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	25
Level	**1**	25	≥ Class Average in each CO <	50
Level	**2**	50	≥ Class Average in each CO <	75
Level	**3**	75	≥ 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 End Semester 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
COx	X'	X	X'/X x100

Semester 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
COx	Z'	Z	Z'/Z x 100

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

Target Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	25
Level	**1**	25	≥ Class Average in each CO <	50
Level	**2**	50	≥ Class Average in each CO <	75
Level	**3**	75	≥ 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 CIE (=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 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
COx	X'	X	X'/X x100

Semester 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
COx	Z'	Z	Z'/Z x 100

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

Target Levels for CO Attainment				
Level	**0**	0	≥ Class Average in each CO <	25
Level	**1**	25	≥ Class Average in each CO <	50
Level	**2**	50	≥ Class Average in each CO <	75
Level	**3**	75	≥ 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

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 levelexamination)

Refer to 3.1.1 for further details
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:

Sl No	Course Code	Course Title	CO1	CO2	CO3	CO4	CO5	CO6
1	C101	Mathematics – I	2.50	2.50	2.50	2.00	2.00	2.00
2	C102	Chemistry	3.00	2.50	2.50	2.50	2.00	2.00
3	C103	Professional Communication	3.00	2.50	3.00	2.50	3.00	2.50
4	C104	Biology	2.50	2.50	3.00	3.00	2.50	2.50
5	C105	Computer Programming	2.50	2.50	2.00	2.00	2.50	2.50
6	C106	Chemistry Lab	3.00	2.50	2.50	3.00	2.50	2.50
7	C107	Language Lab	3.00	2.50	2.50	3.00	2.50	3.00
8	C108	Engg. Graphics	2.50	2.50	3.00	2.50	2.50	3.00
9	C109	Mathematics – II	2.50	2.00	2.00	2.00	3.00	2.50
10	C110	Physics	2.50	2.00	2.50	2.00	2.50	2.50
11	C111	Basic Electrical Engineering	2.50	2.00	2.00	2.00	2.50	2.50
12	C112	Engineering Mechanics	2.50	2.00	2.00	2.50	2.50	2.00
13	C113	Physics Lab	2.50	3.00	2.50	2.50	3.00	2.50
14	C114	Basic Electrical Engineering Lab	2.50	2.50	3.00	2.50	2.50	3.00
15	C115	Basic Manufacturing Systems	3.00	2.50	2.50	3.00	2.50	3.00
16	C116	Environmental Science	2.50	3.00	2.50	3.00	2.50	3.00
17	C117	Yoga & Human Consciousness	3.00	3.00	2.50	3.00	2.50	2.50

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 identifiedby 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 indicatingthe frequency with which these processes are carried out)

POs Attainment

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	2.25	2.24	2.25	2.22	2.33	2.25	2.25	0.00	2.50	0.00	0.00	2.29
C102	2.41	2.47	2.67	2.31	0.00	2.50	2.50	0.00	2.42	0.00	0.00	2.42
C103	0.00	0.00	0.00	0.00	0.00	0.00	3.00	2.61	0.00	2.75	2.83	2.75
C104	2.75	2.75	2.67	2.63	2.75	2.69	2.70	2.69	0.00	2.67	2.50	2.67
C105	2.34	2.32	2.31	2.31	2.28	0.00	0.00	2.50	0.00	2.40	0.00	2.30
C106	2.68	2.68	3.00	2.70	2.79	0.00	2.67	0.00	0.00	0.00	0.00	0.00
C107	0.00	0.00	0.00	0.00	0.00	2.83	0.00	0.00	0.00	2.75	0.00	2.75
C108	2.67	2.64	0.00	0.00	2.50	2.63	0.00	0.00	0.00	0.00	2.64	2.60
C109	2.33	2.33	2.33	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.28
C110	2.29	2.25	2.33	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33
C111	2.13	2.13	2.20	2.17	0.00	2.31	2.33	0.00	0.00	0.00	0.00	2.29
C112	2.25	2.25	2.25	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C113	2.70	2.64	2.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C114	2.73	2.75	2.72	2.73	2.61	2.57	2.63	2.50	2.50	2.67	0.00	2.60
C115	2.70	2.88	2.75	2.73	2.69	2.79	2.81	3.00	2.72	2.75	2.72	2.79
C116	2.75	2.75	2.75	2.75	2.50	2.75	2.75	2.50	2.50	2.50	2.79	2.75
C117	3.00	0.00	0.00	0.00	0.00	2.75	2.75	2.80	2.75	2.75	0.00	2.75

PSOs Attainment

Course Code	PSO1	PSO2	PSO3
C101	2.25	2.25	2.25
C102	0.00	3.00	2.63
C103	0.00	0.00	0.00
C104	2.75	2.75	0.00
C105	2.25	2.25	2.25
C106	0.00	0.00	2.75
C107	0.00	0.00	0.00
C108	2.67	2.67	2.67
C109	2.33	2.33	2.33
C110	2.50	2.25	2.30
C111	2.25	2.25	2.25
C112	2.29	2.00	2.27
C113	2.50	2.50	2.67

C114	2.67	2.67	2.67
C115	2.75	2.67	2.75
C116	0.00	0.00	2.63
C117	0.00	0.00	0.00

8.5.2 Actions taken based on the results of evaluation of relevant POs and PSOs (10) Institute Marks: 10.00

POs Attainment Levels and Actions for Improvement- (2021-22)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.50	2.45	The PO attainment has been closely achieved. Foundation of theoretical and practical knowledge of Science and mathematics which students cover in 1st year that correlates theory with applications.
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.			
PO 2 : Problem Analysis			
PO 2	2.50	2.45	The overall target for the PO attainment has been closely met. Problem solving and analyzing skill developed through first and second semester courses helps the students to apply in real life problems.
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.			
PO 3 : Design/development of Solutions			
PO 3	2.50	2.47	The overall target for the PO attainment has been closely achieved. Basic engineering courses need to focus on the design and development of solutions
Action 1: Students are motivated to develop knowledge of design oriented problem. Action 2: Design based activities should be added in the core and basic engineering courses.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2.50	2.44	The overall target for the PO attainment has been closely met. Research-based knowledge and research methods including conduct of experiments, analysis and interpretation of results should be more focused in the core courses.
Action 1: Course delivery to focus more on fundamental concepts and usage of the same to solve complex problems. Action 2: Activity based learning introduced to develop skills like problem solving, critical thinking, creation, interactivity focus and reflection among students.			
PO 5 : Modern Tool Usage			
PO 5	2.50	2.54	The overall target for the PO attainment has been achieved. The concept of core and basic engineering courses are clarified through Simulation software.

Action 1: Introduction to different modern tools like MATLAB, e-Tap, MiPower, LabView etc are given to the students to enhance their basic fundamentals.			
PO 6 : The Engineer and Society			
PO 6	2.5	2.62	The overall target for the PO attainment has been met. The courses are framed to address the social concern like health, safety etc. regarding engineering practices in real life.
Action 1: Basic Science courses mainly focuses on the health, Electrical safety, legal issues, cultural issues and the consequent responsibilities relevant to the professional engineering practice. Action 2: Laboratory experiments are focused on the safety concerns and social aspects.			
PO 7 : Environment and Sustainability			
PO 7	2.5	2.67	The overall target for the PO attainment has been attained. The global and environmental issues of awareness should be improved among students.
Action 1: Students are motivated to indulge in the projects where global and environmental issues are concerned Action 2: Sustainable and green solutions are focused in class lectures.			
PO 8 : Ethics			
PO 8	2.5	2.67	The overall target for the PO attainment has been met. The students should apply the ethical principles and follow the professional ethics in their engineering principles
Action 1: Various Schemes like National Social Service Scheme help the students to be aware of their ethical principles and societal responsibilities. Action 2: Students are to be engaged in various program in university level like Red cross to learn the ethical principles.			
PO 9 : Individual and Team Work			
PO 9	2.5	2.64	The overall target for the PO attainment has been met. Students are capable of working individually as well as in team.
Action 1: Students are motivated to work out/ discuss in a team about real time problems applying the fundamentals learned Action 2: First year students are engaged in some multidisciplinary projects.			
PO 10 : Communication			
PO 10	2.5	2.70	The overall target for the PO attainment has been achieved. The communication, presentation, and report writing skills have been under continuous evaluation process.
Action 1:Ample opportunities are given for the students to communicate in the form of class presentations and written reports and give feedback to them for improvement in these areas. Action 2: A number of technical/non technical events are organized round the year at school/university level where students are encouraged to participate in groups.			
PO 11 : Project Management and Finance			
PO 11	2.5	NA	NA
PO 12 : Life-long Learning			
PO 12	2.5	2.57	Target achieved. Basic engineering courses of the program are demonstrating the resource for contemporary issues and lifelong learning.
Action 1: Using ICT facilities, such as PPTs, live demonstration of topic imparted using video lecture like NPTEL. Action 2: The students are asked to attend seminar in which they are directed to prepare and present the details related to some of the emerging technologies. This helps them in lifelong learning of the technology and its various applications.			

PSOs Attainment Levels and Actions for Improvement- (2020-21)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Demonstrate knowledge and hands-on competence in the area of characteristics, operations, analysis, design of electrical machines and their applications in industry and other fields.			
PSO 1	2.50	2.43	Target closely achieved. Operation, characteristics and basic understanding of electrical machines for industrial applications.
Action 1: The core and basic engineering courses covers the basic operation and characteristics of electrical machines. Action 2: More emphasis should be given on conducting activities in these courses related to developing solutions in real life problems.			
PSO 2 : Demonstrate knowledge of analysis, design and implementation of electrical circuits, electronic circuits, power electronic circuits, measurements, control systems in different electrical systems.			
PSO 2	2.50	2.43	Target nearly achieved. A basic understanding of Electrical and electronics circuits and its applications.
Action 1: The core and basic engineering courses covers the basic concepts electrical and electronics circuits and its applications.			
PSO 3 : Enhance the knowledge in generation, transmission, distribution, protection of electric power, installation, operation and maintenance of power system components with respect to competitive tariff for economic project viability and climate change issues and to understand the need for renewable energy systems for developing clean energy and sustainable technologies.			
PSO 3	2.50	2.47	Target closely achieved. Courses covers the basic layout, generation and transmission of electrical power .
Action 1: The core and basic engineering courses should provide the basic understanding of the electrical network for the societal and engineering needs Action 2: More emphasis should be given on conducting activities in these courses related to developing solutions in real life problems.			

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 deemed to be University 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 Motivate

9.2.2. Sample Feedback form

KIIT UNIVERSITY
(Declared U/S 3 of UGC Act, 1956)
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 **SUBJECT**		**Excellent [5]**	**Very Good [4]**	**Good [3]**	**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.

$$S_i = \frac{\sum_{1}^{N} m_i}{5N}$$

Where N represents the total number of students m_i is the mark assigned for ith 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.

$$S_K = \frac{\sum_{s-1}^{N}\sum_{i=1}^{m} P_{Q_{ki}}}{5N}$$

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 Deemed to be University, 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.

- **"KHWAAB"(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 (Apogeio):** 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)Konnextions:** 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 Kareer School (CAAS).

9.5.1 Industry Engagement Cell (IEC)

9.5.1.1 Purpose

The Industry Engagement Cell (IEC), KIIT Deemed to be University 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 Deemed to be University 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 Kareer 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 tit by bit assistance and information to complete the process.

Impact/Effectiveness:
The interventions that Kareer 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, Kareer 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 Deemed to be university 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 Deemed to be University, 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.

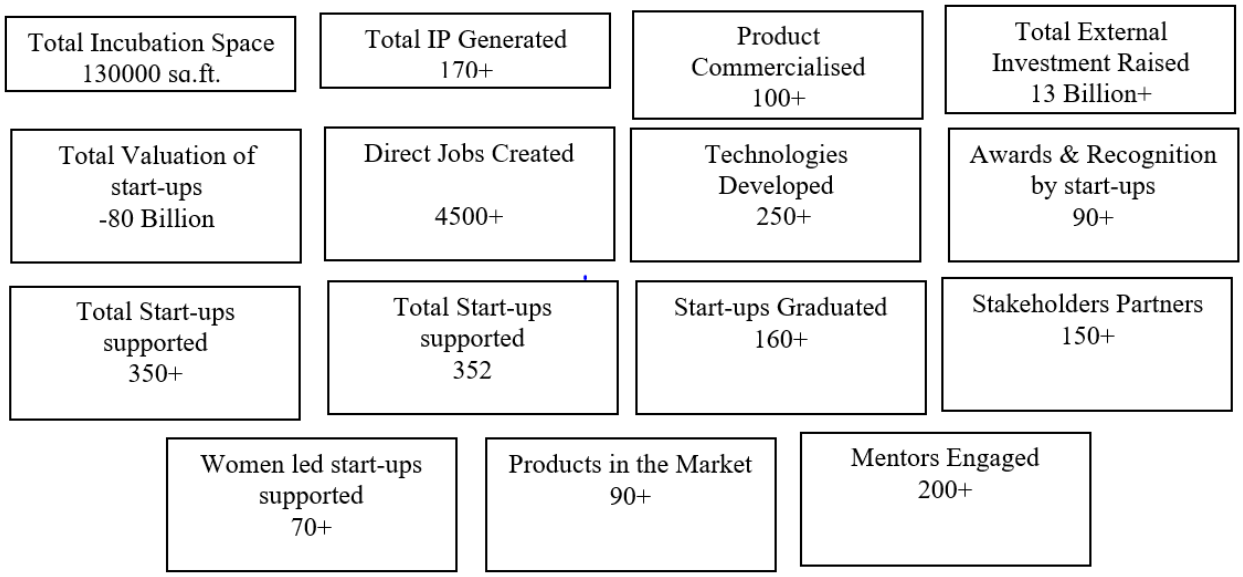
9.6.5 Facilities

Sl. No.	**Start up life cycle / feature**	**Ideation**	**Prototyping**	**Commercialization**
1	Advisory Support	• Conducting outreach programs for idea spotting	• Providing mentoring: human resources	• Conducting training on marketing skills, finance etc.
		• Validating viability/potential of various ideas	• Assistance in conducting marketing trails: marketing & related ideas	• Assistance in developing business growth strategy.
		• Providing mentoring support	• Developing client entry & exit criteria	• Providing recruitment advice.
		• Conducting business training program	• Conducting training on marketing skills, finance etc	• Customized mentor clinics for innovators on IP, Regulatory, Business, etc.
		• Team Building resource planning	• Design Thinking Workshops	• Product Piloting & Launch
		• Team Building resource planning	• Buisness Model Canvas	• Creating fund raising plan & building the runway the right way.
		• Market opportunity Analysis	• Product design & Prototyping	• Product Sales strategy

		• Competitive Landscape Analysis	• Product Validation	• 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.
		TIDE	MSME	SIDBI
		Technology Incubation & Development of Entrepreneurs Scheme, Department of Electronics & Information Technology (DeitY).	Ministry of Micro Small & Medium Enterprises, Government of India.	Small Industries Development Bank of India
		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



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
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 exixsting innovation in waste related to pharma based companies	Riya Roy
112	07.06.2022	Grassroot level exixsting 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
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 exixsting innovation in waste related to pharma based companies	Riya Roy
131	07.06.2022	Grassroot level exixsting 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
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 (corncob, corn stalk, rice husk, rice straw) into self binding natural fiber through mechanical process.
Mr. Surjeet Singh Gour	IVEYS Innovation Pvt Ltd	Automation of Wielding 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	INOFINITY 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	Cyclothon
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, snergy 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	• 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	• 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 per faculty per year	1.25	2.5	4	· Sustained motivation and institution of attractive research recognition system · Financial award for faculty with average 5 publications per year	Review by IQAC in every six months. Brief report is submitted to Registrar
Average cite score in Scopus indexed journals	2.73	4	6	• 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	• 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/organisation 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%	• 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	• 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 collaborate with industry for research, consultancy, student 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%	• 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 Deemed to be University 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	External Member as from other field nominated by Vice Chancellor
7.	Mr. Indrajit Sanyal, Head – Ericsson Global India, Kolkata	
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	Associate Professors
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	
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	Assistant Professors
67.	Prof. Tanmoy Roy Chaudhury, School of Electrical Engineering	
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	1.Job chart of the functionaries i.e. SOP

Dean, School of Civil Engg. Prof. **Suprava Pattanaik** Dean, School of Electronics Engg. Prof. Sarita Nanda Associate Dean, School of Electronics Engg. Prof. **Bharat Chandra Routara** Dean, School of Mechanical Engg. Prof. Nitin Sharma Associate Dean, Dean, School of Mechanical Engg. Prof. Byamakesh Nayak Dean, School of Electrical Engg 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. Prof. Prasanta Rath Dean, School of Applied Sciences Prof. A. K. Sen Dean, School of Humanities	2. Capital Assets 3. Personnel Administration Staff Description Service Book, Personal files and PARs Accountability and value addition 4.Office Management Attendance, Disciplinary action & Punctuality Security & Safety arrangement Registers - Cash Book - Bill Register & Drawal Register - Pay Acquittance Register - CL/EL Register Library Workshops & Labs Space Management Transport Management Office infrastructure Financial Management

10.1.4.2: The mechanism and composition of grievance redressal cell including Anti Ragging Committee & & Grievance Redressal Forum for Women

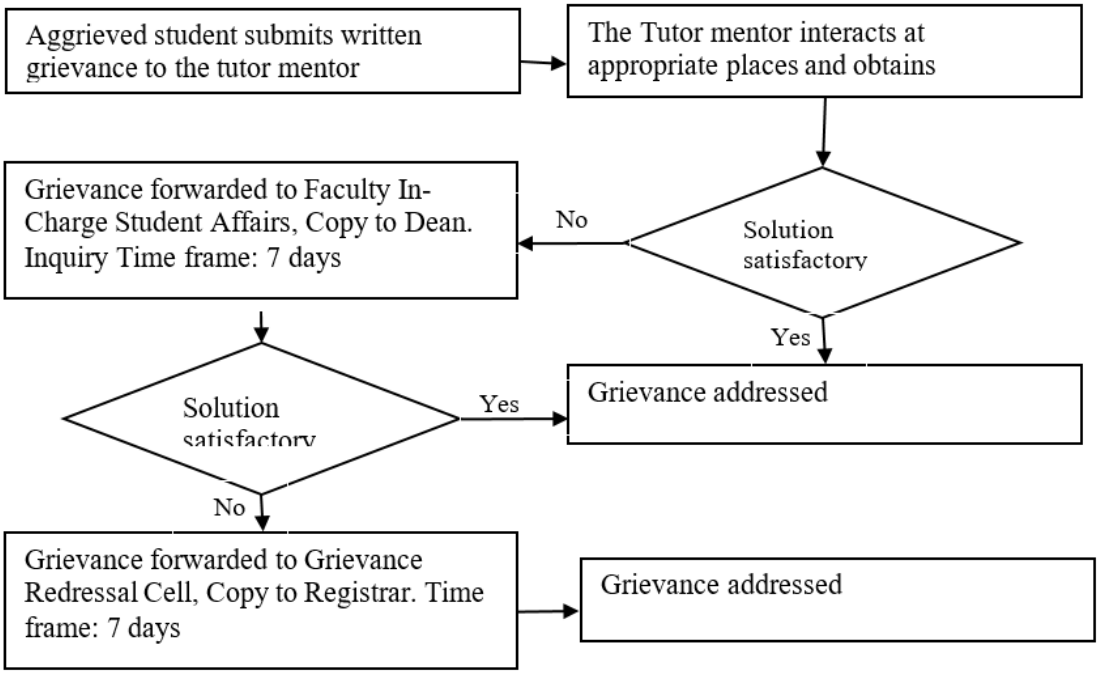
Grievance Redressal Cell	Mechanism	Description is given (Section 10.1.4.3 A)
	Composition	List is attached (Table 10.1.4.3)
Anti ragging Committee	Mechanism	Description is given (Section 10.1.4.4 A)
	Composition	List is attached (Table 10.1.4.4)
Grievance Redressal forum for women	Mechanism	Description 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)**

TASK	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	

TASK	ACTIVITIES	Frequency
	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	
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 belief 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 notify, 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.

10.1.4.6: Recruitment Policy

10.1.4.7: Service Rules

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	1005%
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 Deemed to be University 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)

Table 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

Table 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

Table 3: 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

Table 4: 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**	
Items	Budgeted in CFY	Actual expenses in CFY	Budgeted in CFY*m*1	Actual Expenses in	Budgeted in CFY*m*2	Actual Expenses in	Budgeted in CFY*m*3	Actual Expenses in

		(till …)		CFY*m*1		CFY*m*2		CFY*m*3
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**

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, CFY*m1*, CFY*m2* & CFY*m3*

CFY: Current Financial Year – CFY*m1* (Current Financial Year minus 1) CFY*m2* (Current Financial Year minus 2) CFY*m3* (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:**
308,312,948		**298,428,881**		**754**
Non-recurring	**Recurring**	**Non-recurring**	**Recurring**	**Expenditure per student**
53,961,000	254,351,948	55,126,868	243,302,013	395,794.27

Table 2: CFY 2020-2021

Total Income in CFY:	**Actual expenditure in CFY (till …):**	**Total No. of students in CFY:**
310,044,904	**284,011,385**	**753**

Non-recurring	Recurring	Non-recurring	Recurring	Expenditure per student
51,496,000	258,548,904	77,421,293	206,590,092	377,173.15

Table 3: CFY 2019-2020

Total Income in CFY:		Actual expenditure in CFY (till …):		Total No. of students in CFY:
340,849,183		**293,232,010**		**751**
Non-recurring	**Recurring**	**Non-recurring**	**Recurring**	**Expenditure per student**
49,430,000	291,419,183	68,382,130	224,849,880	390,455.41

Table 4: CFY 2018-2019

Total Income in CFY:		Actual expenditure in CFY (till …):		Total No. of students in CFY:
319,289,629		**276,115,480**		**761**
Non-recurring	**Recurring**	**Non-recurring**	**Recurring**	**Expenditure per student**
48,475,400	270,814,229	71,265,858	204,849,622	362,832.43

Year	2021-2022		2020-2021		2019-2020		2018-2019	
Items	**Budgeted in CFY**	**Actual expenses in CFY (till …)**	**Budgeted in CFY*m*1**	**Actual Expenses in CFY*m*1**	**Budgeted in CFY*m*2**	**Actual Expenses in CFY*m*2**	**Budgeted in CFY*m*3**	**Actual Expenses in CFY*m*3**
Laboratory equipment	45,000,000	29,663,079	45,000,000	28,948,438	33,000,000	32,375,831	21,200,000	20,440,226
Software	-	-	-	-	2,000,000	1,746,400	1,200,000	1,134,444
Laboratory consumables	11,500,000	7,664,279	11,500,000	6,444,813	10,550,000	10,360,997	7,050,000	6,948,914
Maintenance and spares	55,000,000	53,183,025	37,500,000	31,979,374	34,250,000	33,496,034	34,142,000	33,626,916
R&D	10,000,000	9,928,936	27,500,000	10,100,986	25,000,000	20,872,228	24,825,000	23,816,548
Training and Travel	2,000,000	1,402,611	6,000,000	969,718	5,400,000	4,795,656	5,320,000	5,245,461
Miscellaneous Expenses	200,000	132,072	200,000	88,580	200,000	76,723	170,000	160,434
Total	**123,700,000**	**101,974,002**	**127,700,000**	**78,531,910**	**110,400,000**	**103,723,869**	**93,907,000**	**91,372,943**

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 Deemed to be University 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,	Books Title	5137	4021	2895	2355	1335

Management & Computer Application	Books Volume	1,69,764	1,74,744	1,42,607	1,70,280	1,70,912
	Print Journals	314	408	595	595	571
	Online Journals	43,193+	29,031+	28,195+	28,117+	28,000+

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 978-0-12-804291-5The 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/179/2023-02 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-1

Program Outcomes and Program Specific Outcomes

Program Outcomes

The Program Outcomes and Program Specific Outcomes are:

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)

13. Demonstrate knowledge and hands-on competence in the area of characteristics, operations, analysis, design of electrical machines and their applications in industry and other fields.
14. Demonstrate knowledge of analysis, design and implementation of electrical circuits, electronic circuits, power electronic circuits, measurements, control systems in different electrical systems.
15. Enhance the knowledge in generation, transmission, distribution, protection of electric power, installation, operation and maintenance of power system components with respect to competitive tariff for economic project viability and climate change issues and to understand the need for renewable energy systems for developing clean energy and sustainable technologies.

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Deemed to be University