VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

SELF ASSESSMENT REPORT(TIER - I) FOR Electronics & Telecommunications Engineering

Part A : Institutional Information

1 Name and Address of the Institution

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA,
PO. BURLA ENGINEERING COLLEGE DIST. SAMBALPUR (ODISHA)

2 Name and Address of Affiliating University

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY

3 Year of establishment of the Institution:

2009

4 Type of the Institution:

○ Institute of National Infortance	○ Autonomous
◉ University	○ Any other(please specify)
○ Deemed University	

5 Ownership Status:

○ Central Government	☐ Trust
◉ State Government	☐ Society
○ Government Aided	☐ Section 25 Company
○ Self financing	☐ Any Other(Please Specify)

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

Name of Institutions	Year of Establishment	Programs of Study	Location

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
M.Tech CSE	PG	1995	1995	18	No	18	Granted accreditation for 3 years for the period (specify period)	2018	2021	No	2
M.Tech VLSISP	PG	2012	2012	18	No	18	Eligible but not applied	--	--	No	2
M.Tech RFMWE	PG	2014	2014	18	No	18	Eligible but not applied	--	--	No	2
B.Tech in Electronics and Telecommunication Engineering	UG	1972	1972	30	Yes	120	Granted accreditation for 6 years for the period (specify period)	27/07/2006	30/06/2022	Yes	4

Sanctioned Intake for Last Five Years for the B.Tech in Electronics and Telecommunication Engineering

Academic Year	Sanctioned Intake
2023-24	120
2022-23	120
2021-22	120
2020-21	120
2019-20	120
2018-19	120

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Civil Engg.
2	Under Graduate	Engineering & Technology	Electrical Engg.
3	Under Graduate	Engineering & Technology	Mechanical Engg.
4	Under Graduate	Engineering & Technology	Production Engg.
5	Under Graduate	Engineering & Technology	Electronics & Telecommunications Engineering

9 Total number of employees

A. Regular* Employees (Faculty and Staff):

Items	2023-24		2022-23		2021-22	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	119	122	122	124	124	125
Faculty in Engineering (Female)	56	56	56	56	56	56
Faculty in Maths, Science & Humanities teaching in engineering program (Male)	31	32	32	32	32	33
Faculty in Maths, Science & Humanities teaching in engineering program (Female)	6	6	6	6	6	6
Non-teaching staff (Male)	110	117	117	129	129	139
Non-teaching staff (Female)	11	11	11	11	11	11

B. Contractual* Employees (Faculty and Staff):

Items	2023-24		2022-23		2021-22	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	12	12	11	11	10	10
Faculty in Engineering (Female)	7	7	6	7	5	5
Faculty in Maths, Science & Humanities teaching in engineering Programs (Male)	10	10	11	11	9	9
Faculty in Maths, Science & Humanities teaching in engineering Programs (Female)	12	12	13	14	10	12
Non-teaching staff (Male)	60	76	76	91	91	114
Non-teaching staff (Female)	06	08	08	08	08	11

10 Total number of Engineering students:

Engineering and Technology- UG	☑ Shift1	☐ Shift2
Engineering and Technology- PG	☑ Shift1	☐ Shift2
Engineering and Technology- Polytechnic	☐ Shift1	☐ Shift2
MBA	☐ Shift1	☐ Shift2
MCA	☑ Shift1	☐ Shift2

Engineering and Technology- UG Shift-1

Course Name	2023-24	2022-23	2021-22
Total no. of Boys	2859	2790	2671
Total no. of Girls	1132	1025	962
Total	**3991**	**3815**	**3633**

Engineering and Technology- PG Shift-1

Course Name	2023-24	2022-23	2021-22
Total no. of Boys	149	197	240
Total no. of Girls	117	118	146
Total	**266**	**315**	**386**

Engineering and Technology- MCA Shift-1

Course Name	2023-24	2022-23	2021-22
Total no. of Boys	57	49	43
Total no. of Girls	21	20	17
Total	**78**	**69**	**60**

11 Vision of the Institution:

To emerge as an internationally acclaimed Technical University to impart futuristic technical education and creation of vibrant research enterprise to create quality engineers and researchers, truly world class leader and unleashes technological innovations to serve the global society and improve the quality of life.

12 Mission of the Institution:

The Veer Surendra Sai University of Technology, Odisha, Burla strives to create values and ethics in its products by inculcating depth and intensity in its education standards and need based research through

- Participative learning in a cross-cultural environment that promotes the learning beyond the class room.
- Collaborative partnership with industries and academia within and outside the country in learning and research.
- Encouraging innovative research and consultancy through the active participation and involvement of all faculty members.
- Facilitating technology transfer, innovation and economic development to flow as natural results of research where ever appropriate.
- Expanding curricula to cater broader perspectives.
- Creation of service opportunities for upliftment of the society at large.

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

Head of the Institution	
Name	Prof. Banshidhar Majhi
Designation	Vice Chancellor
Mobile No.	8056201404
Email ID	vc@vssut.ac.in

NBA Coordinator, If Designated

Name	Dr. Sasmita Behera
Designation	Assistant Professor
Mobile No.	9437367106
Email ID	sbehera_eee@vssut.ac.in

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	50	50.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	100	100.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	175	175.00
4	STUDENTS' PERFORMANCE	100	88.96
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	165.65
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	75	75.00
8	FIRST YEAR ACADEMICS	50	44.69
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	**1000**	**950**

Part B : Criteria Summary

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50)

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

Vision of the institute	To emerge as an internationally acclaimed Technical University to impart futuristic technical education and creation of vibrant research enterprise to create quality engineers and researchers, truly world class leader and unleashes technological innovations to serve the global society and improve the quality of life.
Mission of the institute	The Veer Surendra Sai University of Technology, Odisha, Burla strives to create values and ethics in its products by inculcating depth and intensity in its education standards and need based research through • Participative learning in a cross-cultural environment that promotes the learning beyond the class room. • Collaborative partnership with industries and academia within and outside the country in learning and research. • Encouraging innovative research and consultancy through the active participation and involvement of all faculty members. • Facilitating technology transfer, innovation and economic development to flow as natural results of research where ever appropriate. • Expanding curricula to cater broader perspectives. • Creation of service opportunities for upliftment of the society at large.
Vision of the Department	Developing new ideas in the field of communication to enable students to learn new technologies, assimilate appropriate skills and deliver meaningful services to the global society and improve the quality of life by training them with strength of character, leadership and self-attainment.
Mission of the Department	**Mission No.** / **Mission Statements** M1 — Imparting futuristic technical education to the students. M2 — Promoting active role of Industry in student curriculum, projects, R&D and placements. M3 — Organizing collaborative academic and non-academic programmes with institutions of national and international repute for all round development of students. M4 — Organizing National and International seminars and symposium for exchange of innovation, technology and information. M5 — Expanding curricula to cater to demands of higher studies in internationally acclaimed institutes. M6 — Preparing students for promoting self-employment. M7 — Develop the department as a center of excellence in the field of VLSI and communication technology by promoting research, consultancy and innovation.

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

PEO No.	Program Educational Objectives Statements
PEO1	The main objective of Electronics and Telecommunication Engineering Programme is the upliftment of students through quality technical education.
PEO2	These technocrats should be able to apply basic and contemporary science, engineering, experimentation skills to identifying software / hardware problems in the industry and academia and be able to develop practical solutions to them.
PEO3	The passing out graduates of the Program should be able to establish themselves as successful practicing professionals in Technology and sustain a bright career in related areas.
PEO4	The graduates should be able to use their skills with a strong base to prepare themselves for higher learning.
PEO5	Developing problem analysis and solving capability through industrial training and projects.
PEO6	Developing communication skills and interpersonal skills and preparing them for providing self-Employments.

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

- The vision and mission of the University is available at: http://www.vssut.ac.in
- The vision and mission of the University are also displayed through notice boards across the campus.
- The vision and mission of the Department is available at: https://www.vssut.ac.in/department.php?url=electronics-and-tele-communication
- The vision and mission of the Department are also displayed through notice boards inside the Department.
- The Programme Educational Objectives of the B.Tech. Programme in Electronics & Telecommunication Engineering is available at: https://www.vssut.ac.in/department.php?url=electronics-and-tele-communication (https://www.vssut.ac.in/department.php?url=electronics-and-tele-communication)
- The PEOs are also displayed through notice boards inside the department.

Process of dissemination among stake holders

List of stakeholders: Internal & External

Internal:

1. Students: Display on notice boards, Induction programs.
2. Faculty: Course files, individual copy in faculty cabins, website, notice boards.
3. Support staff: Display on notice board and corridors.
4. Management: individual copy in cabins, website, Notice boards

External:

1. Parents: Parents Interaction, Orientation program, School visit, University website
2. Industry/employer: Institute Website, Department visit (Industry engagement programs)

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.

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

The Department of Electronics and Telecommunication Engineering adheres to a standardized procedure for formulating the vision and mission of the department. The department has a writing committee responsible for creating the first versions of the vision and mission statements. These statements are developed with careful consideration of the department's short- and long-term objectives, ensuring they are in line with the vision and mission of the University. The initial statements are then modified in response to input from both internal and external stakeholders, including:

- Graduates
- Alumni
- Parents
- Faculty members
- Industry representatives
- Eminent academicians
- IQAC
- Management of the University

Lastly, the University Academic Council approves the vision and mission statements.

Process for defining Programme Educational Objectives

The course objectives of an engineering degree programme are concise statements that outline the anticipated accomplishments of graduates in their professional endeavors, specifically highlighting the tasks and successes expected during the first years after graduation. Initially, these objectives should contribute to the accomplishment of the departments purpose. Furthermore, the students who complete the degree are anticipated to play a pivotal role in the advancement of society by actively contributing to its growth and development.

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

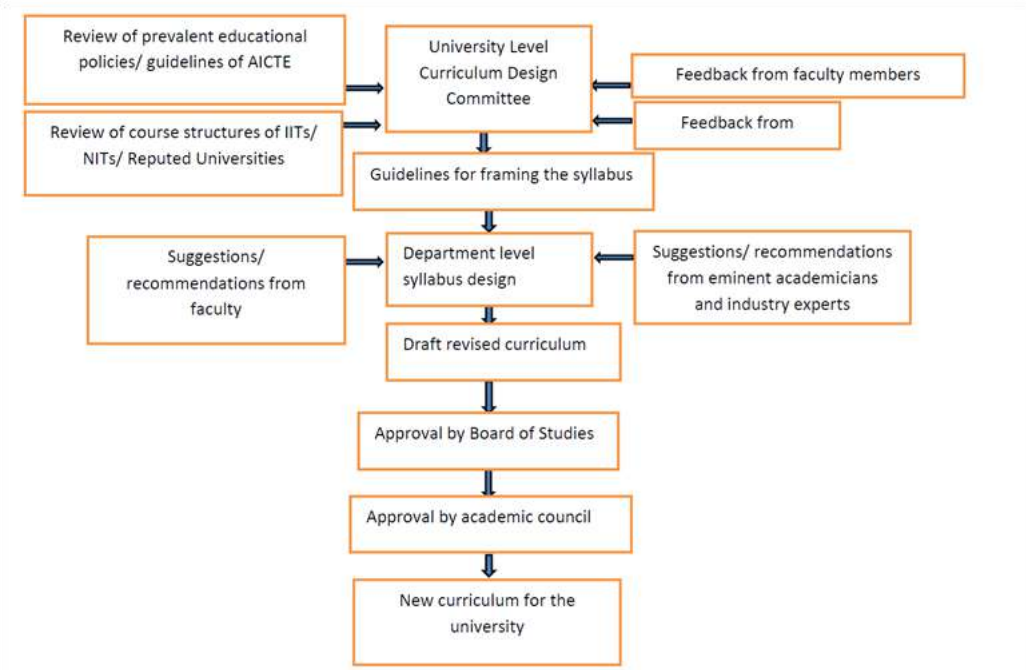
PEO Statements	M1	M2	M3	M4	M5	M6	M7
The main objective of Electronics and Telecommunication Engineering Programme is the upliftment of students through quality technical education.	3	3	3	3	3	3	3
These technocrats should be able to apply basic and contemporary science, engineering, experimentation skills to identifying software / hardware problems in the industry and academia and be able to develop practical solutions to them.	3	3	3	3	3	3	3
The passing out graduates of the Program should be able to establish themselves as successful practicing professionals in Technology and sustain a bright career in related areas.	3	3	3	3	3	3	3
The graduates should be able to use their skills with a strong base to prepare themselves for higher learning.	3	3	3	3	3	3	3
Developing problem analysis and solving capability through industrial training and projects.	3	3	3	3	3	3	3
Developing communication skills and interpersonal skills and preparing them for providing self-Employments.	3	3	3	3	3	3	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (100)

2.1 Program Curriculum (30)

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

The curriculum design process of the University is a methodical procedure that involves the involvement of the University level committee and the Department level board o studies. The school has used many strategies in the curriculum design process to achieve the desired program results. The comprehensive process for designing the curriculum is shown in figure below.



(Figure 1)

2.1.2 Structure of the Curriculum (5)

ID	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	Theory Credits	Practica Credits
1	BMA2101	Mathematics-I	3	1	0	4	4	0
2	BCH2101	Chemistry	3	0	3	6	3	1.5
3	BEC2101	Basic Electronics	3	0	3	6	3	1.5
4	BCS2102	Programming for Problem Solving	3	0	3	6	3	1.5
5	BCE2102	Basic Civil Engg.	3	0	3	6	3	1.5
6	BIN2101	Induction Programme and participation in Clubs/Societies	0	0	0	0	0	0
7	BMA2201	Mathematics - II	3	1	0	4	4	0
8	BHU2102	English For Business Communication	3	0	3	6	3	1.5
9	BPH2101	Physics	3	0	3	6	3	1.5
10	BEE2101	Basic Electrical Engg.	3	0	3	6	3	1.5
11	BME2101	Engineering Mechanics	3	0	3	6	3	1.5
12	BYG2201	NSS/NCC/Yoga	0	0	0	0	0	0
13	BMA2301	Mathematics-III	3	1	0	4	4	0
14	BEC2307	Network Theory	3	0	3	6	3	1.5
15	BEC2305	Analog Electronics Circuit	3	0	3	6	3	1.5
16	BEC2306	Signals & Systems	3	0	3	6	3	1.5
17	BHU2303	Economics for Engineers	3	0	0	3	3	0
18	BEC2393	Simulation Lab-I	0	0	3	3	0	1.5
19	BNC2301	Essence of India Traditional Knowledge	0	0	0	0	0	0
20	BEC2409	Digital System Design	3	1	3	7	4	1.5
21	BEC2406	Principles of Analog & Digital Communication	3	0	3	6	3	1.5
22	BEC2407	Advanced Electronics Circuit	3	0	3	6	3	1.5
23	BEC2408	EMFT & Transmission Lines	3	0	0	3	3	0
24	BHU2301	Organisational Behaviour	3	0	0	3	3	0
25	BEC2496	Design & Testing Lab	0	0	3	3	0	1.5
26	BNC2401	Environmental Sciences	0	0	0	0	0	0
27	BNC2402	Summer Internship/ Training	0	0	0	0	0	0
28	BEC2507	Microprocessor & Microcontroller	3	0	3	6	3	1.5
29	BEC2506	Integrated Circuits & Systems	3	0	3	6	3	1.5
30	BEC2503	Digital Signal Processing	3	0	3	6	3	1.5
31	BEC2509	Professional Elective –I	3	0	0	3	3	0
32	BIT2505	Open Elective –I	3	0	0	3	3	0
33	BHU2502	Financial Management, Costing, Accounting, Balance Sheet & Ratio Analysis	2	0	0	2	2	0
34	BEC2603	Microwave Engineering	3	0	3	6	3	1.5

35	BEC2606	Wireless & Mobile Communication	3	0	0	3	3	0
36	BEC2607	Professional Elective –II	3	0	3	6	3	1.5
37	BEC2604	Professional Elective-III	3	0	0	3	3	0
38	BCE2612	Open Elective-II	3	0	0	3	3	0
39	BHU2501	Professional Ethics, Professional Law &Human Values	2	0	0	2	2	0
40	BEC2695	Simulation Lab-II	0	0	3	3	0	1.5
41	BNC2601	Summer Industry Internship/ Training/ Project	0	0	0	0	0	0
42	BEC2709	Wave Propagation & Antenna Engineering	3	0	0	3	3	0
43	BEC2702	Computer Communication & Networks	3	0	0	3	3	0
44	BEC2705	Professional Elective-IV	3	0	0	3	3	0
45	BPE2712	Open Elective-III	3	0	0	3	3	0
46	BEC2794	Project - I	0	0	6	6	0	3
47	BEC2793	Advanced Communication Lab.	0	0	3	3	0	1.5
48	BEC2795	Seminar on internship	0	0	3	3	0	1.5
49	BEC2809	Professional Elective-V	3	0	0	3	3	0
50	BEC2807	Professional Elective-VI	3	0	0	3	3	0
51	BCE2808	Open Elective-IV	3	0	0	3	3	0
52	BEC2894	Project II	0	0	12	12	0	6
53	BEC2895	Seminar on Project	0	0	2	2	0	1
		Total	**115**	**4**	**92**	**211**	**119**	**46.0**

2.1.3 State the components of the curriculum (5)

Edit Save

Course Components	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total nu
Basic Sciences	12.73	24.00	

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 mentior Annexure I (10)

The curriculum for the B. Tech. program in Electronics and Telecommunication Engineering ensures a well-rounded education by including courses from different fields suc as Science, Mathematics, Engineering Science, Humanities and Management. It also includes professional core courses, professional electives, open elective projects, an internship components. The syllabus for each course has been meticulously crafted to align with the curriculum in order to achieve the Program Outcomes (POs) and Program Specific Outcomes (PSOs) outlined for the program.

The methodology used to ascertain the degree of adherence to POs and PSOs.

- Figure 1 depicts the process of curriculum creation.
- The course outcomes of all courses are aligned with the POs and PSOs, indicating their degree of correlation on a scale of 1 (low), 2 (medium), and 3 (high). The reference is to Table 2.1.4.
- The courses are designed to cover all POs and PSOs thoroughly, and each course is linked to at least one PO with a high degree of correlation.
- Additionally, it made sure that there is a strong link between the number of courses and all POs and PSOs. The course and PO mapping of all the required courses a included in the program articulation matrix. Guest lectures, seminars, industry trips, etc., make up for the curricular gaps shown by the low degree of course mapping with PO/PSO.
- The cumulative internal evaluation and end-of-semester assessment are used to determine the accomplishment of the POs and PSOs. Indirectly achieving POs and PSOs also involves collecting feedback from companies, graduates, and alumni. Lastly, the achievement of POs and PSOs is determined by weighing the relative importance of direct and indirect accomplishment.

Table 2.1.4: Satellite Communication

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	2	2		1	-	-	-	-	1	3	3	1
CO2	3	3	3	2	3	2	2	-	-	-	-	1	3	3	2
CO3	2	2	3	3	2	2	1	-	-	-	-	1	3	3	3
CO4	2	2	3	2	3	3	2	-	-	-	-	1	3	3	2
CO5	3	3	3	3	3	2	2	-	-	-	-	1	3	3	1
Average	2.6	2.6	3	2.6	2.6	2.2	1.6					1	3	3	1.8
Rounding off	3	3	3	3	3	2	2					1	3	3	2

2.2 Teaching-Learning Processes (70)

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

The Institute has implemented a comprehensive teaching and learning approach that incorporates several student-centered methodologies designed to enhance the learning experience. The curriculum and courses undergo regular updates to meet the needs of industry, address global concerns, and align with the desired learning goals and Blooms taxonomy levels. The Department of Electronics Engineering has a methodical approach to enhance the teaching and learning process, which in turn improves the performance of the students. The departments method for Teaching-Learning and Quality Improvement is centered on certain criteria.

- The university formulates the academic calendar for BTech programs and distributes it to the Deans, HOS, and faculty members of the Schools. The academic calendar includes the chronological sequence of events such as student reporting, class commencement, mid-semester session and end semester session. The academic activities are strictly adhering to the Academic Calendar.
- Subject allocation for each course occurs in the preceding semester based on faculty specialty and student preferences. This allows faculty members enough time to strategize their teaching methods for each subject.
- The department-level PIC time table meticulously coordinates the schedules of all faculty members to guarantee the smooth operation of the program.
- Each course is assigned a course committee, led by a course coordinator, who collaborates with the course instructors to create the course handout. The course handout provides comprehensive information about the course, including the course code, course credit, course material, course result, lesson plan, assessment system, activity calendar, and recommended textbooks and reference books. The lesson plan provides a comprehensive overview of the subjects that will be taught each session, including the mapping of course outcomes and the specific chapters in the textbook or reference book that will be covered.
- The course instructor is responsible for creating and distributing the teaching/lecture materials to the students. The lab instructions are sent to the students together with the course material for the lab course. The lab guides are created well in advance and undergo a thorough review by the individual PIC lab, who will make any necessary revisions.
- Each students are assigned a subject or practical issue that is relevant to the course objectives. They are then directed to use e-media, journals, site visits, and group discussions to gather information and resources. Subsequently, they undergo evaluation and are required to share their work, therefore fostering a conducive learning atmosphere and providing assistance to their peers.
- We arrange for highly skilled and knowledgeable guest lecturers who possess specialized expertise and extensive experience. These individuals provide valuable insights into real-world practices and cutting-edge strategies that are currently being used in the industry. This enhances the overall comprehension and learning experience for the students.
- Students are also encouraged to enhance their learning by using video lectures, animations, various pictures, open courseware, e-Resources Journals & Articles, Coursera, MOOCs, and NPTEL. These resources provide students with valuable insights and knowledge in their respective domains.
- The activities encompass the practical application of strategies in real-world situations, gaining an understanding of limitations, recognizing the pertinent social, environmental, legal, and economic consequences, and analyzing the resulting effects. Additionally, the activities conducted every year under the banner of TECHTRONIX involve resolving real-life complex problems with the aid of simulations and models that are relevant to the objective.
- Regular Course Committee meetings are held to assess the performance of students and determine appropriate measures for both high-achieving and underperforming students.

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

The students courses are categorized into theoretical and practical courses. Each of these courses undergoes a series of examinations to evaluate the students performance, as outlined below:

Theory courses

- Continuous evaluation (20 marks): The students performance is assessed via various assignments and learning activities conducted throughout the semester for the course. The organization, allocation, and assessment of activities and assignments are facilitated by various methods such as quiz, surprise test. etc.
- The mid-semester examination (30 marks): This examination, is performed during the middle of the semester. It has a weightage of 30 marks and evaluates the students understanding of a specific portion of the curriculum. The syllabus for the examination is determined and communicated by the department board of studies consultation with other course professors.
- End-of-semester assessment (50 marks): Students are assessed using a closed-book exam that covers the complete course material.

Practical courses

- Continuous or Internal assessment (60 marks): Students are assessed according to their performance, understanding of ideas, ability to work as part of a group, ora examination, and documentation related to various experimental tasks, simulations, programming, and learning activities assigned and completed over the semester
- End Semester examination (40 marks): The evaluation of students is determined by their performance in a specific experimental or practical assignment, which must be accomplished within a certain time frame and under continuous supervision. Additionally, their performance in the final semester oral examination is also taken int account.

VSSUT has established protocols for conducting examinations, which include the creation of question papers for both mid-semester and end-semester exams, as well as ongoing assessment via various activities. Below are the guidelines for each component of evaluation.

A. **Ongoing assessment via educational exercises for every theoretical course:**

The ongoing assessments activities have been specifically intended to enhance learning among students. The exercises should be organized in a manner that allows the course instructor to evaluate the students performance in several categories, as well as their progress towards achieving the desired course goals. The table below provides a set of recommended practices for the elements mentioned above. Course instructors have the freedom to choose and implement a teaching method that aligns with or goes beyond the recommended guidelines.

Continuous Evaluation through learning activities for each theory course:

Focus	Learning Practice	Brief description
Group	Synchronous Discussion	Give a list of questions to a group of 20–30 students. Encourage response sharing.
	Collaborative Discussion	Separate the information set into five or six sections. Give five or six students a portion of the information. Permit information exchange and continued subgroup development.
	Group Assignment	Assign members of a group of five to six the following roles: researchers, presenters, schedule and records manager, project manager, and so on. Give students a project that they can finish in a semester.
Brain Teasing	Innovative skill	Assigning real time problems and asking for solution to student groups.
	Case Study	Identification of problems, stakeholders, solutions, effects, and repercussions is expected of students.
	Research need identification	In order to determine a relevant research need, students are expected to read through review papers and sets of research publications. The required research, background information, and a summary of the literature should all be included in a two-page report.
Creative	Info-graphic	To elucidate, characterize, and illustrate the provided data, method, or process.
	Written summary	Students are expected to compose a one-page synopsis based on a particular section of a course, text, or research article.
	Physical model/ mathematical model/ soft-model	The task for the student is to create a suitable model.

Problem solving	Assignments	list of issues or cases that need to be resolved and submitted
	Modeling and simulation	Students are expected to create mathematical models, algorithms, and codes, as well as to simulate using the proper tools.
Preparing for higher education	Quiz	The course questions should be answered by students in accordance with the requirements of the GATE, CES, CS, and other competitive exams.
Self evaluation	Self assessment	Students are to evaluate the caliber of their work using the specified standards.
	Reflection on learning	A written report outlining the students pre-course goals, learning outcomes, and the efficiency of particular teaching resources

B. **Internal Question Papers Quality**

The following procedures are used to sustain the quality of the internal question paper. The procedure undergoes periodic assessment and updates.

- The department board of studies determines the curriculum for the internal examination and solicits a question pool from the committee members.
- The subject instructor prepares the questions by adhering to the specified criteria.
  a. Alignment of specific questions in the exam with the corresponding COs.
  b. Aligning each question paper with the corresponding tiers of questions according to Blooms Taxonomy.
  c. Aligning each question paper with the corresponding chapters of the course.
  d. Ultimately, the questions quality is assessed by considering the established criteria of Blooms Taxonomy and its alignment with the content of the chapter and course objectives.
- After the evaluation sheet data found to meet the quality standards, the question paper is submitted to Faculty-In-Charge Examination.

C. **Evaluation of the final semester examination papers quality**

The following procedure is used to maintain the quality of the final examination question paper.

- The department board of studies suggests selecting four or five faculty members to create the end semester question paper.
- Department board of studies is responsible for determining the list of faculty members who will set the end semester papers (two or three members). The paper sette are faculty members from various prestigious institutions in India. The list is shared with the dean academics and controller of examiner.
- The paper setter adheres to the following criteria while preparing the question paper.

1. Alignment of specific questions on the exam with their corresponding COs.
2. Aligning each question paper with the corresponding tiers of questions according to Blooms Taxonomy.
3. Alignment of certain question papers with the corresponding chapters of the course.

Format of Question Paper for Midsemester

Question No.	Learning Level as per Bloom's Taxonomy	Description	Marks	Course outcome(CO)/ Performance Indicator(PI)
Q 1 (a)-(c)	Learning levels 1 ,2 and 3.	Questions based on remembering, understanding and application.	20% of total marks to be assigned to Q1.	CO 1,2,3. PIs related to learning level 1,2 and 3 as per Bloom's taxonomy.

Q 2 (a)-(b)	Learning levels 4 ,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.	16% of total marks to be assigned to each question.	CO 1 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.
Q 3 (a)-(b)	Learning levels 4 ,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.		CO 2 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.
Q 4 (a)-(b)	Learning levels 4 ,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.		CO 3 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.

Format of Question Paper for End semester

Question No.	Learning Level as per Bloom's Taxonomy	Description	Marks	Course outcome(CO)/ Performance Indicator(PI)
Q 1 (a)-(e)	Learning levels 1 ,2 and 3.	Questions based on remembering, understanding and application.	20% of total marks to be assigned to Q1.	All COs PIs related to learning level 1,2 and 3 as per Bloom's taxonomy.
Q 2 (a)-(b)	Learning levels 4,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.	16% of total marks to be assigned to each question.	CO 1 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.
Q 3 (a)-(b)	Learning levels 4 ,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.		CO 2 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.
Q 4 (a)-(b)	Learning levels 4 ,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.		CO 3 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.
Q 5 (a)-(b)	Learning levels 4 ,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.		CO 4 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.
Q 6 (a)-(b)	Learning levels 4 ,5 and 6.	Questions based on analysis, evaluation, design, innovation, formulation.		CO 5 PIs related to learning level 4,5 and 6 as per Bloom's taxonomy.

D. **Quality of the Evaluation**

The following methods have been established to ensure the quality of answer script assessment. The procedure undergoes periodic assessment and subsequent updates.

- The evaluator evaluates the answer scripts and awards mark to the individual answers.
- The course coordinator devises an evaluation scheme, which is sent to all evaluators and students.
- Given the Universitys emphasis on openness, the answer sheets are given for student inspection. Students review their answer papers digitally and request a reevaluation.

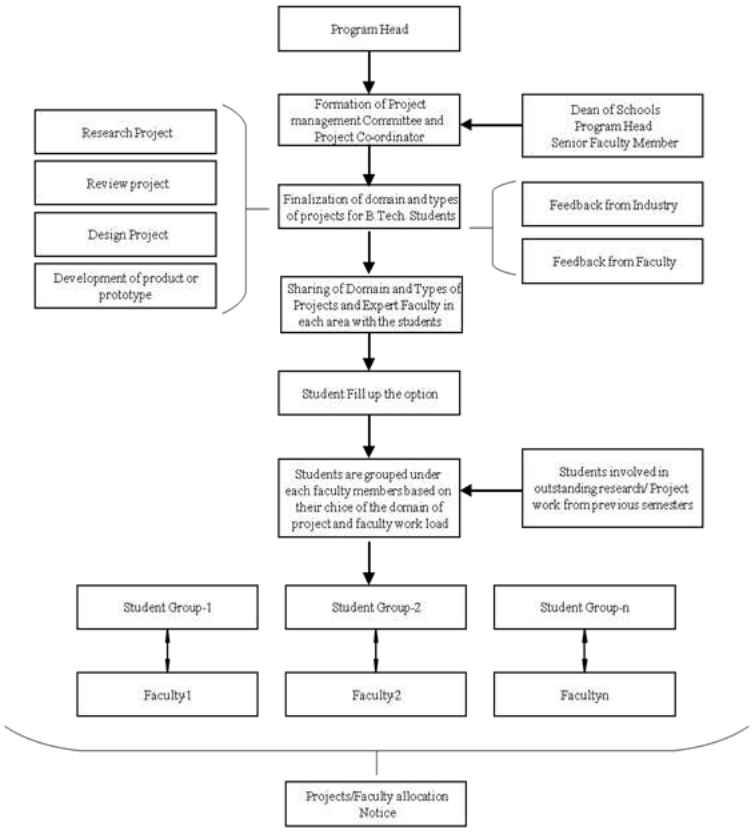
2.2.3 Quality of student projects (20)

According to the curriculum for B.Tech. in Electronics and Telecommunication Engineering, each student is required to complete one project during the 7th and 8th semesters.

Tools	Marks	Credit
7th Semester (Internal evaluation)	100	3
8th Semester (External evaluation)	100	6

A. **Identification of Projects and allocation methodology to faculty members**

Figure 2.2.3 provides a description of the process associated with project identification, allocation, and monitoring. The HOD appoints a project coordinator who is responsible for the strategic planning, efficient scheduling, and successful implementation of all activities pertaining to student project work.



(Figure 2.2.3 illustrates the process for the Project Allocation approach.)

B. **Planning, Scheduling, Monitoring and Execution**

Step	Task	Process description
Step-1	Project Identification	Projects are selected by faculty members and/or students based on their own areas of interest. Fig. 2.2.3 illustrates the intricate procedure.
Step-2	Allotment	Students are given projects and guides are allocated to them. Students are allocated the laboratory and supplied with resources for the development of their projects.
Step-3	Continuous Monitoring	The projects development is reviewed weekly by the guide. The ongoing development is also evaluated via regular assessment by a panel.
Step-4	Evaluation	Students are required to provide a demonstration of how the project functions. Students are required to explain the operational principles of their project. Students are required to provide a detailed explanation of the implementation technique, design process of components, performance of the system, application of projects, and future scopes in presence of external examiners. Finally, students are required to submit the project report.

C. **Project Evaluation Scheme**

- Evaluation of performance in Project components is conducted independently by the project guide, panel members, reviews, and external evaluators. The evaluation considers several aspects like the creation of models/prototypes, construction materials, use of current engineering equipment, project work quality, innovation, student presentation, viva, reviews, report writing, and individual contributions.

Table 2.2.3: A detailed project assessment scheme

Sl No.	Evaluation Component	Evaluation Type	Marks	Components of Evaluation
1	Final Evaluation	Presentation, viva and report submission	50-panel	Report-15 Presentation-15 Viva(QnA)-20
2			25-supervisor	Content of project
3			25-external	Overall

D. **Category and significance of the initiatives and their impact on achieving the POs**

Project results upon completion of the course, students will possess the ability to:

CO1: Conduct a comprehensive analysis of specific technical concerns and establish a clear project aim.

CO2: Propose a clear plan for executing the project within the specified timeframe.

CO3: Utilize basic engineering principles, employ sophisticated technical expertise, utilize contemporary engineering tools, conduct experiments, and rigoro the resulting data.

CO4: Develop engineering solutions and design system components or processes while taking into account public health, safety, and welfare, as well as glc social, environmental, and economic issues.

CO5: Demonstrate proficiency in both independent work and collaborative work across diverse professional environments, while adhering to ethical principl

Mapping of project CO with PO/PSO

S.No.	Project CO	Relevance to PO	Relevance to PSO
1.	CO1	1,2,4,6,12	-
2.	CO2	1,2,4,9,10	-
3.	CO3	1,2,5	1,2
4.	CO4	1,2,3,4,5,7,8,11,12	1,2,3
5.	CO5	6,8,9,10,11,12	3

2.2.4 Initiatives related to industry interaction (10)

The department of Electronics and Telecommunication Engineering has established a robust collaboration between the industry and academics to optimize t for the students. The department has implemented many projects to foster a dynamic relationship with the industry, a few of which are outlined below.

Participation of the industry in the program design and curriculum

- Involvement of the industry in Industry Supported Laboratories
- Partial completion of the course:
- Presentations given by professionals from the industry
- Educational events focused on hands-on learning and discussions
- Industrial visits
- Industry Electives
- Industry involvement in Research
- Industry involvement in student projects
- Internships

Industry Internship

Company names where students have undertaken internship in last 4 years.

S. No.	2023-24	2022-23	2021-22	2020-21	2019-20
1	Hindustan Aeronautics Limited Koraput Division	Name of Organisation	IIIT Allahabad	Samagrah foundation	Hindustan Aeronautics Limited
2	NALCO,IOCL	NIT ROURKELA	NTPC	Tata steel Utilities and Infrastructure Services Limited	INDIAN RAILWAYS
3	Code Inbound LLP	Rttc,Bsnl	SAIL , RSP	Rttc BSNL	BSNL
4	Radical AI	SAIL	Indian Institute of Information Technology	Internshala	Integrated Test Range(ITR), Chandipur
5	EDX	CTTC	RTTC, BSNL	iServeU	CTTC
6	GyanSys Inc.	East Coast Railways, Sambalpur	ITR- DRDO	Maven Silicon	Airport Authority Of India
7	East coast railway	IIIT ALLAHBAD	Oil and Natural Gas Corporation (ONGC)	ORIGINTECH	Birla Tyres, Balasore
8	I. R. E. L(India) Limited	Hindustan Aeronautics Ltd, Sunabedha	East Coast Railway		East Coast Railways
9	Tata electronics pvt Ltd	CTTC, Bhubaneswar	Indian Railways		National Thermal Power Corporation, Kaniha
10	Ordnance Factory Badmal	Internshala	Hindustan Aeronautics Limited		Odisha Power Transmission Corporation Limited
11	Sherlock Games	Coincent	Youth India foundation, Burla		

12	Med tour easy	Proof & Experimental Establishment (PXE), DRDO	Viral Fission		IREL (India) Limited (Formerly Indian Rare Earths Ltd)
13	Great Learning academy	BSNL	East Coast Railways		Doordarshan Kendra , Bhubaneswar
14	ITR DRDO	Techgeering Solutions Private Limited	iServeU		National Alumnium company ltd. Nalco nagar
15	Central Tool Room & Training Centre(CTTC), BHUBANESWAR	RAIL VIKAS NIGAM LIMITED(RVNL)	NALCO,IOCL		National Academy of Broadcasting and Multimedia
16	Pantech Solutions	Defence Research and Development Organisation	Internshala		All India Radio,Shillong
17	Ritz Fintech And Allied Services	The Anantkaal	PXE DRDO		
18	DRDO Chandipur	Graduate Us	MCL		
19	Internshala	AICTE Edu Skills (supported by PaloAlto cybersecurity academy)	Southern eastern railway		
20	NALCO	Palo Alto	Vodafone Idea		
21	NTPC	SAIL, Rourkela Steel Plant, Rourkela, Odisha	East Coast Railways		
22	The Sparks Foundation	Central Tool Room and Training centre	iServeU		
23	Central Tool Room and Training Centre	East Coast Railway	NALCO,IOCL		
24	MCL	Origin Tech	JSPL		
25	JSPL	RTTC	Hindalco		
26	JSW	NALCO	JSW		
27	Hindalco	Indian Institute of technology, madras	Central Tool Room and Training Centre		
28	Aditya Birla	MCL H.Q			
29	IOCL	NIIT Foundation			
30	Rourkela Steel plant	ROURKELA STEEL PLANT			
31	SAIL	East Coast Railway			
32	East Coast Railways	Udemy			
33	BSNL BHUBANESWAR	Indian Oil Corporation Limited			

34	OPGC	Indian Rare Earths Limited (IREL)			
35	Rapidsoft technologies	BSNL-ALTTC			
36	Solytics Partners	Bharat Electronics Limited			
37	iServeU	East Coast Railway			
38	Internshala	BEL			
39	Lifespark Technologies	Defence Research and Development Organisation			
40	ITR (DRDO)	RTTC, BSNL, BHUBANESWAR			
41	Intrainz	Coursera			
42	Maven Silicon	Jp morgan			
43	IIT KGP (Indian Institute of Technology Kharagpur)	Coincent			
44	Gyansys	Southern eastern railway			
45	SAIL	Indian Railways			
46	ORIGINTECH	IIRS,DEHRADUN			
47	Proof and Experimental Establishment (PXE DRDO)	Skill Development on telecom testing			
48	INTERNSHALA	Jindal			
49	BSNL,CTTC	Vodafone idea limited			
50	SAIL	Vodafone Idea			
51	Oasis Infobyte	Nalco			
52	Bharat Intern	Skolar			
53	East Coast Railway	MCL			
54	BSNL	Origin Tech			
55	MCL	Graduate Us			
56	NALCO				
57	MotionCut				
58	EAST COST RAILWAY				
59	DRDO				
60	Kfintech				
61	Indian railway, SAIL				
62	HAL				
63	BSNL				

Impact Analysis

- Students cultivate a professional demeanor, acquiring the proficiency to present their research at esteemed national and international conferences and journals.
- Additionally, students have achieved accolades in project design competitions at the state, national, and worldwide levels.
- Increase in students proficiency in cutting-edge technologies.
- As students acquire more skills necessary for their development. Gain a competitive advantage in the job market.
- Enhanced opportunities for targeted development in students
- Smooth transition into employment

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

Process	Implementation	Impact
Summer training and internship are included in the curriculum plan.	Summer training is an obligatory element of the curriculum, and chosen students participate in an internship program. These components are also considered key Academic requirements and are based on credits. Previously, students would undergo a four-week summer training during the fourth semester and a four-week internship during the sixth semester at esteemed commercial or public sector businesses. During the fourth semester. In addition, the department offers in-house training programs in collaboration with industry specialists, which students have the option to participate in during their sixth semester. Students are required to do a one-month internship in the industry in order to get firsthand experience in a genuine industrial setting. In eighth semester the students are allowed to do internship for six months in the industries.	Students are immersed in an authentic industrial setting, which alters their perspective as aspiring engineers and inspires them to confront obstacles in a genuine industrial context.

Industry internship/summer training

Year 2023-24

S. No.	Full Name of Student	Roll No.	Name of Internship Organisation	Location
1	BISWAJIT SWAIN	2102070091	HINDUSTAN AERONAUTICS LIMITED	SUNABEDA,KORAPUT
2	Ritika Sahu	2102070049	NALCO,IOCL	Angul,Paradip
3	Amit Kumar satapathy	2102070023	HAL	Koraput
4	ABHIJIT MISHRA	2102070015	Code Inbound LLP	Noida
5	K Kundan Kumar Subudhi	2102070088	Hindustan Aeronautics Limited Koraput Division	Sunabeda, Koraput
6	Amit Kumar satapathy	2102070022	Radical AI	Newyork
7	Subhranshu Pradhan	2002070128	Tata Electronics	Bangalore
8	Monalisa Ray	2102070101	EDX	EDX
9	Anisha Mishra	2002070097	GyanSys Inc.	Bangalore, Karnataka
10	Pragya Pandey	2102070066	HAL	Koraput
11	Sonam Mishra	2102070120	East coast railway	Sambalpur
12	Sidharth Sahu	2102090075	I. R. E. L(India) Limited	Matikhalo, Ganjam, Odisha
13	Gopal jain	2002070093	Tata electronics pvt Ltd	Benguluru
14	Diptimayee Satapathy	2102070087	Hindustan Aeronautics Limited	Sunabedha, Koraput
15	Avipsha Mishra	2102070079	Ordnance Factory Badmal	Badmal, Balangir, Odisha
16	Diptimayee Satapathy	2102070087	Hindustan Aeronautics Limited	Sunabeda, Koraput
17	Sambit Kumar Sahoo	2102070032	Sherlock Games	Bhubaneshwar
18	Soumik parida	2102070022	Med tour easy	Kollata
19	Adarsh Soham Acharya	2102070019	HAL	Koraput
20	Om Prasad Nayak	2102070063	Great Learning academy	remote
21	Kushalata Behera	2102110017	Hindustan Aeronautics Limited	Sunabeda ,koraput
22	Ajit Kumar Jena	2002070033	ITR DRDO	Chandipur, Balasore, Odisha
23	Itishree Sahu	2102070073	Central Tool Room & Training Centre(CTTC), BHUBANESWAR	Bhubaneswar

24	B Ashish Kumar Patro	2102070058	Pantech Solutions	Hyderabad
25	Abhijeet Sahoo	2102070064	Ritz Fintech And Allied Services	Chennai
26	Sobhit Kumar Pradhan	2102070086	Hindustan aeronautics limited	Sunabeda koraput
27	Aditya Panch	2002110003	DRDO Chandipur	Chandipur, Balasore
28	Rudra Prasad Rath	2102070045	Hindustan aeronautics limited	Sunabeda, koraput
29	Priyanka Xalxo	2102070114	Central Tool Room and Training Centre	Bhubaneshwar
30	Amar Kumar Sahoo	2203070009	Internshala	Online
31	Aditya Narayan Dash	2202070031	HINDUSTAN AERONAUTICS LIMITED, SUNABEDA	Koraput, SUNABEDA -03 ,763
32	Ayush pattnaik	2202070013	NALCO	Angul
33	Ayush pattnaik	2201070013	NTPC	Talcher
34	Ayush pattnaik	2202070013	MCL	Odisha
35	Bedananda Jena	2102070122	The Sparks Foundation	Singapore
36	Aditya Tirkey	2102070109	Central Tool Room and Training Centre	Bhubaneswar
37	Subham.S.Bidyadhar Behera	2202070043	MCL	Talcher
38	Subham.S.Bidyadhar Behera	2202070043	NTPC	Talcher
39	Subham.S.Bidyadhar Behera	2202070043	Nalco	Talcher
40	Subham.S.Bidyadhar Behera	2202070043	JSPL	Angul
41	Chamanraj Naik	2102110002	COHORT - 5(SALESFORCE DEVELOPER)	N/A
42	Subham.S.Bidyadhar Behera	2202070043	JSW	Angul
43	Subham.S.Bidyadhar Behera	2202070043	Hindalco	Sambalpur
44	Subham.S.Bidyadhar Behera	2202070043	Aditya Birla	Sambalpur
45	Swagatika Panda	2303070007	IOCL	Paradeep
46	Swagatika Panda	2303070007	Rourkela Steel plant	Rourkela
47	BHAGYASHREE PANDA	2303070006	Iocl	Pradeep
48	Bhagyashree panda	2303070006	SAIL	Rourkela
49	Bhagya shree panda	2303070006	CTTC	Bhubaneswar
50	Shradha Mohapatra	2102070039	East Coast Railways	Khordha, Cuttack
51	Sraddha Suman Patra	2102070118	East Coast Railway	Khurda And Cuttack
52	Sthiti Pragyan Samant	2102070107	East coast railway	Khurda and Cuttack
53	Sai Nandini	2102070027	BSNL BHUBANESWAR	Bhubaneswar
54	Ronesh Tarenia	2202070027	HAL	odisha
55	Ayushi Simran Prusty	2102070098	IREL	Chattarpur , Ganjam
56	Priyadarshini Sahoo	2102020051	NALCO Angul	Angul
57	Abhishek biswal	2102070020	OPGC	itps banharpali
58	Smruti Sucharita Mishra	2002070071	Marquee Semiconductor	Bhubaneswar
59	Sanjeev Kumar Mahato	2002070127	Rapidsoft technologies	Gurgaon
60	Debabrata Mohapatra	2002070047	Solytics Partners	Remote
61	Rudramadhaba Mishra	2002070064	iServeU	Bhubaneswar
62	Baishakhi Guin	2102070067	Hindustan Aeronautics Limited	Sunabeda, Koraput
63	Rasik mohan munda	2002070108	Internshala	Home
64	Debabrata Mohapatra	2002070047	Lifespark Technologies	Mumbai
65	Amitosh Dash	2002070148	ITR (DRDO)	Chandipur (Balasore)
66	Chinmay Kumar Rout	2002070061	DRDO	Chandipur,Balasore
67	Aditya Singh	2002070122	DRDO	Balasore
68	Amitosh Dash	2002070148	Intrainz	Bengaluru (Karnataka)
69	Umakanta Meher	2002070001	Central Tool Room & Training Centre (CTTC)	Bhubaneswar
70	Sujit Vishwakarma	2002070073	DRDO	Chandipur, Balasore
71	Nitish Gobinda Panda	2102070042	Pantech Prolabs India Pvt Ltd	Home
72	Asish Baraj	2203070012	Maven Silicon	Bengaluru
73	Satyam Sabat	2002070022	Marquee Semiconductor	Bhubaneswar

74	Farhan Azad	2103070005	CTTC BHUBANESWAR	BHUBANESWAR PATIA
75	Sampad Mohanty	2002070059	IIT KGP (Indian Institute of Technology Kharagpur)	Kharagpur, West Bengal
76	SWARAJ KUMAR SINGH	2002070146	ITR, DRDO	Chandipur, Balasore
77	Abantika Mohanty	2002070145	Gyansys	Banglore
78	Britika Panigrahi	2103070013	ITR DRDO	Balasore, Odisha
79	Pratik Swain	2103070012	ITR, DRDO	Chandipur
80	Britika Panigrahi	2103070013	SAIL	Rourkela
81	Hanumantu Sudhir	2002070137	ORIGINTECH	Sambalpur
82	Shreyansh Swain	2002070058	Proof and Experimental Establishment (PXE DRDO)	Chandipur, Balasore
83	Abhijeet Yadav	2102070014	INTERNSHALA	Online platform of INTERNSH/
84	Sagar Ghosh	2002070134	DRDO-ITR	Chandipur , odisha
85	S Mohit	2103070003	HAL	Sunabeda
86	Amiya Ranjan Dharua	2102070113	BSNL,CTTC	Bhubaneswar
87	Ayush pattnaik	2202070013	SAIL	Rourkela
88	Tanmoy Mishra	2002070091	DRDO-PXE	Chandipur, Balasore.
89	Ananya Jena	2002070144	DRDO	Chandipur Balasore
90	ASHRITA NAYAK	2002070060	ITR,DRDO	BALASORE,ODISHA
91	M Sambit Kumar	2002070062	Defence Research and Development Organisation	Balasore, Odisha
92	Pratham Mishra	2002070120	DRDO	Chandipur Odisha
93	Ishika Pradhan	2202061063	Oasis Infobyte	New Delhi
94	Ishika Pradhan	2202061063	Bharat Intern	Bhopal
95	Rahul Kumar Singh	2002070132	East Coast Railway	Bhubaneswar
96	Lawrence Linkan Sahoo	2202070037	NALCO	Angul
97	Lawrence Linkan Sahoo	2202070037	BSNL	Bhubaneswar
98	Lawrence Linkan Sahoo	2202070037	NTPC	Angul
99	Lawrence Linkan Sahoo	2202070037	MCL	Angul
100	Sobhit Kumar Pradhan	2102070086	Hindustan aeronautics limited	Sunabeda koraput
101	ANUBHAV KHAMARI	2102090054	NALCO	Angul
102	SARBESWAR DASH	2203070005	DRDO	BALASORE
103	Aditya Tirkey	2102070109	Central tool and Training Centre	Bhubaneswar
104	Omkar Mandal	2102070075	MotionCut	Remote
105	Tushar Kant Soren	2102070108	CTTC	Bhubaneswar
106	SARBESWAR DASH	2203070005	EAST COST RAILWAY	BHUBANESWAR
107	Ankita Rayaguru	2002020077	DRDO	Chandipur
108	Krityeeprava Subhadarshini	2002070082	Kfintech	Hyderabad
109	Rohit Kumar Patra	2002070050	Central tool room and training centre	Bhubaneswar
110	Sandeep Manohar padhi	2002070020	Indian railway, SAIL	Bhilai, Rourkela
111	Nikita mohanta	2103070008	ITR ,DRDO	Chandipur, balasore
112	Ruddhi Panigrahy	2002070019	PXE,DRDO	Chandipur
113	Nikita mohanta	2103070008	HAL	Sunabeda , koraput
114	Ananya Anuska	2002070023	Marqueesemi India PVT LTD	Bhubaneswar
115	Ruddhi Panigrahy	2002070019	BSNL	Sambalpur
116	Abhisek Kumar	2002030129	Hindustan Aeronautics Limited	Sunabeda
117	Arijit Prasad Sahoo	2002070004	IserveU	Bhubaneswar
118	Soumya Behera	2002070136	ITR ,DRDO	Chandipur,Balasore
119	Suraj Kumar Pal	2002070039	DRDO	Chandipur
120	Soumya Behera	2002070136	SAIL	Rourkela
121	Disha Swain	2002070143	Drdo	Chandipur
122	Soumya Swaroop Patro	2002100062	Tata Electronics Private Limited	Bangalore , Karnataka
123	Subhendu kumar sahoo	2002070055	DRDO	Balasore , Odisha

124	Kamal Kumar Sahu	2103070007	Eduskills	Bhubaneswar
125	Pradeep Kumar Das	2203070008	Industry Academia community	Mumbai, Maharashtra
126	Adyasha Nanda	2103070001	HAL	Koraput
127	Adyasha Nanda	2103070001	DRDO	Baleswar
128	Adyasha Nanda	2103070001	CISCO	Na
129	Britika Panigrahi	2103070013	Data Analytics (IBM Skillbuild)	Virtual
130	Sruti Garnayak	2102070106	CTTC	Bhubaneswar
131	Dibyans Meher	2203070010	Kodacy	Scientific Platforms And Cosmic Exploratior
132	Subhashree Bastia	2102070043	HAL	Koraput
133	Dibyans Meher	2203070010	Solana	268 Bush St #3131, San Francisco, Ur
134	Dwarikanath Sahu	2002090129	Tata Electronics	Hosur
135	Gulshan Kumar Sahu	2102070126	HAL	Sunabeda
136	Sanskar Choudhury	2202070036	Central Tool Room and Training Centre (CTTC)	Bhubaneswar , Odisha
137	Sanskar Choudhury	2202070036	NALCO	Angul
138	Ritika Sathua	2202070087	Jsp	Angul
139	Akankshya Adishree Nayak	2002070084	DRDO, Chandipur	Chandipur, Balasore
140	Harsh Ranjan	2002070034	iServeU PVT. LTD.	Bhubaneswar, Odisha, Indi
141	Chinmaya Kumar Mohanty	2002070126	DRDO	Chandipur, Balasore
142	Sangram Jena	2103070006	DRDO	Balasore
143	SANJUKTA GIRI	2002070002	Iserveu	Bhubaneswar
144	Badal Kumar Sahoo	2202070006	Nalco	Angul
145	Adarsh Panda	2002020029	FLUX MEDIA PRIVATE LIMITED	Remote
146	Adarsh Panda	2002020029	Steel Authority of India Limited , RSP	Rourkela
147	Priyanka Routray	2202070081	CTTC	Patia,Bhubaneswar
148	Subhashree Mohan Swain	2002070129	IserveU	Bhubaneswar

Year 2022-23

S. No.	Full Name of Student	Roll No.	Name of Internship Organisation	Location
1	Manas Kumar Dey	2102070041	Hal	Koraput sunabed
2	Monalisa Ray	2102070101	NIT ROURKELA	Rourkela
3	Shatarupa panda	2102070006	Rttc,Bsnl	Bhbaneswar,odish
4	Priyanka Priyadarshinee	2203070007	SAIL	Rourkela steel plant
5	Pragya Pandey	2102070066	CTTC	Bhubaneswar
6	Shitikantha Nanda	2102070037	East Coast Railways, Sambalpur	Sambalpur
7	Rashmi Ranjan Dishri	2102070001	IIIT ALLAHBAD	Allahabad
8	Nandan Kumar Sethi	2102070127	Hindustan Aeronautics Ltd, Sunabedha	Sunabedha, Korap
9	Gopal jain	2002070093	CTTC, Bhubaneswar	Bhubaneswar
10	SUDEEPTA KUMAR PATEL	2102070004	Internshala	Online
11	Sonam Mishra	2102070120	East coast railway	Sambalpur
12	Rudra Prasad Swain	2102070012	Coincent	Bengaluru, Karnata
13	SASHWATI MISHRA	2102110008	HINDUSTAN AERONAUTICS LIMITED (HAL)	Sunabeda, Odish
14	Tapas Kumar Behera	2102070099	Hindustan Aeronautics Limited	Sunabeda, Korapu
15	ANSUMAN DAS	2002070032	Proof & Experimental Establishment (PXE), DRDO	CHANDIPUR, BALA
16	Soumik parida	2102070022	BSNL	Kolkata
17	Itishree Sahu	2102070073	ROURKELA STEEL PLANT, SAIL	ROURKELA, ODIS
18	Mirza Maheer Haque Baig	2203070011	Techgeering Solutions Private Limited	Bhubaneswar, Odis
19	SASHWATI MISHRA	2102110008	RAIL VIKAS NIGAM LIMITED(RVNL)	Bhubaneswar,Odis
20	Rohit Mishra	2002110016	Defence Research and Development Organisation	Chandipur, Balasore
21	Amiya Ranjan Boxi	2102070026	The Anantkaal	Surat, Gujrat

22	Amiya Ranjan Boxi	2102070026	Graduate Us	Bhubneswar, Odisl
23	Tapas Kumar Behera	2102070099	AICTE Edu Skills (supported by PaloAlto cybersecurity academy)	N/A
24	Biswajit Sethi	2102070100	Palo Alto	Burla
25	Pallabi Parimita Nayak	2102070046	SAIL, Rourkela Steel Plant, Rourkela, Odisha	Rourkela, Odisha
26	Smruti Ashcharya Padhi	2102070065	Sail,Rourkela steel plant	Rourkela
27	Mohit Kumar Dora	2102070025	Hindustan Aeronautics Limited	Sunabeda, Korapu
28	Dwitee krushna chanda	2102070090	DRDO, chandipur	Balasore
29	Soumendra Das	2202070056	Central Tool Room and Training centre	Bhubaneswar
30	Aditya Tirkey	2102070109	Rourkela Steel Plant	Rourkela, Odisha
31	Ankita Seth	2102070104	East Coast Railway	Bhubaneswar
32	Nilanjan Mukherjee	2002070011	ITR - DRDO, Chandipur	Chandipur, Balaso
33	Soumya Ranjan Maharana	2102070117	Rourkela Steel Plant	Rourkela , Odisha
34	SUBHAM KUMAR SAHOO	2102070110	ROURKELA STEEL PLANT	ROURKELA, SUND
35	Swagat Acharya	2102070124	HAL	Koraput
36	Bikram Keshari sahu	2102070082	B	Begetbiz
37	Diptimayee Satapathy	2102070087	HAL	Sunabeda , Korap
38	Sanjeev Kumar Mahato	2002070127	Origin Tech	VSSUT,Burla
39	Prasoon Nayak	2002070017	RTTC	Bhubaneswar
40	Supriya Bhue	2102070115	NALCO	Nalco nagar, Angul,
41	Swostika Das	2002070095	DRDO	Balasore
42	Umakanta Meher	2002070001	Regional Telecom Training Centre	Bhubaneswar
43	Pratik Bishi	2103070010	Indian Institute of technology, madras	Chennai
44	Ranjit Panigrahi	2002070141	ITR, DRDO	Chandipur, Baleshv
45	Akash Kumar Routray	2002070067	ITR Chandipur	Chandipur, Balaso
46	SWARAJ KUMAR SINGH	2002070146	MCL H.Q	Burla
47	Ranjit Panigrahi	2002070141	NIIT Foundation	New Delhi
48	Rohit Kumar	2102070018	SAIL	Rourkela
49	ALOK MISHRA	2102070056	ROURKELA STEEL PLANT	ROURKELA
50	Faizan Akram	2102050023	Rourkela Steel Plant	Rourkela
51	Asmi Jena	2002070080	Defence Research and Development Organisation,DRDO	Chandipur,Balasor
52	Anwesha Meher	2102070044	East Coast Railway	Sambalpur
53	Hanumantu Sudhir	2002070137	Indian railways	Sambalpur
54	Sambit Kumar Sahu	2102070036	Rourkela Steel Plant	Rourkela , Odisha
55	Chiranjibi Biswal	2102070016	Udemy	Online
56	Sudarsan Ghosi	2102070055	MCL	Burla, Sambalpur
57	Sulata Jena	2102070050	Indian Oil Corporation Limited	Paradeep , Odish
58	Asit Sahoo	2102070053	Indian Rare Earths Limited (IREL)	Matilhalo, Berhempu
59	Sagar Ghosh	2002070134	BSNL-ALTTC	Ghaziabad
60	Akankhya Nanda	2102070061	Indian Rare Earths Limited (IREL)	Matikhalo, Berhamp
61	Allipsa Sethi	2002070109	Bharat Electronics Limited	Bengaluru, Karnata
62	S Mohit	2103070003	NALCO	Damanjodi
63	Bikash Mahapatra	2203070001	CTTC	Bhubaneswar, Odis
64	Ananya Jena	2002070144	East Coast Railway	Bhubaneswar
65	Aparna Routray	2002070149	BEL	Banglore
66	Ananya Jena	2002070144	DRDO	Chandipur Balasor
67	Tanisha Mohanta	2002070139	Defence Research and Development Organisation	Dehradun
68	Saswati Mishra	2102070010	RTTC, BSNL, BHUBANESWAR	BHUBANESWAR
69	Pratham Mishra	2002070120	Hindustan Aeronautics Limited	Koraput Odisha
70	Susmita Thatei	2203070006	Steel Authority of India Limited, Rourkela	Rourkela, sundarga
71	Dibya Jyoti sahoo	2102070121	Coursera	Virtual

72	Rahul Kumar Singh	2002070132	Hindustan Aeronautics Limited	Sunabeda, Korapu
73	Kishan panda	2102070070	Jp morgan	Hydrabad
74	Subhranshu Pradhan	2002070128	ITR,DRDO	DRDO, Chandipu
75	Asharani Patra	2102070081	Hindustan Aeronautics Limited	Sunabedha, Korap
76	Kirti Kausik Mishra	2002070024	Indian railways	East coast railway s
77	Ankita Swain	2102070059	Rourkela Steel Plant	Rourkela
78	SARBESWAR DASH	2203070005	IREL	IREL
79	Omkar Mandal	2102070075	Coincent	Remote
80	Gagan Kumar Pradhan	2002070077	ITR,DRDO	Chandipur
81	Meenakshi Murmu	2002070112	ALTTC, BSNL	Bhubaneswar
82	Prativa Bara	1802070111	SAIL	Rourkela
83	Nikita mohanta	2103070008	Southern eastern railway	Jamshedpur
84	Biswas Kumar Nayak	2002070104	Indian Railways	Khordha,Odisha
85	Snehashish Hati	2002070043	Nalco , Damanjodi	Damanjodi , korap
86	Rohit Kumar Patra	2002070050	RTTC	Bhubaneswar
87	Snehashish Hati	2002070043	IIRS,DEHRADUN	Dehradun
88	Prativa Bara	1802070111	Skill Development on telecom testing	New Delhi
89	Ruddhi Panigrahy	2002070019	Railway	Sambalpur
90	Soumyakant Pati	2002070123	ITR, DRDO	Chandipur, Balaso
91	Siddhi Panigrahy	2002070006	PXE,DRDO	Chandipur
92	Siddhi Panigrahy	2002070006	BSNL	Sambalpur
93	Soumya Behera	2002070136	Jindal	Angul
94	Disha Swain	2002070143	Hindustan Aeronautics limited	Sunabeda
95	Disha Swain	2002070143	Vodafone idea limited	Bhubaneswar
96	Aman Raj Singh	2002070131	Rourkela Steel Plant(SAIL)	Rourkela
97	Deepshikha Mahapatra	2002070086	Vodafone Idea	Mumbai
98	Deepshikha Mahapatra	200207086	DRDO	Chandipur
99	Arpita Maheswari Singh	2102070102	NALCO, Angul	Angul
100	Prachi Priya Sahu	2102070103	SAIL	Rourkela
101	Sruti Garnayak	2102070106	Nalco	Angul
102	Arpita Maheswari Singh	2102070102	Skolar	Bengaluru
103	Sruti Garnayak	2102070106	MCL	Talcher, Angul
104	Biswas Kumar Nayak	2002070104	Origin Tech	Online
105	Sujit Vishwakarma	2002070073	Graduate Us	Bhubaneswar
106	Abantika Mohanty	2002070145	E.Co.Rly	Khurda Road
107	Manas Ranjan Sahu	2002070049	NALCO	Damnjodi
108	RONAK MALLICK	2002070151	Indian Railways(East Coast Railways)	Khordha
109	Akankshya Adishree Nayak	2002070084	HAL, Sunabeda	Sunabeda
110	Akankshya Adishree Nayak	2002070084	Viral fission	Mumbai
111	T ACHYUTA PATRO	2303070003	ICSOFT	Bangalore
112	Chinmaya Kumar Mohanty	2002070126	BSNL	Bhubaneswar
113	Biswajit Sahoo	2002070044	The Sparks Foundation	Singapore
114	Bishwam Agrawal	2002070048	DRDO	Chandipur
115	Sivam Sahu	2002070046	OHPC	Burla
116	Chandan Konhar	2002070113	DRDO	Chandipur
117	Swastik Kumar Majhi	2102070092	Indian Railways	Sambalpur
118	KALPANA PANIGRAHI	2002070035	Tata Steel	Jamshedpur

Year 2021-22

S. No.	Full Name of Student	Roll No.	Name of Internship Organisation	Location
1	Rohit Mishra	2002110016	Rourkela Steel Plant	Rourkela, Odisha
2	Nilanjan Mukherjee	2002070011	IIIT Allahabad	Prayagraj, UP
3	Sohana Khatun	2002020068	NTPC	Bilaspur Chhattisgarh
4	Deepak sunar	2002070100	SAIL , RSP	Rourkela
5	Akash Kumar Routray	2002070067	Indian Institute of Information Technology	Prayagraj
6	Ranjit Panigrahi	2002070141	RTTC, BSNL	Vani Vihar, Bhubaneswar
7	Allipsa Sethi	2002070109	ITR- DRDO	Chandipur, Odisha
8	Tanisha Mohanta	2002070139	Oil and Natural Gas Corporation (ONGC)	Dehradun
9	Ananya Jena	2002070144	East Coast Railway	Bhubaneswar
10	Ananya Jena	2002070144	RTTC BSNL	Bhubaneswar
11	Soumyakant Pati	2002070123	HAL	Sunabeda
12	Siddhi Panigrahy	2002070006	Indian Railways	Sambalpur
13	RONAK MALLICK	2002070151	Hindustan Aeronautics Limited	Sunabeda, Koraput
14	Abantika Mohanty	2002070145	HAL, Sunabeda	Sunabeda
15	Akankshya Adishree Nayak	2002070084	Youth India foundation, Burla	Online
16	Akankshya Adishree Nayak	2002070084	Viral Fission	Mumbai,maharashtra
17	Nikhil Dang	2002070105	HAL, Koraput	KORAPUT, ODISHA

Year 2020-21

S. No.	Full Name of Student	Roll No.	Name of Internship Organisation	Location
1	Allipsa Sethi	2002070109	Samagrah foundation	Internshala
2	Subhasis Gouda	2002070008	Tata steel Utilities and Infrastructure Services Limited	Jajpur road
3	Subhasis Gouda	2002070008	Rttc BSNL	Bhubaneswar
4	Abhisek Kumar	2002030129	Hindustan Aeronautics Limited	Sunabeda

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (175)

Define the Program specific outcomes

PSO1	Apply the knowledge of electronic circuits, analog and digital communication, wireless communication, radar engineering and antenna systems t engineering problems in the discipline of Electronics and Telecommunication Engineering
PSO2	Develop suitable techniques and cutting-edge engineering hardware and software tools in Electronics and Telecommunication Engineering to so problems.
PSO3	Aware of the impact of professional Electronics and Telecommunication Engineering solutions on social, economic, environmental and technolog

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

No. of Core Courses : 8	**C2 :** 3	**C3 :** 3	**C4 :** 2

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

Course Name :	C2 01	Course Year :	2020-2021

Course Name	Statements
C2 01.1	Analyze different types of signals.
C2 01.2	Implement and represent continuous and discrete time systems.
C2 01.3	Implement the systems in time and frequency domain using Fourier series.
C2 01.4	Analyze the CTFT for different signals.
C2 01.5	Implement DTFT of different signals.

Course Name :	C2 02	Course Year :	2020-2021

Course Name	Statements
C2 02.1	Analyze fundamentals of digital electronics logic circuits
C2 02.2	Design & analyses modular combinational circuits with MUX/DEMUX, Decoder, Encoder
C2 02.3	Design & analyses synchronous sequential logic circuits
C2 02.4	Understand memory decoding and implementation of function using Programmable Logic Devices (PLDs).
C2 02.5	Use HDL & appropriate EDA tools for digital logic design and simulation

Course Name :	C2 03	Course Year :	2020-2021

Course Name	Statements
C2 03.1	Understand basic concepts of a communication system
C2 03.2	Understand the analysis of baseband and passband signals in time domain and in the frequency domain
C2 03.3	Develop understanding of various analog and digital modulation and demodulation techniques.
C2 03.4	Analyze the performance of receiver under transmission through different channel conditions
C2 03.5	Understand the application of concepts in modern wireless communication systems

Course Name :	C3 01	Course Year :	2021-2022

Course Name	Statements
C3 01.1	Implement and solve basic binary math operations using the microprocessor and explain the microprocessor’s and Microcontroller’s internal archit operation within the area of manufacturing and performance
C3 01.2	Analyze and demonstrate programming proficiency using the various addressing modes and data transfer instructions of the target microprocesso
C3 01.3	Evaluate the accepted standards and guidelines to select appropriate Microprocessor (8085 & 8086) and Microcontroller to meet specified perform
C3 01.4	Analyze assembly language programs; select appropriate assemble into machine a cross assembler utility of a microprocessor and microcontrolle
C3 01.5	Demonstrate the electrical circuitry to the Microprocessor I/O ports in order to interface the processor to external devices

Course Name :	C3 02	Course Year :	2021-2022

Course Name	Statements
C3 02.1	Characterize signals and systems.
C3 02.2	Analyze digital systems in time and frequency domain
C3 02.3	Digital system characterization through DFT and FFT.
C3 02.4	Realization and implementation of digital filters and systems.
C3 02.5	Undestand signal spectral estimation methods.

Course Name :	C3 03	Course Year :	2021-2022

Course Name	Statements
C3 03.1	Express the design of rectangular and cylindrical waveguides at high frequency.
C3 03.2	Analyze scattering parameter and functioning of different microwave components.
C3 03.3	Apply basic principles of high frequency microwave circuits like filters and amplifiers.
C3 03.4	Analyze detail working of various microwave sources.
C3 03.5	Demonstrate microwave propagation in atmospheric condition.

Course Name :	C4 01	Course Year :	2022-2023

Course Name	Statements
C4 01.1	Demonstrate the concept of radiation through mathematical formulation.
C4 01.2	Evaluate performance characteristics of array antennas..
C4 01.3	Implement different modes of radio wave propagation
C4 01.4	Analyze and design of microstrip patch antenna.
C4 01.5	Apply basic principles microwave propagation in atmospheric condition.

Course Name :	C4 02	Course Year :	2022-2023

Course Name	Statements
C4 02.1	Understand the fundamental concepts of computer networking and reference models along with physical layer.
C4 02.2	Familiar with data link layer protocols with framing, flow control and error detection techniques along with wireless LAN, V-LAN and multiple acces
C4 02.3	Implement the basic IP protocols and building the skills of subnetting and routing mechanisms
C4 02.4	Express the transport layer protocols and how they can be used to assist in network design and implementation.
C4 02.5	Analyze the application layer protocols – DNS, Remote Logging (Telnet), SMTP, FTP, WWW, HTTP and SNMP.

Course Articulation Matrix

1 . course name : C201

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C201.1	Analyze diff	3	3	3	3	-	-	2	-	-	-	3	3
C201.2	Implement a	3	3	3	3	2	-	3	-	-	-	3	3
C201.3	Implement t	3	3	3	3	2	-	3	-	-	-	3	3
C201.4	Analyze the	3	3	3	3	3	-	3	-	-	-	3	3
C201.5	Implement	3	3	2	3	3	-	3	-	-	-	3	3
Average		**3.00**	**3.00**	**3.00**	**3.00**	**2.00**	**0.00**	**3.00**	**0.00**	**0.00**	**0.00**	**3.00**	**3.00**

2 . course name : C202

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	Analyze fur	3	3	2	2	3	2	3	-	3	3	2	3
C202.2	Design & a	3	3	3	3	3	2	3	2	3	3	3	3
C202.3	Design & a	3	3	3	3	3	2	3	2	3	3	3	3
C202.4	Understand	3	3	3	3	3	3	3	1	3	3	3	2
C202.5	Use HDL &	3	3	3	3	3	3	3	3	3	3	3	1
Average		**3.00**	**3.00**	**3.00**	**3.00**	**3.00**	**2.00**	**3.00**	**2.00**	**3.00**	**3.00**	**3.00**	**2.00**

3 . course name : C203

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203.1	Understand	3	3	2	2	2	2	3	2	2	2	2	2
C203.2	Understand	3	3	3	2	3	2	3	3	2	3	3	2
C203.3	Develop un	3	3	3	2	3	3	3	2	3	3	3	2
C203.4	Analyze the	3	3	2	3	3	3	3	2	2	3	3	2
C203.5	Understand	3	3	2	3	3	2	2	2	2	3	3	2
Average		**3.00**	**3.00**	**2.00**	**2.00**	**3.00**	**2.00**	**3.00**	**2.00**	**2.00**	**3.00**	**3.00**	**2.00**

4 . course name : C301

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	Implement a	3	3	3	2	2	2	-	-	-	-	-	3
C301.2	Analyze an	3	3	3	2	2	2	-	-	-	-	-	3
C301.3	Evaluate th	3	3	3	2	2	2	-	-	-	-	-	3
C301.4	Analyze ass	3	3	3	2	2	2	-	-	-	-	-	3
C301.5	Demonstrat	3	3	3	2	2	2	-	-	-	-	-	3
Average		**3.00**	**3.00**	**3.00**	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**

5 . course name : C302

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1	Characteriz	3	3	2	2	2	2	1	-	-	2	1	3
C302.2	Analyze dig	3	3	3	2	2	2	2	-	-	1	2	3
C302.3	Digital syste	3	3	3	2	3	1	2	-	-	2	2	3
C302.4	Realization	3	3	3	3	3	1	2	-	-	2	2	3
C302.5	Undestand	3	3	2	3	3	2	2	-	-	3	2	3
Average		**3.00**	**3.00**	**3.00**	**2.00**	**3.00**	**2.00**	**2.00**	**0.00**	**0.00**	**2.00**	**2.00**	**3.00**

6 . course name : C303

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	Express the	2	3	3	3	3	3	3	-	-	-	-	3
C303.2	Analyze sca	2	3	3	3	2	3	3	-	-	-	-	3
C303.3	Apply basic	3	2	3	3	2	3	3	-	-	-	-	3
C303.4	Analyze del	3	3	3	3	2	3	3	-	-	-	-	3
C303.5	Demonstrat	2	2	3	3	2	3	3	-	-	-	-	3
Average		**2.00**	**3.00**	**3.00**	**3.00**	**2.00**	**3.00**	**3.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**

7 . course name : C401

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	Demonstrat	3	3	3	3	3	3	2	-	-	-	-	2
C401.2	Evaluate pe	3	3	3	3	3	3	2	-	-	-	-	2
C401.3	Implement	3	3	3	3	2	3	2	-	-	-	-	2
C401.4	Analyze an	3	3	3	2	2	3	2	-	-	-	-	2
C401.5	Apply basic	3	3	3	2	1	3	1	-	-	-	-	2
Average		**3.00**	**3.00**	**3.00**	**3.00**	**2.00**	**3.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**

8 . course name : C402

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	Understand	2	3	3	3	2	3	3	-	-	-	-	3
C402.2	Familiar wit	3	2	3	3	2	3	3	-	-	-	-	3
C402.3	Implement t	3	3	3	3	2	3	3	-	-	-	-	3
C402.4	Express the	2	2	3	3	2	3	3	-	-	-	-	3
C402.5	Analyze the	2	3	3	3	3	3	3	-	-	-	-	3
Average		**2.00**	**3.00**	**3.00**	**3.00**	**2.00**	**3.00**	**3.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**

1 . Course Name : C201

Course	PSO1	PSO2	PSO3
C201.1	3	3	3
C201.2	3	3	3
C201.3	3	3	3
C201.4	3	3	3
C201.5	3	3	3
Average	**3.00**	**3.00**	**3.00**

2 . Course Name : C202

Course	PSO1	PSO2	PSO3
C202.1	3	3	2
C202.2	3	3	3
C202.3	3	3	3
C202.4	3	3	3
C202.5	3	3	2
Average	**3.00**	**3.00**	**3.00**

3 . Course Name : C203

Course	PSO1	PSO2	PSO3
C203.1	2	2	2
C203.2	3	3	3
C203.3	3	2	3
C203.4	3	2	3
C203.5	3	2	3
Average	**3.00**	**2.00**	**3.00**

4 . Course Name : C301

Course	PSO1	PSO2	PSO3
C301.1	3	3	2
C301.2	3	3	2
C301.3	3	3	2
C301.4	3	3	3
C301.5	3	3	3
Average	**3.00**	**3.00**	**2.00**

5 . Course Name : C302

Course	PSO1	PSO2	PSO3
C302.1	3	3	1
C302.2	3	3	1
C302.3	3	3	3
C302.4	3	3	2
C302.5	3	3	2
Average	**3.00**	**3.00**	**2.00**

6 . Course Name : C303

Course	PSO1	PSO2	PSO3
C303.1	2	3	3
C303.2	-	-	2
C303.3	3	-	2
C303.4	2	2	2
C303.5	3	-	-
Average	**3.00**	**3.00**	**2.00**

7 . Course Name : C401

Course	PSO1	PSO2	PSO3
C401.1	3	3	2
C401.2	3	3	1
C401.3	3	2	1
C401.4	3	3	3
C401.5	3	3	3
Average	**3.00**	**3.00**	**2.00**

8 . Course Name : C402

Course	PSO1	PSO2	PSO3
C402.1	2	3	3
C402.2	3	2	3
C402.3	3	3	3
C402.4	2	2	3
C402.5	2	3	3
Average	**2.00**	**3.00**	**3.00**

Program Articulation Matrix

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
BMA2101	3	3	2	2	2	3	PO7	PO8	PO9	PO10	2
BCH2101	3	3	2	PO4	PO5	PO6	3	PO8	PO9	2	2
BEC2101	3	2	3	3	3	PO6	PO7	PO8	PO9	PO10	3
BCE2102	3	2	2	2	2	2	3	PO8	2	2	2
BCS2102	3	3	3	3	2	PO6	PO7	PO8	2	PO10	PO11
BCH2191	3	1	2	PO4	2	PO6	3	PO8	2	PO10	2
BEC2191	3	2	2	3	3	PO6	PO7	PO8	PO9	PO10	3
BCE2192	3	2	2	2	1	3	3	PO8	2	2	2
BCS2191	3	3	3	3	2	3	PO7	2	3	PO10	PO11
BMA2201	3	3	2	2	1	3	3	PO8	PO9	PO10	1
BPH2102	3	3	3	2	1	PO6	PO7	PO8	PO9	2	PO11
BEE2101	3	3	2	3	3	2	3	PO8	PO9	PO10	3
BHU2102	PO1	PO2	PO3	2	PO5	2	2	PO8	2	3	PO11
BME2101	3	3	2	3	3	PO6	PO7	PO8	3	2	PO11
BPH2191	3	3	2	1	3	2	3	3	3	3	1
BEE2191	3	3	2	3	3	2	2	2	3	3	3
BME2192	PO1	PO2	1	2	2	2	2	2	3	2	2
BHU2191	PO1	PO2	PO3	PO4	PO5	3	2	PO8	2	3	PO11
BMA2301	3	3	2	2	3	3	1	PO8	PO9	PO10	2
BEC2307	3	3	3	3	2	3	2	2	3	PO10	3
BEC2305	3	3	3	3	2	2	2	PO8	PO9	PO10	3
BEC2306	3	3	3	3	2	PO6	3	PO8	PO9	PO10	3
BHU2303	PO1	PO2	PO3	PO4	PO5	2	2	3	2	PO10	3
BEC2391	3	3	3	3	3	2	2	PO8	PO9	PO10	PO11
BEC2396	3	3	3	2	3	2	3	2	3	PO10	PO11
BEC2395	3	3	3	2	3	PO6	3	PO8	PO9	PO10	PO11
BEC2393	3	2	3	3	3	3	3	PO8	PO9	PO10	PO11
BEC2409	3	3	3	3	3	2	3	2	3	3	3
BEC2407	3	3	3	3	3	2	3	2	3	3	3
BEC2406	3	3	2	2	3	2	3	2	2	3	3
BEC2408	3	3	3	2	3	PO6	3	3	3	2	PO11
BHU2301	PO1	PO2	PO3	PO4	PO5	2	2	3	2	PO10	3
BEC2494	3	3	3	3	3	2	3	3	3	3	3
BEC2498	3	3	3	3	3	2	3	2	3	3	3
BEC2496	3	3	3	3	3	2	3	3	3	3	3
BEC2499	3	3	2	3	3	2	3	2	2	2	3
BEC2507	3	3	3	2	3	2	PO7	PO8	PO9	PO10	PO11
BEC2506	3	3	2	3	3	3	3	PO8	PO9	PO10	3
BEC2503	3	3	3	2	3	2	2	PO8	PO9	2	3
BEC2509	3	3	2	3	3	2	1	PO8	PO9	PO10	PO11
BEC2593	3	3	2	2	3	3	2	PO8	PO9	2	3
BEC2595	3	3	3	2	2	2	PO7	PO8	PO9	PO10	PO11
BEC2596	3	3	2	3	2	3	3	PO8	PO9	PO10	3
BEC2603	2	3	3	3	2	3	3	PO8	PO9	PO10	PO11
BEC2606	2	3	3	3	2	3	3	PO8	PO9	PO10	PO11
BEC2607	3	3	2	2	2	2	PO7	PO8	PO9	PO10	PO11

BHU2501	PO1	PO2	2	PO4	PO5	3	2	3	2	PO10	PO11
BEC2604	3	3	3	2	3	2	3	PO8	PO9	PO10	PO11
BEC2693	2	3	3	3	2	3	3	PO8	PO9	PO10	PO11
BEC2695	2	2	3	3	2	3	2	PO8	PO9	PO10	PO11
BEC2691	3	3	3	3	3	2	2	PO8	PO9	PO10	PO11
BEC2709	3	3	3	3	2	3	2	PO8	PO9	PO10	PO11
BEC2702	2	3	3	3	2	3	3	PO8	PO9	PO10	PO11
BEC2705	3	3	3	3	3	3	2	PO8	2	3	3
BEC2708	3	2	3	3	3	3	2	PO8	PO9	PO10	PO11
BEC2793	3	2	3	2	3	2	2	PO8	PO9	PO10	PO11
BEC2794	3	3	3	3	3	3	3	3	3	3	3
BEC2807	3	3	2	2	2	3	2	PO8	PO9	PO10	PO11
BEC2808	3	3	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11
BEC2809	2	3	3	2	2	3	2	PO8	PO9	PO10	PO11
BEC2895	3	3	3	3	3	3	3	3	3	3	3
BEC2894	3	3	3	3	3	3	3	3	3	3	3
BEC2795	3	3	3	3	3	3	3	3	3	3	3

Course	PSO1	PSO2	PSO3
BCE2102	PSO1	PSO2	PSO3
BCE2192	PSO1	PSO2	PSO3
BCH2101	PSO1	PSO2	PSO3
BCH2191	PSO1	PSO2	PSO3
BCS2102	PSO1	3	PSO3
BCS2191	PSO1	3	PSO3
BEC2101	3	3	3
BEC2191	3	3	3
BEC2305	3	3	3
BEC2306	3	3	3
BEC2307	3	3	2
BEC2391	3	3	3
BEC2393	3	3	3
BEC2395	3	3	3
BEC2396	3	3	3
BEC2406	3	2	3
BEC2407	3	3	3
BEC2408	3	3	3
BEC2409	3	3	3
BEC2494	3	3	3
BEC2496	3	3	3
BEC2498	3	3	3
BEC2499	3	3	3
BEC2503	3	3	2
BEC2506	3	3	3
BEC2507	3	3	2
BEC2509	3	2	2
BEC2593	3	3	3
BEC2595	3	3	2

BEC2596	3	3	2
BEC2603	3	3	2
BEC2604	3	3	2
BEC2606	3	3	2
BEC2607	PSO1	3	2
BEC2691	3	3	2
BEC2693	3	3	2
BEC2695	3	3	2
BEC2702	2	3	3
BEC2705	3	3	3
BEC2708	3	3	2
BEC2709	3	3	2
BEC2793	2	2	1
BEC2794	3	3	3
BEC2795	3	3	3
BEC2807	3	3	2
BEC2808	3	3	2
BEC2809	3	2	2
BEC2894	3	3	3
BEC2895	3	3	3
BEE2101	2	PSO2	PSO3
BHU2102	PSO1	PSO2	PSO3
BHU2191	PSO1	PSO2	PSO3
BHU2301	PSO1	PSO2	2
BHU2303	PSO1	PSO2	2
BMA2101	2	2	2
BMA2201	2	2	2
BMA2301	2	2	2
BME2101	2	PSO2	PSO3
BME2192	PSO1	PSO2	PSO3
BPH2101	2	PSO2	PSO3
BPH2191	2	PSO2	PSO3

3.2 Attainment of Course Outcomes (75)

All the courses offered in the program curriculum are broadly classified into 3 categories with their individual assessment methods:

1. Theory courses
2. Sessional courses
3. Project

Course outcome attainment for each type of course is discussed below.

Attainment of course outcomes for theory courses:

Course Category	Type of Assessment	Assessment Tools	Marks	Category	CO Attainment type
Theory	Direct	Assignments, Quiz tests (Formative assessments)	20	Cumulative Internal Examination (CIE)	Formative type
		Mid Semester Examination	30	Cumulative Internal Examination (CIE)	Direct CO Att. (70% weightage)
		End Semester Examination	50	Semester End Examination (SEE)	
	Indirect	Course Completion feedback			Indirect CO Att. (30% weightage)

Data Acquisition Process CO attainment of theory courses:

- For direct CO attainment, all the questions of mid-semester and end semesters are mapped with course outcomes during the preparation of the question paper.
- For the indirect CO attainment, semester-end feedbacks are collected by the department to acquire opinions about each CO from the students.
- During Covid 19, marks obtained by all the students from the online examinations are shared by the exam coordinator for CO attainment analysis.
- Final computation of course outcomes attainment is done through spreadsheets by the concerned faculty. CO attainment information will be compiled by the cou 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 the declaration of end-semester examination results. All documentations related to attainments are maintained by t course coordinators.

Direct CO Attainment Process of a Theory Course:

Threshold levels for direct CO Attainment	
Level= 3	100 ≥ Percentage attainment in each CO ≥ $Threshold_1$
Level= 2	$Threshold_1$ > Percentage attainment in each CO ≥ $Threshold_2$
Level= 1	$Threshold_2$ > Percentage attainment in each CO > 0

($Threshold_1$ =70%, $Threshold_2$=40%)

Threshold values are decided by the Board of Study and may be altered to other values depending on the complexities and hardness of questions in the Mid and End Semester Examinations. Direct CO attainment is calculated for each student as shown below

Percentage attainment in each CO =

$$\frac{\text{Total marks obtained by the student corresponding to the particular CO}}{\text{Total marks allotted to questions mapped the particular CO}}$$

For each student, levels are assigned according to all Cos according to the percentage attainment in each CO.

Attainment of each CO = Average of the levels obtained by all the students

Direct CO attainment of a course = Average of all five COs

Indirect CO Attainment of a Theory Course:

For each CO, attainment levels are collected from all the students through feedback forms.

Attainment in each CO =

Indirect CO attainment of a course = Average of all five COs

Final CO Attainment level = (0.7) * Direct CO Attainment + (0.3) * Indirect CO Attainment

Attainment of course outcomes for Sessional courses:

The course outcome attainment is assessed based on the student's performance in cumulative internal examination (which included continuous assessment throug 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	CO Attainment type

Sessional	For every experiment, evaluation is to be done for corresponding Course Outcomes through the performance of students, viva, record marks	80	Cumulative Internal Examination (CIE)	Direct CO Att. (70% weightage)
	End Semester Examination (Viva/ Test / Quiz)	20	Semester End Examination (SEE)	
	Course Completion feedback			Indirect CO Att. (30% weightage)

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 cours as described below: Cumulative Internal Examination: The class average corresponding to each CO is assessed as below.

Threshold levels for Attainment		
Level 3	100 ≥ Percentage attainment in each CO ≥ $Threshold_1$	$Threshold_1$ = 80% $Threshold_2$ = 60%
Level 2	$Threshold_1$ > Percentage attainment in each CO ≥ $Threshold_2$	
Level 1	$Threshold_2$ > Percentage attainment in each CO > 0	

Threshold values are decided by the Board of Study and may be altered to other values depending on the complexities and hardness of experiments.

Final CO Attainment level= (0.7) * Direct CO Attainment + (0.3) * Indirect CO Attainment

Attainment of course outcomes for Projects:

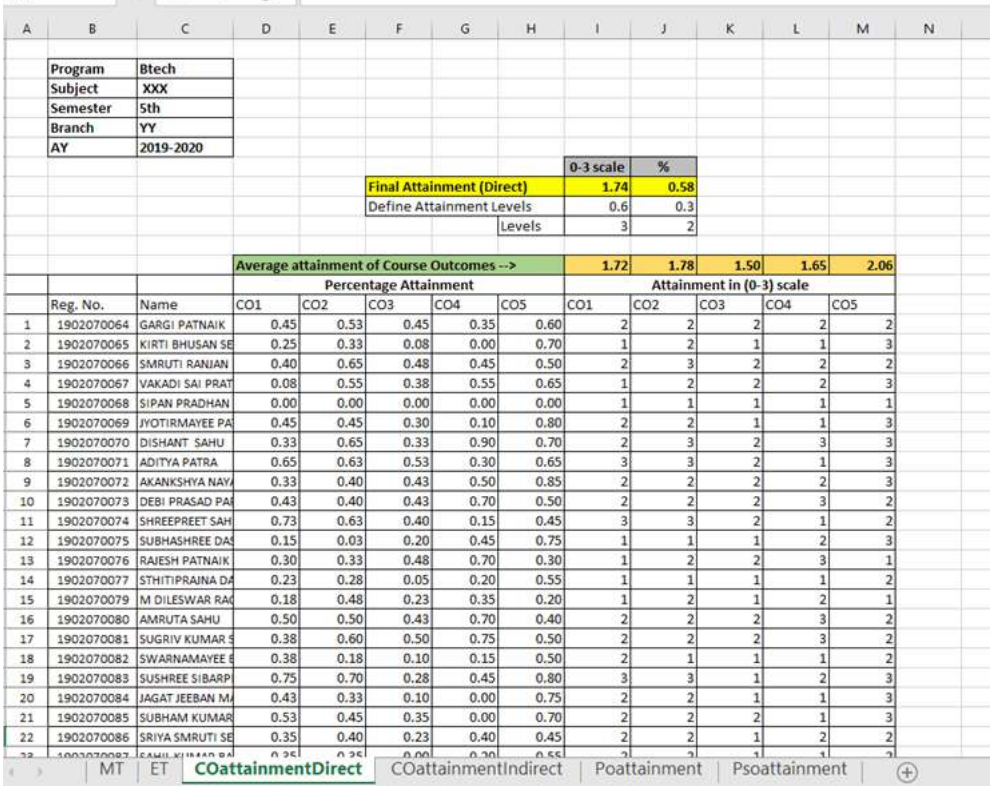
A summary of different assessment components and respective weightage is given in the table below.

Course Category	Assessment Tools	Marks	Category	CO Attainment type
Project	For a project done by a student, evaluation is to be done for corresponding Course Outcomes through the performance of students. This evaluation is done by the respective guide.	80	Cumulative Internal Examination (CIE)	Direct CO Att. (70% weightage)
	End Semester Examination (presentation, QnA)	20	Semester End Examination (SEE)	
	Course Completion feedback			Indirect CO Att. (30% weightage)

Final CO Attainment level= (0.7) * Direct CO Attainment + (0.3) * Indirect CO Attainment

Example of Course Outcomes (COs) Attainment of a theory course:

Target CO att=1.8 (60% of 3)

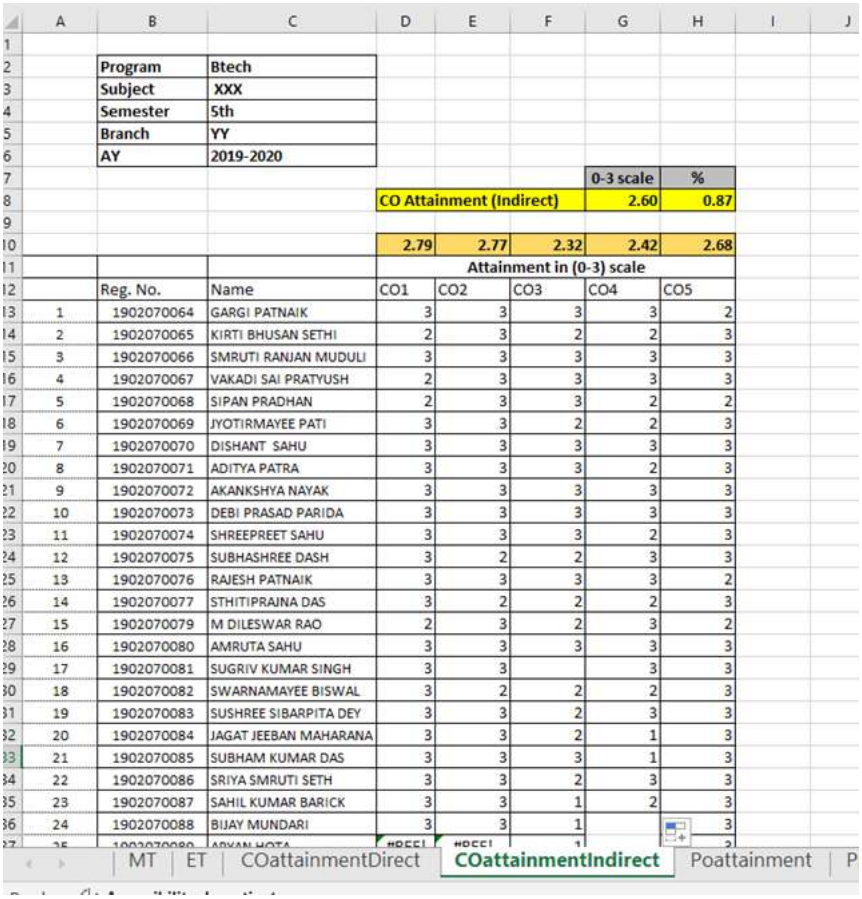


Program	Btech
Subject	XXX
Semester	5th
Branch	YY
AY	2019-2020

	0-3 scale	%
Final Attainment (Direct)	1.74	0.58
Define Attainment Levels	0.6	0.3
Levels	3	2

			Average attainment of Course Outcomes -->					1.72	1.78	1.50	1.65	2.06
			Percentage Attainment					Attainment in (0-3) scale				
	Reg. No.	Name	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
1	1902070064	GARGI PATNAIK	0.45	0.53	0.45	0.35	0.60	2	2	2	2	2
2	1902070065	KIRTI BHUSAN SE	0.25	0.33	0.08	0.00	0.70	1	2	1	1	3
3	1902070066	SMRUTI RANJAN	0.40	0.65	0.48	0.45	0.50	2	3	2	2	2
4	1902070067	VAKADI SAI PRAT	0.08	0.55	0.38	0.55	0.65	1	2	2	2	3
5	1902070068	SIPAN PRADHAN	0.00	0.00	0.00	0.00	0.00	1	1	1	1	1
6	1902070069	JYOTIRMAYEE PA	0.45	0.45	0.30	0.10	0.80	2	2	1	1	3
7	1902070070	DISHANT SAHU	0.33	0.65	0.33	0.90	0.70	2	3	2	3	3
8	1902070071	ADITYA PATRA	0.65	0.63	0.53	0.30	0.65	3	3	2	1	3
9	1902070072	AKANKSHYA NAY	0.33	0.40	0.43	0.50	0.85	2	2	2	2	3
10	1902070073	DEBI PRASAD PA	0.43	0.40	0.43	0.70	0.50	2	2	2	3	2
11	1902070074	SHREEPREET SAH	0.73	0.63	0.40	0.15	0.45	3	3	2	1	2
12	1902070075	SUBHASHREE DA	0.15	0.03	0.20	0.45	0.75	1	1	1	2	3
13	1902070076	RAJESH PATNAIK	0.30	0.33	0.48	0.70	0.30	1	2	2	3	1
14	1902070077	STHITIPRAJNA DA	0.23	0.28	0.05	0.20	0.55	1	1	1	1	2
15	1902070079	M DILESWAR RAO	0.18	0.48	0.23	0.35	0.20	1	2	1	2	1
16	1902070080	AMRUTA SAHU	0.50	0.50	0.43	0.70	0.40	2	2	2	3	2
17	1902070081	SUGRIV KUMAR S	0.38	0.60	0.50	0.75	0.50	2	2	2	3	2
18	1902070082	SWARNAMAYEE B	0.38	0.18	0.10	0.15	0.50	2	1	1	1	2
19	1902070083	SUSHREE SIBARP	0.75	0.70	0.28	0.45	0.80	3	3	1	2	3
20	1902070084	JAGAT JEEBAN MA	0.43	0.33	0.10	0.00	0.75	2	2	1	1	3
21	1902070085	SUBHAM KUMAR	0.53	0.45	0.35	0.00	0.70	2	2	2	1	3
22	1902070086	SRIYA SMRUTI SE	0.35	0.40	0.23	0.40	0.45	2	2	1	2	2

MT | ET | COattainmentDirect | COattainmentIndirect | Poattainment | Psoattainment



Program	Btech
Subject	XXX
Semester	5th
Branch	YY
AY	2019-2020

	0-3 scale	%
CO Attainment (Indirect)	2.60	0.87

			2.79	2.77	2.32	2.42	2.68
			Attainment in (0-3) scale				
	Reg. No.	Name	CO1	CO2	CO3	CO4	CO5
1	1902070064	GARGI PATNAIK	3	3	3	3	2
2	1902070065	KIRTI BHUSAN SETHI	2	3	2	2	3
3	1902070066	SMRUTI RANJAN MUDULI	3	3	3	3	3
4	1902070067	VAKADI SAI PRATYUSH	2	3	3	3	3
5	1902070068	SIPAN PRADHAN	2	3	3	2	2
6	1902070069	JYOTIRMAYEE PATI	3	3	2	2	3
7	1902070070	DISHANT SAHU	3	3	3	3	3
8	1902070071	ADITYA PATRA	3	3	3	2	3
9	1902070072	AKANKSHYA NAYAK	3	3	3	3	3
10	1902070073	DEBI PRASAD PARIDA	3	3	3	3	3
11	1902070074	SHREEPREET SAHU	3	3	3	2	3
12	1902070075	SUBHASHREE DASH	3	2	2	3	3
13	1902070076	RAJESH PATNAIK	3	3	3	3	2
14	1902070077	STHITIPRAJNA DAS	3	2	2	2	3
15	1902070079	M DILESWAR RAO	2	3	2	3	2
16	1902070080	AMRUTA SAHU	3	3	3	3	3
17	1902070081	SUGRIV KUMAR SINGH	3	3		3	3
18	1902070082	SWARNAMAYEE BISWAL	3	2	2	2	3
19	1902070083	SUSHREE SIBARPITA DEY	3	3	2	3	3
20	1902070084	JAGAT JEEBAN MAHARANA	3	3	2	1	3
21	1902070085	SUBHAM KUMAR DAS	3	3	3	1	3
22	1902070086	SRIYA SMRUTI SETH	3	3	2	3	3
23	1902070087	SAHIL KUMAR BARICK	3	3	1	2	3
24	1902070088	BIJAY MUNDARI	3	3	1		3

MT | ET | COattainmentDirect | COattainmentIndirect | Poattainment | P

Final CO attainment = (0.7) * Direct CO Attainment + (0.3) * Indirect CO Attainment

= (0.7) * (1.74) +(0.3) * (2.60) =**1.99** (target Attained)

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

Course Outcomes attainment levels for all courses with their respective target are listed below.

Course	Course Name	Direct CO Attainment	Indirect CO Attainment	Final CO Attainment	Target CO Attainment	Target achieved (Y/N)
BMA2101	Mathematics-I	1.9	2.2	2.0	2.2	N
BCH2101	Chemistry	2.1	2.4	2.2	2.2	Y
BEC2101	Basic Electronics	2	2.1	2.0	2.2	N
BCE2102	Basic Civil Engineering	2	2.2	2.1	2.2	N
BCS2102	Programming for Problem Solving	2.1	2	2.1	2.2	N
BCH2191	Chemistry Laboratory	2.3	2.4	2.3	2.2	Y
BEC2191	Basic Electronics Lab	2.2	2.1	2.2	2.2	Y
BCE2192	Engineering Graphics and Design	2.3	2.2	2.3	2.2	Y
BCS2191	Programming Lab	2.1	2	2.1	2.2	N
BMA2201	Mathematics-II	2.2	2.4	2.3	2.2	Y
BPH2102	Physics	2	2.1	2.0	2.2	N
BEE 2101	Basic Electrical Engineering	2	2.1	2.0	2.2	N
BHU2102	English for Communication	2.2	2.4	2.3	2.2	Y
BME2101	Engineering Mechanics	1.9	2.1	2.0	2.2	N
BPH2191	Physics Laboratory	2.1	2.2	2.1	2.2	N
BEE2191	BEE Laboratory	2.1	2.2	2.1	2.2	N
BME2192	Workshop-1	2.2	2.4	2.3	2.2	Y
BHU2191	Business Communication Skill Lab	2.3	2.2	2.3	2.2	Y
BMA2301	Mathematics-III	2	2.1	2.0	2.2	N
BEC2307	Network Theory	2.3	2.1	2.2	2.2	Y
BEC2305	Analog Electronics Circuit	2.3	2.2	2.3	2.2	Y
BEC2306	Signals & Systems	2.2	2	2.1	2.2	N
BHU2303	Economics for Engineers	2.4	2.3	2.4	2.2	Y
BEC2391	Analog Electronics Circuit Lab	2.2	2.4	2.3	2.2	Y
BEC2396	Network Theory Lab	2.1	2.3	2.2	2.2	Y
BEC2395	Signals & Systems Lab	2.3	2	2.2	2.2	Y
BEC2393	Simulation-I Lab	2.4	2.3	2.4	2.2	Y
BEC2409	Digital System Design	2.2	2.4	2.3	2.2	Y

BEC2407	Advanced Electronics Circuit	2.3	2.1	2.2	2.2	Y
BEC2406	Principle of Analog & Digital Communication	2.1	2.3	2.2	2.2	Y
BEC2408	EMFT	1.9	2	1.9	2.2	N
BHU2301	Organizational Behaviour	2.2	2.4	2.3	2.2	Y
BEC2494	Digital System Design Lab	2.3	2.4	2.3	2.2	Y
BEC2498	Advanced Electronics Circuit Lab	2.2	2.2	2.2	2.2	Y
BEC2496	Design & Testing Lab	2.1	2.2	2.1	2.2	N
BEC2499	Analog & Digital Communication Lab	2.3	2.1	2.2	2.2	Y
BEC2507	Microprocessor & Microcontroller	2.1	2.0	2.1	2.2	N
BEC2506	Integrated Circuits & Systems	2.4	2.2	2.3	2.2	Y
BEC2503	Digital Signal Processing	2.3	2.1	2.2	2.2	Y
BEC2509	Control system (Open Elective)	2.0	2.1	2.0	2.2	N
BEC2593	Digital Signal Processing Lab	2.3	2.2	2.3	2.2	Y
BEC2595	Microprocessor & Microcontroller Lab..	2.1	2.3	2.2	2.2	Y
BEC2596	Integrated Circuits & Systems Lab	2.4	2.3	2.4	2.2	Y
BEC2603	Microwave Engineering	2.1	2.0	2.0	2.2	N
BEC2606	Wireless & Mobile Communication	2.1	2.3	2.2	2.2	Y
BEC2607	Electronic Instrument and Measurements	2.2	2.4	2.3	2.2	Y
BHU2501	Professional ethics, Professional laws & human values	2.3	2.5	2.4	2.2	Y
BEC2604	Digital Image Processing	2.1	2.0	2.1	2.2	N
BEC2693	Microwave Engineering Lab	2.3	2.1	2.2	2.2	Y
BEC2695	Simulation-II Lab.	2.4	2.2	2.3	2.2	Y
BEC2691	Instrumentation Lab	2.3	2.0	2.2	2.2	Y
BEC2709	Wave Propagation & Antenna Engineering	2.3	2.3	2.3	2.2	Y
BEC2702	Computer Communication & Networks	2.2	2.0	2.1	2.2	N
BEC2705	Information Theory & Coding	2.1	2.2	2.1	2.2	N
BEC2708	Satellite Communication	2.1	2.3	2.2	2.2	Y
BEC2793	Advanced Communication Lab	2.1	2.1	2.1	2.2	N
BEC2795	Seminar on internship	2.4	2.6	2.5	2.2	Y
BEC2794	Minor Project	2.2	2.3	2.2	2.2	Y

BEC2807	Computer Organisation & System Architecture	2.1	1.9	2.1	2.2	Y
BEC2809	Advanced Communication Systems	2.4	2.6	2.5	2.2	Y
BEC2895	Seminar on Project	2.4	2.4	2.4	2.2	Y
BEC2808	Advanced Antenna Technology	2.1	2.1	2.1	2.2	N
BEC2894	Major Project	2.4	2.3	2.4	2.2	Y

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

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

The Programme outcome assessment tools are categorized into direct and indirect methods of outcome assessment. Direct Programme outcome attainment is evaluated through the course outcome attainment. 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	Assessment Tools	Data Collection frequency	Responsible entity
Direct	CO Attainment of each course	Once after each semester	Course coordinator of the department
Indirect	Student survey, Alumni Survey and Employer Survey	Once in a year	Internal Quality Assurance Cell (IQAC)

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

Direct assessment and evaluation of Program Outcomes and Program Specific Outcomes

The formula for the calculation of the POs attainment considering the relevant courses and their outcomes is given below:

Direct attainment i^{th} PO = $PO_i = \frac{\sum_{j=1}^{N} CO_j P_{ji}}{N}$

N= Total number of courses, CO_j = CO attainment of j^{th} course

P_{ji} = value given in the Program Articulation Matrix (PAM) for the j^{th} course and i^{th} PO

Indirect assessment and evaluation of Program Outcomes and Program Specific Outcomes

Each year the Internal Quality Assurance Cell of the university conducts the student survey, alumni survey, and employer Survey. In each survey, the questions ar prepared based on twelve program outcomes, and the corresponding answers are given in the form of ratings as 3, 2, 1, and 0. The average rating value for each PO computed and is represented as indirect PO attainment. Similarly, surveys are taken for Program Specific Outcomes and the indirect attainments of PSOs are calculated.

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

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO1
BMA2101	2	2	1.3	1.3	1.3	2	2	PO8	PO9	PO10	1.3
BCH2101	2.2	2.2	1.5	PO4	PO5	PO6	2.2	PO8	PO9	1.5	1.5
BEC2101	2	1.4	2	2	2	PO6	PO7	PO8	PO9	PO10	2
BCE2102	2.1	1.4	1.4	1.4	1.4	1.4	2.1	PO8	1.4	1.4	1.4
BCS2102	2.1	2.1	2.1	2.1	1.4	PO6	PO7	PO8	1.4	PO10	PO1
BCH2191	2.3	.8	1.6	PO4	1.6	PO6	2.3	PO8	1.6	PO10	1.6
BEC2191	2.2	1.4	1.4	2.2	2.2	PO6	PO7	PO8	PO9	PO10	2.2
BCE2192	2.3	1.5	1.5	1.5	.8	2.3	2.3	PO8	1.5	1.5	1.5
BCS2191	2.1	2.1	2.1	2.1	1.4	2.1	PO7	1.4	2.1	PO10	PO1
BMA2201	2.3	2.3	1.5	1.5	.8	2.3	2.3	PO8	PO9	PO10	.8
BPH2102	2	2	2	1.4	.7	PO6	PO7	PO8	PO9	1.4	PO1
BEE2101	2	2	1.4	2	2	1.4	2	PO8	PO9	PO10	2
BHU2102	PO1	PO2	PO3	1.5	PO5	1.5	1.5	PO8	1.5	2.3	PO1
BME2101	2	2	1.3	2	2	PO6	PO7	PO8	2	1.3	PO1
BPH2191	2.1	2.1	1.4	.7	2.1	1.4	2.1	2.1	2.1	2.1	.7
BEE2191	2.1	2.1	1.4	2.1	2.1	1.4	1.4	1.4	2.1	2.1	2.1
BME2192	PO1	PO2	.8	1.5	1.5	1.5	1.5	1.5	2.3	1.5	1.5
BHU2191	PO1	PO2	PO3	PO4	PO5	2.3	1.5	PO8	1.5	2.3	PO1
BMA2301	2	2	1.4	1.4	2	2	.7	PO8	PO9	PO10	1.4
BEC2307	2.2	2.2	2.2	2.2	1.5	2.2	1.5	1.5	2.2	PO10	2.2
BEC2305	2.3	2.3	2.3	2.3	1.5	1.5	1.5	PO8	PO9	PO10	2.3
BEC2306	2.1	2.1	2.1	2.1	1.4	PO6	2.1	PO8	PO9	PO10	2.1
BHU2303	PO1	PO2	PO3	PO4	PO5	1.6	1.6	2.4	1.6	PO10	2.4
BEC2391	2.3	2.3	2.3	2.3	2.3	1.5	1.5	PO8	PO9	PO10	PO1
BEC2396	2.2	2.2	2.2	1.4	2.2	1.4	2.2	1.4	2.2	PO10	PO1
BEC2395	2.2	2.2	2.2	1.5	2.2	PO6	2.2	PO8	PO9	PO10	PO1
BEC2393	2.4	1.6	2.4	2.4	2.4	2.4	2.4	PO8	PO9	PO10	PO1
BEC2409	2.3	2.3	2.3	2.3	2.3	1.5	2.3	1.5	2.3	2.3	2.3
BEC2407	2.2	2.2	2.2	2.2	2.2	1.5	2.2	1.5	2.2	2.2	2.2
BEC2406	2.2	2.2	1.4	1.4	2.2	1.4	2.2	1.4	1.4	2.2	2.2
BEC2408	1.9	1.9	1.9	1.3	1.9	PO6	1.9	1.9	1.9	1.3	PO1
BHU2301	PO1	PO2	PO3	PO4	PO5	1.5	1.5	2.3	1.5	PO10	2.3
BEC2494	2.3	2.3	2.3	2.3	2.3	1.6	2.3	2.3	2.3	2.3	2.3
BEC2498	2.2	2.2	2.2	2.2	2.2	1.5	2.2	1.5	2.2	2.2	2.2
BEC2496	2.1	2.1	2.1	2.1	2.1	1.4	2.1	2.1	2.1	2.1	2.1
BEC2499	2.2	2.2	1.5	2.2	2.2	1.5	2.2	1.5	1.5	1.5	2.2
BEC2507	2.1	2.1	2.1	1.4	2.1	1.4	PO7	PO8	PO9	PO10	PO1
BEC2506	2.3	2.3	1.6	2.3	2.3	2.3	2.3	PO8	PO9	PO10	2.3
BEC2503	2.2	2.2	2.2	1.5	2.2	1.5	1.5	PO8	PO9	1.5	2.2
BEC2509	2	2	1.4	2	2	1.4	.7	PO8	PO9	PO10	PO1
BEC2593	2.3	2.3	1.5	1.5	2.3	2.3	1.5	PO8	PO9	1.5	2.3
BEC2595	2.2	2.2	2.2	1.4	1.4	1.4	PO7	PO8	PO9	PO10	PO1
BEC2596	2.4	2.4	1.6	2.4	1.6	2.4	2.4	PO8	PO9	PO10	2.4
BEC2603	1.4	2	2	2	1.4	2	2	PO8	PO9	PO10	PO1
BEC2606	1.5	2.2	2.2	2.2	1.5	2.2	2.2	PO8	PO9	PO10	PO1

BEC2607	2.3	2.3	1.5	1.5	1.5	1.5	PO7	PO8	PO9	PO10	PO1
BHU2501	PO1	PO2	1.6	PO4	PO5	2.4	1.6	2.4	1.6	PO10	PO1
BEC2604	2.1	2.1	2.1	1.4	2.1	1.4	2.1	PO8	PO9	PO10	PO1
BEC2693	1.5	2.2	2.2	2.2	1.5	2.2	2.2	PO8	PO9	PO10	PO1
BEC2695	1.6	1.6	2.3	2.3	1.6	2.3	1.6	PO8	PO9	PO10	PO1
BEC2691	2.2	2.2	2.2	2.2	2.2	1.5	1.5	PO8	PO9	PO10	PO1
BEC2709	2.3	2.3	2.3	2.3	1.5	2.3	1.5	PO8	PO9	PO10	PO1
BEC2702	1.4	2.1	2.1	2.1	1.4	2.1	2.1	PO8	PO9	PO10	PO1
BEC2705	2.1	2.1	2.1	2.1	2.1	2.1	1.4	PO8	1.4	2.1	2.1
BEC2708	2.2	1.4	2.2	2.2	2.2	2.2	1.4	PO8	PO9	PO10	PO1
BEC2793	2.1	1.4	2.1	1.4	2.1	1.4	1.4	PO8	PO9	PO10	PO1
BEC2794	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
BEC2807	2.1	2.1	1.4	1.4	1.4	2.1	1.4	PO8	PO9	PO10	PO1
BEC2809	2.1	2.1	1.4	1.4	1.4	PO6	PO7	PO8	PO9	PO10	PO1
BEC2808	1.7	2.5	2.5	1.7	1.7	2.5	1.7	PO8	PO9	PO10	PO1
BEC2895	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
BEC2894	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
BEC2795	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

PO Attainment Indirect

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO1
Exit Survey	2.71	2.87	2.65	2.91	2.74	2.35	2.87	2.33	2.73	2.78	2.46
Alumni Surv	2.57	2.69	2.14	2.67	2.84	2.94	2.87	2.39	2.54	2.56	2.87
Employer S	2.47	2.54	2.68	2.57	2.64	2.78	2.43	2.62	2.67	2.39	2.76

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO
InDirect Attainment	2.58	2.70	2.49	2.72	2.74	2.69	2.72	2.45	2.65	2.58	2.7
Direct Attainment	2.11	2.06	1.90	1.88	1.85	1.86	1.88	1.89	1.91	1.92	1.9

PSO Attainment

Course	PSO1	PSO2	PSO3
BEC2503	2.2	2.2	1.5
BEC2506	2.3	2.3	2.3
BEC2507	2.1	2.1	2.1
BEC2509	2	1.4	2
BEC2593	2.3	2.3	2.3
BEC2595	2.2	2.2	2.2
BEC2596	2.4	2.4	2.4
BEC2603	2	2	2
BEC2606	2.2	2.2	1.5
BEC2607	2.3	2.3	1.5
BEC2604	2.1	2.1	2.1
BEC2691	2.2	2.2	1.5
BEC2693	2.2	2.2	1.5
BEC2695	2.3	2.3	2.3
BEC2709	2.3	2.3	1.5
BEC2702	2.1	2.1	2.1
BEC2705	2.1	2.1	2.1
BEC2708	2.2	2.2	2.2

BEC2793	2.1	2.1	2.1
BEC2795	2.5	2.5	2.5
BEC2794	2.2	2.2	2.2
BEC2807	2.1	2.1	1.4
BEC2809	2.1	2.1	1.4
BEC2808	2.5	1.7	1.7
BEC2894	2.4	2.4	2.4
BEC2895	2.4	2.4	2.4
BMA2101	1.3	1.3	1.3
BCH2101	PSO1	PSO2	PSO3
BEC2101	2	2	2
BCE2102	PSO1	PSO2	PSO3
BCS2102	PSO1	2.1	PSO3
BCH2191	PSO1	PSO2	PSO3
BEC2191	2.2	2.2	2.2
BCE2192	PSO1	PSO2	PSO3
BCS2191	PSO1	2.1	PSO3
BMA2201	1.5	1.5	1.5
BPH2101	1.4	PSO2	PSO3
BEE2101	1.4	PSO2	PSO3
BHU2102	PSO1	PSO2	PSO3
BME2101	1.3	PSO2	PSO3
BPH2191	1.4	PSO2	PSO3
BME2192	PSO1	PSO2	PSO3
BHU2191	PSO1	PSO2	PSO3
BMA2301	1.4	1.4	1.4
BEC2307	2.2	2.2	1.5
BEC2305	2.3	2.3	2.3
BEC2306	2.1	2.1	2.1
BHU2303	PSO1	PSO2	1.6
BEC2391	2.3	2.3	2.3
BEC2396	2.2	2.2	2.2
BEC2395	2.2	2.2	2.2
BEC2393	2.4	2.4	2.4
BEC2409	2.3	2.3	2.3
BEC2407	2.2	2.2	2.2
BEC2406	2.2	1.4	2.2
BEC2408	1.9	1.9	1.9
BHU2301	PSO1	PSO2	1.5
BEC2494	2.3	2.3	2.3
BEC2498	2.2	2.2	2.2
BEC2496	2.1	2.1	2.1
BEC2499	2.2	2.2	2.2

PSO Attainment Indirect

Survey	**PSO1**	**PSO2**	**PSO3**
Exit Survey	2.62	2.76	2.69
Alumni Survey	2.32	2.56	2.63
Employer Survey	2.72	2.66	2.57

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	2.10	2.11
InDirect Attainment	2.55	2.66

4 STUDENTS' PERFORMANCE (100)

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2023-24 (CAY)	2022-23 (CAYm1)	2021-22 (CAYm2)	2020-21 (CAYm3)	2019-20 (CAYm4)	2018-19 (CAYm5)	2017-18 (CAYm6)
Sanctioned intake of the program(N)	120	120	120	120	120	120	120
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 (N1)	116	125	109	118	110	111	108
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	12	12	12	12	12	12	12
Separate division students, If applicable (N3)	36	36	6	6	6	6	6
Total number of students admitted in the programme(N1 + N2 + N3)	164	173	127	136	128	129	126

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlo year of study (Without Backlog means no compartment or failures in a study)			
		I year	II year	III year	
2023-24 (CAY)	164				
2022-23 (CAYm1)	173	125			
2021-22 (CAYm2)	127	105	117		
2020-21 (CAYm3)	136	118	130	128	
2019-20 (LYG)	128	109	122	120	
2018-19 (LYGm1)	129	108	116	115	
2017-18 (LYGm2)	126	108	119	117	

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Tota without Backlog]			
		I year	II year	III year	
2023-24 (CAY)	164				
2022-23 (CAYm1)	173	125			
2021-22 (CAYm2)	127	105	117		
2020-21 (CAYm3)	136	118	132	128	
2019-20 (LYG)	128	110	123	120	120
2018-19 (LYGm1)	129	109	126	123	122
2017-18 (LYGm2)	126	108	120	118	118

4.1 Enrolment Ratio (20)

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2023-24 (CAY)	120	116	96.67
2022-23 (CAYm1)	120	125	104.17
2021-22 (CAYm2)	120	109	90.83

Average [(ER1 + ER2 + ER3) / 3] : 97.22

Assessment : 20.00

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

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

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation minus 1, LYGm1 (2018-19)	Latest Year o 2 LYGm2 (201
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	128.00	129.00	126.00
Y Number of students who have graduated without backlogs in the stipulated period	118.00	115.00	117.00
Success Index [SI = Y / X]	0.92	0.89	0.93

Average SI [(SI1 + SI2 + SI3) / 3] : 0.91

Assessment [15 * Average SI] : 13.65

4.2.2 Sucess rate in stipulated period (5)

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation minus 1, LYGm1 (2018-19)	Latest Year o 2 LYGm2 (201
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	128.00	129.00	126.00
Y Number of students who have graduated in the stipulated period	120.00	122.00	118.00
Success Index [SI = Y / X]	0.94	0.95	0.94

Average SI[(SI1 + SI2 + SI3) / 3]: 0.94

Assessment [5 * Average SI] : 4.72

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	CAYm1 (2022-23)	CAYm2 (2021-22)	CAYm3 (202
Mean of CGPA or mean percentage of all successful students(X)	7.60	7.35	7.50
Total number of successful students (Y)	117.00	132.00	123.00
Total number of students appeared in the examination (Z)	123.00	136.00	128.00
API [X * (Y/Z)]	7.23	7.13	7.21

Average API [(AP1 + AP2 + AP3)/3] : 7.19

Assessment [AverageAPI] : 7.19

4.4 Placement, Higher Studies and Entrepreneurship (30)

Item	CAYm1(2022-23)	CAYm2(2021-22)	CAYm
Total No of Final Year Students(N)	120.00	123.00	118.0
No of students placed in the companies or goverment sector(X)	98.00	88.00	75.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	5.00	10.00	4.00
No of students turned enterpreneur in engineering/technology (Z)	0.00	2.00	0.00
Placement Index [(X+Y+Z)/N] :	0.86	0.81	0.67

Average Placement [(P1 + P2 + P3)/3] : 0.78

Assessment [30 * Average Placement] : 23.40

Program Name : Electronics & Telecommunications Engineering
Assessment Year : 2022-23 (CAYm1)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	ANANYA MOHANTY	1902030010	AMAZON(SDE)	AMAZON(SDE)_2023
2	Sushree Banaja Panda	1902050001	DELOITTE	DELOITTE _2023
3	Pratyush Kumar Patra	1902070001	INCTURE	INCTURE _2023
4	Satyaprakash Das	1902070004	HCL	HCL _2023
5	Shashwat Naik	1902070005	ISERVEU	ISERVEU _2023
6	Sharbanee Swagatika Patnaik	1902070006	Capgeminin SE (4.25)	Capgeminin SE (4.25) _2023
7	Arya Biswa Kalyan	1902070007	GenC	GenC _2023
8	HARAPRIYA SETHI	1902070009	GenC	GenC _2023
9	Debashis Behera	1902070010	DELOITTE	DELOITTE _2023
10	Soubhagya Ranjan Das	1902070012	DELOITTE	DELOITTE _2023
11	Aparajita Panda	1902070014	Capgeminin SE (4.25)	Capgeminin SE (4.25) _2023
12	Y Jagdish Rao	1902070015	ISERVEU	ISERVEU _2023
13	Abinash Padhi	1902070018	DELOITTE	DELOITTE _2023
14	Satish Barik	1902070020	GenC Elevate	GenC Elevate _2023
15	Arpit Beriha	1902070022	LTTS	LTTS _2023
16	Sunil Kumar Padhy	1902070023	IN2IT	IN2IT _2023
17	sudeep sharma	1902070025	INFOSYS DSE	INFOSYS DSE _2023
18	Ameya Ray	1902070026	TCS(NINJA	TCS(NINJA) _2023
19	Subhasis Mishra	1902070028	LTTS	LTTS _2023
20	Kailash Agarwal	1902070029	DELOITTE	DELOITTE _2023
21	Devanshu Sekhar Preetam	1902070031	CAPGEMINI SENIOR SOFTWARE ENGG.(7.5)	CAPGEMINI SENIOR SOFTWARE ENG
22	Sasank Sekhar Sahoo	1902070032	GenC	GenC _2023
23	Sailesh Satapathy	1902070033	CAPGEMINI SENIOR SOFTWARE ENGG.(7.5)	CAPGEMINI SENIOR SOFTWARE ENG
24	SATYABRATA PRADHAN	1902070034	L&T	L&T _2023
25	Prateek Nair	1902070036	CARTESIAN	CARTESIAN _2023
26	Pratik Kumar Panda	1902070039	SCALEDGE	SCALEDGE _2023
27	Anushri Gupta	1902070040	Capgemini SE (4.25)	Capgemini SE (4.25) _2023
28	Biswajeet Panda	1902070041	HCL	HCL _2023
29	Somya Lohani	1902070042	DELOITTE	DELOITTE _2023
30	Subhashree Pattanaik	1902070043	Byjus BDA (the learning app)	Byjus BDA (the learning app) _2023
31	Snehasish Behera	1902070044	DELOITTE	DELOITTE _2023
32	SUNIL KUMAR DUTTA	1902070046	HCL	HCL _2023
33	Tapta Sundar Dalai	1902070048	GenC	GenC _2023
34	M Navish	1902070049	GenC	GenC _2023
35	RAJ KUMAR MAHANTA	1902070050	GenC	GenC _2023
36	ABHIJEET SAHOO	1902070052	CAPGEMINI SENIOR SOFTWARE ENGG.(7.5)	CAPGEMINI SENIOR SOFTWARE ENG
37	Bijay Ojha	1902070053	ADANI	ADANI _2023
38	Sourav ranjan mallick	1902070054	CAPGEMINI SENIOR SOFTWARE ENGG (7.5)	CAPGEMINI SENIOR SOFTWARE ENG
39	Abhisek Yadav	1902070057	DELOITTE	DELOITTE _2023
40	Anuska Mohanty	1902070060	KFINTECH	KFINTECH _2023
41	N HARI GOVIND	1902070061	L CUBE	L CUBE INNOVATIVE
42	Gourav Das	1902070062	ISERVEU	ISERVEU _2023
43	G. ASISH PATRO	1902070063	CAPGEMINI SENIOR SOFTWARE ENGG (7.5)	CAPGEMINI SENIOR SOFTWARE ENG
44	Kirti Bhusan Sethi	1902070065	AESS SOLUTIONS LTD	AESS SOLUTIONS LTD _2023
45	Gargi Patnaik	1902070064	DELOITTE	DELOITTE _2023
46	Smruti Ranjan Muduli	1902070066	ASICZEN TECHNOLOGIES	ASICZEN TECHNOLOGIES _2023
47	Vakadi Sai Pratyush	1902070067	GenC	GenC _2023
48	JYOTIRMAYEE PATI	1902070069	GenC	GenC _2023
49	DISHANT SAHU	1902070070	ISERVEU	ISERVEU _2023

50	Aditya Patra	1902070071	GenC	GenC _2023
51	Akankshya Nayak	1902070072	CAPGMINI SENIOR SOFTWARE ENGG (7.5)	CAPGMINI SENIOR SOFTWARE ENGG
52	Debi prasad parida	1902070073	INFOSYS SE	INFOSYS SE _2023
53	SHREEPREET SAHU	1902070074	CAPGEMINI SE (5.75)	CAPGEMINI SE (5.75) _2023
54	Subhashree Dash	1902070075	LTTS	LTTS _2023
55	Rajesh Patnaik	1902070076	TCS(NINJA)	TCS(NINJA) _2023
56	Sthitiprajna Das	1902070077	CAPGEMINI SE (4.25)	CAPGEMINI SE (4.25) _2023
57	AMRUTA SAHU	1902070080	Capgemini SE (4.25)	Capgemini SE (4.25) _2023
58	Sugriv kumar singh	1902070081	MARQUEE SEMICONDUCTOR	MARQUEE SEMICONDUCTOR _2023
59	Swarnamayee Biswal	1902070082	ACMEGRADE	ACMEGRADE _2023
60	Sushree Sibarpita Dey	1902070083	Capgeminin SE (4.25)	Capgeminin SE (4.25) _2023
61	Jagat Jeeban Maharana	1902070084	AESS SOLUTIONS LTD	AESS SOLUTIONS LTD _2023
62	Subham kumar Das	1902070085	SCALEDGE	SCALEDGE _2023
63	Sriya Smruti Seth	1902070086	Capgemini SE (4.25)	Capgemini SE (4.25) _2023
64	Bijay Mundari	1902070088	SEMIKUN TEHCHNLOGY	SEMIKUN TEHCHNLOGY _2023
65	Aryan Hota	1902070089	GenC	GenC _2023
66	Prasanjit Rout	1902070091	IMMENSPHERE	IMMENSPHERE _2023
67	Binaya Samantaray	1902070093	ISERVEU	ISERVEU _2023
68	Rajdeepak Mahanto	1902070094	MARQUEE SEMICONDUCTOR	MARQUEE SEMICONDUCTOR _2023
69	Meka Sandhya Gouri	1902070095	INCTURE	INCTURE _2023
70	Akankshya Adhikari	1902070096	DELOITTE	DELOITTE _2023
71	SHRUTI AGRAWAL	1902070098	CAPGEMINI SE (4.25)	CAPGEMINI SE (4.25) _2023
72	Soumyashree Karan	1902070100	SEMIKUN TEHCHNLOGY	SEMIKUN TEHCHNLOGY _2023
73	AMRITA NANDA	1902070101	MARQUEE SEMICONDUCTOR	MARQUEE SEMICONDUCTOR _2023
74	Sanskruti Bhuyan	1902070102	DELOITTE	DELOITTE _2023
75	Smruti Snigdha Pani	1902070103	CAPGEMINI SE (4.25)	CAPGEMINI SE (4.25) _2023
76	YOGAMAYA MISHRA	1902070104	ISERVEU	ISERVEU _2023
77	Subhasish Pattnaik	1902070106	LTTS	LTTS _2023
78	Kunwar Dilshad Ali Khan	1902070107	GenC	GenC _2023
79	ANURAG S NAYAK	1902070109	IN2IT	IN2IT _2023
80	Sidhant Pattanaik	1902070110	DELOITTE	DELOITTE _2023
81	sillan kumar sahani	1902070114	SCALEDGE	SCALEDGE _2023
82	SUBHRANSU SEKHAR MOHANTY	1902070115	GenC Elevate	GenC Elevate _2023
83	SAI SAMARPITA	1902070116	ASICZEN TECHNOLOGIES	ASICZEN TECHNOLOGIES _2023
84	Nitish Kumar	1902070119	SCALEDGE	SCALEDGE _2023
85	Saswat Nayak	1902070120	HCL	HCL _2023
86	SATYA NARAYAN SAHOO	1902070122	GenC	GenC _2023
87	Ankshit Kumar Maji	1902070123	MARQUEE SEMICONDUCTOR	MARQUEE SEMICONDUCTOR _2023
88	T ABHISEKH SUBUDHI	1902070124	GLOBAL HITACHI	GLOBAL HITACHI _2023
89	Rupesh Acharya	1902070126	SCALEDGE	SCALEDGE _2023
90	SMRUTISIKHA PANIGRAHY	1902070128	TATA STEEL PPO	TATA STEEL PPO _2023
91	Aditya Prasad Panigrahy	1902070130	LTTS	LTTS _2023
92	Rishav Nanda	1902100027	INCTURE	INCTURE _2023
93	Malaya Ranjan Pati	2003070002	ACMEGRADE	ACMEGRADE _2023
94	Swayam Nayak	2003070003	HCL	HCL _2023
95	Rakesh Mahapatra	2003070007	COGNIZANT GENC(DN)	COGNIZANT GENC(DN) _2023
96	P SRINATH RAO	2003070008	LTTS	LTTS _2023
97	ISHA SINGH	2003070010	Byjus BDA (the learning app)	Byjus BDA (the learning app) _2023
98	suraj kumar mahapatra	2003070013	GenC	GenC _2023

Assessment Year : 2021-22 (CAYm2)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Binit likhmania	1802070002	INFOSYS	INFOSYS _2022
2	Abhilash Brahma	1802070003	DELOITTE	DELOITTE _2022
3	HIMANSU SEKHAR PADHY	1802070005	GenC Select	GenC Select _2022
4	G Sri Sai	1802070006	GenC Next Select	GenC Next Select _2022
5	Manasis Das	1802070007	GenC Select	GenC Select _2022
6	Rashmi Ranjan Sahoo	1802070008	GenC Select	GenC Select _2022
7	K Aditya	1802070009	GenC Select	GenC Select _2022
8	Satyanarayan Senapati	1802070012	GenC Select	GenC Select _2022
9	Snigdharani Dash	1802070014	GenC Select	GenC Select _2022
10	Sashikanta Sankhua	1802070015	INFOSYS	INFOSYS _2022
11	Amrita Das	1802070016	GenC (DN)	GenC (DN) _2022
12	Asish Anshuman Patra	1802070018	WIPRO	WIPRO _2022
13	Ritika Dash	1802070022	WIPRO	WIPRO _2022
14	Abhipsa Pati	1802070024	SIMFORM	SIMFORM _2022
15	Ayush Agrawal	1802070025	WIPRO	WIPRO _2022
16	RITESH PANDA	1802070027	GenC (DN)	GenC (DN) _2022
17	Vikalp Mishra	1802070028	GenC Select	GenC (DN) _2022
18	PRAKRITI ALOO	1802070029	LTTS	LTTS _2022
19	BB BOB LEE	1802070030	DELOITTE	DELOITTE _2022
20	VISHNU SHANKAR BISWAL	1802070032	GenC Select	GenC Select _2022
21	Yashraj	1802070033	Principal Global Services	Principal Global Services _2022
22	N CH SHANMUKHA	1802070034	GenC Select	GenC Select _2022
23	Chinmaya Bisoi	1802070036	GenC Select	GenC Select _2022
24	Alister Ekka	1802070037	WIPRO	WIPRO _2022
25	Suchi Sakshi Mishra	1802070038	GenC Elevate (DN)	GenC Elevate (DN) _2022
26	Mrutyunjay kumar	1802070039	ISERVEU	ISERVEU _2022
27	SATYA RANJAN NAYAK	1802070040	GenC Elevate (DN)	GenC Elevate (DN) _2022
28	Aren Satpathy	1802070041	GenC Select	GenC Select _2022
29	Aryan Dash	1802070043	GenC Select	GenC Select _2022
30	Shivangee soni	1802070044	GenC Elevate Select	GenC Elevate Select _2022
31	Soumyakanta swain	1802070045	WIPRO	WIPRO _2022
32	Prajwal Padhy	1802070046	GenC Select	GenC Select _2022
33	Lokanath Parida	1802070047	WIPRO	WIPRO _2022
34	Sourav Sekhar Purohit	1802070049	GenC Elevate (DN)	GenC Elevate (DN) _2022
35	Ankita Maharana	1802070050	GenC Elevate (DN)	GenC Elevate (DN) _2022
36	Nibedita Tripathy	1802070051	GenC Select	GenC Select _2022
37	Ashutosh Pattanaik	1802070052	ISERVEU	ISERVEU _2022
38	Tanichha Bal	1802070054	IBM	IBM _2022
39	Tapas Kumar Swain	1802070055	GenC Select	GenC Select _2022
40	Mohit Kumar Khan	1802070057	GenC Elevate Select	GenC Elevate Select _2022
41	Priyanka Rana	1802070058	IBM	IBM _2022
42	Ankan Biswas	1802070061	GenC Elevate Select	GenC Elevate Select _2022
43	Abhirup Mohanty	1802070062	XORIANT	XORIANT _2022
44	Sanket Mishra	1802070063	GenC Elevate Select	GenC Elevate Select _2022
45	Sukanya choudhury	1802070064	ISERVEU	ISERVEU _2022
46	Rupsita Sahoo	1802070066	L&T	L&T _2022
47	Alok Ranjan Sahoo	1802070067	GenC Select	GenC Select _2022
48	Debadatta Jena	1802070068	KREETI	KREETI _2022
49	Sk Saif Ali	1802070069	LTTS	LTTS _2022

50	Siddharth Padhi	1802070071	LTTS	LTTS _2022
51	Subrat Mohanty	1802070072	TCS	TCS _2022
52	Pratyush Kumar Mahapatra	1802070073	GenC Select	GenC Select _2022
53	Prayas Daspattanayak	1802070074	IBM	IBM _2022
54	Ranjan Mishra	1802070076	Marquee semiconductor	Marquee semiconductor _2022
55	Partha Prateem Patra	1802070078	Tejas Networks	Tejas Networks _2022
56	Rani Patra	1802070079	BANK OF NEW YORK	BANK OF NEW YORK _2022
57	Anil Lenka	1802070080	ISERVEU	ISERVEU _2022
58	Sidhant Patra	1802070082	GenC Elevate - Select	GenC Elevate - Select _2022
59	T Anurodh	1802070084	GenC (DN)	GenC (DN) _2022
60	Muskan Garg	1802070085	WIPRO	WIPRO _2022
61	Satyasadhan Padhi	1802070087	GenC Select	GenC Select _2022
62	Tirtha Ray	1802070089	GenC Select	GenC Select _2022
63	Saheel Mahalik	1802070091	Principal Global Services	Principal Global Services _2022
64	Abhishek Singh	1802070094	GenC Select	GenC Select _2022
65	Swasti Subhasweta Sahoo	1802070095	GenC Elevate (DN)	GenC Elevate (DN) _2022
66	Satish Kumar Padhi	1802070099	GenC (DN)	GenC (DN) _2022
67	Sourav Nanda	1802070106	DELOITTE	DELOITTE _2022
68	Supriya Behera	1802070107	GenC Select	GenC Select _2022
69	Amreeta Priyadarshini	1802070109	GenC Select	GenC Select _2022
70	Majhi Opel Baden	1802070114	WIPRO	WIPRO _2022
71	Sameer Lakra	1802070115	ISERVEU	ISERVEU _2022
72	Himanshu Sekhar Naik	1802070116	IBM	IBM _2022
73	Kamal Lochan hembaram	1802070119	ISERVEU	ISERVEU _2022
74	Asutosh Sahu	1802070121	GenC Select	GenC Select _2022
75	V GAUTAM RAJU	1802070122	GenC Select	GenC Select _2022
76	Rudrakshi Praveen Kumar	1802070123	GenC Select	GenC Select _2022
77	Sibaprasad Ratha	1802070124	GenC Elevate Select	GenC Elevate Select _2022
78	Jagannath Gouda	1802100014	IBM	IBM _2022
79	Krishna Kumar	1903070001	INFOSYS	INFOSYS _2022
80	Manish Kerketta	1903070002	ISERVEU	ISERVEU _2022
81	Souvik Kabiraj	1903070004	FRONTROW	FRONTROW _2022
82	Sarthak Tripathy	1903070005	GenC Select	GenC Select _2022
83	BIBEKANANDA NAYAK	1903070006	ISERVEU	ISERVEU _2022
84	Sk Noor Mohammad	1903070007	FRONTROW	FRONTROW _2022
85	Daminee mishra	1903070008	ISERVEU	ISERVEU _2022
86	Rajashree Malik	1903070009	PERFECTVIPS	PERFECTVIPS _2022
87	Sidhesh Roshon Sahu	1903070013	ISERVEU	ISERVEU _2022

Assessment Year : 2020-21 (CAYm3)

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Abhijeet Parichha	1702070002	INFOSYS	INFOSYS _2021
2	Abhilash Kumar	1702070003	DELOITTE	DELOITTE _2021
3	Abhisek Meher	1702070004	COGNIZANT	COGNIZANT _2021
4	ABHISHEK AGRAWAL	1702070005	INFOSYS	INFOSYS _2021
5	ADARSH KUMAR NAYAK	1702070006	COGNIZANT	COGNIZANT _2021
6	Aditya Mishra	1702070007	INFOSYS	INFOSYS _2021
7	Aditya Om Prakash Sahoo	1702070008	TCS	TCS _2021
8	Aditya Samal	1702070009	DELOITTE	DELOITTE _2021
9	Ajay Kumar Sahu	1702070011	COGNIZANT	COGNIZANT _2021
10	Ajit Mohanty	1702070012	Infosys	Infosys _2021
11	Aman kumar singh	1702070014	COGNIZANT	COGNIZANT _2021
12	Ananya Panigrahy	1702070015	COGNIZANT	COGNIZANT _2021
13	Ankit Kumar Mohanty	1702070017	ACCENTURE	ACCENTURE _2021
14	Anup Agrawal	1702070018	COGNIZANT	COGNIZANT _2021
15	Aparna Meher	1702070019	TCS	TCS _2021
16	Arpan Sathua Mahapatra	1702070020	COGNIZANT	COGNIZANT _2021
17	Ashutosh Behera	1702070026	INFOSYS	INFOSYS _2021
18	Bimal Das	1702070033	Infosys	Infosys _2021
19	Biswajit Beuria	1702070035	COGNIZANT	COGNIZANT _2021
20	CHANDRASEKHAR TANDIA	1702070037	ACCENTURE	ACCENTURE _2021
21	Likhita Chinnari	1702070038	COGNIZANT	COGNIZANT _2021
22	Dibya Ranjan Sahu	1702070039	INFOSYS	INFOSYS _2021
23	Divya Bharti Nag	1702070040	VODAFONE	VODAFONE _2021
24	Gaurav kedia	1702070041	INFOSYS	INFOSYS _2021
25	Jugal Kishor Seth	1702070044	infosys	infosys _2021
26	Jyotshna Deep	1702070045	VODAFONE	VODAFONE _2021
27	K Goutam	1702070046	COGNIZANT	COGNIZANT _2021
28	K.Manju Bhargavi	1702070047	COGNIZANT	COGNIZANT _2021
29	Kamaksha Prasad Naik	1702070049	COGNIZANT	COGNIZANT _2021
30	Karishma Mahanta	1702070051	DELOITTE	DELOITTE _2021
31	KILLAMSETTY KAPILESH	1702070053	COGNIZANT	COGNIZANT _2021
32	L Sritun Kumar	1702070057	COGNIZANT	COGNIZANT _2021
33	Maamim Sheikh	1702070059	CISCO	CISCO _2021
34	Nirmalya sekhar sahoo	1702070062	DELOITTE	DELOITTE _2021
35	Niyatee Nibedita Panda	1702070064	DELOITTE	DELOITTE _2021
36	Pallabi subudhi Ray	1702070065	Infosys	Infosys _2021
37	Pamini Vibhash	1702070066	DELOITTE	DELOITTE _2021
38	Polaki Shivani	1702070067	COGNIZANT	COGNIZANT _2021
39	Prachi priya mishra	1702070068	COGNIZANT	COGNIZANT _2021
40	Prachishree singh	1702070069	VODAFONE	VODAFONE _2021
41	Pradyum kumar singh	1702070070	GenC Next	GenC Next _2021
42	PRAGYAN PRAMITA HOTA	1702070071	ICT HEALTH CARE	ICT HEALTH CARE _202
43	Prakash Kumar Sethy	1702070072	SKOLAR	SKOLAR _2021
44	PRASANT KANSARI	1702070074	COGNIZANT	COGNIZANT _2021
45	Prathi Rajesh	1702070075	COGNIZANT	COGNIZANT _2021
46	priyadarsani panda	1702070077	COGNIZANT	COGNIZANT _2021
47	Priyanka Priyadarsini Swain	1702070078	COGNIZANT	COGNIZANT _2021
48	Rashmirekha Soren	1702070083	COGNIZANT	COGNIZANT _2021
49	Sarthak Sahoo	1702070087	COGNIZANT	COGNIZANT _2021

50	Sekhar Mishra	1702070090	COGNIZANT	COGNIZANT _2021
51	Shad jafar azmi	1702070091	COGNIZANT	COGNIZANT _2021
52	Shibaji Sahu	1702070092	COGNIZANT	COGNIZANT _2021
53	Shyama Prasad Dash	1702070095	DELOITTE	DELOITTE _2021
54	Siddharth Suman rath	1702070096	COGNIZANT	COGNIZANT _2021
55	Smrutiranjan Biswal	1702070097	TCS	TCS _2021
56	Soumik saswat patnaik	1702070100	COGNIZANT	COGNIZANT _2021
57	SOUMYA PRATIK BEHERA	1702070101	DELOITTE	DELOITTE _2021
58	Soumya Ranjan Das	1702070102	DELOITTE	DELOITTE _2021
59	Sovit Kumar Acharya	1702070105	ISERVEU	ISERVEU _2021
60	Sujata Dip	1702070110	SKOLAR	SKOLAR _2021
61	Sulekh Kumar Misra	1702070111	COGNIZANT	COGNIZANT _2021
62	Suraj Kumar Gupta	1702070113	COGNIZANT	COGNIZANT _2021
63	Swati Sahu	1702070115	COGNIZANT	COGNIZANT _2021
64	Swetaparna Moharana	1702070117	COGNIZANT	COGNIZANT _2021
65	Usha Rani Mishra	1702070119	PERFECT VIPS	PERFECT VIPS _2021
66	Uttpati Sahu	1702070120	TCS	TCS _2021
67	Asutosh Rath	1702070121	DELOITTE	DELOITTE _2021
68	Prabhakar Bisoyi	1702070122	DELOITTE	DELOITTE _2021
69	Rohit Kumar Das	1702070123	DELOITTE	DELOITTE _2021
70	SAKALABAKTULA PREMCHAND	1702070124	COGNIZANT	COGNIZANT _2021
71	Subhasish Das	1702070125	COGNIZANT	COGNIZANT _2021
72	Tanmaya prasad Mangaraj	1702070126	COGNIZANT	COGNIZANT _2021
73	Sanket Pati	1702070127	ACCENTURE	ACCENTURE _2021
74	Neha Gupta	1702072128	COGNIZANT	COGNIZANT _2021
75	Shanti Rani Rath	1803070023	TCS	TCS _2021

4.5 Professional Activities (20)

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

1. The Department of Electronics and Telecommunication Engineering is having a Professional society in the name of “Electronics and Telecommunication Society”. Th festival in the name of “TECHTRONIX” each year which includes various technical events like Circuit model presentation, poster presentation, Hackathon, Technical Time to time the society also organizes Invited Guest Lectures, online technical talks by distinguished speakers from various industries and academia.
2. The Veer Surendra Sai Space innovation centre (VSSSIC) under VSSUT technical society is formed in collaboration with ISRO to promote R&D in space technology objective of this Space Innovation Research Lab is to encourage the students in research and development in the domain of Space Science and Technology at VSS region.Faculty coordinators are Prof. H. K. Sahoo, Dr. Konhar, Dr. N. Patel, Dr. S. Panda, Dr.R panigrahi.
3. IEEE student branch chapter at VSSUT, wasformed to promote excellence in the field of technical education apart from class room teaching and to connect with the platform. Faculty coordinator of IEEE student branch chapter at VSSUT is Prof. H. K. Sahoo.

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

- Souvenir for Golden Jubilee ceremony: The Golden Jubilee ceremony (1972-2022) was celebrated in the Department on 29th January 2023. The objective was to update knowledge through technical talks and discussions from the alumni of Dept. of ETC. A souvenir is published on this occasion.
- Techtronix – It is the souvenir of annual technical festival (Techtronix) of the Department which is published every year. The objective is to publish students project models, poster models and abstracts of other technical events organized in the annual technical festival.

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

Students are encouraged to participate in different inter-institute events and activities during theircourse of study. Students participated in events organised during annual tech fest SAMAVESH, VASSAUNT etc.

Sl.No	Event	Team members/ Individual	Awards
1	Robo War	Chinmay Priyanshu	Winner
2	Rhapsody quiz competition- NIT Rourkela	Hitesh Kumar jena	Team -3rd prize
3	IIRS,ISRO	Debansi Patnaik	participated in the online event on the topic "Geoprocessing with python
4	DEBUG BATTLE, VASSAUNT	Naren Pradhan	Team-winner
5	Hackathon - code4Odisha, SOA, BBSR	B Ashish Kumar Patro	Finalists
6	ETHOS Ideathon 2022, IIMSambalpur	B Ashish Kumar Patro	Finalists
7	Drone Technology, NIT, Rourkela	Rudra Prasad swain Chiranjibi Biswal	Successfully made a drone
8	3(o) composite Technical Company NCC, Burla	Arpita Maheswari Singh	Photography - 2nd position
	Startup Odisha Yatra 2.0' 2022		Top 10 Finalist
	IEEE BBDITM student branch in collaboration with the IEEE BBDTIM signal processing society.		winner all India online Calligraphy competitions
9	World Space Week, SDSC SHAR, ISRO	Famiya Tasneem	Team - 2nd prize
10	4th chapter convention on Quality concept, ,QCFI Bhubaneswar chapter	T ACHYUTA PATRO	GOLD AWARD
11	Smart India Hackathon 2022	Asmi Jena	Winner
	L&T Techgium Hackathon 2022		Semi-finalist

12	Space Week event hosted by ISRO-Indian Space Research Institute at Shree Jagannath Sanskrit University Puri.	Sai Nandini	Team -3rd position
	IMC, 2023, New Delhi		Participated and presented 5G models to solve mining problems.
	Innovision 2022 , NIT Rourkela		Finalist
13	IC3S-2023, KIIT, BBSR	Susmita Murmur, Harapriya Sethi	Published a paper in IEEE conference

Also, students are actively involved in different clubs under differentsociety

1. Cultural Society- VIBRANZ Club, Souls Club, EMOTICA Club, Art and Photography Club, Literary society etc
2. Technical Society- VSSSIC, Robotics, E-cell, Idea club etc.
3. Sports Society – Yoga , Illumina etc.
4. SSG Society – Sanskar Kendra, Awareness programme, blood donation camp etc.
5. NSS and NCC activities.

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Sr. No	Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Desig as Pro Assoc Prof.)
1	RUTUPARNA PANDA	AGPPP2777E	ME/M. Tech and PhD	11/11/1998	SIGNAL PROCESSING	51	3	0	Professor	20/06/
2	SANJAY AGRAWAL	ADTPA9441K	ME/M. Tech and PhD	18/04/2015	IMAGE PROCESSING	31	2	4	Professor	18/04/
3	HARISHKUMARSAHOO	ASGPS9399N	ME/M. Tech and PhD	11/10/2014	ELECTRONICS SYSTEMS AND COMMUNICATION	17	6	4	Professor	01/11/
4	DEBASIS MISHRA	AHLPM1600L	ME/M. Tech and PhD	12/08/2008	MICROWAVEENGINEERING	7	3	4	Associate Professor	16/05/
5	KABIRAJ SETHI	ARCPS6544A	ME/M. Tech and PhD	04/08/2014	VLSI	7	2	1	Associate Professor	16/05/
6	ARUNANSHU MAHAPATRO	ANBPM7734M	ME/M. Tech and PhD	10/09/2013	COMMUNICATION SYSTEMS	25	6	1	Associate Professor	28/10/
7	DIPTIMAYEE KONHAR	AVDPK3856C	ME/M. Tech and PhD	03/09/2021	ANTENNA ENGINEERING	8	2	0	Assistant Professor	
8	BIKRAMADITYA DAS	BEVPD2105K	ME/M. Tech and PhD	02/08/2016	WIRELESS COMMUNICATION	14	2	1	Assistant Professor	
9	SUVENDU NARAYAN MISHRA	AKIPM0691H	ME/M. Tech and PhD	24/06/2021	ANTENNA ENGINEERING	8	2	0	Assistant Professor	
10	BANDAN KUMAR BHOI	AYDPB1071H	ME/M. Tech and PhD	05/08/2020	VLSI & Embedded Systems	7	2	0	Assistant Professor	
11	ADITYA KUMAR HOTA	ACPPH7273R	M.E/M.Tech	07/07/2010	Communication Systems Engineering	3	0	0	Assistant Professor	
12	SHEEJA K. L.	AIHPL7278C	ME/M. Tech and PhD	02/03/2015	ANTENNA ENGINEERING	6	2	0	Assistant Professor	
13	BIJAY KUMAR SA	CRCPS8737B	M.E/M.Tech	07/02/2013	Signal Processing	2	0	0	Assistant Professor	
14	ANAND KUMAR BEHERA	AQOPB9627J	ME/M. Tech and PhD	27/07/2023	ANTENNA ENGINEERING	9	0	0	Assistant Professor	
15	MADHUSMITA PANDA	AUOPP0515H	ME/M. Tech and PhD	24/03/2021	Computer Science & Engineering	5	1	0	Assistant Professor	
16	MANAS RANJAN JENA	AHIPJ9851D	ME/M. Tech and PhD	14/03/2020	VLSI	3	3	0	Assistant Professor	
17	SAKAMBARI MAHAPATRA	BJFPM6524G	ME/M. Tech and PhD	25/03/2023	Communication System Engg.	7	0	0	Assistant Professor	
18	ASHIS KUMAR SHARMA	CAIPS6423D	ME/M. Tech and PhD	17/07/2015		10	3	0	Assistant Professor	
19	SUBRAT KUMAR SETHI	BYYPS8386Q	M.E/M.Tech	03/07/2013	Communication System Engg.	4	0	0	Assistant Professor	
20	SANGEETA SA	FHAPS8147A	M.E/M.Tech	01/10/2011	Telecommunication Engg	3	0	0	Assistant Professor	
21	TUNIRANI NAYAK	AEUPN4565M	M.E/M.Tech	22/06/2011	Communication System Engg.	2	0	0	Assistant Professor	
22	RADHASHYAMPATRA	BNPPP2390R	M.E/M.Tech	28/08/2013	WIRELESS COMMUNICATION	6	0	0	Assistant Professor	
23	MANORANJAN PRADHAN	AIAPP4199D	ME/M. Tech and PhD	13/06/2013	VLSI	13	3	1	Associate Professor	16/05/
24	NILAMANI BHOI	AIYPB4549D	ME/M. Tech and PhD	30/06/2009	Image Processing	3	2	2	Associate Professor	06/10/
25	DHARAMVIR KUMAR	BDJPK8973K	M.E/M.Tech	07/06/2011	VLSI	2	0	0	Assistant Professor	
26	RASHMITA SAHU	DKRPS2656N	M.E/M.Tech	25/09/2010	ANTENNA ENGINEERING	3	0	0	Assistant Professor	
27	LOPAMUDRA GHADEI	BAAPG3696M	M.E/M.Tech	06/08/2011	Communication System Engg.	1	0	0	Assistant Professor	
28	HRUDANANDA PRADHAN	BABPP8888B	ME/M. Tech and PhD	09/01/2023	ANTENNA ENGINEERING	6	0	0	Assistant Professor	

29	BISWA BINAYAK MANGARAJ	AKEPM4236A	ME/M. Tech and PhD	21/03/2012	MICROWAVEENGINEERING	13	1	2	Associate Professor	05/01/2

5.1 Student-Faculty Ratio (SFR) (20)

UG

No. of UG Programs in the Department 1

B.Tech in Electronics and Telecommunication Engineering						
Year of Study	**CAY**		**CAYm1**		**CAYm2**	
	(2023-24)		**(2022-23)**		**(2021-22)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted tl students**
2nd Year	120	12	120	12	120	12
3rd Year	120	12	120	12	120	12
4th Year	120	12	120	12	120	12
Sub-Total	**360**	**36**	**360**	**36**	**360**	**36**
Total	**396**		**396**		**396**	
Grand Total	396		396		396	

PG

No. of PG Programs in the Department 3

M.Tech CSE			
Year of Study	**CAY(2023-24)**	**CAYm1(2022-23)**	**CAYm2 (20**
	Sanction Intake	**Sanction Intake**	**Sanction I**
1st Year	18	18	18
2nd Year	18	18	18
Total	**36**	**36**	**36**

M.Tech RFMWE			
Year of Study	**CAY(2023-24)**	**CAYm1(2022-23)**	**CAYm2 (20**
	Sanction Intake	**Sanction Intake**	**Sanction I**
1st Year	18	18	18
2nd Year	18	18	18
Total	**36**	**36**	**36**

M.Tech VLSISP			
Year of Study	**CAY(2023-24)**	**CAYm1(2022-23)**	**CAYm2 (20**
	Sanction Intake	**Sanction Intake**	**Sanction I**
1st Year	18	18	18
2nd Year	18	18	18
Total	**36**	**36**	**36**
Grand Total	108	108	108

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 3

Description	**CAY(2023-24)**	**CAYm1 (2022-23)**	**CAYm2 (2021-22)**
Total No. of Students in the Department(S)	504 **Sum total of all (UG+PG) students**	504 **Sum total of all (UG+PG) students**	504 **(UG+PG) students**
No. of Faculty in the Department(F)	28 **F1**	29 **F2**	29
Student Faculty Ratio(SFR)	18.00 **SFR1=S1/F1**	17.38 **SFR2=S2/F2**	17.38
Average SFR	17.59 **SFR=(SFR1+SFR2+SFR3)/3**		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

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 facul 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 Ra following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.

2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.

3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

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

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2023-24)	28	0
CAYm1(2022-23)	29	0
CAYm2(2021-22)	29	0

Average SFR for three assessment years : 17.59

Assessment SFR : 16

5.2 Faculty Cadre Proportion (20)

Year	Professors		Associate Professors		Assistant Pro
	Required F1	Available	Required F2	Available	Required F3
CAY(2023-24)	2.00	2.00	5.00	6.00	16.00
CAYm1(2022-23)	2.00	3.00	5.00	6.00	16.00
CAYm2(2021-22)	2.00	3.00	5.00	6.00	16.00
Average Numbers	2.00	2.67	5.00	6.00	16.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 10 : 20.00

5.3 Faculty Qualification (20)

	X	Y	F	FQ = 2 x [(10X + 4Y) / F)]
2023-24(CAY)	19	9	25.00	18.08
2022-23(CAYm1)	17	12	25.00	17.44
2021-22(CAYm2)	17	12	25.00	17.44

Average Assessment : 17.65

5.4 Faculty Retention (10)

Description	2022-23 (CAYm1)	2023-24 (CAY)
No of Faculty Retained	29	28
Total No of Faculty	25	25
% of Faculty Retained	116	112

Average : 114.00

Assessment Marks : 10.00

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

Sl. No.	Name of Faculty Member	Specialization	Total no. of Publications [Journal/Conf./Book Chapter/]
1.	Dr. S Agrawal	Communication System Engineering	65
2	Dr. H. K. Sahoo	Electronic Systems & Communication	55
3	Dr. D Mishra	Microwave Engineering	45
4	Dr. M. R Pradhan	FPGA basedVLSI Design, Microprocessor	48
5	Dr. K Sethi	Communication System Engineering/VLSI Design	30
6	Dr. N Bhoi	Image Processing	41
7	Dr. A Mohaptra	Communication Systems Engineering	52
8	Dr. B.B Mangaraj	Antenna Engineering	83
9	Dr. H Pradhan	Microwave and Antenna Engineering	19
10	Dr. D Konhar	Antenna Engineering	19
11	Dr. B Das	Wireless Communication	56
12	Dr. B.K. Bhoi	VLSI Design and Embedded System	37
13	Dr. S. N Mishra	Communication Systems Engineering	10
14	Mr. A. K Hota	Communication System Engg.	7
15	Dr. M Panda	Underwater Communication and Control	6
16	Ms. R Sahu	Communication system Engineering	6
17	Mrs. L Ghadei	Digital signal processing	3
18	Dr. S Mahaptra	Communication System Engineering	8
19	Dr. M. R Jena	Microelectronics and VLSI Design	7
20	Mr. D Kumar	VLSI Design	3
21	Mr. A.K Behera	Tele Communication Engineering	11

22	Dr. Sheeja K. L	RF and Microwave	27
23	Ms. S Sa	Telecommunication	3
24	Mr B. K Sa	Communication & Signal Processing	4
25	Dr. A. K Sharma	Communication Systems	26
26	Ms. T Nayak	Image and Signal Processing	3
27	Mr. S K Sethi	Communication Engineering	8
28	Mr. R Patra	Signal Processing, Digital Techniques	7

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

Faculty members employ various teaching and learning processes to effectively engage students and facilitate their learning. Here are some common approac by faculty members:

1. Lectures: Lectures are a traditional teaching method where instructors deliver information to students verbally. They generally use visual aids such as slide whiteboards to enhance comprehension.

2. Discussions: Faculty members often facilitate discussions to encourage active participation and critical thinking among students. This can involve group di debates, or Socratic questioning.

3. Active Learning: Active learning techniques involve students in the learning process through activities such as problem-solving, case studies, role-playing, on experiments.

4. Formative Assessment: Faculty members use formative assessment techniques such as quizzes, polls, class discussions, or concept mapping to enhanc understanding and provide timely feedback for improvement.

5. Flipped Classroom: In a flipped classroom model, students engage with course materials outside of class e.g. videos lectures by NPTEL, SWAYAM etc.

6. Experiential Learning: Experiential learning involves real-world applications of concepts through internships, fieldwork, service-learning projects, or simula

7. Reflective Practice: Faculty members encourage students to reflect on their learning experiences, strengths, weaknesses, and areas for improvement thro assessment, journals, conferences, short term courses.

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

Name of the faculty	Max 5 Per Faculty		
	2022-23(CAYm1)	2021-22(CAYm2)	2020-21(CAYm3)
Madhusmita Panda	5.00	5.00	5.00
Subrat Kumar Sethi	5.00	5.00	5.00
Bijay Kumar Sa	5.00	5.00	5.00
Sheeja K. L.	5.00	5.00	5.00
Rasmita Sahu	5.00	5.00	5.00
Lopamudra Ghadei	5.00	5.00	5.00
Hrudananda Pradhan	5.00	5.00	5.00
Ashish Kumar Sharma	3.00	5.00	5.00
Diptimayee Konhar	3.00	5.00	5.00
Bandan Kumar Bhoi	3.00	5.00	5.00
Radhashyam Patra	3.00	3.00	3.00
Tunirani Nayak	5.00	5.00	5.00
Anand Kumar Behera	3.00	3.00	3.00
Harish Kumar Sahoo3	3.00	3.00	3.00
Arunanshu Mahapatro	3.00	3.00	3.00
Suvendu Narayan Mishra	5.00	5.00	5.00
Sum	66.00	72.00	72.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	25.00	25.00	25.00
Assessment [3*(Sum / 0.5RF)]	15.84	17.28	17.28

Average assessment over 3 years: 15.00

5.8 Research and Development (75)

5.8.1 Academic Research (20)

Academicresearchincludesresearchpaperpublications,Ph.D.guidance,andfacultyreceivingPh.D.duringtheassessment period.

- Number o fquality publications in refereed/SCIJournals,citations,Books/BookChaptersetc.(15)
- Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute (5)Allrelevantdetailsshall be mentioned.

Number of publications in refereed/SCI Journals, Citations, Books/Book Chapters etc				
S.No.	Year	No. Peer Review Journal (SCI/SCIE/ESCI/Scopus)	No. of Conference Proceedings	No. of Book Chapters
1	2019-20	26	26	6
2	2020-21	34	27	5
3	2021-22	46	36	3
4	2022-23	32	24	6
5	2023-24	40	18	5

Number of faculty received PhD Degree				
Assessment Year				
2023-2024	2022-2023	2021-2022	2020-2021	2019-2020
-	2	1	3	-

Number of PhD Degree Awarded				
Assessment Year				
2023-2024	2022-2023	2021-2022	2020-2021	2019-2020
1	4	5	4	2

5.8.2 Sponsored Research (20)

2022-23 (CAYm1)

Project Title	Duration	Funding Agency	Amount(in Rupees)
Development of hardware s	3years	IITGTIDF, DST, Govt. of Ind	4330000.00
Development of real time au	3 years	DST-SERBSURE, Govt. of	2999940.00
			Total Amount(X): 732994

2021-22 (CAYm2)

Project Title	Duration	Funding Agency	Amount(in Rupees)
FPGA Based power quality	3 years	DST, Govt. of Odisha	998000.00
Inspection of wall using coo	2 years	OURIIP, Govt. of Odisha	488000.00
UGC-BSR Research Start u	3years	UGC, Govt. of India	600000.00
			Total Amount(Y): 208600

2020-21 (CAYm3)

Project Title	Duration	Funding Agency	Amount(in Rupees)

Cumulative Amount(X + Y + Z) =

5.8.3 Development activities (15)

Research Laboratories

1. EDA Laboratory

Researchers can utilize EDA laboratory facilities to design and simulate integrated circuits using industry-standard Electronic Design Automation (EDA) software tools. This includes designing digital, analog, and mixed-signal circuits, as well as conducting simulations to verify circuit functionality, performance, and reliability.

The main focused research areas in this domain are:

- Embedded System Design
- Analog IC Design
- Digital IC Design
- System on Chip Design

2. Microwave & Radiation Laboratory

The laboratory provides training and educational opportunities for students, researchers, and industry professionals in the field of microwave and radiation engineering. The laboratory serves as a hub for applied research and development in microwave and radiation technologies.

The research area in this domain includes:

- Antenna Design and Optimization
- Microwave circuits and Components
- Microwave Imaging and Sensing
- Wave guide and Transmission Lines

3. Wireless Communication Laboratory

The laboratory helps the faculty members and research scholars to focus on designing and optimizing wireless sensor networks for applications in environmental monitoring, healthcare, industrial automation, and smart cities. This includes developing energy-efficient routing protocols, localization algorithms, and data aggregation techniques for WSNs.

The researchers focus in the following domain:

- Wireless sensor network
- Cognitive radio
- Wireless network optimization
- Under water communication

4. Digital Signal Laboratory

The laboratory provides opportunities for students and researchers to work on practical DSP applications and projects in diverse domains such as audio/music processing, image and video processing, biomedical signal processing and remote sensing.

The students and faculty members' focuses on the following domain:

- Image and video processing
- Biomedical signal processing
- Filter design and implementation
- Speech and audio processing

5.8.4 Consultancy (from Industry) (20)

2022-23 (CAYm1)

Project Title	Duration	Funding Agency	Amount(in Rupees)

2021-22 (CAYm2)

Project Title	Duration	Funding Agency	Amount(in Rupees)
Design and Ve	2 years	SCALEDGE IN	387000.00
			Total Amount(Y): 387000.00

2020-21 (CAYm3)

Project Title	Duration	Funding Agency	Amount(in Rupees)

Cumulative Amount(X + Y + Z) =

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 membe innovate and conduct research for their self-renewal, keep abreast with changes in technology, and develop expertise for effective implementation of curricula. 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 the shouldering of administrative responsibilities and co-operation with other Faculty, Heads-of-Departments and the Head of Institute. An effective performance 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)

Veer Surendra Sai University of Technology (VSSUT) has a well defined system for performance based appraisal system (PABS).

Evaluation criteria for PABS

- Teaching Process
  - (a) Class taken
  - (b) Scheme of evaluation
  - (c) Course outcome
- Student feedback
- Departmental activities
- Institute activities
- Academic research score
  - (a) Research publication
  - (b) Book published
  - (c) Research guidance
  - (d) Research Project/Consultancy
  - (e) Patents
  - (f) Invited lectures/Resource Person

Analysis of PABS and Evaluation

The PABS submitted by faculty members are analyzed by the internal and external committee formed by Hon'ble Vice-Chancellor of our University.

5.10 Visiting/Adjunct/Emeritus Faculty etc. (10)

6 FACILITIES AND TECHNICAL SUPPORT (80)

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

Sr. No	Name of the Laboratory	Number of students per set up(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	Simulation Lab	35	35 Computers	24 hours	Ramji Dehury	Senior Instructo	Diploma Engg.
2	Basic Electroni	35	DC Power sup	32 hours	T R Mohanty	Senior Instructo	Diploma Engg.
3	Circuits Lab	35	CRO 30Mhz, D	24 hours	T R Mohanty	Senior Instructo	Diploma Engg.
4	Microprocesso	35	Advance 8085	12 hours	Suraj Kumar M	Senior Instructo	Diploma Engg.
5	Communicatio	35	MATLAB R202	24 hours	Suraj Kumar M	Senior Instructo	Diploma Engg.
6	Microwave Lab	35	MATLAB R202	12 hours	Ramji Dehury	Senior Instructo	Diploma Engg.
7	Instrumentatio	35	LVDT Trainer,	12 hours	Suraj Kumar M	Senior Instructo	Diploma Engg.

6.2 Laboratories maintenance and overall ambiance (10)

All the laboratories are maintained at normal temperature conditions with proper ventilation. Adequate space is allotted to each laboratory to accommodate the stude Regular maintenance of the laboratory equipments are carried out using some protocols fixed in each laboratory for smooth conduct of experiments. Periodic replac of the components and equipments are done to keep the laboratories upgraded to the latest technologies.

Overall ambience

In VSSUT, Burla Cleanliness and good academic ambiance is the main focus since its inception. Any laboratory has several equipments specific to its domain. Each 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 th 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. S obsolete components are disposed from time to time. For better learning purposes the number of students allotted per setup is maximum four.

6.3 Safety measures in laboratories (10)

Sr. No	Laboratory Name	Safety Measures
1	Basic Electronics Lab	Safety instructions to the students: 1. Do not hold Electro Static Discharge (ESD) items like semico (diodes. ICs) against the clothing. 2. Don't touch open wires unless you are sure that there is no vo experiment with power from wall plug. 4. Use colored wires of suitable length. 5. Switch off the pow make changes to the experiment even if the voltage is low. 6. After the lab session, switch off every disconnect and disintegrate the experimental setup. 7. Immediately report dangerous and exceptio instructor. 8. Never use damaged wires, instruments, or connectors.
2	Simulation Lab	Safety instructions to the students: 1. Do not reboot or move any PC. 2. Do not load any unlicensed computer. 3. Do not reconfigure the cabling equipment. 4. Do not leave a logged-in PC unattended be played on any PC. 6. Do not useany external storage device to download any application files w permission.
3	Circuits Lab	Safety instructions to the students: 1. Don't touch open wires unless you are sure that there is no v experiment with power from wall plug. 3.Use coloured wires of suitable length. 4. Switch off the pov make changes to the experiment even if the voltage is low. 5. After the lab session, switch off every disconnect and disintegrate the experimental setup. 6. Immediately report dangerous and exceptio instructor. 7. Never use damaged wires, instruments or connectors.
4	Microprocessor Lab	Safety instructions to the students: 1. Do not reboot or move any kit. 2. Do not leave the kit unatten the kit without any prior permission.
5	Communication Lab	Safety instructions to the students: 1. General Rules of Conduct in Laboratories are displayed. 2. F extinguisher is kept in the laboratory.3. Avoid the use of cell phones.4. Permission denied for pen d should be turned off properly before leaving the lab. 6. The student must immediately inform the ins defect, error or damage observed at the computer (hardware/software). 7. Do not reboot or move a trainer kit. 8. Do not use the kit without any prior permission.
6	Microwave Lab	Safety instructions to the students: 1. Do not wear loose-fitting clothing or jewellery in the lab. Rings usual excellent conductors of electricity. 2. Mobile phones should be switched off in the lab. Keep b 3. Keep the labs clean at all times, no food and drinks allowed inside the lab. 4. Intentional miscond expulsion from the lab. 5. Do not handle any equipment without reading the safety instructions. Rea procedures in the Lab Manual before starting the experiments. 6. Do your wiring, setup, and a care before applying power. Do not make circuit changes or perform any wiring when power is on. 7. Av energized electrical circuits. 8. Do not insert connectors forcefully into the sockets. 9. NEVER try to power from the wall plug. 10. Immediately report dangerous or exceptional conditions to the Lab ins Equipment that is not working as expected, wires or connectors are broken, the equipment that sm you are not sure what the problem is or what's going on, switch off the Emergency shutdown. 11.N instruments, wires or connectors. Hand over these parts to the Lab instructor/Teacher. 12.Be sure extinguishers and first aid kits in the laboratory.
7	Instrumentation Lab	Safety instructions to the students: 1. Don't touch open wires unless you are sure that there is no v experiment with power from wall plug. 3.Use colored wires of suitable length. 4. Switch off the pow make changes to the experiment even if the voltage is low. 5. After the lab session, switch off every disconnect and disintegrate the experimental setup. 6. Immediately report dangerous and exceptio instructor. 7. Never use damaged wires, instruments or connectors.

6.4 Project laboratory (20)

The students are permitted duly by the respective laboratory in charge on a request basis, to access and utilize the software/ hardware resources available in different laboratories. Any specific laboratory can be allocated for project-related research and development work, depending upon the project domain. Such allocations are generally made at the time-slots, when there is no routine occupancy of the laboratory for academic sessional activities. These regular laboratories have licensed softwares like Xilinx, MATLAB, LabVIEW etc., which are used for simulation purpose whereas hardware based projects are done either in the concerned hardware lab or in project room by issuing components from these labs.

7 CONTINUOUS IMPROVEMENT (75)

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

POs Attainment Levels and Actions for Improvement- (2022-23)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.3	2.3	Target is achieved. However, some courses like Microwave Eng Wireless & Mobile Communication need strong foundations to c knowledge with engineering applications.
Action 1: Students are advised to participate more in technical events where their basic knowledge of science and mathematics can be used in engineering-oriented probl			
PO 2 : Problem Analysis			
PO 2	2.3	2.3	Target is achieved. Problem-solving and analysing skills are dev and second-year courses like Digital System Design, Analog El Design and Testing Lab which help the students to identify and problems.
Action 1: Students are advised to observe the problems in their surroundings (nature, Industries and daily life) and find a possible solution/approach to these problems. Ac advised to design their minor and major project based on these problems.			
PO 3 : Design/development of Solutions			
PO 3	2.1	2.1	Target is achieved. More emphasis can be given in design-orien courses like Control Systems, and VLSI Design.
Action 1: Assignments including design-based problems may be given. Action 2: Students are advised to participate in event like Hackathon			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2.1	2.2	Target is achieved. Research-based knowledge and methods ca students by mentors or the faculties in the class to have a clear semester courses and projects.
Action 1: Students are motivated to go through a systematic literature review before addressing the solution and developing the algorithms.			
PO 5 : Modern Tool Usage			
PO 5	2.0	2.2	Target is achieved. However, still upgradation of tools and resou meet industry standards and research. The target can be increa batch.
Action 1: Modern labs are developed to demonstrate the use of modern tools like MATLAB, Multisim, Xilinx-vivado, and Microwind to specify fulfillment of the requirements applications in the new industrial era.			
PO 6 : The Engineer and Society			
PO 6	2.0	2.2	Target is achieved. The courses address the needs of health, sa concerns regarding engineering practices in real life. The target the next batch.
Action 1: More expert talks can be Conducted on engineering emerging topics.			
PO 7 : Environment and Sustainability			
PO 7	2.0	2.2	Target is achieved. However, the global and environmental issu be improved among students.
Action 1: Students are encouraged to do their undergraduate projects by focusing on the practical problems in society.			
PO 8 : Ethics			
PO 8	2.0	2.1	Target is achieved. Although students are proficient in engineeri ethical and moral awareness is causing them to lag behind in ce as projects.
Action 1: Guidelines about the use of legal software, how to prepare documents without plagiarism, etc., could be distributed.			
PO 9 : Individual and Team Work			
PO 9	2.1	2.2	Target is achieved. Students are very much able to work individ courses. At the same time, they perform better in teams during experiments.
Action 1: Students are encouraged to participate in interdisciplinary group projects.			
PO 10 : Communication			
PO 10	2.1	2.2	Target is achieved. During the Seminar presentation and Projec be given to improve the communication skills of the students.
Action 1: Through group discussions, presentations, and other means, students can improve soft skills.			
PO 11 : Project Management and Finance			
PO 11	2.1	2.3	Target is achieved. Students are able to show off their ability to manage their time successfully by completing their projects with can be increased for the next batch.
Action 1: Students can be made aware of more project and time management concepts.			
PO 12 : Life-long Learning			

PO 12	2.1	2.2	Target is achieved. Many graduates from our department are pu in reputed Universities in India and abroad.
Action 1: Talks by experts in different fields can organized for the students, where they can interact with them and have ideas about the present technical scenarios and fu			

PSOs Attainment Levels and Actions for Improvement- (2022-23)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Apply the knowledge of electronic circuits, analog and digital communication, wireless communication, radar engineering and antenna systems to sol engineering problems in the discipline of Electronics and Telecommunication Engineering			
PSO 1	2.3	2.3	Target is achieved.
Action 1: Students are highly encouraged to base the design of their major and minor projects on the courses they completed as undergraduates. Action 2: Students are a and showcase their technical skills in various events of our university like, Tectronix and Samavesh and in the technical events of other universities.			
PSO 2 : Develop suitable techniques and cutting-edge engineering hardware and software tools in Electronics and Telecommunication Engineering to solve pr			
PSO 2	2.3	2.3	Target is achieved.
Action 1: In the department, dedicated laboratories can be set up with more upgraded software and hardware tools that the students to access for their projects and resea Students are encouraged to learn new software and technical tools during their vacations.			
PSO 3 : Aware of the impact of professional Electronics and Telecommunication Engineering solutions on social, economic, environmental and technological			
PSO 3	2.2	2.2	Target is achieved.
Action 1: The students are encouraged to participate in the Hackathon events. Action 2: More expert and technical talks can be Conducted on engineering emerging topic			

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

PURPOSE OF AUDIT

- To promote self reflection among all departments/sections/student activity centers of the University being audited.
- -To promote self improvement measures among all departments/sections/Student activity Centres of the University being audited
- To conduct quality checks on different activities undertaken in all departments/sections/Student activity Centres of the University to meet expected outcomes
- To promote adoption of best practices.

SCOPE OF ACADEMIC AUDIT

All departments of University: The departments are expected to have developed a strong outcome based approach in teaching-learning. The audit team wil activities involved in developing learning outcomes, design and development activities in curriculum, teaching-learning process, student learning assessment 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 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 archival in the examination section.

Student Activity Centre: The audit team will assess the process of conduct, document archival and promotion of student support activities and services.

ACADEMIC AUDIT TEAM

The Academic Audit Team will have following composition

- Two for each department/section/centre (One with credibility in teaching and research; the other one with exposure to accreditation, program administration; preferab belonging to an accredited organization)
- The members may be nominated by Competent Authority of the University.
- The members must be of equivalent rank of Professor

AUDIT PROCESS

- Each Department/Section/Centre will prepare a Self Evaluation Document(SED) and submit it electronically to IQAC cell
- 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.

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

The Training & Placement cell of VSSUT is proactive in conducting placement drives for students of the university. Various categories of companies ranging from consulting development, support, R&D etc. come and hire students from our institute. Global companies like Deloittee, WindMoller, Amazon, Cognizant, Infosys, TCS, Wipro etc. have our students as their employees. Companies like Infosys, Cognizant, Capgemini, Wipro etc. recruit in Day 1 hiring process. The highest package offered in the past 3 years is Rs.47.38 Lacs by Amazon SDE. Many high paying companies like Goldman Sachs, Google are also there in the list. We also have the advantage of having many core companies visiting and hiring from the campus. These companies include Vedanta, Tata Steel, JSW, Maruti Suzuki, JSPL, Aditya Birla, L&T, Tata Power, J K Paper, Visa Steel, Aquagreen etc.

Apart from placement, T&P Cell also helps students in upgrading their skills to increase their employability chances. Training for students have been conducted in many areas like AIML, Virtual Cloud, Cybersecurity, Data Analytics, RedHat, BluePrism, Robotics etc. In addition to this, the T&P cell has also worked in imparting softskills to the students by conducting training classes on it.

Parameter	**CAYm1 (2022-23)**	**CAY*m2* (2021-22)**	**CAY*m3* (2020-21)**
No. of Placement offers	129	130	130
No. of Students Placed	98	88	75
Placement Index	0.77	0.91	0.61
Highest Pay Package Offered	Rs. 47.38 Lacs Amazon SDE	Rs. 24.5 Goldman Sachs	Rs. 31.59 Google
GATE/GRE/GMAT/CAT qualified student	05	10	04
Admission in premier institutions	05	10	04
No. of students turned Entrepreneurs	0	2	0

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

Item		**2023-24**	**2022-23**	**2021-22**
National Level Entrance Examination JEE	No of students admitted	156	156	126
	Opening Score/Rank	56574	43097	81624
	Closing Score/Rank	750763	849641	102728
State/ University/ Level Entrance Examination/ Others NA	No of students admitted	0	0	0
	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
Name of the Entrance Examination for Lateral Entry or lateral entry details OJEE	No of students admitted	12	12	12
	Opening Score/Rank	68	4	92
	Closing Score/Rank	1345	2108	571
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		8.4	8.12	7.9

8 FIRST YEAR ACADEMICS (50)

8.1 First Year Student-Faculty Ratio (FYSFR) (5)

Please provide First year faculty information 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 Associ (Regul Contra
							CAY	CAYm1	CAYm2		
Dr. Madhusmil	AUOPP0515H	ME/M. Tech and PhD	24/03/2021	Optimzation algorithm	Assistant Professor	02/06/2014	50	50	50	Yes	Regula
Dr. Sheeja K. L	AIHPL7278C	B.Tech. and PhD	02/03/2015	Metamaterial Antennas	Assistant Professor	29/05/2014	50	50	50	Yes	Regula
Dr. Sakambhar	BJFPM6524G	B.Tech. and PhD	25/03/2023	Image Processing	Assistant Professor	20/06/2014	100	50	50	Yes	Regula
Dr. Nirmalendu	AYCPM9933A	B.Tech. and PhD	03/03/2023	NANOTECHNOLOGY FOR ENERGY AND ENVIRONMENTAL APPLICATIONS	Associate Professor	12/01/2023	100	0	0	Yes	Contra
Mr. Debasish T	AGZPT5515A	M.E/M.Tech	24/07/2010	Machine Design	Assistant Professor	01/07/2013	50	50	50	Yes	Regula
Dr. Smita Padh	CIQPP8982C	B.Tech. and PhD	28/03/2023	Machining	Assistant Professor	06/10/2016	50	50	50	Yes	Regula
DR. CHANDRA	APPPC7150K	M.A and Ph.D	08/01/2020	AMERICAN LITERATURE	Assistant Professor	22/09/2017	100	100	100	Yes	Regula
Dr. P. Lakshmi	ATVPP0076D	M.Sc. and PhD	16/04/2013	Liquid Crystals	Assistant Professor	11/06/2014	100	100	100	Yes	Regula
Dr. Sasmita Ac	ADZPM5291K	MCA and PhD	14/11/2019	Computer Networks	Assistant Professor	16/08/2011	50	50	50	Yes	Regula
Tunirani Nayak	AEUPN4565M	M.E/M.Tech	30/06/2011	Image Processing	Assistant Professor	22/05/2015	50	50	50	Yes	Regula
Harekrushna S	KVMPS8089M	M.E/M.Tech	15/05/2023	Modeling and simulation	Assistant Professor	12/01/2024	100	0	0	Yes	Contra
Layatitdev Das	APHPD6974Q	M.E/M.Tech	30/05/2012	Hybrid Machining Process	Assistant Professor	18/10/2016	50	50	50	Yes	Regula
Priya ranjan Mi	AIHPM5467G	M.Sc. and PhD	31/01/2007	Polymer nanocomposite	Professor	07/03/2013	50	50	50	Yes	Regula

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)
2021-22(CAYm2)	120	6	20
2022-23(CAYm1)	120	6	20
2023-24(CAY)	120	9	13
Average	120	7	17

AverageFYSFR: 0.00

Assessment [(5 * 15) / AverageFYSFR]: 5.00

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 3.00

Institute Marks : 3.00

Year	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)	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2021-22	3	1	6	3.00
2022-23	3	1	6	3.00
2023-24	3	1	6	3.00

Average Assessment: 3.00

8.3 First Year Academic Performance (10) Total Marks 6.69

Institute Marks : 6.69

Academic Performance	CAYm1(2022-23)	CAYm2(2021-22)	CAYm3 (2020-21)
Mean of CGPA or mean percentage of all successful students(X)	7.60	7.40	7.80
Total Number of successful students(Y)	125.00	105.00	118.00
Total Number of students appeared in the examination(Z)	161.00	115.00	124.00
API [X*(Y/Z)]	5.90	6.76	7.42

Average API[(AP1+AP2+AP3)/3] : 6.69

Assessment = Average API : 6.69

8.4 Attainment of Course Outcomes of first year courses (10) Total Marks 10.00

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)

Institute Marks : 5.00

All the courses offered in the first year of the program curriculum are broadly classified into 3 categories with their individual assessment methods:

1. Theory courses
2. Sessional courses

Course outcome attainment for each type of course is discussed below.

Course Category	Type of Assessment	Assessment Tools	Marks	Category	CO Attainment type
Theory	Direct	Assignments, Quiz tests (Formative assessments)	20	Cumulative Internal Examination (CIE)	Formative type
		Mid Semester Examination	30	Cumulative Internal Examination (CIE)	Direct CO Att. (70% weightage)
		End Semester Examination	50	Semester End Examination (SEE)	
	Indirect	Course Completion feedback			Indirect CO Att. (30% weightage)

Data Acquisition Process CO attainment of theory courses:

- For direct CO attainment, all the questions of mid-semester and end semesters are mapped with course outcomes during the preparation of the question paper.
- For the indirect CO attainment, semester-end feedbacks are collected by the department to acquire opinions about each CO from the students.
- Final computation of course outcomes attainment is done using direct and indirect Cos attainments through spreadsheets by the concerned faculty. 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 the declaration of end-semester examination results. All documentations related to attainments are maintained by the course coordinators.

8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Institute Marks : 5.00

Course Outcomes obtained for the first year courses are listed below:

Course	Direct CO Attainment	Indirect CO Attainment	Final CO Attainment	Target CO Attainment	Target achieved (Y/N)
BMA2101	2.0	2.2	2.1	2.2	N
BCH2101	2.1	2.4	2.2	2.2	Y
BEC2101	2.0	2.1	2.0	2.2	N
BCE2102	2.2	2.4	2.3	2.2	Y
BCS2102	2.1	2.2	2.1	2.2	N
BCH2191	2.3	2.4	2.3	2.2	Y
BEC2191	2.2	2.4	2.3	2.2	Y
BCE2192	2.3	2.2	2.3	2.2	Y
BCS2191	2.1	2.3	2.2	2.2	Y
BMA2201	2.0	2.4	2.1	2.2	N
BPH2102	2.1	2.1	2.1	2.2	N
BEE 2101	2.1	2.2	2.1	2.2	N
BHU2102	2.2	2.5	2.3	2.2	Y
BME2101	2.1	2.1	2.1	2.2	N
BPH2191	2.1	2.3	2.2	2.2	Y
BEE2191	2.2	2.4	2.3	2.2	Y
BME2192	2.2	2.5	2.3	2.2	Y
BHU2191	2.3	2.2	2.3	2.2	Y

8.5 Attainment of Program Outcomes from first year courses (20) Total Marks 20.00

8.5.1 Indicate results of evaluation of each relevant PO and/or PSO if applicable (10)

Institute Marks : 10.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
BMA21	2.1	2.1	1.4	1.4	1.4	2.1	2.1	PO8	PO9	PO10	1.4	2.1
BCH21	2.2	2.2	1.5	PO4	PO5	PO6	2.2	PO8	PO9	1.5	1.5	2.2
BEC21	2	1.4	2	2	2	PO6	PO7	PO8	PO9	PO10	2	2
BCE21	2.3	1.5	1.5	1.5	1.5	1.5	2.3	PO8	1.5	1.5	1.5	2.3
BCS21	2.1	2.1	2.1	2.1	1.4	PO6	PO7	PO8	1.4	PO10	PO11	2.1
BCH21	2.3	1.6	1.6	PO4	1.6	PO6	2.3	PO8	1.6	PO10	1.6	PO12
BEC21	2.3	1.5	1.5	2.3	2.3	PO6	PO7	PO8	PO9	PO10	2.3	2.3
BCE21	2.3	1.5	1.5	1.5	.8	2.3	2.3	PO8	1.5	1.5	1.5	2.3
BCS21	2.2	2.2	2.2	2.2	1.5	2.2	PO7	1.5	2.2	PO10	PO11	2.2
BMA22	2.1	2.1	1.4	1.4	.7	2.1	2.1	PO8	PO9	PO10	1.4	2.1
BPH21	2.1	2.1	2.1	1.4	.7	PO6	PO7	PO8	PO9	1.4	PO11	1.4
BEE21	2.1	2.1	1.4	2.1	2.1	1.4	2.1	PO8	PO9	PO10	2.1	2.1
BHU21	PO1	PO2	PO3	1.5	PO5	1.5	1.5	PO8	1.5	2.3	PO11	PO12
BME21	2.1	2.1	1.4	2.1	2.1	PO6	PO7	PO8	2.1	1.4	PO11	1.4
BPH21	2.2	2.2	1.5	.7	2.2	1.5	2.2	2.2	2.2	2.2	1.5	1.5
BEE21	2.3	2.3	1.5	2.3	2.3	1.5	1.5	1.5	2.3	2.3	2.3	2.3
BME21	PO1	PO2	.8	1.5	1.5	1.5	1.5	1.5	2.3	1.5	1.5	2.3
BHU21	PO1	PO2	PO3	PO4	PO5	2.3	1.5	PO8	1.5	2.3	PO11	PO12

PO Attainment Level

PSOs Attainment:

Course	PSO1	PSO2	PSO3
BMA21	1.4	1.4	1.4
BCH21	PSO1	PSO2	PSO3
BEC21	2.0	2.0	2.0
BCE21	PSO1	PSO2	PSO3
BCS21	PSO1	2.1	PSO3
BCH21	PSO1	PSO2	PSO3
BEC21	2.3	2.3	2.3
BCE21	PSO1	PSO2	PSO3
BCS21	PSO1	2.2	PSO3
BMA22	1.4	1.4	1.4
BPH21	1.4	PSO2	PSO3
BEE21	1.4	PSO2	PSO3
BHU21	PSO1	PSO2	PSO3
BME21	1.4	PSO2	PSO3
BPH21	1.5	PSO2	PSO3
BEE21	1.5	PSO2	PSO3
BME21	PSO1	PSO2	PSO3
BHU21	PSO1	PSO2	PSO3

PSO Attainment Level

Course	PO1	PO2	PO3
Direct Attainment	1.59	1.9	1.78
PSO Attainment	1.59	1.9	1.78

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- (2022-23)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.1	2.2	Target is achieved. All the basics of science, mathematics, computing language, and basics from each engineering branch are offered to students.
Action 1: Students are motivated to explore and correlate the basics behind the new technical course BTech. Action 2: Students are advised to participate in technical events where their basic knowledge should be used in engineering-oriented problems.			
PO 2 : Problem Analysis			
PO 2	1.9	1.9	Target is achieved. From the first year itself, students are trained through the courses to analyze the real problems and formulate solutions for them.
Action 1: To help them think through and attempt to solve complex engineering challenges, several real-world examples may be addressed.			
PO 3 : Design/development of Solutions			
PO 3	1.5	1.6	Target is achieved. The design and development of solutions for engineering problems should be the main emphasis of foundational engineering courses.
Action 1: Design-based experiments can be incorporated into the foundational and core engineering curricula.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.7	1.7	Target is achieved. Design-based experiments are added to some of the basic engineering labs.
Action 1: More design-based experiments can be added to some of the basic engineering labs. Action 2: Students are advised to participate in technical events.			
PO 5 : Modern Tool Usage			
PO 5	1.5	1.6	Target is achieved.
Action 1: Modern labs are developed to demonstrate the use of modern tools like MATLAB, LabView, etc to specify the fulfillment of requirements in engineering applications.			
PO 6 : The Engineer and Society			
PO 6	1.7	1.8	Target is achieved.
Action 1: Basic Science courses can focus on the health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.			
PO 7 : Environment and Sustainability			
PO 7	1.9	2.0	Target is achieved.
Action 1: Students are encouraged to participate in projects and technical events that address environmental and societal challenges.			
PO 8 : Ethics			
PO 8	1.6	1.7	Target is achieved.
Action 1: To understand the social aspects, workshops is being conducted to expand their practical knowledge with the effect of improved practices in engineering along with the professional ethics, responsibilities, and norms of the engineering practice. Action 2:Universal Human Value courses may be included in the curriculum.			
PO 9 : Individual and Team Work			
PO 9	1.7	1.8	Target is achieved. Students are very much able to work individually in theory courses. At the same time, they perform better in teams during laboratory experiments.
Action 1: First-year students can be involved in transdisciplinary projects by senior students.			
PO 10 : Communication			
PO 10	1.7	1.8	Target is achieved.
Action 1: Schools and universities can host a variety of technical and non-technical events all year long, and students are invited to participate in groups. Action 2: Through group discussions and presentations students can improve soft skills.			
PO 11 : Project Management and Finance			
PO 11	1.6	1.6	Target is achieved.
Action 1: Through the management of each lab's experiments, students can develop the idea of the management of projects.			
PO 12 : Life-long Learning			
PO 12	2.0	2.0	Target is achieved.
Action 1 Action 1: Talks by experts in different fields can organized for the students, where they can interact with them and have ideas about the present technical scenarios.			

PSOs Attainment Levels and Actions for Improvement- (2022-23)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Apply the knowledge of electronic circuits, analog and digital communication, wireless communication, radar engineering and antenna systems to solve complex engineering problems in the discipline of Electronics and Telecommunication Engineering			
PSO 1	1.6	1.6	Target is achieved.
Action 1: More emphasis may be given to design-based and analytical problems. Action 2: Students are advised to understand the basics of electronics and electrical courses offered in the first year.			
PSO 2 : Develop suitable techniques and cutting-edge engineering hardware and software tools in Electronics and Telecommunication Engineering to solve practical problems.			
PSO 2	1.9	1.9	Target is achieved.
Action 1: Along with the programming course offered in the curriculum, students are encouraged to learn other software and hardware tools.			
PSO 3 : Aware of the impact of professional Electronics and Telecommunication Engineering solutions on social, economic, environmental and technological sustainability.			
PSO 3	1,8	1.8	Target is achieved.
Action 1: The students are encouraged to participate in the Hackathon events. Action 2: More expert talks can be Conducted on engineering emerging topics.			

9 STUDENT SUPPORT SYSTEMS (50) Total Marks 50.00

9.1 Mentoring system to help at individual level (5) Total Marks 5.00

Institute Marks : 5.00

VSSUT has implemented the Mentor system. Within the system, the student is referred to as a mentee and the teaching member as a mentor. The guidelines for mentors in an effective mentoring system are provided below.

9.1.1 Mentor categories

Mentor: The mentors are responsible for managing the mentees registration, academic details, communication with guardians, attendance records, health status, behavior, manners, and promoting brand awareness. They are the primary contacts responsible for receiving and taking the initial measures to address grievances.

Counseling mentors: The counseling mentors are responsible for maintaining emotional stability as advised by the mentors.

9.1.2 Mentors Appointment

At the start of the academic year, the HOD of the department will inform the mentors and counseling mentors selected among the faculty members of the department. Guidelines for mentors appointment should be followed.

- A faculty member might be nominated as a mentor for a group of students. The schools head can suggest a demonstrator if they are confident in the demonstrators potential to serve as an effective mentor.
- The optimal group size for undergraduate students is five. HOD has the authority to determine the group size.
- The Head of School will choose counseling mentors from the instructors. A professional counseling mentor has been appointed at the university level.

9.1.3 Mentors Responsibilities

- To provide a collaborative and encouraging atmosphere for the mentees to enhance their learning and participation in academic activities.
- Conduct regular meetings with mentees and be readily available to them as required.
- To update the guardians on the students academic performance, attendance, and any disciplinary issues.
- To notify students and guardians about the organizations accomplishments.
- Assist mentees in gaining a comprehensive understanding of academic programs and necessary regulations.
- Identify chances for students to showcase their skills in discipline-specific or extracurricular activities.
- To guide and strengthen the mentees discipline-specific or interdisciplinary methodologies and abilities.
- Identify the need for counseling and schedule regular meetings with counseling mentors.

9.2 Feedback analysis and reward /corrective measures taken, if any (10) Total Marks 10.00

Institute Marks : 10.00

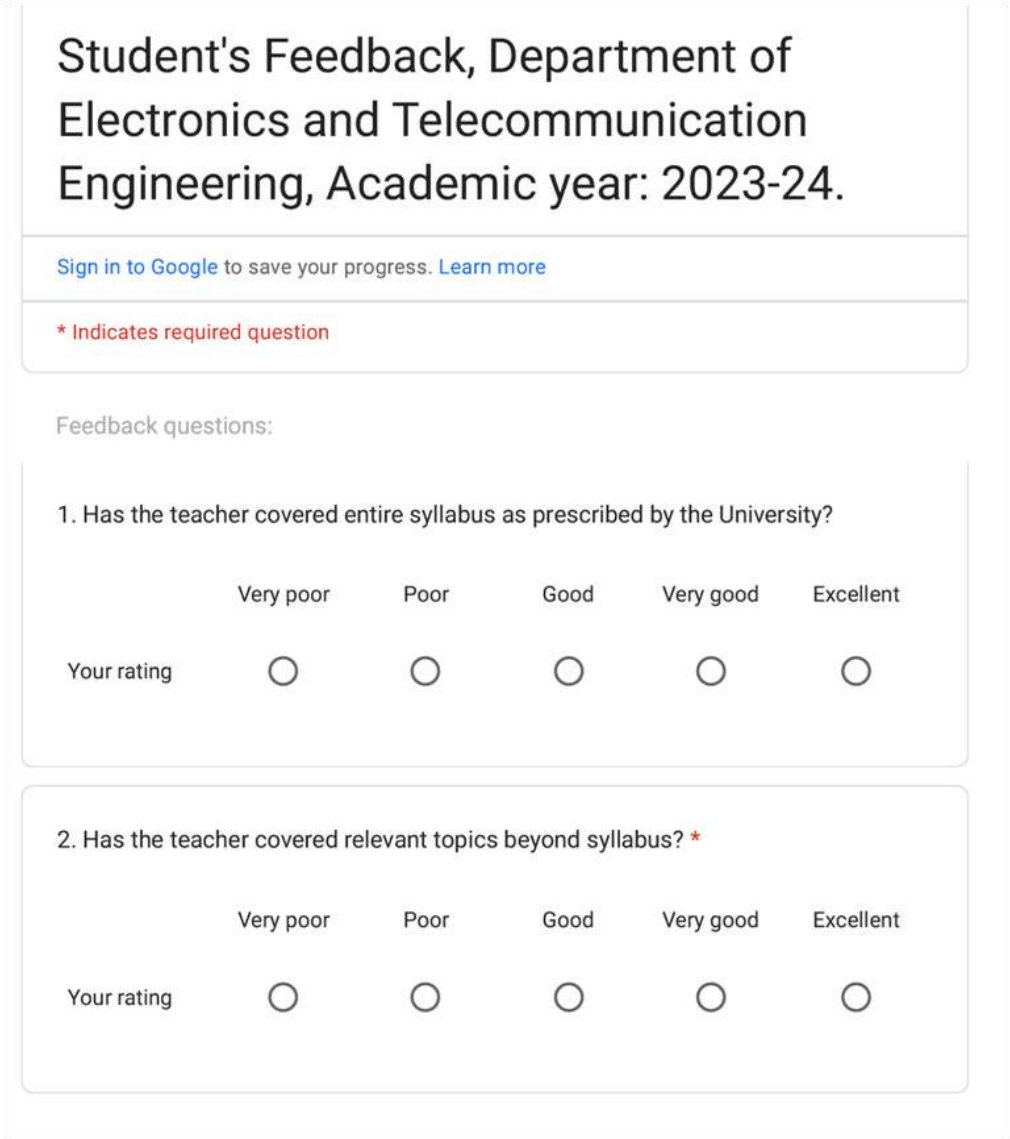
Feedback collected for all courses: YES (Twice a year)

Average Percentage of students participate in the feedback process: 75-90%

9.2.1 Feedback Collection Process:

Sl. No.	Type of feedback collected	Feedback on Curriculum, Teaching & learning
1	Process of collection	Google form/ Paper Form
2	Medium of notification to students and follow up	Whatsapp/ tutor mentors/class teacher
3	Frequency of collection	Once after end of each semester
4	Department responsible for collection, analysis and action taken	Concerned department/IQAC

FEEDBACK FORM



Student's Feedback, Department of Electronics and Telecommunication Engineering, Academic year: 2023-24.

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* Indicates required question

Feedback questions:

1. Has the teacher covered entire syllabus as prescribed by the University?

	Very poor	Poor	Good	Very good	Excellent
Your rating	○	○	○	○	○

2. Has the teacher covered relevant topics beyond syllabus? *

	Very poor	Poor	Good	Very good	Excellent
Your rating	○	○	○	○	○

3. Effectiveness of the teacher in terms of: *

	Very poor	Poor	Good	Very good	Excellent
Teaching content/ course content	○	○	○	○	○
Communication skill	○	○	○	○	○
Use of teaching aids	○	○	○	○	○

4. Pace in which contents were covered *

	Very poor	Poor	Good	Very good	Excellent
Your rating	○	○	○	○	○

5. Motivation and inspiration for students to learn *

	Very poor	Poor	Good	Very good	Excellent
Your rating	○	○	○	○	○

6. Support for the development of students' skill *

	Very poor	Poor	Good	Very good	Excellent
Practical demonstration	○	○	○	○	○
Hands on training	○	○	○	○	○

7. Clarity of expectations of students *

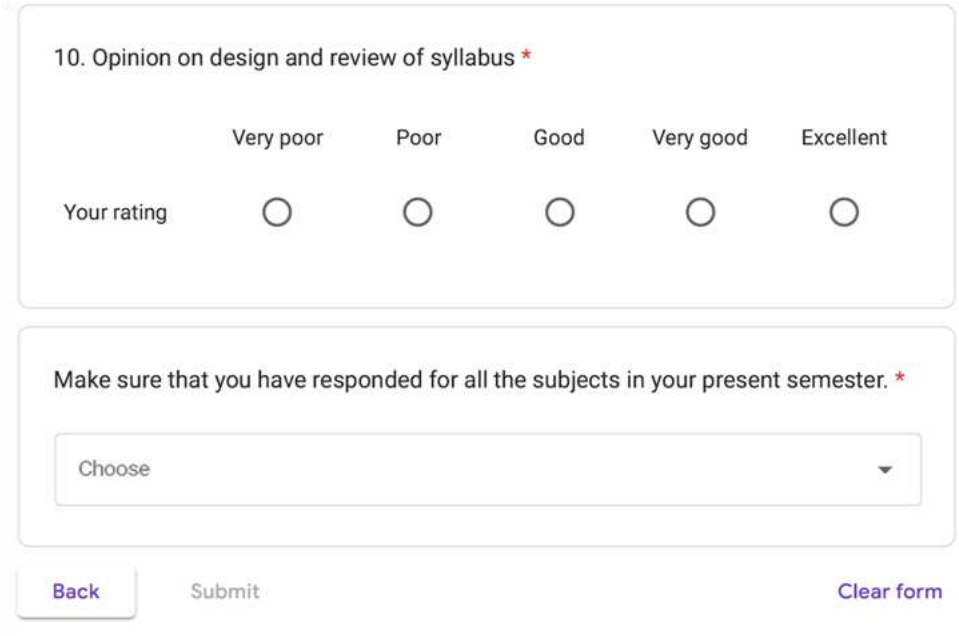
	Very poor	Poor	Good	Very good	Excellent
Your rating	○	○	○	○	○

8. Feedback provided on students' progress *

	Very poor	Poor	Good	Very good	Excellent
Your rating	○	○	○	○	○

9. Willingness to offer help and advice to students *

	Very poor	Poor	Good	Very good	Excellent
Your rating	○	○	○	○	○



9.2.3 Feedback analysis process

The feedback collected is shared to HOD 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

9.2.4 Basis of reward/ corrective measures, if any;

- The HOD shares the scores to the faculty members. The HOD provides individual faculty members with personalized feedback to identify their strengths and weaknesses and enhance their teaching skills. An in-depth examination of the score and interaction typically leads to enhancements in teaching and learning.
- If a teacher of a certain course does not achieve a satisfactory score index, the Head of the Department will have a discussion with the teacher. Subsequently, the teachers must modify their content delivery and then report the information back to the HOD.

9.3 Feedback on facilities (5)

Total Marks 5.00

Institute Marks : 5.00

The HOD office receives student input on the amenities of the University and department annually once. The feedback collecting is undertaken during the month of April. The form of the report seeks students views on various facilities of department and university. Different facilities for which feedbacks are taken from students are provided 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
- Internet
- Canteen and other services
- Sports facilities (Sports items, ground facility, etc.)
- Library facilities
- Medical Facilities

The collected feedback is reviewed at the department level, and if it is poor, the concerned PIC is informed.

9.4 Self-Learning (5)

Total Marks 5.00

Institute Marks : 5.00

The Department of ETC offers extensive opportunities and resources for students to engage in self-directed learning and explore topics beyond the standard curriculum. VSSUT students have 24/7 access to internet and computing capabilities within the University premises all year round. The institution has implemented a framework of learning activities that encourages self-directed learning among students, focusing on various topics across all disciplines.

- Interactive focus: Activities include of synchronous and collaborative talks, group activities, and assignments.
- Critical thinking: Activities in critical thinking involve doing case studies, field surveys, identifying problems, assessing implications of past research, finding gaps for improvement, and formulating strategies.
- Problem solving: Problem solving involves implementing strategies in real-life situations, understanding constraints, considering social, environmental, legal, and economic implications, analyzing the impact, and solving open-ended problems using simulations and modeling.
- Creation: Creation activities involve designing and implementing tasks at the simulation level, transitioning to hardware implementation, real-time deployment, and studying the resulting impacts.
- Preparation for competitive exams and advanced courses involves engaging in additional self-learning and problem-solving activities.
- Students in laboratories can choose to work on open-ended activities either individually or in groups through micro-projects to improve their analytical and design skills, which can be expanded upon in their final year major design projects.
- Students participate in field/industry visits and internships/trainings to familiarize themselves with industry practices, job expectations, and get insight into real-world challenges.
- Students participate in actual multidisciplinary projects at various Centers of Excellence, along with product innovation and entrepreneurial activities facilitated by the Incubator Cell.
- Open coursewares like NPTEL and MIT OpenCourseWare are recommended by lecturers for students to access at any time.
- Students are encouraged to take an active role in arranging symposia, conferences, seminars, etc.
- Student Societies are active organizations where students design, execute, and coordinate activities that significantly contribute to self-learning. Some societies are referenced in this section.

9.5 Career Guidance, Training, Placement (10)

Total Marks 10.00

Institute Marks : 10.00

VSSUT has provided career consulting, training, and placement services since its establishment. It has an outstanding track record in campus placement. VSSUT is highly regarded as a talent pool for the corporate sector due to its ability to produce students who are well-prepared for the industry. VSSUT has a well-defined framework in place to provide guidance to students for training and placement. Our main goal is to increase industry involvement in academia by implementing various activities to meet the evolving industry requirements.

- Working with Technical Heads, CTOs, and Operational Heads in the industry to provide Industry Engagement initiatives, such as student placements.
- Establishing and launching the student-centered ‘Innovation Cell’ at the University to cultivate a culture of ‘Innovations & Entrepreneurship’ among students through organizing advanced lectures, seminars, and workshops in collaboration with industry experts and esteemed academicians from foreign Universities.
- The goal is to create a pathway for entrepreneurs from VSSUT to pursue start-ups.
- Encouraging University researchers to build strong relationships with Industry, Government/Non-Government Organizations, and relevant Community Groups to collaborate on cutting-edge research.
- Raising awareness about creating intellectual property rights (IPR) and commercializing them, including safeguarding and managing patents resulting from research discoveries.
- Establishing a sponsored research consultancy fund in collaboration with multiple corporate entities.
- Establishing cutting-edge laboratories for research and innovation through company sponsorship.
- Establishing connections with corporations to provide training and certification for students, scheduling technical lectures by subject experts, and coordinating industry-sponsored workshops and symposiums for students and professors.
- Providing corporate entities with Leadership/Executive Development Programs and customized learning programs in specific areas of expertise available within the VSSUT faculty.

9.6 Entrepreneurship Cell

Total Marks 5.00

Institute Marks : 5.00

Department of ETC encourages the development of entrepreneurs in a structured manner through the University Entrepreneurship Cell. We support aspiring entrepreneurs who aim to address peoples concerns with innovative technical solutions. We provide a comprehensive learning environment for our students through a variety of activities such as start-up presentations, innovation challenges, seminars, techno-business sessions led by successful entrepreneurs, internship camps, and more.

9.7 Co-curricular and Extra-curricular Activities

Total Marks 10.00

Institute Marks : 10.00

The university has a Student Activity Centre Council that aims to unite all students for extracurricular activities and to share talent, culture, and innovative ideas. VSSUT Student Activity Centre hosts various events including delegation, workshops, and cultural activities. These events provide opportunities for student organizers to enhance their interpersonal skills like leadership, positive attitude, relationship management, and team management. Furthermore, VSSUT also offers NSS and NCC programs.

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120) Total Marks 120.00

10.1 Organization, Governance and Transparency (55) Total Marks 55.(

10.1.1 State the Vision and Mission of the Institute (5) Institute Marks : 5.(

VISION

To emerge as an internationally acclaimed Technical University to impart futuristic technical education and creation of vibrant research enterprise to create quality engineers and researchers, truly world class leader and unleashes technological innovations to serve the global society and improve the quality of life.

MISSION

The Veer Surendra Sai University of Technology, Odisha, Burla strives to create values and ethics in its products by inculcating depth and intensity in its education standards and need based research through

· Participative learning in a cross-cultural environment that promotes the learning beyond the class room.

· Collaborative partnership with industries and academia within and outside the country in learning and research.

· Encouraging innovative research and consultancy through the active participation and involvement of all faculty members.

· Facilitating technology transfer, innovation and economic development to flow as natural results of research where ever appropriate.

· Expanding curricula to cater broader perspectives.

· Creation of service opportunities for upliftment of the society at large.

10.1.2 Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring (25) Institute Marks : 25.(

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY
BURLA, SAMBALPUR, ODISHA

University Development Plan to Transform into a Multi-Disciplinary Engineering & Research University (MERU)

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY BURLA
ODISHA – 768 018, INDIA
October 2022

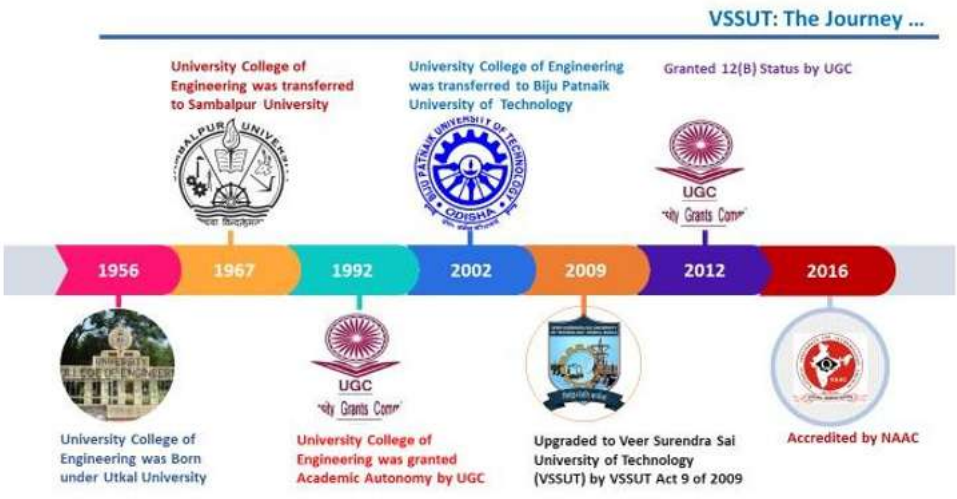
1.PREAMBLE

VSSUT Burla was established in 1956 as an engineering college in the name of the University College of Engineering (UCE) to solve a problem in society. As Hirakud Dam, independent India's first multi-purpose river dam was commissioned, there was a need for home-grown engineers to operate and maintain the dam that was meant to control flood, the powerhouse to generate power and a canal system to irrigate vast tract of land.

In the span of 66 years, the University has produced over 40,000 alumni. It has dedicated itself to the infrastructure, industrial growth, and socio-technical development of the state and nation as a whole. The roads, ports, dams, power plants, transmission lines, industries, irrigation projects, and rural electrifications are built-in Odisha with the overwhelming participation of its alumni. It has been playing a key role in the rural and urban developmental programs of the region; it is the central monitoring center for the State Government's programs such as Pradhan Mantri Gramya Sarak Yojana (PMGSY), Watershed projects, etc. Its alumni can be seen in the Boardrooms of leading PSUs and private companies; they occupied top positions in the Indian Army / Navy / Air Force, DRDO, and ISRO; they are on the faculty boards of almost all IITs, NITs, and many foreign Universities.

The University has carved a name for itself for its undiluted and uncompromising approach to education and the intensity of its teaching. In recognition of its contribution to society, the State Government upgraded it to a technical university in 2009. Presently, in addition to its rich undergraduate programs, it has preserved the strong legacy of research culture in terms of Post-graduate and research programmes in all disciplines of science and engineering.

2.VSSUT – THE JOURNEY SO FAR



The legendary institute had made a modest beginning in 1956 by taking 30 students each in three departments, viz Civil, Electrical & Mechanical, operating from the make-shift workshop of the Hirakud Dam. VSSUT presently offers 10 B.Tech., 22 M.Tech., B.Arch., MCA, and 3 M.Sc. programs, and details with seat strength are attached as **ANNEXURE-1**. Almost all B.Tech. programs are NBA accredited and rests have been applied for accreditation. Today, its students intake is 1644 in B. Tech, M. Tech, M Sc, MCA, Ph. D. and the total student strength on the campus is 4956.

In addition, 150 Research Scholars are pursuing their Ph. D. in various disciplines. VSSUT has been identified as the nodal center of the AICTE Quality Improvement programme for pursuing Ph.D. and also as the center for National Doctoral Fellowship (NDF) Scheme by AICTE. Ph. D. students are enrolled under the NDF scheme from 2018-19.

3.THE SWOT ANALYSIS

STRENGTHS

1. Undiluted academic standards for 66 years
2. Strong and worldwide Alumni network
3. Performing students – beating IIT / NIT students in national-level competitions.
4. Adequate quality faculty

WEAKNESSES

1. Inadequate, aged Infrastructure
2. Outdated Lab equipment, software
3. Absence of specialized R & D labs
4. Inadequate IPR, Sponsored Research & Consultancy
5. Inadequate student recreation facility
6. Weak academic Outreach

THREATS

1. Inadequate funding for an institute as vast in infra & student base as IIT, or NIT - leading to fast degradation
2. Peer institutes growing in size
3. Reluctance of companies to visit a remote place like Burla for Placement

90oOPPORTUNITIES

1. Massive industrialization in Odisha asking for more quality engineers
2. ~ 300 Acre Land for expansion
3. Surrounded by institutes & industries
4. Attitude of students toward Rocketry, product development, Entrepreneurial spirit, Incubation

4. **WINGS OF TRANSFORMATION AT VSSUT**

In line with the Nation Education Policy -2020, VSSUT plans to expand its wings in line with a large-scale Multidisciplinary Education and Research University (**MERU**) to serve a larger mass of students of Odisha who are aspirants to pursue quality education at an affordable cost.

a. **Increased intake at B. Tech. Level**

VSSUT aspires to offer more B.Tech. Programs that are relevant in today's time and increase the student strengths in excess of 10,000 on the campus by 2028.

Programs	Current position in 2022		Projection by 2028	
	Intake	Students Strength	Intake	Students Strength
B. Tech. + B. Arch.	996	3810	2083	8332
M. Tech.	396	792	396	792
M.Sc. (2 yrs)+MCA	102	204	120	240
Ph.D.	150	150	500	1500
TOTAL	**1644**	**4956**	**3116**	**10,864**

b. **Projection for other performance parameters**

Parameters	Present	By 2028
On-time Graduation	85%	95%
GATE/ NET Coverage	40%	60%
Career & Placement	80%	95%
Innovation & Incubation	05	10 per year
Technology	CTTC ISRO	AI, Data Science, ML, Healthcare, Robotics and Automation, Modern Manufacturing
NIRF Ranking	116	Top 50 in India

NBA Accreditation	10 UG Courses 03 PG Courses	All UG & PG courses
NABL Accreditation	-	10 Labs
New Programs	02	11 UG and 5 PG programs
Faculty Hiring	220	550 (1:15 as per AICTE norms)

c. **Multi-Disciplinary Character**

Subsequently, besides Engineering and Sciences, it aspires to open a School of Medical Technology on one campus – making it a true **Multi-Disciplinary Institute**.

d. **Skill Development Centre**

VSSUT aspires not only to produce quality graduates in Engineering, and Medical Technology but also wants to open its laboratory facilities, faculties, and innovative students to equip the Diplomas and ITIs of Odisha with the necessary skills to be entrepreneurs or be Industry- ready.

e. **Setting up R&D Laboratories in association with Industries**

VSSUT aspires to be a cutting-edge Research Centre in association with MCL, Vedanta, Hindalco, and TPWODL. The lab will be dedicated to develop solutions by our faculty and students. It will also help to have result-oriented collaboration with the industry.

5.Step by Step Methodology for Execution

a. **Creation of various Schools (in the immediate term)**

For optimum sharing of knowledge and resources such as faculties, laboratory facilities. Conferences etc., it is envisaged to put together a similar family of departments, e.g. Computer Science and Engineering, IT, MCA are clubbed under the School of Computer Science and Engineering; Mechanical Engg, Manufacturing, Production, Metallurgy, etc. are clubbed under School of Mechanical Science. Each school will be operated from a single building, be headed by a Dean. This will de-centralize the control of VC and bring tremendous synergy among departments.

Sl#	Name of the School	Name of the Branch
1	Computer Science and Engineering	Computer Science & Engineering
		Computer Science & Engineering (Artificial Intelligence & Machine Learning)
		Computer Science & Engineering (Data Science)
		Computer Science & Engineering (IoT)
		Computer Science & Engineering (Cyber Security)
		Information Technology
2	Electrical Sciences	Electrical Engineering
		Electrical & Electronics Engineering
		Electronics & Communication Engineering
3	Mechanical Sciences	Mechanical Engineering
		Production Engineering
		Aerospace Engineering
		Industrial Engineering & Management
		Metallurgical & Materials Engineering
4	Infrastructure & Planning	Civil Engineering
		Bachelor of Architecture
		Bachelor in Planning
5	Chemical and Bio Sciences.	Chemical Engineering
		Petroleum Engineering
		Biotechnology
6	Earth & Environmental Sciences	***Mining Engineering***
7	Humanities and Basic Sciences	Physics, Chemistry, Mathematics***, Life Science***

Note: Those depts. in Italic & Bold are proposed new departments

The yearly intake in existing as well as newly opened UG programs, will be **2083** as shown below and the total student strength including PG and Ph.D. will be more than 10,000 in the campus.

Sl#	Name of the branch	Intake (with EWS)	GIN	TFW (5%)	Lat Ent (10%)	Total
1	***Computer Science & Engineering***	***120 +30***	***1***	***6***	***12***	***169***
2	***Computer Science & Engg (AI&ML)***	***60+15***	***0***	***3***	***6***	***84***
3	***Computer Science & Engg (Data Science)***	***60+15***	***0***	***3***	***6***	***84***
4	***Computer Science & Engg (IoT)***	***60+15***	***0***	***3***	***6***	***84***
5	***Computer Science & Engg (Cyber Security)***	***60+15***	***0***	***3***	***6***	***84***
6	**Information Technology**	**60+15**	**0**	**3**	**6**	**84**
7	**Electrical Engineering**	**120+30**	**2**	**6**	**12**	**170**
8	**Electrical & Electronics Engineering**	**60+15**	**0**	**3**	**6**	**84**
9	**Electronics & Tele-Communication Engg**	**120+30**	**2**	**6**	**12**	**170**
10	**Mechanical Engineering**	**120+30**	**3**	**6**	**12**	**171**
11	**Production Engineering**	**60+15**	**0**	**3**	**6**	**84**
12	***Aerospace Engineering***	***60+15***	***0***	***3***	***6***	***84***
13	***Industrial Engg & Management***	***60+15***	***0***	***3***	***6***	***84***
14	**Metallurgical & Materials Engineering**	**60+15**	**0**	**3**	**6**	**84**
15	**Civil Engineering**	**120+30**	**2**	**6**	**12**	**170**
16	**Bachelor of Architecture**	**40+10**	**0**	**2**	**0**	**52**
17	***Bachelor in Planning***	***60+15***	***0***	***3***	***6***	***84***
18	**Chemical Engineering**	**60+15**	**0**	**3**	**6**	**84**
19	***Biotechnology***	***60+15***	***0***	***3***	***6***	***84***
20	***Mining Engineering***	***60+15***	***0***	***3***	***6***	***84***
	J&K Quota		**5**	**0**	**0**	**05**
	TOTAL	**1480+370**	**15**	**74**	**144**	**2083**

Note: Those depts. in Italic & Bold are proposed new departments

b. **Creation of Centres of Excellences - (in Immediate Term)**

Quantity is a critical mass, but quantity alone does not make a good University; Research must strive on the campus and new products/solutions must be evolved to serve the society. In line with this goal, each school will have more than one center of excellence (COE). The CoEs will be based on society-relevant areas like IoT, Augmented Reality/Virtual Reality, Steel making etc. COEs will facilitate research in the frontier areas where faculty and students will work on real-life industry problems. Further, these COEs will work on developing cost-effective products for the benefit of the community. The incubation and innovation cell will be strengthened further to attract more innovative projects like one existing from ISRO.

A striking feature is – each of these CoEs will have partnerships with a few industries in the same field and will have a few Alumni as mentors.

CoEs under the School of Computer Science and Engineering		
Centres of Excellence	**Industry Mentor (Alumnus)**	**Proposed Industry Partnership**

IoT	*Sambit Patra (IoT, Intel)*	*IBM, Intel, Sankalp Semiconductors*
Block Chain	*Manish Sinha (Niti Aayog), Debjani Mohanty (Collabera)*	*Tech Mahindra, Deloitte*
AI & ML	*Rakesh Barik (Deloitte), Dhirendra Bhupati (Microsoft, USA)*	*NVidia, Deloitte, Microsoft, Google*
AR & VR	*Dhiraj Sinha (Capgemini)*	*Capgemini*

CoEs under the School of Electrical Sciences		
Centres of Excellence	**Industry Mentor (Alumnus)**	**Proposed Industry Partnership**
Power Generation	*Jaydev Nanda (Adani Power)*	*NTPC, OPGC, OHPC*
Insulation Integrity	*Ashesh Padhy (JSW)*	*NTPC, OPGC, OHPC*
Semiconductor & VLSI	*Anup Nayak (USA)*	*Qualcomm, Intel, Foxconn*
Power Electronics	*RP Sasmal (Ex-PGCIL), Sudhansu Kannungo (Schinder Electric)*	*ABB, Honeywell, Schinder Electric, Siemens*
Communication, 5G	*Pramod Panda (BSNL), Sasi Panda (CISCO, USA), Manoj Mohanty (JIO)*	*JIO, Siemens, Samsung, CISCO*
Drone Technology	*Om Prakash (IG Drones)*	*IG Drones*

CoEs under School of Mechanical Sciences		
Centres of Excellence	**Industry Mentor (Alumnus)**	**Proposed Industry Partnership**
Robotics & Mechatronics	*Naveen Gupta (Merc Benz)*	*L&T,ABB, Honeywell, Fanuc*
Welding Technology	*Rashmi Mohapatra (Teams)*	*Kempee*
Smart Manufacturing (Industry 4.0)	*Sibhasis Maity (Ex-CTTC)*	*L&T, Tata Steel*
Automotive & EV	*Tapan Sahu (Maruti Suzuki)*	*Maruti*
Space Technology	*Bijan Das (Ex-ISRO), Binay Das (DRDO ECS)*	*ISRO, DRDO*
Tribology, Vibration analysis	*Rakesh Das (Tata Auto Components), Sushant Panda (IIT Kharagpur)*	*SKF, Tata Technologies*

CoEs under the School of Infrastructure and Planning		
Centres of Excellence	**Industry Mentor (Alumnus)**	**Proposed Industry Partnership**
Rural Development & Sustainable Technology	*Sutapa Pati (Xavier School of Sustainability), Alok P*	*XIMB, Bhubaneswar*
Smart City Design	*JK Kapoor (Centre of Town Planning)*	*GoO, GoI, KPMG, EY, Deloitte, JUSCO*

Smart Irrigation	*Nanda Mohapatra (Ex-DoWR)*	*DoWR*
Sustainable Habitat Planning	*J K Kapoor*	*Housing and Urban Affairs, GOI*

CoEs under the School of Earth & Environmental Sciences		
Centres of Excellence	**Industry Mentor (Alumnus)**	**Proposed Industry Partnership**
Mineral Processing	*Ashesh Padhy (JSW)*	*JSW Steel, Roongta*
Steel Making	*SS Mohanty (Ex-SAIL)*	*Tata Steel, JSPL, Arcelor Mittal*
Aluminum Making	*SB Nayak (Ex-NALCO), JK Mohanty (Ex-Vedanta), Athar Shahab (Ex-Vedanta)*	*Vedanta, Aditya Aluminum, NALCO*
Disaster Management		*DoWR, NDRF*

CoEs under the School of Chemical & Bio Sciences		
Centres of Excellence	**Industry Mentor (Alumnus)**	**Proposed Industry Partnership**
Bio-Medical Engg		*VIMSAR*
Petroleum Engg.		*IOCL*

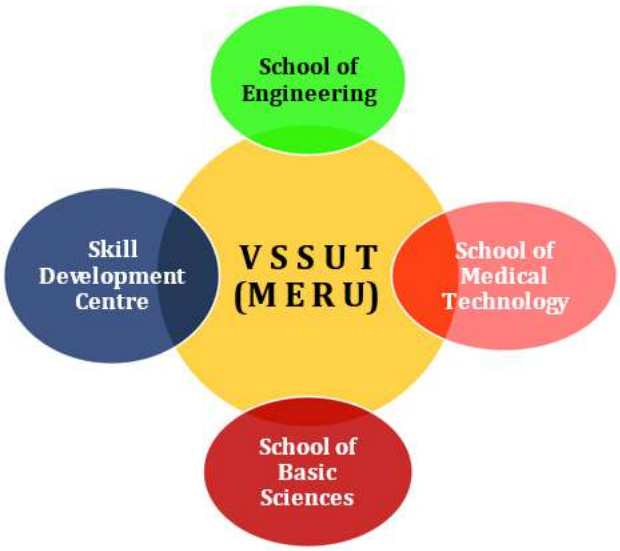
CoEs under the School of Humanities & Basic Science		
Centres of Excellence	**Industry Mentor (Alumnus)**	**Proposed Industry Partnership**
Nuclear Science		*BARC, NPC*
Tribal Welfare		
Environment		

c. **Skill Development Centre (in Immediate Term)**

VSSUT has a plan to establish a Skill Centre to train the unemployed Diploma/ITI/ Matriculates in Welding, Drone survey, Automobile, Transformer Repair and Design, Textile Fabric design, Medical Technology, and Apparel design to make them industry-ready and inculcate the spirit of entrepreneurship. Our own students and faculty will impart training to these employable youth of Odisha.

d. **Adding School of Medical Technology (in the Long term)**

After the Campus is expanded and the Engineering stream is consolidated, the next step would be to use the existing Academic building for opening a Medical College to roll out at least 1000 doctors a year. VSSUT School of Medical Technology will collaborate with VSSUT School of Engineering to produce cutting-edge products such as artificial limbs, artificial respirators, Robot-based based surgery, quick tests for Cancer, etc. At the same time, VSSUT School of Medical Science will derive synergy from nearby VIMSAR to produce cutting-edge research.



6.ADDITIONAL INTAKE VIS-À-VIS OPERATIONAL EXPENDITURE

a. **Graceful increase of Intake from 2022-28**

Academic Year	Sanctioned Intake	Increase in Intake	Cumulative Intake
2022-23	120	140	**140**
2023-24	120	140	**280**
2024-25	120	140	**420**
2025-26	120	140	**560**
2026-27	120	140	**700**
2027-28	140	160	**860**
2028-29	200	240	**1100**
TOTAL	**940**	**1100**	

b. **Operating Expenses of Faculty, Non-Teaching Staff, and Teaching Assistants (TAs)**

Due to an increase in intake of 1100 B.Tech. students, the faculty requirements will be 188 as per AICTE norms with STR 1:20. However, the faculty requirement will be optimized to 127 by adopting the following:

i. Large classrooms of size 150 with advanced ICT facilities
ii. Lab size to accommodate 60 students in one slot to optimize Technical Assistants
iii. Engage TAs with M.Tech. who will pursue Ph.D. and will be trained in Teaching- Learning to produce quality teachers of the future.

Accordingly, the OPEX is computed for the need of faculty, Non-teaching staff, and TAs as,

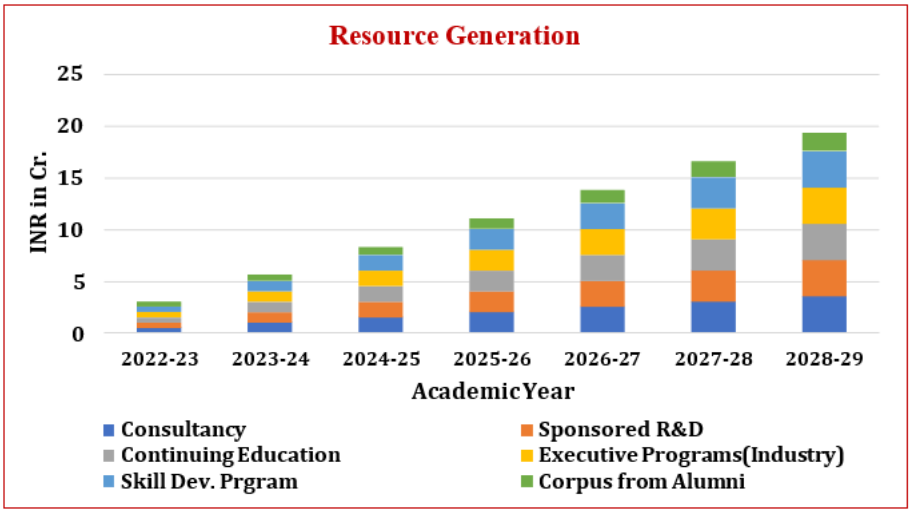
Academic Year	Incr Intake	Faculty 01:20	Faculty Added	Staff added	TAs M.Tech.	Faculty Salary(Cr)	Staff Salary	TAs salary(Cr)	Total OPEX(Cr)
2022-23	120	24	15	6	5	2.88	0.36	0.3	**3.54**
2023-24	120	24	30	12	10	5.76	0.72	0.6	**7.08**
2024-25	120	24	45	18	15	8.64	1.08	0.9	**10.62**
2025-26	120	24	60	24	20	11.52	1.44	1.2	**14.16**
2026-27	120	24	75	30	25	14.4	1.8	1.5	**17.70**
2027-28	140	28	95	36	30	18.24	2.16	1.8	**22.20**
2028-29	200	40	127	42	35	24.384	2.52	2.1	**29.00**

c. **Increase in Operating Expenses year-wise due to the successive increase in intake**

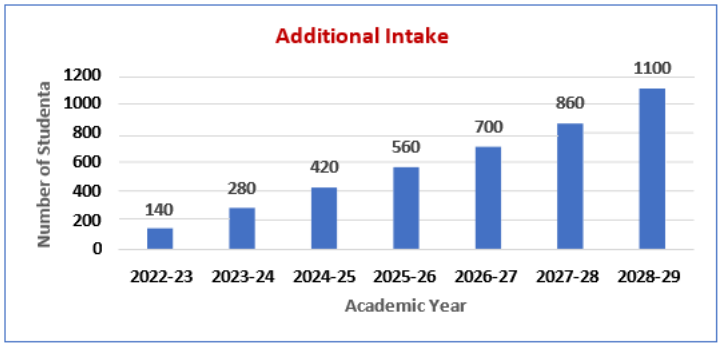
Head	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
House Keeping	0.24	0.48	0.72	0.96	1.2	1.44	1.75
Security Services	0.24	0.48	0.72	0.96	1.2	1.44	1.75
Gardening	0.24	0.48	0.72	0.96	1.2	1.44	1.75
Electricity Charges	0.24	0.48	0.72	0.96	1.2	1.44	1.75
Salary	3.54	7.08	10.62	14.16	17.70	22.20	29.00

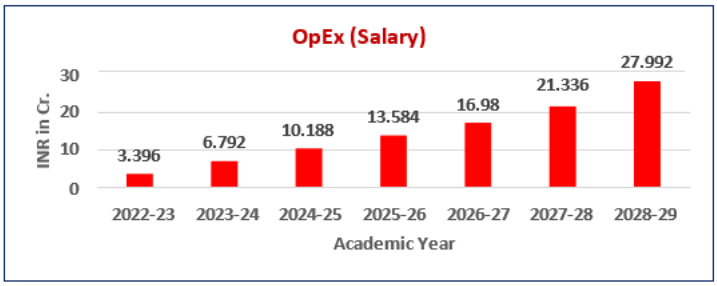
Total OPEX	**4.26**	**8.52**	**12.78**	**17.04**	**21.3**	**26.52**	**34.25**

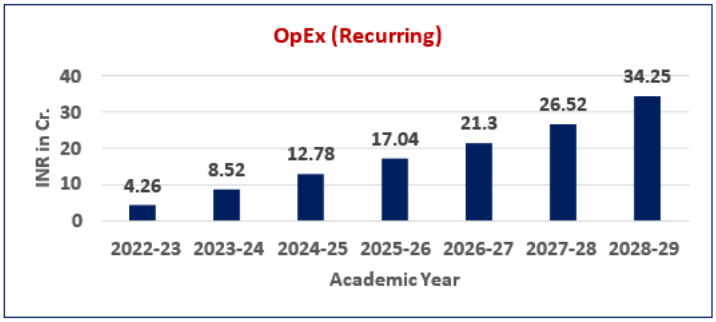
d. **Resource Generation**

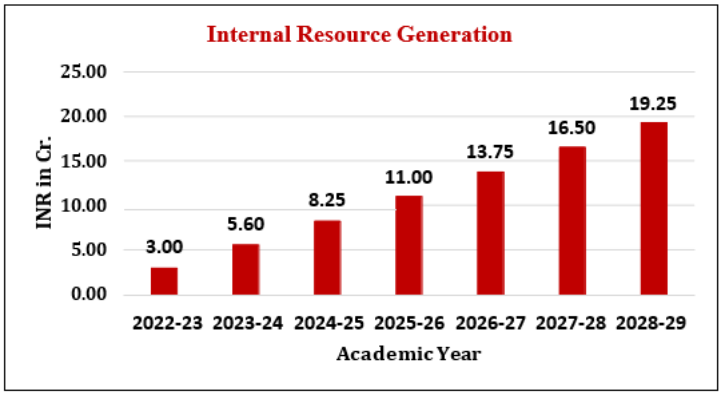


(e) Comparative Analysis









7.INFRASTRUCTURE REQUIREMENT

Presently, the university has 143 acres of land out of which the existing buildings (academic, residences, and hostels) are in 95 acres and 48 acres are available. Another 80 acres of land in continuum to the existing campus has been identified and requested for transfer. If the proposed 80 acres will be available, a total of 128 acres would be used for expansion as per IDP submitted.

The existing public road bifurcates the existing campus and is used by the students, staff, and faculty to commute to academic campus from hostels and residences respectively. During the peak academic hour, there always exists high risk of accidents as it happened many a times in the past, where students have sustained major injuries. With the implementation of the IDP, the student strength would be doubled and so also the risk. Hence, it is suggested to reroute the said public road outside VSSUT premises on the bank of the power channel. It may be further noted that SDA has planned a ring road, which would bisect the proposed extended campus of VSSUT (80 acres). Hence, it is also requested to realign the proposed ring road in the similar fashion to outside the proposed extended campus of VSSUT.

It will enable to have a monolithic and integrated campus like other institutes of repute, eliminating the public trespass and thoroughfare.

This layout envisions:

- There will be seven Schools out of which three Schools (Electrical Sciences, Earth & Environment Sciences, Infrastructure and Planning (partially)) would be operating from the existing Academic Building. This existing academic building will also operate as Skill Development Centre to impart skills to the Diplomas, ITIs, and unemployed youth. There will be a classroom complex and a laboratory complex.
- A new campus would be created in the proposed new land. It has been planned as a Heritage Campus. This will have 4 nos. of G + 4 buildings (provision for 5 buildings) of equal size and shape, the design is inspired by the Konark Wheel. The balance 4 Schools (Computer Science, Chemical and Bio Sciences, Mechanical, and Civil) will operate from this new campus. Each School will be headed by a Dean; a single building will encompass the classrooms, laboratories, Centre of Excellence, Conference Halls, Faculty chambers related to the one School.
- The Vice Chancellor's office would be in easy accessible location to all Schools, and will house the Registrar & his / her office, CFO & his / her office, Examination Section, Administrative Section, Establishment Section, etc.
- All other academic elements e.g. the Library complex, Training & Placement, Central Research Centre, Convention Centre, Workshop with state-of-art Fab Lab, etc will come around this Central Plaza.
- All other amenities such as additional hostels, Auditorium, Students Activity Centre, Food Plaza, Shopping Centre, Indoor Sports Stadium, Guest House etc. will come at suitable locations in proximity to the Central Plaza.
- The new high-rise G + 10 residences faculties, non-teaching staff, Club House etc. will come at the existing colony after demolishing the 60-years old and heavy- maintenance-prone residences.
- Adequate allocation shall be made to renovate old academic buildings, and old hostels, as well as revamping of Laboratory equipment.
- It is presumed that it would take 5 years to complete the above works. Once completed, the existing but renovated building shall be released to open a School of Medical Technology (50 students a year, a total strength of 250).
- Establishment of CoEs in schools

Sl#	Centres of Excellences	Sl#	Centres of Excellences
1	IoT	15	Automotive & EV
2	Block Chain	16	Space Technology & Rocketry
3	Artificial Intelligence & Machine Learning	17	Tribology & Vibration Analysis
4	Augmented Reality & Virtual Realty	18	Mineral testing
5	Quantum Computing	19	Steel Making
6	Power Generation	20	Aluminium Making
7	Insulation Diagnostic Testing	21	Disaster Management
8	Semiconductor & VLSI	22	Rural Development & Sustainable Technology
9	Power Electronics	23	Smart City Design
10	Communication, 5G	24	Smart irrigation
11	Drone Technology	25	Biomedical Engineering
12	Robotics & Mechatronics	26	Petroleum Engineering
13	Welding Technology	27	Nuclear Science
14	Manufacturing & Additive Technology		

The Land structure (Existing + Proposed)

The Proposed new Infrastructure

(a) Academic Schools

(b) Laboratory Complex

(c) Smart Classroom Complex

(d) Residential facility for faculty & Staff

Total estimated cost for this scheme is **INR 2000 Crores**. The detail cost estimates along with implementation plan is given in **ANNEXURE – 2**. It may be noted that a cost estimate of Rs 4000/- is used per sqft unless otherwise stated specifically.

ESTIMATED BUDGET

Sl#	Particulars	Area in sqft	Cost	Total
SCHOOLS, Admin, Classrooms & Lab Complex				**622**
1	School of Computer Engg + furniture+ Acs	5 x 35,000	84	
2	School of Mechanical Engg+ furniture+ Acs	5 x 35,000	84	
3	School of Chemical and Biosciences+ furniture+ Acs	5 x 35,000	84	
4	School of Humanities & Basic Sc.(first-year classes labs)	5 x 20,000	50	
5	School of Infrastructure and Planning+ furniture+ Acs+ Existing Bldg	5 x 25,000	60	
6	School of Earth and Environmental Sc.+ Furniture+ Acs	-	10	
7	School of Electrical Engg+ furniture+ Acs	-	14	
8	Office of VC (+ Admn, Fin. Exam)	5 x 25,000	60	
9	Classroom Complex+ furniture+ Acs	5 x 40,000	88	
10	Laboratory Complex+ furniture+ Acs	5 x 40,000	88	
RESIDENCES Faculty & Staff				**400**
1	Faculty Residence: 500 qtrs: 1400 Sqft	7,00,000	280	
2	Non-teaching Staff: 250 qtrs: 1200 Sqft	3,00,000	120	
HOSTELS for 7100 students				**575**
1	1000 Capacity 7 Hostels @ 80 Cr per Hostel	-	560	

2	50-room married accommodation	50x450	10.4	
3	50-room Foreign students	50x200	4.6	
CAPEX for Academic Elements				**153**
1	Fab Lab and state-of-art Workshop (CNC m/c, Laser cutters, 3D printers, lathe, drilling)	50,000	20	
2	Library Complex, 2000 seating	40,000	16	
3	Establishment of **CoEs (**Equipment, Software)		70	
4	Training & Placement Complex, Online Exam – 1000, 10 rooms for Interview, Gallery – 500	30,000	12	
5	Central Research Facility (CRF)	25,000	10	
6	Convention Centre, Gallery halls – 2000, 1000	60,000	25	
CAPEX for Co-Curricular and Extra-Curricular Amenities				**134**
1	Auditorium (6000 Students), @10,000/-	30,000	30	
2	Students Activity Centre	60,000	24	
3	Food Complex Cum Shopping Centre (5x200 Seats)	25,000	10	
4	Guest House with 100 rooms (20 suits)	50,000	20	
5	Indoor and outdoor Sports facilities (5000 Students) @5000/-	1,00,000	50	
RENOVATION of old buildings and laboratories:				**56**
1	Repair of 6 old hostels (65 yrs old)		6	
2	Repair of the academic building		25	
3	Upgradation of aged outdated Lab equipment		25	
CAPEX for additional Components:				**60**
1	Land Grading, Roads, Drains, Horticulture	-	50	
2	Dedicated 33 KV Power Supply	-	10	
	Grand Total		**2000**	**2000**

8.CONCLUDING REMARKS

The undiluted teaching ethics, great learning culture, alumni performance, and competitive attitude of the students have earned VSSUT (formerly UCE) its place among the ivy club of IITs, NITs, IISc, or IIEST Shibpur – despite the fact that it is a State-funded institution. In Odisha, it is the only Government Engineering Institute that has a NIRF rank of 111 (only Govt institute behind NIT Rourkela and IIT Bhubaneswar).

When State is poised for unprecedented growth in industry and economy under the leadership of our visionary Chief Minister, VSSUT aspires to play a key role in this growth story by becoming a multi-disciplinary University (MERU). It envisions to be a **Factory** not only for Engineers but also to become a **Skill Development Centre** for ITIs & Diplomas of the zone for improvement in their employability and entrepreneurship. Further, it wants to become a **Diagnostic Centre for** the Industries, a breeding ground for **Low-Cost Revolutionary** products, and a **Nodal Centre** for developing schemes for Rural and Urban Odisha.

ANNEXURE-

Programs Offered at VSSUT at present

A. **4 Years B.Tech. Programme (Full Time) (All AICTE Approved)**

SL#	Name of the branch	Year of Starting	Sanctioned Intake				
			Intake	GIN*	TFW	LE***	Total
1.	Civil Engineering A	1956	90+30*	02	06	9+3*	140
2.	Chemical Engineering	2014	60	-	03	6	69
3.	Computer Science & Engineering A	1994	30+30*	01	03	3+3*	69
4.	Electrical Engineering A	1956	120	02	06	12	140
5.	Electrical & Electronics Engineering	2010	30+30*	-	03	3+3*	69

6.	Electronics & Telecomm. Engineering A	1972	120	02	06	12	140
7.	Information Technology A	2003	60*	-	03	6	69
8.	Mechanical Engineering A	1956	120	03	06	12	141
9.	Metallurgical & Materials Engineering	2013	60	-	03	6	69
10.	Production Engineering A	1996	30+30*	-	03	3+3*	69
TOTAL			**840**	**10**	**42**	**84**	**976**

(Self-sustaining programme **GIN – Govt. of India Nominee*

**** LE – Lateral Entry of Diploma holders in 2nd year. A NBA Accredited TFW – Tuition Fee Waiver)*

B. **5 Years B.Arch. Programme (Full Time)**

SL#	Name of the branch	Year of Starting	Sanctioned Intake				
			Intake	GIN*	TFW	LE***	Total
1.	Architecture	2013	20	-	-	-	20

C. **5 Years Integrated UG & PG Dual Degree Programme (Dropped wef 2022)**

SL#	Department	Name of the Specialisation	Year of Starting	Sanctioned Intake
1.	Civil Engineering	B.Tech. in Civil Engg & M.Tech. in Structural Engg.	2015	18
2.	Electrical Engg.	B.Tech. in Electrical Engg. & M.Tech. in Power System Engg.	2015	18
TOTAL				**36**

D. **2 years M.Sc. Programme (Full Time)**

SL#	Name of the Course	Specialisation	Year of Starting	Sanctioned Intake
1.	M.Sc. (Physics)	Applied Physics	2010	18
2.	M.Sc. (Chemistry)	Industrial Chemistry/ Organic Chemistry	2010	36
3.	M.Sc. (Mathematics)	Applied Mathematics	2011	18
TOTAL				**72**

E. **5 Years Integrated M.Sc. Programme (Full Time)**

SL#	Name of the Specialisation	Year of Starting	Sanctioned Intake
1.	Chemistry	2013	18
2.	Physics	2014	18
3.	Mathematics	2015	18
TOTAL			**54**

F. **3 Years MCA Programme (Full Time)**

SL#	Name of the Specialisation	Year of Starting	Sanctioned Intake
1.	Master in Computer Applications	1993	30

G. **2 Years M.TECH. Programmes (Full Time)**

SL #	Department	Name of the Specialisation	Year of Starting	Sanctioned Intake
1.	Civil Engineering	Water Resources Engg A *	1969	18
		Structural Engineering A *	1969	18
		Transportation Engineering *	1975	18
		Geo-technical Engineering *	2012	18
		Environmental Science & Engineering	2012	18

2.	Electrical Engg.	Power System Engineering A *	1969	18
		Power Electronics Control & Drives *	2011	18
		Control & Instrumentation *	2015	18
3.	Mechanical Engg.	Machine Design & Analysis A *	1972	18
		Heat Power Engineering *	1972	18
		Production Engineering A *	1972	18
4.	Electronics & Telecomm. Engg.	Communication Systems A *	1995	18
		VLSI Signal Processing *	2012	18
		Microwave Engineering	2015	18
5.	Computer Science & Engg.	Computer Science & Engg. A *	2008	18
6.	Production Engg.	Manufacturing Systems Engineering *	2008	18
		Robotics & CAD-CAM*	2015	18
7	Information Technology	Information & Communication Technology *	2013	18
		Computer & Information Technology*	2018	18
8	Metallurgical & Materials Engg.	Industrial Metallurgy	2020	18
*** AICTE approved**				**360**
		TOTAL		

H. **Ph. D. Programme**

SL#	Branch	Year of Starting
1.	Architecture	2018
2.	Chemical Engineering	2017
3.	Chemistry	2010
4.	Civil Engineering	2010
5.	Computer Application	2016
6.	Computer Science & Engineering	2010
7.	Electrical Engineering / EEE	2010
8.	Electronics & Telecomm. Engineering	2010
9.	Humanities	2015
10.	Information Technology	2015
11.	Mathematics	2010
12.	Mechanical Engineering	2010
13.	Metallurgy & Materials Engineering	2015
14.	Physics	2010
15.	Production Engineering	2010

I. **Executive B. Tech. Programme (Only One Batch)**

SL#	Name of the Executive B.Tech. Programme	Name of the Departments	Year of Starting	No. of Student Enrolled
1.	Power Engineering	Electrical Engineering Mechanical Engineering	2017	15
2.	Manufacturing and Process Engineering	Metallurgy & Materials Engineering Production Engineering	2017	15
		TOTAL		**30**

ANNEXURE –

Detail Expansion Plan

A. **SCHOOLS, Admin Bldg, Classroom Complex, Laboratory Complex: 622 Crores**

Each schools will have Gallery Hall Classrooms, Laboratory Rooms, Centres of Excellence, Chambers for Professors & Lab Equipment, Central AC, furniture, gadgets like computer, scanner, printer.

Sl#	School	Size	Area in ft2	Cost per ft2	Cost INR Cr	Lab/ AC / Furniture INR Cr
1	School of Computer Engg	G + 4	5 x 35,000	4000	70	14
2	School of Mechanical Engg	G + 4	5 x 35,000	4000	70	14
3	School of Chemical and Biosciences	G + 4	5 x 35,000	4000	70	14
4	School of Infrastructure and Planning	G + 4 + Existing Bldg.	5x25,000	4000	50	10
5	School of Humanities & Basic Science(first-year classes, labs)	G + 4	5x20,000	4000	40	10
6	Office of VC (+ Admn, Fin. Exam)	G + 4	5 x 25,000	4000	50	10
7	Classroom Complex	G + 4	5 x 40,000	4000	80	08
8	Laboratory Complex	G + 4	5 x 40,000	4000	80	08
9	School of Earth and Environmental Sc.	Existing Bldg.	-	-	-	10
10	School of Electrical Engg	Existing Bldg.	-	-	-	14
	Total		**-**		**510**	**112**

B. **RESIDENCES for Faculty & Staff : 400 Crores**

Sl#	**Item**	**Nos of quarters**	**Ft2 per room**	**Total Area**	**Cost per ft2**	**Cost in INR Cr**
1	Faculties	500	1400	700,000	4000	280
2	Non-teaching Staff	250	1200	300,000	4000	120
	Total					**400**

C. **Hostel for 7100 students** (hostel rooms exist for 3300 students): **575 Crores**

Sl#	**School**	**Nos of rooms**	**Ft2 per room**	**Total Area(*)**	**Cost per ft2**	**Cost in INR Cr**
1	1000 Capacity 7 Hostels @ 80 Cr per Hostel	-	-	-	-	560
2	50-room married accommodation	50	450	25,875	4000	10.4
3	50-room Foreign students	50	200	11,500	4000	4.6
	Total					**575**

Considering 15% additional space for common use, e.g, Common Room, TV room, Washrooms

D. **CAPEX for Academic Elements: 153 Crores**

Sl#	**Item**	**Capacity**	**Plinth area ft2**	**Total INR Cr**
1	Fab Lab and state-of-art Workshop (CNC m/c, Laser cutters, 3D printers, lathe, drilling)		40,000	20

2	Library Complex	2000 seating	40,000	16
3	Establishment of **CoEs** (Equipment, Software)			70
4	Training & Placement Complex	Online Exam – 1000, 10 rooms for Interview, Gallery – 500	25,000	12
5	Central Research Facility (CRF)		25,000	10
6	Convention Centre	Gallery halls – 2000, 1000	50,000	25
	Total			**153**

E. **CAPEX for Co-Curricular and Extra-Curricular Amenities: Rs. 134 Crores**

Sl	**Item**	**Capacity**	**Plinth area ft2**	**Total INR Cr**
1	Auditorium	6000	30,000 @Rs. 10000	30
2	Students Activity Centre		60,000	24
3	Food Complex Cum Shopping Centre	5x200 seat	25,000	10
4	Guest House	100 rooms 20 suits	50,000	20
5	Indoor and outdoor Sports facilities	5000	100,000 @5000	50
	Total			**134**

F. **Renovation of old buildings and laboratories: Rs. 56 Crores**

Sl	**Particulars**	**Estimate in Rs Cr**
1	Repair of 6 old hostels (65 yrs old)	6
2	Repair of the academic building	25
3	Upgradation of aged outdated Lab equipment	25
	Total	**56**

G. **CAPEX for additional Components: Rs. 60 Crores**

Sl#	Particulars	Cost in Crore
1	Land Grading, Roads, Drains, Horticulture	50
2	Dedicated 33 KV Power Supply	10
	Total	**60**

Implementation Plan

A. **PHASE I:** (July 2022-December 2025)

Sl#	**Particulars**	**Cost in (Crs)**
1	School of Computer Engg	84
2	School of Mechanical Engg	84
3	School of Chemical and Biosciences	84
4	School of Infrastructure and Planning	60
5	School of Humanities and Social Sciences	50
6	Office of VC (+ Admn, Fin. Exam)	60
7	Classroom Complex	88
8	Laboratory Complex	88

9	Residences for teaching (400) and non-teaching staff (200)	320
10	Hostels and dining space	475
11	Renovation of old Hostels, Academic Infrastructure, and Equipment	48
12	Roads, land Grading, Dedicated Power Supply	55
	TOTAL	**1496**

After Phase I construction, 740 UG seats will be increased in first-year admission in academic session 2026-27. Lateral Entry (LE) seats will be increased by 120 seats in academic session 2027-28.

B. **PHASE II:** (July 2025-December 2027)

Sl#	**Particulars**	**Cost in (Crs)**
1	Setting up of COEs (Equipment)	60
2	CAPEX for Academic Elements	23
3	Residential houses for teaching (100) and non-teaching (50) staff	80
4	Hostels and dining space	100
5	School of Electrical Engg (Furniture + Equipment etc.)	14
6	School of Earth & Environmental Sc. (Furniture + Equipment etc.)	10
5	CAPEX for Co-Curricular and Extra Curricular Amenities	64
	TOTAL	**351**

After phase II construction, 400 seats will be increased in academic session 2028-29.

C. **PHASE III:** (July 2027-July 2029)

Sl#	**Particulars**	**Cost in (Crs)**
1	Setting up of COEs (Equipment)	10
2	CAPEX for Co-Curricular and Extra Curricular Amenities	70
3	CAPEX for Academic Elements	60
4	Renovation of Old Bldgs and laboratories	08
5	Roads, land Grading, Dedicated Power Supply	05
	Total	**153**

The Institutional Development Plan (IDP), having received the blessing of the Honorable Chief Minister of Odisha, is now poised for action. In the initial phase, the Industrial Development Corporation of Odisha (IDCO) has set forth a tender for infrastructure enhancement. A vigilant committee oversees the execution of this plan. Additionally, the Department of Skill Development and Technical Education, as the parent entity within the Odisha government, conducts monthly reviews to ensure the successful realization of this transformative endeavor.

10.1.3 Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies (10)

Institute Marks : 10.(

List of Members of the Board of Management of VSSUT, Burla

Sl. No.	Name & address	Position	Nature of Membership		
1	Prof. Bansidhar Majhi, Vice Chancellor, VSSUT, Burla	Chairman	Ex-officio		
2	Smt. Usha Padhee, IAS, Principal Secretary to Government of Odisha, Skilled Development & Technical Education Department, Government of Odisha, Bhubaneswar	Member	-do-		
3	The Director, Technical Education & Training, Odisha, Killa Maidan, Buxibazar, Cuttack - 1	Member	-do-		
4	Additional Secretary to Govt. (ES-II) Finance Department, Govt. of Odisha, BBSR.	Member	-do-		
5	Hon'ble Vice-Chancellor, Biju Pattnaik University of Technology, Odisha, Rourkela	Member	-do-		
6	Shri Pradeep Dang, OAS (S) Registrar, VSSUT,Burla	Convenor-Cum-Secretary	-do-		
7	Prof. Chintamani Mahapatra, Centre for Canadian, US& Latin American Studies School of International Studies, Jawaharlal Nehru University, New Delhi	Member	Nominee of UGC		
8	Dr. Damodar Acharya, DN Oxy Park, Tower-II, 16th Floor, Flat No.2173, Dumduma, Bhubaneswar - 751019	Member	Nominee of AICTE		
9	Prof. Debadutta Mishra , Professor in Prod. Engg.,VSSUT, Burla.	Member	Nominee of VC (Seniority-cum-rotation basis among Professors)		

Sl. No.	Name & address	Position	Nature of Membership		
10	Prof. Sidharth Panda, Professor of Electrical Engg. VSSUT, Burla	Member	Academic Council Nominee		
11	Prof. Sanjay Kumar Patro, Professor of Civil Engg. VSSUT, Burla	Member	Academic Council Nominee		
12	Prof. S Karmalkar, Director, IIT, Bhubaneswar	Member	Chancellors Nominee(Reputed Institute)		
13	Er. Ashesh Padhy, VP & Head-Project, JSW Paradip Steel Project.	Member	Chancellors Nominee(Alumni)		
14	Prof. Sukumar Mishra, Professor in Electrical Engg., IIT, Delhi	Member	Chancellors Nominee(Alumni)		
15	Shri Sarada Prasad Nayak, M.L.A, At-C/136, Sector-1, P.S. Sector-1	Member	Nominee of Odisha Legislative Assembly		
16	Shri Sudam Marndi, M.L.A, Bija7yaramchandrapur, Ward No. 17., Bhanjpur, Dist- Mayurbhanaj	Member	Nominee of Odisha Legislative Assembly		

Member of Academic Council		
Ex-officio member as per clause No.21-2a (i) of VSSUT Act 2008		
1.	Prof. Bansidhar Majhi, Vice-Chancellor (http://vssut.ac.in/vice-chancellor-s-message.php)	Chairman
Ex-officio members as per clause No.21-2a (ii) of VSSUT Act 2008		
2	Dean, Academic Affairs	Member Secretary
3	Dean, PGS&R	Member
4	Dean, SRIC	Member
5	Dean, CDCE	Member
6	Dean Students Welfare	Member
7	Dean, Faculty & Planning	Member
8	Dean, Alumni & International Relations	Member
9	Dean, School of Chemical & Bio-Sciences	Member
10	Dean, School of Computer Sciences	Member
11	Dean, School of Electrical Science	Member
12	Dean, School of Humanities & Basic Science	Member
13	Dean, School of Infrastructure & Planning	Member
14	Dean, School of Mechanical Sciences	Member
15	HOD, Chemical Engineering	Member

16	HOD, Civil Engineering	Member
17	HOD, Computer Sc. & Engineering	Member
18	HOD, Electrical Engineering	Member
19	HOD, Electrical & Electronics Engineering	Member
20	HOD, Electronics & TC Engineering	Member
21	HOD, Information Technology	Member
22	HOD, Mechanical Engineering	Member
23	HOD, Metallurgical & Materials Engg.	Member
24	HOD, Production Engineering	Member
25	HOD, Architecture	Member
26	HOD, Chemistry	Member
27	HOD, Mathematics	Member
28	HOD, Physics	Member
29	HOD, Humanities	Member
30	HOD, Computer Application	Member
31	Controller of Examination	Member
Ex-officio members as per clause No.21-2a (iii) of VSSUT Act 2008		
32	Prof. P.C. Swain, Professor, Civil Engg.	Member
33	Prof. B. B. Pati, Professor, Electrical Engg.	Member
34	Prof. R. K. Sahu, Professor, Electrical & Electronics Engg.	Member
35	Prof. Sanjay Agrawal, Professor, Electronics & TC Engg.	Member
36	Prof. H.S. Behera,Professor, Information Technology	Member
37	Prof. P.R.Dash, Professor Mechanical Engg.	Member
38	Prof. S.K. Badjena, Professor, Metallurgical & Materials Engg.	Member
39	Prof. D. Mishra, Professor, Production Engg.	Member
40	Prof. P.K. Kar, Professor, Chemistry	Member
41	Prof. S. K. Paikray, Professor,Mathematics	Member
42	Prof. Ganeswar Nath, Professor, Physics	Member
Ex-officio members as per clause No.21-2a (iv) of VSSUT Act 2008		
43	Dr. Debabrata Giri, Associate Professsor, Civil Engg.	Member

44	Dr. Kishore Kumar Sahu, Assistant Professor, Information Technology	Member
45	Sri Sanjib Kumar Nayak, Assistant Professor, Computer Application	Member
Members as per clause No.21-2b (i), (ii), (iii) of VSSUT Act 2008		
46	Prof. Niord Chandra Sahoo, Professor of Electrical Sciences, IIT, Bhubaneswar	Member
47	Prof. Kishanjit Kumar Khatua, Professor of Civil Engg., NIT, Rourkela	Member
48	Prof. Tushar Kumar Nath, Professor of Civil Engg., IGIT, Sarang	Member
Members as per clause No.21-2b (iv) of VSSUT Act 2008		
49	Mr. Saroj Kumar Panda, Regd. No. 2002090001, B.Tech, Mechanical Engg.	Member
50	Mr. Suraj Kumar Pal, Regd. No. 2002070039, B.Tech, Electronics & TC Engg.	Member
51	Ms. Swarnaprabha Dehury, Regd. No. 2205100006, M.Tech, MME	Member
52	Mr. Tanmaya Kumar, Regd. No. 2002090138, B.Tech, Mechanical Engg.	Member
External academic council members		
53	Prof. N. C. sahoo, Prof, Electrical sciences, IIT BBSR	External Member
54	Prof. K. K. Khatua, Prof Civil Engg, NIT RKL	External Member
55	Prof. T. K. Nath, Prof Civil engg, IGIT Sarang	External Member

Frequency of the meetings: Twice in a year and special meetings under obligations.

The information related to the frequency of the meetings; and attendance therein, minutes of the meetings and action-taken reports are available at https://www.vssut.ac.in/proceedings.php (https://www.vssut.ac.in/proceedings.php)

The published rules including service rules, policies and procedures available and disseminated to all stake holders and public at

VSSUT Act: https://vssut.ac.in/doc/VSSUT_ACT.pdf (https://vssut.ac.in/doc/VSSUT_ACT.pdf)

VSSUT Statute: https://vssut.ac.in/doc/VSSUT-Statute.pdf (https://vssut.ac.in/doc/VSSUT-Statute.pdf)

10.1.4 Decentralization in working and grievance redressal mechanism (5) Institute Marks : 5.0

ADMINISTRATION AT VSSUT, BURLA

01.	The Vice-Chancellor	Prof. Banshidhar Majhi (https://www.vssut.ac.in/administration.php)
02.	The Registrar	Shri Pradeep Dang
03.	The Comptroller of Finance	Sri Tularam Kalet, OFS-1 (SB)
04.	The Controller of Examinations	Dr. Achyut Kumar Panda (https://vssut.ac.in/faculty-profile.php?furl=achyut-kumar-panda)
05.	The Librarian	Dr. (Mrs.) Archita Nanda
06.	The Dean of the Students' Welfare	Prof. Sanjaya Kumar Patro (https://www.vssut.ac.in/faculty-profile.php?furl=sanjaya-kumar-patro-arch)
07.	The Dean, Academic Affairs	Prof. Sanjay Agrawal (http://www.vssut.ac.in/faculty-profile.php?furl=sanjay-agrawal)
08.	The Dean, Post-Graduate Studies & Research	Prof. Himanshu Sekhar Behera (https://vssut.ac.in/faculty-profile.php?furl=himanshu-sekhar-behera)
09.	The Dean, Faculty & Planning	Prof. Ramakanta Panigrahi
10.	The Dean, Alumni & International Relations	Dr. Anil Kumar Kar (http://www.vssut.ac.in/faculty-profile.php?furl=anil-kumar-kar)
11.	The Dean, Centre for Distance and Continuing Education	Prof. Saroj Kumar Sarangi (https://www.vssut.ac.in/administration.php)
12.	The Dean, Sponsored Research & Industrial Consultancy	Prof. Sukalyan Dash (https://www.vssut.ac.in/administration.php)
13.	HOS, School of Computer Sciences	Prof. Himanshu Sekhar Behera (https://vssut.ac.in/faculty-profile.php?furl=himanshu-sekhar-behera)
14.	HOS, School of Infrastructure & Planning	Prof. Sudhanshu Sekhar Das
15.	HOS, School of Mechanical Sciences	Prof. Debadutta Mishra
16.	HOS, School of Electrical Science	Prof. Sidhartha Panda
17.	HOS, School of Humanities & Basic Science	Prof. Jayaprakash Panda
18.	HOS, School of Chemical & Bio-Sciences	Prof. Jayadev Rana (http://www.vssut.ac.in/faculty-profile.php?furl=jaydev-rana)
19.	Medical Officer (on deputation from Government of Odisha)	Vacant

20.	Maintenance Engineer	Prof. Ramkrishna Dandapat (http://vssut.ac.in/faculty-profile.php?furl=ramkrishna-dandapat)
21.	Workshop Superintendent	Dr. Rabindra Behera
22.	Physical Training Instructor	Vacant
23.	Director, IQAC	Prof. Amarnath Nayak (https://www.vssut.ac.in/administration.php)
24.	Director, TBI, (VSSUT - ASSIST)	Prof. Debadutta Mishra (http://www.vssut.ac.in/faculty-profile.php?furl=debadutta-mishra)
25.	Coordinator , TEQIP - III	Prof. Amar Nath Nayak (http://vssut.ac.in/faculty-profile.php?furl=amar-nath-nayak)
26.	H.O.D., Architecture	Dr. Bharati Mohapatra (http://vssut.ac.in/faculty-profile.php?furl=bharati-mohapatra)
27.	H.O.D., Chemical Engineering	Dr. Pankaj Charan Jena (http://vssut.ac.in/faculty-profile.php?furl=pankaj-charan-jena)
28.	H.O.D., Chemistry	Dr. Trinath Biswal (https://vssut.ac.in/faculty-profile.php?furl=trinath-biswal)
29.	H.O.D., Civil Engineering	Dr. Rakesh Roshan Dash (https://vssut.ac.in/faculty-profile.php?furl=rakesh-roshan-dash)
30.	H.O.D, Computer Application	Dr. Satyabrata Das (https://vssut.ac.in/faculty-profile.php?furl=satyabrata-das)
31.	H.O.D., Computer Sc. & Engg.	Dr. Suvasini Panigrahi (https://vssut.ac.in/faculty-profile.php?furl=suvasini-panigrahi)
32.	H.O.D., Electrical Engineering	Dr. Papia Ray (http://www.vssut.ac.in/faculty-profile.php?furl=papia-ray)
33.	H.O.D, Electrical & Electronics Engineering	Dr. Santi Behera (https://vssut.ac.in/faculty-profile.php?furl=santi-behera-el)
34.	H.O.D., Electronics & TC Engineering	Prof. Harish Kumar Sahoo (http://vssut.ac.in/faculty-profile.php?furl=harish-kumar-sahoo)
35.	H.O.D., Humanities	Dr. Jayaprakash Paramguru (http://vssut.ac.in/faculty-profile.php?furl=jayaprakash-paramaguru)
36.	H.O.D., Information Technology	Dr. Pradip Kumar Sahu (http://vssut.ac.in/faculty-profile.php?furl=pradip-kumar-sahu)
37.	H.O.D., Mathematics	Dr. Mahendra Kumar Jena (http://vssut.ac.in/faculty-profile.php?furl=mahendra-kumar-jena)
38.	H.O.D., Mechanical Engineering	Dr. Sumanta Panda (http://vssut.ac.in/faculty-profile.php?furl=sumanta-k-panda)
39.	H.O.D., Metallurgy & Materials Engineering	Dr. Sushant Kumar Badjena (http://vssut.ac.in/faculty-profile.php?furl=sushant-kumar-badjena)

40.	H.O.D., Physics	Dr. Ganeswar Nath (https://vssut.ac.in/faculty-profile.php?furl=ganeswar-nath)
41.	H.O.D., Production Engineering	Dr. Arun Kumar Rout (http://vssut.ac.in/faculty-profile.php?furl=arun-kumar-rout)
42.	PIC, Training & Placement	Prof. Prasanta Nanda
43.	PIC, Alumni Relation	Dr. Sanjay Agrawal (http://www.vssut.ac.in/faculty-profile.php?furl=sanjay-agrawal)
44.	PIC, Canteen Committee	Prof. Trinath Biswal (https://vssut.ac.in/faculty-profile.php?furl=trinath-biswal)
45.	PIC, Central Computing Facility	Prof. Arunanshu Mahapatro (http://www.vssut.ac.in/faculty-profile.php?furl=arunanshu-mahapatro)
46.	Coordinator, Central Research Facility	Dr. Saroj Ku. Sarangi (https://www.vssut.ac.in/faculty-profile.php?furl=saroj-kumar-sarangi)
47.	PIC, Central Library	Dr. Sunanda Kumari Patri (https://www.vssut.ac.in/administration.php)
48.	PIC, Central Stores & Purchase	Dr. S.K. Paikray (https://www.vssut.ac.in/administration.php)
49.	PIC, Central Transport Facility	Dr. Rabindra Behera
50.	PIC, Civil Maintenance	Dr. Debabrata Giri (https://www.vssut.ac.in/faculty-profile.php?furl=debabrata-giri)
51.	PIC, e-Abhijoga & MO SARKAR	Prof. Manoranjan Pradhan (http://www.vssut.ac.in/faculty-profile.php?furl=manoranjan-pradhan)
52.	PIC, Electrical Maintenance	Dr. Deepak Kumar Lal (http://vssut.ac.in/faculty-profile.php?furl=deepak-kumar-lal)
53.	PIC, Examinations	Dr. Kishore Kumar Sahu (https://www.vssut.ac.in/administration.php)
54.	PIC, Guest House	Prof. Nilamani Bhoi (http://vssut.ac.in/faculty-profile.php?furl=nilamani-bhoi)
55.	PIC, House Allotment	Prof. Sudhanshu Sekhar Das (https://vssut.ac.in/faculty-profile.php?furl=sudhanshu-sekhar-das)
56.	PIC, Automation	Dr. G.R. Shial (https://www.vssut.ac.in/administration.php)
57.	PIC, Convocation	Prof. S.S. Das (https://www.vssut.ac.in/administration.php)
58.	PIC, CRF	Dr. T.R. Mohapatra (https://www.vssut.ac.in/administration.php)
59.	PIC, Horticulture	Prof. Pandaba Patro (https://vssut.ac.in/faculty-profile.php?furl=pandaba-patro)

60.	PIC, Industry-Institute Interaction	Prof. A.N. Nayak (https://www.vssut.ac.in/administration.php)
61.	PIC, Innovation	Prof. D. Mishra (https://www.vssut.ac.in/administration.php)
62.	INO, Scholarship	Dr. Sumitra Kisan (https://www.vssut.ac.in/administration.php)
63.	PIC, Lawns & Gardens	Dr. Lipika Parida (https://www.vssut.ac.in/administration.php)
64.	PIC, Land Settelment	Prof. S. Agrawal (https://www.vssut.ac.in/administration.php)
65.	PIC, Nua-O Scheme for skilling	Dr. Sasmita Behera (https://www.vssut.ac.in/administration.php)
66.	PIC, Security	Dr. G.R. Biswal (https://www.vssut.ac.in/administration.php)
67.	PIC, Public Relations	Prof. Priyaranjan Mohapatra (https://www.vssut.ac.in/faculty-profile.php?furl=priyaranjan-mohapatra)
68.	PIC, Telephones	Dr. Pankaj Charan Jena
69.	PIC, Time Table & IPR Cell	Prof. Sarojrani Pattnaik (https://vssut.ac.in/faculty-profile.php?furl=sarojrani-pattnaik)
70.	PIC, University Seminar	Prof. Sasmita Acharya (https://vssut.ac.in/faculty-profile.php?furl=sasmita-acharya)
71.	Assistant Controller, Examination	Mr. Suresh Srichandan (https://www.vssut.ac.in/administration.php)
72.	Assistant Controller Examination & PIC, NAD	Dr. Bibhuti Prasad Sahoo (https://www.vssut.ac.in/administration.php)
73.	Assistant Controller Examination & PIO, RTI	Dr. D.C. Rao (https://www.vssut.ac.in/administration.php)
74.	CTO,NCC	Dr. Aditya Kumar Hota (https://www.vssut.ac.in/administration.php)
75.	Head, Innovation Center	Prof. Debadutta Mishra (http://www.vssut.ac.in/faculty-profile.php?furl=debadutta-mishra)
76.	Chairman, Estate Committee	Prof. Sudhanshu Sekhar Das (https://vssut.ac.in/faculty-profile.php?furl=sudhanshu-sekhar-das)
77.	Chairperson, ICC	Prof. Sucheta Panda (http://www.vssut.ac.in/faculty-profile.php?furl=sucheta-panda)
78.	First Appellate Authority, RTI	Prof. S.S. Das (https://www.vssut.ac.in/administration.php)
79.	PIO, RTI Cell	Dr. Ashok Kumar Sahoo (http://vssut.ac.in/faculty-profile.php?furl=ashok-kumar-sahoo)

80.	QIP (Govt. of India)	Prof. Piyush Ranjan Das (http://www.vssut.ac.in/faculty-profile.php?furl=piyush-ranjan-das)
81.	Faculty Branch Counselor, IEEE Student Chapter	Dr. Harish Kumar Sahoo (http://www.vssut.ac.in/faculty-profile.php?furl=harish-kumar-sahoo)
82.	Faculty Advisor, ASME Student Chapter	Dr. Kiran Kumar Ekka (http://www.vssut.ac.in/faculty-profile.php?furl=kiran-kumar-ekka)
83.	ISTE Coordinator	Mr. Suvendu Narayan Mishra (http://www.vssut.ac.in/faculty-profile.php?furl=suvendu-narayan-mishra)
84.	CTO, National Cadet Corps	Dr. Birendra Kumar Barik (http://www.vssut.ac.in/faculty-profile.php?furl=birendra-kumar-barik)
85.	PIC, Mo College Abhijan & Coordinator NSS	Prof. A.K. Kar (https://www.vssut.ac.in/administration.php)
86.	NPS Coordinator	Mr. Suvendu Narayan Mishra (http://www.vssut.ac.in/faculty-profile.php?furl=suvendu-narayan-mishra)
87.	Vice President, Students' Cultural Society	Dr. Anil Kumar Kar (http://www.vssut.ac.in/faculty-profile.php?furl=anil-kumar-kar)
88.	Vice President, Students' Sports Society	Dr. Manas Ranjan Senapati (http://www.vssut.ac.in/faculty-profile.php?furl=manas-ranjan-senapati)
89.	Vice President, Students' Technical Society	Dr. Harish Kumar Sahoo (http://www.vssut.ac.in/faculty-profile.php?furl=harish-kumar-sahoo)
90.	Secretary, Alumni Association	Dr. Pradip Kumar Sahu (http://www.vssut.ac.in/faculty-profile.php?furl=pradip-kumar-sahu)

STUDENTS GRIEVANCE REDRESSAL

Student Grievance Redressal Committee (SGRC)

- Dean, Academic Affairs - Member-Convenor
- Dean, PGS & R - Member
- Dean, Faculty & Planning - Member
- Dean, CDCE - Member
- Dean, SRIC - Member
- Controller of Exams - Member

Note: In of case of any emergency, the aggrieved is free to go to Vice-Chancellor directly.

Dean, Students' Welfare, VSSUT has been appointed as the **'OMBUDSPERSON'** of the University. The 'OMBUDSPERSON' shall hear and decide the appeals of student(s) against the decision(s) of the **'Student Grievance Redressal Committee' (SGRC)**.

The above committee will only deal with student grievances that are not adhered in purview of Internal Complaints Committee, Anti-Ragging Committee, SC/ST Committee and Disciplinary committees.

The Committee can also address grievances from applicants to admission for various programs. The committee can address individual as well as collective grievances of the students of the University.

List of various level for addressing the issues on grievances are as under:-

Grievance	FIRST LEVEL	SECOND LEVEL	THIRD LEVEL

Particular Course Related	Concerned Heads	Dean Academic Affairs	**Student Grievance Redressal Committee' (SGRC)**
Academics Related	HoDs concerned/CoE	Dean Academic affairs	
Halls of Residences / Facilities Related	Asst Warden/Warden	Dean Student Welfare	
Mess affairs	Asst Warden/Warden	Dean Student Welfare	
Ragging	Warden/Dean Student welfare	Anti Ragging Cell	
Student Clubs/Societies	Faculty Advisor/Vice-President	Dean Student Welfare	
SC/ST Complaint	SC-ST Cell https://vssut.ac.in/doc/SCST_Cell_Edited_on_05-07-2020.pdf (https://vssut.ac.in/doc/SCST_Cell_Edited_on_05-07-2020.pdf)		
Sexual Harassment	Internal Complaints Committee https://www.vssut.ac.in/icc.php (https://www.vssut.ac.in/icc.php)		

10.1.5 Delegation of financial powers (5) Institute Marks : 5.(

The financial powers delegated to the Vice chancellor, Registrar, The Comptroller of Finance, Deans, Heads of Departments, Hostel Wardens and relevant in-charges of the institution are explicitly mention in the VSSUT Act (https://vssut.ac.in/doc/VSSUT_ACT.pdf (https://vssut.ac.in/doc/VSSUT_ACT.pdf)) and Statute (https://vssut.ac.in/doc/VSSUT-Statute.pdf (https://vssut.ac.in/doc/VSSUT-Statute.pdf)).

10.1.6 Transparency and availability of correct/unambiguous information in public domain (5) Institute Marks : 5.(

The correct/unambiguous information on policies, rules, processes to stakeholders is made transparently available in public domain at https://www.vssut.ac.in/ (https://www.vssut.ac.in/) (University website)

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (15) Total Marks 15.00

:

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) and
CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2023-2024

Total Income 1574968398				Actual expenditure(till…): 1581031889			Total No. Of Students 4329
Fee	Govt.	Grants	Other sources(specify) interest, overhe	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify student events	Expenditure per student
152511050	679020000	710990997	32446351	804296697	76735192	700000000	365218.73

Table 2 - CFYm1 2022-2023

Total Income 1196173168				Actual expenditure(till…): 1243814199			Total No. Of Students 3968
Fee	Govt.	Grants	Other sources(specify) interest,overhe	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
192880199	954760784	13225798	35306387	1096980395	146833804		313461.24

Table 3 - CFYm2 2021-2022

Total Income 1157593002				Actual expenditure(till…): 1042726978			Total No. Of Students 3968
Fee	Govt.	Grants	Other sources(specify) interest,overhe	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
183542101	923789000	5912187	44349714	867835246	174891732		262784.02

Table 4 - CFYm3 2020-2021

Total Income 891416198				Actual expenditure(till…): 954597290			Total No. Of Students 4011
Fee	Govt.	Grants	Other sources(specify) interest,overhe	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
229667807	610331000	6081266	45336125	807799836	146797454		237994.84

Items	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till	Budgeted in 2020-2021	Actual Expenses in 2020-2021 till
Infrastructure Built-Up	7100000	7767351	3084878	1277353	260875(	169924(	570000(	1249561
Library	1900000	8829028	2425000	7692601	100000(	506505(	194000(	1159821
Laboratory equipment	1793751	1014852	1240824	1185623	544517(	532914(	468897(	446680(
Laboratory consumables	2000000	1862485	1500000	2391752	720000(	155483(	720000(	2311030
Teaching and non-teaching stal	8980101	7071154	7924497	7798179	695558(	7707207	556049(	7544991
Maintenance and spares	7125000	1081280	2369000	1956028	100500(	4354794	100500(	3413486
R&D	5807420	5807420	1140587	1140587	8727112	8727112	8762183	8762183

Training and Travel	650000	3177154	620000	1668574	150000	692831	150000	401354
Miscellaneous Expenses*	201500	8288349	210925	2524572	199100	4324284	201360	1695092
Others, specify	4877472	3383211	394028	3516366	2842664	4717092	2742664	3981967
Total	**1817429775**	**1566608479**	**976747958**	**1022538008**	**1047692542**	**1056783238**	**660913633**	**967178906**

10.2.1 Adequacy of budget allocation (5) Institute Marks : 5.00

The University prepares budgets under the head Plan & Non-plan for all the departments based on the minimum requirement. The budget is bi-annually submitted to Govt. for their consideration. The Accounts Section of the University also provides the budget for salary of both teaching and non teaching staff members under non-plan head. The budget is prepared by the statutory Finance Committee by collecting individual budget from all departments, schools, sections and central accounts as per issued directives. Budget is allotted to each department towards up-gradation of laboratories, laboratory consumables and repair of laboratory equipment etc., internal adjustments are made as per the urgency, in specific cases. Thrust is given on development of infrastructure, academic development programme, research, etc. Each laboratory maintains its own record in the form of stock register which records the information related to new purchases, repairs etc. The allocated budget gets sanctioned based on the budget predictions given by the departments for every academic year on the basis of past experience and anticipated future projects.

10.2.2 Utilization of allocated funds (5) Institute Marks : 5.00

The allocated funds have been utilized for the purchase of new laboratory equipment (computers), software, training and travel and other miscellaneous expenses for academic activity.

Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the respective departments and the funds are released on proposal basis on recommendation by committees and approval by the Vice Chancellor/ BOM as per the allocated financial power. Major works like construction, up gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping, procurement of furniture etc. are controlled by the central facilities such as Central Stores, Central Computing Facility, Civil Works and Electrical Maintenance. The budget amount is allocated for the creation of capital assets and to cover operational expenses according to budgetary guidelines. Capital assets encompass items such as laboratory equipment, study resources, and laboratory facilities. Operational expenses include salaries, research promotion, maintenance, spares, and other relevant expenditures. The utilization heads are detailed in the audited statements of accounts for each year.The utilization certificate is regularly submitted to Govt. of Odisha after due utilization of funds every year.

During the last three years, the budget was utilized to meet expenses such as staff salaries, infrastructure development, purchase of equipment, expenses towards consumables and contingencies, travel etc.

10.2.3 Availability of the audited statements on the institute's website (5) Institute Marks : 5.00

The funds released by the Govt. are fully utilized following the norms prescribed by the Govt. The funds received from the Govt. are subject to Local Fund and Comptroller and Auditor General (CAG) audit from time to time.

10.3 Program Specific Budget Allocation, Utilization (30) Total Marks 30.00

:

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) and
CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2023-2024

Total Budget 10250000		Actual expenditure (till…): 8241390		Total No. Of Students 600
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
10200000	50000	8213390	28000	13735.65

Table 2 :: CFYm1 2022-2023

Total Budget 3980000		Actual expenditure (till…): 3201000		Total No. Of Students 564
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
3950000	30000	3179000	22000	5675.53

Table 3 :: CFYm2 2021-2022

Total Budget 350000		Actual expenditure (till…): 144292		Total No. Of Students 520
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
350000	0	144292	0	277.48

Table 4 :: CFYm3 2020-2021

Total Budget 600000		Actual expenditure (till…): 465600		Total No. Of Students 519
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
600000	0	465600	0	897.11

Items	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till	Budgeted in 2020-2021	Actual Expenses in 2020-2021 till
Laboratory equipment	4000000	3577395	1500000	1062000	150000	94292	100000	65600
Software	1800000	1725995	1100000	1062000	0	0	0	0
Laboratory consumable	50000	28000	30000	22000	0	0	0	0
Maintenance and spares	200000	200000	550000	515000	0	0	0	0
R & D	3000000	1960000	0	0	0	0	0	0
Training and Travel	200000	150000	200000	100000	200000	50000	500000	400000
Miscellaneous Expenses*	1000000	600000	600000	440000	0	0	0	0
Total	**10250000**	**8241390**	**3980000**	**3201000**	**350000**	**144292**	**600000**	**465600**

10.3.1 Adequacy of budget allocation (10) Institute Marks : 10.00

At the onset of the financial year, each department and unit compiles budget needs classified into recurring and non-recurring categories. These allocations are subsequently determined according to the existing funds. Oversight of expenditure falls under the purview of the Comptroller of Finance, who has the authority to approve additional allocations for specific situations. The institution diligently tracks expenses to ensure vital requirements are fulfilled while upholding the institutions operational efficiency.

At the commencement of the academic session, the Heads of Departments are informed about the allocated funds for their budget proposals. This includes funding for significant projects such as construction, infrastructure upgrades, procurement and maintenance of utilities, and housekeeping etc.

10.3.2 Utilization of allocated funds (20)

Institute Marks : 20.00

At the onset of the academic session, all department heads receive notifications regarding the allocated funds for their budget proposals. The procurement of laboratory equipment, consumables are undertaken by the Head of Departments with due procedure mentioned in **VSSUT Act (https://vssut.ac.in/doc/VSSUT_ACT.pdf (https://vssut.ac.in/doc/VSSUT_ACT.pdf)) and Statute (https://vssut.ac.in/doc/VSSUT-Statute.pdf (https://vssut.ac.in/doc/VSSUT-Statute.pdf)).** Significant projects such as construction, infrastructure upgrades, procurement and maintenance of utilities, housekeeping, and furniture acquisition are overseen directly by the Comptroller of Finance in collaboration with the Heads of Schools, Deans and Registrar. The Head of the Department is provided with an imprest money to meet day to day expenses and the Departments manage their own imprest accounts.

10.4 Library and Internet (20)

Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10)

Institute Marks : 10.00

Library overview

The library building is a three storied having area of 10,900 sq.m. The Ground floor is used for the Circulation Section, Stack area, Reprographic Section, and the General Book Bank. The first floor houses the Acquisition Section, Journal Section, Magazine & Newspaper section, and the Administrative Section of the Library. The top floor is used for E-resource Centre, Reference section, Text Book Section and SC/ST Book bank, Reading Room.

Available learning Print & e-Resources

- ***Print Resources***

Print Resources	
Books Titles	10724
Books Volumes	68162
Periodicals	30
Bound Volume	9626
Theses, Dissertations	739

- ***E-Resources***

e-Resources	
eBooks	Elsevier's Science Direct) World E-book Library South Asia Archive(SAA)
e-journal Database	Elsevier's Science Direct ISID JCCC
e-Journals	3563+

Relevance of available learning resources including e-resources

E-journals & Databases Collections

- **Elsevier's Science Direct :** 743 nos of e-journals
- **American Institute of Physics:** 19 e-journals on Physics, Chemistry, geoscience, engineering , acoustics and more.
- **Springer Link:** 1725 e-journals
- **Taylor & Francis:** 1078 e-journals
- **Institute for Studies in Industrial Development (ISID):**

  The On-Line Database Index covers 252 Indian social science journals covering the disciplines of economics, political science, public administration, sociology, social anthropology, business management, finance, geography, social work, health and education, etc and 15 newspapers.

- **JGate Pluss(JCCC):** Around 7900+ jounals

Bibliographic E-Database

- Scopus
- Web of Science

E-BOOKS

- 311 nos of Elsevier's Science Direct ebooks
- World e-book Library
- South Asia Archive (SAA)

Library Automation & Information Management Tools

- KOHA ILMS 17.4 : Library Automation Software
- D-Space Institutional Repository: 9626 bound volume journals are accessible to user.
- Turnitin iThenticate: Plagiarism Software

- DrillBit: Plagiarism Software
- IRINS VIDWAN Database: Research support service to users

Library Services (Accessibility and Support to students for self learning activities):

- Web OPAC is used by library patrons to search for materials without a librarians assistance. It is designed to be searched by title, author, subject, or keyword in an interface that is more user-friendly than the previous card catalog.
- Access to a wide range of physical and digital resources such as books, journals, databases, and multimedia materials.
- Assistance with information retrieval, including help with searching for and locating relevant sources for research projects.
- Reference services, where librarians are available to answer questions and provide guidance on research strategies.
- Interlibrary loan services (DELNET), allowing users to request materials from other libraries if they are not available in the universitys collection.
- Instructional sessions and workshops on topics such as information literacy, citation management, and research skills.
- Access to study spaces, computer workstations, and printing, scanning, and photocopying facilities.
- Online resources and services, including access to e-books, e-journals, and online databases, as well as virtual reference assistance.
- Research support services available to the users to enhance their research work through IRINS VIDWAN Database.
- Institutional Repository (Dspace): 9626 nos of bound volume journals are accessible to users.
- 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) Institute Marks : 10.00

Name of the Internet provider and Bandwidth: Currently 2 ISPs provider and bandwidth provided by the ISPs providers are as follows:

1Gbps Internet connectivity from BSNL

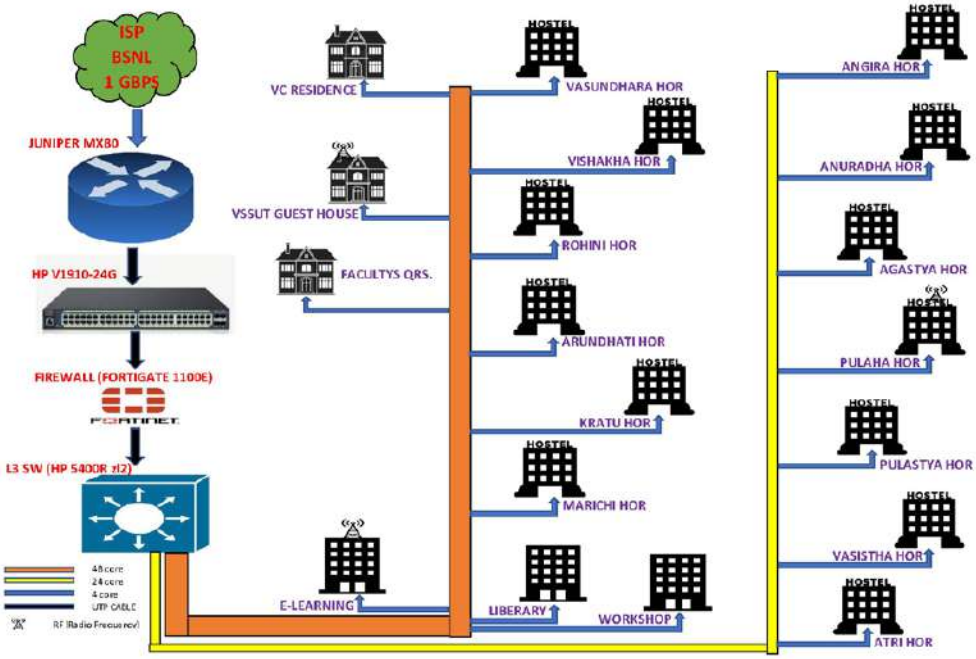
1Gbps Internet connectivity from SIFY

Currently VSSUT is having a dedicated internet connectivity of 2 Gbps.

Wi Fi availability:

The controller and access points are used in the Hostels of the University to provide uninterrupted internet access to the students for their academic and research work. Wi-Fi and LAN is provided to the academic and administrative buildings for faculty and staff members for their research and administrative work.

Networking: OFC / Ethernet connection from CIF Cell to all campuses. It is a secure network and each user has authentication for accessing our network. The networking switches are used at different campuses. The network backbone is illustrated as below.



Security arrangements: As far as the security is concerned VSSUT provides the security at different levels of distribution to the client level. It has Core Layer switch, Firewall and CISCO controller for protecting students and staffs members from being affected from any DOA attack, hacking from outside and inside VSSUT. It also prevents malware and virus attacks. Intrusion Prevention System threat-detection, URL filtering, Web content filtering, application filtering, and signature based filtering.

Annexure I
(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)
Program should specify 2-4 program specific outcomes.

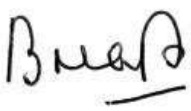
PSO1	Apply the knowledge of electronic circuits, analog and digital communication, wireless communication, radar engineering and antenna systems to solve complex engineering problems in the discipline of Electronics and Telecommunication Engineering
PSO2	Develop suitable techniques and cutting-edge engineering hardware and software tools in Electronics and Telecommunication Engineering to solve practical problems.
PSO3	Aware of the impact of professional Electronics and Telecommunication Engineering solutions on social, economic, environmental and technological sustainability.

Declaration

The head of the institution needs to make a declaration as per the format given -

- 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 inforce as on date and the institutes hall 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 willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute
Name : Prof. Banshidhar Majhi
Designation : Vice Chancellor
Signature :



Seal of The Institution :

Place : Burla
Date : 13-08-2024 13:04:10