Nutan Maharashtra Institute of Engineering and Technology

Information Technology

Part A : Institutional Information

1 Name and Address of the Institution

Nutan Maharashtra Institute of Engineering and Technology,
Samarth Vidya Sankul, Vishnupuri, Talegaon Dabhade, Pune – 410507

2 Name and Address of Affiliating University

Savitribai Phule Pune University

3 Year of establishment of the Institution:

2008

4 Type of the Institution:

☐ University	☐ Autonomous
☐ Deemed University	☑ Affiliated
☐ Government Aided	

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
Information Technology	UG	2008	2008	60	Yes	120	Applying first time	--	--	Yes	4

Sanctioned Intake for Last Five Years for the Information Technology	
Academic Year	**Sanctioned Intake**
2024-25	120
2023-24	60
2022-23	60
2021-22	60
2020-21	60
2019-20	60

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Information Technology

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	46	46	40	40	38	38
Faculty in Engineering (Female)	41	41	28	28	23	23
Faculty in Maths, Science & Humanities (Male)	11	11	4	4	5	5
Faculty in Maths, Science & Humanities (FeMale)	9	9	4	4	3	3
Non-teaching staff (Male)	31	31	31	31	31	31
Non-teaching staff (FeMale)	15	15	14	14	11	11

B. Contractual* Employees (Faculty and Staff):

Items	2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	2	2	2	2	2	2
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

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

Items	2024-25	2023-24	2022-23
Total no. of Boys	1377	1003	990
Total no. of Girls	709	408	383
Total	**2086**	**1411**	**1373**

11 Vision of the Institution:

To be a notable institution for providing quality technical education and ensuring ethical, moral and holistic development of students.

12 Mission of the Institution:

To nurture engineering graduates with state of the art competence, professionalism and problem solving skills to serve needs of industry as well as society.

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

Head of the Institution	
Name	Dr. S.N. Sapali
Designation	Principal
Mobile No.	9423582575
Email ID	principal@nmiet.edu.in

☑ **NBA Coordinator, If Designated**

Name	Dr. S.V. Joshi
Designation	Associate Professor
Mobile No.	9011667200
Email ID	sagar.joshi@nmiet.edu.in

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	110.00
4	STUDENTS' PERFORMANCE	150	130.25
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	177.81
6	FACILITIES AND TECHNICAL SUPPORT	80	75.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	45.24
9	STUDENT SUPPORT SYSTEMS	50	46.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	110.00
	Total	**1000**	**924**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 60.00

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

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	To be a notable institution for providing quality technical education and ensuring ethical, moral and holistic development of students.
Mission of the institute	To nurture engineering graduates with state of the art competence, professionalism and problem solving skills to serve needs of industry as well as society.
Vision of the Department	To be a distinguished and competent education provider in the field of Information Technology by nurturing technically proficient, ethically responsible and socially aware professionals
Mission of the Department	

Mission No.	Mission Statements
M1	Imparting technical knowledge and practical skills in Information Technology to prepare students for successful careers in industry, academia and entrepreneurship
M2	Fostering ethical values, professional responsibility and effective Communication in students to help them become responsible IT professionals.
M3	Encouraging innovation, research and problem-solving abilities through industry-relevant projects, internships and collaborative learning.
M4	Cultivating awareness of societal needs and sustainability, promoting the development of socially responsible and globally competent graduates.

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	To build a foundation in Information Technology with the technical knowledge and practical skills required to succeed in industry, higher education or entrepreneurial ventures.
PEO2	To demonstrate ethical behavior, professional responsibility and effective communication in their careers, contributing positively to their workplace and society.
PEO3	To engage in innovative practices and apply critical thinking and problem-solving abilities to develop IT solutions for real-world challenges through continuous learning and collaboration.
PEO4	To exhibit awareness of societal, environmental and global issues and will contribute to sustainable development as socially responsible and globally competent professionals.

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

Total Marks 10.00

Institute Marks : 10.00

1.3 A. The Vision, Mission and PEOs are published and disseminated through:

The departments vision, Mission and PEOs are displayed at prominent places and disseminated among the stakeholders as shown in Table A.1.3a.

Table A.1.3.a: Possible places of dissemination of vision, mission and PEOs of the Department

Sr. No.	Place of Dissemination	Stakeholders
1	College website: https://www.nmiet.edu.in/vision-mission.php (https://www.nmiet.edu.in/vision-mission.php)	Internal and External Stakeholder
2	Department website: https://www.nmiet.edu.in/it/about-it-dept.php (https://www.nmiet.edu.in/it/about-it-dept.php)	Internal and External Stakeholder
3	College Brouchers https://drive.google.com/file/d/1c2g6FLRNgDyH3bIB1NJKlvFpp1FdiHDg/view?usp=drive_link (https://drive.google.com/file/d/1c2g6FLRNgDyH3bIB1NJKlvFpp1FdiHDg/view?usp=drive_link)	Internal and External Stakeholder
4	HoD Office	Internal and External Stakeholder
5	Departmental Notice Boards	Internal Stakeholder
6	Classrooms of the Department	Internal Stakeholder
7	Display at Laboratories in the Department	Internal Stakeholder
8	Student Journals and Faculty Course files	Internal Stakeholder
9	Email signature of Department faculties https://drive.google.com/file/d/1yeF3bQe8Bu4Rl7MT4cTCjxtSynl3CL76/view?usp=drive_link (https://drive.google.com/file/d/1yeF3bQe8Bu4Rl7MT4cTCjxtSynl3CL76/view?usp=drive_link)	Internal and External Stakeholder
10	Parent - Teacher Meeting	Internal and External Stakeholder
11	Faculty Development Programme (FDP), Seminar, Workshop, etc.	Internal and External Stakeholder
12	Orientation / Induction Programme	Internal and External Stakeholder

The department vision, mission and PEOs are disseminated to the stakeholders of the programme which are as shown in Figure A.1.3.a.

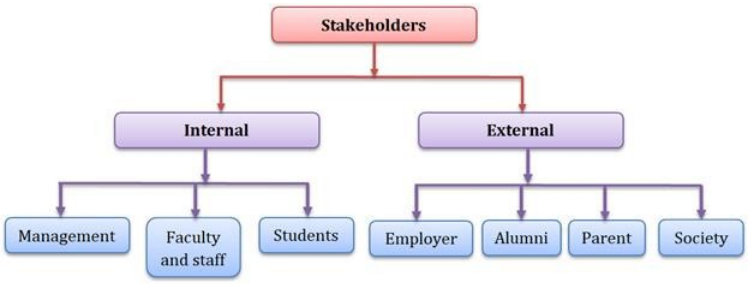


Figure A.1.3.a The various types of stakeholders

Stakeholder	Involvement
Student	The students are important and core stakeholders. They constitute the major beneficiaries in this ecosystem. The students are interested in whether the program adequately prepares them for future employment.
Program Coordinator/Head of Department (HoD)	The program coordinator or HoD is responsible for managing, monitoring and conducting administrative and academic activities in the department.
Faculty and Staff	They are the main pillar of the program, as employees they are the main executors of the Programme and are involved regularly in the assessment as well as all relevant processes.
Management	Visionaries decide on vision, mission and frame policies. Effective Management policies help the department to improve its infrastructure, faculty retention and faculty qualification improvement.

Industry Advisor/employers	They are the major end beneficiaries and customers in the system. Their satisfaction provides a measure of the program and translates to employment opportunities for the students. Employer of the industry conveys their opinion about graduate and their potential concerning working in the industry
Alumni	They play an important role in creating brand value and reflect the success of the Programme. Alumni support in the enhancement of the program through their academic contributions and support in enhancing employability.

Both internal and external stakeholders have active involvement in defining the departments Vision and Mission.

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25) Total Marks 25.00

Institute Marks : 25.00

A. Process of Defining the Vision and Mission of the Department

The **Vision and Mission** of the department are established through a **systematic and consultative process**, involving key stakeholders and aligning with both institutional goals and societal needs. The framework for this process is illustrated in *Figure A.1.4.a* and includes inputs from management, industry representatives, parents, alumni, and faculty members.

The steps involved in the formulation process are as follows:

Step 1: Alignment with Institutional Vision and Mission

The department begins by thoroughly reviewing the **Vision and Mission of the institute**. These foundational statements guide the development of the department's own Vision and Mission, ensuring consistency with the overall goals of the institution.

Step 2: Stakeholder Consultation

The department actively engages **stakeholders**, including:

- Faculty members
- Alumni
- Industry representatives
- Parents
- Students

Their **insights, expectations and feedback** are collected to ensure that the department's Vision and Mission reflect current and future academic, industrial and societal needs.

Step 3: Drafting by the Program Assessment Committee (PAC) List if PAC (https://drive.google.com/file/d/1tPL3EwjhTNV7Ktf3KNwNcEMO9Fg8gufm/view?usp=drive_link)

The **Program Assessment Committee (PAC)** consolidates the stakeholder feedback and prepares **a draft** version of the department's Vision and Mission statements.

Step 4: Review and Approval by the Department Advisory Board (DAB) List if DAB
(https://drive.google.com/file/d/1tPL3EwjhTNV7Ktf3KNwNcEMO9Fg8gufm/view?usp=drive_link)

The draft statements are presented to the **Department Advisory Board (DAB)**. After detailed discussion and validation, the **final Vision and Mission** are **approved** by the board.

Step 5: Dissemination and Communication

Once approved, the Vision and Mission statements are widely **disseminated and communicated** to all stakeholders. This is achieved through:

- Institutional and department websites
- Orientation programs
- Email communications
- Campus displays (labs, classrooms, notice boards, etc.)

Step 6: Periodic Review and Revision

If required, the Mission and Vision are revised to stay aligned with evolving educational and industry trends. Any such revision is initiated by the **PAC** and follows the same review process through the DAB

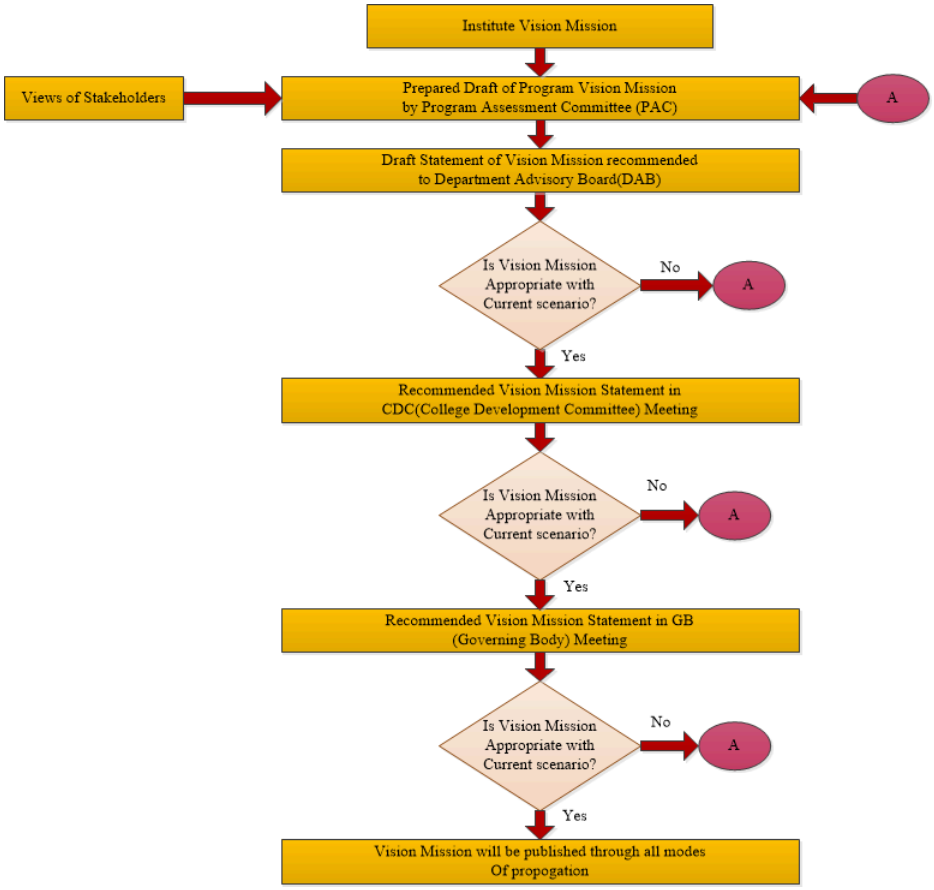


Figure-A.1.4.a : Process for defining Vision and Mission

B.Description of process involved in defining the PEOs of the program

The Program Educational Objectives(PEO) are established by considering the Program Curriculum in Information Technology Program of SPPU, Graduate Attributes, Vision and Mission Statements of the Institute and the Department. Figure B.1.4.b shows the process of establishing PEOs.

A step-by-step description of the process is given below:

Step 1: While framing PEO, the objectives specified by SPPU are taken into consideration

Step 2: The Vision and Mission statements of the Department as well as Graduate attributes are considered as the basis to define the PEOs.

Step 3: The PEO statements are framed by the PAC.

Step 4: The draft is forwarded to DAB for approval.

Step 5: Approved PEOs are disseminated to all stakeholders.

Step 6: If Department PEOs need to be revised, these statements are referred back to the department PAC.

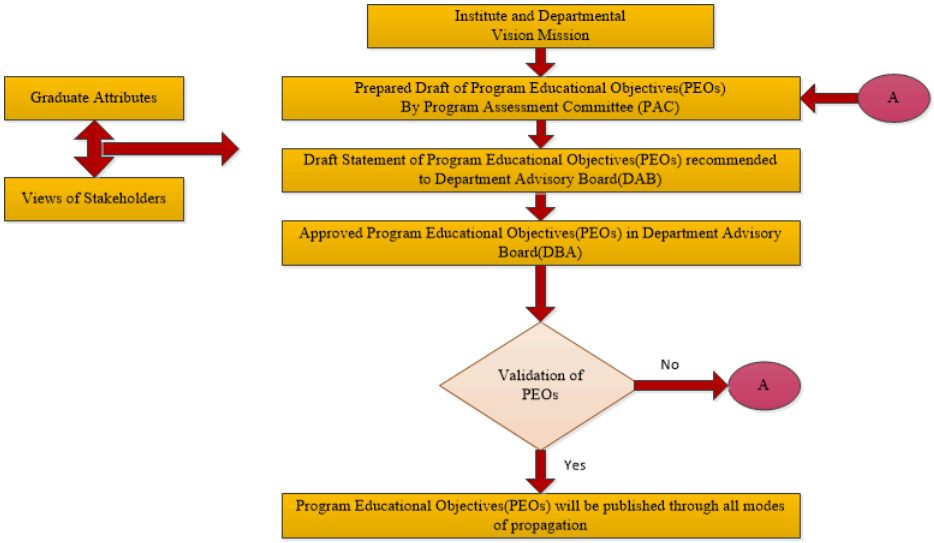


Figure-B.1.4.b : Process of formulating the PEOs

1.5 Establish consistency of PEOs with Mission of the Department (15) Total Marks 15.00

Institute Marks : 15.00

5.1 Correlation of Institute and Department Vision

Keywords of Institute and Department Vision

Institute Vision: "To be a notable institution for providing quality technical education and ensuring ethical, moral and holistic development of students"	**Department Vision: "To be a distinguished and competent education provider in the field of Information Technology by nurturing technically proficient, ethically responsible, and socially aware professionals"**

Table A: Alignment between Institute and Department Vision

Category	Institute Vision Keywords	Department Vision Keywords
Institutional Identity	Notable institution	Distinguished and competent education provider
Educational Quality	Quality technical education	**Competent** Education in the field of Information Technology
Holistic Development	Ethical, moral and holistic development of students	Ethically responsible, socially aware professionals
Technical Focus	Technical education	Technically proficient professionals
Student Outcome	Holistic development of students	Development of professionals to serve societal and industry needs

The table-A shows the alignment between the **institutes vision** and the **departments vision**, highlighting how the IT department contributes to achieving the institute's overarching vision.

Keywords of the Institute and Department mission

Institute Mission: **To nurture engineering graduates with state of the art competence, professionalism and problem solving skills to serve needs of industry as well as society.**	**Department Mission:** **M1: Imparting technical knowledge and practical skills** in Information Technology to prepare students for successful careers in industry, academia and entrepreneurship. **M2: Fostering ethical values, professional responsibility and effective Communication** in students to help them become responsible IT professionals. **M3: Encouraging innovation, research, and problem-solving abilities** through industry-relevant projects, internships and collaborative learning. **M4: Cultivating awareness of societal needs and sustainability** promoting the development of socially responsible and globally competent graduates

Table B: Alignment between Institute and Department Mission

Focus Area	Institute Mission Keywords	Department Mission Keywords
Core Competency	Nurture engineering graduates with state-of-the-art competence	Imparting technical knowledge and practical skills in Information Technology
Career Preparedness	Serve the needs of industry and society	Prepare students for successful careers in industry, academia and entrepreneurship
Professionalism	Professionalism	Fostering ethical values, professional responsibility and effective communication
Problem Solving Skills	Problem-solving skills	Encouraging innovation, research and problem-solving abilities through industry-relevant projects and collaborative learning
Societal Contribution	Serve needs of society	Cultivating awareness of societal needs and sustainability
Global Perspective	–	Promoting the development of socially responsible and globally competent graduates

The table-B clearly demonstrates that the **IT department's mission is well-aligned with the institutes mission.**

Correlation of the Institute and Department Vision

Table-C Correlation of Institute and Department Vision

Feature	Institute Vision: "To be a notable institution for providing quality technical education and ensuring ethical, moral and holistic development of students"	Department Vision: "To be a distinguished and competent education provider in the field of Information Technology by nurturing technically proficient, ethically responsible, and socially aware professionals"	Correlation Level	Rationale/Justification
Quality Technical Education	The primary focus is on providing quality technical education.	The primary focus is on providing quality technical education in the specific field of Information Technology.	3 (Substantial)	Both visions share a core commitment to delivering high-quality technical education. The departments vision is a specialized application of the institutes broader goal.
Ethical and Moral Development	Emphasises ethical and moral development of students.	Emphasises nurturing ethically responsible professionals.	3 (Substantial)	Both visions strongly emphasise ethical development. The departments vision specifically addresses ethical responsibility in the context of IT professionals.
Holistic Development	Aims for holistic development, including personal and professional growth.	Aims to nurture socially aware professionals, contributing to holistic development by considering societal impact.	2 (Moderate)	While the departments vision focuses more on professional and social aspects, the concept of "socially aware" contributes to the broader idea of holistic development.

Competence and Distinction	Aims to be a notable institution.	Aims to be a distinguished and competent education provider.	3 (Substantial)	Both visions emphasize achieving excellence and recognition. The departments vision is more specific to its field.
Professional Development	Focuses on students overall development.	Focuses on nurturing technically proficient professionals.	3 (Substantial)	Both visions are geared towards preparing students for successful professional lives, in the departments case, the IT industry.

5.2. Mission of the Department – PEOs Matrix

Department Mission Statements (M):

- **M1:** "Imparting technical knowledge and practical skills in Information Technology to prepare students for successful careers in industry, academia and entrepreneurship."
- **M2:** "Fostering ethical values, professional responsibility and effective communication in students to help them become responsible IT professionals."
- **M3:** "Encouraging innovation, research and problem-solving abilities through industry-relevant projects, internships, and collaborative learning."
- **M4:** "Cultivating awareness of societal needs and sustainability, promoting the development of socially responsible and globally competent graduates."

Programme Educational Objectives (PEOs):

- **PEO1:**

Core Competency

To build a foundation in Information Technology with the technical knowledge and practical skills required to succeed in industry, higher education or entrepreneurial ventures.

- **PEO2:**

Professionalism and Ethics

To demonstrate ethical behaviour, professional responsibility and effective communication in their careers, contributing positively to their workplace and society.

- **PEO3:**

Innovation and Problem Solving

To engage in innovative practices and apply critical thinking and problem-solving abilities to develop IT solutions for real-world challenges through continuous learning and collaboration.

- **PEO4:**

Societal Contribution and Global Outlook

To exhibit awareness of societal, environmental, and global issues, and will contribute to sustainable development as socially responsible and globally competent professionals.

Matrix:

Mission (M)	**M1**	**M2**	**M3**	**M4**
PEO1	3	2	2	1
PEO2	2	3	1	2
PEO3	2	1	3	1
PEO4	1	2	1	3

Justification for mapping of PEO with the mission of the department				
PEO	**M1**	**M2**	**M3**	**M4**
To build a foundation in Information Technology with the technical knowledge and practical skills required to succeed in industry, higher education or entrepreneurial ventures.	**M1-PEO1 (3):** High correlation. M1 directly focuses on technical skills and career readiness, which is the core of PEO1.	**M2-PEO1 (2):** Moderate Correlation. Technical skills are needed to be a responsible IT professional.	**M3-PEO1 (2):** Moderate Correlation. Industry projects require technical skills.	**M4-PEO1 (1):** Slight correlation. Social awareness does not guarantee technical skills.
To demonstrate ethical behaviour, professional responsibility and effective communication in their careers, contributing positively to their workplace and society.	**M1-PEO2 (2):** Moderate correlation. While M1 primarily emphasize technical skills, career success also requires professional responsibility and Communication.	**M2-PEO2 (3):** High correlation. M2 directly aligns with PEO2, focusing on ethical values and professional conduct.	**M3-PEO2 (1):** Slight Correlation. innovation does not guarantee ethical behavior.	**M4-PEO2 (2):** Moderate Correlation. Social awareness is part of being a responsible professional.
To engage in innovative practices and apply critical thinking and problem-solving abilities to develop IT solutions for real-world challenges through continuous learning and collaboration	**M1-PEO3 (2):** Moderate correlation. Industry careers and entrepreneurship often necessitate problem-solving and innovation.	**M2-PEO3 (1):** Slight correlation. Ethical behavior does not guarantee innovation.	**M3-PEO3 (3):** High correlation. M3 directly addresses innovation and problem-solving, which is the core of PEO3.	**M4-PEO3 (1):** Slight correlation. Social awareness does not guarantee innovation.

To exhibit awareness of societal, environmental and global issues and will contribute to sustainable development as socially responsible and globally competent professionals.	**M1-PEO4 (1):**	**M2-PEO4 (2):**	**M3-PEO4 (1):**	**M4-PEO4 (3):**
	Slight correlation. While social awareness is valuable, it is not the primary focus of M1.	Moderate Correlation. Ethical professionals are aware of social impact	Slight Correlation. Innovation does not guarantee social awareness.	High correlation. M4 directly aligns with PEO4, focusing on social awareness and global competence.

PEO Statements	M1	M2	M3	M4
To build a foundation in Information Technology with the technical knowledge and practical skills required to succeed in industry, higher education or entrepreneurial ventures.	3	2	2	1
To demonstrate ethical behavior, professional responsibility and effective communication in their careers, contributing positively to their workplace and society.	2	3	1	2
To engage in innovative practices and apply critical thinking and problem-solving abilities to develop IT solutions for real-world challenges through continuous learning and collaboration.	2	1	3	1
To exhibit awareness of societal, environmental and global issues and will contribute to sustainable development as socially responsible and globally competent professionals.	1	2	1	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120)

Total Marks 120.00

2.1 Program Curriculum (20)

Total Marks 20.00

2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexurel. Also mention the identified curricular gaps, if any (10)

Institute Marks : 10.00

Since 2008, the Nutan Maharashtra Institute of Engineering and Technology (NMIET) has been affiliated with Savitribai Phule Pune University (SPPU). The programme curriculum strictly follows the scheme and syllabus prescribed by the University.

The SPPU curriculum consists of a balanced combination of:

- Basic Science Courses
- Humanities and Social Science Courses
- Engineering Science Courses
- Professional Core Courses
- Professional Elective Courses

The curriculum is framed and reviewed by the Universitys Board of Studies (BoS) once every four years. The BoS comprises a chairman, senior faculty members and industry representatives, ensuring that the syllabus remains relevant and updated in line with academic and industry requirements.

Process of Mapping and Compliance:

- All courses are systematically mapped with twelve Programme Outcomes (POs) and two Programme Specific Outcomes (PSOs).
- Each course's Course Outcomes (COs) are aligned with the relevant POs and PSOs.
- Faculty members from the Information Technology programme actively participate in the development, revision and implementation of the Universitys curriculum.
- Academic flexibility is provided through the scheduling of various skill-oriented activities, such as guest lectures, expert sessions, accredited add-on and value-added courses, to address contemporary industry demands and bridge identified curricular gaps.
- Students are further encouraged to participate in technical events and competitions at the state and national levels, thereby enhancing their skills and contributing to the achievement of POs and PSOs.

Assessment and Evaluation:

- The attainment of POs and PSOs is assessed through students performance in internal assessments, University examinations, project work and participation in technical events.
- Regular feedback is collected from stakeholders, including students, alumni, employers and faculty members and is utilised for the continuous improvement of the curriculum.

Identified Curricular Gaps (if any):

- Limited coverage of rapidly evolving technologies such as Artificial Intelligence, Machine Learning, Internet of Things and Data Science.
- Need for enhanced industry interaction and practical exposure through internships and live projects.
- Requirement for greater emphasis on interdisciplinary learning, innovation and entrepreneurship.
- Need to strengthen components related to professional ethics, environmental sustainability and lifelong learning skills.

Actions Taken to Bridge the Gaps:

- Organisation of workshops, seminars and expert lectures on emerging technologies.
- Introduction of certified value-added and add-on courses.
- Promotion of industrial training, internships and industry-based projects.
- Encouragement of student participation in technical competitions, hackathons and innovation challenges.
- Upgradation of laboratories with the latest tools, technologies and software platforms.

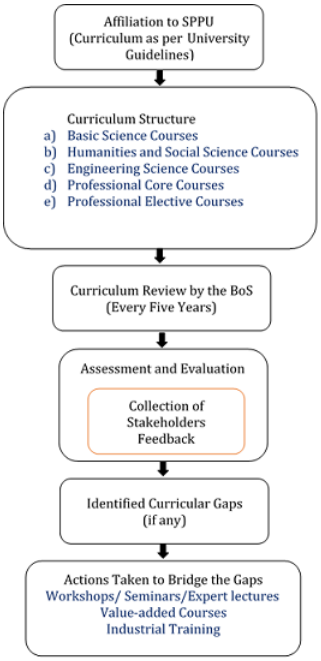


Figure 2.1.1 : General Process used to identify extent of compliance of the University curriculum

A. Process used to identify extent of Compliance of University Curriculum for attaining POs and PSOs at Program level

- The Information Technology Programme adheres to the curriculum prescribed by Savitribai Phule Pune University (SPPU). Faculty members actively participate in academic discussions, curriculum delivery planning, and enrichment activities to enhance learning outcomes.
- Academic flexibility is promoted through the provision of skill-based, certified add-on courses, workshops and training programmes that supplement the university curriculum and address evolving industry demands. Students are encouraged to engage in research projects, technical events, hackathons and innovation activities for their holistic development and to support the attainment of POs and PSOs.
- Social responsibility and ethical awareness among students are nurtured through participation in activities conducted by the Association of Information Technology Students (or equivalent student bodies) and through NSS initiatives.
- A formal stakeholder feedback system is implemented to gather insights from students, alumni, industry professionals, and parents. The feedback is systematically analysed, and appropriate corrective measures are undertaken to enhance academic delivery, administrative processes, and infrastructure.

Savitribai Phule Pune University follows the procedure to design the curriculum of the program as shown in below Figure 2.1.1a

Figure 2.1.1a: Process of Curriculum Implementation by the University(Click here (https://drive.google.com/file/d/1WRGl3-t07SfP78J-J3l2gm0ZrYDhG1s4/view?usp=sharing))

- The University establishes the Board of Studies (BoS) coordinator and appoints members for each programme.
- The BoS appoints a Chairman for each course.
- The BoS Coordinator and Subject Chairmen announce and organise curriculum structuring and revision workshops.
- A Course Coordinator from each affiliated engineering institution participates in the workshops.
- Curriculum gaps identified in the existing syllabus are considered during the redesign of the curriculum.
- Each Subject Chairman organises curriculum dissemination and instructional planning workshops to ensure smooth delivery of the newly structured curriculum,. ie. Faculty Orientation Program.
- The contact hours and marks allocated to various courses under the programme are specified in the syllabus. The students' performance is assessed through various examinations conducted across the first and second semesters.
- The University adopts a credit-based marking system for evaluation under each examination head.
- All courses within the programme are mapped with Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) to evaluate the extent of compliance of the university curriculum in achieving the intended learning outcomes.
- The flowchart below illustrates the process for evaluating the attainment of Course Outcomes (COs), Programme Outcomes (POs), and Programme Specific Outcomes (PSOs) through the university curriculum.

Figure 2.1.1b. Flow Chart for process of mapping and evaluation of COs with POs and PSOs of the Program(Click here)
(https://drive.google.com/file/d/1gY2p698zBbWsPakYhEvJYnQGisgsgv7t/view?usp=drive_link)

A1. Curriculum Compliance with POs and PSOs

- The curriculum prescribed by Savitribai Phule Pune University (SPPU) for the Information Technology Programme ensures the attainment of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) at different levels, measured on a three-point scale: 1 (Slightly), 2 (Moderately) and 3 (Substantially).
- Each Course Coordinator is responsible for mapping the Course Outcomes (COs) to the relevant POs and PSOs and evaluating the respective attainment levels.
- Subsequently, the Programme Assessment Committee (PAC) reviews and verifies the attainment levels. The PAC critically analyses the results, suggests necessary changes, and seeks approval for any modifications from the Departmental Advisory Board (DAB).

Figure 2.1.1c. Process for determining the curriculum gaps by course coordinator(Click Here (https://drive.google.com/file/d/1RI1j9hEtGWKyeDg4W-FvUgl2Wu3teT2Z/view?usp=drive_link))

A2. Process to Identify the Extent of Compliance and Curricular Gaps

Framing and Verification of Course Outcomes (COs):

- The Course Coordinator formulates and verifies the Course Outcomes (COs) for the assigned course using Bloom's Taxonomy, based on the University syllabus.

Mapping with Programme Outcomes (POs) and Programme Specific Outcomes (PSOs):

- Each CO, along with related curricular activities, is mapped with the relevant POs and PSOs.
- The mapping is reviewed and verified by the Programme Assessment Committee (PAC).

Identification of Curricular Gaps:

- Weakly mapped POs and PSOs are identified and analysed to detect curricular gaps.

Review and Remarks:

- Remarks and reviews regarding the attainment of POs and PSOs are collected from the Programme Assessment Committee (PAC) and Department Advisory Board (DAB).

Benchmarking with National Institutions:

- Curricula from nationally reputed institutes are studied and compared to further identify and confirm curricular gaps.

Reporting and Action:

- Identified curricular gaps are summarised and formally reported to the Programme Assessment Committee for appropriate action, including curriculum enrichment activities.

Process A2.1: Mapping of COs with POs and PSOs

Analysis of Mapping:

- Course Outcomes (COs) are mapped with Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) for the entire programme curriculum.
- After receiving the revised curriculum from Savitribai Phule Pune University (SPPU), Course Coordinators frame and map the COs of their respective courses.
- The mapping is analysed to evaluate the extent of attainment of each PO and PSO.

Identification of Curriculum Gaps:

- Weakly mapped POs and PSOs are identified through the analysis of the CO-PO-PSO mapping matrix.
- Additionally, timely feedback from various stakeholders — including industry experts, alumni, Department Advisory Board (DAB) members, and domain specialists — is consolidated.
- Weakly addressed POs and PSOs, combined with stakeholder feedback, are used to identify curriculum gaps.

Curriculum Gap Bridging Activities:

To bridge the identified curriculum gaps, several supporting activities are organised, such as:

- Expert lectures
- Industrial visits
- Referring to educational YouTube channels and NPTEL resources
- Student training programmes
- Co-curricular, extra-curricular, and extension activities
- These initiatives enhance students' skills in areas where gaps are noted.

Communication and Monitoring:

- The feedback from stakeholders and the identified curriculum gaps are communicated to the Subject Chairman and the Board of Studies Information Technology(IT).
- The Department and the Programme Assessment Committee (PAC) observe compliance with the University curriculum, review the CO-PO-PSO mapping table and plan activities accordingly.
- These activities are incorporated into the Department Academic Calendar to systematically address the identified gaps and improve alignment with the targeted POs and PSOs.

Table 2.1.1a: POs and PSOs Mapping Average for 2019 Course

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
2.50	2.33	2.37	2.22	2.34	1.84	1.70	1.87	1.77	1.93	1.87	1.73	2.68	1.93

Note:

- Higher values indicate stronger mapping of COs with POs/PSOs.
- Lower mapping values (such as PO7 and PO6) indicate areas where the curriculum requires strengthening through additional activities.

Figure 2.1.1.d : Process of Gap Identification(Click Here (https://drive.google.com/file/d/1rpiRfwSiqSl7SHBHZ58qhuxETCN1JErP/view?usp=drive_link))

Process A2.2: Comparison with Professional Bodies and Institutes (AICTE, SPPU, COEP)

- **Course Comparison**: The course content of the **SPPU curriculum** is compared with the course content suggested by **AICTE** (All India Council for Technical Education) and the curriculum of **COEP** (College of Engineering Pune). The aim is to identify areas where the SPPU curriculum might be lacking in comparison to these professional bodies or institutes.
- **Identifying Gaps**: If the SPPU curriculum is missing or underrepresented in any content when compared with AICTE or COEP curricula, it is identified as a **gap**. These gaps may indicate areas that need additional focus or new courses to match the standards of other institutions and professional bodies.

Example Table: Comparison of Course Types

The table below provides a detailed comparison of different types of courses included in the AICTE, SPPU, and COEP curricula:

Sr. No.	Type of Courses	No. of AICTE Courses (%)	No. of SPPU Courses (%)	No. of COEP Courses (%)
01	Basic Science Courses (BSS)	16%	11%	16%
02	Humanities & Social Science (HSS)	11%	4%	9%
03	Engineering Science Courses (ESS)	18%	28%	32%
04	Professional Core Courses (PCC)	29%	46%	41%
05	Professional/Open Elective Courses (P/O EC)	26%	11%	2%

Observations:

- **Basic Science Courses (BSS)**: The percentage is fairly consistent across AICTE and COEP (16%), while SPPU offers fewer (11%).
- **Humanities & Social Science (HSS)**: AICTE suggests 11%, while COEP has 9%, and SPPU only offers 4%. This gap in humanities and social science content in the SPPU curriculum might be identified as a curricular gap.
- **Engineering Science Courses (ESS)**: SPPU offers a higher percentage (28%) compared to AICTE (18%) and COEP (32%).
- **Professional Core Courses (PCC)**: SPPU has the highest percentage (46%) compared to AICTE (29%) and COEP (41%).
- **Professional/Open Elective Courses (P/O EC)**: AICTE offers 26%, COEP has only 2%, and SPPU offers 11%. This is another area where SPPU might be lagging in offering electives.

Gap Identification:

Gaps can be identified by comparing where **SPPU's offerings** fall short in certain course types, such as:

- A **lower percentage** of Humanities & Social Science (HSS) courses in SPPU could be seen as a gap.
- The **relatively low percentage** of Professional/Open Elective Courses (P/O EC) in the SPPU curriculum could be another area for improvement.

Addressing Gaps:

- Based on the comparison, the gaps identified in the SPPU curriculum can be communicated to the Program Assessment Committee (PAC) or the Board of Studies (BoS).
- Relevant actions can then be taken, such as introducing new courses, increasing electives, or focusing more on certain course categories like **Humanities & Social Science** or **Professional/Open Electives**.

Purpose and Outcome:

- This process ensures that the SPPU curriculum aligns well with national standards and the practices of reputed institutions like COEP.
- It helps maintain **academic rigor** by addressing any gaps identified through such comparisons and ensures that students are prepared for both academic and industry challenges.

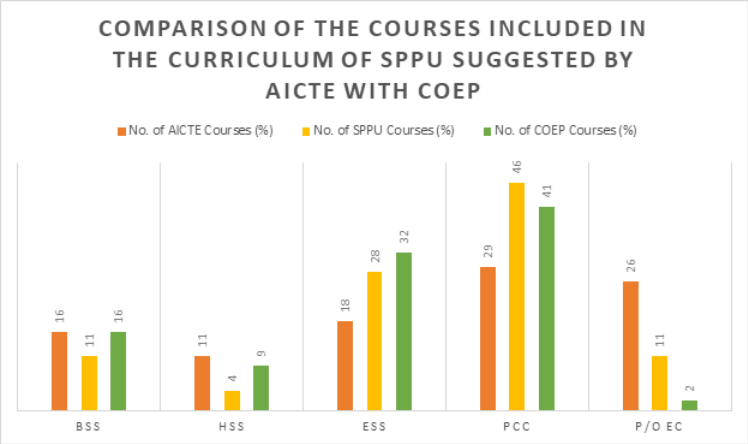


Figure 2.1.1.e: Comparison of the Courses Included in the Curriculum of SPPU Suggested by AICTE with COEP

The curriculum of Savitribai Phule Pune University (SPPU) has been compared with the curricula of renowned national and international technical institutes and bodies such as AICTE and COEP. Since AICTE is the apex regulatory body for technical education in India, the comparison between the SPPU and AICTE curricula has been duly considered.

The number of Basic Science Subjects and Professional Core Courses in the AICTE curriculum is **6% and 3% higher** respectively compared to that of the SPPU curriculum. This difference arises because AICTE divides foundational subjects, such as Physics and Chemistry, and professional core courses, like Computer Networking and Data Structures, into finer subdivisions compared to the broader structure of SPPU.

A comparison of the Professional Elective Courses reveals that SPPU's curriculum addresses elective subjects in a more comprehensive and detailed manner compared to AICTE.

As an autonomous institute, the College of Engineering Pune (COEP) possesses the flexibility to design its curriculum according to specific requirements and academic focus. Consequently, greater variations are observed when comparing COEP's curriculum with that of SPPU. Nevertheless, all essential technical courses are thoroughly covered within the SPPU curriculum.

Overall, SPPU has adhered closely to the curriculum structure recommended by AICTE and implemented it systematically over a programme duration of eight semesters (four years).

Process A2.3: Feedback from PAC/DAB

- Feedback is gathered from all stakeholders to assess the alignment of the curriculum with current academic, professional and industry needs.
- The curriculum is reviewed to determine whether it sufficiently meets the students learning and professional requirements.
- Any identified gaps where the curriculum does not satisfy these needs are documented.
- The gaps thus identified are formally communicated to the Board of Studies (BoS) in Information Technology at Savitribai Phule Pune University for necessary action and revision.

Table 2.1.1c.1. Curriculum of SPPU for Bachelor of Engineering in Information Technology 2015 pattern (Syllabus attached)

Sr. No.	Year	Link
1	First Year 2015 Pattern	https://www.nmiet.edu.in/fe/pdf/FE-Engineering-2015-Syllabus.pdf (https://www.nmiet.edu.in/fe/pdf/FE-Engineering-2015-Syllabus.pdf)
2	Second Year 2015 Pattern	https://www.nmiet.edu.in/it/pdf/SEIT-(2015-Course)-Draft-Dated-09-06-2016-Final.pdf (https://www.nmiet.edu.in/it/pdf/SEIT-(2015-Course)-Draft-Dated-09-06-2016-Final.pdf)
3	Third Year 2015 Pattern	https://www.nmiet.edu.in/it/pdf/TE-IT-Syllabus-2015-Course-3-4-17.pdf (https://www.nmiet.edu.in/it/pdf/TE-IT-Syllabus-2015-Course-3-4-17.pdf)
4	Final Year 2015 Pattern	https://www.nmiet.edu.in/it/pdf/BEIT_(2012_Course)_Final_Draft_Dated_04-06-2015-1.pdf (https://www.nmiet.edu.in/it/pdf/BEIT_(2012_Course)_Final_Draft_Dated_04-06-2015-1.pdf)

Table 2.1.1c.2. Curriculum of SPPU for Bachelor of Engineering in Information Technology 2019 pattern (Syllabus attached)

Sr. No.	Year	Link
1	First Year 2019 Pattern	https://www.nmiet.edu.in/fe/pdf/FE-Engineering-2019-Syllabus.pdf (https://www.nmiet.edu.in/fe/pdf/FE-Engineering-2019-Syllabus.pdf)
2	Second Year 2019 Pattern	https://www.nmiet.edu.in/it/pdf/sy-it-syllabus-2019.pdf (https://www.nmiet.edu.in/it/pdf/sy-it-syllabus-2019.pdf)
3	Third Year 2019 Pattern	https://www.nmiet.edu.in/it/pdf/ty-it-syllabus-2019.pdf (https://www.nmiet.edu.in/it/pdf/ty-it-syllabus-2019.pdf)

4	Final Year 2019 Pattern	https://www.nmiet.edu.in/it/pdf/be-it-syllabus-2019.pdf (https://www.nmiet.edu.in/it/pdf/be-it-syllabus-2019.pdf)

The Institute is affiliated with Savitribai Phule Pune University, which has adopted a credit system pattern. Course credits are assigned following AICTE guidelines.

The credit calculation method and total contact hours for the programme are detailed below:

Table 2.1.1d: Credit Calculation as per AICTE Guidelines

Sr. No.	Curriculum Delivery Mode	Period (Hours)	Assigned Credits
1	Lecture	1	1
2	Tutorial	1	1
3	Practical	2	1

The total contact hours for the Bachelor of Engineering programme are 229 hours, corresponding to 190 credits over the complete course duration.

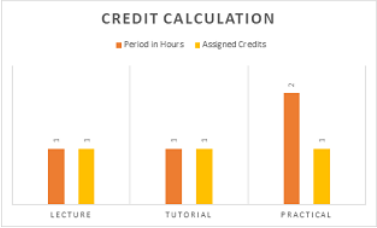


Figure 2.1.1.f. Credit calculation

Table 2.1.1e Summary of credits & contact hours per week semester wise for 2015 Course

SEMESTERS	Total Number of contact hours			Hours / Week	Credits
	Lecture (L)	Tutorial (T)	Practical (P)		
FE-SEM-I	18	1	12	31	25
FE-SEM-II	19	-	12	31	25
SE-SEM-I	20	-	10	30	25
SE-SEM-II	19	1	10	30	25
TE-SEM-I	16	2	10	28	23
TE-SEM-II	18	1	8	27	23
BE-SEM-I	16	-	10	26	22
BE-SEM-II	12	-	14	26	22
TOTAL	**138**	**5**	**86**	**229**	**190**

Figure 2.1.1.g.: Total curriculum distribution based on contact hours(Click Here (https://drive.google.com/file/d/1LqE1EXf2uqXKyGwMVIVV4bM0sDRNtfB2/view?usp=drive_link))

Figure 2.1.1g shows the distribution of contact hours in terms of Lecture, Tutorial and Practical of SPPU curriculum. It shows 60% of the weightage for Lecture, 2% for Tutorial and 38% for practical.

B. Comparison with Professional bodies like AICTE, ACM and Institute like COEP

Comparison of course components of curriculum followed by SPPU with the curriculum suggested by the professional bodies like All India Council for Technical Education (AICTE), Association for Computing Machinery (ACM) and Institute like College of Engineering, Pune (COEP) is shown in Table B.2.1.1.f also it is shown in Figure B.2.1.1.h.

Table 2.1.1f: Curriculum comparison of SPPU, AICTE, ACM and COEP based on course components

Course component	Credits			
	SPPU	AICTE	ACM	COEP
Humanities and Social Science (HSS)	4	12	33	6
Basic Sciences and Mathematics (BSM)	24	24	31	27
Engineering Sciences (ES)	36	29	0	19
Professional Core (PC)	97	49	36	91
Professional Electives/Open Elective (PE/OE)	16	30	15	8

Project /Seminar (PRO/S)	13	15	5	16
Total	**190**	**159**	**120**	**167**

Figure B.2.1.1.h. Curriculum comparison of SPPU, AICTE, ACM and COEP based on course components(Click Here (https://drive.google.com/file/d/1E6nXMb5iSeVvDB7gTh7M6tpqHZXTJKj_/view?usp=drive_link))

After completing gap analysis, gaps are identified and classified into different categories as shown in Figure B 2.1.1g.

As per observation, there exists a credit gaps which are bridged by taking adequate efforts at different levels. As per observations and comparison with AICTE, there exists a gap in HSS, Elective, and Project. The following Table 2.1.1.g. shows the activities conducted to match the AICTE credits for HSS, Elective, and Project to strengthen our POs and PSOs.

Table 2.1.1.g. Activities conducted to attain the credits as per AICTE to strengthen POs and PS

Sr. No.	Course	AICTE Credits	SPPU Credits	Remarks	
				Justification	Activities conducted to bridge the gap
1	Humanities and Social Science (HSS)	12	04	In the AICTE curriculum credits are assigned for the English, Humanities and Management/finance and Accounting Courses In the SPPU curriculum credits are assigned for Soft Skill and Information Systems & Engineering Economics	Non-credit courses such as Japanese language Module I and II, audit courses. GD and PI sessions are Conducted to clear HR round. Induction program conducted for FE students like Yoga session, lectures on human values, stress management Various NSS activities like tree plantation, Swachh Bharat Abhiyan, Blood Donation etc.
2	Professional Electives/Open Elective (PE/OE)	30	16	In the AICTE curriculum, the number of Elective (6) and open elective (4) subjects are more In the SPPU curriculum number of elective subjects [(6) including Open elective]	Students have done courses on Coursera, Udemy, and NPTEL. PBL activity is conducted for FE, SE and TE students in which students select own problem statement in their domain interest. Internship for students
3	Project / Seminar (PRO/S)	15	13	In the AICTE curriculum, Project phase I, II and III are considered. In the SPPU curriculum, Project phase I and II, Skills Development Lab, Seminar & Technical Communication are considered.	Various expert sessions are planned related to Seminar, communication skills, Project Selection and Literature review, Copyright process.

List the curricular gaps for the attainment of defined POs & PSOs

After completing gap analysis, gaps are identified and classified into different categories as shown in Figure 2.1.1.i.

Figure 2.1.1.i. Categorization of Gap Analysis(Click Here (https://drive.google.com/file/d/1RF1SA6x-wN_QiQEko-VP8u98-JRDY2GL/view?usp=drive_link))

The PAC of the Information Technology programme has analysed the mapping of all the POs and PSOs and corrective actions in the form of gap identification and defining content beyond the syllabus were worked out.

- GAP-1: Core Knowledge and Skills
- GAP-2: Career Guidance and Soft Skills
- GAP-3: Industrial Exposure
- GAP-4: Social Responsibility

The identified gaps were discussed in the DAB meeting, and the following measures were taken to bridge the gap by planning different events and activities as given below:

- Guest/Expert Lectures
- Add-on or value-added courses
- Industrial Visits
- offering internships to students

The identified gaps and corrective actions are shown in Table 2.1.1.h.

Table 2.1.1 h: Identified Gap and events

Sr. No.	Gap	Seminar /Workshop/Training /Industrial Visit	PO, PSOs Mapped
1.	Core Knowledge and Skills	Prerequisite sessions on Mathematics and Applied Mechanics, Entrepreneurship Workshops , Experts lectures/ Workshops on skill developments.	PO1, PO2, PO6, PO9, PO10
2.	Career Guidance and Soft Skills	Aptitude Sessions for TE/BE Students, Planning your career, Session on GATE/GRE/TOEFL preparation and opportunities, Sessions on MPSC/UPSC and career opportunities	PO6, PO8, PO9, PO10, PO12
3.	Industrial Exposure	Industrial visits, Internship, Industrial Training program, Industry Sponsored Lab Activities, Industry Sponsored projects, Session on Successful career and Professional Skills, Industrial Training Program (ITP).	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2
4.	Social Responsibility	NSS Camps, Unnat Bharat Abhiyan, Blood donation camp, tree plantation, visit to old age home and orphanage.	PO6, PO7, PO8, PO9,PO10, PO12

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

Institute Marks : 10.00

Steps Taken to Identify Gaps Included in the Curriculum:

Gap Identification:

- **By identifying weakly mapped POs and PSOs**: Course coordinators assess which Program Outcomes and Program Specific Outcomes are not sufficiently covered in the current syllabus.
- **Comparing with Professional Bodies**: The syllabus is compared with standards set by bodies like AICTE and institutions such as COEP to ensure it meets industry expectations.
- **Feedback from Stakeholders**: Feedback from students, faculty, industry experts, and alumni is collected to identify gaps in the syllabus.

Conveying Gaps to the Board of Studies:

- Identified gaps are communicated to the **Board of Studies for Information Technology at Savitribai Phule Pune University (SPPU)**.
- Course coordinators actively contribute to the syllabus drafting by sending their observations, comments, and suggestions to the Chairman of the Board of Studies.

Delivery Details of Content Beyond Syllabus:

- Once gaps are identified, several approaches are implemented to address them and ensure the attainment of Course Outcomes (COs) along with POs and PSOs.

Conduction of Content Beyond Syllabus by Course Teacher:

- Some additional content is covered during regular classes by the course teacher to provide deeper insights into areas not fully addressed by the syllabus.

Guest Lectures:

- Experts from industry and academia are invited to deliver guest lectures, offering practical insights and bridging the gap between theoretical knowledge and industry expectations.

Visits:

- Industrial and field visits are organized to give students exposure to real-world applications, connecting the knowledge learned in the classroom to industry practices.

Workshops:

- Students are encouraged to attend workshops conducted by experts, which provide hands-on experience in emerging areas and new technologies, further enhancing their understanding beyond the syllabus.

Project-Based Learning (PBL):

- Students engage in mini-projects based on their domain interest. These projects encourage self-learning, and the outcomes are showcased through posters and exhibitions, ensuring that learning goes beyond textbook knowledge.

Use of E-learning Resources:

- Online learning platforms like **NPTEL** (National Programme on Technology Enhanced Learning) are utilized to provide students access to courses and materials that supplement the syllabus.

Certification Courses:

- Students are encouraged to complete certification courses from platforms like NPTEL, Coursera, or other relevant sources to gain expertise in areas beyond the standard curriculum.

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Limited Coverage of 5G and Beyond (for BEIT 2023-24 Mobile Computing Subject)	Incorporate Modules on 5G and Emerging Mobile Network Technologies	13/10/2023	Dr. Nitin Dhawas	65	PO5, PO12,PSO1
2	Limited coverage on recent trends in distributed IR and multimedia retrieval techniques	Expand the multimedia IR and distributed IR sections to cover more recent research, trends, and methods.	07/11/2023	Dr. Thammi Reddy	70	PO6,PO7, PSO1
3	Add hands-on exposure to modern front-end frameworks (React.js, Vue.js) and backend technologies (Node.js, Express).(for WAD TE IT	Workshop on front end and backend framework	25/02/2024	Dr. Pankaj Chandre	73	PO1,PO2,POS1

2022-23

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Lack of awareness of advanced algorithms beyond syllabus	Guest Lecture: “Graph Algorithms in AI & ML”	30/10/2022	Dr. Ajit Shitole	87	PO5, PO7, PSO2
2	There’s no unit or mention of Graphical User Interface (GUI) development. Gap: Basic GUI integration helps apply OOP principles to real-world interactive applications (e.g., JavaFX, Tkinter, or Swing in Java).	Build a GUI-based Student Management System that allows adding, deleting, and viewing student records using OOP principles.	15/10/2022	Dr. Ganesh R. Pathak	85	PO 3, PO 5,POS1, PSO2
3	Virtual Reality (VR) is not included in the 2015 pattern syllabus for Computer Graphics, this could be identified as a gap in the syllabus.	Guest Lecture on "Virtual Reality"	08/03/2023	Dr. K. T. V. Reddy	75	PO3,PSO1
4	Advanced IoT concepts: Topics like IoT Security, IoT Cloud Platforms, and Edge Computing may not be covered thoroughly.(for TE IT Internet of things)	Guest Lecture on IOT Security	28/08/2022	Dr. Kranthi Kumar	80	PO1,PO5,PSO2

2021-22

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Insufficient knowledge of algorithm complexity analysis (for SEIT 2019-20 Data Structue subject)	Session on : "Algorithm Complexity and Optimization"	13/09/2021	Dr. Sachin D. Babar	87	PO1,PO2, PSO2
2	Limited Exposure to Modern Development Practices (For SE IT 2019-20 Software Engineering subject)	Include labs or mini-projects using Agile tools (Jira, Trello) and DevOps pipelines (GitHub Actions, Jenkins, Docker).	03/04/2022	Prof. Nitin Dhawas	80	PO5,POS1, PSO2
3	Providing a foundation in OS concepts but with less emphasis on advanced Linux topics and deeper OS internals.	Workshop on Advance Linux internals	17/08/2021	Dr. Ganesh R. Pathak	50	PO1,POS1, PSO2
4	Lack of practical hands-on experiences in network configuration and troubleshooting	Incorporate lab sessions with network simulators (e.g., Packet Tracer, GNS3) for practical exercises.	25/03/2022	Prof. Avinash Golande	75	PO1, PO3, PSO1
5	Missing discussions on 5G security, quantum cryptography, and post-quantum cryptography.	Session on 5G security and quantum Cryptography	25/09/2021	Dr. Deepak Mane	78	PO1

2.2 Teaching - Learning Processes (100) Total Marks 100.00

2.2.1 Describe processes followed to improve quality of Teaching & Learning (25)

Institute Marks : 25.00

The program has well defined structure for monitoring of teaching learning process. The **Academic Planning and Monitoring Committee (AMC)** plays a crucial role in overseeing and regulating academic activities within an institution. The use of the **Plan-Do-Check-Act (P-D-C-A)** cycle ensures a continuous improvement loop, allowing for the systematic planning, execution, evaluation, and refinement of academic processes. Below is a breakdown of the key components and roles of AMC in the P-D-C-A cycle:

Academic Planning and Monitoring Committee (AMC)

The AMC ensures that academic activities are conducted smoothly, uniformly, and in alignment with the institutions overall academic objectives. It coordinates the planning, execution, monitoring, and enhancement of teaching-learning processes at the institute level. The **Departmental Academic Coordinator (DAC)** ensures that departmental activities are well-aligned with the broader academic plans and goals.

Figure 2.2.1a: Plan-Do-Check-Act (P-D-C-A Cycle) for Academic Framework(Click Here (https://drive.google.com/file/d/1RmDYX_RvY0yg10CJvG7sHk-NW7nC5Raa/view?usp=drive_link))

P-D-C-A (Plan-Do-Check-Act) Cycle for Academic Monitoring

The **P-D-C-A cycle** is a systematic method for continuous improvement of academic activities, helping the institution to monitor and regulate the teaching-learning process effectively.

Plan (Planning Phase):

- **Academic Calendar Creation**: The AMC drafts the academic calendar, which includes the schedule of semesters, exams, holidays, and important academic activities.
- **Course Planning**: Detailed planning for each course, including lecture schedules, teaching methods, and assessment techniques, is done to ensure uniformity and effectiveness in academic delivery.

Do (Execution Phase):

- **Implementation of Academic Plans**: The committee ensures that the planned academic activities (lectures, tutorials and assessments) are executed effectively across all departments.
- **Faculty Development**: Conducts faculty development programs to improve teaching methodologies, enhance knowledge, and integrate new technologies into teaching.
- **Student Engagement**: Encourages active participation through seminars, workshops, guest lectures, and collaborative learning activities, aligning with the planned curriculum.

Check (Monitoring Phase):

- **Regular Assessments and Evaluations**: The AMC monitors student progress through various assessments like quizzes, assignments, exams, and presentations. It ensures that these evaluations align with the program outcomes.
- **Feedback Mechanism**: The committee collects feedback from students, faculty, and industry experts. Regular feedback sessions and surveys allow for the identification of areas for improvement in both teaching and student performance.
- **Review of Academic Performance**: Regular meetings are held to review the overall academic performance of students and faculty. This includes analyzing the effectiveness of teaching methodologies and course delivery.

Act (Improvement Phase):

- **Corrective Actions**: Based on the findings from the "Check" phase, AMC takes corrective actions such as modifying teaching strategies, revising the curriculum, or introducing new technologies.
- **Continuous Improvement**: The AMC ensures that lessons learned from evaluations and feedback are implemented into the planning process for the next cycle. Adjustments to teaching methods, resources, or even faculty development initiatives may be made to further improve academic quality.
- **Reporting and Documentation**: All activities, assessments, and improvements are documented for transparency, accountability, and future reference.

The Information Technology Department follows the process of teaching–learning as shown in following Figure 2.2.1b.

Figure 2.2.1b Teaching-Learning process(Click Here (https://drive.google.com/file/d/1q_vGefGoGCh3w88fzmbf_GSzIkaw1cuP/view?usp=drive_link))

A. Adherence to Academic Calendar

- **University-Level Calendar:** At the beginning of the academic year, the University publishes the official academic calendar (refer to Figure 2.2.1c).
- **Institution-Level Planning:**Based on the University calendar, the Academic Monitoring Committee (AMC) formulates the institutional academic planner for each semester (sample shown in Figure 2.2.1d).
- **Program-Level Calendar:**The Program Coordinator, in coordination with the faculty, prepares the academic calendar for the respective program (as illustrated in Figure 2.2.1e).

This calendar aligns with the institution's planner and includes:

- Co-curricular activities
- Add-on courses
- Parent-teacher meetings
- Unit test schedules
- Defaulter list display dates
- Practical/oral examinations
- University theory examinations

Student Notification:

Timetables and academic calendars are communicated to students well in advance via social media and notice boards.

Execution and Monitoring:

All academic and co-curricular activities are executed in accordance with the predefined calendar.

Academic Monitoring Committee (AMC) **Structure:**

- The AMC operates at the institute level under the leadership of the Dean Academics.
- It is responsible for drafting, regulating, and implementing academic policies to ensure consistent academic operations across departments.
- The committee is headed by an Academic Coordinator, supported by departmental representatives known as Departmental Academic Coordinators (DACs).

Role of Class Teachers and Guardian Faculty Mentors:

- Class Teachers and Guardian Faculty Mentors serve as the operational foundation of AMC.
- The committee conducts **Academic Review Meetings (ARM)** twice each semester to audit and review academic activities.
- If any shortcomings are identified, staff members are given appropriate time to address and rectify them.

Figure 2.2.1c Process of framing of academic calendar(Click Here (https://drive.google.com/file/d/1E_O75GSJmisL6oYEwjH4OgrHclEoaAG3/view?usp=drive_link))

- At the beginning of academic year, the University notifies the academic calendar.
- Accordingly, Academic Monitoring Committee (AMC) prepares academic calendar for the Institution every semester

University Academic Calendar(Click Here (https://drive.google.com/file/d/1Kail62ERzr3oJlKOul1OJPsHsr_xBv7u/view?usp=drive_link))

Institute Academic Calendar(Click Here (https://drive.google.com/file/d/16UTVM0yAsQFA4lsot5by24AcvHiaozF3/view?usp=drive_link))

Department Academic Calendar(Click Here (https://drive.google.com/file/d/1SM6cylaXDBEQcvf6zR1_kfuwEZdKTnSQ/view?usp=drive_link))

B. Use of various instructional methods and pedagogical initiatives

To ensure Outcome Based Education, Course Coordinator uses various instructional methods as shown in Figure 2.2.1k and takes pedagogical initiatives to achieve it.

Figure 2.2.1.k.: Various Instructional Methods and Pedagogical Initiatives(Click Here (https://drive.google.com/file/d/1zuRzG7h4PD0oumYd6j-bvVa9GhNglZzf/view?usp=drive_link))

- **Project-Based Learning (PBL)**: Promotes hands-on learning, fosters collaboration, and allows students to apply theoretical knowledge in real-world scenarios. It enhances critical thinking and problem-solving skills.
- **Online Compiler and Notebook**:Encourages practical coding experience and allows students to experiment and learn programming languages in an interactive manner. It enhances self-learning and immediate feedback.
- **Smart Classrooms**:Makes learning more dynamic and interactive. Smartboards and digital tools facilitate visual learning, engaging students with multimedia content and enabling diverse teaching methods.
- **Chalk and Talk**:Traditional yet effective for direct, structured learning. It can be ideal for conveying foundational concepts in a clear, focused manner, but may require complementary methods for engagement.
- **Videos by Course Teacher**:Provides flexibility for students to learn at their own pace and revisit concepts, reinforcing learning. It also allows teachers to address specific topics in more depth.
- **E-learning**:Provides access to a wealth of resources like MOOCs and NPTEL, enabling students to learn beyond the classroom. It encourages self-paced, lifelong learning.
- **Case Studies**:Helps bridge theory and practice by presenting real-world problems, promoting analytical thinking, and decision-making.
- **Topic Presentation by Students**:Enhances communication and presentation skills, and allows students to take ownership of their learning while teaching peers. It boosts confidence and knowledge retention.
- **Poster Presentation**:A creative method for students to present their findings in a concise, visually engaging format. It encourages critical thinking and the ability to distill complex information.
- **Expert Lectures**:Provides students with insights into the latest industry trends and expertise, expanding their understanding and inspiring them to explore deeper aspects of their field.
- **Online Quiz**:Offers a fun and competitive way for students to review concepts, while giving instant feedback. It promotes engagement and can be a great tool for assessment.
- **Activity-Based Learning**: Encourages holistic development by improving problem-solving, leadership, teamwork, and ethical awareness. It also provides real-world skills outside of the academic context.

C. Methodologies to Support Weak Students and Encourage Bright Students

- Methods to Identify Weak and Bright Students
  - Faculty members deal with diverse students — some grasp concepts quickly (bright students) while others require more time and support (slow learners). Hence, it is important to determine students abilities systematically.
  - Students are identified based on the following parameters:

• Academic Performance:

  - Preceding University Examination Results
  - Entry-Level Marks (e.g., 12th grade or diploma scores)
  - Internal Examination Performance Marks (mid-semester tests, class tests)

• Class Observation by Course Instructor/GFM Coordinator:

  - Students who take longer to grasp new concepts.
  - Students with short memory retention.
  - Students who lack self-confidence and give up quickly.
  - Students with poor communication and writing skills.
  - Students who avoid interacting with teachers.

- Methodologies to Support Weak Students (Slow Learners)
  - **Remedial Lectures**: Conduct additional coaching classes to strengthen fundamental concepts.
  - **Learning Material Support**: Provide simplified notes, video lectures, and reference materials.
  - **Counseling and Mentoring**: Regular counseling sessions to boost confidence and academic motivation.
  - **Continuous Monitoring**: Close follow-up on performance through periodic internal tests and feedback.

- Methodologies to Encourage Bright Students (Advanced Learners)
  - **Motivation to Attend Events**: Encourage participation in conferences, workshops, seminars, contests, and internships (in-house and external).
  - **Higher Studies and Entrepreneurship Support**: Motivate students to pursue higher education (GATE, GRE, etc.) and entrepreneurial ventures.
  - **Book Bank Facility**: Toppers are provided with additional resources and book banks for advanced learning.
  - **Certification Courses**: Encourage online certifications from platforms like NPTEL, Coursera, and Udemy.

Impact Analysis

- **Slow Learners**: Improvement in internal and external examination performance by approximately **05–10%**.
- **Bright Students**: Improvement of around **10%** in internal assessments. Consistent maintenance of **distinction** in external university examinations.
- **Overall Skills Development**:

  Enhancement of technical, soft, and managerial skills.

  Students are exposed to new industry technologies and techniques.

  Increased confidence and readiness for higher education, placements, and entrepreneurship.

- Quality of Classroom Teaching

D. Conduct of Experiments

- **Adherence to Guidelines:** All mandatory experiments (assignments) are conducted in strict accordance with the university-prescribed syllabus and academic guidelines.
- **Laboratory Manual:** A detailed laboratory manual is prepared by the Course Teacher and provided to students during the laboratory sessions. This manual outlines the objectives, procedures, and expected outcomes, ensuring that students can independently understand and execute each assignment.
- **Student-Centric Approach**: Each student is required to individually perform the assigned experiments. Completed laboratory work is compiled and submitted in the form of a journal, reinforcing hands-on learning and documentation skills. This initiative minimizes paper usage and promotes eco-friendly practices in line with Green IT principles.

D.1 Continuous Assessment in the Laboratory

Assessment Methodology:

- Continuous assessment in the laboratory is based on a comprehensive evaluation of multiple performance parameters.
- Assessment is carried out for each laboratory assignment and considers:
- Timely submission of the lab journal
- Presentation quality
- Active participation and performance during practicals
- Depth of understanding
- Oral responses to assignment-related questions
- Marks are awarded for each parameter and recorded as part of the continuous internal evaluation.

Assessment Parameters:

- The assessment is done on a scale of either **25 or 50 marks**, depending on course requirements.
- The detailed parameters are presented in **Table 2.2.1.a** below.

Table 2.2.1.a – Parameters for Continuous Assessment

Sr. No.	Parameter	Marks
1	Timely Submission	5 or 10
2	Presentation	5 or 10
3	Performance	5 or 10
4	Understanding	5 or 10
5	Oral	5 or 10
	Total	**25 or 50**

Procedure of Evaluation:

- Each practical assignment is evaluated immediately after completion, following a structured rubric.
- Evaluators consider both technical competency and the students ability to articulate and reflect on their work.

Table 2.2.1.b – Rubrics for Continuous Assessment

Sr. No.	Evaluation Criteria	Marks	Rubric Description
1	Timely Submission	5/10	Demonstrates professional work ethics by submitting reports on time without reminders.
2	Presentation	5/10	Reports should be original, clearly written, well-structured, and must include the algorithm, design, and explanation of the code.
3	Performance	5/10	Code must be correct and robust. The student should show a deep understanding of the assignment.
4	Understanding	5/10	The student must explain the methodology and demonstrate clarity on the assignments objectives and outcomes.
5	Oral	5/10	The student should confidently and accurately respond to oral questions related to the assignment.

Feedback Collection and Analysis Process

Feedback Collection

Overview:

The institute has implemented a **confidential, anonymous and systematic feedback mechanism** to gather students perceptions about the effectiveness of teaching across all courses and programs.

Feedback is collected through a **computerized feedback system** using a standardized feedback form.

Methodology:

Students rate faculty performance based on predefined parameters using a **5-point rating scale**.

The system ensures unbiased responses and provides valuable input for continuous improvement in the teaching-learning process.

Feedback Rating Scale:

Rating	Interpretation
5	Excellent
4	Very Good
3	Good
2	Average
1	Poor

Table 2.2.1.c – Feedback Collection Process

Parameter	Description
Feedback Collection Process	Conducted for all courses across all programs

Process	Softcopy-based feedback form
Feedback Receiver	Head of the Department (HOD) of the respective program
Feedback Executer	Feedback Coordinator from a different department
Frequency of Collection	Twice every semester
Purpose	To serve as an effective tool for improving teaching quality and the overall learning experience

Figure 2.2.1.l – Student Feedback on Teaching-Learning Process(Click Here) (https://drive.google.com/file/d/1pCt3T26JBoTPsNBKdVEUXRFXgGXdht0m/view?usp=drive_link)

The Institute uses a structured and detailed student feedback system as a core part of its quality enhancement strategy.

Feedback is collected separately for **theory** and **practical courses**, recognizing the unique teaching-learning dynamics of each.

Feedback Parameters:

Parameters are carefully defined and tailored to each course type to accurately assess faculty performance and instructional effectiveness.

These parameters typically include:

- Clarity of communication
- Subject knowledge
- Use of teaching aids and methods
- Encouragement of student participation
- Timely completion of syllabus
- Support during lab sessions (for practicals)
- Responsiveness to student queries

Feedback Forms:

- Students provide input via digital feedback forms, which are processed confidentially.
- Feedback is collected **twice per semester**, as outlined in the institutional feedback policy.

Figure 2.2.1.n. Individual Faculty Feedback Report(Click Here (https://drive.google.com/file/d/1oUKsPQHy5ZVq7kLHhVsg3pnlH5Ne97Km/view?usp=drive_link))

Figure 2.2.1.o. Faculty Appreciation/improvement Letter required(Click Here (https://drive.google.com/file/d/1h-QKkk-eQvhm9SiW6eg89JYxdrSzH0Uw/view?usp=drive_link))

Sample Individual Faculty Feedback Report is shown in Figure 2.2.1.n. alog with Faculty Appreciation/improvement Letter required in Figure 2.2.1.o

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20)

Institute Marks : 20.00

A. Process for Internal Semester Question Paper Setting, Evaluation and Effective Process Implementation

- To ensure the achievement of learning outcomes, multiple internal assessments are conducted alongside the established online/in-semester and end-semester examinations prescribed by Savitribai Phule Pune University (SPPU). These additional efforts include **Unit Tests and Preliminary Examinations** .
- **Unit Tests** and **Preliminary Examinations** serve as two key internal tests aimed at continuous evaluation of student learning.
- The detailed **process, structure, and pattern** of these internal examinations are depicted in **Table B 2.2.2a** and **Table B 2.2.2b**.

B. Internal Semester Examination

The comprehensive process for the conduction and evaluation of internal examinations is systematically outlined in **Table B 2.2.2a**.

Table 2.2.2a: Process of Conduction and Evaluation of Internal Examination

Sr. No.	Activity	Authority
01	Submit the requirement for Internal Examinations to the Exam Department before the start of the academic year.	Program Coordinator, Exam Coordinator
02	Collect the materials needed for internal examinations from the Exam Department.	Exam Coordinator
03	Organize and authenticate internal examinations; create a timetable in the specified format and display it on the notice board.	Exam Coordinator
04	Prepare and authenticate examination and supervision duties allotment chart, considering staff responsibilities and priorities.	Program Coordinator
05	Distribute a copy of the examination and supervision responsibility chart to all concerned employees.	Exam Coordinator
06	Obtain question papers for each subject from the concerned faculty (questions should map to COs) as per the SPPU pattern.	Exam Coordinator
07	Verify, authenticate, and seal question papers; ensure compliance. Request resubmission if necessary. Pack question papers in envelopes.	Program Coordinator
08	Prepare and organize exam blocks, question papers, and response sheets (block-wise).	Exam Coordinator
09	Prepare and display block-wise seating arrangements on the notice board.	Exam Coordinator
10	Conduct examinations fairly, validate students' authentic documents, and prevent unfair practices.	Course Coordinator, Exam Coordinator, Program Coordinator
11	Collect answer sheets and attendance/assessment sheets from supervisors and hand them over to concerned faculty for evaluation.	Exam Coordinator
12	Review and distribute evaluated answer sheets to students for self-analysis.	Course Coordinator
13	Address any student concerns regarding evaluation by rectifying and rechecking answer sheets in their presence.	Course Coordinator
14	Collect evaluated answer sheets and copies of results for storage; retain samples of good, average, and exceptional sheets.	Exam Coordinator
15	Double-check subject results, verify against faculty submissions, and post results on the notice board.	Exam Coordinator
16	Arrange re-examinations for incomplete exams or absentees using alternate question papers; repeat the process as needed.	Exam Coordinator
17	Report absent students to mentor faculty for internal investigation, counseling, and communication with parents.	Exam Coordinator

C. Internal Assessment and Mark Distribution

Internal assessments are conducted using tools such as **Unit Tests**, **Preliminary Examinations** and **Continuous Assessment**. The **mark distribution** is shown below:

Table 2.2.2b: Mark Distribution of Internal Exams and Assignment Structure

Sr. No.	Evaluation Parameter	Marks
1	Unit Test (SE, TE, BE)	2015 PAT SE: 25 or 2019 PAT SE:30 Marks; TE & BE: 30 Marks
2	Prelim Exam (SE, TE, BE)	2015 PAT SE: 50 or 2019 PAT 70 Marks; TE & BE: 70 Marks
3	Continuous Assessment (SE, TE, BE)	25 or 50 Marks

D. Process to Ensure Questions Address Outcomes and Learning Levels

- Each **Course Outcome (CO)** is carefully mapped to the corresponding questions in the question paper. This ensures alignment with **Outcome-Based Education (OBE)** principles, orienting both students and faculty towards achieving clearly defined learning objectives.
- During evaluation, the specific questions attempted by a student are considered for measuring the **attainment of Course Outcomes (COs)**.

This attainment is further mapped to relevant **Program Outcomes (POs)** and **Program Specific Outcomes (PSOs)** to monitor overall educational effectiveness.

Moderation Report

Moderation Report – Unit Test I (Click Here (https://drive.google.com/file/d/10MWJLK4XE7lHeRJ5WSJumF_pggn3BAxp/view?usp=drive_link))

E. Evidence of COs Coverage in Class Tests / Mid-Term Tests

A **sample of the question paper** demonstrating the mapping of Course Outcomes (COs) is shown in **Figure B.2.2.2.b**.

The **questions** in the test are carefully **aligned with the respective Course Outcomes (COs)**.
This alignment ensures that both **students** and **instructors** remain focused on achieving the desired learning outcomes and maintaining the philosophy of **Outcome-Based Education (OBE)**.

Sample Unit Test Question Paper (Click Here (https://drive.google.com/file/d/1v5f-dElk15F0uU1clly9628PCmBFT3u9/view?usp=drive_link))

Impact Analysis:

- Development in self-learning ability
- Improvement in problem solving ability
- Improvement in university examination results
- Improvement in overall performance of students

2.2.3 Quality of student projects (25)

Institute Marks : 25.00

A. Quality of student projects

- Students undertake major projects during their Bachelor of Engineering (BE) program as per the Savitribai Phule Pune University (SPPU) curriculum.
- The **Major Project** is incorporated into the **VIIth and VIIIth Semesters**, designated respectively as **Project Phase I** and **Project Phase II**.
- To ensure the enhancement of project quality, a **standardized procedure** is followed that covers project and guide allocation, progress review, and final assessment:
- A **list of previous years projects** is provided to students to **prevent project repetition** and to encourage them to **build upon and enhance** prior work.
- Students are actively **motivated to participate** in various **project competitions, exhibitions**, and to **present papers** in reputed **national and international journals/conferences**.
- **Industry experts** are invited for **project assessment and evaluation**, providing students with **valuable feedback and inputs** for further enhancement.
- The **evaluation panel includes industry professionals**, ensuring a robust, real-world-oriented review of student projects.
- This holistic approach ensures that students not only meet academic standards but also develop industry-relevant skills and gain early exposure to professional expectations.

B. Initiatives to Enhance Quality of Student Projects:

- **Problem Definition**: Projects are chosen based on real-world industrial problems, research gaps, or societal needs. Students are encouraged to take industry-sponsored or research-based projects.
- **Industry Collaboration**:Students are guided to work on industry-defined problems through collaborations with organizations such as CRPF (e.g., *MANODARSH: AI-Powered Stress & Depression Recognition* project).
- **Innovation and Originality**:Students are motivated to develop innovative solutions instead of working on repetitive or textbook problems. Projects often involve recent technologies like Machine Learning, IoT, Cloud Computing, Cybersecurity, etc.
- **Interdisciplinary Projects:**Many projects are interdisciplinary, blending fields like Computer Science, Electronics, and Mechanical Engineering.
- **Mentorship**:Each project group is assigned an internal guide and, where applicable, an external industry mentor for periodic reviews and feedback.
- **Research Orientation**:Students are encouraged to publish their work in journals, conferences, and participate in project competitions like Smart India Hackathon, Avishkar, and IEEE events.

C. Evaluation Parameters:

- Relevance to current industry/research trends
- Innovation and uniqueness
- Application of theoretical concepts
- Project complexity and depth
- Execution quality (working model / software / product)
- Documentation quality (Reports, Presentations, Research Papers)

D. Achievements and Impact:

Sr. No.	Achievement	Description
1	Industry-Academic Projects	Successful projects with CRPF India, Infosys, and other companies.
2	Project Competitions	Participation and awards in events like Smart India Hackathon, Avishkar Research Competition.
3	Research Publications	Students publishing technical papers in national and international conferences.
4	Product Development	Prototype and working models developed for real-world use.
5	Startup Ideas	Some projects have been incubated into startup initiatives under NIC.

E. Identification of Projects and Allocation Methodology to Faculty Members

The process for project identification and guide allocation is systematically designed to ensure quality outcomes:

- A **Project Coordinator** is appointed by the **Program Coordinator**, responsible for planning, scheduling, and executing all activities related to the project work.
- A **Project Guidance Session** is conducted for final-year students during their practical hours. In this session, the Project Coordinator provides insights into various domains and fields to assist in selecting project topics.
- The **Domain Area** of each faculty member and the **list of previous year's projects** are displayed on the departmental notice board to guide students and avoid topic repetition.
- Students are encouraged to **form project groups** based on their area of interest. The announcement for group formation is made via the notice board.

The **Program Coordinator and Project Coordinators** allocate **project guides** to the groups, considering:

- Faculty members' domain expertise
- Students preferences
- Alignment of project topics with faculty specialization

After the **allocation of project guides**, students are requested to **present** their proposed topics (one or two problem statements) to their assigned guide for discussion and initial feedback.

Students must then **finalize their project title** based on the guide's suggestions and submit the **Project Synopsis**, duly signed by:

- Project Guide and Program Coordinator
- The finalized documents are submitted to the **Project Coordinator** for record-keeping and further planning.

A **dedicated time slot (Project Day)** is assigned to students in the weekly timetable to carry out project-related activities efficiently.

Figure 2.2.3.a Projects Identification and guide allocation process(Click Here (https://drive.google.com/file/d/19KG1SpDrTOlwCDHanYHuqOd815gb-0s2/view?usp=drive_link))

F. Types and Relevance of the Projects and Their Contribution Towards Mapping of POs and PSOs

- Projects done by final-year students are classified into categories such as: **AIML, Data Science, Android(Mobile Application), Cyber Security, Web Developement** etc.
- Projects are further categorized based on utilization: **Product-oriented**, **Application-oriented**, **Research-based** and related to **Societal**, **Environmental** and **Safety** concerns.
- **Modern tools and technologies** are used by students for implementation.

- Each project is **evaluated according to defined rubrics**.
- Each project topic contributes to the **attainment of most of the POs and PSOs**.

Projects are allocated ensuring:

- The POs not mapped directly by courses are covered through projects.
- **COs (Course Outcomes)** are defined for each project and mapped to respective **POs and PSOs**.

Table B.2.2.3.a - Categorization of Projects Across Domains (Last 3 Academic Years)

Academic Year	D1 (AI/ML/DS/CV)	D2 (Android)	D3 (Security)	D4 (Web Technology)	Total
2024-25	10	01	02	07	20
2023-24	10	00	03	06	19
2022-23	09	02	04	04	19
2021-22	06	03	06	06	21

Figure 2.2.3.c. categorization of project in various domains(Click Here (https://drive.google.com/file/d/1nx-Rieeylx7PLppW__uyChlQcbcbAu3T/view?usp=drive_link))

The lists of the projects carried out by students with guide are shown in the table 2.2.3.b

Table B.2.2.3.b List of Project

Project ID	Roll No.	Names of the students	Project Title	Domain	Guide
G1	27	Pritee Sunil Joshi	Topic :- Machine Learning Based Prognosis Of early -Stage Alzheimers Disease	Machine Learning	Prof. Nitin Wankhade
	43	Chetan Satish Patil			
	29	Amreen Parveen Iqbal Khan			
	23	Sofiyana Jalil Inamdar			
G2	20	Giri Anant	Detection Of DDOS attacks using ML Techniques	Web Application Development	Prof. Vivek Nagargoje
	28	Sumit Santosh Kekan			
	51	Sandesh Baban Sabale			
	46	Vaibhav Umraosing Patil			
G3	3	Abhishek Andure	Vehicle Detection Using Haar Cascade Algorithm	Machine Learning	Prof. Sonali Patil
	48	Sakshi Pidurkar			
	62	Aditya Tarte			
	65	Swapnil Thorat			
G4	17	Prince Dwivedi	Text Summarization using NLP	Machine Learning & Deep Learning	Prof. Nitin Wankhade
	41	Shraddha Pandey			
	19	Dev Garg			
	33	Tejas Kolhe			
G5	21	Muskan Hannure	Diamond Price Prediction	Machine Learning & Data Science	Prof. Vivek Nagargoje
	32	Vedant Kokane			
	34	Kalpak Kondekar			
	42	Gunjan Parate			
G6	4	Nikhil Attarde	Prognosis Diagnosis Medication	Full Stack (With AI/DS)	Prof.Supriya Bhosale
	22	Nidhi Hegde			
	75	Mehul Agrawal			
G7	16	Aniruddha Deshmukhe	AI based Multiple Disease Predictor	Machine Learning & Artificial intelligence	Prof. Ashish Manwatkar
	15	Nikhil Deshmukh			
	12	Samarth Dagade			
	25	Nilesh Jadhav			
G8	59	Yash annasaheb Shinde	Crypto Currency Prediction	cloud computing,block chain	Prof. Dheeraj Patil
	35	kute lajwanti dattatraya			
	9	chetan prahlad chavan			
	12	aditya bandu dahatonde			

G9	68	Mahesh Yadav	NMIETs Grievance Reddressal Cell	web development	Prof. Ashish Manwatkar
	69	Omkar Yadav			
	70	Saurabh karande			
	71	Ishwar Chaudhari			
G10	56	Sharvari Shinde	Detection Of Cyber bullying using ML	Machine Learning & Deep Learning	Prof. Dheeraj Patil
	49	Rutuja Pujari			
	53	Nilam Sandhbhor			
	40	Dipali Pacharne			
G11	18	Parth Fiske	Plant Disease Detection using CNN	Deep Learning	Prof. Ashish Manwatkar
	30	Wasim Khan			
	51	Atharva Sable			
	67	Nitin Ambegave			
G12	72	Manasi Jadhav	Virtual Paint	Artificial intelligence, Machine Learning & Open CV	Prof. Kapil Wagh
	73	Yogini Wani			
	74	Pratiksha Kulkarni			
	76	Neha Marathe			
G13	1	Abhishek More	SEVAPRASHEK NGO Funding using Blockchain	Blockchain, Machine Learning	Prof Sonali Dongare
	2	Saurabh Aherwadkar			
	6	Vishwajeet Bamane			
	10	Prasad Chopade			
G14	57	Shivam shinde	CyberKavach	CyberSeurity, Machine Learning	Prof. Dheeraj Patil
	58	Vedang Shinde			
	63	Neeraj Tembare			
	61	Calvin Suares			
G15	14	Harshwardhan Deshmukh	Destination Anywhere	Full Stack (With Machine Learning)	Prof. Kapil Wagh
	31	Neha Kharche			
	35	Prathamesh Morankar			
	45	Harshal Patil			
G16	8	Shweta Changar	Handwritten Digit recognition using neural networks	Deep Learning	Prof. Sonali Patil
	37	Gauri Mahajan			
	7	Ketan Bobade			
	14	Yash Davekar			
G17	54	Saurabh Shinde	Gesture and Voice Controlled virtual mouse	Artificial intelligence	Prof.Supriya Bhosale
	47	Swaraj Phalke			
	38	Swapnil Mohite			
	36	Akshay Mahajan			
G18	66	Vaishnavi Anil shinde	signature verification using machine learning	Machine Learning	Prof Sonali Dongare
	55	Kishori M Shinde			
	64	Sanika T Thorat			
	52	Sakshi S Salunke			
G19	5	Om Bafna	Geo-Fencing Android	Cyber Security	Prof.Supriya Bhosale
	26	Gajendra Jat			
	44	Gitesh Patil			
	24	Niraj Ingale			

G. Process for Monitoring and Evaluation of Projects

The program ensures effective and timely revision and submission of project work through **presentations**, **continuous assessment**, and **report submissions** at various stages in both semesters of final-year students. The project review committee comprises:

Table 2.2.3.c. Committee Review Members

Sr. No	Committee Members
1	Program Coordinator
2	Project Coordinator

3	Project Guide

Monitoring Process:

- Weekly meetings with guides are scheduled as per the timetable.
- Students maintain a **Project Diary/Log Book** of weekly meetings.

Two Project Reviews are conducted:

- **Stage-I** during Semester VII.
- **Stage-II** during Semester VIII.

The **Project Coordinator** oversees planning, scheduling, and execution activities.

Table B.2.2.3.d. Project Work Schedule

Task	Timeline	Particulars
Call for Project Groups	Start of VII Semester	Formation of project groups and idea discussion with the project coordinator.
Guide Allocation Finalization	1st and 2nd week of VII Semester	Guides allotted based on domain expertise and students' preferences.
Project Ideas Discussion	3rd week of VII Semester	Groups discuss ideas with the Program Coordinator, Guide, and Project Coordinator.
Project Title Finalization	4th week of VII Semester	Submission of more than two topics, one finalized per group.
Project Progress Review-I	5th and 6th week of VII Semester	Suggestions and modifications by committee members.
Project Progress Review-II	After In-Sem Exam of VII Semester	Progress monitoring and suggestions.
Project Stage I Examination	Before/after VII Semester Theory Exams	Conducted as per SPPU regulations.
Project Progress Review-III	2nd week of VIII Semester	Progress monitoring and suggestions.
Project Report Submission	10th week of VIII Semester	Report preparation in specified format.
Final Project Progress Review	Before end of VIII Semester	Internal evaluation with industry members.
Project Stage II Exam & Feedback	After VIII Semester Theory Exams	External examiner evaluation and feedback collection.

Evaluation Rubrics

Rubrics have been designed to assess both **individual** and **team performance**.

Table 2.2.3.e. Rubrics for Project Phase–I, Review-I

Sr. No	Parameter	Allocated Marks	High	Medium	Low
1	Project Diary	5	Regularly updated with guides sign	Irregular update with guide's sign	Not updated properly
2	Literature Study	5	In-depth with research gap	Done but not relevant	Not aligned with title
3	Problem Statement	5	Relevant, clearly explained	Slightly needs modification	Poorly specified
4	Problem Objective & Scope	5	Clearly defined	Needs improvement	Not clearly specified
5	Presentation Skills	5	Well-prepared, confident	Prepared but less confident	Not prepared

Table 2.2.3.f. Rubrics for Project Phase–I, Review-II

Sr. No	Parameter	Allocated Marks	High	Medium	Low
1	Project Diary	5	Regular updates	Irregular updates	Poor maintenance
2	Literature Study	5	In-depth review	Partial relevance	Not aligned
3	Solution to Problem	5	Solution found and work in progress	Delayed work	No proper progress
4	Proposed Methodology & Outcome	5	Clearly defined	Needs improvement	Not specified
5	Presentation Skills	5	Well-prepared and confident	Less confident	Unprepared

Table 2.2.3.g. Rubrics for Project Phase–II, Review-I

Sr. No	Parameter	Allocated Marks	High	Medium	Low
1	Project Diary	10	Regularly updated	Irregular updates	Not updated
2	Literature Study	10	In-depth with gap finding	Done but irrelevant	Inadequate
3	Solution to Problem	20	Relevant and in-progress	Delayed progress	No progress
4	Results, Discussions & Conclusions	20	Appropriate and complete	Partial conclusions	No results/discussion
5	Presentation Skills	15	Well-prepared	Less confident	Not prepared

Table 2.2.3.h. Rubrics for Project Phase–II, Review-II

Sr. No	Parameter	Allocated Marks	High	Medium	Low
1	Project Diary	10	Regular updates	Irregular updates	No updates
2	Experimentation Work	20	Completed as per objectives	Mostly completed	Major parts incomplete
3	Validation of Results	20	Validated results with conclusions	Partial validation	No proper validation
4	Report Writing	15	Well-organized, technically correct	Partially organized	Poorly written
5	Presentation Skill (Content Delivery)	10	Well-rehearsed	Needs improvement	Poorly prepared

Project-I Review Assessment Sheet												
Department : Information Technology			**Academic Year:** 2023 - 2024				**Semester:** I					
Year : BE			**Div: - A**				**Date :**					
Review I/II												
Group Id	**Roll No**	**Name of the Student**	**Project Title**	**Domain**	**Originality of Problem Statement: 10% (05 Marks)**	**Depth of Understanding the Problem Statement: 10% (05 Marks)**	**Concreate Literature Survey with identified gaps in all referred papers: 10% (05 Marks)**	**Design and Analysis of Algorithm / Model / Architecture / System: 40% (20 Marks)**	**Representation of results using suitable tools like tabulation, graph etc: 10% (05 Marks)**	**Presentation Skill: 10% (05 Marks)**	**Report preparation and Paper publication: 10% (05 Marks)**	**Total (50)**
G1	27	Pritee Sunil Joshi	Topic :- Machine Learning Based Prognosis Of early - Stage Alzheimers Disease	Machine Learning	4	5	4	16	4	4	4	41
	43	Chetan Satish Patil			3	4	3	15	3	4	3	35
	29	Amreen Parveen Iqbal Khan			4	3	4	15	4	4	3	37
	23	Sofiyana Jalil Inamdar			3	4	3	15	4	4	3	36

Figure 2.2.3.d Project stage – I (Review – I & Review – II)

Project Stage-II Review Assessment Sheet												
Department : Information Technology			**Academic Year:** 2023 - 2024				**Semester:** II					
Year : BE			**Div: - A**				**Date :**					
Review I/II												
Group Id	**Roll No**	**Name of the Student**	**Project Title**	**Domain**	**Originality of Problem Statement: 10% (05 Marks)**	**Depth of Understanding the Problem Statement: 10% (05 Marks)**	**Concreate Literature Survey with identified gaps in all referred papers: 10% (05 Marks)**	**Design and Analysis of Algorithm / Model / Architecture / System: 40% (20 Marks)**	**Representation of results using suitable tools like tabulation, graph etc: 10% (05 Marks)**	**Presentation Skill: 10% (05 Marks)**	**Report preparation and Paper publication: 10% (05 Marks)**	**Total (50)**
G1	27	Pritee Sunil Joshi	Topic :- Machine Learning Based Prognosis Of early - Stage Alzheimers Disease	Machine Learning	5	4	4	18	4	4	4	43
	43	Chetan Satish Patil			4	4	4	18	4	4	4	42
	29	Amreen Parveen Iqbal Khan			4	4	4	18	4	4	4	42
	23	Sofiyana Jalil Inamdar			4	4	3	18	4	4	4	41

Figure 2.2.3.e. Project stage – II (Review – I & Review - II)

H. Process to Assess Individual and Team Performance

The program has a **well-defined policy** for student project assessments. The key highlights are:

Monitoring and Assessment Process:

- **Project work assessment** is divided into various activities detailed in the **Project Review Assessment Sheet**.
- Each **project guide** ensures that the assigned project groups meet regularly as per the scheduled plan.
- Monitoring is conducted through the **Project Diary**, which must be signed by both the guide and the students.

After every weekly meeting, the **guide provides remarks** based on the:

- Individual contributions
- Team collaboration
- Progress towards project goals

The **prescribed format of the Project Diary** (referenced in the figure) is used to maintain records of weekly work and evaluations.

Evaluation Details:

Individual and team performance is evaluated by an **external examiner** drawn from **academia** and **industry**.

Evaluation is based on:

- Work completed
- Research depth
- Application of knowledge
- Presentation and reporting
- Students are awarded a **rating** based on the quality and quantity of their work.

The **Internal Evaluation Sheet** (as shown in figures) is used to record:

- Continuous progress
- Individual contribution
- Team dynamics
- Quality of final deliverables

Summary of the Assessment Components:

Parameter	Assessed by	Tool/Document
Weekly Progress	Project Guide	Project Diary
Quality of Work and Research Depth	Project Guide and Project Committee	Project Review Assessment Sheet
Individual Contribution	Project Guide	Weekly remarks in Diary
Team Collaboration	Project Guide and External Examiner	Internal Evaluation Sheet
Final Outcome Evaluation	External Examiner (Academia/Industry)	Final Presentation and Report

Figure 2.2.3.f Project logbook(Click Here (https://drive.google.com/file/d/1k3wrDzCe-1pDkj0IvzpKeyWt5iEceXNh/view?usp=drive_link))

Figure 2.2.3.g Project activity chart(Click Here (https://drive.google.com/file/d/1yZtsDnaHVZ9tUjQPFGfFIgCXmsdj1qFc/view?usp=drive_link))

I. Quality of completed projects / working prototypes

The program follows a **structured and comprehensive methodology** to assess both individual and team performances during project work. The key highlights are:

Monitoring and Assessment Process:

- **Project work assessment** is divided into multiple activities documented in the **Project Review Assessment Sheet**.
- Each **project guide** ensures that assigned student groups meet regularly as per the schedule.
- Students maintain a **Project Diary**, updated weekly with summaries of work completed and signed by the guide.

Guides provide weekly remarks evaluating:

- Individual efforts
- Team collaboration
- Progress toward the objectives

Project diary format is standardized and includes date, work description, individual contribution and guide remarks.

Evaluation by External Examiner:

Individual and team performance is assessed by an **external examiner** from **academia** and **industry**.

Students present their work through:

- **Final project demo** showcasing the working prototype
- **Project report submission**
- **Viva-voce presentation**

A **panel comprising the project guide and external examiner** evaluates the performance during final viva.

Evaluation Tools and Criteria:

A **Project Grading Sheet** is used for final evaluation, covering:

- Problem Statement
- Motivation
- Literature Survey
- Requirement Analysis
- System Modeling and Design
- Planning and Prototyping
- Presentation Skills
- Quality of Final Report
- Evaluation strictly follows the **Project Rubrics** defined earlier.

Special Focus Areas for Project Quality:

- **Social Relevance:** Projects are assessed for their **usefulness and applicability towards societal development**.
- **Innovation and Research:** Use of modern tools, emerging technologies, and innovative approaches are given significant weightage.
- **Exhibition:** Students showcase their projects during **Project Exhibition** organized at departmental/institutional level, judged by internal and external reviewers.

Feedback and Continuous Improvement:

External examiners provide detailed **feedback** on each project evaluated.

The feedback is utilized to:

- Enhance project quality
- Refine project processes
- Encourage innovative practices among students

Evaluation is further enriched through participation in **TechCult**, a technical festival where students demonstrate their project work.

Summary of the Assessment Components:

Parameter	Assessed by	Tool/Document
Weekly Progress	Project Guide	Project Diary
Quality of Work and Research Depth	Project Guide and Project Committee	Project Review Assessment Sheet
Individual Contribution	Project Guide	Weekly remarks in Diary
Team Collaboration	Project Guide and External Examiner	Internal Evaluation Sheet
Final Project Prototype and Report	Guide + External Examiner	Project Grading Sheet
Applicability and Social Relevance	External Examiner	Feedback Form
Presentation and Demo	Guide + External Examiner	Project Exhibition Evaluation
Participation in TechCult	Industry Experts and Faculty Panel	TechCult Evaluation Criteria

J. Best Project Evaluation Scheme

To identify and reward the best student projects, a structured evaluation process is followed based on clearly defined criteria. The selection process emphasizes innovation, technical rigor, real-world applicability, and potential for commercialization.

Criteria for Best Project Identification:

✅ **Innovative Ideas and Concept:**

Originality and uniqueness of the problem statement and solution approach.

Novel contributions compared to existing work.

✅ **Methodology and Approach:**

Soundness and effectiveness of the chosen research methodology and technical framework.

Systematic execution of project stages (design, development, testing, validation).

✅ **Output:**

Filing of **Intellectual Property Rights (IPR)** such as patents.

Paper publications in reputed national/international journals or conferences.

Participation and recognition in project competitions, hackathons, and technical exhibitions.

✅ **Usefulness for Industry or Society:**

Direct applicability of the project outcomes in solving industrial problems or addressing societal needs.

Positive impact on societal welfare, environmental improvement, or quality of life.

✅ **Commercial Potential:**

Potential to commercialize the developed solution.

Market feasibility analysis and scalability of the product/service.

Process for Selection:

- **Internal Assessment:** Guides and project coordinators nominate outstanding projects based on semester evaluations.
- **Panel Review:** A committee consisting of program coordinators, project coordinators, and industry experts review shortlisted projects.
- **Demonstration and Presentation:** Finalists are required to demonstrate the prototype and present the project outcomes.
- **External Evaluation:** External examiners from academia/industry evaluate based on the defined best project criteria.
- **Result Declaration:** Best projects are announced and awarded during the project exhibition/TechCult event.

Table 2.2.3.i List of Best Projects (AY 2023-24)

Sr. No.	Name of the students	Name of Project	Guide Name
1	Aakanksha Gaikwad Vinay Dongare Supriya Jagtap Nilesh Bangar	Crop Yield prediction using machine learning	Prof. Ashihsh Manwatkar

Table 2.2.3.j List of Best Projects (AY 2022-23)

Sr. No.	Name of the students	Name of Project	Guide Name
1	Vedant Araj Manali Umardand Yash Nayakwadi Parth Lokhande	CS career guidance system	Prof. Nitin Wankhade

Table 2.2.3.k List of Best Projects (AY 2021-22)

Sr. No.	Name of the Students	Name of Project	Guide Name
1	Pritee Sunil Joshi Chetan Satish Patil Amreen Parveen Iqbal Khan Sofiyana Jalil Inamdar	Machine Learning Based Prognosis Of early -Stage Alzheimers Disease	Prof. Amar Chadchankar

K. Evidences of Papers Published / Awards Received by Projects

The Institute actively encourages students to present their project work in various exhibitions, conferences, and to publish technical papers in reputed journals. Additionally, annual project exhibitions are organized at the Institute level to showcase the final-year student projects.

Highlights:

- Students participate in **national and international conferences**, **project competitions**, and **technical exhibitions**.
- Students **publish research papers** in **peer-reviewed journals** based on their project outcomes.
- The Institute promotes **innovation and excellence** by recognizing awarded projects and encouraging filing of IPRs where applicable.

Table B.2.2.3.l: Student's Paper Publication Count (2019–20 to 2021–22)

Sr. No.	Academic Year	Journal Publications
1	2024-25	18
2	2023-24	17
3	2022-23	10

Table 2.2.3 m: Shows award for project work.

Sr. No.	Academic Year	Name of the Student	Project Name	Award Received
1.	2023-24	Nikhil Attarde Nidhi Hegde Mehul Agrawal	Prognosis Diagnosis Medication	Awarded with Best Project in "TechCult 2K24" National Level Project Competition
2.	2022-23	Sharvari Shinde Rutuja Pujari Nilam Sandhbhor Dipali Pacharne	Detection Of Cyber bullying using ML	Awarded with Best Project in "TechCult 2K23" National Level Project Competition
3.	2022-23	Parth Fiske Wasim Khan Atharva Sable Nitin Ambegave	Plant Disease Detection using CNN	Awarded with Best Project at National Level Project Competition

Impact Analysis

- **Innovation Encouraged:**Students develop new, creative project ideas forming the basis of real-world applications.
- **Problem-Solving Skills**: Students learn to define, analyze, and solve complex real-life challenges effectively.
- **Project Management Knowledge**: Students gain insights into planning, executing, and managing projects systematically.
- **Confidence Building**: Project work enhances the confidence level of students through active participation and achievements.
- **Teamwork and Leadership**: Students cultivate collaborative teamwork abilities, often leading as team leaders or active members.
- **Social Impact Implementation**: Projects often focus on benefiting society through impactful and deployable solutions.
- **Communication Skills**: Students improve verbal and written communication through presentations, reports, and publications.
- **Recognition Opportunities**: Students exhibit their work in project exhibitions and competitions, gaining valuable exposure.
- **Professional Outcomes**: Students achieve copyrights, publish papers in journals and conferences, file patents, and secure

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 15.00

The institute strongly believes in bridging the gap between industry expectations and academic learning. Various initiatives are taken to ensure that students are industry-ready through continuous engagement with industrial practices.

The key activities are summarized in the flowchart below:

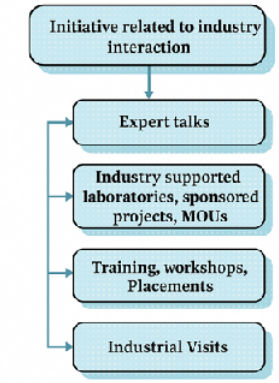


Figure 2.2.4.1: Initiatives related to Industry Interaction

A. Key Components of Industry Interaction Initiatives:

Sr. No.	Activity	Description
1	**Expert Talks**	Regular expert lectures are arranged where industry professionals share knowledge about current trends, technologies, and practices.
2	**Industry Supported Laboratories, Sponsored Projects, MoUs**	Collaborations with industries for establishing laboratories, sponsoring student projects, and signing MoUs to promote technical collaboration and student development.
3	**Training, Workshops, Placements**	Specialized training and workshops are conducted to enhance technical and soft skills, followed by placement drives with industry participation.
4	**Industrial Visits**	Visits to industries are organized to give students firsthand exposure to real-world industrial environments and practices.

In order to bridge the gap between industry expectations and academic learning, the institute has taken various initiatives to enhance industry interaction. These efforts are systematically planned to expose students to real-world practices, advanced technologies, and industrial work culture, thereby improving their employability and practical knowledge.

B. Key Initiatives for Industry Interaction:

Guest Lectures and Expert Talks

- Frequent guest sessions by industry experts, entrepreneurs, and domain specialists.
- Focus on recent trends such as AI, Machine Learning, Data Science, IoT, Cybersecurity, Automation, etc.
- Helps students gain insights into industry demands and cutting-edge technologies.

List of Sample **Guest Lectures and Expert Talks as,**

Sr. No.	Name of Industry Expert	Designation	Organization	Topic Covered
1	Mr. Rajesh Kulkarni	Senior Data Scientist	TCS	Trends in Data Science and AI
2	Ms. Neha Patil	Cybersecurity Consultant	Infosys	Cybersecurity Essentials for Engineers
3	Mr. Sameer Deshpande	IoT Specialist	Bosch India	IoT and Industrial Automation
4	Dr. Snehal Joshi	Director – AI Research	Persistent Systems	Machine Learning Applications
5	Mr. Ankit Sharma	Cloud Solutions Architect	Microsoft	Cloud Computing and Azure Basics
6	Mr. Aditya Mehta	Project Manager	Wipro	Agile Methodologies in IT Industries
7	Ms. Priya Nair	HR Manager	Cognizant	Soft Skills and Interview Preparation
8	Mr. Ravi Verma	Senior Blockchain Developer	Accenture	Blockchain Technology Overview

Industry-Academia Collaboration Projects

- Industry-defined problem statements are assigned as final-year projects.
- Regular reviews and evaluations by industry representatives.
- Focus on solutions-oriented learning.

List of Sample **Projects as,**

Sr. No.	Project Title	Industry Partner	Objective	Outcome
1	MANODARSH:AI-Powered Stress & Depression Recognition	CRPF India (Central Reserve Police Force)	To develop an AI-based system for recognizing stress and depression levels among CRPF personnel, enhancing mental health monitoring and support mechanisms.	Deployment of AI-driven models for early detection of stress and depression; real-world impact on mental wellness of CRPF forces.

2	AI-Powered Stress & Depression Recognition in CRPF Personnel	CRPF India (Central Reserve Police Force)	To develop an AI-based system that recognizes stress and depression levels among CRPF personnel, facilitating timely mental health intervention and support.	Development of an AI model capable of early detection of stress and depression; real-world application for improving mental wellness among CRPF staff.

Workshops, Hackathons, and Technical Events

- Organization of industry-sponsored workshops and technical training programs.
- Hackathons and coding competitions are held in collaboration with companies.
- Students get real-time exposure to problem-solving and team dynamics.

Sample List of Workshops, Hackathons and Technical Events

Sr. No.	Event Name	Type	Organized/ Sponsored by	Focus Area
1	AI & Machine Learning Workshop	Workshop	Infosys Springboard	Artificial Intelligence, Machine Learning
2	Smart India Hackathon (SIH) Internal Round	Hackathon	MHRD Innovation Cell	Software Solutions, Smart Applications
3	Cybersecurity Essentials	Workshop	HackerEra	Cybersecurity, Ethical Hacking
4	Data Science Bootcamp	Workshop	Pixaflip Systems	Data Analytics, Python, Data Visualization
5	CodeStorm Coding Competition	Hackathon	VilaSoft Service LLP	Competitive Programming, Problem Solving
6	Web Development Sprint	Workshop	Bharat Soft Solution	Full Stack Web Development
7	IoT Innovation Challenge	Hackathon	Think Smart IT Solutions	Internet of Things, Embedded Systems
8	Blockchain and Cryptocurrency	Workshop	Mass Technology	Blockchain Technology, Cryptocurrency Basics

Sample Photographs(Click Here (https://drive.google.com/file/d/1-GOp5XmKKMW2_A0-AkL8DiK_NQGYODom/view?usp=drive_link))

Industrial Visits

- Organized visits to leading industries, manufacturing units, R&D centers, and IT companies.
- Students observe live processes, production cycles, and corporate working environments.

List of Sample **Industrial Visits as,**

Sr. No.	Industry Name	Location	Purpose of Visit
1	Aakash Electronics	Pune	Understanding electronic manufacturing processes
2	Tachometric Control	Narhe, Pune	Exposure to control systems and automation
3	Jetking	Wakad, Pune	Insights into IT hardware and networking
4	Mask Polymer	Talegaon Dabhade	Study of polymer manufacturing processes
5	Sant Tukaram Sugar Factory	Pune	Observing sugar manufacturing processes
6	Ketko Sun Pvt. Ltd.	Lonavala, Pune	Insights into solar energy solutions
7	ExpertIT Data Informatics	Hadapsar, Pune	To familiar with IT industry Culture, to learn Software and languages

Placement Preparation Programs

- Aptitude training, soft skill development, technical interview preparation in collaboration with corporate training partners.
- Mock interviews conducted by HR professionals and industry recruiters.

Sample List of Events

Sr. No.	Type of Support Provided	Focus Areas
1	Aptitude and Soft Skills Training	Aptitude, Logical Reasoning, Communication Skills
2	Mock Interviews & Resume Workshops	Technical and HR Mock Interviews, Resume Building
3	Technical Skills Training	Coding, Emerging Technologies (AI, Cloud)
4	Technical Workshops and Mock GD Sessions	Group Discussions, Technical Aptitude
5	Placement Training Sessions	Aptitude, Verbal Ability, Core Subjects
6	Industry Expert Sessions	AI, Machine Learning, Data Science Awareness
7	Interview Preparation Sessions	Problem-Solving, HR Interviews
8	Corporate Readiness Training	Communication Skills, Interview Readiness
9	Employability Skill Development	Personality Development, Technical Aptitude
10	Continuous Training Support	Aptitude Practice, Soft Skills, Mock Interviews

C. Impact of Industry Interaction Initiatives

- Enhanced employability skills and industry readiness of students.

- Increased number of internships and placement offers.
- Development of practical problem-solving, critical thinking, and innovation skills.
- Strong alumni support and mentorship for current students.

2.2.5 Initiative related to industry internship/summer training (15)

Institute Marks : 15.00

To strengthen industry-academia interaction and enhance the employability skills of students, the department actively promotes internships and summer training programs. Key initiatives include:

A. Structured Internship Programs:

- **Mandatory Internships:** Students are encouraged and supported to undergo internships in reputed industries, R&D organizations, and IT companies during summer vacations (typically after the second and third years).
- **Industry Tie-Ups:** Formal tie-ups and MoUs are established with companies to provide regular internship opportunities to students.
- **Internship Platforms:** Utilization of platforms like AICTE Internship Portal, Internshala, LinkedIn, and company-specific portals (like Infosys Springboard, TCS NQT, etc.) for internship placements.

B. Support Systems for Internships:

- **Dedicated Internship Coordinators:** Each department appoints Internship Coordinators to guide students, monitor their progress, and ensure completion.
- **Pre-Internship Workshops:** Sessions on resume building, communication skills, corporate etiquette, and project expectations are conducted to prepare students before they begin their internships.
- **Guidance for Selection:** Support for appearing in internship interviews/tests organized by companies like Capgemini, TCS, Cognizant, Persistent Systems, Zensar, and startups.

C. MoUs with Industries

- Institute has signed MoUs with reputed industries for technical collaboration, internship opportunities and project sponsorship.
- Industries provide mentorship, sponsorship for minor/major projects, and pre-placement offers to deserving students.

List of Sample **MoU's as,**

Sr. No	Name of MOU	Date of MOU	Tenure of MOU
1	Floating Minds	16 March 2022	Valid Till Terminated by Either Parties
2	Dext IT Solution Private Limited	16 March 2022	Valid Till Terminated by Either Parties
3	VilaSoft Service LLP,	16 March 2022	Valid Till Terminated by Either Parties
4	JSM INDIA Infosys Pvt.Ltd.	16 March 2022	5 Years
5	Think Smart IT Solutions Pvt. Ltd	16 March 2022	Valid Till Terminated by Either Parties
6	Complete JAVA Classes	14 May 2022	Valid Till Terminated by Either Parties
7	Codeplateau Technology Soln. LLP	28 April 2022	Valid Till Terminated by Either Parties
8	Mwell Soft. Solution	16 May 2022	Valid Till Terminated by Either Parties
9	Pro-Azure	14 May 2022	Valid Till Terminated by Either Parties
10	Four Claps Digital Media	14 May 2022	Valid Till Terminated by Either Parties
11	HackerEra Cyber Security Consultancy & Training Firm	4 April 2022	5 Years
12	Bharat Soft Solution	16 March 2022	5 Years
13	Pixaflip Technology Pvt. Ltd	16 March 2022	5 Years
14	Imperial Institute of Excellence – I2E	3 Oct 2022	3 Years

D. Summer Training Programs:

- **Technology-Focused Summer Training:** Hands-on summer courses on emerging technologies such as Python Programming, Web Development, Machine Learning, IoT, and Cybersecurity in collaboration with industry partners**.**
- **Certification Programs:** Students are encouraged to complete certifications like AWS Cloud Practitioner, Google Data Analytics, Salesforce Fundamentals, Microsoft Azure, etc.
- **Outcome-Based Training:** Projects or assignments are given during summer training that align with industry expectations and contribute to final-year project work.
- Mandatory internships for SE, TE, and BE students during summer/winter breaks.
- Students work on real-time projects under industry mentors.
- Provides hands-on experience and helps in skill enhancement.

Table B.2.2.1.b. shows the summary of industrial training

Sr. No.	Academic Year	Count
1	2024-25	80
2	2023-24	72
3	2022-23	65
4	2021-22	58

List of Sample **certificates as,**

Email Address	Student Name	Class	From Date	To Date	Company Name	Per moth Stipend Received	Certificate(PDF Only)
mayurdeshmukh1362@gmail.com	Harshwardhan Deshmukh	BE	4/20/2023	8/20/2023	Oepp innovation pvt Ltd	3000	https://drive.google.com/open?id=17BnPF5F0mDXhmhOnFf7aubVwGIRxG6W-(https://drive.google.com/open?id=17BnPF5F0mDXhmhOnFf7aubVwGIRxG6W-)
prasadchopade40@gmail.com	Prasad prafulla Chopade	BE	4/6/2023	6/6/2023	PHN technology	NA	https://drive.google.com/open?id=1-hTK6JWQrlmvK1Nz4h7k62z0N0L0Qhzj(https://drive.google.com/open?id=1-hTK6JWQrlmvK1Nz4h7k62z0N0L0Qhzj)
harshal9673@gmail.com	Harshal Dnyaneshwar Patil	BE	11/1/2022	12/1/2022	LGM	0	https://drive.google.com/open?id=1dPpLXcgOR2TE3-IjzBkk0v2PgAnjl8I5(https://drive.google.com/open?id=1dPpLXcgOR2TE3-IjzBkk0v2PgAnjl8I5)
shreyaskhedkar8@gmail.com	Shreyas Vitthal Khedkar	TE	4/30/2023	9/30/2022	TechnoHacks EduTech, OASIS INFOBYTE, International Model United Nations, CODE ALPHA	0	https://drive.google.com/open?id=1Iy6ImXR1afJzIh1IbncfuNImIQp4LXPi(https://drive.google.com/open?id=1Iy6ImXR1afJzIh1IbncfuNImIQp4LXPi)
wk552997@gmail.com	Wasim Razi Ahmad Khan	BE	2/1/2023	2/28/2023	OASIS INFOBYTE	Null	https://drive.google.com/open?id=19E1Ap0jDObWVFYeoG_f095bf9TOBiVab(https://drive.google.com/open?id=19E1Ap0jDObWVFYeoG_f095bf9TOBiVab)
yoginiwani2626@gmail.com	Yogini Kishor Wani	BE	3/5/2023	4/5/2023	Oasis infobyte	NA	https://drive.google.com/open?id=1wZzhuPIRFAUGUbjtyLRFdrWJMeEdPDbL(https://drive.google.com/open?id=1wZzhuPIRFAUGUbjtyLRFdrWJMeEdPDbL)
pratikshakulkarni5555@gmail.com	Pratiksha Vijay Kulkarni	BE	1/2/2023	2/1/2023	Oasis infobyte	NA	https://drive.google.com/open?id=1sxYPFdzE097miHeGbchiFhLqA7H0wn7X(https://drive.google.com/open?id=1sxYPFdzE097miHeGbchiFhLqA7H0wn7X)
saurabhaherwadkar2020@gmail.com	Saurabh Shrikant Aherwadkar	BE	12/21/2022	2/12/2023	IBM Skillsbuild	NA	https://drive.google.com/open?id=1bBrhWkoVb2jLAesYD4kQ_BgNLcKQE7lu(https://drive.google.com/open?id=1bBrhWkoVb2jLAesYD4kQ_BgNLcKQE7lu)
neerajtembare7@gmail.com	Neeraj Tembare	BE	1/20/2023	3/17/2023	IBM SkillsBuild	NA	https://drive.google.com/open?id=1QJxPCNZgdyrsXB2FfKL90ljf6YddKL6H(https://drive.google.com/open?id=1QJxPCNZgdyrsXB2FfKL90ljf6YddKL6H)
princekumardwivedi114@gmail.com	Prince Kumar Dwivedi	BE	5/16/2023	6/16/2023	InternSavy IT Solutions	0	https://drive.google.com/open?id=1SOSp5_EOAnJtuiXPlfX6rFq6CEGRJH_e(https://drive.google.com/open?id=1SOSp5_EOAnJtuiXPlfX6rFq6CEGRJH_e)
abhiandure123@gmail.com	Abhishek Andure	BE	1/2/2023	2/2/2023	Oasis infobyte	00	https://drive.google.com/open?id=1do0vOlynnmEmQ_uzTVFa6lf9ssZBdNd5(https://drive.google.com/open?id=1do0vOlynnmEmQ_uzTVFa6lf9ssZBdNd5)
saurabhkarande001@gmail.com	Saurabh Sanjay Karande	BE	2/1/2023	3/15/2023	Wisdom sprouts	NA	https://drive.google.com/open?id=1u4bhG2nFfw2JnuDB0LHm1lgWubrO_eeH(https://drive.google.com/open?id=1u4bhG2nFfw2JnuDB0LHm1lgWubrO_eeH)

mahesh.yadav250502@gmail.com	Mahesh Anant Yadav	BE	1/21/2023	7/30/2023	Solstium pvt ltd	25000	https://drive.google.com/open?id=1yiqgQqbh1_an7l9JQSsDW_beQw9DbynW (https://drive.google.com/open?id=1yiqgQqbh1_an7l9JQSsDW_beQw9DbynW)
sahilbhati00007@gmail.com	Sahil Deepak Bhati	SE	1/13/2023	3/13/2023	Acmegrade	0	https://drive.google.com/open?id=1PtVZbsKXWccVLXK-uOuhP4aXMKIKLJR8 (https://drive.google.com/open?id=1PtVZbsKXWccVLXK-uOuhP4aXMKIKLJR8)
sakshipidurkar16@gmail.com	Sakshi Pidurkar	BE	2/1/2023	2/28/2023	Oasis Infobyte	No	https://drive.google.com/open?id=1z9MbUs-yjFCSSF0NK1-ifL3znXeEYtfe (https://drive.google.com/open?id=1z9MbUs-yjFCSSF0NK1-ifL3znXeEYtfe)
vedangshinde2002@gmail.com	Vedang Prakash Shinde	BE	1/20/2023	3/20/2023	IBM SkillsBuild	Rs. 0	https://drive.google.com/open?id=1rkPW4V99iBU8EehWrqvqRno0OPxCOw4R (https://drive.google.com/open?id=1rkPW4V99iBU8EehWrqvqRno0OPxCOw4R)
nikhil.s.attarde2981@gmail.com	Nikhil Satendra Attarde	BE	1/23/2023	4/24/2023	MRNDLAB PVT LTD	0	https://drive.google.com/open?id=1tF5lvto47yG_rsmKZvngid8-UFheKT59 (https://drive.google.com/open?id=1tF5lvto47yG_rsmKZvngid8-UFheKT59)
nehamarathe2002@gmail.com	Neha Shailesh Marathe	BE	4/6/2023	6/6/2023	PHN Technology	NA	https://drive.google.com/open?id=1aHwA0YQuahnEaLtYpGglwl7Gt2r41mEm (https://drive.google.com/open?id=1aHwA0YQuahnEaLtYpGglwl7Gt2r41mEm)
nilamsandbhor0303@gmail.com	Nilam Eknath Sandbhor	BE	1/23/2023	4/24/2023	MRND LAB Pvt LTD	NA	https://drive.google.com/open?id=18_5srt1ylxtgj9HukXewIEFj7nXzDoMr (https://drive.google.com/open?id=18_5srt1ylxtgj9HukXewIEFj7nXzDoMr)
pujarirutuja2002@gmail.com	Rutuja Sudhakar Pujari	BE	3/13/2023	5/14/2023	Solar secure solution	0	https://drive.google.com/open?id=1v9_8tQxT_1PBw-pSsc8KtDjYEn3bq4MB (https://drive.google.com/open?id=1v9_8tQxT_1PBw-pSsc8KtDjYEn3bq4MB)
joshirajit28@gmail.com	Rajit Prashant Joshi	SE	4/12/2023	5/12/2023	Acmegrade	-	https://drive.google.com/open?id=1XUFMneKBj6i9RnRLF5Ftbz21gC9CETTq (https://drive.google.com/open?id=1XUFMneKBj6i9RnRLF5Ftbz21gC9CETTq)
dipalip2406@gmail.com	Dipali Shriram Pacharane	BE	4/15/2023	5/15/2023	Oasisinfobyte	0	https://drive.google.com/open?id=15_dLpBCqUX67WEsq_R9SAG8coJmPFz7V (https://drive.google.com/open?id=15_dLpBCqUX67WEsq_R9SAG8coJmPFz7V)
shwetachangan4@gmail.com	Shweta Babasaheb Changan	BE	12/1/2022	1/2/2023	Oasis Infobyte	0	https://drive.google.com/open?id=1TCdUZrclc0zJwkpgTknvgsiMmv-npxq8 (https://drive.google.com/open?id=1TCdUZrclc0zJwkpgTknvgsiMmv-npxq8)
anantgiri2305@gmail.com	Giri Anant	BE	11/16/2022	1/16/2023	Oasis Infobyte	NA	https://drive.google.com/open?id=1bmPVrIlddR7gt5ZMjUkDluMEQ1eo8PiG (https://drive.google.com/open?id=1bmPVrIlddR7gt5ZMjUkDluMEQ1eo8PiG)
dvgrg2000@gmail.com	Dev garg	BE	1/2/2023	8/20/2023	VcBay	20000	https://drive.google.com/open?id=1g5fMYe9cF2O7lJpm7qkhNfWU8bJZEtzQ (https://drive.google.com/open?id=1g5fMYe9cF2O7lJpm7qkhNfWU8bJZEtzQ)
dvgrg2000@gmail.com	Dev garg	BE	11/1/2022	12/1/2022	Dexterio	10,000	https://drive.google.com/open?id=1duuE09qxbqDAWknXTiDuYNNE8IDO5Qcz (https://drive.google.com/open?id=1duuE09qxbqDAWknXTiDuYNNE8IDO5Qcz)
dvgrg2000@gmail.com	Dev Garg	BE	10/12/2022	1/12/2023	Geeks for geeks	5,000	https://drive.google.com/open?id=1peJqMJbzya0Ha2eAhelhcndFS1gnIW0A (https://drive.google.com/open?id=1peJqMJbzya0Ha2eAhelhcndFS1gnIW0A)
sandeshsabale09@gmail.com	Sandesh Sabale	BE	9/12/2022	10/12/2022	OASIS INFOBYTE	0	https://drive.google.com/open?id=1jHMfqp13ERdrh7bnE4Xmbr1wNGZUZ8YZ (https://drive.google.com/open?id=1jHMfqp13ERdrh7bnE4Xmbr1wNGZUZ8YZ)
gunjanparate05@gmail.com	Gunjan Parate	BE	4/6/2023	6/6/2023	PHN Technology Pvt Ltd, Pune.	NA	https://drive.google.com/open?id=1ZjJ3iscOte7_Ln2V4NrjuurHHP4us3z5 (https://drive.google.com/open?id=1ZjJ3iscOte7_Ln2V4NrjuurHHP4us3z5)

sanuhingalkar2004@gmail.com	Hingalkar Sanika Popat	SE	7/25/2022	9/3/2022	IndiaTechSoft (ITS)	No	https://drive.google.com/open?id=1o3Q7uBxqZCGP603LOWIvaflRCvotuVTS (https://drive.google.com/open?id=1o3Q7uBxqZCGP603LOWIvaflRCvotuVTS)
shwetachangan4@gmail.com	Shweta Babasaheb Changan	BE	12/1/2022	1/2/2023	Oasis Infobyte	0	https://drive.google.com/open?id=1XmEXfkW6owpz29Cjhql_c6Z1FGxudT9p (https://drive.google.com/open?id=1XmEXfkW6owpz29Cjhql_c6Z1FGxudT9p)
aadeshgulumbe3@gmail.com	Aadesh Ganesh Gulumbe	SE	1/2/2023	2/1/2023	Oasis Infobyte	0	https://drive.google.com/open?id=1QT81h8FqwaseVJm1MHYtL0DGbQEG0N9Z (https://drive.google.com/open?id=1QT81h8FqwaseVJm1MHYtL0DGbQEG0N9Z)
yadavomkar7070@gmail.com	Omkar Tanaji Yadav	BE	2/1/2023	3/14/2023	ScaleFull	NA	https://drive.google.com/open?id=1HPHsVXPhvQ085JB_fXyTwMlseNoF6A-d (https://drive.google.com/open?id=1HPHsVXPhvQ085JB_fXyTwMlseNoF6A-d)
saurabh2872377@gmail.com	Saurabh Anil Shinde	BE	2/7/2023	3/7/2023	sync interns	NA	https://drive.google.com/open?id=1cuLuNpA-o2NnWhkpd46IdUvGQeOoAdIv (https://drive.google.com/open?id=1cuLuNpA-o2NnWhkpd46IdUvGQeOoAdIv)
thoratsanika97@gmail.com	Sanika Tanaji Thorat	BE	4/1/2023	5/10/2023	Oasis Infobyte	NA	https://drive.google.com/open?id=1ttVedjkG1ztCijiJqEn5dJfWrgBWvftC (https://drive.google.com/open?id=1ttVedjkG1ztCijiJqEn5dJfWrgBWvftC)
morankarprathamesh@gmail.com	Prathamesh Sanjay Morankar	BE	12/1/2022	12/31/2023	Let,s Grow More	00	https://drive.google.com/open?id=1_NMilEpBr7DagBGyUWvNYk-xL6bmz_Fp (https://drive.google.com/open?id=1_NMilEpBr7DagBGyUWvNYk-xL6bmz_Fp)
giteshpatil03063@gmail.com	Gitesh Patil	BE	12/7/2022	1/7/2023	Oasis Infobyte	NA	https://drive.google.com/open?id=1t7wzeSxa_Az-NgJpt_xjUpPrr5e_duW9 (https://drive.google.com/open?id=1t7wzeSxa_Az-NgJpt_xjUpPrr5e_duW9)
shivamshinde172000@gmail.com	Shivam shinde	BE	1/20/2023	3/20/2023	Ibm	0	https://drive.google.com/open?id=1FiXN406azNSjg2N4Ptr2Ei3e16Ql1e3N (https://drive.google.com/open?id=1FiXN406azNSjg2N4Ptr2Ei3e16Ql1e3N)
vaibhav.patil@nmiet.edu.in	Patil vaibhav umraosing	BE	4/9/2023	5/10/2023	Oasis infobyte	0	https://drive.google.com/open?id=14-NX-arazyMZEpmELTi95iZ_2ta1mMjj (https://drive.google.com/open?id=14-NX-arazyMZEpmELTi95iZ_2ta1mMjj)

Impact:

- Improvement in technical and professional competencies.
- Higher placement offers and pre-placement offers (PPOs).
- Real-world problem-solving exposure leading to better project execution and research initiatives.

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 110.00

Define the Program specific outcomes

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

Total Marks 20.00

:

PSO1	PSO1: Technical Proficiency and Problem Solving An ability to apply theoretical concepts and practical knowledge of Information Technology to analyze, design, develop, and manage information processing systems and applications. Graduates should be capable of identifying and defining appropriate computing infrastructure and operational requirements for solving real-world problems, and working effectively on large-scale computing systems.
PSO2	PSO2: Professionalism, Ethics, and Communication An understanding of professional, business, and ethical responsibilities, including legal, security, and social issues related to IT. Graduates will practice effective communication and decision-making skills, using appropriate technology to handle professional responsibilities and contribute to business processes in a socially responsible manner.

3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5)

Institute Marks : 5.00

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

Course Name :	C2 03	Course Year :	2021-2022

Course Name	Statements
C2 03.1	Perform basic analysis of algorithms with respect to time and space complexity.
C2 03.2	Select appropriate searching and/or sorting techniques in the application development.
C2 03.3	Implement abstract data type (ADT) and data structures for given application.
C2 03.4	Design algorithms based on techniques like brute -force, divide and conquer, greedy, etc.
C2 03.5	Apply implement learned algorithm design techniques and data structures to solve problems.
C2 03.6	Design different hashing functions and use files organizations.

Course Name :	C2 05	Course Year :	2021-2022

Course Name	Statements
C2 05.1	Apply mathematical and logical concepts for developing elementary graphics operations such as scan conversion of points, lines, and circles.
C2 05.2	Employ techniques of geometrical transformations to produce, position, and manipulate objects in 2D and 3D space.
C2 05.3	Describe mapping from a world coordinates to device coordinates, clipping, and projections in order to produce 3D images on 2D output device.
C2 05.4	Apply rendering, shading, and animation techniques in designing 2D and 3D graphical models using computer graphics tools.
C2 05.5	Implement and apply curves, fractals, and modeling techniques in computer graphics for problem-solving in graphics applications.
C2 05.6	Perceive the concepts of virtual reality.

Course Name :	C3 02	Course Year :	2022-2023

Course Name	Statements
C3 02.1	Analyze the role and responsibilities of modern operating systems
C3 02.2	Apply the concepts of process and thread scheduling.
C3 02.3	Demonstrate the concepts of process synchronization, mutual exclusion, and deadlock
C3 02.4	Implement the concepts of various memory management techniques.
C3 02.5	Apply the concepts of I/O management and file systems.
C3 02.6	Analyze the functions and significance of system software.

Course Name :	C3 01	Course Year :	2022-2023

Course Name	Statements
C3 01.1	Recognize the Responsibilities, services offered, and protocol used at the application layer of network
C3 01.2	Explore the concept of middleware in distributed systems
C3 01.3	Recognize the Adhoc Network's MAC layer, routing protocol, and Sensor network architecture.
C3 01.4	Define the principal concepts of network security and understand network security threats, security services, and countermeasures
C3 01.5	Apply basic cryptographic techniques in application development.
C3 01.6	Gain a good comprehension of the landscape of cybersecurity vulnerabilities & describe typical threats to modern digital systems.

Course Name :	C4 01	Course Year :	2023-2024

Course Name	Statements
C4 01.1	Describe the fundamentals of information retrieval and implement clustering methods in retrieval systems.
C4 01.2	Implementing an indexing approach for retrieval of text and multimedia data.
C4 01.3	Evaluate performance of information retrieval systems.
C4 01.4	Apply the concepts of multimedia and distributed information retrieval.
C4 01.5	Employ relevant tools to extract and analyze information from the web.
C4 01.6	Simulate the working of a search engine and recommender system.

Course Name :	C4 02	Course Year :	2023-2024

Course Name	Statements
C4 02.1	Demonstrate the core concepts of distributed systems
C4 02.2	Explore the concept of middleware in distributed systems
C4 02.3	Explore inter-process communication methods and analyze different coordination algorithms.
C4 02.4	Comprehend the importance of replication to achieve fault tolerance in distributed systems
C4 02.5	Analyze the design and functioning of existing distributed file systems, distributed multimedia, and distributed web-based systems.
C4 02.6	Explore various recent trends in distributed systems.

3.1.2 CO-POmatrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5)

Institute Marks : 5.00

1 . course name : C203

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203.1	3	2	-	1	-	-	-	-	-	-	-	2
C203.2	2	3	2	-	1	-	-	-	-	-	-	2
C203.3	1	2	3	-	3	-	-	-	1	-	-	2
C203.4	2	3	2	3	-	-	-	-	-	1	-	2
C203.5	-	2	3	-	3	1	-	-	2	2	-	2
C203.6	1	2	3	-	2	-	-	-	-	-	-	2
Average	**1.80**	**2.33**	**2.60**	**2.00**	**2.25**	**1.00**	**0.00**	**0.00**	**1.50**	**1.50**	**0.00**	**2.00**

2 . course name : C205

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205.1	2	1	2	1	1	-	-	-	-	-	-	-
C205.2	1	2	1	1	-	-	-	-	-	-	-	-
C205.3	2	1	1	1	-	-	-	-	-	-	-	-
C205.4	2	1	1	1	2	-	-	-	-	-	-	-
C205.5	2	2	2	1	2	-	-	-	-	-	-	-
C205.6	2	2	2	2	2	-	-	-	-	-	-	-
Average	**1.83**	**1.50**	**1.50**	**1.17**	**1.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3 . course name : C302

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1	3	2	2	2	2	-	-	-	-	2	-	3
C302.2	3	3	3	2	3	-	-	-	-	2	-	3
C302.3	3	3	3	3	3	-	-	-	-	3	-	3
C302.4	3	3	3	3	3	-	-	-	-	3	-	3
C302.5	3	2	3	2	3	-	-	-	-	3	-	3
C302.6	3	2	2	2	2	3	2	-	2	3	2	3
Average	**3.00**	**2.50**	**2.67**	**2.33**	**2.67**	**3.00**	**2.00**	**0.00**	**2.00**	**2.67**	**2.00**	**3.00**

4 . course name : C301

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	3	2	2	1	2	-	-	1	-	-	-	1
C301.2	3	2	2	2	2	-	-	-	-	-	-	1
C301.3	3	2	2	2	2	-	-	-	-	-	-	2
C301.4	2	3	2	2	2	-	-	3	-	-	-	2
C301.5	2	2	2	2	3	-	-	2	-	-	-	2
C301.6	3	3	2	2	2	-	-	3	-	-	-	2
Average	**2.67**	**2.33**	**2.00**	**1.83**	**2.17**	**0.00**	**0.00**	**2.25**	**0.00**	**0.00**	**0.00**	**1.67**

5 . course name : C401

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	3	2	2	2	1	-	-	-	-	-	-	1
C401.2	3	2	3	2	2	-	-	-	-	-	-	-
C401.3	2	3	2	3	2	-	-	-	-	-	-	2
C401.4	3	2	2	2	2	-	-	-	-	-	-	-
C401.5	2	2	2	2	3	1	-	-	-	2	-	1
C401.6	3	2	3	3	3	1	-	-	-	2	1	2

Average	**2.67**	**2.17**	**2.33**	**2.33**	**2.17**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**1.00**	**1.50**

6 . course name : C402

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C402.1	3	2	2	2	1	-	-	-	-	-	-	2
C402.2	3	2	2	2	2	-	-	-	-	-	-	1
C402.3	3	2	2	2	2	-	-	-	-	1	-	2
C402.4	2	2	3	3	2	-	-	-	-	-	-	2
C402.5	2	2	3	2	2	-	-	-	-	2	-	2
C402.6	2	2	2	2	3	2	-	-	-	2	1	3
Average	**2.50**	**2.00**	**2.33**	**2.17**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**1.67**	**1.00**	**2.00**

1 . Course Name : C203

Course	PSO1	PSO2
C203.1	2	-
C203.2	3	-
C203.3	2	1
C203.4	3	-
C203.5	2	2
C203.6	2	-
Average	**2.50**	**1.50**

2 . Course Name : C205

Course	PSO1	PSO2
C205.1	2	1
C205.2	2	1
C205.3	3	1
C205.4	3	1
C205.5	3	2
C205.6	3	2
Average	**2.67**	**1.17**

3 . Course Name : C302

Course	PSO1	PSO2
C302.1	2	1
C302.2	2	1
C302.3	2	1
C302.4	2	1
C302.5	2	1
C302.6	2	1
Average	**2.00**	**1.00**

4 . Course Name : C301

Course	PSO1	PSO2
C301.1	3	2
C301.2	3	2
C301.3	3	2
C301.4	3	2
C301.5	3	2
C301.6	3	3
Average	**3.00**	**2.17**

5 . Course Name : C401

Course	PSO1	PSO2
C401.1	3	1
C401.2	3	1
C401.3	3	-
C401.4	2	1
C401.5	3	2
C401.6	3	2
Average	**2.83**	**1.40**

6 . Course Name : C402

Course	PSO1	PSO2
C402.1	3	1
C402.2	3	1
C402.3	3	1
C402.4	3	1
C402.5	3	2
C402.6	2	2
Average	**2.83**	**1.33**

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10)

Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
FE101T	3	2.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
FE102T	2	1.2	PO3	PO4	PO5	PO6	1	PO8	PO9	PO10	PO11	1
FE103T	3	2.83	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
FE104T	3	2.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
FE105T	3	2.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
FE106L	3	3	2.8	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
FE201T	3	1.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
FE202T	3	2.33	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
FE203T	3	2.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
FE204T	2	1.83	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.5
FE205T	3	2.66	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
FE206L	3	3	2.83	2	1	1	1	1	2	2	1	2
IT301T	2.3	2.2	2.0	2.5	PO5	PO6	PO7	PO8	PO9	1	PO11	1
IT302T	3	3	2.83	2.67	2.33	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT303T	1.8	2.33	2.6	2.0	2.25	1.0	PO7	PO8	1.5	1.5	PO11	2.0
IT304T	2.67	2.0	2.67	PO4	2.2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT305T	2.67	2.33	2.17	1.6	1.5	PO6	PO7	PO8	PO9	1.0	PO11	1.33
IT306L	3.0	3.0	2.83	2.67	2.33	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT307L	2.25	2.4	2.75	2.0	2.50	1	PO7	PO8	1.33	1.33	PO11	PO12
IT308L	3.0	3.0	2.83	2.33	1.83	PO6	PO7	PO8	PO9	PO10	PO11	2.00
IT309L	1.17	2.17	1.33	1.17	1.83	2.0	2.0	2.83	3.0	3.0	2.83	3.0
IT401T	3.0	PO2	2.0	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT402T	3.0	2.0	2.5	PO4	2.5	PO6	PO7	PO8	2.0	PO10	PO11	PO12
IT403T	1.5	2.3	2.7	2.0	2.3	1.0	PO7	PO8	1.0	1.0	PO11	PO12
IT404T	1.83	1.50	1.50	1.17	1.75	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT405T	1.33	1.83	2.4	1.83	2.5	PO6	PO7	1.5	1.5	3.0	1.5	1.5
IT406L	3.0	3.0	2.83	2.67	2.33	2.0	2.50	2	1.83	2.33	1.67	2.5
IT407L	1.5	2.4	2.67	2.0	2.60	1.5	PO7	PO8	1.8	1.75	1.33	1.0
IT408L	3.0	2.67	3.0	2.33	3.0	PO6	PO7	PO8	1.0	1.17	1.17	1.0
IT409L	3.0	3.0	2.67	2.67	2.67	2.33	2.17	2.33	3.0	3.0	2.67	3.0
IT501T	3.0	2.0	2.83	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT502T	3.0	2.5	2.67	2.33	2.67	3.0	2.0	PO8	2.0	2.67	2.0	3.0
IT503T	2.67	2.5	2.0	1.83	2.5	PO6	PO7	PO8	PO9	PO10	PO11	1.5
IT504T	2.17	2.0	2.20	2.0	2.5	2.17	2.0	2.0	1.0	1.75	1.4	2.17
IT505T	2.67	2.5	2.17	2.83	2.83	2.33	PO7	PO8	PO9	1.5	2.17	1.33
IT506L	3.0	2.83	2.83	2.5	3.0	PO6	PO7	PO8	PO9	1.0	PO11	1.0

IT507L	1.2	2.67	2.75	2.33	2.0	1.75	1.0	1.5	2.0	2.25	1.5	PO12
IT508L	3.0	3.0	3.0	2.5	2.0	PO6	PO7	PO8	PO9	PO10	PO11	1.83
IT509L	2.67	3.0	2.5	2.67	2.5	PO6	PO7	PO8	2.5	2.67	2.5	2.25
IT601T	2.67	2.33	2.0	1.83	2.17	PO6	PO7	2.25	PO9	PO10	PO11	1.67
IT602T	2.0	2.0	1.6	2.0	2.5	1.0	PO7	1.0	1.5	1.5	2.0	2.0
IT603T	2.83	2.67	2.83	2.67	2.67	2.33	2.0	2.0	PO9	1.0	PO11	2.0
IT604T	2.33	2.17	2.0	2.33	3.0	2.0	2.0	2.0	2.0	2.8	3.0	2.0
IT606L	2.33	2.33	1.83	2.33	2.5	PO6	PO7	2.0	1.0	1.0	PO11	2.0
IT607L	2.5	2.33	2.33	2.17	3.0	PO6	PO7	PO8	1.0	2.0	2.0	2.0
IT608L	2.50	2.83	2.67	2.5	2.33	PO6	PO7	PO8	PO9	PO10	PO11	2.5
IT701T	2.67	2.17	2.33	2.33	2.17	1.0	PO7	PO8	PO9	2.0	1.0	1.5
IT702T	2.33	2.2	2.33	2.4	2.8	PO6	PO7	PO8	PO9	PO10	PO11	2.83
IT703T	1.83	2.5	2.67	2.17	2.2	1.67	PO7	PO8	PO9	PO10	PO11	1.33
IT704T	2.0	1.83	2.25	1.67	2.0	1.5	PO7	PO8	PO9	PO10	PO11	1.67
IT705T	2.33	2.17	2.0	1.67	2.33	1.5	1.0	2.0	1.0	1.0	1.0	2.17
IT706L	1.83	1.5	3.0	3.0	2.33	PO6	PO7	PO8	PO9	2.0	PO11	2.25
IT707L	2.17	2.33	2.4	2.5	2.67	PO6	PO7	PO8	PO9	PO10	PO11	2.17
IT708P	1.75	2.25	2.0	2.0	2.5	2.0	1.5	2.0	2.0	3.0	2.0	2.0
IT801T	2.5	2.0	2.33	2.17	2.0	2.0	PO7	PO8	PO9	1.67	1.0	2.0
IT802T	1.83	1.83	2.20	1.83	2.5	1.5	PO7	PO8	1.0	2.33	2.0	1.33
IT803T	2.83	2.0	2.17	2.5	2.5	PO6	PO7	PO8	PO9	PO10	PO11	1.0
IT804T	2.83	2.83	2.33	2.17	2.17	3.0	2.17	2.17	2.17	2.33	2.17	2.0
IT805L	2.5	2.0	2.33	2.5	1.83	PO6	PO7	PO8	PO9	PO10	PO11	2.0
IT806L	2.83	2.33	1.67	2.5	1.67	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT807P	2.83	2.83	2.33	2.17	2.17	3.0	2.17	2.17	2.17	2.33	2.17	2.0

3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses :

Course	PSO1	PSO2
FE101T	PSO1	PSO2
FE102T	PSO1	PSO2
FE103T	PSO1	PSO2
FE104T	PSO1	PSO2
FE105T	PSO1	PSO2
FE106L	PSO1	PSO2
FE201T	PSO1	PSO2
FE202T	PSO1	PSO2
FE203T	PSO1	PSO2
FE204T	PSO1	PSO2
FE205L	PSO1	PSO2
FE206L	PSO1	PSO2
IT301T	2.2	PSO2
IT302T	3.0	2.83
IT303T	2.5	1.5
IT304T	2.0	2.0
IT305T	3.0	1.0
IT306L	3.0	2.83
IT307L	2.67	1.33
IT308L	3.0	2.83
IT309L	2.67	2.17
IT401T	2.83	1.0

IT402T	1.67	2.17
IT403T	2.7	1.5
IT404T	2.67	1.17
IT405T	2.5	1.5
IT406L	3.0	2.83
IT407L	3.0	1.33
IT408L	3.0	1.33
IT409L	3.0	3.0
IT501T	3.0	2.0
IT502T	2.0	1.0
IT503T	3.0	1.0
IT504T	2.17	2.17
IT505T	2.0	1.0
IT506L	3.0	2.83
IT507L	3.0	1.75
IT508L	3.0	2.0
IT509L	2.6	2.75
IT601T	3.0	2.17
IT602T	2.5	1.17
IT603T	2.0	2.0
IT604T	2.83	2.0
IT606L	2.5	2.0
IT607L	2.83	1.5
IT608L	2.5	2.33
IT701T	2.83	1.4
IT702T	2.83	2.33
IT703T	3.0	2.0
IT704T	2.83	1.83
IT705T	2.67	1.33
IT706L	2.5	2.33
IT707L	3.0	2.0
IT708P	2.33	2.67
IT801T	2.83	1.33
IT802T	2.67	1.5
IT803T	2.83	2.0
IT804T	2.5	2.33
IT805L	3.0	2.17
IT806L	3.0	2.17
IT807P	2.5	2.33

3.2 Attainment of Course Outcomes (50) Total Marks 40.00

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

Institute Marks : 10.00

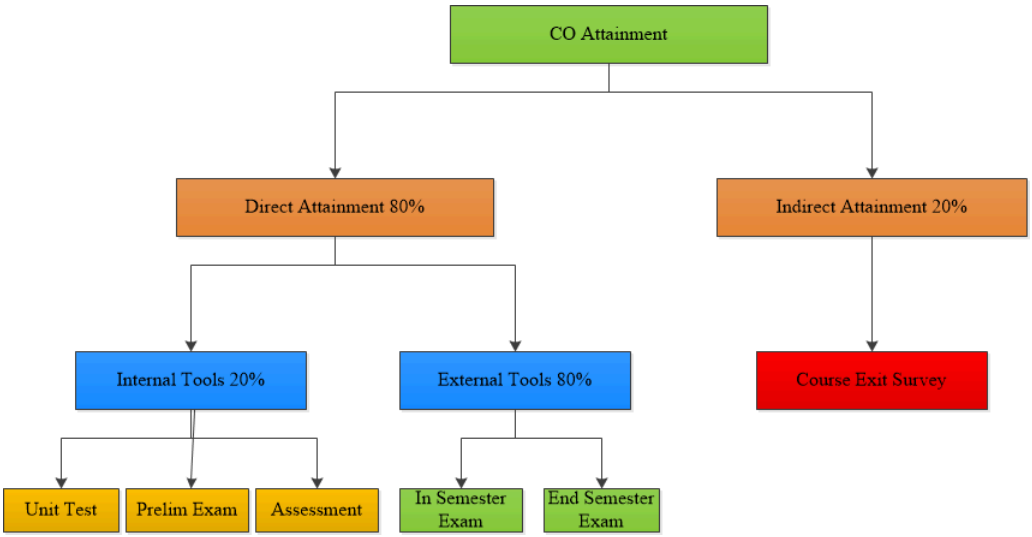


Figure 3.2.1 **Course Outcome (CO) Attainment**

Figure 3.2.1 illustrates the structured approach used to measure **Course Outcome (CO) Attainment**, which evaluates how effectively students achieve the intended learning outcomes of a course.

The attainment is divided into **two main components**:

1. Direct Attainment (80%)

This component is based on students actual performance in various assessments and constitutes **80%** of the total CO attainment.

a. Internal Tools (20%) These are institute-conducted evaluations:

- **Unit Test** – Short tests conducted on specific units or topics.
- **Prelim Exam** – Full-course mock exam before final university exams.
- **Continues Assessment**

b. External Tools (80%) These are conducted by the affiliating university:

- **In-Semester Exam** – Mid-semester university exam.
- **End Semester Exam** – Final university examination covering the entire syllabus.
- **Practical / Oral**

2. Indirect Attainment (20%)

This is derived from students feedback and perception and carries **20%** weightage.

- **Course Exit Survey** – Conducted at the end of the course to gather students' feedback on how well they achieved the course outcomes.

Purpose of the Model

- To ensure a balanced evaluation based on both performance and perception.
- To integrate continuous feedback for improving course delivery.
- To support Outcome-Based Education (OBE) and accreditation processes by demonstrating clear attainment mapping.

Assessment Tools

During the curriculum design process, each course is assigned engaging hours, assessment methods and marks and credits. Assessment methods are the strategies, techniques, tools, and instruments for collecting information to determine the extent to which students demonstrate desired learning outcomes.

The assessment process is divided into two parts:

a. Internal Assessment Direct Method (80%)
b. Indirect Method (20% of Course Feedback)

Twenty percentage (20%) weightage is given to Internal Assessment and Eighty percentage (80%) weightage is given to External Assessment.

The Internal Assessment tools such as Unit Tests, Preliminary Examination etc. are used at the Department level as per the Institute academic calendar and the External Assessment is done at the university level.

The assessment processes used to gather the data upon which the Evaluation of Course Outcome is based are as follows:

Sr. No.	Assessment Method	Description

01	Unit Test	Unit Tests serve as one of the key assessment tools for all theory courses across the curriculum. Each semester, a single Unit Test is conducted for First Year Engineering (FE), Second Year Engineering (SE), Third Year Engineering (TE), and Final Year Engineering (BE) students. The maximum marks allotted for this test are 30 marks. The syllabus for each course is divided into six units or modules. The Unit Test specifically covers the first two units of the syllabus. Questions in the Unit Test are designed to evaluate various levels of learning, including: • Knowledge recall • Conceptual understanding • Application of knowledge This assessment helps in measuring the students' grasp of fundamental concepts and their ability to apply them effectively. The performance in Unit Tests directly contributes to the Internal Assessment component of the course evaluation. Additionally, the results of Unit Tests are used to determine Course Attainment, which is a metric used for academic quality and continuous improvement in teaching-learning processes.
02	Continuous assessment	Courses that involve practical and hands-on learning components are evaluated through a combination of **Term Work** or Practical or **Term Work & Practical**, or **Term Work & Oral** assessments. While the **Practical and Oral assessments** are conducted **at the end of the semester** and are **not continuous** in nature, **Term Work** follows a **continuous assessment approach**. Term Work involves ongoing evaluation of students' practical knowledge and skills from the beginning of the semester till the end. Throughout the semester, students participate in scheduled practical sessions where they undertake a variety of laboratory exercises. These exercises are designed to enhance and assess students abilities in areas such as: • Writing algorithms • System design and implementation • Problem analysis • Application of various tools and technologies • Program development and execution • Technical documentation and report writing This continuous assessment helps in evaluating higher-order skills such as creativity, analytical thinking, and problem-solving. It also encourages regular engagement and progressive learning. The Term Work component is typically assigned a maximum of 25 or 50 or 100 marks, depending on the specific course requirements. Evaluation is based on several defined parameters: • Date of Checking – Timely and regular submission of work • Presentation – Clarity, neatness, and format of the submitted tasks • Performance – Accuracy and completeness of practical outputs • Understanding – Conceptual clarity and the ability to apply knowledge in practical scenarios • Oral/Interaction: Ability to confidently explain work, respond to questions, and engage in technical discussions. This method ensures a structured and ongoing evaluation of student performance, fostering consistent development of practical skills throughout the course duration.

03	Preliminary Examination	The Preliminary Examination is a crucial internal assessment tool conducted for First Year (FE), Second Year (SE), Third Year (TE), and Final Year (BE) students. It is designed to evaluate students understanding of the latter part of the syllabus, specifically covering Units 3, 4, 5, and 6 of each course. The exam is conducted for a total of 70 marks and aims to prepare students for their final university examinations. The question papers are prepared by the respective course teachers, who ensure that the questions align with various learning levels (such as knowledge, comprehension, application, analysis, and evaluation). While framing the questions, the Course Outcomes (COs) to be assessed through internal exams are carefully considered. After the examination: • Course teachers evaluate the answer sheets objectively and fairly. • Solutions are discussed with students to help them understand the correct approach and rectify their mistakes. • A result analysis is conducted to identify trends in student performance. • Based on the analysis, Course Outcome (CO) attainment is calculated, which serves as a feedback mechanism for both students and faculty to improve teaching and learning strategies. This assessment not only gauges students' preparation for final exams but also contributes to measuring the effectiveness of the teaching-learning process.Top of Form Bottom of Form

External Assessment Tools

Sr. No.	Assessment Method	Description
01	**End Semester Examination**	The End Semester Examination is conducted as per the schedule provided by **Savitribai Phule Pune University (SPPU)**. This includes Insem and End Sem Exam. - For FE, SE, TE, and BE students, the Insem Exam is conducted for 30 marks and End Sem exam is conducted for 70 marks, in accordance with the prescribed curriculum.
02	**Practical and Oral Examinations**	Practical and Oral exams are conducted as per the schedule given by SPPU. The practical and oral exam is conducted according to the curriculum.

Weightage assigned to the assessment tools

The below table shows the weightage assigned to the assessment tools based on the maximum marks of each assessment tool.

Internal Theory Course Assessment Heads and Their Weightage			
Assessment Heads	**Max Marks**	**Yes**	**Weightage**
Unit Test	**30**	**Yes**	**0.3**
Preliminary Exam	**70**	**Yes**	**0.7**

For **First Year (FE)** students, the internal assessment weightage is distributed as follows: 20% for Assessment, 24% for the Unit Test, and 56% for the Preliminary Examination.

Internal Continuous Assessment Heads and Its Weightage	
Assessment Heads	**Max Marks**
Date of Checking	**5/10**
Presentation	**5/10**
Performance	**5/10**
Understanding	**5/10**
Interaction	**5/10**

3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (40) Institute Marks : 30.00

CO Attainment Measurement Methodology

Course Outcome (CO) attainment is measured using a combination of **direct** and **indirect** assessment methods, with **80% weightage given to direct attainment** and **20% to indirect attainment**.

1. **Direct Attainment (80%)**

Direct attainment is evaluated using both internal and external assessment tools. These are further broken down as follows:

- **Internal Assessment Tools (20% of Direct Attainment):**
  - **Unit Tests**
  - **Preliminary (Prelim) Exam**
- **External Assessment Tools (80% of Direct Attainment):**
  - **In-semester (Insem) Exam**
  - **End Semester Exam**

2. Indirect Attainment (20%)

Indirect attainment is measured through feedback collected via a **Course Exit Survey**, which captures students' perception of their achievement of course outcomes.

COs Direct Attainment Process

The process involves defining attainment levels, analyzing student performance, and calculating attainment scores based on a predefined rubric.

Step 1: Define Attainment Rubrics

Three levels of attainment are defined based on student performance relative to a set target mark, which is the average score of the class in a particular assessment.

CO Attainment Target Levels (In Semester)

Assessment Methods	Levels	Criteria
In-Semester Exam	1	60% of students scoring pass marks (12 or >12 out of 30) in the in-semester examination
	2	65% of students scoring pass marks (12 or >12 out of 30) in the in-semester examination
	3	70% of students scoring pass marks (12 or >12 out of 30) in the in-semester examination

CO Attainment Target Levels (End Semester)

Assessment Methods	Levels	Criteria
End Semester Exam	1	60% of students scoring pass marks (28 or >28 out of 75) in the end-semester examination
	2	65% of students scoring pass marks (28 or >28 out of 75) in the end-semester examination
	3	70% of students scoring pass marks (28 or >28 out of 75) in the end-semester examination

Step 2: Assessment Tools and Data Collection

Each Course Outcome (CO) is assessed using specific internal and external tools (e.g., Unit Tests, Prelim Exams, Insem, End Sem). For each CO, the student performance is analyzed using score ranges.

Step 3: Calculation of Attainment Level

Attainment is calculated using the distribution of student marks as per the table below:

Table 3.2.2a – CO Attainment Calculation

Criterion	**(Assessment Tool) COi**
Range of Marks	***No. of Students for COi***
Marks>=70%	*Xi*
65% ≤ Marks < 70%	*Yi*
50% ≤ Marks < 60%	*Zi*

Marks < 40% (including Absent)	*F*

Attainment Score Calculation Formula:

$$\textit{COi Internal Attainment Level} = \frac{\text{Sum of Attainment level of all Internal assessment tools}}{\text{No. of assessment tools}}$$

$$\textit{COi Exnternal Attainment Level} = \frac{\text{Sum of Attainment level of all External assessment tools}}{\text{No. of assessment tools}}$$

CO_i Course Attainment = (0.2*CO_i Internal Attainment level + 0.8*CO_i External Attainment level)

Step 4: Interpretation and Action Plan

- If the calculated attainment level meets or exceeds the target level, the course is considered effective in delivering the intended outcomes.
- If not, **corrective measures** (e.g., content delivery improvement, tutorial sessions, remedial teaching) are implemented to enhance future attainment.**Course Information**

Step 5:End

Record the attainment of Course Outcome

Course Name	Data Structures and Algorithms
Semester	III
Academic Year	2021-22
Total No. of Students	74

			UNIT TEST		PRILIME			
Sr. No.	**Roll No.**	**Name of the Student**	**CO1 (Q1 OR Q2)**	**CO2 Q3 OR Q4**	**CO3 Q1 OR Q2**	**CO4 Q3 OR Q4**	**CO5 Q5 OR Q6**	**CO6 Q7 OR Q8**
		Maximum Marks	**15**	**15**	**18**	**17**	**18**	**17**
1	1	KHAN WASIM RAZI AHMAD	10	14	12	14	16	12
2	2	DESHMUKHE ANIRUDDHA VIJAY	14	10	12	16	13	15
3	3	YASH ANNASAHEB SHINDE	13	11	12	13	16	14
4	4	SUARES CALVIN JOCKIM	10	14	12	12	14	13
5	5	CHETAN SATISH PATIL	13	12	13	16	16	12
6	6	PATIL VAIBHAV UMRAOSING	11	10	16	12	14	12
7	7	HANNURE MUSKAN MAHAMAD HUSEN	12	14	15	13	13	14
8	8	PRATHAMESH SANJAY MORANKAR	11	11	14	12	16	14
9	9	SALUNKE SAKSHI SHIVAJI	14	14	13	13	15	16
10	10	PATIL GITESH NARAYAN	13	13	16	14	16	16
11	11	SABALE SANDESH BABAN	10	10	12	14	13	16
12	12	JADHAV NILESH PUNDALIK	12	11	16	15	16	12
13	13	KHARCHE NEHA AVINASH	11	14	12	14	12	13
14	14	CHANGAN SHWETA BABASAHEB	13	11	14	14	13	13
15	15	ATTARDE NIKHIL SATENDRA	13	14	14	16	15	13
16	16	PRASAD PRAFULLA CHOPADE	12	11	12	12	13	16
17	17	DAREKAR YASH SHIVAJI	10	14	13	15	12	12
18	18	PARATE GUNJAN MADHUKARRAO	14	13	13	16	14	15
19	19	ANDURE ABHISHEK GOVINDRAO	10	13	15	16	12	12
20	20	SHINDE SHARVARI DINESH	11	10	12	15	13	15
21	21	DAHATONDE ADITYA BANDU	14	12	15	12	12	16

22	22	SABLE ATHARVA SANJAY	10	13	16	13	15	13
23	23	DAGADE SAMARTH DNYANESHWAR	13	13	15	15	12	14
24	24	INGALE NIRAJ VILAS	11	11	16	16	15	15
25	25	DESHMUKH NIKHIL MAHENDRA	10	11	12	12	15	16
26	26	KOKANE VEDANT PRASHANT	10	11	14	14	16	13
27	27	SHINDE VEDANG PRAKASH	13	14	16	14	13	15
28	28	MAHAJAN AKSHAY DIPAK	10	12	12	12	12	15
29	29	MOHITE SWAPNIL DILIP	10	13	14	16	16	15
30	30	NEERAJ ATUL TEMBARE	13	13	15	14	16	15
31	31	CHAVAN CHETAN PRALHAD	10	14	13	13	12	14
32	32	THORAT SWAPNIL SUNIL	12	10	16	14	13	13
33	33	BAMANE VISHWAJEET MAHADEV	12	12	13	14	12	12
34	34	DESHMUKH HARSHWARDHAN GHANSHYAM	10	11	13	14	14	14
35	35	PANDEY SHRADDHA RAVINDRA	10	13	13	16	12	16
36	36	TARTE ADITYA RAJKUMAR	10	10	15	16	12	15
37	37	PHALKE SWARAJ SANDEEP	13	14	12	12	13	12
38	38	HARSHAL DNYANESHWAR PATIL	13	13	16	16	13	13
39	39	JAT GAJENDRA BABULAL	14	10	14	14	12	12
40	40	BAFNA OM JITENDRA	10	13	15	14	15	15
41	41	FISKE PARTH BABASAHEB	13	10	13	13	13	15
42	42	DEV GARG	13	12	13	14	14	14
43	43	SHIVAM SHINDE	14	11	12	13	12	13
44	44	INAMDAR SOFIYANA JALIL	13	12	16	15	13	16
45	45	TEJAS KAMALAKAR KOLHE	13	10	13	13	14	16
46	46	PRINCE KUMAR DWIVEDI	10	12	12	13	14	13
47	47	GIRI ANANT	11	13	13	12	13	12
48	48	SUMIT SANTOSH KEKAN	11	11	13	14	13	13
49	49	PUJARI RUTUJA SUDHAKAR	14	13	13	12	15	16
50	50	PIDURKAR SAKSHI SATYABHAN	13	10	16	14	13	13
51	51	KUTE LAJWANTI DATTATRAYA	12	14	12	14	16	16
52	52	PACHARANE DIPALI SHRIRAM	13	11	16	16	16	14
53	53	MAHAJAN GAURI MOHAN	14	11	12	12	14	16
54	54	KHAN AMREEN PARVEEN IQBAL	12	10	16	15	16	16
55	55	JOSHI PRITEE SUNIL	10	11	12	13	15	15
56	56	BOBADE KETAN SANDIP	12	11	14	14	16	16
57	57	HEGDE NIDHI BHARATRAJ	14	11	13	14	15	14
58	58	AGRAWAL MEHUL ANUPKUMAR	11	13	14	14	16	13
59	59	MAHESH	13	10	14	15	16	12
60	60	WANI YOGINI KSIHOR	10	13	16	14	14	15
61	61	MARATHE NEHA SHAILESH	14	14	14	13	16	15
62	62	CHAUDHARI ISHWAR RAVINDRA	13	10	16	14	12	15
63	63	MANASI VIJAY JADHAV	10	14	16	13	15	15
64	64	YADAV OMKAR TANAJI	13	12	15	14	12	12
65	65	SHINDE KISHORI MOHANRAO	14	14	15	14	16	14
66	66	SHINDE VAISHNAVI ANIL	12	14	15	12	13	15
67	67	MORE ABHISHEK GHANASHAM	12	11	14	14	15	12
68	68	SANDBHOR NILAM EKANATH	10	13	14	13	13	12
69	69	THORAT SANIKA TANAJI	14	12	16	16	13	15
70	70	KONDEKAR KALPAK KAMALKUMAR	11	14	14	13	15	14
71	71	AHERWADKAR SAURABH SHRIKANT	10	14	15	13	15	15
72	72	SHINDE SAURABH ANIL	11	12	13	16	16	14
73	73	KARANDE SAURABH SANJAY	10	10	15	13	16	15

74	74	KULKARNI PRATIKSHA VIJAY	14	11	13	14	13	15
		60% OF TOTAL MARKS	9	9	10.8	10.2	10.8	10.2
		NO OF STUDENTS > 60%	74	74	74	74	74	74
		TOTAL PRESENT STUDENTS	74	74	74	74	74	74
		% OF STUDENTS > Threshold value(Total Marks*0.6)	100.00	100.00	100.00	100.00	100.00	100.00
		LEVEL	3	3	3	3	3	3

CO - DIRECT ATTAINTMENT MAPPING

CO - DIRECT ATTAINTMENT MAPPING	UT	PRILIME	Assessment	Average
CO1	3	0	0	3
CO2	3	0	0	3
CO3	0	3	0	3
CO4	0	3	0	3
CO5	0	3	0	3
CO6	0	3	0	3

☑ If PRILIME = 0 → 55% UT + 45% Assessment
☑ If UT = 0 → 74% PRILIME + 26% Assessment
☑ If Assessment= 0 → 30% UT + 70% PRILIME
☑ If all are present → 24% UT + 56% PRILIME + 20% Assessment

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50) Total Marks 50.00

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

Institute Marks : 10.00

Program Outcome (PO) Attainment Measurement Methodology

A. Direct Attainment (80%)

Direct attainment contributes **80%** to the overall PO attainment and is calculated as the **average of all Course Outcome (CO) attainments**, including those from **first-year courses**. Each CO is mapped to relevant POs, and the aggregated CO performance reflects the level of PO attainment.

B. Indirect Attainment (20%)

Indirect attainment contributes the remaining **20%** and is derived from **stakeholder feedback**, consisting of:

- **Alumni Feedback (50%)**
- **Program Exit Survey (50%)**

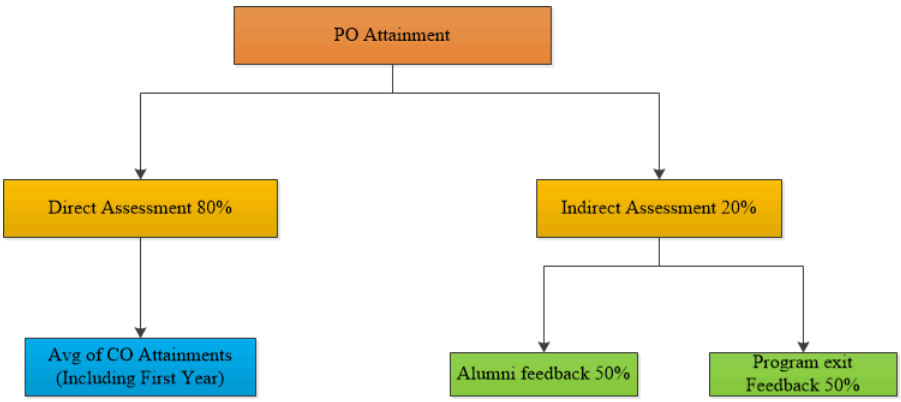


Figure 3.3.1 Assessment Process and Tools for Program Outcomes

Figure 3.3.1 Show the Po attainment calculation and weightage distribution. This structure ensures a **holistic approach** to outcome assessment, combining **quantitative performance data** with **qualitative feedback** aligning academic efforts with industry and societal expectations.

Table B.3.3.1.a Assessment tool for Program Outcomes (Direct Assessment)

Sr.No	Examination	Schedule
Direct Attainment Methods		
A. Internal Assessment		
01	Unit Test	After completion of Two unit.
02	Preliminary Exam	End of the Semester
03	Assessment (For First Year)	After completion of One unit.
04	Continues Assessment	After Every Practical
B. External Assessment		
01	End Semester Exams	InSem Exam & End-Sem Exam
02	Practical and Oral	End Semester

TableB.3.3.1.b Assessment tools for Program Outcomes (Indirect Assessment)

Sr. No	Assessment tool	Assessment criteria
01	Exit Survey	To evaluate the programs success in providing students with opportunities to achieve the program outcomes.
02	Alumni Survey	Quantitative data demonstrating various abilities in the profession

Indirect PO Attainment

A. Program exit Surveys and its correlation with POs

B. Alumni Survey and its Mapping with POs & PSOs

These methods collect perception-based feedback to supplement direct assessments. They provide insight into the broader educational impact.

- **Alumni Feedback**:
  Captures inputs from graduates on how well the program prepared them for their professional life. It reflects the long-term relevance and application of the acquired knowledge and skills.
- **Program Exit Feedback**:
  Collected from students at the time of graduation, this evaluates their satisfaction with the program, resources, faculty support and learning experience.

The Table 3.3.1.b represents the correlation between alumni feedback and Program Outcomes (POs) and Program Specific Outcomes (PSOs). It is used as an indirect assessment tool in outcome-based education (OBE) to evaluate how effectively the academic program has contributed to the graduates professional competencies.

Each row of the table corresponds to a question in the Alumni Survey, designed to capture graduates perceptions of how well their education prepared them in specific areas relevant to engineering and professional life.

Each column represents a specific Program Outcome (PO1 to PO12) or Program Specific Outcome (PSO1 and PSO2). The presence of a check mark (√) in a cell indicates that the respective survey question addresses or is aligned with the corresponding PO or PSO.

Table 3.3.1.b: Alumni Survey and its Correlation with Pos

Questionnaires (Alumni Survey)	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
To what extent has the program helped you apply fundamental knowledge in solving technical challenges in your profession?	√	√											√	
Are you able to analyze real-world engineering problems using the concepts and tools learned during your studies?	√	√			√								√	
Did the program train you to design solutions that are technically sound and socially responsible?			√		√	√							√	√
How effectively were you trained in conducting experiments, analyzing data, and applying research methodologies?				√	√								√	
Has the program prepared you to use modern engineering tools, software, and techniques in your current work?												√		√
Are you aware of your professional responsibilities related to health, safety, ethics, and laws in engineering practices?						√		√						√
Do you consider environmental impact and sustainability in your professional decision-making?			√				√							√
Has the program helped you develop a strong understanding of ethical practices and professional conduct?								√	√					√

Have you effectively applied teamwork and leadership skills in your professional or academic environment?									√		√			√
Did your education prepare you for effective communication with peers, clients, and other stakeholders in IT industry?									√	√				√
Were you exposed to principles of project management, budgeting, and resource allocation during your academic journey?			√								√		√	√
Are you motivated and prepared for lifelong learning, certifications, or higher studies due to the habits developed in college?					√							√	√	
Did your final year project or internships reflect real-world problems and allow you to use multidisciplinary knowledge?			√	√					√				√	√
Has your academic experience improved your ability to adapt and grow professionally in a dynamic industry environment?											√	√	√	√
How well did the overall curriculum and institute environment help shape your technical competency and professional behavior?	√	√	√	√	√	√	√	√	√	√	√	√	√	√

Exit Survey and its Mapping with POs & PSOs

The Table 3.3.1.c**,** Exit Survey and its Correlation with POS is a representation of the Exit Survey used as an Indirect Assessment Tool to evaluate how effectively the academic program has contributed to achieving the Program Outcomes (POs) and Program Specific Outcomes (PSOs), from the perspective of final-year students.

Purpose:

The table maps specific Exit Survey questions to relevant POs and PSOs, showcasing the extent to which students believe the program has supported their development in various technical, ethical, and professional areas. It is a key component in Outcome-Based Education (OBE) frameworks and is often required for accreditation processes such as NBA.

Table 3.3.1.c: Exit Survey and its Correlation with POs

Questionnaires (ExitSurvey)	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**

How well did the program strengthen your foundation in mathematics, algorithms, and computer science fundamentals?	√	√											√	
Were you able to analyze IT problems and identify appropriate computing solutions using learned methodologies?		√			√								√	
Did you gain the ability to design and develop secure, scalable, and efficient software or systems to meet user needs?			√			√							√	
Were you encouraged to conduct experiments or mini-projects involving software, tools, or data analysis?				√	√								√	
Are you confident using modern development tools, platforms, frameworks, or libraries in real-time project environments?					√							√	√	
Did the curriculum increase your awareness of ethical, legal, health, and security-related issues in IT?						√		√						√
Do you consider environmental impact, sustainability, or social needs when designing IT-based solutions?						√		√						√
Has the program helped develop a strong understanding of IT ethics, data privacy, and responsible technology use?						√		√						√
Did you have opportunities to work in teams and manage interpersonal relationships during projects and lab sessions?									√		√			√
How well did the program enhance your communication skills for technical documentation, presentations, or client interactions?										√	√			√
Were you taught concepts of project management, risk assessment, or business processes relevant to IT?			√								√		√	√
Has the program motivated you for lifelong learning (e.g., certifications, self-learning platforms, or research in emerging IT areas)?					√							√	√	

Did the final year project help integrate multiple domains such as cloud computing, databases, AI, or networking in a cohesive solution?		√	√		√								√	√
Do you feel industry-ready in terms of technical expertise and professional behavior, including time management and accountability?	√	√	√	√	√	√	√	√	√	√	√	√	√	√
How satisfied are you with the overall academic and professional development received through workshops, seminars, hackathons, or internships?					√				√			√	√	√

Attainment of the POs and PSOs through indirect attainment is based on the following attainment level defined:

A. Level-3: 80% or above survey takers giving 4 or 5 marks

B. Level-2: 70% or above survey takers giving 4 or 5 marks

C. Level-1: 60% or above survey takers giving 4 or 5 marks

3.3.2 Provide results of evaluation of PO&PSO (40)

Institute Marks : 40.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
FE101T	2.39	2.38	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.39
FE102T	2.42	2.42	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.49
FE103T	2.61	2.61	2.59	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.61
FE104T	2.46	2.46	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.46
FE105T	2.50	2.49	2.50	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.51
FE106L	2.59	2.59	2.59	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.59
FE201T	2.46	2.47	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.46
FE202T	2.50	2.50	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.50
FE203T	2.41	2.40	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.41
FE204T	2.40	2.41	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.37
FE205L	2.55	2.55	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.55
FE206L	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59
IT301T	2.9	2.9	2.91	2.9	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT302T	2.84	2.84	2.84	2.85	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT303T	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT304T	2.9	2.89	2.9	PO4	2.9	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT305T	2.86	2.85	2.85	2.86	2.9	PO6	PO7	PO8	PO9	2.79	PO11	2.9
IT306L	2.9	2.9	2.9	2.9	2.9	PO6	PO7	PO8	PO9	PO10	PO11	2.9
IT307L	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.88
IT308L	2.9	2.9	2.9	2.9	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.9
IT309L	2.9	2.9	2.9	2.9	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.9
IT401T	2.89	PO2	2.89	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT402T	2.83	2.85	2.83	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT403T	2.89	2.85	2.84	2.81	2.82	2.89	PO7	PO8	2.73	2.73	PO11	PO12
IT404T	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT405T	2.87	2.86	2.85	2.86	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT406L	2.88	2.88	2.88	2.88	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89

IT407L	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT408L	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT409L	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT501T	2.91	2.91	2.91	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT502T	2.9	2.9	2.9	2.9	2.9	2.88	2.88	PO8	2.88	2.9	2.88	2.9
IT503T	2.9	2.9	2.9	2.9	2.9	PO6	PO7	PO8	PO9	PO10	PO11	2.9
IT504T	2.89	2.89	2.89	2.89	2.89	2.89	2.88	2.88	2.89	2.89	2.89	2.89
IT505T	2.88	2.87	2.87	2.87	2.87	2.88	PO7	PO8	PO9	2.89	2.87	2.88
IT506L	2.9	2.9	2.9	2.9	2.9	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT507L	2.9	2.9	2.9	2.9	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.88
IT508L	2.91	2.91	2.91	2.91	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.91
IT509L	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.88
IT601T	2.86	2.87	2.86	2.88	2.87	PO6	PO7	2.87	PO9	PO10	PO11	2.88
IT602T	2.89	2.89	2.89	2.89	2.89	2.89	PO7	2.89	2.89	2.89	2.89	2.89
IT603T	2.86	2.87	2.86	2.89	2.86	2.89	2.89	2.89	PO9	2.81	PO11	2.81
IT604T	2.89	2.89	2.89	2.89	2.9	2.89	2.89	2.89	2.89	2.89	2.89	2.89
IT606L	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT607L	2.89	2.89	2.89	2.89	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.89
IT608L	2.94	2.94	2.94	2.94	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.94
IT701T	2.96	2.96	2.96	2.96	2.96	2.96	PO7	PO8	2.96	2.96	2.96	2.96
IT702T	2.86	2.85	2.84	2.86	2.86	PO6	PO7	2.8	2.82	2.83	2.84	2.84
IT703T	2.96	2.96	2.96	2.96	2.96	2.96	PO7	PO8	PO9	PO10	PO11	2.96
IT704T	2.97	2.96	2.96	2.96	2.96	2.96	PO7	PO8	PO9	PO10	PO11	2.96
IT705T	2.93	2.94	2.96	2.95	2.94	2.91	2.96	2.96	2.96	2.96	2.96	2.94
IT706L	2.96	2.96	2.96	2.96	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.98
IT707L	2.96	2.96	2.96	2.96	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.96
IT708P	2.97	2.97	2.96	2.97	2.97	2.97	2.96	2.96	2.97	2.96	2.96	2.96
IT801T	2.89	2.88	2.87	2.89	2.88	2.95	PO7	PO8	PO9	2.8	2.95	2.88
IT802T	2.4	2.35	2.34	2.37	2.3	2.4	PO7	PO8	2.3	2.34	2.46	2.42
IT803T	2.88	2.89	2.89	2.9	2.9	PO6	PO7	PO8	PO9	PO10	PO11	2.73
IT804T	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
IT805L	2.97	2.97	2.97	2.97	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.97
IT806L	2.97	2.97	2.97	2.97	2.97	PO6	PO7	PO8	PO9	PO10	PO11	PO12
IT807P	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
PO Attainment	2.73	2.74	2.78	2.71	2.79	2.78	2.79	2.78	2.73	2.74	2.77	2.73

PO Attainment Level

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
Direct Attainment	2.81	2.81	2.87	2.89	2.87	2.87	2.89	2.88	2.83	2.83	2.86	2.80
InDirect Attainment	2.40	2.45	2.42	2.0	2.45	2.42	2.41	2.40	2.35	2.40	2.40	2.45

PSO Attainment

Course	**PSO1**	**PSO2**
FE101T	PSO1	PSO2
FE102T	PSO1	PSO2
FE103T	PSO1	PSO2
FE104T	PSO1	PSO2
FE105T	PSO1	PSO2
FE106L	PSO1	PSO2
FE201T	PSO1	PSO2
FE202T	PSO1	PSO2
FE203T	PSO1	PSO2
FE204T	PSO1	PSO2

FE205L	PSO1	PSO2
FE206L	PSO1	PSO2
IT301T	2.9	PSO2
IT302T	2.84	2.84
IT303T	2.89	2.89
IT304T	2.9	2.9
IT305T	2.85	2.9
IT306L	2.9	2.9
IT307L	2.89	2.89
IT308L	2.9	2.9
IT309L	2.9	2.9
IT401T	2.89	2.89
IT402T	2.83	2.83
IT403T	2.84	2.78
IT404T	2.89	2.89
IT405T	2.86	2.78
IT406L	2.88	2.88
IT407L	2.89	2.89
IT408L	2.89	2.89
IT409L	2.89	2.89
IT501T	2.91	2.91
IT502T	2.9	2.9
IT503T	2.9	2.89
IT504T	2.89	2.89
IT505T	2.87	2.87
IT506L	2.9	2.9
IT507L	2.9	2.9
IT508L	2.91	2.91
IT509L	2.89	2.89
IT601T	2.86	2.87
IT602T	2.89	2.89
IT603T	2.86	2.86
IT604T	2.89	2.89
IT606L	2.89	2.89
IT607L	2.89	2.89
IT608L	2.94	2.94
IT701T	2.96	2.96
IT702T	2.84	2.83
IT703T	2.96	2.96
IT704T	2.97	2.97
IT705T	2.95	2.96
IT706L	2.96	2.96
IT707L	2.96	2.96
IT708P	2.97	2.96
IT801T	2.88	2.86
IT802T	2.36	2.46
IT803T	2.88	2.89
IT804T	2.96	2.96
IT805L	2.97	2.97
IT806L	2.97	2.97
IT807P	2.96	2.96
PSO Attainment	2.79	2.80

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	2.89	2.89
InDirect Attainment	2.40	2.42

4 STUDENTS' PERFORMANCE (150)

Total Marks 130.25

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23(CAYm2)	2021-22(CAYm3)	2020-21(CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
Sanctioned intake of the program(N)	120	60	60	60	60	60	60
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)	120	60	60	60	60	59	60
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	6	6	6	6	7	6
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	120	66	66	66	66	66	66

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 backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2024-25 (CAY)	120	0	0	0	0
2023-24 (CAYm1)	66	34	0	0	0
2022-23 (CAYm2)	66	40	41	0	0
2021-22 (CAYm3)	66	42	42	42	0
2020-21 (LYG)	66	60	53	48	48
2019-20 (LYGm1)	66	53	60	55	55
2018-19 (LYGm2)	66	31	36	36	36

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) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2024-25 (CAY)	120	0	0	0	0
2023-24 (CAYm1)	66	55	0	0	0
2022-23 (CAYm2)	66	60	66	0	0
2021-22 (CAYm3)	66	59	65	63	0
2020-21 (LYG)	66	60	65	63	63
2019-20 (LYGm1)	66	58	64	64	63
2018-19 (LYGm2)	66	58	64	64	64

4.1 Enrolment Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2024-25 (CAY)	120	120	100.00
2023-24 (CAYm1)	60	60	100.00
2022-23 (CAYm2)	60	60	100.00

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

Assessment : 20.00

4.2 Success Rate in the stipulated period of the program (40)

Total Marks 31.85

4.2.1 Success rate without backlogs in any semester / year of study (25)

Institute Marks : 17.50

Item	Latest Year of Graduation, LYG (2020-21)	Latest Year of Graduation minus 1, LYGm1 (2019-20)	Latest Year of Graduation minus 2 LYGm2 (2018-19)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	66.00	66.00	66.00
Y Number of students who have graduated without backlogs in the stipulated period	48.00	55.00	36.00
Success Index [SI = Y / X]	0.73	0.83	0.55

Average SI [(SI1 + SI2 + SI3) / 3] : 0.70

Assessment [25 * Average SI] : 17.50

4.2.2 Sucess rate in stipulated period (15)

Institute Marks : 14.35

Item	Latest Year of Graduation, LYG (2020-21)	Latest Year of Graduation minus 1, LYGm1 (2019-20)	Latest Year of Graduation minus 2 LYGm2 (2018-19)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	66.00	66.00	66.00
Y Number of students who have graduated in the stipulated period	63.00	63.00	64.00
Success Index [SI = Y / X]	0.95	0.95	0.97

Average SI[(SI1 + SI2 + SI3) / 3]: 0.96

Assessment [15 * Average SI] : 14.35

Note : If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3 Academic Performance in Third Year (15)

Total Marks 15.00

Institute Marks : 15.00

Academic Performance	CAYm3 (2021-22)	LYG (2020-21)	LYGm1 (2019-20)
Mean of CGPA or mean percentage of all successful students(X)	70.91	85.64	89.85
Total number of successful students(Y)	63.00	63.00	64.00
Totalnumber of students appeared in the examination(Z)	65.00	65.00	64.00

Average API [(AP1 + AP2 + AP3)/3] : 80.53

Assessment [1.5 * AverageAPI] : 120.79

4.4 Academic Performance in Second Year (15)

Total Marks 15.00

Institute Marks : 15.00

Academic Performance	CAYm2 (2022-23)	CAYm3 (2021-22)	LYG (2020-21)
Mean of CGPA or mean percentage of all successful students(X)	72.36	82.66	76.94
Total number of successful students (Y)	66.00	65.00	65.00
Total number of students appeared in the examination (Z)	66.00	65.00	66.00
API [X * (Y/Z)]	72.36	82.66	75.77

Average API [(AP1 + AP2 + AP3)/3] : 76.93

Assessment [1.5 * AverageAPI] : 15.00

4.5 Placement, Higher Studies and Entrepreneurship (40)

Total Marks 28.40

Institute Marks : 28.40

Item	LYG (2020-21)	LYGm1 (2019-20)	LYGm2 (2018-19)
Total No of Final Year Students(N)	63.00	64.00	64.00
No of students placed in the companies or government sector(X)	35.00	47.00	45.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	2.00	2.00	3.00
No of students turned entrepreneur in engineering/technology (Z)	1.00	1.00	0.00
x + y + z =	38.00	50.00	48.00
Placement Index [(X+Y+Z)/N] :	0.60	0.78	0.75

Average Placement [(P1 + P2 + P3)/3] : 0.71

Assessment [40 * Average Placement] : 28.40

Program Name :

Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	SABALE SANDESH BABAN	72153206D	TCS	TCSL/DT20245291377/PUNE
2	ATTARDE NIKHIL SATENDRA	72153010K	Eidiko Systems Integrators &TCS	TCSL/DT20234921082/Pune
3	PARATE GUNJAN MADHUKARRAO	72153163G	Tech mahindra	2307289/ ELTP-CAMPUS / 2024
4	DAGADE SAMARTH DNYANESHWAR	72153044D	Borm Bruckmeier Infotech India Private Limited	Borm Bruckmeier/2023-24/date:13/03/2024
5	KOKANE VEDANT PRASHANT	72153120C	Quantiphi	Quantiphi/2023-24/date:04/06/2024
6	DESHMUKH NIKHIL MAHENDRA	72153055K	TCS	TCSL/DT20234921082/PUNE
7	SHINDE VEDANG PRAKASH	72153233M	Hexaware Technologies	Hexaware/2023-24/date:03/05/2024
8	BAMANE VISHWAJEET MAHADEV	72153016J	Wipro Ltd.	Wipro/2023-24/date:11/03/25
9	DEV GARG	72153061D	Programming.com	programming.com/2023-24/date:20/12/2024
10	PRINCE KUMAR DWIVEDI	72153197M	Yardi Software India Pvt Ltd	Yardi/2023-24/date:12/09/2024
11	TEJAS KAMALAKAR KOLHE	72153256L	Airpay Payment Service	Airpay/2023-24/Date:24/09/2024
12	BAFNA OM JITENDRA	72153014B	Tech Mahindra	Tech Mahindra/2023-24/Date:22/12/2024
13	PHALKE SWARAJ SANDEEP	72153185H	TCS	TCSL/DT20234299200/PUNE
14	PUJARI RUTUJA SUDHAKAR	72153198K	Capgemini	Capgemini Ref: 1309712/124657
15	PIDURKAR SAKSHI SATYABHAN	72153188B	Synechron	U72200PN2001PTC016029
16	KHAN AMREEN PARVEEN IQBAL	72153113L	Accenture	Accenture/2023-24/date:06/062024
17	HEGDE NIDHI BHARATRAJ	72153091F	TCS	TCSL/DT20245454709/PUNE
18	CHAUDHARI ISHWAR RAVINDRA	72203311H	Infosys	HRD/NOBA/1007960890/24-25
19	MARATHE NEHA SHAILESH	72203316J	Yardi Software India Pvt Ltd	Yardi/2023-24/date:3/7/2024
20	MANASI VIJAY JADHAV	72203315L	Accenture	Accenture/2023-24/date:05/06/2024

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	SUNDARKAR SHREYAL SANJAY	72031546J	Zensoft	Zensoft/2022-24/date:19/09/22
2	RAO SIDDHESHWARI VASUDEVAN	72031510H	Accenture	Accenture/2023-24/date:13/02/23
3	SHINDE HARSHADA ASHOK	72031535C	Hitachi Vantara	Hitachi vantara/2022-2023/date:11/8/2023
4	CHAKOLKAR PRATIK RAVINDRA	72031402L	Medusind Solutions Pvt Ltd	Medusind/2022-23/date:21/09/2022
5	PAGAR YASH BHAUSAHEB	72031491H	KPIT	KPIT/2022-23/date:08/09/22
6	KAKLIJ HRISHIKESH SAHEBRAO	72031443H	Quantiphi	Quantiphi/2022-23/Date:23/12/22
7	RUPESH KARBHARI	72031513B	Ust Blueconch	Ust Blueconch/2022-23/date:19/08/22
8	GOSAVI ARYAN NARENDRA	72031430F	FINSIRE	FINSIRE/2024-25/date:26/04/24
9	PARBAT TEJAS TUSHAR	72031495L	VERZEO	Capgemini/2024-25/date:04/29/24
10	BORUDE ABHIJEET SUNIL	72031401B	Bluebinaries	Bluebinaries/2022-28/date:14/01/23
11	MAHAJAN PRATIK BALU	72031469M	PTC	PTC/2023-24/date:24/03/23
12	KORGAONKAR PRATHAMESH PRAKASH	72031456K	Persistent Systems	Persistent Systems/2023-24/date:16/06/23
13	AMANGE ADITYA VENKAT	72031382B	Shobi Solution	Shobi Solution/2023-24/date:20/09/23
14	RANMALE GANESH DATTA	72031509D	Capgemini	Capgemini/2024-25/date:04/29/24
15	WABLE ABHISHEK NANASAHEB	72031563J	TCS Digital	TCS Digital/2022-24/date:21/12/22
16	SHENDKAR AKSHATA DNYANDEO	72031532J	Acmegrade	Acmegrade/2023-24/date;06/02/23
17	TAMHANE ADITYA DHRUVABAL	72031549C	Hitachi Vantara	Hitachi Vantara/2022-23/date:19/12/23
18	KULKARNI TANVI MUKUND	72031458F	LTI	LTI/HR/EN9/Campus/2023
19	KASALKAR NIKITA NIVRUTHI	72031452G	Hewlett Packard Enterprise	HPE/2022-23/date:06/02/2023
20	MOHITE SAKSHI GANESH	72031476D	Capgemini	Capgemini Ref:754636/50698
21	NAYAKWADI YASH UDAY	72031484E	EPIQ	EPIQ/2022-23/Date:14/14/2024
22	VEDAMRUTA JAYANT UDAVANT	72031561B	PTC	PTC/2022-23/date:08/01/2024
23	GORDE PRATIKSHA RAJU	72031428D	Capgemini	Capgemini/2022-23/date:18/12/2022
24	CHAVAN ANKITA RAVIVARMA	72031406C	Zensoft Service	Zensoft Service/2022-219/date:18/07/23
25	CHIKHALE POONAM UMESH	72031407M	Accenture	Accenture/2023-24/date:04/12/23
26	THAKUR APARAJITA BALRAMSINGH	72031551E	HSBC	HSBC/2022-2023/date:10/7/2023
27	WABLE SANGRAM SAMBHAJI	72031564G	TCS Digital	TCS Digital/2022-23/date:21/12/22
28	TILEKAR KUNAL DATTATRAY	72168478F	PTC software	PTC software/2023-24/date:23/02/23
29	BANKAR VISHAL KIRAN	72168466B	Capgemini	Capgemini/2023-24/date:14/11/23
30	KADADHEKAR PAYAL RAJESH	72168471J	Trinamix	Trinamix/2022-23/date:23/01/23
31	AGIWALE SURAJ TANAJI	72168464F	Capgemini	Capgemini/2022-23/date:17/12/22
32	BHIRUD YOGESH SUBHASH	72168467L	Capgemini	Capgemini/2022-23/date/09/09/2024
33	PAWAR KOMAL SANJAY	72168474C	Slb	Slb/2022-23/date:21/06/23
34	LOKHANDE PARTH PRASAD	72031464L	Connetwise	Connetwise/2022-23/date:12/09/2022

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	AAKANKSHA RAJENDRA GAIKWAD	71916388K	Dassault Systèmes	3DSINDIALAB/HRD/2021-22/4233
2	BIRAJDAR MAHESH CHANDRAKANT	71916419C	Capgemini	Capgemini Ref:6186713/1415026
3	SHAIKH RIHAN SHAFIQ	71916567K	Medusind Solutions Pvt Ltd	Medusind/2022-23/date:21/09/2022
4	JANHAVI PRAVIN KHANDAGALE	71916469K	Tibco software	TIBCO/2021-22/1/date:8/7/22
5	VARUNKAR VAIBHAV GANESH	71916604H	Webknot Technologies Pvt Ltd	WTPL/2021-22/2/date:30/12/2021
6	JAGTAP ONKAR SANDIP	71916466E	Atos Global IT solution	Atos/2021-22/2/date:9/08/2022
7	PATIL KSHITIJ KUNDAN	71916524F	Infosys	HRD/NOBA/1004309673
8	KUMBHAR ANIKET DEEPAK	71916495j	Atos global	Atos/2021-22/1/date:4/09/2022
9	SHREYASH MOHAN PAWAR	71916575L	UST	UST/2021-22/3/date:13/8/21
10	UDAGIRE DARSHAN SHIVAJI	71916601C	FINSIRE	FINSIRE/2024-25/date:26/04/24
11	PATIL ROHIT PRASHANT	71916529G	Yardi Systems	Yardi/2021-22/1/date:11/7/2022
12	BHUTE ADITYA MUKUND	71916415L	Jio Platforms Limited	6031/69819571/15720771/040722/1756
13	JAYESH MILIND PATIL	71916471M	Bluebinaries	Bluebinaries/2022-28/date:14/01/23
14	SAYYAD MOHSIN MUBARAK	71916565C	Quantiphi	Quantiphi/2021-22/date:11/11/2022
15	DHANORKAR SHUBHAM DILIPRAO	71916439H	Tata Consulting Engineer's Limited	TCSL/DT2020690114595/Pune
16	KHOBRAGADE NIKHIL SHRAVAN	71916488F	Hexaware	Hexaware/2021-22/date:14/7/2022
17	KALE TEJAS SHIVAJI	71916480L	Coditas Solutions	CS/HR/OFFER/TK/30112021
18	VYAVHARE KARAN HARISH	71916608L	Cybage Software	Cybage/2021-22/2/date:14/02/2022
19	BANSODE ROHIT MOHAN	71916403G	TIBCO SOFTWARE	TIBCO/2021-22/1/date:20/7/2022
20	NISHI KUMARI MISHRA	71916518M	Persistent Systems	Persistent/Campus/1199579/3.0
21	RITU URKUDE	71916556D	Cybage software pvt ltd	Cybage/2021-22/2/date:14/2/2022
22	SANGOLKAR SHRUTKEERTI DHANANJAY	71916563G	Capgemini Technology Services India Limited	capgemini/Ref:6594808/1537216
23	SHINDE AKASH PRAMOD	71916572F	Cybage software	Cybage/2021-22/1/date:14/02/2022
24	PATIL MAHESH VASANT	71916525D	To The New	ToTheOne/2021-22/date:8/9/2022
25	RAORANE VRUSHABH SUBHASH	71916552M	Netcracker Technology	Netcracker/2021-22/date:7/4/2022
26	GAIKWAD SUMIT MAHAVIR	71916445B	FIS GLOBAL	FIS/2021-22/1/date:26/1/2022
27	BHOITE MAYURI VILAS	71916411H	Ecozen solutions	ecozen/2021-22/date:10/10/2022
28	BANGAR NILESH MATHAJI	71916402J	Accenture	Accenture/2021-22/date:23/3/2022
29	RIDDHESH SANDESH PURNAPATRE	71916554H	TCS	TCSL/DT20206907616/Pune
30	GUJARATHI ATHARVA KISHOR	71916454M	Jio Platforms Ltd	6031/69819272/16595319/020223/1059
31	MULE SANKET ARUN	71916513L	Cybage Software	Cybage/2021-22/3/date:14/2/2022
32	KALE MANGESH CHANDRAKANT	71916479G	KPIT	KPIT/2021-22/date:19/12/22
33	RANE AISHWARYA DEVIDAS	71916549M	FUJITSU	HR/OL/822-43780
34	KANADE MANASI PRALHAD	71916483E	Pitney Bowes India Pvt Ltd	Pitney/2021-22/date:20/8/202
35	KAUJALGIKAR ASHWINI DEEPAK	71916486K	Emtec Technologies Pvt Ltd	Emtec/2021-22/1/date/29/07/2022
36	PATIL NIDHI SOMANAGOUDA	71916526B	Persistent System	Persistent/Campus/1199579/3.0
37	KADAM RUTUJA NITIN	71916476B	Capgemini	Capgemini Ref: 6238244/1454681
38	GANGAVANE KHUSHAL SHIVAJI	71916447J	Sigma	Sigma/2021-22/2/date:1/10/2022
39	SHARMA NEHAL DINESH	72005347B	Persistent Systems	Persistent/Campus/1200909/3.0
40	MAHAJAN ABHIJIT VIJAY	72013913K	Datametica	DM-DOC-HR-03
41	GHUMATKAR SAKSHI SANJAY	72005344H	PTC Software	ptc/2021-22/1/DATE:19/5/2022
42	JAGTAP SUPRIYA MAHENDRA	72005346D	SAP Labs India	SAP/2021-22/2/date:25/10/2021
43	GUPTA AARTI OMPRAKASH	72005345F	Persistent Systems	Persistent/Campus/2149946/45343

4.6 Professional Activities (20) Total Marks 20.00

4.6.1 Professional socities/ chapters and organizing engineering events (5)

Institute Marks : 5.00

The department actively promotes the holistic development of students by encouraging participation in professional societies and organizing technical and co-curricular events. These initiatives aim to enhance technical competencies, leadership qualities, and team-building skills, aligning with institutional goals and program outcomes.

Professional Societies/Student Chapters Established:

Sr. No.	Name of the Professional Body/Chapter	Year of Establishment	Objective
1	CSI (Computer Society of India)	2022	To promote knowledge-sharing, hands-on experience, and career-oriented exposure in the field of computing.
2	ISTE (Indian Society for Technical Education)	2022	To provide a platform for faculty and students for professional development and pedagogical innovation.

Key Activities Organized:

Type of Event	Details	Participants	Outcomes/POs Addressed
Technical Workshops	Hands-on sessions on Python, AI/ML, IoT, Android Development	Students from the Third Year	PO1, PO2, PO3, PO5, PSO1, PSO2
Guest Lectures and Webinars	Industry and academic experts invited to speak on emerging technologies and career paths	Students from the All Year	PO6, PO7, PO8, PO12
Hackathons/Codefests	24-hour coding and innovation marathons organized by student bodies	Final and Third year students	PO3, PO4, PO5, PO11, PSO2
Paper Presentation/Poster Events	Departmental-level events for presenting research and innovative project ideas	All students	PO8, PO9, PO10
International National Level Symposiums	Inter-college competitions and conferences coordinated by professional societies	Students across institutes	PO9, PO10, PO11, PO12

Impact:

- Provides a platform for students to interact with peers, professionals, and academicians beyond the classroom.
- Enhances student portfolios through participation in competitive and collaborative events.
- Encourages students to develop soft skills, ethics, and leadership qualities in addition to core technical competencies.
- Strongly contributes to the attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs).

ISTE Student Chapter – Student Council

The **ISTE Student Chapter** is a dynamic platform under the Indian Society for Technical Education aimed at promoting the professional and personal growth of students through technical, academic, and leadership activities. The **Student Council of ISTE** plays a pivotal role in planning and executing events that align with the objectives of ISTE and the vision of the institution.

Objectives of the ISTE Student Council:

- To bridge the gap between academic curriculum and industry expectations.
- To promote skill development through workshops, seminars, competitions, and hands-on activities.
- To encourage student participation in national and state-level technical events.
- To develop leadership, communication, and organizational skills among members.
- To foster a culture of innovation and lifelong learning.

Structure of the ISTE Student Council:

Designation	Role and Responsibility
Faculty Coordinator	Dr. Chandrakant Kokane
President	Saurabh Kshirsagar
Vice-President	Prajwal Shinde
Secretary	Nupoor Teggi
Treasurer	Pravin Chate
Event Coordinators	Prathamesh Shendage
Publicity Head	Durgesh Bhusnale
Volunteers	Jayesh Chaudhari, Mrunal Dhage

Major Activities Conducted by ISTE Student Council:

- Technical Workshops (e.g., Python, Arduino, IoT)
- Aptitude Training and Soft Skills Sessions
- Mock Interviews and Resume-Building Workshops
- Tech Fest (Coding contests, poster presentations, quiz)
- Industrial Visits and Guest Lectures
- National Level Symposium Participation and Organization

Outcomes and Benefits:

- Enhances technical and interpersonal skills.
- Fosters leadership and teamwork qualities.
- Provides networking opportunities with industry experts.
- Encourages students to participate in innovation and problem-solving activities.
- Contributes to the attainment of **POs** such as **Communication (PO10), Ethics (PO8), Lifelong Learning (PO12)** and **PSOs** related to innovation and practical skills.

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

Institute Marks : 5.00

The institution and department promote technical writing, creative expression, and documentation of achievements through regular publication of magazines and newsletters. These platforms encourage students and faculty to contribute articles, showcase innovations, and highlight departmental activities.

A. Departmental Magazine – *Turing Tales*

Turing Tales is the official technical and creative magazine of the Computer Engineering Department. It serves as a platform for students to showcase their technical articles, coding experiences, creative writing, and event reflections.

Sr. No.	Magazine Name	Volume/Year	Faculty Editorial In-Charge	Student Editorial Team
1	Turing Tales	Volume 2024	Prof. Sonali Dongare	Athulya M Jose, Sahul Salunke, Arush Kukade
2	Turing Tales	Volume 2023	Prof. Sonali Dongare	Sameer Thite, Omkar Darekar, Yogini Wani, Saurabh Karande, Mahesh Yadav, Sakshi Kulkarni, Athulya M Jose
3	Turing Tales	Volume 2022	Prof. Nitin Wankhade	Shalakha Agrawal, Harshal Pawar, Arshin Sayyad, Vikrant Shitole, Jagadish Amte, Deepak Chinchole

B. Institute-Level Magazine – *Aksharbandh*

Aksharbandh is the official annual magazine of the institute, reflecting the academic journey, achievements, and cultural contributions of the institution over the academic year. It includes contributions from all departments, highlights of institutional events, and creative works by students and faculty.

Sr. No.	Magazine Name	Academic Year	Magazine In-Charge	Chief Student Editor
1	Aksharbandh 2023	2023-24	Dr. Shekhar Rahane	Mr. Vedant Kokane
2	Aksharbandh 2022	2022-23	Dr. Shekhar Rahane	Ms.Ishika Bansal
3	Aksharbandh 2021	2021-22	Dr. Shekhar Rahane	Ms. Prayukti Dubey

Significance and Impact:

- Encourages **technical and creative writing** among students.
- Improves **communication and editorial skills**.
- Documents academic, technical, and cultural achievements of the department and institution.
- Enhances visibility of student activities and innovations.
- Contributes to **PO10 (Communication), PO12 (Lifelong Learning)**, and strengthens **professional ethics and teamwork**.

4.6.3 Participationininter-institute events by students of the program of study (10)

Institute Marks : 10.00

The department actively promotes student participation in technical, cultural, and research-based events across various institutes at **state, national, and international levels**. Students are encouraged to represent the institute in external competitions to develop their technical skills, teamwork, leadership, and communication abilities.

A. Participation in Curricular Events

Includes: Hackathons, coding competitions, paper presentations, technical quizzes, model exhibitions, and seminars.

Academic Year	No. of Participants	Awards Received
2023–24	*45*	*02*
2022–23	38	01
2021–22	52	03

Impact: Students gained technical exposure and improved their analytical and problem-solving skills through participation in national-level technical competitions.

B. Participation in Extra-Curricular Events

Includes: Cultural festivals (drama, dance, music, art), debates, sports, and other inter-collegiate competitions.

Academic Year	No. of Participants	Awards Received
2023–24	*42*	*03*
2022–23	47	02
2021–22	36	01

Impact: Enhanced student confidence, creative expression, and leadership skills while representing the department in diverse cultural forums.

C. Participation in Conferences and Research Events

Includes: National/international conferences, symposiums, research paper competitions, and poster presentations.

Academic Year	No. of Participants	Awards Received
2023–24	*58*	*04*
2022–23	41	04
2021–22	47	03

Impact: Encouraged students to develop a research mindset, improve academic writing, and present their work confidently on professional platforms.

Support & Encouragement:

- Academic leave is granted for official participation.
- Financial support provided for selected events.
- Faculty mentors guide students in preparation and documentation.
- Achievements are celebrated through institute publications and awards.

Relevance to Program Outcomes (POs):

- **PO2:** Analytical thinking through technical problem-solving.
- **PO8:** Ethical conduct in competitive environments.
- **PO9:** Effective team collaboration.
- **PO10:** Clear and structured communication.
- **PO12:** Emphasis on lifelong learning through continual participation.

5 FACULTY INFORMATION AND CONTRIBUTIONS (200) Total Marks 177.81

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 (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Association Type	At present working with the Institution(Yes/No)
Dr. Prasad Dhore	ASPPD2944P	ME/M. Tech and PhD	06/01/2022	COMPUTER SCIENCE AND ENGINEERING	07	02	00	Associate Professor	01/02/2022	02/06/2015	Regular	Yes
Dr. Chandrakant Kokane	DYQPK3754L	ME/M. Tech and PhD	08/08/2023	Computer Engineering	20	00	00	Associate Professor	01/07/2024	30/12/2021	Regular	Yes
Dr. Nitin Dhawas	AFMPD0810Q	ME/M. Tech and PhD	03/03/2021	Information Technology	05	00	00	Professor	01/07/2022	01/08/2017	Regular	Yes
Dheeraj Patil	BPUPP4511D	M.E/M.Tech	14/11/2019	Computer Engineering	02	00	00	Assistant Professor		25/07/2020	Regular	Yes
Kapil Wagh	ABXPW4816G	M.E/M.Tech	15/06/2017	Computer Engineering	05	00	00	Assistant Professor		30/12/2021	Regular	No
Sonali Dongare	AIXPG4551B	M.E/M.Tech	11/03/2015	Computer Engineering	03	00	00	Assistant Professor		03/03/2022	Regular	Yes
Ashish Manvatkar	AQEPM2103N	M.E/M.Tech	09/10/2010	Computer Engineering	03	0	0	Assistant Professor		03/12/2021	Regular	Yes
Vivek Nagargoje	ANUPN1977A	M.E/M.Tech	12/02/2019	Computer Engineering	02	0	0	Assistant Professor		25/07/2020	Regular	Yes
Dr. Sonali Patil	ACJPU2250M	ME/M. Tech and PhD	24/06/2024	Computer Engineering	00	0	01	Assistant Professor		21/08/2023	Regular	Yes
Nitin Wankhade	ABXPW1711G	M.E/M.Tech	15/06/2016	Computer Engineering	06	0	0	Assistant Professor		01/06/2009	Regular	Yes
Dr. Supriya Bhosale	AULPB6158P	ME/M. Tech and PhD	04/09/2024	Computer Engineering	03	0	01	Assistant Professor		11/01/2022	Regular	No
Shivaji Patil	AQSPP3401G	M.E/M.Tech	20/10/2012	Information Technology	00	0	0	Assistant Professor		12/08/2022	Regular	No
Karim Mulani	BCFPM7172D	M.E/M.Tech	10/10/2017	Information Technology	00	0	0	Assistant Professor		24/01/2023	Regular	No
Laxmikant Malphedwar	AWYPM7589G	M.E/M.Tech	04/09/2014	Information Technology	00	0	0	Assistant Professor		11/07/2022	Regular	No
Amarnath Chadchankar	AKDPC6721B	M.E/M.Tech	10/08/2015	Information Technology	00	0	0	Assistant Professor		03/12/2021	Regular	No
Lalitkumar Borase	AXWPB7603F	M.E/M.Tech	09/02/2019	Information Technology	00	0	0	Assistant Professor		03/01/2022	Regular	No
Vilas Ghonge	BHUPG3335C	M.E/M.Tech	08/09/2016	Information Technology	00	0	0	Assistant Professor		18/02/2022	Regular	No
Ashish Patel	AOKPP5984J	M.E/M.Tech	22/03/2016	Information Technology	00	0	0	Assistant Professor		08/08/2022	Regular	No
Bharti Dhote	AIEPD6958L	M.E/M.Tech	31/01/2014	Computer Engineering	01	0	0	Assistant Professor		19/08/2024	Regular	Yes
Yogesh Shepal	EIZPS9269E	M.E/M.Tech	13/03/2015	COMPUTER SCIENCE AND ENGINEERING	04	0	0	Assistant Professor		14/12/2022	Regular	Yes

5.1 Student-Faculty Ratio (20)

Total Marks 18.00

Institute Marks : 18.00

UG

No. of UG Programs in the Department 1

Information Technology						
Year of Study	**CAY**		**CAYm1**		**CAYm2**	
	(2024-25)		**(2023-24)**		**(2022-23)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	60	6	60	6	60	6
3rd Year	60	6	60	6	60	6
4th Year	60	6	60	6	60	6
Sub-Total	**180**	**18**	**180**	**18**	**180**	**18**
Total	**198**		**198**		**198**	
Grand Total	198		198		198	

PG

No. of PG Programs in the Department 0

Grand Total			

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 0

Description	**CAY(2024-25)**	**CAYm1 (2023-24)**	**CAYm2 (2022-23)**
Total No. of Students in the Department(S)	198 **Sum total of all (UG+PG) students**	198 **Sum total of all (UG+PG) students**	198 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	11 **F1**	13 **F2**	16 **F3**
Student Faculty Ratio(SFR)	18.00 **SFR1=S1/F1**	15.23 **SFR2=S2/F2**	12.38 **SFR3=S3/F3**
Average SFR	15.20 **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 faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:

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

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

	Total number of regular faculty in the department	**Total number of contractual faculty in the department**
CAY(2024-25)	11	0
CAYm1(2023-24)	13	0
CAYm2(2022-23)	16	0

Average SFR for three assessment years : 15.20

Assessment SFR : 18

5.2 Faculty Cadre Proportion (25) Total Marks 25.00

Institute Marks : 25.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2024-25)	1.00	1.00	2.00	2.00	6.00	8.00
CAYm1(2023-24)	1.00	1.00	2.00	1.00	6.00	11.00
CAYm2(2022-23)	1.00	1.00	2.00	1.00	6.00	14.00
Average Numbers	1.00	1.00	2.00	1.33	6.00	11.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 25.00

5.3 Faculty Qualification (25)

Total Marks 19.81

Institute Marks : 19.81

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2024-25(CAY)	4	7	9.00	18.89
2023-24(CAYm1)	3	10	9.00	19.44
2022-23(CAYm2)	2	14	9.00	21.11

Average Assessment : 19.81

5.4 Faculty Retention (25)

Total Marks 25.00

Institute Marks : 25.00

Description	2023-24	2024-25
No of Faculty Retained	10	8
Total No of Faculty	9	9
% of Faculty Retained	111	89

Average : 100.00

Assessment Marks : 25.00

5.5 Innovations by the Faculty in Teaching and Learning (20)

Total Marks 20.00

Institute Marks : 20.00

The institutions faculty members continuously strive to enhance the quality of teaching and learning by adopting innovative methods, tools and pedagogical strategies. The key innovations implemented in the last five academic years include:

A. Integration of ICT Tools and E-Resources

- Use of smart classrooms and Google Classroom for content delivery.
- Video lectures, animations and simulations are integrated into teaching for better conceptual clarity.
- Flipped classroom methodology and blended learning using YouTube playlists and MOOCs (SWAYAM/NPTEL).

B. Activity-Based and Experiential Learning

- Case study discussions, role-playing, and group-based learning activities in subjects like Software Engineering, HCI and Project Management.
- Mini-projects integrated into labs and theory courses to promote practical understanding.
- Real-world problem-solving tasks and hackathons to bridge the gap between theory and application.

C. Use of Virtual Labs and Simulation Tools

- Virtual labs utilise in subjects such as Data Structures and Operating Systems. Tools like Cisco Packet Tracer, MATLAB, NS2/3 and Python-based simulators are used in labs.

D. Continuous Assessment and Feedback Mechanisms

- Regular formative assessments through online quizzes.
- Peer assessment and student feedback are used for improving instructional methods.

E. Research-Integrated Learning

- Students are guided to publish research papers and participate in paper presentations and coding contests.

F. Student-Centric Teaching Methods

- Personalized mentoring and bridge courses for slow learners.
- Advanced learners are challenged through additional assignments and certifications.

Samples are as,

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

Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
Dr. Prasad Dhore	0.00	2.00	2.00
Dr. Chandrakant Kokane	3.00	0.00	0.00
Dr. Nitin Dhawas	3.00	2.00	0.00
Dheeraj Patil	2.00	2.00	1.00
Kapil Wagh	3.00	2.00	0.00
Sonali Dongare	2.00	2.00	0.00
Ashish Manvatkar	2.00	3.00	3.00
Vivek Nagargoje	1.00	2.00	2.00
Dr. Sonali Patil	2.00	1.00	0.00
Nitin Wankhade	3.00	4.00	2.00
Dr. Supriya Bhosale	2.00	2.00	2.00
Shivaji Patil	2.00	2.00	0.00
Karim Mulani	2.00	1.00	0.00
Laxmikant Malphedwar	0.00	3.00	0.00
Amarnath Chadchankar	0.00	2.00	3.00
Lalitkumar Borase	0.00	2.00	0.00
Vilas Ghonge	0.00	1.00	0.00
Bharti Dhote	2.00	0.00	0.00
Yogesh Shepal	0.00	2.00	0.00
Sum	29.00	35.00	15.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	9.90	9.90	9.90
Assessment [3*(Sum / 0.5RF)]	17.58	21.21	9.09

Average assessment over 3 years: 15.96

5.7 Research and Development (30) Total Marks 20.00

5.7.1 Academic Research (10)

Institute Marks : 10.00

Summary of Publication

Table 5.7.1 Summary of Academic Research

Year	SCOPUS Journals/Conferences	Book	Book Chapter	Patent	Copyrights
2024-25	29	--	2	3	14
2023-24	21	1	2	3	5
2022-23	3	1	--	1	2
Total	**53**	**2**	**4**	**7**	**21**

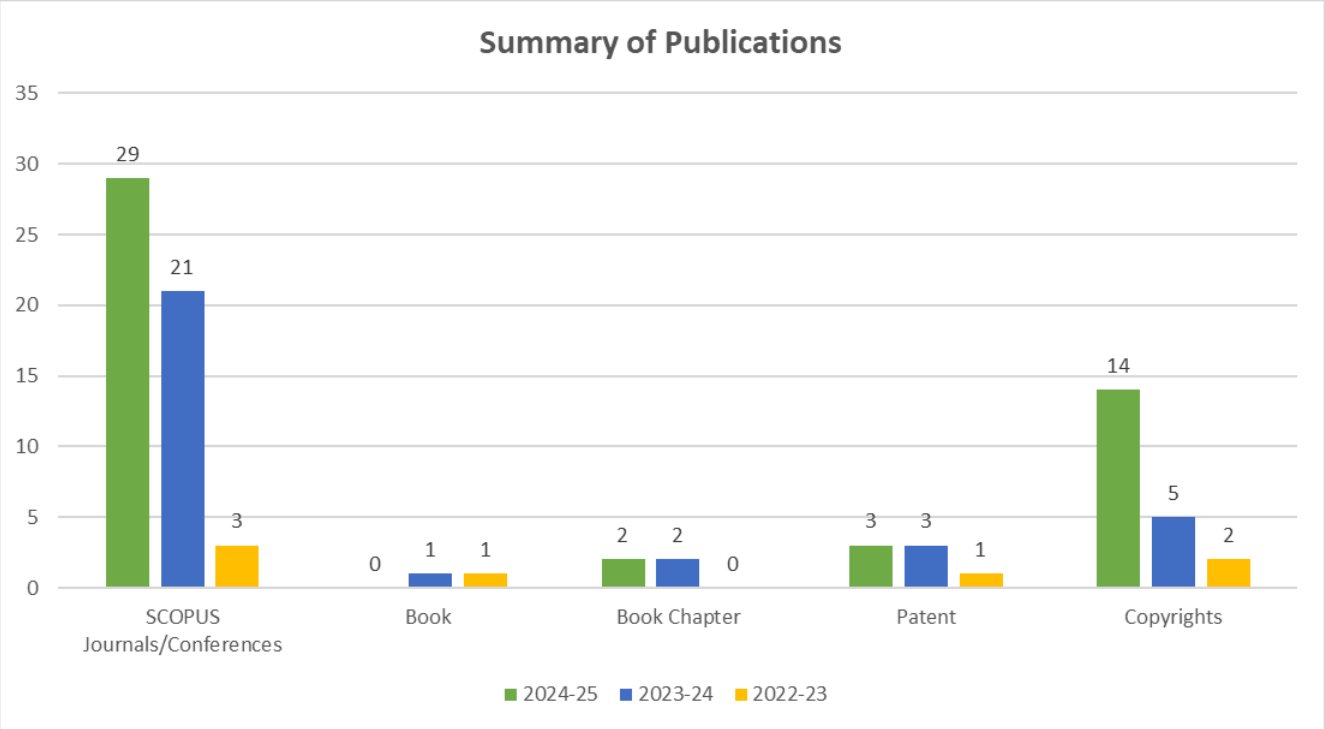


Figure 5.7.1 Summary of Academic Research

Publications

Table 5.7.1A Publications

Sr. No.	Name	Paper Title	Name of Journal /Conference Details	Indexing	Year of Publication	Academic Year
1	Dr. Chandrakant Kokane Dr. Nitin Dhawas Yogesh Shepal	Mathematical Evaluation of Deep Learning Architecture with Feature Fusion for Cervical Cancer Detection Classification	Panamerican Mathematical Journal	SCOPUS	2024	2024-25
2	Dr. Prasad Dhore	Design and Control of Modular Compliant XY Positioning stage	Panamerican Mathematical Journal	SCOPUS	2024	2024-25
3	Prof. Ashish Manwatkar	Broadcast Tree Construction for Secure and Shortest Path Finding Techniques in WSN for Smart Farming Application	Conference: 2024 Global Conference on Communications and Information Technologies (GCCIT)	SCOPUS	2024	2024-25
4	Prof. Ashish Manwatkar	Dynamic Cluster Head Selection and Secure Routing Approach Industry Framework for Precision Agriculture	2024 Asian Conference on Intelligent Technologies (ACOIT)	SCOPUS	2024	2024-25
5	Prof. Ashish Manwatkar	Securing Industry-Based Precision Agriculture	2024 IEEE 4th International Conference on ICT in Business Industry & Government (ICTBIG)	SCOPUS	2024	2024-25
6	Prof. Sonali Dongare Dr. Chandrakant Kokane	Implementing Swarm Robotics for Coordinated Multi-Agent Systems in Search and Rescue Operations to Improve Efficiency and Success Rates in Disaster Response	Panamerican Mathematical Journal	SCOPUS	2024	2024-25
7	Prof. Nitin Wankhade	Predictive Modeling and Drug Repurposing for Type-II Diabetes	ACS Publication	SCOPUS	2024	2024-25

8	Dr. Chandrakant Kokane	Developing Advanced Navigation Algorithms for Autonomous Vehicles to Enhance Safety and Efficiency in Urban Environments Using Real-Time Sensor Data and Machine Learning	Panamerican Mathematical Journal	SCOPUS	2024	2024-25
9	Dr. Chandrakant Kokane	Intelligent Automation of Security Policy Decisions Using AI: Analysis of ML and DL Approach	International Conference on Smart Computing and Informatics	SCOPUS	2024	2024-25
10	Dr. Chandrakant Kokane Prof. Sonali Dongare	Implementing Swarm Robotics for Coordinated Multi-Agent Systems in Search and Rescue Operations to Improve Efficiency and Success Rates in Disaster Response	Panamerican Mathematical Journal	SCOPUS	2024	2024-25
11	Dr. Chandrakant Kokane	Modified Segmentation and Hybrid Optimization Techniques for Tomato Plant Disease Prediction and Severity Estimation	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
12	Prof. Bharti Dhote	Autonomous Driver Drowsiness Detection System	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
13	Dr. Chandrakant Kokane	Drive My Car	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
14	Dr. Chandrakant Kokane	RescueNet – Prepare, Respond and Recover	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
15	Prof. Dheeraj Patil	Agriculture, Food-Tech & Rural Development	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
16	Sonali Dongare Vivek Nagargoje	Survival Analysis of Lung Cancer	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
17	Dr. Nitin Dhawas	A Methodology for Securities and Cryptocurrency Trading Using Exploratory Data Analysis and Artificial Intelligence	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
18	Dr. Nitin Dhawas	Animal Detection and Monitoring Using Static Cameras	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
19	Dr. Shepal	Realtime Traffic Monitoring and Controlling System	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
20	Dr. Shepal	Modeling and Predicting Cyber Hacking Breaches	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
21	Prof. Dheeraj Patil	AI Powered Stock Prediction and Analysis	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
22	Prof. Nitn Wankhade	Deep Learning for Real-Time Threat Detection in Surveillance Footage: A CNN-Based Approach	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
23	Sonali Dongare Vivek Nagargoje	Real Time Object Detection for Visually Impaired People using Android Application and Machine Learning Concepts	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
24	Kapil Wagh	Dyslexia Detection Using Deep Learning	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
25	Kapil Wagh	Smart Shopping Cart using IoT & Google Firebase	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2024-25
26	Prof. Nitin Wankhade	Enhancing Image Quality in Crop Disease Diagnosis: A Comparative Evaluation of Laplacian and Average Filtering with Established Techniques	Journal of Information Systems Engineering and Management	SCOPUS	2025	2024-25
27	Prof. Nitin Wankhade	Accelerating Intrusion Detection Dataset Analysis- A Framework Using AutoGen Agents for CIC-IDS	Journal of Information Systems Engineering and Management	SCOPUS	2025	2024-25
28	Dr. Chandrakant Kokane	A Deep Learning Based Adaptive Model for Blocking Incoming Calls Based On The Callers Voice Commands	Communications on Applied Nonlinear Analysis	SCOPUS	2025	2024-25
29	Dr. Chandrakant Kokane	A Smart Waste Management: an Adaptive Algorithm for Classification of Degradable and Non-Degradable Waste using Machine Learning Model	Panamerican Mathematical Journal	SCOPUS	2025	2024-25
30	Dr. Chandrakant Kokane	Machine Learning Approach for Intelligent Transport System in IOV-Based Vehicular Network Traffic for Smart Cities	International Journal Of Intelligent Systems And Applications In Engineering	Scopus	2024	2023-24
31	Dr. Chandrakant Kokane Yogesh Shepal	Implementing AI Algorithms for Predicting Diabetes Risk in Patients Using Health Informatics Data	Frontiers in Health Informatics	Scopus	2024	2023-24
32	Dr. Chandrakant Kokane	Machine Learning Models for Early Detection of Hepatic Disorders Using Clinical Data	Frontiers in Health Informatics	Scopus	2024	2023-24
33	Dr. Chandrakant Kokane Kapil Wagh	Information Theory and Coding Techniques for 5G Wireless Communication Systems: Towards Efficient Spectrum Utilization	Panamerican Mathematical Journal	Scopus	2024	2023-24

34	Dr. Chandrakant Kokane	Unraveling the Complexity with Applications of Nonlinear Analysis in Signal Processing and Communication Engineering	Advances in Nonlinear Variational Inequalities	Scopus	2023	2023-24
35	Kapil Wagh	Alzheimer Disease Progression Forecasting: Empowering Models Through hybrid of CNN and LSTM with PSO Op-Timization	2024 International Conference on Emerging Smart Computing and Informatics (ESCI)	IEEE	2023	2023-24
36	Supriya Bhosale	Utilizing Machine Learning Approaches for Anomaly Detection in Industrial Control Systems	ICIMMI 23: Proceedings of the 5th International Conference on Information Management & Machine Intelligence	SCOPUS	2024	2023-24
37	Supriya Bhosale	The Role of Nonlinear Analysis in Tackling Engineering Challenges and Advancing Technology	Advances in Nonlinear Variational Inequalities	SCOPUS	2023	2023-24
38	Dr. Chandrakant Kokane	Word Sense Disambiguation: Adaptive Word Embedding with Adaptive-Lexical Resource	Proceedings of International Conference on Data Analytics and Insights, ICDAI 2023	SCOPUS	2023	2023-24
39	Dr. Chandrakant Kokane	Prediction Mechanism of Heart Disease Using Classification Algorithms and its Deployment on Cloud	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2023-24
40	Dr. Chandrakant Kokane	Intelligent Video Inference System	INDIAN JOURNAL OF TECHNICAL EDUCATION	UGC CARE	2024	2023-24
41	Supriya Bhosale	Tomato Plant Disease Identification via Deep Learning Technique	International Journal of Image and Graphics	SCOPUS	2024	2023-24
42	Dr. Nitin Dhawas	Wave Propagation Models for Optimization in Wireless Communication	Panamerican Mathematical Journal	SCOPUS	2024	2023-24
43	Dr. Nitin Dhawas	Exploring the Role of Big Data Analytics in Personalizing E-Learning Experiences	Advances in Nonlinear Variational Inequalities	SCOPUS	2024	2023-24
44	Dr. Prasad Dhore	Assessment of Bitumen Paver and HMP Efficiency for a Road Project	Panamerican Mathematical Journal	SCOPUS	2024	2023-24
45	Dr. Prasad Dhore	An Experimental Investigation of Surface Roughness And Cutting Forces On GFRP	Advances in Nonlinear Variational Inequalities	SCOPUS	2024	2023-24
46	Dr. Prasad Dhore	Experimental Analysis of Wear Rate and Frictional Coefficient of Various Steel Material	Advances in Nonlinear Variational Inequalities	SCOPUS	2024	2023-24
47	Dr. Prasad Dhore	Comparative Analysis of Materials for Chassis Design in a Three-Wheeled Electric Vehicle	Advances in Nonlinear Variational Inequalities	SCOPUS	2024	2023-24
48	Dr. Prasad Dhore	Design & Development of Automatic Pesticide Spraying Machine	Advances in Nonlinear Variational Inequalities	SCOPUS	2024	2023-24
49	Dr. Chandrakant Kokane Prof. Kapil Wagh	Information Theory and Coding Techniques for G Wireless Communication Systems: Towards Efficient Spectrum Utilization	Panamerican Mathematical Journal	SCOPUS	2024	2023-24
50	Prof. Nitin Wankhade	DeepADRA A: predicting adrenergic α a inhibitors using deep learning	Journal of Biomolecular Structure and Dynamics	SCOPUS	2024	2023-24
51	Dr. Prasad Dhore	Math Accessibility for Blind People in Society Using Machine Learning	ECS Transactions	SCOPUS	2022	2022-23
52	Prof. Nitin Wankhade	Optimization of Deep Generative Intrusion Detection System for Cloud Computing: Challenges and Scope for Improvements	EAI Endorsed Transactions on Scalable Information Systems	SCOPUS	2023	2022-23
53	Dr. Chandrakant Kokane	Word sense disambiguation: Mathematical modelling of adaptive word embedding technique for word vector	Journal of Interdisciplinary Mathematics	SCOPUS	2023	2022-23

Citations

Table 5.7.1B Citations

Sr. No.	Name	Citation Index	H- Index	i10 - Index
1	Dr. Prasad Dhore	102	6	3
2	Dr. Chandrakant Kokane	90	6	4
3	Dr. Nitin Dhawas	44	4	2
4	Dheeraj Patil	0	0	0
5	Kapil Wagh	7	2	0

6	Sonali Dongare	0	0	0
7	Ashish Manvatkar	7	1	0
8	Vivek Nagargoje	0	0	0
9	Dr. Sonali Patil	0	0	0
10	Nitin Wankhade	3	1	0
11	Dr. Supriya Bhosale	23	3	1
12	Shivaji Patil	0	0	0
13	Karim Mulani	0	0	0
14	Laxmikant Malphedwar	20	3	1
15	Amarnath Chadchankar	1	1	0
16	Lalitkumar Borase	0	0	0
17	Vilas Ghonge	31	2	1
18	Ashish Patel	0	0	0
19	Bharti Dhote	0	0	0
20	Yogesh Shepal	4	1	0

Book Publications

Table 5.7.1C Book Publications

Sr. No.	Name of Faculty	Title of Book	Publisher	Year of Publication
1	Laxmikant Malphedwar Dr. Supriya Bhosale	Python Programming For Effective Problem Solving	Pandit Publications	2022-23
2	Kapil Wagh	Deep Learning for Natural Language Processing	ISBN9798896730347	2023-24

Book Chapters

Table 5.7.1D Book Chapters

Sr. No.	Name of Author	Title of Book /Chapter	Publisher	ISBN	Year of Publication
1	Dr. Chandrakant Kokane	Data-Centric Artificial Intelligence for Multidisciplinary Applications	CRC Press	ISBN: 9781032610061 (hbk) ISBN: 9781032610078 (pbk) ISBN: 9781003461500 (ebk)	2023-24
2	Dr. Chandrakant Kokane	Data-Centric Artificial Intelligence for Multidisciplinary Applications	Chapman and Hall/CRC	9781003461500	2024-25
3	Dr. Chandrakant Kokane	Data-Centric AI Approaches for Machine Translation	Chapman and Hall/CRC	9781003461500	2024-25

Patents

Table 5.7.1E Patents

Sr. No.	Name of Faculty	Patent Name	Design No. / Application No.	Patent Published Date / Granted Date (DD/MM/YYYY)	Year
1	Ashish Manvatkar	Self Sanitizing Toilet Seat	202321030185	4/26/2023	2022-23
2	Dr. Chandrakant Kokane Dr. Sonali Patil	Machine Learning Based Portable Ultrasound Device	409545-001	5/10/2024	2023-24

3	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh	Ai Enhanced Daylight Pen : Seamless Writing For Day And Night	409546-001	5/9/2024	2023-24
4	Dr. Chandrakant Kokane	An Iot Based Multi-Device Charging Dock With Built-In Automatic Recognition	409547-001	5/2/2024	2023-24
5	Dr. Chandrakant Kokane Sonali Dongare Dr. Supriya Bhosale Vivek Nagargoje	SMART TRAFFIC MANAGEMENT SYSTEM INTERFACE	422977-001	7/12/2024	2024-25
6	Dr. Chandrakant Kokane Yogesh Shepal Dr.Nitin Dhawas	INDUSTRIAL ROBOTICS CONTROL INTERFACE DISPLAY	441132-001	12/18/2024	2024-25
7	Dr. Chandrakant Kokane Sonali Dongare Yogesh Shepal	WEARABLE HEALTH MONITORING DEVICE	441133-001	12/18/2024	2024-25

Sample Certificates as,

Copyrights

Table 5.7.1F Copyrights

Sr. No.	Name of Faculty	Title	Diary Number	Date of Filing	Year of Registration
1	Ashish Manvatkar Dheeraj Patil	A Powerpoint Presentation On Data Security Using Audio Video Steganography	6219/2023-CO/L	3/11/2023	2022-23
2	Ashish Manvatkar	Providing Efficient Medical Facilities For The Pregnant Womens In Rural Areas Using Convolutional Neural Network (Cnn)	7686/2023-CO/L	3/22/2023	2022-23
3	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Sonali Patil Nitin Wankhade Vivek Nagargoje	Methodology For Word Embedding	8565/2024-CO/L	3/19/2024	2023-24
4	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Sonali Patil Nitin Wankhade Vivek Nagargoje	Complex Network Approach For Word Sense Disambiguation	8561/2024-CO/L	3/19/2024	2023-24
5	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Sonali Patil Nitin Wankhade Vivek Nagargoje	Adaptive Lexical Resource For Word Sense Disambiguation	8554/2024-CO/L	3/19/2024	2023-24
6	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Sonali Patil Nitin Wankhade Vivek Nagargoje	Adaptive Methodology For Single Sentence Word Sense Disambiguation	8552/2024-CO/L	3/19/2024	2023-24

7	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Sonali Patil Nitin Wankhade Vivek Nagargoje	Research Methodology: Word Sense Disambiguation	8537/2024-CO/L	3/19/2024	2023-24
8	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dheeraj patil Dr. Nitin Dhawas	A Novel Approach For Student Attendance Monitoring Using A Machine Learning Approach	L-154497/2024	8/10/2024	2024-25
9	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas Nitin Wankhade	A Novel Model For Detecting Deforestation Using Pattern Recognition	L-155070/2024	8/10/2024	2024-25
10	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	Adaptive Model For Road Accidents	L-154502/2024	8/10/2024	2024-25
11	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	An Adaptive Model For Imitation Learning In Robots	L-155415/2024	8/10/2024	2024-25
12	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas Sonali Dongare	An Adaptive Model For Plant Leaf Disease Detection And Prediction Using Image Processing	L-155419/2024	8/10/2024	2024-25
13	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dheeraj patil Dr. Nitin Dhawas	An Adaptive Model For Students Mental Health Prediction Using Image Processing	L-155021/2024	8/10/2024	2024-25
14	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	Babies Problems Prediction Using Natural Language Processing	L-154500/2024	8/10/2024	2024-25
15	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	College Feedback System Report	L-154503/2024	8/10/2024	2024-25
16	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	Detecting Tomato Diseases Using Automation	L-155037/2024	8/10/2024	2024-25

17	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	Distributed Library System Design	L-155069/2024	8/10/2024	2024-25
18	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	Floor Mill Management System	L-154496/2024	8/10/2024	2024-25
19	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas Vivek Nagargoje	Prediction Of Learners Sentiment Using Natural Language Processing	L-155418/2024	8/10/2024	2024-25
20	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	Smart Floor Dust Recognition System	L-155022/2024	8/10/2024	2024-25
21	Dr. Chandrakant Kokane Yogesh Shepal Dr. Supriya Bhosale Kapil Wagh Dr. Nitin Dhawas	Voice Based Email For Blind Person	L-155412/2024	8/10/2024	2024-25

PhD Awarded

Table 5.7.1G PhD Awarded Faculties

Sr. No.	Name of Faculty	University Name	Year of PhD Awarded
1	Sonali Patil	Shri Jagdishprasad Jhabarmal Tibrewala University , Rajasthan	2024-25
2	Supriya Bhosale	D Y Patil University Pune, Maharashtra	2024-25
3	Yogesh Shepal	NIILM University Haryana	2024-25

5.7.2 Sponsored Research (5) Institute Marks :

2023-24 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.7.3 Development Activities (10)

Institute Marks : 10.00

5.7.3.1 Product Development

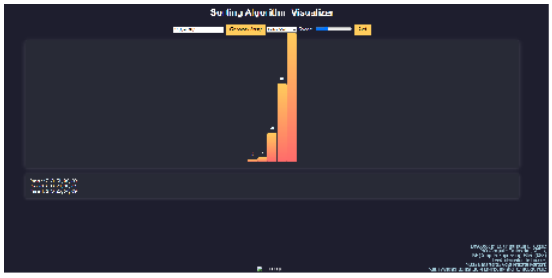
Development Activities – Visualization Tools (Web-Based Educational Aids)

As part of the institution's commitment to continuous improvement and integration of ICT in teaching-learning processes, faculty members from the Department of Information Technology have developed a series of interactive web-based visualization tools. These tools aim to enhance conceptual clarity and foster experiential learning for core topics in computer science and information technology. The development of these resources reflects both innovation in pedagogy and alignment with Outcome-Based Education (OBE) practices

Table- 5.3.1.1 Product Developement

Sr. No.	Name of Faculty Co-ordinator	Name / Type of Product	Product Description
1	Dr. Chandrakant Kokane	Website (Webpage)	Sorting Method Visualization https://www.nmiet.edu.in/it/product-development/Sorting%20Visualization.html (https://www.nmiet.edu.in/it/product-development/Sorting%20Visualization.html)
2	Dr. Chandrakant Kokane	Website (Webpage)	Shortest Path Algorithm Visualization https://www.nmiet.edu.in/it/product-development/Shortest%20Path%20Algorithms%2 (https://www.nmiet.edu.in/it/product-development/Shortest%20Path%20Algorithms%2
3	Dheeraj Patil	Website (Webpage)	Network Topology Visualization
4	Dheeraj Patil	Website (Webpage)	Devops Model Visualization
5	Dheeraj Patil	Website (Webpage)	TCP/IP Model Visualization
6	Sonali Dongare	Website (Webpage)	Agile Model Visualization

Some samples are



5.7.3.2 Research Laboratories

The institution has established dedicated **Research Laboratories** across departments to foster a culture of innovation, interdisciplinary research, and continuous learning. These laboratories are equipped with modern infrastructure and computing resources that support faculty and student research initiatives, project development, and advanced learning.

Key Objectives:

- To provide infrastructure for research and innovation.
- To support final-year projects, minor research proposals, and funded projects.
- To encourage collaborative research with industry and academia.
- To assist in the development of patents, publications, and prototypes.

Facilities Available:

- High-end computing systems and simulation software (e.g., MATLAB, Python, NS2, TensorFlow, etc.).
- Internet connectivity and remote access capability.
- Development kits (Arduino, Raspberry Pi, NodeMCU, etc.).
- Access to research journals, repositories, and publication support.

Achievements & Impact:

- Several **research papers** published in national and international journals/conferences.
- **Student projects** guided in these labs have received recognition at various competitions.
- Ongoing **collaborative research** with industries and reputed institutes.
- Contribution to **patent filings** and **innovation competitions**.

5.7.3.3 Instructional Materials

The institute emphasizes the use of diverse and innovative instructional materials to enrich the teaching-learning process and to support Outcome-Based Education (OBE). These materials are prepared and regularly updated by the faculty to align with course objectives, modern pedagogical approaches, and industry relevance.

Types of Instructional Materials Developed and Used:

Sr. No.	Type of Material	Description / Purpose
1	Lecture Notes (Printed/Digital)	Comprehensive coverage of syllabus topics with examples
2	PowerPoint Presentations	Conceptual and visual explanation of key topics

3	Lab Manuals	Step-by-step procedures and expected outcomes for experiments
4	Question Banks	Unit-wise question sets for practice and assessments
5	Tutorial Sheets / Assignments	Reinforcement of theoretical concepts through problem-solving
6	Video Lectures	Recorded sessions for asynchronous learning
7	Simulation & Visualization Tools	Interactive aids to understand algorithms, models, etc.
8	Online Quizzes / Google Forms	Formative assessments with instant feedback
9	Digital Repositories (LMS, Google Drive, etc.)	Central access to course materials, notes, references

Objective and Benefits:

- To enhance conceptual understanding and student engagement.
- To support different learning paces and styles (visual, auditory, kinesthetic).
- To ensure uniformity and quality in content delivery.
- To promote blended and self-directed learning.

ICT Integration:

Instructional materials are integrated into platforms such as:

- **Google Classroom / Moodle** for centralized learning management.
- **YouTube / College LMS** for hosting video lectures and tutorials.
- **Code simulators and visualizers** developed in-house for algorithm and model demonstrations.

Continuous Improvement:

- Feedback is collected from students and peers.
- Materials are periodically revised based on feedback, syllabus changes, and industry trends.
- Peer reviews are conducted to ensure quality and relevance.

5.7.3.4 A. Working Models

Department of Information Technology developed various working models at the end like Flame Detector Model, Servo Motor Start and Off through the mobile application etc.

IoT based Working models

5.7.3.4 B. Monograms

The Department of Information Technology encouraged students to design monograms representing their projects, technical teams, and departmental clubs to promote student creativity, identity, and team cohesion. Some sample list of monograms is attached here with,

Sr. No.	Activity	Logo
1	Department Logo	
2	SAIT	

5.7.4 Consultancy(from Industry) (5)

Institute Marks : 0.00

2023-24 (CAYm1)

Project Title	Duration	Funding Agency	Amount
0	0	0	0.00
			Total Amount(X): 0.00

2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount
0	0	0	0.00
			Total Amount(Y): 0.00

2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
0	0	0	0.00
			Total Amount(Z): 0.00

Cumulative Amount(X + Y + Z) = 0.00

5.8 Faculty Performance Appraisal and Development System (FPADS) (30) Total Marks 25.00

Institute Marks : 25.00

Nutan Maharashtra Institute of Engineering & Technology has a self-appraisal system for the assessment of faculty and supporting staff performance in the academic year. The system is communicated to all faculty members and supporting staff during their joining. The 360 Degree Score shall be determined based on the following parameters.

A. Teaching Learning Process (Maximum Point 25)

B. Students Feedback (Maximum Point 25)

C. Department Level Activities (Maximum Point 20)

D. Institute Level Activities (Maximum Point 10)

E. Contribution to Society (Maximum Point 10)

F. Annual Confidential Report (Maximum Point 10)

Each faculty shall submit calculation sheet for each academic year to be considered and a summary sheet exhibiting his/her score on a 10-point scale.

A Teaching - Learning Process (Maximum Points 25)

The calculation is in tabular form. The table carries details of courses taught in the academic year in consideration, like Semester, course Code / Name, No. of scheduled classes, actually held classes. The total shall be reduced on 25-point scale.

Students Feedback (Maximum Points 25)

The faculty shall submit average score for each course taught during academic year under consideration on a scale of 25. The average of all such score shall be used.

Hereafter, the student feedback will be taken twice a semester, once in the middle of the semester and the other before the end semester examination will be on the parameters as listed in Annexure II.

C. Departmental Activities (Maximum Points 20)

This set of activities summarizes all the responsibilities assigned by the Head of the Department to a teacher during academic year under consideration through a proper office order. This may include responsibilities as Lab I/C, Time Table I/C, NBA - AICTE work, sponsored projects, departmental newsletter etc. The faculty will earn points per semester for each activity up to a maximum of 20. The activity list as in Annexure-I is exhaustive but not inclusive and concerned HOD may add activities to the list with the prior approval of the Head of the Institute.

D. Institute Activities (Maximum Points 10)

This set of activities summarizes all the responsibilities assigned by Head of the institute to the faculty during academic year under consideration through a proper office order. This may include responsibilities like Head of Department, Coordinator, Warden, Training and Placement officer, Estate Officer etc. The faculty will earn points per semester for each activity up to a maximum of 10. The activity list as in **Annexure** II is exhaustive but not inclusive and Head of the institute may add activities from time to time to the list.

E. Contribution to Society (Maximum Points 10)

The faculty involved in different initiatives by AICTE, The faculty will earn 5 points per semester for each activity. The claim should be supported by an office order/ official communication from Head of Institute. The activity list as in **Annexure VI** is exhaustive but not inclusive and Head of the institute may add activities from time to time to the list. The grand total of points for all academic years shall be converted to a 10 points scale as enumerated.

F. Institute Level Observations / Evaluation (Maximum Points 10)

Maintained at institute level shall have 10 points based on grading.

Appraisal Form

Nutan Maharashtra Vidya Prasarak Mandal's (NMVPM's)

NUTAN MAHARASHTRA INSTITUTE OF ENGINEERING AND TECHNOLOGY (NMIET)

Under Administrative Support - Pimpri Chinchwad Education Trust (PCET)

ESTD : 1906

Approved by AICTE | Accredited by NBA & NAAC | Affiliated to SPPU

"Samarth Vidya Sankul", Vishnupuri, Talegaon Dabhade, Taluka Maval, District Pune – 410507

Tel. No. 02114 – 231666 | E-mail : nmiettalegaon@gmail.com | Web : www.nmiet.edu.in

AICTE ID – 1-8618657 | AISHE ID – C-41640 | DTE ID – 6310 | UNIVERSITY ID – CEGP013890

Appraisal Form A.Y. 2024 – 25 Semester - II

ANNEXURE – I

A. TEACHING LEARNING PROCESS (10 MARKS)

Sr. No.	Courses Taught	Semester (I / II)	No. of Periods as per University Syllabus	No. of Actually Held Periods	Periods engaged in %	Criteria (Min-Max) 0 - 5 Points	
						Credits claimed by incumbents	Credits assessed by reporting officer
01							
02							
03							
04							
05							
06							

07							
08							
09							
Total							

B. INNOVATIVE TEACHING PEDAGOGY (10 MARKS)

Sr. No.	**Courses Taught**	**Semester (I / II)**	**Innovative Teaching Pedagogy Used**	**Criteria (Min-Max)** 0 - 5 Points	
				Credits claimed by incumbents	**Credits assessed by reporting officer**
01					
02					
03					
04					
05					
Total					

***Innovative teaching pedagogy should appear on the Institute website with proofs.**

C. UNIVERSITY LEVEL CONTRIBUTION (05 MARKS)

Sr. No.	**Activity**	**Criteria (Min - Max)**	**Credits claimed by incumbents**	**Credits assessed by reporting officer**
01	Subject Chairman	5 Points		
02	Syllabus setting Coordinator	5 Points		
03	Syllabus setting Committee Member	4 Points		
04	Paper setting	3 Points		
05	Paper evaluation / moderator*	1 Point for each subject		
06	Faculty Orientation Program Attended	3 Points		
07	Any other activity (specify)	0 - 5 Points		
	Total			

ANNEXURE -II

STUDENTS FEEDBACK FORM (25 MARKS)

Sr. No.	**Description**	**Below Average**	**Average**	**Good**	**Very Good**	**Excellent**
		(1)	**(2)**	**(3)**	**(4)**	**(5)**
01	Has the teacher covered entire Syllabus as prescribed by University / College / Board?					
02	Has the teacher covered relevant topics beyond syllabus					
03	Effectiveness of teacher in terms of:					
	(a) Technical content/course content					
	(b) Communication skills					
	(c) Use of teaching aids					
04	Pace on which contents were covered					
05	Motivation and inspiration for students to learn					

06	Support for the development of students skill					
	(i) Practical Demonstration					
	(ii) Hands on training					
07	Clarity of expectations of students					
08	Feedback provided on students progress					
09	Willingness to offer help and advice to students					
	Total					

ANNEXURE-III

A. DEPARTMENT LEVEL ACTIVITIES (10 MARKS)

Sr. No.	Activity	Criteria (Min-Max) Max 3 Points for each activity	
		Credits claimed by incumbents	Credits assessed by reporting officer
1.	Lab in-charge		
2.	Consultancy		
3.	Time table in-charge		
4.	NBA / NAAC coordinator		
5.	Faculty Advisor (GFM)		
6.	Student registration & ERP Admin		
7.	Final year student project guide		
8.	Guest lecture organization		
9.	Industrial visit in charge		
10.	Project / Seminar Coordinator		
11.	Departmental Library in-charge		
12.	Student association / chapter Coordinator		
13.	Cleanliness in- charge		
14.	Internal / external academic Monitoring Coordinator		
15.	Department level CSR activities Coordinator		
16.	Project mentoring for project competition		
17.	Student feedback in-charge		
18.	Student counseling / Induction		
19.	Initiative for CEP / STTP / testing consultancy		
20.	Organization of MOOCS / NPTEL / spoken tutorials / IUCEE webinars, etc		
21.	Departmental T&P In charge		
22.	Students Internship Coordinator		
23.	Course Coordinator		
24.	Departmental Professional Society Coordinator		
25.	Any other activity (specify)		

B. RESEARCH PUBLICATIONS / IPR ACTIVITIES (10 MARKS)

Sr. No.	Activity	Credits claimed by incumbents	Credits assessed by reporting officer
01	Total Publications in refereed scholarly article in a national or international Journal papers indexed in **Web of Science or Scopus**		

02	Publications in refereed scholarly article in a national or international Conference papers **indexed in Web of Science or Scopus**		
03	Publications in refereed scholarly article in a national/international Journal and Conference papers **approved by UGC**		
04	Applied and secured research funding.		
05	Develop patents / Industrial consultancy through scholarly research.		
06	Develop copyrights through scholarly research.		
07	Guide UG students for research and projects (should result filing of patents or paper publication)		
08	Publication of books / book chapters		
09	Any other activity (specify)		
	Total		

Note:

1. First Author: 5 Marks for each paper
2. Second Author: 4 Marks for each paper
3. Third Author: 3 marks for each paper

ANNEXURE-IV

INSTITUTE LEVEL ACTIVITIES (10 MARKS)

Sr. No.	**Activity**	**Criteria Max 3 points for each activity**	
		Credits claimed by incumbents	**Credits assessed by reporting officer**
1.	Institute Level Academic Coordinator		
2.	Institute web site Coordinator		
3.	Institute level networking and maintenance		
4.	Building/ electrical work maintenance		
5.	Hardware and software installation and maintenance		
6.	Institute ERP in-charge		
7.	AICTE/ SPPU/ DTE / AISHE / NIRF/ ARIIA/CII/ RUSA/ TEQIP/ activity in-charge etc.		
8.	Organization of FDP / conference / training / workshop		
9.	Exam activities / duties		
10.	Cultural Event Coordinator		
11.	Sports in charge and coordinator		
12.	In-charge / member of AICTE / State Govt. / University statutory committees / others.		
13.	NBA / NAAC coordinator		
14.	Garden maintenance, tree plantation		
15.	PRO / Gymkhana/ gathering / publicity/ student club activity		
16.	HoD / Dean / Library in-charge		
17.	Rector/ warden/ canteen in-charge		
18.	Earn and learn scheme/ scholarship in-charge		
19.	Purchase Committee		
20.	Gymkhana Committee		
21.	Library Committee		
22.	Alumni Coordinator		
23.	Anti-Ragging Committee		
24.	Conduct and Disciplinary Committee		

25.	Internal Complaints Committee (Women Protection Committee)		
26.	Grievance Redressal Committee		
27.	IQAC Committee Coordinator / Member		
28.	Mentorship Program I/C		
29.	Institute Level Autonomy Process Coordinator		
30.	Any other activity (specify)		

ANNEXURE-V

CONTRIBUTION TO SOCIETY (10 MARKS)

Sr. No.	Activity	Criteria Max 5 Points per Event	
		Credits claimed by incumbents	Credits assessed by reporting officer
01	Blood donation activity organization		
02	Yoga classes		
03	Induction program in-charge		
04	Medical camp / health camp organization		
05	Literacy camp organization		
06	Tree Plantation and garden maintenance		
07	Environmental awareness camp		
08	Swatch Bharat mission / Unnat Bharat Abhiyan / Unnat Maharashtra Abhiyan / NSS / Mahatma Gandhi Swachhata Abhiyan		
09	Any other activity (specify)		
	Total		

Summary

Part - A

Sr. No.	Activity	Criteria (Maximum points)	Credits claimed by incumbents	Credits assessed by reporting officer
01	**Teaching Learning Process**	25		
02	**Students Feedback**	25		
03	**Department Level Activities**	20		
04	**Institute Level Activities**	10		
05	**Contribution to Society**	10		
	Total	90		

Note: Kindly attach the proofs / certificates wherever necessary.

Name of the Faulty:

Signature of Faculty Signature of HoD

Part - B

Institute Level Observations / Evaluations by experts (10 Marks)

Principal

On the basis of marks obtained by faculty following types of appreciation is done at departmental level.

Improvement and Initiatives in Academic and Research Activities

1. Department-Level Appreciation for Faculty Performance

To foster a culture of excellence and motivation, the department has implemented a **formal appreciation mechanism** to recognize outstanding contributions by faculty members. This initiative has positively influenced teaching quality, faculty morale, and overall academic performance.

Types of Appreciation at the Department Level:

- **High Academic Results**:
  Faculty members achieving **above 90% results** in their respective courses are honored with **Appreciation Letters** during departmental meetings or formal gatherings.
- **Outstanding Student Feedback**:
  Faculty who receive **excellent student feedback** based on semester-wise course evaluations are also recognized through **formal letters of appreciation**, highlighting their commitment to quality teaching and student engagement.

These recognitions are recorded in the faculty performance files and considered during annual reviews and promotions.

2. Implementation of Self-Appraisal System

The department has implemented a **Self-Appraisal System** as part of continuous performance evaluation and professional development. This system allows faculty members to reflect on their academic performance, research contributions, and involvement in departmental and institutional activities.

Key Highlights:

- Faculty are encouraged to document their achievements, including **teaching outcomes**, **research publications**, **FDP participation**, and **mentorship roles**.
- The **appraisal process** includes peer reviews and feedback from Heads of Departments, which helps in identifying areas of strength and opportunities for growth.

Impact of the Self-Appraisal and Appreciation Process:

- Encourages **healthy competition** among faculty members.
- Builds a sense of **ownership and accountability**.
- Acts as a **motivational tool** to inspire consistent improvement.
- 🟢 Directly contributes to the **enhancement of teaching-learning practices**.

“Faculty recognition is not just a reward but a reinforcement of the values we aim to nurture—dedication, innovation, and continuous learning.”

Faculty Recognition and Motivation Initiatives

1. Improvement in the Number of Copyrights Filed / Patents Published

There has been a consistent increase in the number of copyrights filed and patents published by faculty members over the assessment period. The department has actively encouraged innovation and intellectual property protection through institutional support and awareness programs. This has resulted in a year-wise growth in the number of filings and publications, reflecting the departments commitment to research and development.

Year-wise trend indicates a positive growth trajectory in IPR activity, showing a shift towards a more innovation-driven academic environment.

2. Increase in the Number of Faculty Serving as Resource Persons

A notable increase has been observed in the number of faculty members serving as Resource Persons in various Faculty Development Programs (FDPs), workshops, seminars, and guest lectures organized at national and institutional levels. This reflects the growing recognition of faculty expertise and their active participation in knowledge dissemination beyond the institute.

Such engagements enhance institutional visibility and foster collaboration and knowledge-sharing across academia and industry.

3. Increase in Ph.D. Registrations by Faculty

There has been a substantial increase in the number of faculty members enrolling in Ph.D. programs over recent years, signifying the development of a strong research culture within the department. Faculty members are being encouraged and supported to pursue doctoral studies, leading to continuous professional growth and academic enrichment.

Regular upskilling and academic progression contribute significantly to institutional academic output and research capability.

4. Improvement in Student Feedback & Reduction in Faculty Counseling

With enhanced focus on innovative teaching methodologies, faculty members are adopting student-centric teaching practices aimed at improving comprehension and engagement. These include use of ICT tools, interactive sessions, and continuous assessment strategies. As a result, student feedback scores have improved, and there has been a significant decline in the number of faculty members requiring counseling by the Head of the Department.

This indicates a positive shift in the teaching-learning process and reflects the facultys commitment to academic excellence.

Summary of Key Improvements:

Area of Improvement	Outcome Achieved
Copyrights/Patents	Increased year-wise filings and publications
Resource Person Roles	More faculty serving in academic events and FDPs
Ph.D. Registrations	Rise in number of faculty pursuing doctoral studies
Student Feedback	Fewer counseling sessions due to better feedback

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

Total Marks 10.00

Institute Marks : 10.00

5.9.1 List of Adjunct Faculties

Sr. No	Faculty Member	Designation	Highest Degree
1	Dr. Suhas Patil	Professor	PhD
2	Mr. Milind Ankaleshwar	Assistant Professor	M.E
3	Mr. Shakti Shekar	Assistant Professor	M.E

5.9.2. Emeritus Faculty

Name	Designation	Institute
Dr. Parikshit Mahalle	Professor, Department of Artificial Intelligence and Data Science	Vishwakarma Institute of Information Technology (VIIT), Pune
Dr. Ajitkumar Shitole	Associate Professor and Head, Department of Computer Engineering	International Institute of Information Technology (I²IT), Pune
Dr. Nilanjan Dey	Associate Professor, Department of Computer Science and Engineering	Techno India College of Technology (TICT), Kolkata
Dr. Deepak T. Mane	Professor & Assistant Head Admin, Department of Computer Engineering	Vishwakarma Institute of Technology (VIT), Pune
Dr. Pankaj Chandre	Associate Professor, MIT School of Computing	MIT Art, Design and Technology University, Pune
Dr. Ganesh R. Pathak	Professor, Department of Computer Science and Engineering	MIT Art, Design and Technology University, Pune
Dr. Uma Godase	Professor and Head, MIT School of Computing	MIT Art, Design and Technology University, Pune
Dr. K. T. V. Reddy	Dean, Faculty of Engineering and Technology	Datta Meghe Institute of Medical Sciences (DMIMS), Wardha
Dr. Kranthi Kumar	Senior Consultant Nephrologist	Symbiosis Institute of technology, Hyderabad
Dr. Thammi Reddy Konala	Dean, School of Engineering and Sciences	GD Goenka University, Gurugram

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 75.00

6.1 Adequate and well equipped laboratories, and technical manpower (30)

Total Marks 30.00

Institute Marks : 30.00

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	Programming Lab-1 (102)	24	Lenovo ThinkCentre M70s, intel® core™ i5-10400 CPU @2.90 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor	70 %	Ms.Vidyarani Ingawale	Lab Technician	MSc (Comp)
2	Programming Lab-2 103	24	Dell Vostro Desktop Mini PC, intel i5 Processor 2.30 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor	74 %	Ms.Vidyarani Ingawale	Lab Technician	MSc (Comp)
3	Software Lab-1 104	24	HP ProDesk 400 G6 Desktop Mini PC, intel i5 Processor 2.30 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor & Dell Vostro Desktop Mini PC, intel i5 Processor 2.30 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor	68 %	Ms.Vidyarani Ingawale	Lab Technician	MSc (Comp)
4	Software Lab-2 307	24	Lenovo ThinkCentre M70s, intel® core™ i5-10400 CPU @2.90 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor	70%	Mrs.Jayshree Pohkar	Lab Technician	BE(Computer)
5	Computer Lab–1 321	24	Lenovo ThinkCentre M70s, intel® core™ i5-10400 CPU @2.90 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor	76%	Mrs.Jayshree Pohkar	Lab Technician	BE(Computer)
6	Computer Lab–2 322	24	Lenovo ThinkCentre M70s, intel® core™ i5-10400 CPU @2.90 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor	78 %	Mrs.Jayshree Pohkar	Lab Technician	BE(Computer)
7	Project Lab 320	18	HP ProDesk 400 G6 Desktop Mini PC, intel i5 Processor 2.30 GHz, 8 GB DDR4 RAM, 1 TB HDD, 18.5" Monitor	100%	Mrs.Jayshree Pohkar	Lab Technician	BE(Computer)

6.2 Additional facilities created for improving the quality of learning experience in laboratories (25)

Total Marks 20.00

Institute Marks : 20.00

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	Internet Facility	Ethernet/WiFi connectivity is provided in laboratories.	To enable access to digital content, online tools, and learning platforms to support academic activities.	Available throughout the semester for student and faculty use.	Facilitates learning in emerging areas like Machine Learning, Data Science, and other Computer Engineering domains.	PSO1
2	E-learning Resources (Knimbus Software)	Access to Knimbus software with domain-specific content, including server hosting, faculty-uploaded assignments, PPTs, and tutorials.	To provide centralized access to learning materials and enable self-paced learning.	Used by students and faculty for academic referencing and independent study	Promotes self-paced learning, enhances technological support, and encourages independent study.	PO1, PSO1, PSO2
3	NPTEL / SWAYAM	Access to government-sponsored MOOCs offering high-quality content from IITs and NITs.	To enhance the quality of teaching-learning through reputed online resources.	Students enroll and complete courses at their own pace.	Improves conceptual understanding, technical knowledge, and lifelong learning aptitude.	PO1, PSO1, PSO2
4	Lab Manuals	Lab manuals detailing fundamentals, tools, and procedures related to Computer Engineering experiments and projects.	To improve understanding of practical concepts and aid project development	Referred to by students during lab sessions and journal writing.	Facilitates better understanding of tools, enhances hands-on practice, and supports project development.	PO1, PO2, PO3, PO5, PSO1, PSO2, PSO3
5	Smart Board (IWB)	Interactive White Boards installed in laboratories for visual teaching of diagrams, code logic, and mathematical concepts.	To enhance classroom interactivity and promote student engagement through technology.	Regularly used during practical sessions and theory-integrated lab lectures.	Enhances creativity, communication, problem-solving, and engagement through visual and participative learning.	PO5
6	Department Library	Contains textbooks, reference books, project reports, and technical magazines related to Information Technology	To facilitate additional learning beyond curriculum and support project/research activities	Open to students and faculty throughout the semester.	Aids in knowledge enhancement, reference for projects, report writing, and lifelong learning.	PO1, PO2, PO3, PO4, PO5, PO11
7	Project Lab	Equipped with 14 computers loaded with open-source and development software for project and research work.	To encourage innovation, conduct seminars/workshops, and support online learning and examinations	Widely used for project development, coding practice, and participation in STTPs and webinars.	Enhances practical programming skills, fosters innovation, and strengthens technical competencies.	PO1, PO2, PO3, PO4, PO5, PO11, PSO1, PSO2, PSO3

6.3 Laboratories: Maintenance and overall ambiance (10)

Total Marks 10.00

Institute Marks : 10.00

A. Maintenance

All Computers and Equipment setups are maintained regularly before starting the new semester to conduct practical's effectively.

1. Regular monitoring of lab equipments are carried out at during semester.
2. Dead Stock register is maintained in the laboratories.
3. Minor repairs are carried out by the lab assistants as per requirement.
4. Adequate Uninterrupted Power Supply are installed for continuous power supply to allthe computers and electronic equipments.
5. Batteries of the UPS are replaced regularly after expiry of their useful life.
6. Computers are formatted before every exam.
7. Each lab is provided with Do's and Don'ts or Instruction chart.
8. Each lab in the department is having UPS backup, to avoid damages due to power failure.
9. On all necessary PC system regular software is installed or maintained.

B. Overall Ambience

1. All laboratories are equipped with state-of-the-artequipment to meet the requirements of the curriculum.
2. Labs are equipped with sufficient hardware and licensed software to run program-specific curriculum and off-program curriculum.
3. Each lab is equipped with a Green board, Computer and Internet facility.

Class Room

C. Laboratory locations and facilitie

The department has established well-equipped laboratories to support the teaching-learning process and ensure effective delivery of the curriculum. The laboratories are designed to provide an optimal learning environment with necessary infrastructure and are maintained regularly. Each laboratory is provided with essential facilities and maintained as per institutional standards.

The following Table 6.3.1 presents the location and key infrastructure facilities available in each laboratory:

Table 6.3.1 Laboratory locations and facilities

Sr No	Name Of The Lab	Room No	Attendance register	Lab Manuals	Dead stock	Fans	Curtains	Lights	Location
1.	Programming Lab-1	102	Available	Available	Available	Available	Available	Available	First Floor
2.	Programming Lab-2	103	Available	Available	Available	Available	Available	Available	First Floor
3.	Software Lab-1	104	Available	Available	Available	Available	Available	Available	First Floor
4.	Software Lab-2	307	Available	Available	Available	Available	Available	Available	Third Floor
5.	Computer Lab-1	321	Available	Available	Available	Available	Available	Available	Third Floor
6.	Computer Lab – 2	322	Available	Available	Available	Available	Available	Available	Third Floor
7.	Project Lab	320	Available	Available	Available	Available	Available	Available	Third Floor

6.4 Project laboratories (5)

Total Marks 5.00

Institute Marks : 5.00

The **Project Laboratory** is a dedicated space established to facilitate innovation, practical learning and implementation of final year and mini projects. It serves as an incubator for students to apply theoretical knowledge, develop problem-solving skills and work on real-world engineering problems.

Key Features and Facilities:

- **Infrastructure**: The lab is equipped with 18 computers loaded with open-source and programming environments required for project development.
- **Software Tools**: Supports a wide range of applications including Java, Python, Android Studio, MySQL and other open-source platforms.
- **Internet Access**: High-speed internet connectivity is available for research, development, collaboration and accessing online resources.
- **Hardware Support**: Facilities for working on hardware-based projects are provided, including basic electronics kits, microcontroller boards (e.g., Arduino, Raspberry Pi) and sensors.
- **Uninterrupted Power Supply (UPS)**: The lab has UPS backup to ensure continuity during critical development work and presentations.
- **Working Environment**: The lab promotes a collaborative environment, encouraging peer learning and teamwork through group-based project execution.

Utilization:

- Used by **third-year and final-year students** for executing **mini projects and final year projects**.
- Facilitates **project-based learning**, **interdisciplinary projects** and participation in **hackathons, competitions** and **technical paper presentations**.
- Enables students to conduct **literature surveys, design system architecture, implement software/hardware solutions** and carry out **testing and validation**.

Support Activities:

- The lab is used for **workshops, seminars, coding competitions** and student **Training Programs (STTPs)** focused on project development.
- Faculty members and mentors are assigned to guide students in every phase of project development from ideation to execution.

Outcomes and Impact:

- Enhances students **technical competence, innovation, and design skills**.
- Improves **teamwork, project management** and **communication abilities**.
- Reinforces **Program Outcomes (POs)** such as **Problem Analysis (PO2), Design/Development of Solutions (PO3), Modern Tool Usage (PO5) and Project Management (PO11)**.
- Strongly supports **Program Specific Outcomes (PSOs)** related to **software development, system integration**, and **practical application of knowledge**.

6.5 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Programming Lab-1	1) Internet Access through FortiGate 200F Firewall for network security 2) Periodic servicing of lab equipments. 3) The first aid box is in the HOD cabin. 4) A fire extinguisher is kept near the laboratory. 5) Well-trained technical supporting staff. 6) The department is 24*7 under surveillance of a CCTV camera. 7) Provision of UPS to prevent accidental loss of data. 8) Ensuring that equipment's are switched off when not in use.
2	Programming Lab-2	1) Internet Access through FortiGate 200F Firewall for network security 2) Periodic servicing of lab equipments. 3) The first aid box is in the HOD cabin. 4) A fire extinguisher is kept near the laboratory. 5) Well-trained technical supporting staff. 6) The department is 24*7 under surveillance of a CCTV camera. 7) Provision of UPS to prevent accidental loss of data. 8) Ensuring that equipment's are switched off when not in use.
3	Software Lab-1	1) Internet Access through FortiGate 200F Firewall for network security 2) Periodic servicing of lab equipments. 3) The first aid box is in the HOD cabin. 4) A fire extinguisher is kept near the laboratory. 5) Well-trained technical supporting staff. 6) The department is 24*7 under surveillance of a CCTV camera. 7) Provision of UPS to prevent accidental loss of data. 8) Ensuring that equipment's are switched off when not in use.
4	Software Lab-2	1) Internet Access through FortiGate 200F Firewall for network security 2) Periodic servicing of lab equipments. 3) The first aid box is in the HOD cabin. 4) A fire extinguisher is kept near the laboratory. 5) Well-trained technical supporting staff. 6) The department is 24*7 under surveillance of a CCTV camera. 7) Provision of UPS to prevent accidental loss of data. 8) Ensuring that equipment's are switched off when not in use.
5	Computer Lab – 1	1) Internet Access through FortiGate 200F Firewall for network security 2) Periodic servicing of lab equipments. 3) The first aid box is in the HOD cabin. 4) A fire extinguisher is kept near the laboratory. 5) Well-trained technical supporting staff. 6) The department is 24*7 under surveillance of a CCTV camera. 7) Provision of UPS to prevent accidental loss of data. 8) Ensuring that equipment's are switched off when not in use.
6	Computer Lab – 2	1) Internet Access through FortiGate 200F Firewall for network security 2) Periodic servicing of lab equipments. 3) The first aid box is in the HOD cabin. 4) A fire extinguisher is kept near the laboratory. 5) Well-trained technical supporting staff. 6) The department is 24*7 under surveillance of a CCTV camera. 7) Provision of UPS to prevent accidental loss of data. 8) Ensuring that equipment's are switched off when not in use.
7	Project Lab	1) Internet Access through FortiGate 200F Firewall for network security 2) Periodic servicing of lab equipments. 3) The first aid box is in the HOD cabin. 4) A fire extinguisher is kept near the laboratory. 5) Well-trained technical supporting staff. 6) The department is 24*7 under surveillance of a CCTV camera. 7) Provision of UPS to prevent accidental loss of data. 8) Ensuring that equipment's are switched off when not in use.

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 50.00

7.1 Actions taken based on the results of evaluation of each of the POs & PSOs (20)

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2023-24)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.75	2.73	The target level for this PO1 is not achieved Attainment Level for PO1 marginally achieved for 2023-24 Batch with 2.73. Attainment Level for PO1 is marginally achieved for 2022-23 Batch with 2.63. Attainment Level for PO1 marginally achieved for 2021-22 Batch is 2.57. However, subjects like Data Structure and Algorithms, Theory of Computation have achieved at the threshold. Observations • The knowledge application across engineering disciplines (mathematics, fundamentals and specialization) is effectively being met. • However, there are courses like Data Structure and Algorithms, Theory of Computation and Elective V: Social Computing that have marinally achieved, indicating that while the outcome is met, there is minimal margin for improvement or variation in performance.
Action 1:For courses like Data Structure and Algorithms, Theory of Computation, the Course Coordinator reviews the course content to ensure that students are not only meeting the basic requirements but also being challenged to apply engineering principles in real-world scenarios (e.g., through case studies or projects).			
PO 2 : Problem Analysis			
PO 2	2.75	2.74	The target level for this PO2 is not achieved for 2023-24 Batch. Attainment Level for 2023-24 Batch with 2.74. Attainment Level for 2022-23 Batch with 2.64. Attainment Level for 2021-22 Batch is 2.56. For the following subjects marginally missed the attainment like Discrete Mathematics, Engineering mathematics, Theory of computation, Computer Network & Security, Elective-V Social Computing Observations • PO2 has been achieved with an attainment level of 2.79, which is above the target level of 2.4, indicating that students are generally able to identify, analyze and solve complex engineering problems effectively using first principles from mathematics and engineering sciences. 2. Course Specific Challenges: • Elective V: Social Computing achieved an attainment level of 2.35, falling short of the target level, indicating that students struggled with problem analysis in this course. • The challenge was primarily in problem decomposition, where students faced difficulties in breaking down larger, complex problems into smaller, manageable sub problems this is an essential skill for effective problem analysis.
Action 1: The Course Coordinator(Discrete Mathematics, Engineering mathematics, Theory of computation and Computer Network & Security) focused on enhancing problem decomposition skills. He introduced more structured problem-solving exercises and case studies that guide students through the process of breaking down complex problems into smaller components. Action 2:Course Coordinator incorporated step-by-step problem-solving approaches and provided students with templates or frameworks for decomposing and analyzing problems. For other subjects, reinforce problem decomposition techniques early on in the curriculum to ensure that students are well-prepared to tackle complex problems throughout their studies. Action 3:Encourage group projects that require students to analyze and decompose real-world problems, with guidance on applying first principles from mathematics and engineering sciences in the analysis process.			
PO 3 : Design/development of Solutions			
PO 3	2.75	2.78	The target level for this PO is achieved. Attainment Level for 2022-23 Batch with 2.63. Attainment Level for 2021-22 Batch is 2.57. Observations • Students may not have had enough hands-on design activities or real-world solution-building tasks for the Basic Computer Network and Design and Analysis of Algorithms and Social Computing
Action: For some courses like Basic Computer Network and Design and Analysis of Algorithms, the course coordinator gives simulated case studies requiring end-to-end system design or social solution			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2.75	2.71	The target level for this PO4 is not achieved Attainment Level for PO4 is marginally achieved for 2023-24 Batch with 2.71 Attainment Level for PO4 for 2022-23 Batch with 2.62. Attainment Level for PO4 for 2021-22 Batch is 2.57. Observations • The nature of these subjects (System programming, OOP, Engineering Mathematics-III, Processor Architecture and TOC) may not involve research-based investigations or assessments are not aligned to this PO. • Investigative activities (like data analysis, survey-based studies, etc.) are insufficient or not emphasized.
Action 1: Course coordinator Included Investigative Components such as Design of experiments (especially in TOC or Processor Architecture via simulations) and Small-scale investigations or mini-projects (e.g., algorithm analysis in OOP). Action 2: Encourage faculty for the Orientation programs and to do training on designing assignments or practicals aligned with PO4 (e.g., data interpretation, case studies). Action 3: for system programming course, assigned small research tasks such as comparing different compiler designs or analyzing system call efficiency.			
PO 5 : Modern Tool Usage			
PO 5	2.75	2.79	The target level for this PO5 is achieved with 2.79 for 2023-24 batch. Attainment Level for PO5 for 2022-23 Batch with 2.63. Attainment Level for PO5 for 2021-22 Batch is 2.58. Observations • There is no formal integration or evaluation of modern tools in these courses, even though opportunities exist (especially in labs). • Social Computing slightly underperforms (2.3), likely due to insufficient hands-on tool exposure despite tool relevance in the subject. • For PSDL lab,DBMS Lab, DS Lab there is scope for the Modern Tool Usage
Action 1: The course coordinator of Data structure, Object Oriented Programming included small projects involving sentiment analysis, social media graph modelling. Action 2: For the PSDL lab, we introduced the use of simulation tools such as Logisim for assembly code and architecture-level simulation Action 3: For the DBMS Lab, we introduced ER diagram tools like Lucidchart, dbdiagram.io, or Draw.io for database modelling tasks. Action 4: Introduced profiling tools (Valgrind, GDB, Visual Studio Profiler) to analyze performance and memory use of data structures.			
PO 6 : The Engineer and Society			
PO 6	2.75	2.78	The target level for this PO6 is achieved with 2.78 for 2023-24 batch. Attainment Level for PO6 for 2022-23 Batch with 2.63. Attainment Level for PO6 for 2021-22 Batch is 2.56. Obsevation Lab and core technical subjects like Web Application Development and Machine Learning and Applications are particularly weak in mapping PO6, despite real-world applications that can align with societal impact.

Action 1: Promoted NSS activities like blood donation, Tree plantation, CRPF problem identification and proposed solutions by technical skills. Action 2: For the course Web Application Development, the course coordinator conducted guest lectures with industry experts on social implications of web applications. Action 3: For the course Machine Learning and Applications, the course coordinator included activities where students critically assess ML use-cases in sensitive domains like medicine and finance. Action 4: Introduced use-cases and case studies that highlight how IoT impacts society.			
PO 7 : Environment and Sustainability			
PO 7	2.75	2.79	The target level for this PO7 is achieved with 2.79 for 2023-24 batch. Attainment Level for PO7 for 2022-23 Batch with 2.62. Attainment Level for PO7 for 2021-22 Batch is 2.55. Observations This PO is marginally mapping with the engineering subjects(system programming) as an affiliated institute, we don't have control over the contextual knowledge to assess societal, health, safety, legal and cultural issues in engineering
Action 1:Introduced eco-efficiency, energy consumption case studies in labs. Action 2:Promoted interdisciplinary mini-projects focused on sustainable tech (e.g., green computing). Action 3:Inculcated PO7 through NSS/NCC/community projects or environment-related audits documented in Lab Practice/Seminars. Action 4: For the system programming course, included discussions on energy efficiency and resource usage in low-level software design			
PO 8 : Ethics			
PO 8	2.75	2.78	The target level for this PO8 is achieved with 2.78 for 2023-24 Batch. Attainment Level for PO8 for 2022-23 Batch with 2.56. Attainment Level for PO8 for 2021-22 Batch is 2.50. Observation Limited Student Engagement in Ethical Discussions
Action 1: For courses, like computer security, the course coordinator introduced real-world IT ethical case studies (e.g., data privacy) in subjects such as Software Project Management, ML and Computer Network and Cybersecurity Action 2: For the Web Application Development course, incorporated discussions on ethical dilemmas in web application design. Action 3: For the system programming course, conducted sessions on ethical responsibilities of system programmers (e.g., security risks in shell scripting, buffer overflows, root access). Action 4: For DSBDA course, added scenario-based questions in assessments requiring ethical judgment in data handling or algorithm design.			
PO 9 : Individual and Team Work			
PO 9	2.75	2.73	The target level for this PO9 is not achieved for 2023-24 Batch. Attainment Level for PO9 achieved for 2023-24 Batch is 2.73. Attainment Level for PO9 for 2022-23 Batch with 2.62. Attainment Level for PO9 for 2021-22 Batch is 2.57. Observation • Final year Project Work, Mini Projects, and Internships consistently show strong attainment of PO-9, indicating that students are effectively collaborating in teams and taking individual ownership of tasks. • While students work in groups, formal evaluation of individual vs. team performance is often lacking, which may reduce accountability and the opportunity for reflective learning.
Action 1:The program promoted students for the Participation in Hackathons and Group Competitions Action 2:The Program Insisting team-building for mini project, PBL and final year projects			
PO 10 : Communication			
PO 10	2.75	2.74	The target level for this PO10 is not achieved for 2023-24 Batch. Attainment Level for PO10 achieved for 2023-24 Batch is 2.74. Attainment Level for PO10 for 2022-23 Batch with 2.61. Attainment Level for for 2021-22 Batch is 2.57. Observation Limited Focus on Communication in Technical Subjects
Action 1: Encouraged participation in Technical Paper Presentations Action 2:Conducted mock interviews, report writing, poster presentations.			
PO 11 : Project Management and Finance			
PO 11	2.75	2.77	The target level for this PO11 is achieved with 2.77 Attainment Level for PO11 for 2022-23 Batch with 2.64. Attainment Level for PO11 for 2021-22 Batch is 2.59. Observations • Attainment Mostly Through Final Year Project and Specific Courses • Limited Practical Exposure to Financial Tools
Action 1: Introduced basic project cost estimation, risk analysis, agile/scrum practices in labs or final year projects. Action 2: Added rubrics in Project Stage I/II and Lab Practices to measure PO11 explicitly. Action 3: Conducted workshops on project budgeting, licensing models, or productivity tools to align better. Action 4: For DSBDA, implemented team-based data analysis projects with defined roles (e.g., data engineer, analyst, visualization lead) to promote collaborative project management			
PO 12 : Life-long Learning			
PO 12	2.75	2.73	The target level for this PO12 is not achieved for 2023-24 Batch. Attainment Level for 2023-24 Batch with 2.73 Attainment Level for PO12 for 2022-23 Batch with 2.62. Attainment Level for PO12 for 2021-22 Batch is 2.58. Observation • Limited Encouragement for Exploration Beyond Curriculum
Action 1:Department encourages students to the certifications from MOOCs like NPTEL, Coursera etc. Action 2:Incorporated Industry Expert Talks and Workshops Regularly Action 3:Incorporated Lifelong Learning in Project Work Evaluation Action 4:Encouraged participation in Extra-curricular Learning Activities Action 5: Promoted participation in ML competitions like Kaggle to foster self-driven learning.			

PSOs Attainment Levels and Actions for Improvement- (2023-24)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : PSO1: Technical Proficiency and Problem Solving An ability to apply theoretical concepts and practical knowledge of Information Technology to analyze, design, develop, and manage information processing systems and applications. Graduates should be capable of identifying and defining appropriate computing infrastructure and operational requirements for solving real-world problems, and working effectively on large-scale computing systems.			
PSO 1	2.4	2.79	The target level for this PSO1 is achieved with 2.79 for 2023-24 Batch. The target level for this PSO1 for 2022-23 Batch with 2.62. The target level for this PSO1 for 2021-22 Batch with 2.58. Observations • Most core subjects such as Data Structures and Algorithms (2.89), Operating Systems (2.9), and Machine Learning (2.9) show strong performance, reflecting a solid grasp of Technical Proficiency. • Object Oriented Programming (2.9) and Database Management System (2.84) indicate good performance in software design and databases, essential for technical problem-solving. • Practical Application via Labs: • Labs like Data Structures and Algorithms Lab (2.89), Operating Systems Lab (2.9), and Database Management System Lab (2.89) have strong scores, reflecting successful implementation of theory in practice. • Advanced and Elective Subjects: • Subjects like Deep Learning (2.96), Cloud Computing (2.89), and Mobile Computing (2.96) indicate a focus on emerging technologies, showcasing high PSO1 attainment. • Lower Scores in Some Electives: • Subjects like Blockchain Technology (2.88) and Social Computing (2.36) have relatively low scores. These areas may need further attention to improve students' technical problem-solving skills in more specialized fields.
Action 1:Reviewing and enhancing the curriculum and teaching methodologies for electives like Social Computing and Blockchain Technology, where PSO1 attainment is lower. Action 2:Offered supplementary resources, workshops, or industry exposure to improve problem-solving in these areas. Action 3:Strengthen lab sessions, encouraging real-world problem-solving and industry collaboration to further boost PSO1. Action 4:Introduced capstone projects or industry partnerships for more hands-on experiences, especially in emerging technologies like AI, Blockchain, and Cloud Computing. Action 5:Created interdisciplinary projects or assignments linking technical proficiency to other domains like business, ethics, or communication, to enhance holistic technical problem-solving.			
PSO 2 : PSO2: Professionalism, Ethics, and Communication An understanding of professional, business, and ethical responsibilities, including legal, security, and social issues related to IT. Graduates will practice effective communication and decision-making skills, using appropriate technology to handle professional responsibilities and contribute to business processes in a socially responsible manner.			
PSO 2	2.4	2.80	The target level for this PSO2 is achieved. 2.80 The target level for this PSO2 for 2022-23 Batch with 2.63. The target level for this PSO2 for 2021-22 Batch with 2.60 Observations • High scores in Soft Skill Lab (2.9), Project Based Learning (2.89), and Human Computer Interaction (2.89) indicate solid attainment of professionalism and communication skills. • While subjects like Database Management System (2.78) and Software Engineering (2.78) show a decent level of professionalism and ethics, there is room for improvement, particularly in embedding ethical considerations into the technical courses. • Subjects like Cloud Computing (2.89), Mobile Computing (2.97), and Startup and Entrepreneurship (2.96) show a strong emphasis on professionalism and communication, likely fostering industry-relevant skills. • Social Computing and Blockchain Technology, however, show mixed results (e.g., Social Computing at 2.46). Ethical considerations and communication skills may need strengthening in these electives.
Action 1: Added case studies or modules in Database Management, Software Engineering, and Cloud Computing to emphasize ethical decision-making, security, and legal concerns within the IT industry. Action 2: Conducted ethical dilemmas or role-play exercises to foster professional behavior and better communication skills. Action 3: Partner with industry leaders to host seminars, workshops, or guest lectures on professional responsibilities, business ethics and communication. Action 4: Internship programs and industry projects should be leveraged to help students develop both technical and professional skills, especially in interdisciplinary teams. Action 5:Collaborated with professionals in these fields to help students understand how to balance technical and ethical challenges.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10) Total Marks 10.00

Institute Marks : 10.00

Academic audit is an essential and systematic method of reviewing the quality of academics in the Institution. To conduct it efficaciously, the Institute has following audit system.

A) Academic Review and Audit:

We, at Nutan Maharashtra Institute of Engineering & Technology, Talegaon Dabhade, Pune, strive for quality education through quality-oriented academics. For monitoring and evaluation of the institutional academic processes and its effective implementation, a structured system of academic review is constituted at the institute ensuring continual progress of academics.

The objectives of academic review system are:

1) To understand the potency and weak point of academic processes for improvement.

2) To identify the opportunities for academic reforms (Teaching Learning process)

3) To ensure efficient implementation of

- Teaching-Learning Processes
- Activity-Based Learning.
- Outcome Based Education (OBE)

Academic reviews are taken at different levels as shown in 7.2a

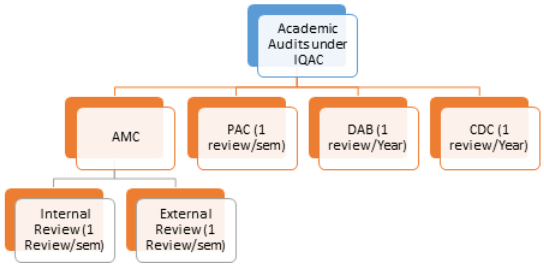


Figure 7.2a Different levels of Academic review

1. **Academic Monitoring and Control (AMC) Committee:**

To monitor the academic review and audit process, a committee (AMC) is in place under principal and Institute's Academic Dean. Members of AMC are as shown in Table B.7.1a.

Table 7.2a: Members of Academic Monitoring and Control (AMC) Committee

Sr. No.	Designation	Position Held
1)	Principal	Chairman
2)	IQAC	IQAC Head
2)	Dean Academic	AMC In-Charge
3)	HOD Computer Engineering Department	Member
4)	HOD Electronics & Telecommunication Engineering Department	Member
5)	HOD Mechanical Engineering Department	Member
6)	HOD Information Technology Department	Member

Academic Monitoring and Control (AMC) Committee conduct the following reviews.

1. Internal Review
2. External Review

1. Internal Review

Periodicity:

AMC conducts an Academic Reviews in presence of IQAC Head. AMC conducts two academic reviews in a semester (i.e. two Internal Academic review meetings in a year) in order to ensure smooth conduction of Teaching Learning process. Internal Academic Reviews are conducted as per the schedule mentioned in the academic calendar.

Process of Internal Academic Review:

Plan: AMC during the internal review prepare the academic planning and its implementation Strategies

Do & Check: During this meeting, Academic Progress related to Attendance, Internal Test Performance, SPPU Exam result is reviewed & Action plans implementations are checked. Academic Review Meeting I (ARM I) also discuss observations in Teaching Learning Process and Feedback -I as per academic calendar. The process is depicted in table 7.2 a.

2. External Review

Periodicity:

AMC conduct an External review is conducted once in Semester i.e. two external Academic review meetings in a year) in presence of External Auditor, Dean Academic

Process of External Academic Review:

Check & Act: ARM-II to review the status of Academic Progress, remedial action, Feedback -II. It also reviews Academic Progress, overall performance of department during semester and preparation of action plan for upcoming semester. The process is shown in table 7.2 b.

Academic Review meetings (ARM) of Department as per academic calendar:		
Internal Review		
Sr.	**Activity**	**Authorities**
01	Plan: To prepare academic planning and implementation Strategies.	IQAC Head, Dean Academic
02	Do & Check Academic Review Meeting-I is conducted in presence of all department faculty members. It takes review of Academic Progress related to Attendance, Internal Test Performance, SPPU Exam result & Action plans etc. ARM I also discuss observations in Teaching Learning Process and Feedback -I as per academic calendar.	IQAC Head, Dean Academic, Departmental Academic coordinator(DAC)
External Review		
01	Plan: To prepare action plan & review Academic Progress , overall performance of department during semester & and preparation of action plan for upcoming semester	External auditor, Dean Academic
02	Check & Act ARM-II to review the status of Academic Progress, remedial action, Feedback -II in presence of all department faculty members.	External Auditor, Dean Academic
03	To review Academic Progress , overall performance of department during semester & and preparation of action plan for upcoming semester.	Dean Academic

B. **Program Assessment Committee (PAC):**

Periodicity:

PAC meetings are conducted once in a semester (i.e., Twice in a year)

PAC includes Program coordinator & faculties from department. PAC supports for implementation of OBE into the department inline to vision and mission of the department.

Table 7.2.c Structure of Program Assessment Committee (PAC)

Academic Year 2023-24

Name	Designation	Role on Board
Dr. Chandrakant Kokane	HoD	Chairman
Dr. Nitin Dhawas	Professor	Convener
Prof. Nitin Wankhade	Assistant Professor	Member
Prof. Dheeraj Patil	Assistant Professor	Member
Prof. Vivek Nagargoje	Assistant Professor	Member
Prof. Kapil Wagh	Assistant Professor	Member
Prof. Sonali Dongare	Assistant Professor	Member
Prof. Yogesh Shepal	Assistant Professor	Member
Prof. Bharti Dhote	Assistant Professor	Member

Departmental Advisory Board (DAB):

Periodicity: Departmental Advisory Board (DAB) meeting is conducted once in a year.

Table 7.2.d Departmental Advisory Board (DAB)

Name	Designation	Role on Board
Dr. Vilas Deotare	Principal	Chairman
Dr. Chandrakant Kokane	Head, Department of IT	Convener
Dr. Nitin Dhawas	Professor	Member
Prof. Nitin Wankhade	Assistant Professor	Member
Mr. Kiran More	Alumni & Employer	Member
Mr. Abhishek Andure Mr. Sumit Kekan	Entrepreneur	Member
Mr. Ravindra Kukade Plant Head, Balkrishna Press	Parent	Member
Dr. Parikshit Mahalle Dean R&D, VIT Pune	Peer Academician	Member

Dr. Sachin Babar Principal, SIT Pune	Peer Academician	Member

DAB includes representatives from industry, academics, alumni, the Program coordinator and senior faculty members from Department as well as invitees if necessary. DAB reviews the report submitted by PAC and further gives suggestion to sustain and improve the quality of academics.

CDC (College Development Committee):

Periodicity: once in year

As per the Maharashtra Public Universities Act 2016, Section 97, the College Development Committee (CDC) is formed at the Institute. Chairman and members of Trusty Board chairs the CDC. CDC reviews the progress so far and guide to prepare an overall comprehensive development plan of the Institute regarding academic, administrative and infrastructural growth. CDC facilitates the Institute to foster excellence in curricular, co-curricular and extracurricular activities.

CDC reviews the academic performance of the students for both the semesters. The results of internal and external examinations are also reviewed. CDC makes specific recommendations to the management to encourage and strengthen research culture and add-on activities in the Institute. Training and Placement activities of the students are also reviewed in CDC. To enhance the teaching learning process, CDC take care of faculty development in all regards.

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10) Total Marks 10.00

Institute Marks : 10.00

Table 7.3a Statistics of placement, higher studies and entrepreneur

Item	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
Total No of Final Year Students(N)	63.00	64.00	64.00
No of students placed in the companies or government sector(X)	35	47	45
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	2	2	3
No of students turned entrepreneur in engineering/technology (Z)	1	1	0
x + y + z =	38.00	50.00	48.00
Placement Index [(X+Y+Z)/N] :	0.60	0.78	0.75

Average Placement [(P1 + P2 + P3)/3] : 0.71

Assessment [40 * Average Placement] : 28.40

Figure 7.3b: Statistics of the Students placement placed (criteria 4-Table 4.5)

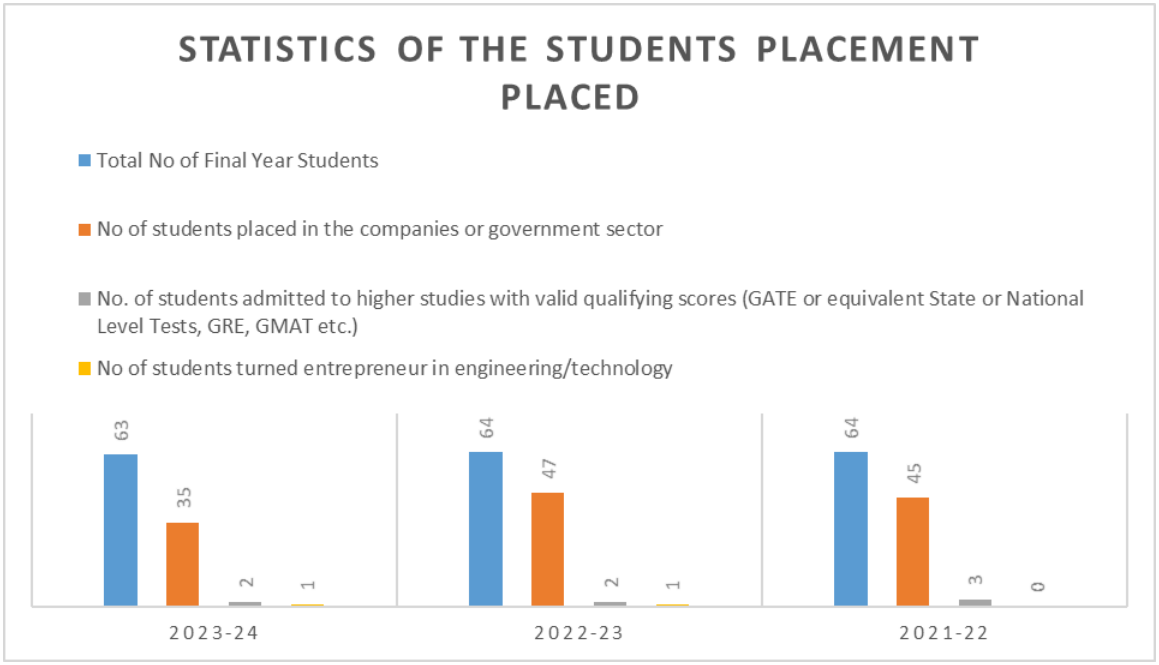


Table 7.3c Statistics of placement with Employer

Academic Year	Number of students placed				Highest Salary	Average salary of all students placed	Higher Studies	Entrepreneur	Percentage of students placed
	Total Number of Students	Number of students placed	Quality Placement	Core Industry					

2023-24	63	35	13 (5 LPA to 10 LPA)	Amazon Infosys Fiserv Quantiphi Western Union Airpay KPIT yardi Hindustan Platinum Atlassian Credilio ITC Infotech Tech Mahindra Capgemini SteephGraph Hexaware Merkle Sokrati SquareYards	10.8	5.2	2	1	55.55
2022-23	64	47	27 (5 LPA to 12 LPA)	Accenture Atos Syntel BlueBinaries Borm Bruckmeir Capgemini Cimpress EPIC HSBC Johnson controls KPIT Persistent Systems PTC software Tata elexi TCS VERZEO Zensoft Service	12	5.61	2	1	73.43
2021-22	64	45	27 (5 LPA to 12 LPA)	Accenture Amazon Development Centre Pune Atos Global IT solution Capgemini Cybage software Dassault Systems FIS Global FUJITSU Infosys Jio Platforms Limited KPIT Persistent System PTC Software SAP Labs India Tata Consulting Engineers Limited Volkswagen Group technology solutions	8.6	5.24	3	0	70.31

7.4 Improvement in the quality of students admitted to the program (10)

Total Marks 10.00

Institute Marks : 10.00

Item		2024-25	2023-24	2022-23
National Level Entrance Examination	No of students admitted	13	5	9
JEE	Opening Score/Rank	83.11	83.52	83.32
	Closing Score/Rank	78.22	82.72	80.67
State/ University/ Level Entrance Examination/ Others	No of students admitted	107	55	51
MH-CET	Opening Score/Rank	92.91	91.48	92.28
	Closing Score/Rank	61.89	70.61	66.21
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	0	6	6
DSE students	Opening Score/Rank	0	89.25	88.50
	Closing Score/Rank	0	82.46	84.17
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		78	71	54

8 FIRST YEAR ACADEMICS (50)

Total Marks 45.24

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

Total Marks 5.00

Institute Marks : 5.00

Please provide First year faculty information considering load for the particular program

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Dr. Shekhar Ra	AGNPR8757L	ME/M. Tech and PhD	02/11/2019	Civil Engineering	Associate Professor	04/08/2008	100	100	100	Yes	Regular	
Dr.Digvijay Pat	BPQPP2856D	ME/M. Tech and PhD	23/08/2021	Heating ventilation and air conditioning	Associate Professor	07/03/2022	100	0	0	Yes	Regular	
Dr.Archana Ye	BEQPB6028E	M.Sc. and Ph.D. (Chemistry)	24/09/2024	Chemistry	Assistant Professor	27/08/2009	100	0	0	Yes	Regular	
Dr.Chhaya Jos	BCLPJ9750L	M.A and Ph.D	27/08/2018	English Language	Assistant Professor	01/07/2024	100	0	0	Yes	Regular	
Dr.Kavita Shinc	GFOPS6320L	M.SC. (Mathematics) and PhD	08/04/2019	Mathematics	Assistant Professor	09/09/2024	100	0	0	Yes	Regular	
Dr.Milind Ovha	AAJPO3888M	ME/M. Tech and PhD	26/06/2024	Manufacturing Mechanical Engineering	Assistant Professor	25/08/2003	100	0	0	Yes	Regular	
Dr.Virendrakun	AMGPD0667G	ME/M. Tech and PhD	18/06/2019	Computer Science and Engineering	Associate Professor	06/01/2025	50	0	0	Yes	Regular	
Dr.Shahuraj Sa	BVFPS4789D	ME/M. Tech and PhD	22/03/2025	Electrical Engineering	Assistant Professor	18/07/2024	100	0	0	Yes	Regular	
Arti Bindu	ARPPB5347P	M.E/M.Tech	20/03/2010	Electrical Control System	Assistant Professor	21/07/2008	100	100	100	Yes	Regular	
Aniruddh Duba	BEUPD6536B	M.E/M.Tech	30/08/2014	Structural Engineering	Assistant Professor	01/04/2022	100	100	100	Yes	Regular	
Jyoti Gore	APHPG5511J	M.E/M.Tech	06/03/2014	Electrical Power System	Assistant Professor	19/07/2017	100	100	100	Yes	Regular	
Jeevan Patil	ABYPP0689F	M.E/M.Tech	14/07/2009	Heat and Power	Assistant Professor	28/07/2020	100	100	100	Yes	Regular	
Sunita Yewale	DROPS3951N	M.E/M.Tech	10/11/2020	Signal Processing	Assistant Professor	05/08/2022	100	100	100	Yes	Regular	
Sandeep Gore	ASIPG3328D	M.E/M.Tech	29/04/2013	Production	Assistant Professor	27/12/2022	0	100	100	Yes	Regular	
Vivek Patil	BWGPP0072A	M.E/M.Tech	16/04/2016	Computer Science and Engineering	Assistant Professor	11/05/2023	0	100	0	No	Regular	04/01/2024
Dr.Kundan Mis	AVXPM3243R	ME/M. Tech and PhD	25/09/2023	Design Engineering	Assistant Professor	18/09/2023	0	100	0	No	Regular	16/08/2024
Renuka kajale	CEJPK7344J	M.E/M.Tech	16/11/2015	Information Technology	Assistant Professor	01/08/2022	0	0	100	Yes	Regular	
Dr.Yogesh She	EIZPS9269E	ME/M. Tech and PhD	25/02/2025	Computer Science and Engineering	Assistant Professor	15/12/2022	0	0	100	Yes	Regular	
Manoj Junnark	AKXPJ2013M	M.Sc	21/07/2004	Physics	Assistant Professor	01/06/2009	100	100	100	Yes	Regular	
Kirti Takale	AKXPG3383M	M.Sc	15/11/2005	Mathematics	Assistant Professor	19/07/2017	100	100	100	Yes	Regular	
Shital Ekhande	FGBPA4148F	M.Sc	07/11/2019	Mathematics	Assistant Professor	17/07/2023	100	100	0	Yes	Regular	
Premkumar Ko	BXJPK0885L	M.Sc	22/06/2007	Mathematics	Assistant Professor	13/09/2007	100	0	0	Yes	Regular	
Bhimrao Gaikw	APCPG9162Q	M.Sc	01/05/2003	Mathematics	Assistant Professor	01/05/2009	100	0	0	Yes	Regular	
Rupesh Yadav	BCAPY4896D	M.Sc	18/06/2021	Mathematics	Assistant Professor	02/09/2024	100	0	0	Yes	Regular	
Vrushali Gujar	BAJPG0136P	M.Sc	23/06/2011	Mathematics	Assistant Professor	01/07/2024	100	0	0	Yes	Regular	
Tejaswita Kajal	CIWPK0338R	M.E/M.Tech	22/09/2014	Heat Power	Assistant Professor	09/10/2023	100	0	0	Yes	Regular	
Anil Jaiprakash	ABCPY9966A	M.E/M.Tech	22/11/2012	Production	Assistant Professor	01/02/2022	100	0	0	Yes	Regular	

Rupali Jagnade	APVPJ9994A	M.Sc	24/07/2006	Physics	Assistant Professor	19/07/2006	100	0	0	Yes	Regular	
Damayanti Inga	ABGPI2228H	M.Sc	30/06/2017	Chemistry	Assistant Professor	04/08/2008	100	0	0	Yes	Regular	
Mahesh Godse	CGTPG5931M	M.Sc	12/11/2020	Physics	Assistant Professor	05/02/2024	100	0	0	Yes	Regular	
Sagar Deshpar	ATVPD5322N	M.E/M.Tech	16/07/2016	Heat Power	Assistant Professor	03/09/2024	100	0	0	Yes	Regular	
Seema Dareka	BKOPD0764R	M.E/M.Tech	20/10/2016	Computer Engineering	Assistant Professor	10/02/2025	100	0	0	Yes	Regular	
Abhijeet Aiwale	BKDPA1024J	M.E/M.Tech	31/03/2022	Electrical Power system	Assistant Professor	22/10/2024	100	0	0	Yes	Regular	
Ajay Sonawane	EHRPS9111J	M.E/M.Tech	26/08/2019	Computer Engineering	Assistant Professor	18/09/2024	100	0	0	Yes	Regular	
Swati Narule	AUEPN9326L	M.E/M.Tech	10/08/2015	Digital Systems	Assistant Professor	10/10/2022	100	0	0	Yes	Regular	
Shruti Bajare	FYOPB6768P	M.Sc	13/09/2022	Physics	Assistant Professor	17/07/2023	0	100	0	Yes	Regular	
Anil Rakshe	BCNPR7799R	M.Sc	26/06/2008	Physics	Assistant Professor	23/01/2024	100	0	0	Yes	Regular	
JayashriShinde	GGRPS0511M	M.Sc	15/03/2015	Mathematics	Assistant Professor	18/02/2020	0	0	100	No	Regular	14/06/2023
Nilima Bawane	AXYPB7774M	M.E/M.Tech	10/08/2015	Heat power	Assistant Professor	22/09/2008	100	0	0	Yes	Regular	
Ankush Patil	CKVPP2112D	M.E/M.Tech	01/08/2013	HEAT POWER	Assistant Professor	06/02/2023	100	0	0	Yes	Regular	
Santosh Dabhc	AKYPD1491Q	M.E/M.Tech	15/04/2014	Production Engineering	Assistant Professor	05/08/2009	100	0	0	Yes	Regular	
Pratiksha Tanp	BNZPG8997H	M.Sc	21/06/2016	Organic chemistry	Assistant Professor	01/07/2020	100	100	100	Yes	Regular	
Bargavi Dalal	ASXPD8713C	M.E/M.Tech	23/10/2015	Cyber Security	Assistant Professor	21/08/2023	100	0	0	Yes	Regular	
Amol Bade	BSNPB6883N	MA	25/06/2013	ENGLISH	Assistant Professor	15/02/2024	100	0	0	Yes	Regular	
Ankita Gadeka	CWLPG9140G	M.E/M.Tech	12/12/2019	Computer Engineering	Assistant Professor	24/09/2024	100	0	0	Yes	Regular	
Ashwini Utture	CUXPS8122C	M.E/M.Tech	27/06/2013	Electronics	Assistant Professor	10/01/2025	100	0	0	Yes	Regular	
Sujata Jawale	BIMPG4622H	M.E/M.Tech	24/04/2024	Electronics and Telecommunication	Assistant Professor	22/05/2023	100	0	0	Yes	Regular	
Vallabh Shinde	EDJPS5653B	M.Tech	27/07/2012	Mathematics	Assistant Professor	01/12/2022	70	70	70	Yes	Regular	
Nutan Patil	AXPPP1006P	M.E/M.Tech	22/02/2012	VLSI Design and Embedded System	Assistant Professor	07/12/2010	100	50	50	Yes	Regular	
Shankarrao Ug	ABOPU4411E	M.Sc	21/07/2004	Mathematics	Assistant Professor	14/07/2008	25	25	25	Yes	Regular	
Kishor Khairna	BOBPK1227D	M.Sc	25/02/2010	Mathematics	Assistant Professor	15/03/2021	25	0	0	Yes	Regular	
Dr.Anand Daul	AEPPD6016E	M.Sc. and Ph.D. (Chemistry)	26/10/2013	organic synthesis and medicinal chemistry	Assistant Professor	01/07/2014	100	100	100	Yes	Regular	
Shivratna Saku	HPVPS3807G	M.Sc	08/07/2016	Mathematics	Assistant Professor	13/07/2017	0	0	100	No	Regular	31/10/2023
Harshal Chaud	BCZPC7112D	M.E.	09/11/2017	Design Engineering	Assistant Professor	08/01/2018	0	0	100	No	Regular	24/07/2023
Suresh Reddy	BSJPS4535G	M.E.	17/07/2014	Computer Science Engineering	Assistant Professor	16/03/2023	0	100	0	No	Regular	10/10/2023
Smita Thube	ABLPW6014A	M.E.	09/11/2017	Computer Engineering	Assistant Professor	23/01/2024	0	100	0	Yes	Regular	
Kirti Borahade	APFPJ1014D	M.E.	22/03/2016	Computer Engineering	Assistant Professor	29/01/2024	0	100	0	Yes	Regular	
Yogesh Pawar	AZNPP4202B	M.Tech	04/09/2014	Computer Science Engineering	Assistant Professor	01/07/2024	100	0	0	Yes	Regular	

Dr.Renuka Gou	AMXPG9219N	M.E. and Ph.D.	22/04/2023	Artificial Intelligence Image Processing Data Science Cloud Computing	Associate Professor	01/01/2025	100	0	0	Yes	Regular	

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment=(5*20)/FYSFR(Limited to Max.5)
2022-23(CAYm2)	300	18	17	5
2023-24(CAYm1)	360	20	18	5
2024-25(CAY)	960	45	21	5
Average	540	27	18	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 2.00

Institute Marks : 2.00

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]
2022-23	2	11	15	2.00
2023-24	2	11	18	2.00
2024-25	5	26	48	2.00

Average Assessment: 2.00

8.3 First Year Academic Performance (10) Total Marks 8.24

Institute Marks : 8.24

Academic Performance	2024-25	2023-24	2022-23
Mean of CGPA or mean percentage of all successful students(X)	9.19	8.04	8.41
Total Number of successful students(Y)	55.00	60.00	59.00
Total Number of students appeared in the examination(Z)	60.00	60.00	60.00
API [X*(Y/Z)]	8.42	8.04	8.27

Average API[(AP1+AP2+AP3)/3] : 8.24

Assessment [1.5 * Average API] : 8.24

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

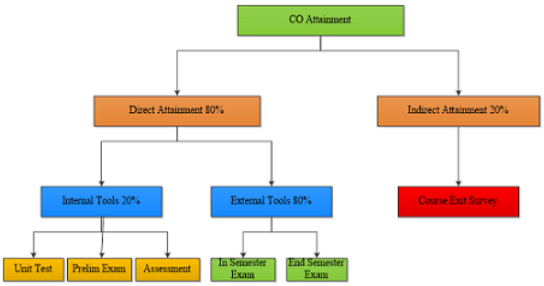


Figure 3.2.1 Course Outcome (CO) Attainment

Figure 3.2.1 illustrates the structured approach used to measure **Course Outcome (CO) Attainment**, which evaluates how effectively students achieve the intended learning outcomes of a course.

The attainment is divided into **two main components**:

1. Direct Attainment (80%)

This component is based on students actual performance in various assessments and constitutes **80%** of the total CO attainment.

a. Internal Tools (20%) These are institute-conducted evaluations:

- **Unit Test** – Short tests conducted on specific units or topics.
- **Prelim Exam** – Full-course mock exam before final university exams.
- **Continues Assessment**

b. External Tools (80%) These are conducted by the affiliating university:

- **In-Semester Exam** – Mid-semester university exam.
- **End Semester Exam** – Final university examination covering the entire syllabus.
- **Practical / Oral**

2. Indirect Attainment (20%)

This is derived from students feedback and perception and carries **20%** weightage.

- **Course Exit Survey** – Conducted at the end of the course to gather students' feedback on how well they achieved the course outcomes.

Purpose of the Model

- To ensure a balanced evaluation based on both performance and perception.
- To integrate continuous feedback for improving course delivery.
- To support Outcome-Based Education (OBE) and accreditation processes by demonstrating clear attainment mapping.

Assessment Tools

During the curriculum design process, each course is assigned engaging hours, assessment methods and marks and credits. Assessment methods are the strategies, techniques, tools, and instruments for collecting information to determine the extent to which students demonstrate desired learning outcomes.

The assessment process is divided into two parts:

a. Internal Assessment Direct Method (80%)
b. Indirect Method (20% of Course Feedback)

Twenty percentage (20%) weightage is given to Internal Assessment and Eighty percentage (80%) weightage is given to External Assessment.

The Internal Assessment tools such as Unit Tests, Preliminary Examination etc. are used at the Department level as per the Institute academic calendar and the External Assessment is done at the university level.

The assessment processes used to gather the data upon which the Evaluation of Course Outcome is based are as follows:

Sr. No.	Assessment Method	Description

01	Unit Test	Unit Tests serve as one of the key assessment tools for all theory courses across the curriculum. Each semester, a single Unit Test is conducted for First Year Engineering (FE), Second Year Engineering (SE), Third Year Engineering (TE), and Final Year Engineering (BE) students. The maximum marks allotted for this test are 30 marks. The syllabus for each course is divided into six units or modules. The Unit Test specifically covers the first two units of the syllabus. Questions in the Unit Test are designed to evaluate various levels of learning, including: • Knowledge recall • Conceptual understanding • Application of knowledge This assessment helps in measuring the students' grasp of fundamental concepts and their ability to apply them effectively. The performance in Unit Tests directly contributes to the Internal Assessment component of the course evaluation. Additionally, the results of Unit Tests are used to determine Course Attainment, which is a metric used for academic quality and continuous improvement in teaching-learning processes.
02	Continuous assessment	Courses that involve practical and hands-on learning components are evaluated through a combination of **Term Work** or Practical or **Term Work & Practical**, or **Term Work & Oral** assessments. While the **Practical and Oral assessments** are conducted **at the end of the semester** and are **not continuous** in nature, **Term Work** follows a **continuous assessment approach**. Term Work involves ongoing evaluation of students' practical knowledge and skills from the beginning of the semester till the end. Throughout the semester, students participate in scheduled practical sessions where they undertake a variety of laboratory exercises. These exercises are designed to enhance and assess students abilities in areas such as: • Writing algorithms • System design and implementation • Problem analysis • Application of various tools and technologies • Program development and execution • Technical documentation and report writing This continuous assessment helps in evaluating higher-order skills such as creativity, analytical thinking, and problem-solving. It also encourages regular engagement and progressive learning. The Term Work component is typically assigned a maximum of 25 or 50 or 100 marks, depending on the specific course requirements. Evaluation is based on several defined parameters: • Date of Checking – Timely and regular submission of work • Presentation – Clarity, neatness, and format of the submitted tasks • Performance – Accuracy and completeness of practical outputs • Understanding – Conceptual clarity and the ability to apply knowledge in practical scenarios • Oral/Interaction: Ability to confidently explain work, respond to questions, and engage in technical discussions. This method ensures a structured and ongoing evaluation of student performance, fostering consistent development of practical skills throughout the course duration.

03	Preliminary Examination	The Preliminary Examination is a crucial internal assessment tool conducted for First Year (FE), Second Year (SE), Third Year (TE), and Final Year (BE) students. It is designed to evaluate students understanding of the latter part of the syllabus, specifically covering Units 3, 4, 5, and 6 of each course. The exam is conducted for a total of 70 marks and aims to prepare students for their final university examinations. The question papers are prepared by the respective course teachers, who ensure that the questions align with various learning levels (such as knowledge, comprehension, application, analysis, and evaluation). While framing the questions, the Course Outcomes (COs) to be assessed through internal exams are carefully considered. After the examination: • Course teachers evaluate the answer sheets objectively and fairly. • Solutions are discussed with students to help them understand the correct approach and rectify their mistakes. • A result analysis is conducted to identify trends in student performance. • Based on the analysis, Course Outcome (CO) attainment is calculated, which serves as a feedback mechanism for both students and faculty to improve teaching and learning strategies. This assessment not only gauges students' preparation for final exams but also contributes to measuring the effectiveness of the teaching-learning process.Top of Form Bottom of Form

External Assessment Tools

Sr. No.	Assessment Method	Description
01	**End Semester Examination**	The End Semester Examination is conducted as per the schedule provided by **Savitribai Phule Pune University (SPPU)**. This includes Insem and End Sem Exam. - For FE, SE, TE, and BE students, the Insem Exam is conducted for 30 marks and End Sem exam is conducted for 70 marks, in accordance with the prescribed curriculum.
02	**Practical and Oral Examinations**	Practical and Oral exams are conducted as per the schedule given by SPPU. The practical and oral exam is conducted according to the curriculum.

Weightage assigned to the assessment tools

The below table shows the weightage assigned to the assessment tools based on the maximum marks of each assessment tool.

Internal Theory Course Assessment Heads and Their Weightage			
Assessment Heads	**Max Marks**	**Yes**	**Weightage**
Unit Test	**30**	**Yes**	**0.3**
Preliminary Exam	**70**	**Yes**	**0.7**

For **First Year (FE)** students, the internal assessment weightage is distributed as follows: 20% for Assessment, 24% for the Unit Test, and 56% for the Preliminary Examination.

Internal Continuous Assessment Heads and Its Weightage	
Assessment Heads	**Max Marks**
Date of Checking	**5/10**
Presentation	**5/10**
Performance	**5/10**
Understanding	**5/10**
Interaction	**5/10**

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

Institute Marks : 5.00

Course Attainment for 2023-24 Passout Batch (FE:2020-21)							
Course Code	**SUBJECT NAME**	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**	**CO6**
FE101T	**Engineering Mathematics-I**	**2.45**	**2.44**	**2.36**	**2.36**	**2.36**	**2.36**
FE102T	**Engineering Chemistry**	**2.62**	**2.46**	**2.37**	**2.38**	**2.36**	**2.36**
FE103T	**Systems in Mechanical Engineering**	**2.65**	**2.64**	**2.6**	**2.6**	**2.59**	**2.6**
FE104T	**Basic Electrical Engineering**	**2.47**	**2.54**	**2.4**	**2.37**	**2.48**	**2.5**
FE105T	**Programming and Problem Solving**	**2.54**	**2.52**	**2.49**	**2.48**	**2.47**	**2.48**
FE106L	**Workshop**	**2.6**	**2.6**	**2.58**	**2.6**	**2.59**	**2.59**
FE201T	**Engineering Mathematics-II**	**2.54**	**2.51**	**2.38**	**2.47**	**2.47**	**2.37**
FE202T	**Engineering Physics**	**2.55**	**2.53**	**2.49**	**2.47**	**2.47**	**2.49**
FE203T	**Basic Electronics Engineering**	**2.48**	**2.54**	**2.36**	**2.37**	**2.36**	**2.37**
FE204T	**Engineering Mechanics**	**2.48**	**2.45**	**2.37**	**2.37**	**2.36**	**2.37**
FE205T	**Engineering Graphics**	**2.58**	**2.55**	**2.56**	**2.53**	**2.55**	**2.51**
FE206L	**Project Based Learning**	**2.58**	**2.58**	**2.59**	**2.59**	**2.59**	**2.59**

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

Total Marks 20.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15)

Institute Marks : 15.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
FE101T	2.39	2.38	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.39
FE102T	2.42	2.42	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.49
FE103T	2.61	2.61	2.59	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.61
FE104T	2.46	2.46	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.46
FE105T	2.50	2.49	2.50	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.51
FE106L	2.59	2.59	2.59	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.59
FE201T	2.46	2.47	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.46
FE202T	2.50	2.50	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.50
FE203T	2.41	2.40	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.41
FE204T	2.40	2.41	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.37
FE205T	2.55	2.55	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.55
FE206L	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.49	2.49	2.57	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.49
CO Attainment	2.49	2.49	2.57	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.59	2.49

PSOs Attainment:

Course	PSO1	PSO2
	PSO1	PSO2

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)

Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2023-24)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.6	2.49	The target level for this PO1 is marginally achieved for 2023-24 Batch. Attainment Level for PO1 achieved for 2023-24 Batch is 2.49. Attainment Level for PO1 achieved for 2022-23 Batch is 2.42. Attainment Level for PO1 achieved for 2021-22 Batch is 2.54.
Action 1: Extra classes were conducted to strengthen students understanding of specific topics identified as challenging, ensuring better conceptual clarity. Action 2: Guest lectures by industry professionals and academicians were organised on relevant and advanced topics to broaden students subject knowledge and provide practical insights.			
PO 2 : Problem Analysis			
PO 2	2.6	2.49	The target level for this PO2 is marginally achieved for 2023-24 Batch. Attainment Level for PO2 achieved for 2023-24 Batch is 2.49. Attainment Level for PO2 achieved for 2022-23 Batch is 2.41. Attainment Level for PO2 achieved for 2021-22 Batch is 2.53.
Action 1. Students were provided with curated question banks to facilitate additional practice and strengthen their grasp of core concepts. Action 2. Past year-end semester university examination papers, along with model answers were shared with students to familiarise them with the exam pattern and improve their preparation.			
PO 3 : Design/development of Solutions			
PO 3	2.6	2.57	The target level for this PO3 is marginally achieved for 2023-24 Batch. Attainment Level for PO3 achieved for 2023-24 Batch is 2.57. Attainment Level for PO3 achieved for 2022-23 Batch is 2.50. Attainment Level for PO3 achieved for 2021-22 Batch is 2.91.
Action 1. Visits were organised to help students gain exposure to real-world engineering challenges, professional culture and societal impact, promoting contextual understanding of their field. Action 2. Interactive sessions were conducted to draw connections between theoretical concepts and real-world engineering problems, enhancing practical understanding and critical thinking.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2.6	2.59	The target level for this PO4 is marginally achieved for 2023-24 Batch. Attainment Level for PO4 achieved for 2023-24 Batch is 2.59. Attainment Level for PO4 achieved for 2022-23 Batch is 2.58. Attainment Level for PO4 achieved for 2021-22 Batch is 2.91.
Action 1. Students were given additional advanced-level problems to deepen their understanding and enhance analytical thinking in core subject areas. Action 2. Students were encouraged to enroll in NPTEL/SWAYAM courses and relevant course materials were shared to supplement classroom learning and broaden subject knowledge.			
PO 5 : Modern Tool Usage			
PO 5	2.6	2.59	The target level for this PO5 is marginally achieved for 2023-24 Batch. Attainment Level for PO5 achieved for 2023-24 Batch is 2.59. Attainment Level for PO5 achieved for 2022-23 Batch is 2.58. Attainment Level for PO5 achieved for 2021-22 Batch is 2.91.
Action 1. Virtual classes and laboratory sessions were conducted using ICT tools to enhance the effectiveness of teaching and ensure interactive learning. Action 2. Students were encouraged to utilize simulation software to better understand the modeling and analysis of engineering problems, bridging theory with practical application.			
PO 6 : The Engineer and Society			
PO 6	2.6	2.59	The target level for this PO6 is marginally achieved for 2023-24 Batch. Attainment Level for PO6 achieved for 2023-24 Batch is 2.59. Attainment Level for PO6 achieved for 2022-23 Batch is 2.58.
Action 1. Students were encouraged to consider safety, health, cultural, social, legal and environmental issues through expert-led seminars and case study discussions aimed at fostering responsible professional behavior. Action 2. Students were instructed to thoroughly read and follow safety protocols during laboratory sessions. Comprehensive safety guidelines were prominently displayed in laboratories and throughout the institute campus to ensure a safe working environment. Action 3. Active participation in NSS camps, environmental sustainability drives, blood donation camps and various social service activities enabled students to understand societal challenges and explore potential engineering solutions.			
PO 7 : Environment and Sustainability			
PO 7	2.6	2.59	The target level for this PO7 is marginally achieved for 2023-24 Batch. Attainment Level for PO7 achieved for 2023-24 Batch is 2.59. Attainment Level for PO7 achieved for 2022-23 Batch is 2.58.
Action 1. Presentations were organised to raise awareness and foster a sense of responsibility and belongingness towards environmental protection and sustainability. Action 2. Regular tree plantation activities were carried out on campus and in adopted villages as part of NSS and social extension initiatives, promoting environmental stewardship. Action 3. Case studies on historical and contemporary environmental issues, both national and international, were integrated into classroom discussions and presentations, actively involving both students and faculty to deepen understanding and engagement.			
PO 8 : Ethics			
PO 8	2.6	2.59	The target level for this PO8 is marginally achieved for 2023-24 Batch. Attainment Level for PO8 achieved for 2023-24 Batch is 2.59. Attainment Level for PO8 achieved for 2022-23 Batch is 2.58.
Action 1. Professional ethics and human values were incorporated into the induction training program to instill a strong ethical foundation in students from the outset. Action 2. During the conduct of various events and functions, teams of students will be made that help them to understand integration and a caring attitude for ethical development.			
PO 9 : Individual and Team Work			
PO 9	2.6	2.59	The target level for this PO9 is marginally achieved for 2023-24 Batch. Attainment Level for PO9 achieved for 2023-24 Batch is 2.59. Attainment Level for PO9 achieved for 2022-23 Batch is 2.58.

Action 1. Laboratory experiments, Problem-Based Learning (PBL) activities and group discussions were conducted both individually and in teams to foster teamwork. Results were closely monitored and assessed by the instructor to ensure effective learning outcomes. Action 2. During various events and functions, students were organised into teams, encouraging collaboration and promoting an understanding of integration, teamwork and ethical development through shared responsibilities.

PO 10 : Communication

PO 10	2.6	2.59	The target level for this PO10 is marginally achieved for 2023-24 Batch. Attainment Level for PO10 achieved for 2023-24 Batch is 2.59. Attainment Level for PO10 achieved for 2022-23 Batch is 2.58.
Action 1. Students are encouraged to actively participate in research and development competitions and hackathons to foster innovation and problem-solving skills. Action 2. Group discussions, debates and presentations are regularly organised as part of soft skills training programs to enhance communication, critical thinking and teamwork abilities.			

PO 11 : Project Management and Finance

PO 11	2.6	2.59	The target level for this PO11 is marginally achieved for 2023-24 Batch. Attainment Level for PO11 achieved for 2023-24 Batch is 2.59. Attainment Level for PO11 achieved for 2022-23 Batch is 2.58.
Action 1. Students are encouraged to participate in technical competitions from the outset of their course to develop project management skills and foster practical learning. Action 2. Case studies on project management were conducted as part of project-based learning activities to provide students with real-world insights and enhance their practical understanding of managing projects.			

PO 12 : Life-long Learning

PO 12	2.6	2.49	The target level for this PO12 is marginally achieved for 2023-24 Batch. Attainment Level for PO12 achieved for 2023-24 Batch is 2.49. Attainment Level for PO12 achieved for 2022-23 Batch is 2.46. Attainment Level for PO12 achieved for 2021-22 Batch is 2.55.
Action 1. Students were consistently encouraged to engage in value-added courses to enhance their overall development and acquire diverse skills. Action 2. Faculty members regularly inform students about the latest advancements in engineering and provide ongoing exposure to state-of-the-art technologies, fostering a culture of lifelong learning.			

PSOs Attainment Levels and Actions for Improvement- (2023-24)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : PSO1: Technical Proficiency and Problem Solving An ability to apply theoretical concepts and practical knowledge of Information Technology to analyze, design, develop, and manage information processing systems and applications. Graduates should be capable of identifying and defining appropriate computing infrastructure and operational requirements for solving real-world problems, and working effectively on large-scale computing systems.			
PSO 1	NA	NA	NA
NA			
PSO 2 : PSO2: Professionalism, Ethics, and Communication An understanding of professional, business, and ethical responsibilities, including legal, security, and social issues related to IT. Graduates will practice effective communication and decision-making skills, using appropriate technology to handle professional responsibilities and contribute to business processes in a socially responsible manner.			
PSO 2	NA	NA	NA
NA			

9 STUDENT SUPPORT SYSTEMS (50)

Total Marks 46.00

9.1 Mentoring system to help at individual level (5)

Total Marks 5.00

Institute Marks : 5.00

During the four years' journey through the undergraduate Engineering Programme, students often need mentoring, guidance and counseling in academic, professional and personal matters. To resolve day to day problems faced by students, Mentoring system has been introduced by the Institute to establish a better and effective student-teacher relationship. This is the continuous and consistent process till the end of the UG Programme of the student.

Overall student mentoring system is summarized in Table .9.1.1.

Table .9.1.1: Summary of student mentoring system

Type of Mentoring	Course work specific
	Academic Development
	Professional Guidance
	Career advancement
	Personal development and counseling
	Others
Number of faculty mentors / GFM (Guardian Faculty Member)	91
Number of students per mentor	25 (around)
Frequency of mentor meeting	Once in a Month and whenever required

I. Student-mentoring has the following objectives:

- To make the student feel at-home with and acclimatize smoothly to the new surroundings.
- To counsel the student for resolving their academic and personal problems.
- To inculcate moral values and professional ethics in student through interaction and activities.
- To assess the aptitude of students and accordingly guide them regarding their career.
- To impart personal and professional grooming to the student regarding their career.
- To monitor the student's regularity and discipline.
- To enable the parents to know about the performance of their ward.
- To enhance academic performance and attendance of students.
- To render equitable service to the student.
- To motivate the student to consciously improve their quality of life.

II. Process of Mentoring System:

Figure 9.1.1: Process of student mentoring system (click here) (https://drive.google.com/file/d/1ETXqgSGsiSh8ZWNMlHMhzabPO92_K3hc/view?usp=drive_link)

Appointment of mentor in charge and mentor:

Head of each programme appoints a mentor in-charge and mentor in-charge allocates mentor for students who take care of around 25 students.

Conduction of mentor meeting:

Mentors conduct meetings with students to resolve their problems related to academics, personal and professional matters. Mentor meetings are conducted once every month and records are maintained. Issues raised, if any, are discussed with PROGRAM COORDINATOR through mentor coordinator.

Resolution of student issues:

Mentor coordinator informs collected issues to the PROGRAM COORDINATOR, specific faculty, principal, in-charge of Student development cell, T&P, EDC cell, research and innovation cell for effective solutions.

Personal Counseling:

Along with faculty mentors, a professional counselor is also available to all the students. Students are counseled individually and supported in their aspirations related to academics, career plans, to identify their grievances and cope with issues which may impede their progress in the above areas.

Communication with parents:

Parent meetings are conducted for awareness about the mentoring system, college activities and student's overall involvement and performance. Follow up sessions other than regular meetings are arranged with the parents/faculty/counselors and mentors with the students who have weak performance and attendance to enable them to improve their attendance and performance.

Documentation of student mentoring:

As a student enters in First Year, a proctor form is generated and is carried forward to their mentors as the student progresses through the semesters. All the information of students throughout the eight semesters is maintained in proctor form.

III. Description of mentoring system:

Overall mentoring system is described in details in Figure 9.1.2 and Table 9.1.2

Figure 9.1.2: Types of mentoring system (click here) (https://drive.google.com/file/d/11ERvesSSHli1sPQ45Xt_GqnF4blCN5PU/view?usp=drive_link)

Table9.1.2: Description of mentoring system

S.N.	Type of mentoring system	Functions	Activities Guided

01	**Professional guidance** (Faculty and mentors)	Guide students related to skill enhancement for better employability as per requirement	Guided students to attend aptitude classes and Japanese classes.
		Encourage students for industrial training and internship through IIIC.	Guided students for industrial training through faculty contacts
		Publication in journals/Patents/ Copyright: Encourage students to publish review, research articles and filing Patents and Copyrights.	Guided students to file patents, copyright and write technical paper.
02	**Academic Guidance (Course Work Specific)** (Mentor, Course Coordinator, Class teacher, PROGRAM COORDINATOR)	**Information sharing:** Share information of academic Calendars, academic schedules and e-learning resources to enhance their knowledge database.	PPTs, Video Lectures, Notes and other Resources are shared with students
		Academic Counseling: Identify students with less attendance and ensure that they improve their attendance by getting counseled in the presence of mentor, counselor and PROGRAM COORDINATOR	Guide students with less attendance to improve their performance and encourage them to attend lectures.
		Support for the poor performers: Focus on weak students in academics.	Discussed the problems behind academic weakness and solve it by providing additional study materials.
3	**Career Advancement** (Mentor, Departmental T&P, Professional bodies In charge)	**Professional bodies registration**: To create awareness and to enhance the knowledge about the various activities and state of art research in the engineering domain.	The students are encouraged and guided to take membership in the professional bodies i.e., SAE, ISHRAE, FPSI, ACM, IEEE, IETE, ISTE.
		Value added training programmes: Students have undergone various training programmes to enhance their placement opportunities.	Encourage students to attend Add-on courses like 3D Printing, NX, CATIA, ANSYS, PYTHON, Soft Skill Android app development etc.
		Training & Placement Cell guidance: Provide career guidance, campus credential and other Training apart from arranging campus recruitment drives by the Training & Placement Cell.	Encourage students to study for Aptitude, Group Discussion (GD) and Personal Interview (PI) sessions and to make a strong profile by conducting various sessions.
4	**Personal Development** (Mentor, Departmental co-curricular and extra-curricular cell in charges)	Encourage and support students towards holistic development through participation in literary, cultural and sports activities which helps to develop leadership qualities, decision making abilities, team spirit, socio-psychological awareness, and shapes the student into an intellectually integrated person.	Students participated in Annual Gathering, Technical events, sports etc.
5	**Others (Personal counseling)** (Mentor (GFM), Institute level special counselor)	Empower and enable inner adjustments by individual students to counter and cope with physical, emotional, mental, social and environmental challenges through student-counselor interaction	Counselors are appointed to provide special counseling sessions to cope with physical, emotional, mental, social and environmental challenges.

IV. Roles and Responsibilities of mentor:

- To provide personal and professional guidance for development of students.

- To motivate students to take part in different competitions to improve leadership quality.
- To identify the root cause behind academic weakness of students.
- To encourage students to attend Add-on courses.
- To help students to improve their study habits and health habits.
- To create awareness and to enhance the knowledge about the various activities and research.
- Encourage and support students towards holistic development through participation in literary, cultural, social and sports activities.
- To provide guidance about choice of subject, courses and higher studies.

V. Appointment of personal Counselor:

The students during the course of their studies in the institute may face some difficulties and are unable to make the right decisions. To overcome psychological issues, personal counseling is provided by the institute. This Free Counseling facility for all students of institute is availed by students as per schedule given in Table 9.1.3;

Table 9.1.3: Summary of counseling facility

Day	Time	Venue
Wednesday	3:00 pm to 5:00 pm	Room No. 116

a. **Roles and Responsibilities of Personal Counselor: -**

- To assist students in learning to cope up with the social, emotional problem such as anxiety, depression, grief, loss, relationship issues, homesickness and abuse.
- To assist in personal and physical development.
- To help in utilization of leisure time.
- To Support in academic success and solve issues that may be barriers to success.
- To guide in understanding policy and adjust with the curriculum.
- To assist in the choice of subject, courses and studies, college.
- To help students to improve their study habits.
- To help in future jobs and education.
- To help to change his/her illogical thinking and unhappiness.

b. **Outcomes of Personal Counseling**

- Students are counseled on different issues like Emotional issues, Adjustment issues, Academic issues and Clinical cases.
- After counseling, positive changes were observed in students. Students were more confident, they could achieve many of their goals, and they built their relations with friends and families.

VI. Efficacy of the mentoring/counseling system:

Efficacy of the mentoring/counseling system is observed through improvement in following parameters

- The system has brought harmony among the teachers, students and parents.
- The students have been given personal and psychological support in difficult times.
- The attendance of the students has improved because of the mentoring system.
- The mentoring system has helped to enhance and sustain the learning competency of students.
- The system has provided scope for a healthy, positive and stress free state of mind.
- The mentoring has brought the personal and professional development of students.
- The mentoring has also equipped the students with various skills sets to make them employable professionals or entrepreneurs.
- The involvement of the students in the academics, co-curricular and extra-curricular activities has improved.
- In mentoring sessions, the individual student’s talents/skills have been identified and nurtured towards excellence.

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

Institute Marks : 10.00

Process for course feedback of faculties mainly consists of two phases;

I. Feedback collection and Analysis.
II. System of reward/corrective measures.

I. Feedback collection and Analysis process:

A. Feedback collection:

Feedback mechanism is a well-organized, confidential and anonymous system in the Institute for all courses. Computerized feedback is collected from students for all the courses through feedback form. Students rate the performance of course faculty based on the scale of 1 to 5 for parameters defined in feedback form. Overall feedback collection process is summarized in Table 9.2.1;

Table 9.2.1: Feedback collection process

Parameters	**Description**
Feedback Collection Process	Conducted for all courses in all programmes
Process	Hardcopy / softcopy of feedback form
Feedback Receiver	PROGRAM COORDINATOR of each programme
Feedback Executer	Feedback coordinator of other department
Frequency of feedback collection	Twice every semester
Metrics used for Calculation	5-Excellent 4-Very good 3-Good 2-Average 1-Poor
Purpose of feedback	Effective tool to achieve better teaching-learning process

Feedback parameters used for faculty feedback are well defined. Feedback parameters for theory and practical courses are different. Sample feedback reports of theory and practical courses are listed below in Figure 9.2.1 and 9.2.2 respectively.

Figure 9.2.1: Sample feedback report for theory course (click here) (https://drive.google.com/file/d/1xPYlvNKan4uimGMiWcec_H6kdL092Z-2/view?usp=drive_link)

B. Feedback Analysis:

- The response collected from the students is summarized and the results are obtained in the form of faculty competence on a scale of 5.
- All the parameters mentioned in the feedback form are analyzed.
- The ability of teaching with respect to each item and the comprehensive ability of the teachers is analyzed.
- Each answer carries certain marks and the average is calculated.
- The feedback average is communicated to the respective faculty members along with their feedback levels, to make them know their strengths and weaknesses.

II. System of reward/corrective measures and its effectiveness:

A. **System of reward:**

- Faculty with highest feedback is awarded as the best teacher. Faculties with consistent excellent feedback in last three years are appreciated by giving appreciation letter.
- Faculty with feedback above the threshold of 90% is appreciated by giving an Appreciation Letter.
- Students' feedback is one of the most important and governing point in self-appraisal.
- Faculties with excellent feedback are requested to act as mentors for the ones with unsatisfactory feedback.

B. **Corrective measures and its effectiveness:**

- If a faculty has unsatisfactory feedback they are counseled by PROGRAM COORDINATOR and Principal on the basis of root-cause analysis and recorded feedback.
- Faculties are suggested to undergo FDP, workshop, webinars and seminars for improvement in their specific subject. Improvement is monitored from time to time by program coordinator, if required.
- Faculties with unsatisfactory feedback are asked to follow guidelines of the appointed faculty mentor.

Figure 9.2.2: Sample Appreciation/Improvement Letter for Feedback (click here) (https://drive.google.com/file/d/1JPouJRS9BO5uAjLDTm5S63bEya_BM7E2/view?usp=drive_link)

Overall process of feedback (collection, analysis and corrective measure/rewards) is summarized in Table 9.2.2;

Table 9.2.2: Feedback collection and analysis process

Sr. No.	**Activity**	**Authorities**
1	Formation of Feedback Committee (Team of Dept. Feedback coordinators) and identifying Feedback Committee in-charge.	PROGRAM COORDINATORs, Principal
2	Assign responsibility to take feedback by interchanging departments of Department feedback coordinators	Academic Coordinator

3	Review of feedback form including performance measures (Academic, Admin, Infrastructure)	Principal, Academic Coordinator
4	Arrange Feedback activity as per departmental Activity Calendar and inform the concerned feedback committee members.	Department Feedback Coordinators
5	Prepare faculty-wise Students' Feedback reports	PROGRAM COORDINATOR, Academic Coordinator
6	Analysis of feedback, suggestions and Comments. Identify the areas for improvement and initiate corrective actions at department level.	PROGRAM COORDINATOR
7	Submit Feedback Analysis report to Principal and initiate corrective actions at institute level.	PROGRAM COORDINATOR, Academic Coordinator, Principal
8	Issue Faculty Appreciation/Improvement Letters	Principal
9	Conduct 2nd Feedback Analysis of feedbacks and initiate corrective actions.	Feedback In-charge, PROGRAM COORDINATOR, Principal

9.3 Feedback on facilities (5) Total Marks 5.00

NMIET has all the essential number facilities like classrooms, laboratories, library, canteen, hostel, mess, gymnasium, sports ground, transportation, etc. Some of the important facilities are highlighted below;

1. **Hostel:** The hostel is comfortably furnished with an accommodation capacity of 318 students. Institute provides separate hostels for boys and girls. The hostels are well guarded with adequate security. There has been sufficient hot-water facility powered by the solar system.
2. **Library:** The library at NMIET is a source of information and a gateway to Knowledge. Over the years, the library has grown in its Physical space and its digital space turning itself into a knowledge hub. The Library and Information Centre at NMIET was established in the year 2008. It is well equipped with textbooks, reference books, general books, magazines, Journals, CD ROM, Video lectures, online resources and other valuable reading material. Total 15867 volumes, 3869 titles, 12 International Journal, 73 National Journals; E- journals 01, 7 Magazines, E Books 5821, 1080 CD's are available in Library.
3. **Medical facility**- NMIET has tie up with nearby Hospitals for medical emergencies. First aid box is also provided in each department to give first and immediate assistance to persons suffering from either a minor or serious injury.
4. **Auditorium:** A well-furnished auditorium of 300 seating capacities and AC seminar hall of 120 seating capacity are available for organizing various technical and cultural events.
5. **Transportation facility**: Buses are provided for commutation of students in PCMC region. Transportation facility is also provided for special requirements like Medical Assistance, Industry Visits, etc.
6. **Canteen facility:** Specious and clean canteen is available to students and staff. Various food items are available at an affordable price. Food items are prepared and served with utmost care in clean and hygienic environment.
7. **Electricity and Power Backup:** In order to provide uninterrupted Power Supply for the Academic and Administrative activities following arrangements are made;

- Three phase electrical connections with 440 Volt High Tension and 22 KV electric supply from Maharashtra State Electricity Distribution Company.
- 200 KVA transformers with service points for distribution.
- 62.2 KVA electrical power generator set is provided as standby when MSEB mains supply is not available due to power shading / power failures.
- Rooftop solar panel system of 25 KW is installed in campus to generate electricity. This project received sponsorship of 5 lakhs from SPPU under QIP.

8. Water supply: the college receives its water supply from Talegaon municipality. All buildings are provided with water storage and overhead tanks. All floors are provided with drinking water purifiers and water coolers.

9. Housekeeping: Regular day to day cleaning is taken care of by an external Housekeeping Agency for keeping all the classrooms, laboratories, offices, lobbies, corridors and stairways clean and hygienic. Special care is being taken to sanitize all these areas as per requirement.

10. Security: Security agency is hired on a contract basis to look after the security of all buildings and campus. Guards are taking care of supervision activities 24x7 hours. During pandemic, the guards are taking special care to measure body temperature of each and every entrant and disallowing anyone to enter without masks.

11. Stationary center: In-campus stationary and photocopying center is available for the students.

The monitoring of usefulness and functioning of such facilities is done through students' feedback. Process for feedback on infrastructure and facilities is mainly consisting of three phases:

I. Feedback collection
II. Feedback analysis
III. Corrective measures/action taken

Overall process of feedback on facilities is as mentioned below;

I. Feedback collection process:

Students 'Satisfaction Survey will be carried out to get feedback on facilities, Institutional Effectiveness, Academic Support systems, Services such as admissions, examinations, Library, Cultural, Placement and Training, Canteen, Drinking water, Toilets, Safety, and overall satisfaction during their course of study throughout the program. The student feedback is collected at the end of the program.

The collected survey is analyzed and a corrective measure is taken wherever needed.

Following is the process of feedback on facilities.

1. Feedback collection process
2. Feedback analysis
3. Corrective measures

I.Feedback collection:

The feedback collection is based on all facilities provided by the institute. The feedback collection is once in an academic year. The sample feedback formats are shown in figure 9.3.1

Figure 9.3.1 Feedback on facilities sample feedback formats (click here) (https://drive.google.com/file/d/1o7zS0dgcciZIM3Hhvyp4rvmk_ucMQy5A/view?usp=drive_link)

II.Feedback analysis:

- Feedback collected is analyzed by departmental feedback in-charge and mentor in-charge and communicated to the PROGRAM COORDINATOR.
- Department level issues are solved by PROGRAM COORDINATOR and Institute level issues are discussed with the Principal by PROGRAM COORDINATOR through academic review meetings.
- Overall feedback about Institute facilities is also collected through students' representatives in CDC meetings and suggestions received through the suggestion box. Principal will initiate necessary actions based on feedback received.

III. Corrective measures:

Principal reviews the feedback and on consideration initiates the necessary action. For example, there was a comment on dinning space being inadequate in the canteen, upon which, additional space was made available for students. Also, issues related to parking space for students were resolved, acting on the suggestions received in feedback. The overall process of feedback on facilities is summarized in Figure 9.3.2 below.

Figure 9.3.2 Feedback collection and analysis process (click here) (https://drive.google.com/file/d/1LhdsMimlRMKvdWeEOMsBUcB_8jqqO9zS/view?usp=drive_link)

9.4 Self-Learning (5) Total Marks 5.00

Institute Marks : 5.00

Self-learning met Program Coordinator is an evolving form of learning that has emerged due to different learning resources provided by the Institute with which students can give appropriate direction to their studies, without any supervision. The self-learning mode helps the students in developing life-long self learning habits, which is invaluable for the progress in the career of every professional.

I. Scope for Self-Learning:

- Central Library
- Digital library (centralized in institute) for literature database i.e. J-Gate Engineering and Technology, Knimbus mobile application for remote access and E-books.
- Web based learning i.e. NPTEL, Swayamprabha, Coursera, E-Yantra, Webinars, YouTube, spoken tutorials etc.
- National Digital Library
- Innovation Centre and project lab
- Professional bodies (ISTE, IETE, IEEE, CSI, ISHRAE etc.)
- Club activities (SAE)
- Assignments
- Seminars, workshops, Symposiums and Exhibitions.
- Industrial visits/ Training
- CD ROMs study
- Classroom debates and presentations
- Technical and other Events
- Departmental library

II. Self-Learning facilities available in Institute

Table 9.4.1: List of Facility / activity Available in Institute

Sr. No.	Self-learning Facility/ activity	Description
1.	Laboratories	• Students are allowed to use Labs as per requirement.
2	Project lab	• Project lab is available for students where they can work for their projects and for activities like Aavishkar, E-YANTRA, Humanoid, Hackathon, Go-Kart etc.
3	Central Library	• The institute library is the collection of books and sources of information made accessible to students for borrowing or reference purpose • It includes books, data books, magazines, newspapers and journals. • Membership of ARAI, IIT Bombay central Library and Jayakar library (SPPU Pune), Mahratta Chamber of Commerce, Industries And Agriculture (MCCIA) Pune, British Council Library Pune • Turnitin, Quetexts and QuillBot Plagiarism grammar checking software is available • Wi-Fi and scanning facility
4	Digital Library	• Availability of e-Books, e-journal, audios, manuscripts etc. • Facility to access Coursera, NPTEL/ SWAYAM, you tube, Project reports, syllabus, University question paper • Subscribed e-journal package Science direct • Internet Facility
5	National Digital Library	• Institute membership of National Digital Library
6	Departmental Library	• Handbook for career guidance • Availability of Textbooks and reference books. • Facility of Project reports, seminar report
7	Web Based Learning	Web-based learning is one way to learn, using web based technologies or tools in a learning process. It is open source of media and materials like, images, text, videos, free software's • Facility of NPTEL, Swayam Prabha, Coursera, E-Yantra, Webinars, YouTube, spoken tutorials
8	Professional Bodies	ISHRAE, ACM, IEEE, IETE,ISTE and CSI chapters are established where students get knowledge about recent trends and innovation in respective domains.
9	Project Based Learning activity	• PBL activity implemented as per SPPU in curriculum from A.Y.2019-20. It is met Program Coordinator in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge. • PBL groups of 4 or 5 students are formed and with new ideas student learn technical as well as management skills
10	Club activity	• Different clubs such as Departmental associations, NSS, Art Circle etc. are available where students organize different events through which students get a platform to explore their skills.
11	Assignment activity	• It helps students to gain detailed knowledge about the topic to understand the subject in depth. • Teachers give the assignment regularly in the form of charts, write-ups, presentations ,quizzes etc.

12	Seminar/ Workshops/ Exhibitions	• Seminars /workshop / Exhibitions is a group activity which involves specific topics related to technology, entrepreneurship, Employment, competitive exams, IPR etc. • Benefits of seminars are improved communication skill, knowledge of recent trends and technologies. • Seminars and workshops are conducted frequently in the department and college level • Seminars offer students to interact with industry experts, research persons, entrepreneurs, small business partners and an idea for filing IPR
13	Industrial visit/ Training / Internship	• Industrial visit and training helps to understand industrial practice. • The gap between theoretical learning and practical exposure is truly bridged by industrial visits / training / internship • Through industrial visits students are able to clarify their doubts and silence their curiosities. • Students can communicate with the individuals in industries for a transparent plan of their dream job. • Provides an opportunity to plan, organize and engage in active learning experiences both inside and outside the classroom. • Industrial visit is a part of course curriculum during which students visit companies and get insight regarding the internal working environment of a company.
14	Classroom Debates, GD and Presentations	• Classroom debate is a formal discussion on a particular matter in a public meeting or legislative assembly, in which opposing arguments are put forward • Students are also given topic and asked to present in front of class • This helps students in gaining deep knowledge, communication skills and builds confidence in student for placement process.
15	Technical and other events	• Technical Events are organized by colleges to host events related to various technical aspects of what they learn. It helps in gaining practical application knowledge and building network • NMIET provide platform for students to participate in different inter and intra-colleges activities and technical events. • Along with Technical events, other extracurricular events also help students get a platform to explore their skills.

III. Utilization and its effectiveness

Objective of these facilities is to provide a platform for self-development. Students realize that the self-learning process is essential to develop them selves beyond the classroom. These facilities help students for career development and lifelong learning (Higher studies, employment and entrepreneurship). Utilization and its effectiveness for self-learning activity are highlighted below:

- As library facilities are not limited to college campus only, students are able to issue books to learn in their compatible environment. After college hours library facilities are also available to students. E-source, Technical articles, magazines, journals, project reports are available in the central library and digital library. Students are motivated to file patents, copyrights and publish articles through research journals.
- Books available in library, webinars/seminars and industrial visits help the students in awareness and success in higher studies, placements and entrepreneurship.
- Laboratories are always available to the students during college hours for self-learning, projects and various activities. After college hours laboratory facilities are also available to students as per requirement and with due permission.
- Through debates and presentations, students are able to develop their communications skills, exploring skills and confidence, which helps them in lifelong learning.
- Through professional body and club activity, students are able to learn teamwork, event management and technical skills, which help them for placements and encouragement in entrepreneurial development.

Utilization and Effectiveness of self-learning facility is summarized in Table 9.4.2:

Utilization						
	Year	**IT**	**COMP**	**MECH**	**E&TC**	
Higher studies	2024-25	2	00	01	03	Library, Web based learning, digital library
	2023-24	2	03	02	01	
	2022-23	3	01	01	01	
Certification Courses (NPTLE, Coursera etc.)	2024-25	18	129	03	16	Web based learning, digital library, , professional bodies
	2023-24	37	83	01	20	
	2022-23	04	127	02	00	
Projects	2024-25	15	79	11	21	Library, Web based learning, Digital library, professional bodies, Project lab etc.
	2023-24	19	52	15	21	
	2022-23	19	57	27	16	

Patents/ Copyrights/ papers	2024-25	Patent – 03 Copyrights –09 Paper-19	155	Copyrights-02 Patents-03 Papers-03	Copyrights-03 Patents-08 Papers-15	Library, Web based learning, National digital library, PBL, Industrial visit/training
	2023-24	Patent – 01 Copyrights –14 Paper-06	256	Copyrights-04 Patents- 02 Papers-12	Copyrights-03 Patents- 11 Papers-29	
	2022-23	Patent – Copyrights -03 Paper-26	83	Copyrights-22 Papers-12	Copyrights-06 Papers-20	

9.5 Career Guidance, Training, Placement (10) Total Marks 8.00

Institute Marks : 8.00

The training and placement (T&P) Cell of NMIET has been performing exceptionally well, pioneering several trends in training and placements, and setting several achievement records. It is a major contributing factor in making NMIET one of the most sought after Institutions. The highlight of the T&P activities is the exhaustive pre-placement activity carried out in each semester, right from Semester I. This innovative and professional approach in T&P is reflected in the MNCs, core industries and other high profile companies' placements. T&P Cell of NMIET has placed more than 2000 candidates through On-campus and Off-Campus drives.

I. Availability of career guidance facilities:

- NMIET offers career guidance on all aspects of career planning such as jobs, post-graduate studies/Entrepreneurship. Institute provides individual counseling for all the students towards reaching goals.
- Different cells such as training and placement, higher studies/competitive examination, industry institute interaction are formed at Institute level to provide guidance to students for career development.
- Details of different cells structure is given in Figure 9.5.1 :

Figure 9.5.1: Structure of career guidance, training & placement (click here) (https://drive.google.com/file/d/12DRw78JJsOlcBn_C-tUZatMknr2hZ_k3/view?usp=drive_link)

- Well-equipped space with all the necessary infrastructure, projection facilities, group discussions sections, counseling cubicles, interviewing rooms, etc. are provided for career guidance and placement cell.

A detail of physical infrastructure available is given in Table 9.5.1:

Table 9.5.1 Training & Placement Cell infrastructure facility at NMIET

Sr. No	Description	Number
1	T & P space and TPO Room (Room No. 115)	1
2	Interview Cabin (Room No. 115)	2
3	GD Room	Tutorial room of each Dept.
4	A.C. Seminar hall with audio/video facilities.	120 seating capacity

The college has a career guidance and placement cell with 4 staff members, including a full time placement officer.

- Higher studies/competitive examination cell and industry institute interaction cell have also been established at Institute level, which consist of Institute level coordinator and departmental faculty coordinator.

II. Career guidance and placement cell activities:

- To arrange Campus recruitment drives of various companies.
- To notify the students about various recruitment drives.
- To maintain the student database.
- To maintain all necessary records of the Training & Placement cell.
- To plan Internships, Internships – cum – Placements, placements for all the students.
- To orient students on core companies' opportunities and preparations required for placements.
- To interact with companies for remaining students placements and to invite them for internships, internships –cum – placements.
- To place non- eligible students at institute level and department level by inviting companies for internships, internships –cum – placements.
- To arrange mock interviews and GDs regularly so as to equip final and pre-final year students to face the challenges of recruitment scenario.

III. Pre-Placement Training activities:

- Well-structured programme for pre-placement training is effectively implemented in NMIET. Year-wise activities are planned from first year to final year to make students competent for better career opportunities. These activities are summarized in Figure 9.5.2

Figure 9.5.2: Details of Pre-Placement activities (click here) (https://drive.google.com/file/d/1LmvXNqNYZwkv99aU_nTVWf6Nt3gubDk5/view?usp=drive_link)

- Mock interviews and group discussion activities are conducted for third year students.
- Company specific tests such as Cocubes test, TCS Ninja, Eazy Agro Tech etc. conducted for third year students.
- Aptitude development training and soft skills development sessions are conducted for all programs.
- Hitbullseye, Campus Credentials are engaged to conduct aptitude development training which is scheduled as a part of academics.
- Technical and domain related sessions are conducted for all the students with basic programming subjects like C, C++, PYTHON, AUTO-CAD, Data Structures, Java, NX, ANSYS and also trained with core subjects.

Following are the activities carried under pre placement training:

Table 9.5.2: Details of Pre-Placement Training activities

E&TC Engineering				
Academic Year	**Details of activity**	**Speaker/Expert**	**No. of students participated**	**Date/Duration**

2024-25	Mock Interview Session	Mr. Vaibhav Wagh, Mrs. Shraddha Kirve, Ms. Pratiksha Mahajan, Ms. Kajal Ghag	28	12/07/2024
	Alumni Interaction Session	Ms. Harshada Sawant	25	14/8/2023,
	Alumni Interaction Session	Ms.Rutuja Bankar, Ms. Harshada Chaudhary	35	12/04/2025
	Cocubes PreAssessment Test	Cocubes	114	17/02/2025,20/02/25,24/02/2025
	Cocubes Final Assessment Test	Cocubes	47	29/07/25 3Hrs
	Professional Development Training Program	Ethnus	61	21/01/25 to 28/01/25, 6/2/25 to 8/2/25 and 20/3/25 to 22/3/25
2023-24	Group Discussion Activity For SE E&TC students	Mr. Aman Paniya	22	01/02/2024, 1Hr
	Cocubes PreAssessment Test	Cocubes	96	11/03/24,12/03/24
	Preplacement Training Program	Aptitech	56	18/01/2024 to 18/2/2024
	Alumni Interaction Session	Mr. Shubham Walunj	45	26/08/2023, 1 Hr
	Mock Interview Session	Mr. Dipak Ghule, Mr. Vaibhav Wagh	13	12/08/2024,3Hr
2022-23	Preplacement Training Program	Campus Credential	22	01/03/2022 to 01/04/2022
	Mock Interview Session	M Neha Joshi, Ms.Seema Zaware, Ms.Shagufta, Mr. Rahul Khod, Mr.Ankush Aghawane, Ms. Sadichha Kale	42	15/07/2022 to 23/07/2022
	Cocubes PreAssessment Test	Cocubes	133	9/11/2022,11/11/2022,4/11/2022

Computer Engineering

Academic Year	Details of activity	Speaker/Expert	No. of students participated	Date/Duration
2024-25	Quantitative Aptitude	Sumit Gaikwad	137	30 Hrs
	Logical Reasoning	Sumit Gaikwad	137	30 Hrs
	English	Prasant Shinde	137	30 Hrs
2023-24	Quantitative Aptitude	Musharraf Sir	150	30 Hrs
	Logical Reasoning	Nishant Sir	150	30 Hrs
	English	Prasant Shinde	150	30 Hrs
2022-23	Hitbullseye Aptitude & Logical Reasoning	Ankit Agarwal	50	20 Hrs
	Hitbulleyes Soft Skill Training	Ankit Agarwal	54	20 Hrs
	Hitbullseye Mock Interviews	Ms. Poonam Aswani	54	20 Hrs
	GDPI	Ankit Agarwal	62	20 Hrs
	Hitbullseye Technical Training	Ms. Jaspreet Kaur	55	20 Hrs

Mechanical Engineering				
Academic Year	**Details of activity**	**Speaker/Expert**	**No. of students participated**	**Date/Duration**
2024-25	Pre Placement Professional Training Development	Mrs. Sapna Sood, Mr. Bhushan Deodhar, Mr. Abhijit	47	150hrs
	CoCubes Pre-Assessment test SE,TE,BE	CoCubes	49	3hrs
2023-24	Apti Tech Pre-Placement Training session	Ms.Mahi Shah	48	150 hrs
	CoCubes Pre-Assessment test for TE,BE	CoCubes	49	3hrs
	CoCubes Pre-Assessment test for SE	CoCubes	23	3hrs
Information Technology Engineering				
Academic Year	**Details of activity**	**Speaker/Expert**	**No. of students participated**	**Date/Duration**
2024-25	Guest Lecture on Software Development Process in Industry	Narayan Ramakant Kavitake	45	4/7/2024
	Professional Development Training	Ethnus Codemithra, Bangalore	60	21st Jan 2025 to 22nd Mar 2025
	Pre-Test for Placement Readiness	Ethnus Codemithra, Bangalore	58	15th Jan 2025
	Aptitude, Soft Skills & Technical essential for placements	Ethnus Codemithra, Bangalore	56	15th Jan 2025 onwards 80 Hours
	Cocubes for SE,TE and BE Students	Cocubes	89	
	MaTPO Aptitude Idol-2024(for SE,TE,and BE)	MaTPO	78	10th August 2024
2023-24	Professional Development Training	Campus Credentials	54	3rd Jan 2024 to 13th Jan2024
	Aptitude, Soft Skills & Technical essential for placements	Campus Credentials	46	1st July 2024to 7th July 2024
	Cocubes Final Pre-assessment Test	Cocubes(BE)	37	12th March 2024
	Cocubes Final Pre-assessment Test	Cocubes(BE)	37	25th Nov 2023
	Mock Interview Sessions	Alumni	55	20 hrs

IV. Career counseling for preparation of Competitive Exam/higher studies

- Higher studies and competitive examination cells are formed at Institute level to provide guidance and facility to students related to higher studies and competitive examinations such as GRE, TOEFL, GATE, UPSC, MPSC, etc.
- The Higher Studies cell consists of Institute level coordinator for better coordination and communication.
- College and departments are organizes seminars on higher studies, Career guidance and motivational lectures by Alumni, entrepreneurs, External guests and faculty and conducts aptitude training sessions.
- Many books and periodicals related to higher studies and competitive examinations are available in the library for the students.

V. Industry interaction for training / Internship / Placement

- Industry Institute Interaction Cell (IIIC) is formed at Institute level to provide guidance and facility to students related to training, internship, and placement. This cell consists of Institute level coordinator and departmental faculty coordinator for better coordination and communication
- Experts are invited from various MNCs and other industries to give lectures on recent domain based advancements, cutting edge technologies & mechanisms; the state of art research topics, latest software's to enhance the knowledge in areas of Engineering and technology.

- Industry academia interactions are further strengthened by sending the students for internship in companies through MoU's and otherwise.

- A separate industrial visit coordinator is deputed to organize all the activities related to industry visits of students. Students are encouraged to go for industrial visits in each semester.

Table 9.5.3: Details of department wise Active MOU'S signed with industries

	A.Y.	IT	COMP	E&TC	MECH	TOTAL
No. of MoU'S signed by each Dept.	2024-25	14	21	16	13	64
	2023-24	13	19	14	13	59
	2022-23	13	19	14	13	59

VI. Placement process and support for students

A. NMIET training and placement cell provides placement and support for placement to students. Details of process are given below;

- To identify the company for campus recruitment & communicate with company HR.
- To confirm the date & eligibility criteria suggested by the company.
- To communicate to PROGRAM COORDINATOR or Training & placement faculty coordinators & students about date& criteria of campus drive by email.
- To complete the registration of students appearing for the campus drive & verify the student's documents as per the need of the company.
- To arrange pre-placement talk of the company professionals for the students.
- To support the conduction of aptitude/technical test by company (Online/Offline).
- To arrange the group discussion & technical / HR interviews of shortlisted students as per requirement of companies.

B. In addition, Placement is also done for Non- eligible Students by the central placement cell as well as at department level by inviting companies for internships, internships–cum – placements etc.

C. In order to get maximum placement in core companies, departmental T&P coordinator is in contact with the industries which will help students for industrial projects, internships and their placements.

VII. Efficacy of career Guidance, Training, Placement

a. Efficacy of career Guidance, Training, Placement cell facilities is summarized in Table 9.5.4

Table 9.5.4: Impact of career guidance, training, placement

Department	Academic year	Total no. of students	No. of students placed	No. of students admitted to Competitive Exam/Higher studies	No. of students as entrepreneur	No. of Internship
COMP	2024-25	153	80	00	00	153
	2023-24	150	73	03	00	150
	2022-23	81	59	1	00	81
IT	2024-25	63	35	2	1	63
	2023-24	64	47	2	1	64
	2022-23	64	22	-	-	64
E & TC	2024-25	60	18	03	-	60
	2023-24	58	35	01	-	58
	2022-23	46	37	01	-	46
MECH	2024-25	38	15	00	00	61
	2023-24	59	36	02	00	41
	2022-23	102	58	01	00	26

b. Special achievements of Training and placement cell

Table 9.5.5: Some Remarkable Placement Record

Department	Academic Year	Name of the Student	Name of the Industry	Position / Post	Package per annum
COMP	2024-25	Atharv Meher	Connectwise	Software Engineer	10
		Vaishnavi Sakpal	HSBC	Software Engineer	9
		Nikita Vijaykumar Gare	PTC	Associate Technical Writer	9
	2023-24	Vaibhav Jadhav	Barclays	Software Developer	12.5
		Ritik Singh	Barclays	Software Developer	12.5
		Vibha Wagh	Barclays	Software Developer	12.5
	2022-23	Gaurav Pande	SAP Labs India.	Software Developer	15
		Ajay Rajkumar Jagtap	Eq technologic	Software Developer	13.8
		Dnyaneshwari Tilekar	Barclays	Software Developer	12.5
IT	2024-25	Ruma Hatturkar	HP	7.4	Software Engineer
		Pranav Badhe	Cognida.ai	7.0	Software Developer
		Deshmukhe Aniruddha Vijay	TATA Consultancy Services	7.00	Software Engineer
	2023-24	Attarde Nikhil Satendra	Eidiko Systems Integrators &TCS	7.00	Software Engineer
		Dev Garg	Amazon	28	Cloud Developer
		WABLE ABHISHEK NANASAHEB	TCS Digital	7.4	Software Developer
	2022-23	TAMHANE ADITYA DHRUVABAL	Hitachi Vantara	6.5	Software Developer
		WABLE SANGRAM SAMBHAJI	TCS Digital	7.4	Software Developer
E & TC	2024-25	Medha Narayan	HPE	7.48	Software Developer
		Lakita Patil	Uno Minda	5.5	Software Developer
		Shubham Patange	Uno Minda	5.5	Software Developer
	2023-24	Mali Rutuja Vishnu	Vitesco	24	Software Developer
		Pejal Dhirendra Waghmare	TCS	7	Software Developer
		Sawkar Piyush Deepak	Amagrade	6	Software Developer
	2022-23	Kumar Aditya	Nielseniq	8	Software Developer
		Dhumal Abhijeet	Qualys	7	Software Developer
		Patil Ashutosh	Qualys	7	Software Developer

MECH	2024-25	Jayendra Botre	Aqua Chill System India	4.5	Graduate Engg. Trainee
		Atharva Parte	Tata Technologies	4.5	Graduate Engg. Trainee
		Pathak Shreyash	Radiance Hydrauliuc	3.25	Graduate Engg. Trainee
	2023-24	Aakansha Kambale	Mercedes - Benz	8	Graduate Engg. Trainee
		Mrunmayee Gadre	Mercedes - Benz	8	Graduate Engg. Trainee
		Somnath Badkar	Force Motor	3.24	Graduate Engg. Trainee
	2022-23	Chetan Shivprakash Agroya	KPIT	4.5	Graduate Engg. Trainee
		Mahesh Mahajan	Godrej & Joyce Ltd	4.32	Graduate Engg. Trainee
		Rohit Kolhe	Spark Minda	4.5	Graduate Engg. Trainee

9.6 Entrepreneurship Cell (5) Total Marks 5.00

Institute Marks : 5.00

I. Incubation and Entrepreneurship Cell NMIET

Entrepreneurship development cell (EDC) works on developing innovative thoughts and ideas in student's minds and converting these into commercial products. EDC was started in NMIET from 2019-20. Students are main resources and they can get opportunities to expose their skill and excellence. Innovations are essential for technological development, which should begin in the Institute campus itself. A survey called Career Options was conducted and the aptitude and interest shown by the students towards entrepreneurship further strengthened and accelerated the growth of EDC.

a. **Aim**- On mission towards building an enterprising India, Entrepreneurship Cell is committed to develop and strengthen entrepreneurial qualities in students.

b. Objectives-

- To inculcate "entrepreneurship as a career option" in students and to inspire students to take up the challenge of entrepreneurship.
- To promote creative thinking and an entrepreneurial mindset among the students.
- To build entrepreneurial capabilities through Technology Incubation and entrepreneurship training and equip them with necessary skills, fund support, mentoring, evaluation and prototype branding.
- To promote innovation and product orientated research and development.
- To encourage the development of ingenious products and packages and bridging the gap between R&D and commercialization.

c. EDC Structure-

To provide guidance and conduct different activities related to entrepreneurship, EDC is formed at NMIET, which consists of institute level faculty in-charge and each department faculty member. Detailed structure of EDC is given in Figure 9.6.1;

Figure 9.6.1: Structure of EDC (click here) (https://drive.google.com/file/d/1E8oodZJk8PkvO4eQfwz5gYuPCareSmun/view?usp=drive_link)

d. EDC Survey for Career Option Form (COF)

- EDC was established in the year of 2019-20 at institute level to support and motivate the students to undertake the innovative ideas which could be converted into successful startups or enterprises.
- To know the exact inclination of the students towards various career options available, the career option form designed and the responses of the students were recorded and analyzed.
- It was apparent from the analysis (COF) that the number of students interested in entrepreneurial activities was considerable. In view of that, EDC provides all the guidance to the students.

II. EDC activities

To create awareness about entrepreneurship & motivation among students EDC organized different activities. These activities are summarized in table Table9.6.1:

Table 9.6.1: List of activity conducted through Entrepreneurship Development cell

Sr.No	Activity Particulars	Date	Outcome
01	Technotsav	14thMay 2022	25 MoU industry members discussion
02	MECH WAVE 2022	17thOct 2022	25 copyrights, MoU Signed, center of Excellence inauguration
03	Techcult	6th May 2022	5 MoU signed
04	Techmanthan	8 April 2022	6 students got internship

III. Effectiveness of EDC

EDC has provided the platform for the students of all the departments to showcase their talent and skills related to incubation and entrepreneurship. The students are getting benefited in the following ways;

- The platform is provided for the students who are really willing to undertake incubation and entrepreneurship.
- More students are going for this option and the trend is encouraging.
- Financial assistance/Funding and guidance is made available for the ideas of the students having potential to be successful startups/enterprises by EDC in coordination with the Institute.

IV. Nutan Incubation Foundation

NMIET has dedicated incubation center entitle "Nutan Incubation Foundation (NIF)"(Website: https://nutanincubationcentre.com (https://nutanincubationcentre.com/)) incorporated on 20th July 2023 under the sub section 8 of Companies Act 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rule 2014 which is a not-to- profit organization and is registered in NGO Darpan created by NITI Aayog, Government of India.

NIF build and nurture the community in the state of Maharashtra including its Tier-2 and Tier-3 cities with respect to the startup and innovation ecosystem.

Objective of NIF:

To provide comprehensive support and resources to students and the community, fostering an entrepreneurial mindset and enabling the creation of innovative, high-growth startups that have the potential to become the next unicorns.

Through the programs, mentorship, and access to resources, we aim to equip students with the necessary skills, knowledge, and networks to develop disruptive ideas, build successful startups.

Vision:

Our vision is to become the premier one-stop supporting arm for students and the student community, empowering them to unleash their entrepreneurial potential, solve real-world problems, and build scalable businesses that drive economic growth and societal impact.

Mission:

Our mission is to create a vibrant ecosystem which nurtures and guides students in their entrepreneurial journey. We strive to provide a conducive environment where creativity, collaboration, and risk-taking are encouraged

At the NMIET campus at Talegaon, Pune; NIF groomed 3500^{+} students, by generating 90^{+} ideas, with 25^{+} registered incubates, 9^{+} Startups and mentoring 900^{+} students with 25^{+} events and 50^{+} awareness sessions. We have collaborated with SIDBI under cluster Intervention Program, ISBA and other renowned Partnership to strengthen "Startup Ecosystem"

- Startup Ecosystem by the NIC
- Our Co-Working Space is the perfect place to work with a quiet and collaborative environment. The Pre-Incubation Programs of NIC is specially designed to support the innovation and ideas generated by the students & community to help them make a reality. It organizes various capacity-building programs aiming to bring different expertise to the startup community and expand the

horizon by industry mentors.

9.7 Co-curricular and Extra-curricular Activities (10) Total Marks 8.00

Institute Marks : 8.00

I. Co-curricular Activities:

Co-curricular activities act as supplement and catalysts in understanding of curricular subjects by the students. Various Co-curricular activities such as students' association activities, Seminars, Workshops, Certificate courses, Lectures by experts in technical areas, technical events and industrial visits are organized for the benefit of students under co-curricular activities. Institute provides travelling allowances, registration expenses and the like for participating students and faculty. This encourages the beneficiaries to partake co-curricular activities in large numbers. Various co-curricular activities are summarized in Figure 9.7.1:

Figure 9.7.1: Summary of Co - curricular activities (click here) (https://drive.google.com/file/d/11b9tbda0phNa2WS9xBVaTmnRu7ppLiRy/view?usp=drive_link)

a. Student associations and chapters:

Each department has active student associations and chapters which organize various activities for development of students. Students associations and chapters were formed to bring about the technical development of students by organizing seminars, workshops and other activities and also to improve non-technical abilities of students by inculcating good communication skills, managerial abilities, presentation skills and team work. Department wise student associations and chapters are listed below:

- **ACES (Association of Computer Engineering Students)**
- **EESA (Electronics Engineering Students Association)**
- **SAIT (Student Associations of Information Technology)**
- **MESA (Mechanical Engineering Student Associations)**
- **Student chapters -IEEE, IETE, ISHRAE, ACM, FPSI etc.**

b. Summary of co-curricular activities:

v. Different curricular activities organized at each department under co curricular activities are summarized in Table 9.7.1.

Table 9.7.1: Summary of co -curricular activities of NMIET

Co-curricular activities	A.Y.	IT	COMP	E&TC	MECH	TOTAL
No. of Workshops / Seminar / Certificate Courses / Technical events Organized By Each Dept	2024-25	04	2	5	10	21
	2023-24	05	2	4	00	11
	2022-23	04	9	3	03	19
Expert Talks By Each Department	2024-25	02	6	6	01	15
	2023-24	02	6	4	02	14
	2022-23	02	5	2	04	14
No. of Industrial Visit Organized By Each Department	2024-25	01	4	4	06	15
	2023-24	01	0	2	06	9
	2022-23	01	0	2	05	8

c. Outcomes of co-curricular activities:

A.Y.2021 -22:

- "ICAETBM– 2022" International conference on Advances in Engineering, Technology & Business Management International conference on Advances in Engineering & Technology was conducted successfully by online platform at Department of E&TC & IT, NMIET Talegoan, on 22nd and 23rd February 2022.

A.Y.2020 -21:

- "ICAET – 2020" International conference on Advances in Engineering & Technology was conducted successfully by online platform at Department of Mechanical Engineering NMIET Talegoan, on 2nd November 2020.

II. Extracurricular activities:

Technical knowledge and cultural arts are two sides of the same coin. NMIET believes that without the recreation of cultural activities, development in technical knowledge is incomplete. The Institute motivates the students to get actively involved in extracurricular activities such as student associations activities, sports, art circle and NSS activities, which helps students in their overall development. Extra-curricular activity also helps students to expand their network, which is beneficial for finding career opportunities after graduation. Various Extracurricular activities are summarized in Figure 9.7.2

Figure 9.7.2: Summary of Extra-curricular activities (click here) (https://drive.google.com/file/d/1j3glRabiUDBwYq9FbrpeDuJ9HMwxYA8k/view?usp=drive_link)

A. Sports:

Physical activity and exercise, including sports, is invaluable for mental, physical, psychological and social growth of every student. Sports section at NMIET is equipped with indoor and outdoor facilities for the staff and students to take part in individual and group activities. The Institute has sufficiently large open ground for outdoor sports with an open gymnasium. The indoor activities include Carrom board, chess board, Table tennis, badminton, etc. Students are encouraged to and provided funds for participating in intra and inter university tournaments. Every year annual sport competitions have been organized in the institute named as "Sport Days".

a. Availability of sports facilities:

Table 9.7.2: List of indoor sports facility available in the campus

Sr.No.	Name of the sport Facility	Place of availability
1.	Carrom	Sport Department
2.	Chess	Sport Department
3.	Table Tennis	Sport Department

Table 9.7.3:List of outdoor sports facility available in the campus

Sr. No.	Name of the sport facility	Place of availability
1	Volleyball	Open ground
2	Basketball	Open ground
3	Cricket	Open Ground
4	Kho-Kho	Open Ground
5	Kabbaddi	Open ground

Table 9.7.3: List of Grants Received

Sr. No.	Academic Year	Grant Received by College	Name of the sports	Grants Given By
1.	2022-2023	Rs. 7,90,000	Weightlifting Equipment's	Regional Districts Sport Office Pune
2.	2022-2023	Rs. 8,00,000	Weightlifting Platform for Competition	Regional Districts Sport Office Pune

Table 9.7.4: List of Students Participated in Different Sports at National/District Level

Sr. No.	Academic Year	Total Number Of Students Participated	Name of the sports
1.	2022-23	2	Swimming
2	2022-23	4	Chess
3	2022-23	4	Badminton
4	2022-23	10	Kabaddi
5	2022-23	1	Boxing
6	2022-23	16	Football
7	2023-2024	5	Trekking
8	2023-2024	8	Badminton
9	2023-2024	1	Swimming
10	2023-2024	4	Weightlifting
11	2023-2024	3	Athletics
12	2024-2025	3	Athletics
13	2024-2025	6	Badminton
14	2024-2025	5	Table Tennis
15	2024-2025	3	Power Lifting

- Nutan Maharashtra Institute of Engineering & Technology (NMIET) organized a Pune District-level Powerlifting Competition for AY 2024-2025.
- National Sport Day on 29/08/2022 at Savitribai Phule Pune University (SPPU); total 30 number of students participated from Nutan Maharashtra Institute of Engineering and Technology, Talegaon.
- Mr. Pranav Sapkal from SE IT has been secured 2nd Place in Inter college district level 100 m swimming competition held at Vishwasrao Ransing College Indapur Pune, on 12/10/2022.
- Four students from NMIET participated in Inter college district level CHESS competition held at PCCOE Nigadi, on 16th and 17th October 2022.
- Twelve students from NMIET participated in Inter colleges district level Football Competition held at SIT Lonavala on 28th to 30th October 2022

- Twelve students from NMIET participated in Inter colleges district level KABADDI Competition held at Annasaheb Aute Collage, Mancharon 01/11/2022.

- For each academic year NMIET organized college level inter departmental sport activities entitled “VIHANGAM”.

B. Student Association activity:

Different Extracurricular activities are organized by the departmental student association which helps students to expand their network which is beneficial for finding career opportunities after graduation.

Table 9.7.4: Details of extra-Curricular activities organized by each department

Extra-Curricular activities	A.Y.	IT	COMP	E&TC	MECH	TOTAL
No. of Extra-Curricular activities Organized by Each Dept	2024-25	02	10	03	03	18
	2023-24	02	5	02	03	12
	2022-23	02	8	02	03	15

- **Some Extra-Curricular Activities Organized in NMIET.**
- Mechanical Department has organized Puzzle Competition on 26/09/2022. Total number of participants 25.
- Mechanical Department has organized Water rocket competition on 09/11/2022. Total number of students 57.

C. National Service Scheme (NSS):

- National Service Scheme (NSS) has been introduced at SPPU since 1969 as a part of the academic Programmes and since then NSS has been functioning as a regular feature in the realm of our university education.
- NSS is a voluntary association of students in Colleges, Universities. The cardinal principle of the NSS Programme is Development of the Personality of College Students through Community Service. Motto of NSS is NOT ME BUT YOU
- Special campaigns are organized generally on various developmental issues of national importance. The NSS Camp is of 7 days duration. The projects should be selected as per the guidelines, after identifying the needs of the village.
- The strength of the NSS Unit of NMIET is 50 volunteers. Details of institute NSS Cell structure and facility provided are summarized in Figure 9.7.3 .and Table 9.7.5 respectively.

Figure 9.7.3: Structure of institute NSS Cell (click here) (https://drive.google.com/file/d/1CElYk0B6kxPKXtKMwCZuwzlWI-SayBjf/view?usp=drive_link)

a. **Availability of NSS facilities:**

Table 9.7.5. List of NSS facilities available in the campus

Sr. No.	**Name of the facility**	**Numbers Available**	**Place of Availability Room No.**	**Whether available beyond regular college**
1	NSS Room	01	016	Yes
2	NSS Store Room	01	016	Yes

c. NSS activities:

a. **Some special activities conducted by NSS**

- NMIET, NSS conducted Cleanness drive at Talegaon Dhabade Lake, on 19.12.2022.
- **Objective of Activity**: – To get the awareness about cleanness and hygiene at public place.
- **Number of students Involved**: – 300
- **Outcome Achieved:** – The students become aware of cleanness and hygiene.
- NMIET, NSS conducted Cleanness drive at S.T. Depo Talegaon, on 07.01.2023.
- **Objective of Activity: –** To get the awareness about cleanness and hygiene at public place.
- **Number of students Involved: –** 45
- **Outcome Achieved: –** Students become aware of social activity like hygiene and cleanness.

- NMIET, NSS organized Blood Donation Camp, on 26.12.2022.
- **Objective of Activity: –** Create awareness among the students for social activity
- **Number of students Involved: –** 200
- **Outcome Achieved: –**
    1. Recorded Blood collection 79 bags
    2. Students become aware of social activity like blood donation.
    3. H. B. and blood group checking of all the participants (200).
    4. To reduce the blood shortage of Dr. BhausahebSardesai rural hospital Talegaon.

Different Extra-Curricular activities organized by NSS cell are summarized in Table 9.7.6.

Table 9.7.6: Details of extra-Curricular activities organized by NSS

Sr. No.	Name of Event	Place	No. of Participants	Date of Event
A.Y. (2024-2025)				
1	NSS special camp at Bhadwali Village	Bhadwali	15	19th to 23rd March 2025
2	Cleanness drive at Bhadwali	Bhadwali	15	19th to 23rd March 2025
3	Health and education survey in the village	Bhadwali	15	19th to 23rd March 2025
4	Sampling distribution to the villagers	Bhadwali	15	19th to 23rd March 2025
A.Y. (2023-2024)				
Sr. No.	**Name of Event**	**Place**	**No. of Participants**	**Date of Event**
1	S.T. depo cleanliness drive	Talegaon Dabhade	25	18th April 2024
2	Blood donation camp	NMIET	19	10th August 2023
3	Blood donation camp	NMIET	30	23rd March 2024
4	NSS special camp at Dongerwadi village	Dongerwadi village	50	27th Jan. to 2nd Feb. 2024
5	Digging hole in village for tree plantation.	Dongerwadi village	50	27th Jan. to 2nd Feb. 2024
A.Y. (2022-2023)				
Sr. No.	**Name of Event**	**Place**	**No. of Participants**	**Date of Event**
1	Yoga Day	NMIET, Talegaon	59	21st June 2023
2	Talegaon lake cleanness drive	Talegaon	59	07th Jan. 2023

D. Art Circle:

- The Art Circle is an integral part of the Institute. There is an Art circle committee that conducts extracurricular activities in college. Annual Social Gathering “VIHANGAM” is arranged every year. The aim of the gathering is to provide a platform for students to showcase their talents and sharpen the organizational skills.
- Students participate in various extracurricular activities like Drama competition, Dance competition, Singing competition, Rangoli, Art and Craft, Mehandi etc., along with the celebration of various days like Traditional Day, Group Theme day.
- The Art circle has organized various activities for encouraging students to share their ideas through Marathi Bahasa divas; Elocution and debate competition etc. These activities are beneficial in developing leadership skills and make them work in teams.

III. Annual Student Activities:

- Students orientation sessions for FE at institute level and SE at programme level have been conducted in the programme, so as FE, SE students get familiar with programme activities, policies and facilities. This benefits them in getting comfortable in NMIET for their academic and other activities.
- Annual social gathering such as “VIHANGAM” has been organized by NMIET students.
- Farewell function for final year students has been organized in each programme by student associations.
- International Yoga Day function is organized in NMIET for all students and faculty members.
- Annual sport competitions have been organized in NMIET during the **VIHANGAM** (annual social gathering week).
- Alumni Meet has been organized in NMIET every year.
- Shiv Jayanti celebration.
- 26th January & 15th August
- Teachers Day celebration
- Engineers Day celebration
- NAVARATRI and Khandnavami Celebration

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120) — Total Marks 110.00

10.1 Organization, Governance and Transparency (40) — Total Marks 40.00

10.1.1 State the Vision and Mission of the Institute (5) — Institute Marks : 5.00

Vision :
To be a notable institution for providing quality technical education and ensuring ethical, moral and holistic development of students.
Mission :
To nurture engineering graduates with state of the art competence, professionalism and problem solving skills to serve needs of industry as well as society.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10) — Institute Marks : 10.00

Nutan Maharashtra Institute of Engineering & Technology is established in the year 2008 as a self-financing Institute founded by and managed by “Nutan Maharashtra Vidya Prasarak Mandal’s (NMVPM) Trust” and under administrative support of “Pimpri Chinchwad Education Trust’s (PCET) Trust”.

The governing body, administrative setup, functions of various bodies

In order to meet the organization’s objectives and to bring transparency, the organization structure and flow of authority is well defined. The duties, responsibilities and powers are assigned and coordinated at the different levels of management.

The college has the following committees to ensure proper management of academic, financial and general administrative affairs.

1. **Governing Body (GB)**
2. **College Development Committee (CDC)**
3. **Internal Quality Assurance Cell (IQAC)**

1. Governing Body (GB)

Governing Body is the supreme directing of the NMIET and is responsible for articulating the Organization’s Vision and Mission and for major policy decisions. Governing Body (GB) provides the necessary direction for growth of the Institute. GB governs and monitors the growth and development of NMIET through following:

Functions and responsibilities:

1. To guide and govern the overall growth and development of NMIET
2. To approve the budget estimated for the Financial Year in advance recommended by CDC.
3. To approve posts of Teaching and Non-Teaching (Technical and Administrative) staff requirement for the Institute.
4. To consider and approve the proposal for creation of infrastructure such as Building, Equipment, Library and Staff on a continuous basis.
5. To consider and make provisions for meeting the general and specific conditions laid down by the council (AICTE), the State Government, Affiliating Body and monitor the progress in fulfilling the conditions.
6. To supervise the observance of service conditions for the staff as prescribed by the Affiliating body/Government.
7. To approve recommended Minutes of Meeting (MOM) of CDC
8. To consider any other matter in so far as it enhances the Academic atmosphere in the Institution.
9. To consider any proposal for extension of Educational activities to be made to the Council / Government / Affiliating body.

Constitution of Governing Body

Sr. No.		Governing Body Members	Name of the Member	Designation
1	a	Chairman of the Registered Society / Trust	Shri. Sanjay Bhegade	Chairman
2	a	Nominated by the Registered Society / Trust	Shri. Ganesh Khandge	Member
	b		Shri. Santosh Khandge	Member
	c		Shri. Rajesh Mhaske	Member
	d		Shri. Nandkumar Shelar	Member
	e		Shri. Ramdas Kakade	Member
3	a	Nominee of the AICTE-Regional Office (Ex-Officer)	WRO, Mumbai, Representative	Member
4	a	An Industrialist /Technologist / Educationist as nominee of the council	Industrialist nominated of the council Representative	Member
	b		Teaching nominated of the council Representative	Member
	c		Education nominated of the council Representative	Member
5	a	Nominee of the Affiliating Body/ University	Dean, Technical & Science, S.P. Pune University, Representative	Member
6	a	Nominee of the State Govt- Director of Technical Education (Ex-Officer)	Jt. Director, Regional Office, Pune	Member
7	a	An Industrialist /Technologist / Educationist as nominated by the State Government	State Government Representative	Member
8	a	Principal of the College	Dr. S. N. Sapali	Member Secretary

2. **College Development Committee (CDC)**

As per the Maharashtra Public Universities Act 2016, Section 97, the College Development Committee is formed at the college. It has representation of Academia, Industry, students to represent all stakeholders. As per the guidelines of University Act, representatives from various sectors Academics, Research, Social Service and Industry are included in CDC.

Function & responsibilities of CDC:-

- Prepare an overall comprehensive development plan of the college regarding academic, administrative and infrastructural growth, and enable College to foster excellence in curricular, co-curricular and extracurricular activities
- To monitor the development of NMIET under:

1. Academic excellence
2. Research & Innovation
3. Training & Placement
4. Student and Faculty development

- To recommend to the management, about introducing new academic courses and the creation of additional teaching and administrative posts
- To make specific recommendations to the management to encourage and strengthen research culture, consultancy and extension activities in the college.
- Make specific recommendations to the management to foster academic collaborations to strengthen teaching and research
- To make recommendations regarding the students and employees welfare activities in the college.
- To recommend the administration about appropriate steps to be taken regarding the discipline, safety and security issues of the college.
- To consider and make appropriate recommendations on inspection reports, local inquiry reports, audit report, report of National Assessment and Accreditation Council, etc.

College Development Committee (CDC) Member List (2024-25)

Sr.	College Development Committee Members		Name of the Member (Attendee)	Designation
1.	Chairperson of the Management or his nominee (Chairperson's Nominee)	:	Shri. Rajesh Mhaske	Chairman
2.	Secretary of the Management or his nominee	:	Shri. Santosh Khandge	Member
3.	One head of department, to be nominated by the Principal	:	Dr. Prasad Dhore	Member
4.	Three teachers in the college, elected by full-time, at least one shall be women.	1.	Dr. Vikas Yadav	Member
		2.	Dr. Sanjeevkumar Angadi	Member
		3.	Dr. Ashwini Shinde	Member
5.	One non-teaching employee, elected by regular staff	:	Mrs. Shubhda Jadhav	Member
6.	Six members, nominated by the management, from the field of education, industry, research, social service of which one shall be alumni.	1.	Shri. Sudhir Gogate	Member
		2.	Dr. Jagdish Awachat	Member
		3.	Dr. D. N. Sonawane	Member
		4.	Mr. Sunil Ubale	Member
		5.	Mr. Pradip Tupe	Member
		6.	Mr. Ganesh Mandale	Member
7.	Co-ordinator, Internal Quality Assurance Cell	:	Dr. Aparna Pande	Member
8.	President, College Students' Council.	1.	Mr. Tejas Patil (Mech)	Member
	Secretary, College Students' Council.	2.	Miss. Athulya Jose (IT)	Member
9.	Parents Representative	3.	Mr. Ajay Papat	Member
10.	Principal of the College	:	Dr. S. N. Sapali	Member Secretary
11.	Invitee Members	1	Shri Sanjay (Bala) Bhegade President, NMVPM Trust	Invitee Member
		2	Shri. Ganesh Khandge, Vice President, NMVPM Trust	Invitee Member
		3	Dr. Girish Desai, Executive Director	Invitee Member
		4	Dr. R. S. Jahagirdar, CEO NMIET	Invitee Member
		5	Dr. Harish Tiwari Principal, PCCOER	Invitee Member
		6	Dr. Shitalkumar Rawandale Dean, CPC, PCET-NMVPM	Invitee Member
		7	Dr. Nitin Dhawas, Dean Academics	Invitee Member
		8	Dr. Vilas Deotare, Dean R & D	Invitee Member
		9	Mr. Vijay Shirke, Registrar	Invitee Member
		10	Prof. Mujahid Shaikh, CEO NIC	Invitee Member
		11	Prof. Rishikesh Pande, TPO, NMIET	Invitee Member

- **Frequency of CDC meeting: Twice in a year.**

3. Internal Quality Assurance Cell (IQAC)

- IQAC was established in our College in A.Y. 2017.
- The purpose of the IQAC is to ensure quality of teaching, learning skills, infrastructure and facilities.
- It interacts with Students, Teachers and Management to ensure co-ordination for quality maintenance.
- The IQAC team analyzes and ensures if the facilities which are given to the students are adequate or not.
- IQAC team is always receptive to new ideas generated for improvement in the quality of education and research for Higher Education.

Composition of IQAC

Sr.		Internal Quality Assurance Cell	Name of the Member	Designation
A	a	Principal - Chairperson	Dr. S. N. Sapali	Chairman
B	1	Five Senior Teachers and one senior Administrative Official	Dr. Satish More	Member
	2		Dr. Sagar Joshi	Member
	3		Dr Ashwini Shinde	Member
	4		Dr. Shekhar Rahane	Member
	5		Dr. Saurabh Saoji	Member
	6		Mrs. Shubhada Jadhav	Member
C	1	Two External Experts on Quality Management / Industry / Local Community Member	Mr. Rajesh Mhaske	Member
	2		Mr. Deepak Phalle	Member
D	a	Director / Coordinator – Member Secretary	Dr. Nitin Dhawas	Coordinator

Published service rules, policies and procedures with year of publication

In view of staff, faculty and student development NMIET have policies as recommended by GB, CDC and NMVPM.

The Service Rules, Code of Conduct, Ordinances, Procedure, Recruitment policies and promotional policies are governed by the Maharashtra University Act, 1994, University Statutes and AICTE. All the amendments are binding on the College. The policies are published at the inception of college and for the betterment of staff and students; the policies are revised as and when required.

All the current service rules policies are revised & published and are available on institute website https://www.nmiet.edu.in/implinks/policy.php (https://www.nmiet.edu.in/implinks/policy.php)

10.1.3 Decentralization in working and grievanceredressal mechanism (10)

Institute Marks : 10.00

Decentralization in working:

For Smooth Administration the institute has adopted the process of distributing or dispersing functions, powers and people away from a central authority. The academic and other overall administration of the College is carried out by the Principal, Head of the Departments, and Registrar.

Faculty members who have been delegated powers for taking administrative decisions are shown in the following **Table**

Sr. No.	Name of the faculty	Department	Assigned Responsibility
1	Dr. S. N. Sapali	Admin	Principal
2	Dr. Aparna Pande	Computer Science Engineering	Dean IQAC & Dean International Relations
3	Dr. Nitin Dhawas	Information Technology	Dean Academics
4	Dr. Vilas Deotare	E&TC Engineering	Dean R & D
5	Dr. Satish More	Mechanical Engineering	Dean IIC
6	Dr. Sagar Joshi	E&TC Engineering	Dean Student's Welfare
7	Dr. Shekhar Rahane	First Year Engineering	FE Dean
8	Mr. Vijay Shirke	Office	Registrar
9	Dr. Prsad Dhore	Computer Engineering	Head of Department
10	Dr. Ashwini Shinde	E&TC Engineering	Head of Department
11	Dr. Vikas Yadav	Mechanical Engineering	Head of Department
12	Dr. Chandrakant Kokane	Information Technology	Head of Department
13	Dr. Digvijay Patil	First Year Engineering	Head of Department
14	Prof. Premkumar Kolle	First Year Engineering	Head of Department

The Principal conducts regular Meeting of HODs, Section In charges for overall Planning, Coordination, Monitoring and Control. Subsequently regular Departmental Meetings are held by the respective Head of the Departments, Section in charges and Committee / cell incharges for efficient functioning of Academics, overall development of Students and monitoring of developmental Activities.

The major duties and responsibilities of Principal & HODs:

1. Principal is the head of the Institute and empowered with sufficient authority and power from the management. Principal delegates necessary administrative and academic authorities to the HODs.
2. Each departmental head is empowered with necessary freedom for development and administration of the department. The academic responsibilities are fairly divided among all the staff members.
3. Faculty members from all departments enthusiastically contribute as member/head in functional committees. The institute strongly believes in achieving progress through delegation of responsibilities, authorities and powers.

Administrators and Decision makers:

Various committees are formed in the department for the smooth and efficient management of activities. It also gives the opportunity to the faculty to grow and develop in their extracurricular activity/field and administrative skills. The committees are constituted by the HOD in consultation with faculty for one academic year or until new committees are constituted. For specific events like conference, technical event, Annual day etc Committees are formed. In charges are given responsibility and authority to work and take decisions independently including financial decisions.

The institute has constituted Grievance Redressal Cell (GRC), Internal Complaints Committee (ICC) and Ant ragging Committee as per the guidelines by the competent authority.

1. Grievance Redressal Cell (GRC)

Institute has a Staff (teaching and non-teaching) and Students Grievance Redressal Cell. The functions of the Cell are to look into the complaints lodged by any staff member or student, and judge its merit. The Grievance Redressal Cell is also empowered to look into matters of harassment.

Objectives:

The objective of the Grievance Redressal Cell is to develop a responsive and accountable attitude among all the stakeholders in order to maintain harmonious educational atmosphere in the institute.

The GRC has been constituted for the redressal of the problems reported by the Students and staff of the College with the following objectives:

1. Upholding the dignity of the College by ensuring strife free atmosphere in the College through promoting cordial Student-Student, Student-Staff and Staff-Staff relationships.
2. Encouraging the Students and Staff to express their grievances / problems freely and frankly, without any fear of being victimized.
3. Advising Students and Staff of the College to respect the right and dignity of one another and show utmost restraint and patience whenever any occasion of rift arises.
4. Advising all the Students to refrain from inciting Students against other Students, teachers and College administration.
5. Advising all staffs to be affectionate to the Students and not behave in a vindictive manner towards any of them for any reason.

The constitution of GRC is as follows:

Sr No.		**Grievance Redressal Cell**	**Name of the Member**	**Designation**
A	a	Principal - Chairperson	Dr. S. N. Sapali Mobile No. 9423582575	Chairman

B	1	Three Senior Members of Teaching Faculty - (One Member shall be Female Category) (Other from SC/ST/OBC Category)	Dr. Shekhar Rahane Mobile No. 9270252277	Member
	2		Prof. Manojkumar Kate Mobile No. 9623392531	Member
	3		Prof. Shital Jade Mobile No. 7756046114	Member
C	1	A representative from among student of the College (Based on Academic/ Sports/ Co-curricular activity - Special Invitee	Mr. Parth Sawant (E&TC) Mobile No. 8767733540	Member

2. Anti-Ragging Committee

With reference to Maharashtra Prohibition of Ragging Act 1999, UGC Regulation on Curbing Menace of Ragging in Higher Educational Institution 2009 and AICTE notification dated 1st July 2009, Anti Ragging Committee has been constituted in the institute.

Objectives:

- To keep constant vigilance and ensure preventive measures against the ragging as per guidelines given by UGC.
- To insure that NMIET Campus and Hostel is free of any kind of ragging.

Function & responsibilities:

Ragging is a problem faced by students in the campus during and after college hours. The consequences of students who faced ragging are very serious and shocking. Thus this committee was constituted to prevent ragging and provide relief to the students who come under this shadow. The committee has the powers to take stringent action on students involving in such activities. Committee comprises of the following members.

The Committee Constitution is as follows:

Sr.No.	Anti-Ragging Committee	Name of the Member with Contact Number	Designation
1	Head of the Institution (Principal)	Dr. S.N. Sapali 9423582575	Chairman
2	Representative of Civil Administration	Mr. Virendra Nargunde 9421320023	Member
3	Representative of Police Administration	Administration Mr. Pradip Ranwar - PI 02114-222444	Member
4	Representative of Local Media	Mr. Amin Khan 9657978635	Member
5	Non-Government Organization involved in Youth Activities	Mr. Deepak Phalle Rotary Club of Talegaon City	Member
6	Representative of Faculty Members	Mr. Shankarrao Ugale 8087672685	Member
7	Representative of Parents	Mr. Shrinivas Kulkarni 8605806944	Member
8	Representative of Student (Freshers Category)	Mr. Sarthak Tarlekar 7757061304	Member
9	Representative of Student (Senior Student)	Mr. Yogesh Thadake 9689186071	Member
10	Non-Teaching Staff	Mr. Swapnil Kharage 8856945480	Member

1.Women Grievance Redressal Committee (WGRC)

In NMIET Women Grievance Redressal Committee was established on 14/08/2014 to safe guard the rights of the female students, faculty and staff members and also to provide platform to listen to complaints. The motivation to have this cell is to ensure a speedy delivery of justice by processing each complaint through suitable action in compliance with Savitribai Phule Pune University guidelines and in compliance with the laws and regulations of the Government of India.

Objectives:

i. To create an environment of gender justice, where men and women work together with a sense of personal security and dignity.

ii. To resolve issues pertaining to girls, women's sexual harassment.

iii. To equip the females students, faculty and staff members with the information of their legal rights.

iv. Safe guards the rights of female students, faculty and staff members to provide platform to listening to their issues, complaints.

v. Provide Platform for Redressal of grievances.

The constitution of WGRC is as follows:

Sr No.		**Women Grievance Redressal Committee**	**Name of the Member**	**Designation**

A	a	Principal - Chairperson	Dr. S. N. Sapali Mobile No. 9423582575	Chairman
B	a	Women Faculty Member (Senior Level & Not below Associate Prof.)	Dr. Harsha Sarode Mobile No. 7758980333	Member
C	a	Two Faculty Members (Committee to the cause of women or had experience in Social work)	Ms. Rohini Hanchate Mobile No. 8149078884	Member
	b		Dr. Manisha Gondhale Mobile No. 937355116	Member
D	a	Two Non-Teaching Employee (Committee to the cause of women or had experience in Social work)	Mrs. Priti Joshi Mobile No. 9970267179	Member
	b		Mr. Prashant Sutar Mobile No. 9975777L43	Member
E	a	Three Students (At list one girl student) of Pre-Final / Final Year.	Ms. Nikita Deshmukh (E&TC) Mobile No. 70586L9746	Member
	b		Mr. Abhishek Pohare (Comp) Mobile No. 935952091	Member
	c		Mr Tejas Parbhane (Mech) Mobile No. 7264851202	Member
F	a	Non-Government Organization or Associations Committed to cause of women.	Adv. Vidya Bhandwalkar Mobile No. 9890024739	Member

10.1.4 Delegation of financial powers (10)

Institute Marks : 10.00

Delegation of financial powers

1. Principal is authorized to do the expenditure as per sanctioned budget for the financial year. Pre approval in advance is expected to obtain from the Trust before initiating the expenditure or procurement process as per sanctioned budget head.

2. However in case of urgency and in case of regular expenses or scheduled expenditure (as decided and recommended by Principal). Principal is authorized to sanction and do the expenses as per requirement. The Principal should forward the details of expenditure sanction for approval letter with sufficient and necessary justification for the same.

3. Principal is authorized to sanction or do expenditure up to Rs.25,000/-as a single expenditure as per requirements without prior permission.

4. The HODs are authorized to sanction or do expenditure up to Rs.5,000/-as a single expenditure as per requirement without prior permission.

5. The event coordinator/Portfolio coordinators/Activity coordinator or Authority appointed by the Principal for academic/co-curricular/extracurricular activity or other such activities happening in the Institute are authorized to do the expenditure as per pre sanctioned budget with details of estimated expenditure (for the event/activity).

6. The head of the departments (HODs) and the student association coordinator are jointly authorized to do the expenditure as per requirements for various co-curricular and extracurricular student development activities (Standard and required necessary process must be followed for the expenditure and or procurement under departmental student development activities).

The utilization of financial powers for each year for the assessment years by Principal & HODs is shown below:

Academic Year	Utilization of Financial Powers by Principal	Utilization of Financial Powers by HODs
2024-25	50000	5000
2023-24	50000	5000
2022-23	45000/-	25,000/-
2021-22	35000/-	47,000/-

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks : 5.00

Transparency and availability of correct/unambiguous information in public domain:

Academic programs details, faculty profile, facilities, notices related to Workshops, Guest Lectures, Industry-Institute Interaction, scholarships, upcoming events are available on Institute website and displayed on Institute notice boards. Rules and regulations details such as Anti-ragging Squad, Anti-ragging Committee and Grievance Redressal are also available on Institute website.

Information such as Annual Fees, Fee Proposal submitted to Fee Regulatory Authority, Mandatory Disclosure as per defined guidelines AICTE are also available on Institute website https://www.nmiet.edu.in/ (http://www.nmiet.edu.in/)

Information on policies, rules, processes and its dissemination is made available to the stakeholders on the college website. Besides, the same is there in the college brochure also.

The College Website Committee is formed to ensure the availability of up to date information to all its Stake Holders. The Website is updated on regular basis or as and when required. The Website is updated within two days by the following process –

- As and when any update needs to be posted on the College Website, it will first be received by the Committee member of the respective Department. Once the request is received from the Faculty Coordinator and the Content is approved by Website In charge, it will be sent for final uploading on the College Website, to the Service Provider.
- After uploading, the concerned Head of Department as well as Principal will review the content.
- Frequency of meeting for website updating is once per semester and as and when required. Minutes of Meetings are maintained by the Website Coordinator.

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30) Total Marks 25.00

Summary of currentfinancial year’s budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY : (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2024-25

Total Income 168726473				Actual expenditure(till…): 433042877			Total No. Of Students 2086
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
166882198	0	0	1844275	315673037	117369840		207594.86

Table 2 - CFYm1 2023-24

Total Income 136336561				Actual expenditure(till…): 147306552			Total No. Of Students 1411
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
132426123	0	0	3910438	84866102	62440450	0	104398.69

Table 3 - CFYm2 2022-23

Total Income 128102663				Actual expenditure(till…): 68593350			Total No. Of Students 1387
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
127976465	0	0	126198	59257421	9335929	0	49454.47

Table 4 - CFYm3 2021-22

Total Income 114208902				Actual expenditure(till…): 127345978			Total No. Of Students 1338
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
113803888	0	0	405014	121727108	5618870	0	95176.37

Items	**Budgeted in 2024-25**	**Actual Expenses in 2024-25 till**	**Budgeted in 2023-24**	**Actual Expenses in 2023-24 till**	**Budgeted in 2022-23**	**Actual Expenses in 2022-23 till**	**Budgeted in 2021-22**	**Actual Expenses in 2021-22 till**
Infrastructure Built-Up	14150000	2849541	5657000	7456021	15933124	14794987	2129500	1982813
Library	2247000	1083791	1172500	785149	1216520	1182354	587000	507770
Laboratory equipment	12682000	13614397	9396000	8114515	11921705	11573229	6030000	5351160
Laboratory consumables	1624665	2143970	2460000	1091844	680000	1098153	1718000	1530867
Teaching and non-teaching staff salary	198303197	148129158	8486102	92012682	72395925	74901718	65000000	63099605
Maintenance and spares	2670000	4080044	2275000	6131068	3700000	5336842	3825000	3469643
R&D	1847500	276000	1500000	144500	1200000	49200	338000	263500
Training and Travel	2900000	982773	2900000	2855026	330000	336803	450000	394351
	0	0	0	0	0	0	0	0
Others, specify	79248675	46685112	37079950	34101593	43641700	35189907	50900000	50746269
Total	**315673037**	**219844786**	**70926552**	**152692398**	**151018974**	**144463193**	**130977500**	**127345978**

10.2.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

Sanctioned budget of financial year is properly utilized throughout financial year as per requirements. Purchase procedure as justification for purchase, calling quotations, comparative statement, negotiations, and purchase order is followed for all purchases. Average utilization of budget in the last 4 financial years is shown in following Table.

Utilization of allocated funds

SR. NO.	Assessment Year	Budget Allocated (Rs)	Actual Expenditure (Rs.)	Percentage of utilization (%)
1	2024-25	315673037	219844786	69.64%
2	2023-24	147306552	152692398	103.65%
3	2022-23	151018974	144463193	95.65%
4	2021-22	130977500	127345978	97.22%

10.2.2 Utilization of allocated funds (15)

Institute Marks : 10.00

Adequacy of budget allocation Before the commencement of every academic year a meeting of all the Heads of departments is convened and budgetary requirement is taken for the categories of expenditure. The categories considered are procurement of new equipment, maintenance/servicing of existing equipment, consumables required, building space and also books required for the library for each department based in the curricular reforms suggested in the respective Board of Studies. For buildings (new construction as well as maintenance of existing building detailed plans and estimates are prepared and approval is taken for the same in the Governing Council meetings. A detailed report of all the development works undertaken and their current status is presented in the Governing Council meeting. The budgetary requirements are met through the admission fees collected from the students and the revenue generated from the consultancy services. The budget allocated at the beginning of the financial year is adequate for managing the expenditure during that year. In case of any additional funds required, the management provides the requisite support. The budget allocated for every financial year to the department as well as at the Institute level is adequate and sufficient to meet recurring and non-recurring expenses of all the respective financial years. The main source of income of the Institute is fees collection of the students and the whole collection is allocated in budget for yearly expenses. It is adequate as more than 92% of the planned budget has been spent on all the essentials or optimum requirements as per the norms and is shown in following Table

SR. NO.	Assessment Year	Budget Allocated (Rs)	Actual Expenditure (Rs.)	Adequate / Non-adequate
1	2024-25	315673037	219844786	Adequate
2	2023-24	147306552	152692398	Adequate
3	2022-23	151018974	144463193	Adequate
4	2021-22	130977500	127345978	Adequate

10.2.3 Availability of the audited statements on the institute’s website (5)

Institute Marks : 5.00

The institute follows regular practice of getting the expenses audited by C.A. The audited statements are available on the Institution website https://nmiet.edu.in/

Summary of current financial year's budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY : (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Items	Budgeted in CFY	Actual expenses in CFY (till …)	Budgeted in CFY*m*1	Actual Expenses in CFY*m*1	Budgeted in CFY*m*2	Actual Expenses in CFY*m*2	Budgeted in CFY*m*3	Actual Expenses in CFY*m*3
	2024-25		2023-24		2022-23		2021-22	
Infrastructure Built-Up	14150000	2849541	5657000	7456021	15933124	14794987	2129500	1982813
Library	2247000	1083791	1172500	785149	1216520	1182354	587000	507770
Laboratory equipment	12682000	13614397	9396000	8114515	11921705	11573229	6030000	5351160
Laboratory consumables	1624665	2143970	2460000	1091844	680000	1098153	1718000	1530867
Teaching and non-teaching staff salary	198303197	148129158	84866102	92012682	72395925	74901718	65000000	63099605
Maintenance and spares	2670000	4080044	2275000	6131068	3700000	5336842	3825000	3469643
R&D	1847500	276000	1500000	144500	1200000	49200	338000	263500
Training and Travel	2900000	982773	2900000	2855026	330000	336803	450000	394351
Miscellaneous expenses *	0	0	0	0	0	0	0	0
Others, specify	79248675	46385112	37079950	34101593	43641700	35189907	50900000	50746269
Total	315673037	219844786	147306552	152692398	151018974	144463193	130977500	127345978

10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 25.00

Institute Marks :

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 2024-25

2822052		Actual expenditure (till…): 2822052		Total No. Of Students 218
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
2643732	178320	2643732	178320	12945.19

Table 2 :: CFYm1 2023-24

2817200		Actual expenditure (till…): 2817200		Total No. Of Students 224
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
2617200	200000	2617200	200000	12576.79

Table 3 :: CFYm2 2022-23

2550000		Actual expenditure (till…): 2630107		Total No. Of Students 231
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
2000000	550000	2227930	402177	11385.74

Table 4 :: CFYm3 2021-22

1363000		Actual expenditure (till…): 935365		Total No. Of Students 233
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
963000	400000	591775	343590	4014.44

Items	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Laboratory equipment	2643732	2643732	1851700	1851700	1700000	2200022	400000	377487
Software	167030	167030	100000	100000	0	0	200000	165048
Laboratory consumable	28320	28320	100000	100000	50000	76968	100000	89500
Maintenance and spares	150000	150000	100000	100000	500000	325209	300000	254090
R & D	118000	118000	265000	265000	250000	0	55000	44200
Training and Travel	66000	66000	200000	200000	50000	27908	50000	49240
	112620	112620	200000	200000	0	0	258000	0
Total	**3285702**	**3285702**	**2816700**	**2816700**	**2550000**	**2630107**	**1363000**	**979565**

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

Information Technology Department

SR. NO.	Assessment Year	Budget Allocated (Rs)	Actual Expenditure (Rs.)	Adequate / Non-adequate
1	2024-25	3285702	3285702	Adequate
2	2023-24	2816700	2816700	Adequate
3	2022-23	2550000	2630107	Adequate
4	2021-22	1363000	935365	Adequate

10.3.2 Utilization of allocated funds (20)

Institute Marks : 15.00

Allotted Budget is properly utilized in the respective financial years as per department's requirement. Utilization of budget is as shown in below table

SR. NO.	Assessment Year	Budget Allocated (Rs)	Actual Expenditure (Rs.)	Percentage of utilization (%)
1	2024-25	3285702	3285702	100%
2	2023-24	2816700	2816700	100%
3	2022-23	2550000	2630107	103.14%
4	2021-22	1363000	935365	68.62%

10.4 Library and Internet (20)

Total Marks 20.00

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

Institute Marks : 10.00

E-Resources:-

J-Gate Engineering &Technology: - J-Gate is the most comprehensive database & gateway to access research information from **9,312** Journals from Engineering & Technology subjects was subscribed in Library. Training session on J-Gate was also organized for student's. Details about all the features of this database, basic & advanced search of contents, Identification of subscribed Journals & open access Journals this information is given to all students.

E-Books: - 59 e-books of four publications are made available to students from A.Y. 2022-23. This e-books user can access through KNIMBUS Remote access with android mobile application on campus & off campus. **https://nmiet.knim** (https://nmiet.knim/)**bus.com**

Following r-resources made available to user from KnimbusmLibrary Mobile Application.

Sr. No.	Name of Publisher	No. of e-books
1	Pearson	29
2	McGraw-Hill	15
3	Wiley	11
4	S. Chand	4
	Total	**59**

Open Access system is adopted in the Library. Any student can direct access any section from stack.

WEB-OPAC facility is provided to students & staff to check availability of books in the Library, members can check issue books and if it need book reissue once. University question papers, old question papers, syllabus and digital library link also available on WEB-OPAC.

Remote Access facility is provided through "**KNIMBUS Remote access with Mobile Application**" to all students.

Access of E-resources like E-books, E-Journals, NPTEL videos & lectures, National Digital Library of India (NDLI), Syllabus, Question papers are given through Digital Library.

The **Current Content Services facility** is provide to send new arrivals Journals & Magazines content page information to faculties by WEB-OPAC & Knimbus application.

New arrivals titles are displayed on new arrival section on regular basis.

Scanner & photocopy facilities are available.

Journals and Magazines are provided to students on their I-card for reading.

Specious **Reading Room** with Wi-Fi connectivity facility is provided to students. Students can bring their Laptop & access study material here.

On college Website Library information like collection, Library services, Access given to e-Resources, SPPU question papers, NPTEL Local Chapter in given. Link **https://nmiet.knim** (https://nmiet.knim/)**bus.com**

Membership of Different National Libraries: IIT Mumbai Library membership, Automotive Research Association of India (ARAI, Pune), Jayakar Library (SPPU Pune), Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA), British Council Library (online membership)

NMIET Library has provided access for learning resources through "Knimbus mLibrary Mobile Application to all students & faculties. Login ID & password were provided to all users, hence they have 24/7 access from any online computer, laptop or Mobile.

Link for Knimbus: - **https://nmiet.knim** (https://nmiet.knim/)**bus.com**

Digital Library:-

This section is provided for use of Electronic Information sources like e-books, e- journals, videos, and lectures on Internet. A well-equipped Digital Library having 18 **nodes** with scanning facility is provided. As the access facility to e-journals is IP address-based, any student can access e-resources from any computer within the campus.

Remote Access facility is provided through "**KNIMBUS Remote access with Mobile Application**" to all students & staff. Login Id & password is provided to every student. All e-Journals, e-books, NPTEL videos & Lectures they can access from home also.

Link for Knimbus: - **https://nmiet.knimbus.com** (https://nmiet.knimbus.com/)

Institutional Repository: - Institutional Repository is the best platform & innovative channel of scholarly communication. Research work of college faculties are made available to all students. Access is provided to students & faculties through Knimbus Software.

Savitribai Phule Pune University question papers and syllabus.

Support to students for self-learning activities: -

Students can access NPTEL Videos & lectures in Digital Library.

Access of National Digital Library is also made available to students. Students can access all this reading material which are available in various format like Books, Articles, thesis Manuscript, Technical Reports, Monographs, Album, Law Judgment, Audio Lecture, Video lecture.

Swayam Online certification courses are made available to students through NPTEL Local Chapter. Library & and all faculty members encourage students to enroll for NPTEL Courses.

To improve the students' knowledge & skill, Library has arranged Library orientations, workshops & training for students. This sessions motivated students to increase reading habits, provides information on how to search, Electronic resources & searching strategies from various databases.

Institutional membership:-

1 ARAI (Knowledge center of Automotive Research Association of India, Pune)

2 IIT Mumbai Library

3 Jayakar Library(SPPU)

4 Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA)

5 British Council Library (online membership)

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	Limras Telecommunication Pvt. Ltd.
Available band width	1 GBPS
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Yes
Security arrangements	Yes

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)

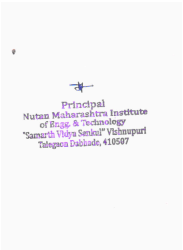
PSO1	PSO1: Technical Proficiency and Problem Solving An ability to apply theoretical concepts and practical knowledge of Information Technology to analyze, design, develop, and manage information processing systems and applications. Graduates should be capable of identifying and defining appropriate computing infrastructure and operational requirements for solving real-world problems, and working effectively on large-scale computing systems.
PSO2	PSO2: Professionalism, Ethics, and Communication An understanding of professional, business, and ethical responsibilities, including legal, security, and social issues related to IT. Graduates will practice effective communication and decision-making skills, using appropriate technology to handle professional responsibilities and contribute to business processes in a socially responsible manner.

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 : Dr. S. N. Sapali
Designation : Principal, NMVPM's - NMIET, Talegaon Dabhade,Pune
Signature :



Seal of The Institution :

Place : Talegaon Dabhade, Pune
Date : 16-05-2025 13:33:39