BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING FOR WOMEN

Computer Engineering

Part A : Institutional Information

1 Name and Address of the Institution

BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING FOR WOMEN,
Pune Satara Road, Dhankawadi, Taluka Haweli

2 Name and Address of Affiliating University

Savitribai Phule Pune University

3 Year of establishment of the Institution:

2000

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
Institute of Management and Entrepreneurship Development	1978	BBA, BCA, MCA, MBA, Ph.D.	Pune
New Law College, Pune	1978	B.A.LL.B, B.B.A.LL.B, LL.B,LL.M	Pune
Yashwantrao Mohite College of Arts, Science and Commerce	1978	B.A., B.Com., B.Sc., M.A., M.Sc.	Pune
Abhijit Kadam Institute of Management and Social Sciences, Solapur	1981	BBA,BCA,MBA and MCA	Solapur
Medical College, Pune	1981	MBBS, MD/MS, M.Sc.	Pune
Poona College of Pharmacy	1981	Pharm D, B. Pharm and M. Pharm	Pune
Social Sciences Centre (M.S.W)	1981	Master of Social Work(M.S.W)	Pune
Yashwantrao Chavan Institute of Social science studies and Research	1998	M.B.S (Master of Business Studies)	Pune
Dental College & Hospital, Pune	1989	B.D.S., M.D.S.	Pune
College of Ayurved	1990	B.A.M.S, MD,MS Ayurved	Pune
Homeopathic Medical College	1990	BHMS, M.D.	Pune
College of Nursing, Pune	1992	B.SC Nursing, M.SC Nursing	Pune
Institute of Hotel Management & Catering Technology	1992	BHMCT, BSc (H & HA)	Pune
Institute of Management and Research	1992	BBA, BCA, MBA, LL.B PhD	New Delhi
College of Physical Education	1994	B. PEd, M. PEd , PhD	Pune
Institute of Environment Education and Research	1994	M.Sc., PhD	Pune
Institute of Management and Rural Development Administration	1994	BBA, BCA, MBA and MCA	Sangli
Institute of Management	1994	MBA, MCA	Kolhapur
Yashwantrao Mohite Institute of Management	1994	BBA, BCA, MBA, MCA	Karad
Interactive Research School & Health Affairs	2001	PhD	Pune
Rajiv Gandhi Institute of Information Technology & Bio-Technology	2003	B.Sc., M.Sc. Ph.D.	Pune
Dental College & Hospital	2005	BDS, MDS	Navi Mumbai
Medical College & Hospital	2005	MBBS, MS, MD	Sangli
Dental College & Hospital	2006	BDS, MDS	Sangli
College of Nursing	2007	BSc, MSc	Sangli
College of Architecture	1994	B. Arch, March, PhD	Pune
College of Nursing	2009	BSc , MSc	Navi Mumbai

School of Physiotherapy	2021	Bachelor of Physiotherapy	Sangli

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
Computer Engineering	UG	2000	2000	60	Yes	120	Applying first time	--	--	Yes	4

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

Information Technology	UG	2000	2000	60	No	60	Applying first time	--	--	No	4
Electronics and Telecommunication engineering	UG	2000	2000	60	Yes	120	Applying first time	--	--	0	4
Electronics and Telecommunication Engineering	PG	2013	2013	18	Yes	9	Not eligible for accreditation	--	--	0	2

Sanctioned Intake for Last Five Years for the Electronics and Telecommunication Engineering	
Academic Year	**Sanctioned Intake**
2024-25	9
2023-24	9
2022-23	9
2021-22	18
2020-21	18
2019-20	18

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Computer Engineering
2	Under Graduate	Engineering & Technology	Information Technology
3	Under Graduate	Engineering & Technology	Electronics and Telecommunication Engineering

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)	11	12	12	12	12	13
Faculty in Engineering (Female)	37	39	36	36	38	40
Faculty in Maths, Science & Humanities (Male)	08	08	05	05	05	05
Faculty in Maths, Science & Humanities (FeMale)	05	05	04	04	04	04
Non-teaching staff (Male)	46	46	43	43	40	40
Non-teaching staff (FeMale)	13	13	12	12	10	10

B. Contractual* Employees (Faculty and Staff):

Items	2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	1	0	1	0	0
Faculty in Engineering (Female)	0	1	2	2	2	2
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	0	0	0
Total no. of Girls	1190	1088	1116
Total	**1190**	**1088**	**1116**

Engineering and Technology- PG Shift-1

Items	2024-25	2023-24	2022-23
Total no. of Boys	0	0	0
Total no. of Girls	5	4	2
Total	**5**	**4**	**2**

11 Vision of the Institution:

Women Empowerment through Technical Education.

12 Mission of the Institution:

M1: Develop women students to rise to their full potential.

M2: Impart knowledge and prepare competent engineers.

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

Head of the Institution	
Name	Prof. Dr. Pradeep Vitthal Jadhav
Designation	Principal
Mobile No.	9665696022
Email ID	pradeep.jadhav@bharatividyapeeth.edu

NBA Coordinator, If Designated

Name	Prof. Dr. Suvarna Sandip Chorage
Designation	Professor, Vice Principal, IQAC coordinator
Mobile No.	9881717562
Email ID	suvarna.chorage@bharatividyapeeth.edu

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	58.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	102.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	116.00
4	STUDENTS' PERFORMANCE	150	134.30
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	155.48
6	FACILITIES AND TECHNICAL SUPPORT	80	75.00
7	CONTINUOUS IMPROVEMENT	50	43.00
8	FIRST YEAR ACADEMICS	50	36.47
9	STUDENT SUPPORT SYSTEMS	50	44.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	110.00
	Total	**1000**	**873**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 58.00

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	Women Empowerment through Technical Education.
Mission of the institute	M1: Develop women students to rise to their full potential. M2: Impart knowledge and prepare competent engineers.
Vision of the Department	Pioneers in Women Computer Engineering by providing competent technical knowledge and enriched social awareness.
Mission of the Department	

Mission No.	Mission Statements
M1	To inculcate quality education in various domains of Computer Engineering.
M2	Encourage students to showcase their talent and search for the community needs.
M3	To improve technical competency by providing value added training.

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	The graduate of the program will implement strong fundamental domain knowledge to solve engineering problems with modern tools and technology.
PEO2	The graduate of the program will work as a committed professional demonstrating strong ethical practices with understanding of social responsibilities for betterment of society.
PEO3	To prepare a motivated graduate by inculcating multidisciplinary thinking through research attitude and lifelong learning.
PEO4	To prepare graduates with strong communication and leadership skills to work effectively as an individual as well as in teams.

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

Total Marks 10.00

Institute Marks : 10.00

Sr No	Published Media	Internal Stakeholders	External Stakeholders	Outcome of the Effective Process Implementation
1	Institute (Department) Website	Students, Faculty, Support Staff, Management Represntatives	Alumni, Parents, Employers, Invited Speakers, Industry Resource Experts, Website visitors	1) Students should know learning, growth opportunities, and how the Program will shape their future in solving real-world challenges. 2) For Faculty, Support Staff this is a guiding torch to be accountable for maintaining quality, continuous improvement in teaching, learning, and assessment process in the benefit of students. 3) Management representative can monitor the academic excellence, ethical practices, resource allocation, strategic planning and alignment, administrative processes etc. 4) Awareness of Vision, Mission, PEOs to Alumni help them to bridge the gap between academics and industry expectations, the alumni support enriches the academic ecosystem, and supports the institution towards sustained excellence. 5) Parents can reassure their wards proposed academic and career path. 6) Employers, Invited Speakers and the Industry Resource Experts understands the growth plan of the Institute. 7) Website Visitors can observe the institutions commitment to innovation, community engagement, and academic excellence.
2	Department Laboratories	Students, Faculty, Support Staff	Alumni, Parents, Employers, Invited Speakers, Industry Resource Experts	1) Students should reiterate the Vision, Mission, PEOs to assure their own growth plan. 2) Its a reminder for Faculty, Support Staff to be accountable for following the Systems, Process aligned with Vision, Mission, PEOs for continuous improvement in teaching, learning, and assessment process in the benefit of students. 3) Alumni observes the same and help the Institute for improving the competancy of students and getting the job opportunities for students. 4) Parents can reassure the institutions commitment to their wards academic and career growth. 5) Employers, Invited Speakers and Industry Resource Experts create awareness among the students about the importance of handson experiences.
3	Department Classrooms	Students, Faculty, Support Staff	Alumni, Parents, Employers, Invited Speakers, Industry Resource Experts,	1) Students should align their learning timelines with the Vision, Mission, PEOs to assure their own growth plan. 2) Its a reminder for Faculty, Support Staff to be accountable for following the Systems, Process aligned with Vision, Mission, PEOs for continuous improvement in teaching, learning, and assessment process in the benefit of students. 3) Alumni observes the same and inspire the students by sharing their own professional journey. 4) Parents can reassure the institutions commitment to their wards growth. 5) Employer, Invited Speakers and the Industry Resource Experts helps the students in becoming technically competent by sharing their professional Use Cases.
4	HoDs Cabin (outside entrance lobby)	Students, Faculty, Support Staff, Management reprentatives	Alumni, Parents, Employers, Invited Speakers, Industry Resource Experts,	1) Students, Faculty, Support Staff should reiterate the Vision, Mission, PEOs to align with the same. 2) Management representatives can monitor Institutes all stakeholders committment to follow the Vision, Mission, PEOs. 3) Alumni observes the same, interact with present students, and share the action plan for getting empowered. 4) Parents can reassure the institutions commitment towards their wards growth. 5) Employer, Invited Speakers and the Industry Resource Experts understands and contribute in the growth plan of the Institute.

5	E-news letter	Students, Faculty, Support Staff, Management representatives	Alumni, Parents, Employers, Invited Speakers, Industry Resource Experts	1) Students should explore all activities organised by department and map their own passion with the respective domain. 2) Faculty, Support Staff confirms whether the activities are helping students to empower. 3) Management reprentatives go through the activities happening in each Semester, and verify all Institute stakeholders committment to follow the Vision, Mission, PEOs. 4) Alumni observes the same and help the Institute for improving the competancy of students. 5) Parents should know the activities happening for their ward. 6) Employers, Invited Speakers, Industry Resource Experts can propose activities in aligned with the department activities organised in the last semester.
6	Email Signatures	Faculty, Support Staff, Management reprentatives	Alumni, Employers, Invited Speakers, Industry Resource Experts, Peer Institutes	1) Faculty, Support Staff should reiterate the Vision, Mission, PEOs during the internal mail communication. 2) Minutes of Meetings are shared along with the Vision, Mission, PEOs as a trail module in the mail to Management representatives. 3) Alumni observes the Vision, Mission, PEOs and can support the Institute in fulfilling its committment towards the same. 4) Employers, Invited Speakers, Industry Resource Experts understands the growth plan of the Institute. 5) Peer Institutes can collaborate with the Institute which may be Win-Win situation for both in accomplishing respective Vision, Mission, PEOs.

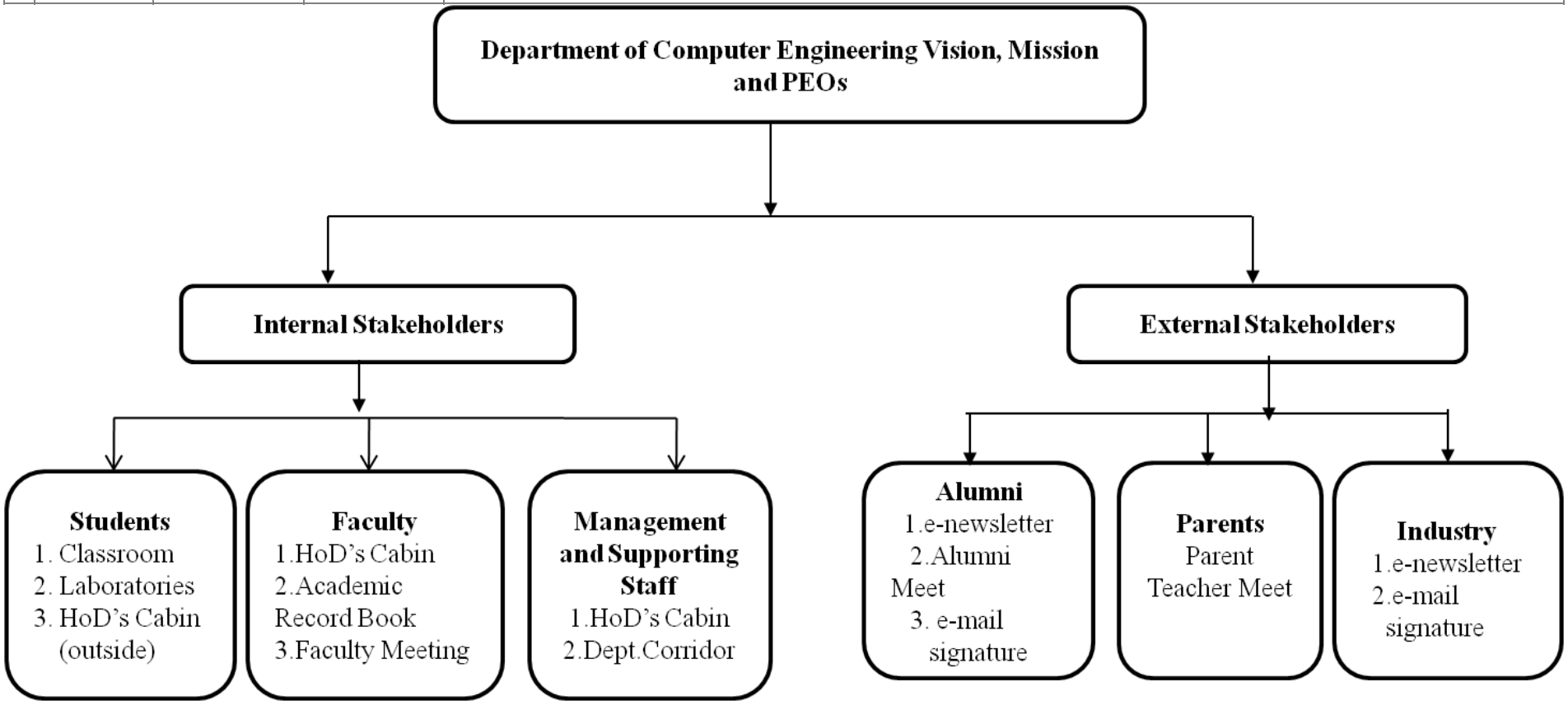

Fig 1 : Vision, Mission and PEOs dissemination among stakeholders

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

Total Marks 23.00

Institute Marks : 23.00

Computer Engineering department **Vision, Mission** and **Program Educational Objectives (PEOs)** are defined through a process involving various internal and external stakeholders. It is a crucial and critical process that should be aligned with the institutions core values, basic and essential purpose, long-term goals, and the anticipation of passing out Computer Engineering graduates.

Department Vision should be aligned with the Institution's aspirations and goals representing Institute Vision. Mission is a statement of the purpose, representing whom it provides, what it does, and how it delivers action intended statements, and activities planned. Program Educational Objectives (PEOs) are formulated by systematically interpreting a departments vision and mission into actionable, long-term goals for graduates.

Formulation of Department Vision, Mission, PEOs involves collection of views, discussions, brainstorming sessions, reviews from internal and external stakeholders.

The Process for Defining the Vision, Mission Program :

1) Institute Vision, Mission is shared with external stakeholders i.e Industry Experts, Alumni etc. and their perception is considered in view of defining Vision, Mission.

2) During the Department meetings the thought behind the Institutes Vision and Mission is elaborated by the Head of Department and the feedback from external stakeholders is shared with faculty, Support Staff.

3) All the staff members have taken a note of it and each faculty member has been asked to go through Institutes Vision and Mission statements thoroughly and give their suggestions about the Department Vision, Mission in aligned with Institutes Vision and Mission. Multiple iterative brainstorming sessions conducted and each faculty expresses her/his perception.

4) The Department Advisory Board is composed of internal and external stakeholders as members like Industry Experts, Students, Alumni, Faculty, Management, Employers etc. The statement of Vision and Mission has been rectified incorporating the suitable suggestions from various stakeholders during the Department Advisory Board meetings.

5) These Vision and Mission statements are then submitted to the Internal Quality Assurance Cell (IQAC) for further approval and suggestions.

6) IQAC forward the draft to College Development Committee (CDC) for final approval, CDC inform the same to Governing Body.

7) The final approved Version of Vision and Mission are then published and disseminated at various places such as the Department website, HOD's cabin, laboratories of the Department, Classroom etc.

The Process for Defining the Program Educational Objectives (PEOs) :

1) Institute and Department Vision, Mission is shared with external stakeholders Industry Experts, Alumni etc. and their perception is considered in view of defining PEOs.

2) During the Department meetings the thought behind the Departments Vision and Mission is elaborated by the Head of Department and the feedback from external stakeholders about proposed PEOs is shared with faculty, Support Staff.

3) All the faculty, supporting staff members have taken note of it and each faculty member has been asked to give their suggestions about the Department PEOs.

4) The Department Advisory Board is composed of internal and external stakeholders as members like Industry Experts Alumni, Faculty, Management, Parents etc. The statements of PEOs have been rectified incorporating the suitable suggestions from various stakeholders. Department PEOs have been rectified incorporating the suitable suggestions.

5) These PEO statements are then submitted to the Internal Quality Assurance Cell (IQAC) for further approval and suggestions.

6) IQAC forward the draft to College Development Committee (CDC) for final approval, CDC inform the same to the Governing Body.

7) The final approved Version of Vision and Mission are then published and disseminated at various places such as the Department website, HOD's cabin, laboratories of the Department, Classroom etc.

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

Total Marks 15.00

Institute Marks : 15.00

Sr No	PEO Statements	M1	M2	M3
1	The graduate of the program will implement strong fundamental domain knowledge to solve engineering problems with modern tools and technology.	3	1	3
2	The graduate of the program will work as a committed professional demonstrating strong ethical practices with understanding of social responsibilities for betterment of society.	1	2	2
3	To prepare a motivated graduate by inculcating multidisciplinary thinking through research attitude and lifelong learning.	3	2	3
4	To prepare graduates with strong communication and leadership skills to work effectively as an individual as well as in teams.	1	2	1

Justification and Rationale of the Mapping :

A) Mission 1 and PEO 1, 2, 3, 4 :

Below is the table justifying the Mission 1 and PEO 1, 2, 3, 4 Mapping :

Mission 1 : To inculcate quality education in various domains of Computer Engineering.

Key Point/s in Mission 1 "quality education"

PEO1 : The graduate of the program will implement strong fundamental domain knowledge to solve engineering problems with modern tools and technology. Keywords: fundamental domain knowledge, solve engineering problems, modern tools

PEO2: The graduate of the program will work as a committed professional demonstrating strong ethical practices with understanding of social responsibilities for betterment of society. Keywords: committed professional, ethical practices, social responsibilities of society

PEO3 To prepare a motivated graduate by inculcating multidisciplinary thinking through research attitude and lifelong learning. **Keywords: multidisciplinary thinking, research attitude, lifelong learning.**

PEO4 To prepare graduates with strong communication and leadership skills to work effectively as an individual as well as in teams. **Keywords: strong communication, leadership skills, work in team.**

Mission 1 "Quality Education"	**PEO1**	**PEO2**	**PEO3**	**PEO4**
Technical Competency	YES	YES	YES	-
Teaching Effectiveness	YES	-	YES	YES
Curriculum Relevance	YES	YES	YES	-
Graduate Employability	YES	-	YES	YES
Research and Innovation	YES	-	YES	-
Infrastructure and Learning Resources	YES	-	-	-
Total Score	**6/6**	**2/6**	**5/6**	**2/6**
Score out of 3	**3**	**1**	**3**	**1**

B) Mission 2 and PEO 1, 2, 3, 4 :

Below is the table justifying the Mission 2 and PEO 1, 2, 3, 4 Mapping :

Mission 2 : Encourage students to showcase their talent and search for the community needs

Key Point/s in Mission 2 "talent", "community needs"

PEO1 : The graduate of the program will implement strong fundamental domain knowledge to solve engineering problems with modern tools and technology. **Keywords: fundamental domain knowledge, solve engineering problems, modern tools**

PEO2: The graduate of the program will work as a committed professional demonstrating strong ethical practices with understanding of social responsibilities for betterment of society. **Keywords: committed professional, ethical practices, social responsibilities of society**

PEO3 To prepare a motivated graduate by inculcating multidisciplinary thinking through research attitude and lifelong learning. **Keywords: multidisciplinary thinking, research attitude, lifelong learning.**

PEO4 To prepare graduates with strong communication and leadership skills to work effectively as an individual as well as in teams. **Keywords: strong communication, leadership skills, work in team.**

Mission 2 "Talent Community Needs"	**PEO1**	**PEO2**	**PEO3**	**PEO4**
Academic Achievements	YES	-	YES	YES
Domain Knowledge	YES	-	YES	-
Soft Skill and Articulation	-	YES	-	YES
Co Curricular activities	-	YES	-	YES
Impact on Society	-	YES	-	-
Social, economic, or environmental community needs	-	YES	YES	YES
Total Score	**2/6**	**4/6**	**3/6**	**4/6**
Score out of 3	**1**	**2**	**2**	**2**

C) Mission 3 and PEO 1, 2, 3, 4 :

Below is the table justifying the Mission 3 and PEO 1, 2, 3, 4 Mapping :

Mission 3 : To improve technical competency by providing value added training.

Key Point/s in Mission 3 : "technical competency", "value added training"

PEO1 : The graduate of the program will implement strong fundamental domain knowledge to solve engineering problems with modern tools and technology. **Keywords:** fundamental domain knowledge, solve engineering problems, modern tools

PEO2: The graduate of the program will work as a committed professional demonstrating strong ethical practices with understanding of social responsibilities for betterment of society. **Keywords: committed professional, ethical practices, social responsibilities of society**

PEO3 To prepare a motivated graduate by inculcating multidisciplinary thinking through research attitude and lifelong learning. **Keywords: multidisciplinary thinking, research attitude, lifelong learning.**

PEO4 To prepare graduates with strong communication and leadership skills to work effectively as an individual as well as in teams. **Keywords: strong communication, leadership skills, work in team.**

Mission 3 "Technical Competency, Value added Training"	PEO1	PEO2	PEO3	PEO4
Programming proficiency	YES	-	YES	-
Debugging and problem solving	YES	YES	YES	YES
Use of development tools and frameworks	YES	YES	YES	-
System design and architecture understanding	YES	-	YES	-
Skill Proficiency Levels	YES	YES	YES	-
Industry readiness	YES	YES	-	YES
Total Score	**6/6**	**4/6**	**5/6**	**2/6**
Score out of 3	**3**	**2**	**3**	**1**

PEO Statements	M1	M2	M3
The graduate of the program will implement strong fundamental domain knowledge to solve engineering problems with modern tools and technology.	3	1	3
The graduate of the program will work as a committed professional demonstrating strong ethical practices with understanding of social responsibilities for betterment of society.	1	2	2
To prepare a motivated graduate by inculcating multidisciplinary thinking through research attitude and lifelong learning.	3	2	3
To prepare graduates with strong communication and leadership skills to work effectively as an individual as well as in teams.	1	2	1

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120) Total Marks 102.00

2.1 Program Curriculum (20) Total Marks 15.00

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 : 8.00

A. Process Used to Identify the Extent of Compliance of University Curriculum for Attaining POs and PSOs

The college is affiliated to Savitribai Phule Pune University (SPPU), Pune, Maharashtra. The Department of Computer Engineering follows the curriculum as prescribed by the University for the program. Currently, the program curriculum 2019 (Second Year, Third Year, and Final Year) and 2024 (First Year - NEP Compliant) patterns are in execution. The last batch of the 2015 curriculum passed out in the academic year 2021–22.

The University curriculum maintains a balance in the composition with courses covering Basic Science and Humanities, Engineering Sciences, Professional Courses, and their distribution in Core and Electives, along with Project works, Internships, and Seminars. It is defined keeping in view AICTE and UGC recommendations for the distribution of various components and to meet the learning outcomes as prescribed by the University. Curriculum constitutes compliance attainment of all PO and PSO as it is designed to cover all PO and PSO.

Table 2.1.1.1 Composition of Program Curriculum (2019 Patten)

Sr. No.	Course Component	Total number of credits	Percentage in Curriculum content	PO's	PSO's
1	Basic Sciences and Humanities	11	6.47	PO1, PO2, PO3,PO5,PO6, PO7,PO9, PO10	PSO3
2	Engineering Sciences	36	21.18	PO1, PO2, PO3,PO5, PO6,PO7, PO12	-
3	Program Core	84	49.41	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1,PSO2,PSO3
4	Program Electives	22	12.94	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1,PSO2,PSO3
5	Project, Internship and Seminar	17	10.00	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12	PSO1,PSO2,PSO3
6	Audit Course	–	-	PO1,PO2,PO8,PO10,PO12	PSO1,PSO2,PSO3

Details of Process Used to Identify the Extent of Compliance of University Curriculum and Gap identification for Attaining POs and PSOs

The Teaching-Learning Process carries out a primary key role in the student's development through graduate attributes. As the college is affiliated to Savitribai Phule Pune University, Program Outcomes (POs), Program Educational Objectives (PEOs), and Course Outcomes (COs) are defined with reference of the university syllabus. The department defines Program Specific Outcomes (PSOs) of the program in line with the university curriculum. Faculty has the flexibility to redefine Course Outcomes (COs) as per attainment point of view. The key words used to define Course Outcomes are based on Bloom's Taxonomy. Each course faculty maps Course Outcomes (COs) to POs and PSOs. The POs and PSOs are achieved through curriculum planning, its implementation, and various activities conducted in the Institute as per the academic calendar. The department has a well-organized structure for its implementation. The department provides flexibility in curriculum planning and integration of activities for Outcome Based Education (OBE). Activities planned in alignment with OBE are student-centric and learning outcomes are significant. If certain components necessary to achieve POs/PSOs are not part of the curriculum offered by the affiliated university, the program takes extra steps to provide that knowledge through "Content Beyond Syllabus." The department faculty employs a systematic "Curriculum Gap Identification" process to address the content beyond syllabus.

Curriculum Gap Identification Steps:

- Department allocates faculty per course as per expertise and choice. The role of course faculty is to define the Course Outcomes (COs) for each course and their CO-PO/PSO mapping.
- Bloom's Taxonomy (BT) is used in developing course outcome of each unit. Course content delivery actions to map COs are decided by course faculty. Course Articulation Matrix (CAM) that establishes compliance between the COs and POs/PSOs by course faculty.
- After analysing the COs and POs/PSOs mapping, weak areas are pointed out and gaps are identified.

Following table illustrates the mapping of Program Outcomes (POs) and Program Specific Outcomes (PSOs**)** with various curriculum components under the 2019 course structure. Each course has been evaluated to determine its contribution to achieving specific POs and PSOs, which are critical for the holistic development of engineering graduates.

To analyze the strength of alignment between the curriculum and the outcomes, the number of courses mapped for each PO and PSO mapping has been calculated. The average number the of courses mapped for each PO and PSO strength is categorized as:

- **Weakly Mapped** – Below 50%
- **Moderately Mapped** – 51% to 70%
- **Highly Mapped** – Above 70%

Table 2.1.1.2 PO & PSO Mapping

PO / PSO	No. of Courses Mapped	% Mapping	Category
PO1	58	92	Highly Mapped
PO2	58	92	Highly Mapped
PO3	56	89	Highly Mapped
PO4	53	84	Highly Mapped
PO5	50	79	Highly Mapped
PO6	34	54	Moderately Mapped

PO7	26	41	Weakly Mapped
PO8	31	49.2	Weakly Mapped
PO9	37	58.7	Moderately Mapped
PO10	45	71.4	Highly Mapped
PO11	27	42.9	Weakly Mapped
PO12	39	61.9	Moderately Mapped
PSO1	49	77.8	Highly Mapped
PSO2	46	73	Highly Mapped
PSO3	42	66.7	Moderately Mapped

B. List of curriculum gaps for the attainment of defined POs and PSOs

The following table identifies specific gaps within the current curriculum, highlighting areas that require revision or enhancement to better align with academic standards and industry needs.

Table.2.1.1.3 List of curriculum gaps

Gap No.	POs	Gap Description
1	PO6, PO8	Need for content on social and ethical responsibilities.
2	PO7	Need for inclusion of environmental sustainability topics.
3	PO9, PO11	More academic activities required related to professional and collaborate skill building.
4	PO12,PSO3	Need for integration of advanced technologies and simulation tools.

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

Institute Marks : 7.00

A. Steps taken to get identified gaps included in the curriculum. (e.g. letter to university/BOS)

Attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs) analysed and institutions systematically fill in the gaps in the university curriculum by offering content outside of the syllabus. Additional efforts taken through online certification courses, project creation, seminars and workshops by resource person, industrial visits, internships, soft-skills training, and extra lectures on advanced or necessary topics are some of the methods used for content beyond syllabus. In order to enhance communication skills, critical thinking, practical application, and industrial preparedness, these initiatives are conducted with Student Association, Student Development Cell, National Service Schemes, and professional organizations like Computer Society of India(CSI).

All these Gaps identified in **Gap Analysis** are submitted to DAB do the cumulative analysis and finalize syllabus gap. Cumulative gap analysis is done in the DAB meeting and communicated to BoS.

Table 2.1.2.1 List of Curriculum Gap identified

Sr. No.	Gap identified
1.	Technical skills in accordance with industry standards
2.	Professional Communication Skills, Aptitude and Collaborative activities.
3.	Industry preparedness
4.	Latest Information Technology Tools and Trends awareness
5.	Utilization of contemporary tools and technologies
6.	Higher Studies importance and awareness for lifelong learning
7.	Sustainable growth using environmentally friendly computer engineering solutions

B. Delivery details of content beyond syllabus

C. Mapping of content beyond syllabus with the POs & PSOs

Table 2.1.2.2 List of Delivery details of content beyond syllabus and mapping with POs/PSOs

Delivery Method	Purpose	Relevance to POs/PSOs
Guest lectures, seminars, workshops	Introduce emerging and advanced topics not in curriculum	PO6, PO7,PO12,PSO3
Classroom lectures on extra topics	Deepens foundational or specialized knowledge	PSO3
Hands-on/value-added training courses	Practical skill enhancement beyond core syllabus	PO6,PSO3
Remedial classes & online video contents	Fill learning gaps with self-paced tools (MOOCs, NPTEL, videos)	PO1, PO2, PSO1,PSO3
Soft-skills & Placement training	Boost interpersonal, presentation, employability skills	PO9, PSO3
Industrial tours, Internships , Company training	Provide experience on real world projects	PO6, PO9, PO11, PSO3
Students Seminar , Projects sponsorship and plagiarism checking	Enhance Communication, Project management skills. Prepare for professional ethics and responsibilities	PO6, PO7, PO8,PO9,PO11, PSO3

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Latest Information Technology Tools and Trends awareness	Seminar on"AWS Discovery Day"	21/8/2023	Mr.Pranav Phadke Director of Brainfloss	74	PO6, PO12,PSO3
2	Industry preparedness	Seminar on "Advanced Data Structure"	23/8/2023	Prof.Nagesh Mhetre, Trainer, Clicking Computer	75	PO6, PO12,PSO3
3	Professional Aptitude Skills	Seminar on " BSE - Capital Market Awareness Program "	28/08/2023	Mr.Arvind Savant Financial Market Analysis Trainer	50	PO8,PO10,PO11,PO12 ,PSO3
4	Latest Information Technology Tools and Trends awareness	Seminar on "Machine Learning"	8/9/2023	Prof.P.D.Kale Associate professor	67	PO12,PSO3
5	Latest Information Technology Tools and Trends awareness	Seminar on “Internet of things”	5/10/2023	Prof. S. A. Itkarkar Associate professor	64	PO12,PSO3
6	Sustainable growth using environmentally friendly computer engineering solutions	Seminar on " Career Opportunities in Biomedical Engineering Field"	1/2/2024	Mrs.Vaishnavi Banke, Expert, Medifacts	50	PO7,PO12,PSO3
7	Industry preparedness	Seminar on " Grooming Program on Cyber Security as per the Industry Standards"	9/2/2024	Mr.Manish Singh Manager-Services Sales Inflow Technologies PVT LTD	95	PO12,PSO3
8	Industry preparedness	Seminar on " Grooming Program on Cyber Security as per the Industry Standards"	9/2/2024	Mr.Manish Singh Manager-Services Sales Inflow Technologies PVT LTD	51	PO8, PO12,PSO3
9	Higher Studies importance and awareness for lifelong learning	A session on Crack GATE exam in first attempt	27/9/2023	Mr. Paresh Gugle, Expert Imperial Institutes	34	PO12, PSO3
10	Higher Studies importance and awareness for lifelong learning	A session on 'Higher Studies in the U.S. and Student Visa'	27/02/2024	Dr.Aditi Lele, Advisor EducationUSA	56	PO12, PSO3

2022-23

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Higher Studies importance and awareness for lifelong learning	Seminar on "Higher Studies Opportunities and IELTS Examination"	20/9/2022	Mr.Rahul Kamble Sr. IELTS Operation executive	81	PO12,PSO3
2	Higher Studies importance and awareness for lifelong learning	Seminar on "Carrier Opportunities in the Armed Forces for Women"	23/9/2022	GP CAPT.Sanjay Pethkar Dignitary Defence Academy	80	PO12,PSO3
3	Industry preparedness	Seminar on "Carrier in IT Industry"	23/9/2022	Mrs. Supriya Lande IANT Pvt.Ltd.	76	PO12,PSO3
4	Higher Studies importance and awareness for life long learning	Seminar on"Higher studies abroad with 100% scholership"	10/10/2022	Mr.Subhash Pol Business devlopment Manager	82	PO12,PSO3
5	Latest Information Technology Tools and Trends awareness	Workshop on" Python Programming for machine learning"	23/11/2022	Mr.Atul Wadkar Director, Algorithmicelectronics, pune	88	PO12,P PSO3
6	Industry preparedness	Webinar on Aptitude and Technical training	25/2/2023	Aditya Wakodakar Carporate trainer seven sense pvt.ltd.	62	PO12, PSO3
7	Industry preparedness	Webinar on Training demo on aptitude technical preparation	9/3/2023	Aditya Wakodakar Carporate trainer seven sense pvt.ltd.	71	PO12, PSO3
8	Professional Communication Skills, Aptitude and Collaborative activities.	Webinar on "Training of technical and soft skill demo"	11/03/2023	Avinash Pathak Carporate trainer Carpe diem Boot camp	43	PO10, PO11,PO12,PSO3
9	Industry preparedness	Webinar on "Training demo on coding and aptitude"	21/03/2023	Mr.Sachin Satpute Carporate trainer Eduplus pvt.ltd	40	PO12,PSO3
10	Industry preparedness	Webinar on "Coding Super Power: Go Easy with C++ and Logic Building"	24/03/2023	Bhakti Jagtap Director,BrightSea Technology OPC Private Limited	35	PO12,PSO3
11	Awareness about PG programs	Career opportunities after Engineering	27/08/2022	Mr. Shankar Wadne, Expert , ACE Engineering Academy	70	PO12, PSO3
12	Awareness about overseas study	Career Guidance for Abroad study options after engineering	17/03/2023	Mr. Shreyas Ramkrishnan, TrainerJamboree Institutes	65	PO12, PSO3

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S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Industry preparedness	Webinar on Profile Building and Career Opportunities	18/08/2021	Mr. Satish Anand Mr. Bhupendra Singh Life skills trainer and content Developer, CareerLabs.	78	PO10,PO12, PSO3
2	Industry preparedness	Workshop on Data structures and algorithms	25/08/2021	Mr Swapnil Gupta and Mr. Shantanu Shubham, Trainer Coding Ninjas	50	PO12,PSO3
3	Latest Information Technology Tools and Trends awareness	Webinar on block chain	16/09/2021	Mr. Sandeep Singh Koii Expert	60	PO10,PO12, PSO3
4	Latest Information Technology Tools and Trends awareness	Webinar on Machine Learning	22/09/2021	Mr. Manish kumar Singh Head institutional Sales , ATS learning solutions.	65	PO10,PO12,PSO3
5	Industry preparedness	Webinar on Internship for developing a portfolio	30/09/2021	Mr. Sachin Mohite Executive Director, SPACE for ECE.	60	PO12,PSO3
6	Professional Communication Skills, Aptitude and Collaborative activities.	Webinar on Speak English Confidently	25/11/2021	Miss. Kirti S Bajaj Soft Skills Trainer and a Spoken English Coach in Flamingo Learnings.	50	PO12,PSO3
7	Industry preparedness	Workshop on Excellence Bytes	11/2/2022	Mr. Ashish Behavioral Trainer & manegement consultant	62	PO12,PSO3
8	Industry preparedness	Seminar on Engineering is awesome	25/03/2022	Mr. Raghvan Koli Motivational Speaker	41	PO12,PSO3
9	Industry preparedness	Seminar on Programming Techniques	28/03/2022	Mr. Nagesh Mhetre Director of Click-in Computers	55	PO10,PO12,PSO3
10	Awareness about overseas study	Overseas education	12/08/2021	Mr. Omkar Kargar IDP education	60	PO9,PO10,PSO3
11	Motivate to give GATE exams	Benefits & career opportunities in GATE	14/08/2021	Mr. Akash Pushkar, M.Tech. IIT, Kanpur The GATE Academy	50	PO12,PSO3

2.2 Teaching - Learning Processes (100) Total Marks 87.00

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

Institute Marks : 22.00

A. Adherence to Academic Calendar (Institute and Department Calendar)

Process of Forming the Academic Calendar

The Academic Calendar serves as a guiding document for faculty, students, and other stakeholders to ensure timely execution of academic and co-curricular activities. In alignment with the University Academic Calendar, the Institute IQAC prepares its comprehensive Institute Academic Calendar well in advance of the semesters commencement. This calendar is then used by each department to create a detailed and department-specific academic calendar of events.

Key dates related to the academic session, such as the commencement of classes, the duration of the semester, internal assessments and end-semester examinations are explicitly defined in the calendar. This ensures synchronized planning and execution of all academic processes.

The Academic Calendar includes planning for academic, co-curricular, and extracurricular activities and is formulated by following a structured process as outlined below:

Step 1. The Institute refers to the University Academic Calendar to create Institute Academic Calendar.

Step 2. Events are proposed by various coordinators and faculty through internal discussions and structured data collection. These events include:

- **Academic Activities**: Unit test examinations, Mid-Term Submissions, Mock Practical/Oral/Term Work Examinations, Final Lab Assessments.
- **Student Support Activities**: Scheduled student counselling sessions, Guardian Faculty Member (GFM) meetings, and meetings for assisting slow and advanced learners.

Step 3. Teaching and laboratory plans are prepared by individual course faculty and submitted for consolidation. This ensures well-structured theoretical and practical coverage across all subjects.

Step 4. The finalized calendar is reviewed and approved by the IQAC and disseminated to all stakeholders through digital platforms like email, institutional ERP, and notice boards.

Step 5. In case of any changes or additions, the respective coordinator seeks IQAC approval, and updates are reflected in the live version.

Academic calendar is available on college website : https://coewpune.bharatividyapeeth.edu/index.php/academic-calendar-ug (https://coewpune.bharatividyapeeth.edu/index.php/academic-calendar-ug)

Department Academic Calendar

The Academic Calendar of University and Institute Academic calendar used for departmental academic calendar finalization. The Department follows the commensement and conclusion dates of the semester as specified in the University Calendar. The Department adheres to the dates for Internal Assessment Exams, Mid-Term submissions, End-Term submissions, and meetings outlined in the Institute Academic calendar. Department events of student association and academic activities are added in calendar.

- **Department Initiatives**: Activity planning by Training and Placement (T&P) Cell, Student Cell Activities (such as technical festivals, guest lectures, seminars, workshops), and lectures by visiting industry professionals.
- **Project & Internship Planning**: Activity planning by project, seminar, and internship coordinators.

Procedure for Compliance of Academic Calendar

Step 1. Regular reviews and audits are conducted to ensure adherence to Academic Calendar.

Step 2. In case of deviation (e.g. postponed event, rescheduled exam), the concerned faculty provides a justification and seeks formal approval for the change.

Step 3. Unavoidable cancellations (due to holidays, external constraints, or unavailability of resources) are documented with reasons and remarks, with approval from the department authorities.

B. Use of Various Instructional Methods and Pedagogical Initiatives

B.1 Interactive and Student-Centred Learning

The Departments teaching-learning paradigm has evolved from a traditional approach to a more interactive, student-centred learning model. Faculty focus on encouraging student's active participation to enhance knowledge transfer and improve learning outcomes. Innovative teaching methods are employed using ICT tools and faculty development programs to achieve Outcome-Based Education (OBE).

Technology-Enabled Teaching Tools:

- Use of Smart Boards in classrooms
- PowerPoint Presentations
- Modern learning tools like Google Classroom
- WordPress
- Educational Videos
- Mini Projects
- Hands-on practical sessions

Faculty prepare teaching plans, lecture notes, PowerPoint presentations, and additional learning activities to ensure effective delivery.

B.2 Student-centred Learning Activities

Active learning methodologies are adopted to directly involve students through:

- Question and Answer: Faculties use this tool during interactive teaching.

- Discussion: During lecture and practical helps in understanding student's conceptual knowledge.
- Demonstrating: Students apply concepts learned in course to solve problems with help of tools and techniques.
- Mini projects: Students apply conceptual knowledge at the end of Laboratory course mini project for topic of real world application.
- Student Seminar: Students give presentation on topic in program domain to demonstrate communication skills and knowledge useful for real world application.
- Project-Based Learning: Students investigate real world problems and solve with helps of Faculty mentor.
- Think-Pair-Share: Activity carried out in class where Faculty put problem in class, Students solve in pair and presents in front of class.
- Case study : Learning through real world examples.

B.3 Faculty Development and Capacity Building

Faculty members are encouraged to attend:

- Faculty Development Programs (FDPs)
- Workshops
- Seminars
- Technical Training Programs

Faculty mentor for course teachers helps in academic work compliance as per planning as well as guidance helps in resolving queries. NPTEL videos along with Industry courses are widely used by students and recommended by faculty to support independent learning.

B.4 Collaborative and Interactive Learning

Collaborative learning is fostered through various programs.

- Projects - The institute supports project competitions that provide students with platforms to demonstrate their collaborative outcomes. Project labs remain accessible for extended hours to support project work.
- Capacity Building Programs - Training by Faculties to develop soft skills which covers self-analysis as well as peer analysis.
- Mock Viva - Department conducts mock viva every semester for each course.
- Aptitude Test Training - Institute organises aptitude test training for students.
- Industrial Visits - Visits to reputed Industries organised for students to get field experience.
- College Magazine Contributions - Students works in various committees of college magazines to enhance their communication and organisation skills.
- Annual Social Gathering- Students are very enthusiastic to participate in various activities of College Annual function where they demonstrate artistic skills, communication and organisation skills.
- Peer-to-Peer Training -Final year placed students prepares presentations and share their experience about placement process with juniors.

B.5 Supplementary Learning and Technical Events

- NPTEL videos are available on campus and widely shared by faculty to encourage independent learning.
- The college organizes Annual Technical event where students exhibit projects , present technical papers and prepare poster under faculty guidance.
- Collaborative and interactive learning is implemented through projects from First Year to Third Year (FE to TE).

B.6 ICT-Based Learning

Department adopted multiple ICT-Based Learning. Faculty conducted lectures, webinars, and FDPs through the Microsoft Teams platform. Teaching and learning activities were further supported through digital platforms such as:

- Google Classroom
- WhatsApp
- Udemy
- Coursera

C. Methodologies to Support Weak Students and Encourage Bright Students

A classroom comprises students with various learning level capabilities. Some students demonstrate exceptional learning capabilities and are referred to as bright students, while others with weak learning capability are identified as weak students. Overall purpose of the identification is only to enhance the gray areas of their academic and overall performance.

The identification of slow and bright learners is carried out based on defined academic and behavioural parameters. Additionally, the actions taken for both categories of students, along with their impact analysis, are systematically documented and evaluated.

Table 2.2.1.1 Criteria/ Parameters and Process to identify slow and bright Students

Student	Identification Criteria	Action Taken	Impact Analysis
Bright Students	• Students scoring mark between 80% and 100% for Unit Test I and Unit Test 2 in a given course • .Mentor observations	• Encourage to register for MOOC/SWAYAM courses • Orientation and Induction in various students Clubs • Motivate to Publish and present Papers • Arrange Workshop/Seminar on current trends • Participate in University, National level Competitions like Avishkar, Hackathons etc.	• Participation in Technical Events is improved • Participation in National and International Conferences
Weak Students	• Students scoring between 0% and 39% for Unit Test I and Unit Test 2 in a given course • Mentor observations	• Remedial lectures • Re-test for improvement • Counseling – special hints & techniques • Question bank • Guidance for Seminar/Project presentation	• Improvement in academic performance of students • Active participation of the students in various programs

D. Quality of Classroom Teaching

Classroom ambience is an essential part of creating a positive learning environment. The institute's classroom gives a beautiful ambience considering all aspects of the teaching-learning environment like Smartboards, projector, internet connection, speakers, desk arrangement, proper ventilation, etc. Cleanliness is maintained in the department through daily cleaning of classroom desks, boards, laboratories, and premises. Regular feedback is taken from students.

The following innovative teaching-learning methods are adopted by the faculty:

- ICT Based teaching-learning process is adopted.
- Faculty members showcase various NPTEL videos or other internet sources for effective teaching.
- Students are encouraged to explore themselves more and building confidence through the presentations for various topics or case studies
- Faculty adopt brainstorming and activity-based learning to engage students more for an effective teaching-learning environment.
- Quality of classroom teaching is verified by a feedback mechanism and the Head of Department also verifies the same by attending the lectures of faculities.

E. Conduct of Experiments

Students carry out all the required number of experiments specified by the University. All laboratories have good facilities for both hardware and software. For the experiments, detailed instruction manuals and supplementary materials required for experiments are provided.

- The software experiment outputs are verified by faculty, and files are maintained systematically.
- Before the first lab session, the lab machine is prepared with the required software and dependencies by the lab in-charge and assistants.
- Laboratories have display boards exhibiting course objectives, outcomes, list of experiments (course-wise), code of conduct for students, and laboratory timetables.
- Labs have internet facilities for referencing e-learning materials.
- The department has hardware lab for electronics-related subjects. Course teachers provide hands-on demonstrations and assist students in solving practical problems

F. Continuous Assessment in the Laboratory

A continuous assessment system is implemented for the assessment of laboratory work. The assessment is done on the basis of laboratory record submission, understanding of the experiment through oral viva-voce questions, and participation in performing the experiment. Regularity (timely completion) of students is also given weightage in the assessment. Rubrics are followed to assign the marks.

- Separate rubrics are designed for evaluation of assignments, seminars, and projects. All the rubrics are communicated to students.
- Weekly checks are conducted on practical write-ups. At the semester's end, a Mock practical oral exam helps students prepare for university practical and oral exams.
- The university conducts PR, OR, and TW exams each semester. The department adheres strictly to the academic calendar and continuous internal evaluation (CIE) processes.
- Laboratory assignments are mapped with Course Outcomes (CO), Program Outcomes (PO), and Program Specific Outcomes (PSO).

G. Student Feedback of Teaching-Learning Process and Actions Taken

- Student course and faculty feedback is collected online at the semester end via ERP/Google Forms.
- Various department activities like Internship, Industrial visits and workshops feedback is collected online at end via ERP/Google Forms

- Teachers' performances are assessed based on student feedback.
- Feedback is quantified in percentages according to rubrics created in ERP /Google Forms.
- Faculties scoring above 80% in faculty feedback are appreciated by Head of Department.
- Faculties scoring below 80% are invited to discuss difficulties with lecture preparation, topic understanding, or delivery for further support and improvement.

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

Institute Marks : 17.00

A) Process for Internal semester question paper, assignment setting and evaluation:

Unit test:

• The department conducts two Unit Test examinations per semester. The first Unit Test is conducted on syllabus units 1 and 2, and the second Unit Test is conducted on syllabus units 4 and 5.

• The Internal Exam Question Paper Quality assured by The Paper checking committee which comprises of representatives from the Internal Quality Assurance Cell (IQAC), the Attainment Coordinator, and each department's Unit Test In-charge. The Academic Coordinator circulates the checking instructions to all Unit Test In-charges, who then meticulously review every assignment and question paper for syllabus coverage, CO–Bloom's alignment, mark weightage, and formatting. Ensure that an appropriate marking scheme and solutions have been prepared by staff. Assignments and Unit Test papers that fail to meet these criteria are returned for revision.

• Conduction of examination, evaluation, and declaration of results is done in a time-bound manner.

Assignments:

• Course faculty prepare two assignments per semester. The first assignment is based on unit 3 and the second assignment is based on unit 6 of syllabus.

• Course faculty prepare questions for assignments as per Bloom's Taxonomy learning levels.

• Assignment questions are framed by the course faculty. The Internal Exam Paper checking committee then meticulously review every assignment.

• Assignment rubrics are discussed with students. Students write assignments and come prepared for evaluation.

Evaluation:

• The assessed answer sheets of Unit Test are given to the students, and performance is discussed by the course teacher. Students having grievances with the internal evaluation process can directly discuss their doubts individually with The Grievance committee.

• Students can approach the Head of the Department in case of any further grievances.

• Retest is planned and conducted by course faculty.

• Theory assignments help students to grasp complex concepts and theories as well encorage the critical thinking , analysis and problem solving. Orals are conducted to evaluate understanding of assignments and marks calculated considering timely submission, understanding and communication skill.

• Term work marks calculation for courses considers marks of Unit Test and Assignment along with other parameters.

B) Process to ensure questions from outcomes/learning levels perspective:

The Paper Checking Committee, Department Exam coordinators and Course faculty ensures quality of internal assessment. During process meticulously review every question paper for syllabus coverage, CO–Bloom's alignment, mark weightage, and formatting carried out. Papers that fail to meet these criteria are returned for revision; compliant papers are approved and sealed.

Instructions for the Paper Checking Committee ensure questions from outcomes/learning levels perspective

1. Verification of Basic Details: Ensure that all questions are from the prescribed syllabus of the respective unit. No question should be from an out-of-syllabus topic, a different unit, or another subject.

2. Inclusion of Course Outcomes (COs) : The Course Outcome (CO) statements relevant to the unit test must be clearly listed after the general instructions to students on the question paper.

3. Blooms Taxonomy Level Mapping :Each question must be mapped to the appropriate Bloom's Taxonomy Level to ensure cognitive diversity and depth of assessment.

4. CO – Bloom's Taxonomy Alignment :Check the mapping between each questions with respective CO and its Bloom's level. This mapping should be logical and consistent with the intent of the CO.

5. Correct Application of Bloom's Level for CO-mapped Questions :When a CO is mapped to a specific Bloom's level, ensure that the question reflects the same level of cognitive challenge. Any mismatch should be flagged.

6. Appropriate Mark Weightage and Bloom's Levels for multi-part Questions and CO Mapping : For questions like Q3 with subparts (e.g., a, b, c), where the entire question is mapped to a CO at a higher Bloom's level (e.g., Level 5), at least one subpart must meet that level. The other subparts may be at lower levels but must still align with the CO intent. Ensure that questions at higher Bloom's levels (such as Analysing, Evaluating, Creating) are given more marks than questions at lower levels (Remembering, Understanding). This maintains fairness and reinforces depth in learning assessment.

C) Evidence of COs coverage in class test/ mid-term tests:

The department conducts two Unit Test as well as two assignments to cover all COs for course.

- The first Unit Test covers questions addressing COs of units 1 and 2, and the second Unit Test covers questions addressing COs of units 4 and 5.
- The department conducts two assignment per semester. The first assignment covers questions addressing CO 3 and the second assignment covers questions addressing CO 6.

D) Quality of Assignment and its relevance to COs :

Assignments are designed to promote self-learning of students. Assignments are design, evaluated and its respective feedback is given to the students to improve their learning skills as well as to appreciate their efforts.

The Course faculty prepare Assignments as per respective course outcome.

- Assignment framed according to the blooms level, verified by the Paper Checking Committee.

- Assignments are assigned to students through the concerned Course Google Classroom or in classroom, in academic calendar time slot for assignments are given.
- Each question is mapped with COs and Blooms level.
- Evaluation done based on predefined rubrics which has already shared and discussed with students.
- Oral evaluation is carried out for theory assignments to evaluate understanding as well as timely submission and communication skill taken in consideration.
- After evaluation comments (feedback) communicated with students for that assignments is also done by the Course faculty.
- Assignment marks and status is also maintained by individual faculty in the student progress report.

2.2.3 Quality of student projects (25)

Institute Marks : 22.00

A. Identification of projects and allocation methodology to Faculty Members

• The students prepare for projects in the third year by introducing various domains in Seminar Course. At the beginning of third year student groups are formed and guides are allocated. Final year student's groups and guide mostly continued with domain or change as per their choice.

• Students can form group of three or four students as per their choice. Faculties expertise domain shared with students. Project Guides asiigned to Project groups during the third year Seminar course.

• Faculty ask or guide students to explore domain, get fundamental concept, study course tools and find topics of interest. After detail study of domain specifically addressing project topic and problem statement get finalized.

• Project group carry out literature review by referring papers and E-resources like Sci-Hub, IEEE, Elsevier, Springer, Google Scholar etc. At the Third year student submit seminar report addressing topic selected and project domain.

• Project coordinator prepares planners for all phases of final year project work at the beginning of the academic year and conducts an orientation session for students to make them aware about course expectations.

• Project group select final project title in consultation with guides as well as groups allowed for sponsored project (Title suggestion and associated guidance by external institute/Company).

• Teams in consultation with guide prepare project proposal(synopsis). Internal project conduction as per planner is verified by Project review committee.

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

Final year project course contributes in mapping and attainment of all twelve POs and three PSOs.Students take project in final year as per there interest in different domains, domain wise grouping of Projects shown in table below.

Table 2.2.3.1 Domain Wise grouping of Projects

Specific Domain	2024-25	2023-24	2022-23	2021-22
AI/Image Processing/Video Processing	7	7	9	8
AI/Machine Learning/DL	5	6	6	8
AI/Natural Language Processing	-	1	1	2
AI/IOT/Mobile Applications	-	1	1	–
Web Technology/Big Data/ Block chain	4	1	–	–
Cyber Security	1	2	3	1
Cloud Computing / GIS	2	2	1	1
Total	19	19	21	20

Final year projects are based on problems in various application domains. Project having new ideas are research based whereas projects targeting end user and a new software of potential further production are product based projects.

Table 2.2.3.2 Project types

Year	Application based Project	Product based Project	Research based Project	Total
2024-25	15	2	2	19
2023-24	13	3	3	19
2022-23	15	3	3	21
2021-22	14	3	3	20

Application projects addressing societal causes are categorised as Social, Agricultural and Biomedical projects.

Table 2.2.3.3 Types of Projects based on societal applications.

Year	Social Project	Agriculture Project	Biomedical Project	Computer Appl. Project	Total
2024-25	3	3	2	7	15
2023-24	4	1	5	3	13
2022-23	5	1	5	4	15
2021-22	3	1	5	5	14

Course Outcomes of Project stage I and stage II are defined and finalised by project coordinator. CO-PO Mapping Articulation Matrix prepared for Project Work Stage I in Seventh Semester and Stage II in Eighth Semester. The Project course attainment with respect to COs, POs and PSOs is calculated and finalised by project coordinator.

C. Process for monitoring and evaluation

- Project reviews are conducted four times in a semester by a review committe members which include Project guide and committee of reviewers.
- Timely suggestions are given by the project guide and documented in the project log book.
- Project guide ensures the compliance of suggestions.
- As per project review presentations the internal evaluation is done.
- Final evaluation is done at the end of the semester by Internal and an external examiner.

Process of Continuous monitoring is elaborated below:

1. Students prepare the synopsis and the internal guide gives suggestion for improvement.
2. The project synopsis is submitted to the project coordinator after project guides approval.
3. Some projects are sponsored, for which they need to consult with internal as well as external guides towards implementation of the project.
4. Project guide ensures students follows standard stratergies and practices related to project management and finance through weekly meetings.
5. Project group carry out work and submit the assignment for project Stage-1 in Seventh semester, and Stage-2 in Semester 8.
6. Project guides evaluates every student as well as team and make them work in the right way.
7. Students have to give a review presentation as per the guidelines in project workbook in front of the review committee.
8. The Project Review Committee gives suggestions to the students, which are then incorporated before the submission of the project report.
9. Project group submits report of project Stage-1 in Semester 7, and Stage-2 in Semester 8 after getting approval from HOD and Principal.

Department support (Initiative) for students

- Project problem statement, feasibility study of new Project Idea and to support for interdisciplinary projects, provided by project guide.
- Seminar work in Third Year gives idea of the different ways of Literature Survey and to understand its process.
- Project Workbook practice enables records maintained for Project Planning, evaluation based on parameters set individual task , team performance, review committee suggestions, etc.
- Project Groups are encouraged to participate in Competitions, and Publish Papers.

Evaluation of the Project

Project work is divided into two phases, Semester-7: Project Preliminary during seventh semester and Semester-8: Project work during eighth semester. Internal evaluation carried out review presentation.

Semester 7:

Project Review-I: Problem Statement, Motivation, objectives and Literature Review

Project Review-II: Feasibility and Scope

Project Review-III: Requirement Analysis

Project Review-IV: Design

Semester 8:

Project Review-I: Modelling (Model Refinement and Algorithm development)

Project Review-II: Coding / Implementation

Project Review-III: Validation and Testing

Project Review-IV: Report Writing

D. Process to assess individual and team performance

Project progress presentations are conducted after regular interval with guide, and reviewer faculty member.

- The project evaluation committee also carries out a separate assessment of the project work progress through internal and final presentations and demonstrations.
- Guide evaluates the contribution of each student through continuous interaction with weekly meeting and the review presentation of project group and based on the parameters mentioned in workbook.
- External examination conducted with examiner appointed by University and marks are allotted for each member in the group.

Each individual and team performance is evaluated based on following criteria:

Table 2.2.3.4 Rubrics for Project Work Stage-I (50 Marks)

Criteria	Excellent	Very Good	Good	Poor
Point Distribution	**5**	**4**	**3**	**2**
(A) Problem Definition/Motivatio n/Objectives/Scope/Feasibility. Requirement of the Project (Max Marks 5)	Project has well-defined goal and supporting data for the project concept. Regularity. Range of marks 81% to 100%	A reasonably clear goal concept and supporting data for the project idea." Regularity. Range of marks 61% to 80%	Efforts are made to specify the goal and the supporting data for the project concept. Range of marks 41% to 60%	The project concepts aim and supporting proof are not well defined. Range of marks <40%
Point Distribution	**5**	**4**	**3**	**2**
(B) Literature Survey (Max Marks 5)	Enough literature was studied to determine the projects scope. Range of marks between 81% and 100%	Enough literature has been studied to determine the projects scope Range of marks between 61% and 80%.	Project study addressed enough literature to determine the projects scope. Range between 41% and 60%	Not enough literature has been studied to determine the projects scope. Range <40%
Point Distribution	**5**	**4**	**3**	**2**
(C)1 Requirement Analysis (Max Marks 5)	The requirement analysis is accurate, thorough, and consistent. Marks Range 81% to 100%	The requirement analysis is reasonably accurate, consistent, and comprehensive. Marks Range 61% to 80%	"Very few requirement analyses are accurate, consistent, and comprehensive.Marks range 41% to 60%	The requirement analysis is not accurate, consistent, or comprehensive.Marks less than 40%.
Point Distribution	**(10-9)**	**(7-8)**	**(5-6)**	**(<4)**
(C)2 Modeling and Designing (Max Marks 10)	The behavioral and structural schematics are clearly established Consistency. Marks Range 81% to 100%	The behavioral and structural diagrams are reasonably well-defined. Marks Range 61% to 80%	Few of the schematics and structures are clearly stated.Marks range 41% to 60%	The behavioral and structural diagrams are inadequate.Marks less than 40%.
Point Distribution	**5**	**4**	**3**	**2**
(D) Planning & Prototyping (Max Marks 5)	Gave requirements that were in line with the budget, timetable, and resources. Marks Range 81% to 100%	Some of the requirements align with the budget, timeline, and resources. Marks Range 61% to 80%	Aims to meet requirements in accordance with budget, schedule, and resources.Marks range 41% to 60%	No efforts are made to ensure that requirements align with budget, timeline, and resources.Marks less than 40%.
Point Distribution	**5**	**4**	**3**	**2**
(E)1 Presentation & Question - Answer (Max Marks 5)	The presentation is logically ordered and well-structured. tThe audience is captivated by the speech from beginning to end. Marks Range 81% to 100%	A portion of the presentation lacks logical arrangement.The audiences attention is largely maintained during the delivery. Marks Range 61% to 80%	Presentation lacks logical organization.The audience is captivated by the speech from beginning to end.Marks range 41% to 60%	A significant portion of the presentation but lacks logical arrangement. timeline,The audience is not engaged by the speech from beginning to end.Marks less than 40%.
(E)2 Question -Answer. (Max Marks 5)	Depth and undestanding : Student showcase full knowledge by proper explanation in answering questions and details. Presentation skill:Excellentpresentation skill, correct pronounciation, steady pace, and confidence. Student maintains eye contact with audience. Research :Student is able to use specific evidence or research from their project and experiences to answer questions. Marks range 81% to 100%	Depth and undestanding : Student shows adequate knowledge by answering questions with few details or elaboration. Presentation skill : Adequate comfort good pronounce and pace, but not as clearly polished or presented. Student occasionally makes eye contact with the audience. Research :Student is occasionally able to use evidence or research from their project and experiences to answer questions. Marks range 61% to 80%	Depth and undestanding :Student shows knowledge by answering questions with little detail or elaboration. Presentation skill :Audible and Significantly short responses. Student responds with little eye contact with the audience. Research Student is somewhat able to use evidence or research from their project and experiences to support their answers. Marks range 41% to 60%	Depth and undestanding : Student does not shows knowledge by answering questions Presentation skill: Inaudible and/or uninterested. Significantly short responses. Student responds with little or no eye contact with the audience. Research Student is not able to use evidence or research from their project and experiences to support their answers. Marks range <40%
Point Distribution	**(10-9)**	**(7-8)**	**(5-6)**	**(<4)**

(F) Partial Project Report (Max Marks 10)	Submitted the project report as per given format within time given with quality content. Regularity Marks range 81% to 100%	Submitted the project report as per given format and but violated time constraint with content purity. Marks range 61% to 80%	Somewhat submitted the project report as per given format and but violated time constraint with content purity. Marks range 41% to 60%	Not submitted the project report as per given format and violated time constraint with content purity. Marks range <40%

Table 2.2.3.5 Project stage 1 Evaluation

Project ID	Project Group Member	Project Guide	Project Title	Problem Statement/ Motivation Objectives/ Scope/ Feasibility/ Requirement (5)	Literature Survey (5)	Requirement Analysis (05)	Modelling & Designing (10)	Planning & Prototyping (05)	Presentation & Question - Answer (10)	Partial Project Report (10)	Total (50)

Table 2.2.3.6 Project stage 2 Evaluation

Project ID	Project Group Member	Project Guide	Project Title	Modelling (10)	Coding and Implementation(40)	Testing (10)	Understanding, Individual Involvement /Contribution in the project (10)	Team Work (10)	Demonstration cum Presentation (10)	Documents & Report (10)	Total (100)

E. Quality of completed projects/working prototypes based on Project Demonstration

• The department organizes project exhibitions or demonstrations where external experts are invited to evaluate the technical quality, innovation, and presentation of the projects. Based on their feedback, the best projects are identified and awarded.

• Students are also encouraged to participate in intercollegiate project competitions, which provide broader exposure and benchmarking opportunities. Quality projects receives awards during project competition.

• Projects that lead to research publications in reputed journals are considered high-quality due to their academic contribution.

• Industry-sponsored projects are given special recognition for their relevance and real-world applicability. Projects addressing societal needs or demonstrating potential for product development are also regarded as indicators of strong quality and impact.

F. Evidences of papers published /Awards received by projects etc.

Table 2.2.3.7 Awards received by projects A.Y. 2024-25

Sr. No.	Name of Competition	Organized by	Date	Type of Achievement	Project Title	Name of students	Name of Guide
1	Dipex 2025	ABVP and COEP Pune	7th Mar 2025	Second Prize at state level	CySpark: A Comprehensive Cyber Defense Toolkit	Tanvi Deore Riya Kadole Mitali Rajesh Chavan Saba Aslam Sayyad	Prof. D.D. Pukale
2	CODEBITS 3.0	Gharda Institute Of Technology	6thMar 2025	Third Runner Up Received Prize amount Rs.10,000/- at National level	NextGen Communication: LSTM-Powered Speech to Sign Language Translation	Sanika Chaudhari Shruti Bhumkar Manasi Deshmukh Samruddhi Deshmukh	Prof. V.D Kulkarni

Table 2.2.3.8 Awards received by projects A.Y. 2023-24

Sr. No.	Name of Competition	Organized by	Date	Type of Achievement	Project Title	Name of students	Name of Guide
1	NES Innovation Awards 2024	Natarajan Education Society(NES) , Pune	15th Feb 2024	Selected in TOP 50 Projects List in National level	Smart Inventory: Object Detection And Counting With Yolo	Shweta Jadhav Ankita Kanawade Tanvi Mahajan Samruddhi Shete	Prof. P.D.Kale

2	NES Innovation Awards 2024	Natarajan Education Society (NES), Pune	15th Feb 2024	Selected in TOP 50 Projects List in National level	Diet Recommendations System Using Machine Learning	Aditi Ahire Pratisha Bhise Kundan Binnar Sakshi Datir	Prof. P.D.Kale

Table 2.2.3.9 Awards received by projects AY 22-23

Sr. No.	Name of Competition	Organized by	Date	Type of Achievement	Project Title	Name of students	Name of Guide
1	Paper Presentation Avinya- 2023	Bharati Vidyapeeth's College of Engineering for Women Pune	27th April 2023	1st Prize Winner in National level	Prediction Of Stock Prices Using Sophisticated Machine Learning Techniques	Aishwarya Kottapalli Shital Patil Suhasi Gadge Piyusha Patil	Prof. P.D. Kale
2	Capgemini CodeX Hackathon	Capgemini	11th May 2023	3rd Prize Winner in National level	EcRD: Edge-cloud Computing Framework for Smart Road Damage Detection and Warning	Kajal Gadekar Anuradha Birajdar Rakshanda Borse Ankita Tilekar	Prof. A.P. Kadam

Table 2.2.3.10 Some of Papers publication with Scopus, Google Scholar Indexing

Sr.No.	Title of paper	Name of the teacher	Name of students	Name of journal	National / international	ISBN/ISSN number	Year
1	Automated Face Sketching and Identification with GANs for Forensic Investigation	Prof. V. D. Kulkarni	Anushruti Adhikari Diti Jariwala Arya Nigade Jagruti Patil	Proceedings of the 2025 12th International Conference on Computing for Sustainable Global Development (INDIACom)	International	ISSN 0973-7529	2025
2	Evaluation of Random Forest algorithms for mapping of land use land cover using remote sensing data for Baitarani River	Prof. Dr. S. P. Kadam	Apurva Gadilkar Sae Jamdade Namrata Rathi Chahal Ohri	International Journal of Information Technology	International	ISSN 2511-2112 (Online); ISSN 2511-2104 (Print)	2025
3	Vision Based Empty Shelf Space Detection In Retail Application With Telegram Notification To Staff	Prof.Dr. S. A. Pawar	Shruti Thakur, Vaishnavi Parab, Shubhangi Diwate, Sakshi Sonawane	High Technology Lettters	International	ISSN NO : 1006-6748	2024
4	Improving earth observations by correlating multiple satellite data: A Comparative Analysis of Landsat, MODIS, and Sentinel Satellite Data for flood mapping	Prof. Dr. S. P. Kadam	Ahilya Bandgar, Rajlaxmi Manepatil, Tanmayi Chavan, Chanchal Bundele	11th International Conference on "Computing for Sustainable Global Development", INDIACom-2024	International	Electronic ISBN: 978-93-80544-51-9	2024
5	ECG signal classification via ensemble learning: addressing intra and inter-patient variations	Mrs. V. D. Kulkarni	Sanah Naik Ankita Ochani Sakshi Pratap Suruchi Bibikar	International Journal of Information Technology Singapore This link is disabled	International	Electronic ISSN 2511-2112 Print ISSN 2511-2104	2024

6	Face detection and recognition for Criminal Identification System	Mr. Kiran Yesugade	Apurva Pongade, Shruti Karad, Divya Ingale, Shravani Mahabare	International Journal of Creative Research Thoughts(IJCRT)	International	ISSN: 2320-2882	2024
7	Anxiety Level Analysis through Real Time Image	Prof. S. A. Karande	Rutuja Chavan, Deepali Giri , Kshitija Thange, Rutuja Wankhede	International Journal of Scientific Research & Engineering Trends	International Journal	ISSN (Online): 2395-566X	2023
8	Deepfake Detection through Deep Learning	Prof. Kanchan Warke	Shruti Nahar Dhanashree Gurule Unnati Jadhav Prachi Wadhavane	Journal of Emerging Technologies and Innovative Research (JETIR)	International	2349-5162	2023
9	Automatic License Plate Recognition Using YOLOv4 and Tesseract OCR	Prof. J. D. Jadhav	Ritika Rai, Srushti Shitole, Pratiksha Sutar, Swapnali Kaldhone	International Journal of Innovative Research in Computer and Communication Engineering	International	e-ISSN: 2320-9801	2022
10	Human Pose Estimation using Deep Neural Network	Prof. Pranoti Kale	Shravani Shinde, Rutuja Tanpure, Palak Malik, Tamasa Sarkar	International Journal of Scientific Research in Engineering and Management	International	ISSN: 2582-3930	2022
11	Detection of Breast Cancer using Machine Learning Classifier	Prof. S. A. Pawar	Priyanka Bagal Prachi Shukla Asawari Dawkhar	Conference: 2021 Asian Conference on Innovation in Technology (ASIANCON)	International	978-1-7281-8402-9	2021

Table 2.2.3.11 Year wise Projects Summary

Year	Number of Participation in Project Competition	Number of Sponsored Project	Number of Project Publication	Number of Awards	Relevance POs/PSOs
2024-25	30	7	18	3	PO6, PO7, PO8,PO9,PO11, PSO3
2023-24	32	6	27	2	
2022-23	34	6	19	2	
2021-22	20	-	20	-	

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 13.00

A. Industry supported laboratories:

The industry-supported laboratories enhance the teaching-learning process using a comprehensive understanding of the industry's best practices for both students and faculties.

This initiative imbibes professionalism, behavioural aspects, and awareness about industry expectations and aligns aspirations of the students with the needs of the industries and promotes career counselling by organizing an expert talk by industry personnel and associating via Memorandum of Understanding (MOU) with industries. The details of industry-supported laboratories are given in Table.

Objectives:

- Modern Teaching: Integrating tech-driven and innovative teaching strategies.
- Student Support: Stronger career guidance and academic counselling.
- Hands-On Learning: Real-world exposure through projects and industry events.
- Industry Partnerships: Internships and collaborative opportunities.
- Tech Alignment: Curriculum aligned with latest trends.
- Growth Focused: Expanded from 1 to 13 AWS courses.
- Community Engagement: Encourages socially responsible learning.

Table 2.2.4.1 List of Industry-Supported Lab

Sr. No.	Laboratory Type/Name	Name and Type of Industry that Supports Lab	Objectives	Resources/Training/Expert Talk Provided by Sponsored Industry	Impact/Outcomes
1	AWS Academy Lab (AAL)	Amazon Web Services (Cloud Computing and Infrastructure Industry)	1. To empower students with cloud computing skills aligned with global industry needs. 2. To promote hands-on learning in AI/ML, Big Data, DevOps, and Security using AWS services. 3. To support faculty training and certification on AWS curriculum. 4. To integrate cloud technology into mainstream academic programs.	1. Access to AWS Academy curriculum with instructor-led and self-paced content. 2. AWS Educate and AWS Academy Learner Labs for hands-on cloud-based labs. 3. Faculty training programs and certification vouchers. 4. Expert talks, webinars, and industry engagement events. 5. Access to AWS cloud infrastructure.	1. Students gain industry-recognized skills and AWS certifications improving employability. 2. Faculty enhance their cloud knowledge and teaching capability. 3. Curriculum enriched with real-world cloud applications and tools. 4. Enhanced institutional profile through AWS collaborations and events.
2	Oracle Academy Lab (OAL)	Oracle Corporation (Product & Cloud Services Based Industry)	1. To provide students access to industry-aligned curriculum on Java, Databases, Cloud, AI/ML, and Project Management. 2. To promote use of Oracle Cloud and APEX through real-time simulation and hands-on training. 3. To develop technical and soft skills through hands-on workshops, Education Bytes, and Oracle certifications. 4. To support faculty development with free training and access to teaching tools.	1. Access to Oracle Cloud Free Tier for teaching and learning. 2. Oracle Academy Education Bytes: short, flexible modules with hands-on labs and solutions. 3. Workshops, training sessions, and expert talks for students and educators. 4. Access to Oracle APEX workspaces and NetSuite Learning Cloud Support Pass. 5. Software licenses for academic and research use.	1. Students gain exposure to Oracle industry tools, practices, and platforms. 2. Enhanced curriculum and employability skills through practical experience. 3. Faculty members receive upskilling opportunities and professional development. 4. Opportunities for institutional recognition through Oracle Member Directory and Success Stories.

Memorandum of understanding (MoU) :

MOU's with the Industries: Department have signed various MOUs with industries to improve the career opportunities for students. Details of MOUs are given in table below:

Table 2.2.4.2 MoU A.Y. 2024-25

Sr. No.	Name of the MoU / linkage	Name of the institution / industry with whom the MoU / linkage is made, with contact details	Duration MoU / linkage	Relevance POs/PSOs	Activities conducted under each MOU
1	Kasnet Technologies	BVCOEW, Pune	01/06/2024 31/05/2025	PO6, PO9, PO11, PSO3	Internship for TE students
2	RPG zensar	BVCOEW, Pune	01/08/2024 31/05/2025	PO6, PO9, PO11, PSO3	Employability skill development training for TE Students
3	NexGen Analytix	BVCOEW, Pune	26/12/2024 25/12/2025	PO6, PO9, PO11, PSO3	Internship for TE students
4	Springup Lab	BVCOEW, Pune	30/12/2024	PO6, PO9, PO11, PSO3	Expert sessions, Internship
5	Pralhad P. Chhabria Research Center (PPCRC)P-, Pune	BVCOEW, Pune	1/06/2024 31/05/2026	PO6, PO9, PO11, PSO3	Internship for TE student

Table 2.2.4.3 MoU A.Y. 2023-24

Sr. No.	Name of the MoU / linkage	Name of the institution / industry with whom the MoU / linkage is made, with contact details	Duration MoU / linkage	Relevance POs/PSOs	Activities conducted under each MOU
1	Kasnet Technologies	BVCOEW, Pune	01/06/2023 to 31/05/2024	PO6, PO9, PO11, PSO3	Internship for TE students
2	RPG zensar	BVCOEW, Pune	01/08/2023 to 31/05/2024	PO6, PO9, PO11, PSO3	Employability skill development training for TE Students

Table 2.2.4.4 MoU A.Y. 2022-23

Sr. No.	Organisation with which MoU is signed	Name of the institution/ Industry/ Corporate house	Duration MoU / linkage	Relevance POs/PSOs	Activities conducted under each MOU
1	Kasnet Technology Pvt Ltd	BVCOEW, Pune	07/2022	PO6, PO9, PO11, PSO3	Webinar on Internship opportunities in cloud and Microsoft Azure by Mr. Amol Aher
2	RPG FOUNDATION	BVCOEW, Pune	08/2022	PO6, PO9, PO11, PSO3	ESD Program for TE students, Aptitude training, soft skill training

Table 2.2.4.5 MoU A.Y. 2021-22

Sr.No.	Organisation with which MoU is signed	Name of the institution/ Industry/ Corporate house	Duration MoU / linkage	Relevance POs/PSOs	Activities conducted under each MOU
1	RPG Zensar Employability Skill Development	BVCOEW, Pune	2016-17	PO6, PO9, PO11, PSO3	300+ hours training in Technical (core java, plsql, advance java, software testing, AIML etc) + Professonal grooming (soft skill, interview techniques, quant, logical analysis etc) domain
2	Rubyscape Private Limited	BVCOEW, Pune	2021-22	PO6, PO9, PO11, PSO3	Technology trends in data science and AI with internship opportunities by Rubyscape
3	Kasnet Technology Pvt Ltd	BVCOEW, Pune	08/2021	PO6, PO9, PO11, PSO3	Webinar on Industries Road Map about IT and How to do Preparation for Placement in MNC Company

B. Industry involvement in the program design and partial delivery of any regular courses for students :

Department advisory board (DAB) consists of Industry Person in the member list. DAB Members approved courses offered to students for getting ready for the workplace.Industry sponsored courses contributes in mapping PO6, PO9, PO11 and PSO3.

Table 2.2.4.6 List of Industry courses offered

Sr. No.	Course offered	Industry involved	Outcome/ Impact Analysis
1	Cloud Architecture	Amazon Web Services (Cloud Computing and Infrastructure Industry)	Certification in AWS Cloud Architecture has numerous beneficial effects for students by enhancing both their career growth and technical skills. Foundational Cloud Knowledge, Architectural Thinking and Hands-On Experience obtained.
2	Cloud Developing		Students understood Cloud SDKs APIs, CI/CD and DevOps fundamentals. Student got exposure to CI/CD pipelines using tools like CodeBuild.
3	Cloud Foundations		Students learnt to develop, deploy, and debug applications in a cloud environment.
4	Cloud Operations		Students develops hands on skills in managing Cloud Infrastructure (IaaS, PaaS).
5	Cloud Security Foundations		Course help in understanding Core AWS Security Services. Students Learned how to use AWS services like KMS,IAM, Amazon GuardDuty and AWS Shield.
6	Data Center Technician		Student prepared with foundational knowledge and hands-on skills to maintain AWS data center infrastructure covered with a critical role in the operation of cloud computing services.
7	Data Engineering		Course provided students with the expertise needed to create, implement, and oversee data pipelines and infrastructure on AWS. It emphasizes data ingestion, transformation, storage, and analysis utilizing contemporary cloud tools.
8	Engineering Operations Technician		Students gets hands-on knowledge of how data centers operate, which covers power, cooling, server hardware, and monitoring systems. This is technical skills making them job ready
9	Explore Solutions with the Cloud		Students understood of Real-World cloud applications technologies, including compute, storage, networking, and security in the context of AWS Cloud.
10	Introduction to Cloud-Semester 1		Students acquire a strong grasp of cloud computing principles, including the basics of virtualization, elasticity, scalability, and on-demand services.
11	Introduction to Cloud-Semester 2		Students learnt management of users roles and permissions using AWS Identity and Access Management (IAM),VPCs (Virtual Private Clouds), emphasizing VPCs (Virtual Private Clouds),VPCs (Virtual Private Clouds),secure cloud practices.
12	Machine Learning Foundation		Students got familiarity with AWS ML Services. Enhanced understanding of machine learning principles, including supervised and unsupervised learning, model training, evaluation, and deployment.
13	Machine Learning for Natural Language Processing		Students learnt ML tools with key concepts in Natural Language Processing such as text pre-processing, sentiment analysis. Concepts helps to work as proficient ML developer.
14	Object-oriented programming (Java)	Oracle Academy Lab (OAL)	Students gain essential technical expertise through their comprehension of Object-Oriented Concepts, Java Programming Skills, interacting with APIs and Libraries, as well as debugging and testing capabilities. They enhance their practical development skills by designing and creating modular, reusable, and maintainable Java applications.
15	Database		Student understood core database concepts to demonstrate foundational knowledge of relational database systems, data models, normalization, and indexing. Gain hands-on experience with popular database platforms such as Oracle PostgreSQL, or SQL Server.
16	Oracle Cloud		Students gain knowledge of Oracle Cloud Infrastructure (OCI) services including compute, storage, networking, and database management.
17	Construction and engineering project management		Students understood Project Lifecycle and gained comprehensive knowledge of the entire construction project lifecycle from planning and design to execution and closure.
18	Application Development (APEX)		Students design and develop Web Applications specifically for Low-Code development. Work with Databases effectively by integrating SQL, PL/SQL, and data modelling best practices to manage application logic and backend database interactions. Students understood deployment strategies and application lifecycle management within Oracle Cloud or on-premises environments.

- Industry persons are invited as Resource Persons for Computer Engineering Students Association (CESA), Computer Society of India (CSI) Student Chapter, and Alumni events.
- Industry sponsored projects: If a students final year project is sponsored by industry, industry experts can advise the student by sharing their skills and experience in the relevant subject.
- Guidance from Industrial experts: The present ongoing trends, including the use of the most recent tools and technologies, data analysis techniques, and industry best practices explained to students by professionals in the field.
- Student’s projects: The industry experts are called for judging students projects and this review helps students to bring quality in projects. Students professionalism is increased, their self-assurance is increased, and they become more aware of what employers want. Additionally, it synchronizes student goals with business demands.

C. Impact analysis of industry institute interaction and actions taken there of :

Industry Institute Interaction provides a platform for both the students as well as faculty members to be aware of industry expectations of skill sets required for students. This enables students to upgrade themselves to the current market scenario.

Table 2.2.4.7 Industry Institution Interaction Analysis

Sr. No.	Activity Domain	24-25	23-24	22-23	22-21
1	Internships students count	101	100	105	95
2	Number of Certification courses completed	330	624	309	60
3	Project idea competition participation count	30	32	34	20
4	Student count of placements in multinational companies (MNCs)	54	46	54	59
5	Activities related to Awareness amongst students for diversified career opportunities in India and abroad	6	4	2	4
6	Number of Memorandum of understanding (MoU)	5	2	2	3
7	Student Activity count	9	10	10	17

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

Institute Marks : 13.00

A. Industry training/tours for students:

Industrial visits are planned for students in order to experience the industrial setting and gain exposure to the most recent developments. For the students, the programme arranges industrial trips. Visits to Tech Mahindra, Software Technology Parks of India (STPI), and Maharashtra Knowledge Corporation Limited have been organized successfully in previous years.Industrial tours contributes in mapping PO6, PO9, PO11 and PSO3.

Table 2.2.5.1 List of Industrial Tours

Sr. No.	Name of the Industrial Visit	Name of Coordinator	Class	Academic Year and Semester	Outcome
1	Centre for Development of Advanced Computing (CDAC)	Dr. S. A. Pawar	SE	2022-23 Sem II	Student gained the knowledge about Param Super Computers
2	Software Technology Parks of India (STPI)	Dr. S. A. Pawar	TE	2022-23 Sem II	Student learned about Computer Networking, Communication and Incubation centre
3	Software Technology Parks of India (STPI)	Dr. S. A. Pawar	BE	2022-23 Sem II	Student gained the knowledge about Computer Networking, Communication and Incubation centre
4	Data Centre, Bharati Vidyapeeth, Pune	Prof. S. A. Karande	TE	2023-24 Sem I	Student gained the knowledge about data centre servers
5	Tech Mahindra's Makers Lab	Prof. A. P. Kadam	BE	2023-24 Sem I	Student gained the knowledge about AI, Metaverse and robotics use cases
6	Maharashtra Knowledge Corporation Limited (MKCL), Pune	Dr. S. A. Pawar	SE	2023-24 Sem II	Student gained the knowledge about Software Development Lifecycle, low code software development and AI assisted software Development
7	Maharashtra Knowledge Corporation Limited (MKCL), Pune	Prof. J. D. Jadhav	SE	2024-25 Sem I	Student gained the knowledge about Software Development Lifecycle, low code software development and AI assisted software Development
8	Software Technology Parks of India (STPI)	Dr. S. A. Pawar	TE	2024-25 Sem I	Student gained the knowledge about Computer Networking, Communication and Incubation centre
9	Pralhad P. Chhabria Research Centre (PPCRC)	Prof. A. P. Kadam	BE	2024-25 Sem I	Student gained the knowledge about Machine learning , AI and Geographic Information System (GIS).
10	Software Technology Parks of India (STPI)	Prof.K.S.Warke	SE	2024-25 Sem II	Student gained the knowledge about Computer Networking, Communication and Incubation centre
11	Tech Mahindra's Makers Lab	Prof. K.D.Yesugade	TE	2024-25 Sem II	Student gained the knowledge about AI, Metaverse and robotics use cases
12	Maharashtra Knowledge Corporation Limited (MKCL), Pune	Dr. S.A.Pawar	BE	2024-25 Sem II	Student gained the knowledge about Software project development and project management

B. Industrial/internship/summer training of more than two weeks and post training assessment:

During semester breaks, students are encouraged to take up internships. The Internship Coordinator, along with the Industry Institution Interaction Cell helps students find reputable companies. An orientation session is conducted before the internship, explaining all requirements throughout the internship:

- Students maintain a logbook.
- Progress is monitored by both internal and external guides.
- Weekly updates are submitted.
- After completion, students prepare a report and presentation during practical sessions.

At the end training following activities performed:

- Students present their work to a panel of faculty members.
- Evaluation carried out based on technical knowledge, communication, teamwork, creativity, adaptability, ethics, punctuality, and feedback from the external guide.

List of selected internships and training programmes:

Industry Internships and training for students contributes in mapping PO6, PO9, PO11 and PSO3.

Table 2.2.5.2 Internships and training programmes A.Y. 2024-25

Sr. No.	Industry Name	Duration in weeks	No. of Students	Class	Major Outcomes
1	Pralhad P. Chhabria Research Center (PPCRC)P-14/1 , Rajiv Ghandhi Infotech Park, Phase 1, Hinjawadi, Pune, Maharashtra 411057	13 weeks	19	TE	Participated in research-oriented projects in AI/ML and data analysis.
2	Usability Designs, 302, Pushya wing, Suvidha Ambar, Narhe, Pune, Maharashtra - 411041	8 weeks	1	TE	Developed skills in UI/UX design and user research methodologies.
3	NexGen Analytix OFFICE 302, A-WING, PRIDE PURPLE SQUARE, Kalewadi Phata, Vishnu Dev Nagar, Wakad, Pune, Pimpri-Chinchwad, Maharashtra 411033	6 weeks	3	TE	Worked on data visualization tools and business analytics.
4	National Institute of Hydrology, Roorkee - 247667 (Uttarakhand), India.	26 weeks	7	TE	Participated in research on hydrology and GIS applications.
5	Europportunity UG (haftungsbeschränkt) Siegener Str. 61, 65936 Frankfurt am Main	8 weeks	1	TE	Gained international exposure in business process modelling and ERP systems.
6	foto owl sofware solutions pvt.ltd . Ideas to Impacts Lane, 3, near VIJAY SALES - BANER, Pallod Farms, Baner, Pune, Maharashtra 411045	8 weeks	1	TE	Gained experience in mobile app testing and automation tools.

Table 2.2.5.3 Internships and training programmes A.Y. 2023-24

Sr. No.	Industry Name	Duration in weeks	No. of Students	Class	Major Outcomes
1	Salesforce virtual internship	5 weeks	10	TE	Hands-on CRM experience, Salesforce ecosystem exposure
2	Vector Informatik India Pvt. Ltd. 11, Tara Height, Old Mumbai - Pune Hwy, Wakadewadi, Shivajinagar, Pune, Maharashtra 411003.	8 weeks	2	TE	Practical IoT implementation & analytics
3	Revere Tech Solutions (OPC) Private Limited	12 weeks	2	TE	Built full-stack web applications
4	1729 Acharya Academy Pvt Ltd ,D301,Third floor, Pristine Pronext, Near Euro school,Pink City road, Wakad, Pune-411057.	4 weeks	1	TE	Built data insights and conducted product analysis
5	Maverick IT Industries Pvt. Ltd., Office no.-5, First Floor, Chaitanya Industrial Estates, Narhe, pune-411041	8 weeks	2	TE	Built responsive web apps using modern frameworks
6	GRP Technology,Flower Valley, Koteshwari,Mahad,Raigad,PIN-402301	4 weeks	2	TE	Participated in real-time tech projects
7	National Institute of Hydrology, IIT Roorkee	26 weeks	4	TE	Research & simulation modelling
8	OmniActive Health Technologies Limited, Phoenix House, T- 8, A Wing 462 Senapati Bapat Marg, Lower Parel Mumbai – 400 013.	4 weeks	1	TE	Learned VAPT & network security tools
9	Festive festive	8 weeks	1	TE	Built creative visual designs

Table 2.2.5.4 Internships and training programmes A.Y. 2022-23

Sr. No.	Industry Name	Duration in weeks	No. of Students	Class	Major Outcomes
1	Aspire For Her	43 weeks	1	TE	Understood gender inclusivity in tech; improved presentation and documentation skills.

2	Capgemini	13 weeks	6	TE	Gained experience in corporate software practices; exposure to agile workflows and client communication.
3	Dev town	6 weeks	3	TE	Trained on MERN stack with real-world application development.
4	Garg Group (Simtrak)	10 weeks	1	TE	Practical exposure to automation tools and CRM systems.
5	Kasnet	6 weeks	5	TE	Exposure to telecom automation software and data flow tracking.
6	Omnigross Enterprises	14 weeks	1	TE	Worked in operations and CRM modules; improved client interaction skills.
7	Pharmarack	26 weeks	2	TE	Gained pharmaceutical SaaS industry insights; contributed to automation modules.
8	SpurQLabs Technologies Pvt. Ltd., Pune.	4 weeks	1	TE	Worked on SQL optimization and database integration in live environment.
9	Tata Communications	8 weeks	1	TE	Understood networking fundamentals and participated in a corporate innovation lab.
10	Tata motors	4 weeks	1	TE	Practical exposure to vehicle diagnostics and engineering processes.
11	Brainy Pi	13 weeks	5	SE	Gained hands-on experience with Raspberry Pi and IoT devices. Developed foundational skills in embedded systems and Python.
12	Teachnook	8 weeks	1	SE	Completed basic projects in Machine Learning and Python. Gained exposure to online collaborative tools and report writing.
13	MVARO	8 weeks	1	SE	Understood fundamentals of Augmented and Virtual Reality. Built introductory-level projects in Unity or related tools.

Table 2.2.5.5 Internships and training programmes A.Y. 2021-22

Sr. No.	Industry Name	Duration in weeks	No. of Students	Class	Major Outcomes
1	Think Act Rise Foundation	15 weeks	1	TE	Gained basic understanding of web tech stack through mini projects
2	TCR Innovation	5 weeks	8	TE	Built small ML models with real-world datasets
3	TCS ION	8 weeks	3	TE	Developed full-stack web apps with AI integration features
4	LnT	5 weeks	1	TE	Understood scalable backend architecture and APIs
5	Kasnet technology pvt.ltd	6 weeks	4	TE	Learned AWS services and deployed cloud-hosted apps
6	DIY Intern	8 weeks	3	TE	Worked on company projects with real-time feedback cycle
7	LEARNOVATE ECOMMERCE	4 weeks	1	TE	Built and tested dynamic websites for clients
8	Cybernetics Software Pvt.Ltd.	13 weeks	1	TE	Designed modules and worked in agile team setup

C. Impact analysis of industrial training:

- Students learns from real time practical experience of the courses studied in the classrooms and realize the practical importance of the courses.
- Due to interaction with industry experts, students get exact requirements and happenings in industry which in turn into placement, technical, and soft skill improvement.
- Students understand the hierarchy and mode of communication while working in industry via internship or industrial training.
- Students gets aware about the industry standards and workplace culture, the importance of being punctual and meeting the deadlines.
- Students are able to decide about the right career opportunity.
- Understand the latest cutting-edge technologies and improvement in personal contact with Industry people.
- Internship programs help to build-up a resume according to industry requirements.

● Some students may get the idea about their Final Year Major project through training.

D. Student feedback on initiative:

After each internship/training, feedback is taken.

● During the internship, Faculties take feedback from interns as well as internship providers.

● Feedback is to be considered for further improvement.

Action Taken

Internship feedback collected from student and Internship Provider every year. Feedback analysis considered for next year internship planning. Some of samples given below.

●Zensar Employability Skill Development (ESD) training program on aptitude, soft skill and technical skills organised for students every year. Feedback is taken from students ,Faculty Coordinator as well as training and placement requirements are considered while finalizing course contents.

● To encourage a spirit of innovation and problem solving the department is offereing research internship for students at Pralhad P. Chhabriya Research Center (PPCRC) for academic year 2024-25.Students got hands on experience in key areas like Artificial Intelligence, Machine Learning and Geographic Information System. This initiative developed research skills, critical thinking and prepare students for future academics and Industry trends.

Table 2.2.5.6 Internships and training programmes Impact analysis

Sr. No.	Activity Domain	24-25	23-24	22-23	22-21
1	Students count of Internships	101	100	105	95
2	Student count of placements in multinational companies (MNCs)	54	46	54	59
3	Students enrolled for higher studies count	-	2	6	4
4	Sponsored final year project groups count	7	6	6	-

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120) Total Marks 116.00

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	Professional Skills: The ability to understand, analyse and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexities.
PSO2	Problem-Solving Skills: The ability to apply standard practices and strategies in software project development using open-ended programming environments for betterment of society.
PSO3	Successful Career: Empower women with modern computer languages, environments, platforms, communication and leadership skills to build a successful career

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 02	Course Year :	2021-2022

Course Name	Statements
C2 02.1	Define the terms such as data structure, algorithmic strategies, time complexity to calculate time complexity of given program segment.
C2 02.2	Demonstrate and understand sequential data structure and its use in sparse matrix
C2 02.3	Apply appropriate sorting algorithm to sort the given data and state time complexity of that sorting technique.
C2 02.4	Understand dynamic memory management concepts and process data using linked list. Also state its advantages and disadvantages
C2 02.5	Analyze Stack as an ADT and Describe the translation of the expression from one form to another form using stack
C2 02.6	Explain different types of queues with their application

Course Name :	C2 14	Course Year :	2021-2022

Course Name	Statements
C2 14.1	Exhibit skill of assembly language programming for the application
C2 14.2	Classify Processor architectures
C2 14.3	Calculate the physical address using segmentation and paging, explain GDT, IDT, LDT, etc.
C2 14.4	Illustrate advanced features of 80386 Microprocessor and learn privilage levels and protection.
C2 14.5	Compare and contrast different processor modes
C2 14.6	Differentiate between Microprocessors and Microcontrollers

Course Name :	C3 04	Course Year :	2022-2023

Course Name	Statements
C3 04.1	Understand network reference models and technologies
C3 04.2	Illustrate the working and functions of data link layer
C3 04.3	Distinguish network protocols and demonstrate different routing algorithms
C3 04.4	Understand transport layer protocol and to demonstrate client server communication using socket programming
C3 04.5	Select any application layer protocols to implement web or desktop application
C3 04.6	Comprehend the basics of Network Security.

Course Name :	C3 11	Course Year :	2022-2023

Course Name	Statements
C3 11.1	Implement and analyze behavior of web pages using HTML and CSS
C3 11.2	Apply the client-side technologies for web development
C3 11.3	Analyze the concepts of Servlet and JSP Apply the client-side technologies for web development
C3 11.4	Analyze the web technology languages, frameworks and services
C3 11.5	Apply the server-side technologies for web development
C3 11.6	Create the effective web applications for business functionalities using latest web development platforms

Course Name :	C4 05	Course Year :	2023-2024

Course Name	Statements
C4 05.1	Describe fundamental concepts in software testing and software quality
C4 05.2	Design and develop project test plan, design test cases, test data, and conduct test operations
C4 05.3	Apply different test case design techniques
C4 05.4	Apply different approaches of quality management, assurance, and quality standard to software system
C4 05.5	Apply automation tools for various types of software testing
C4 05.6	Apply and analyze effective Software Quality methods and tools

Course Name :	C4 10	Course Year :	2023-2024

Course Name	Statements
C4 10.1	Understand the basics of Deep Learning and apply the tools to implement deep learning applications
C4 10.2	Evaluate the performance of deep learning models (e.g., with respect to the bias-variance tradeoff, overfitting and underfitting, estimation of test error).
C4 10.3	To apply the technique of Convolution (CNN) and Recurrent Neural Network (RNN) for implementing Deep Learning models
C4 10.4	To implement and apply deep generative models
C4 10.5	Construct and apply on-policy reinforcement learning algorithms
C4 10.6	To Understand Reinforcement Learning Process

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 : C202

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	2	2	1	1	1	-	-	-	-	2	-	-
C202.2	2	2	1	1	-	-	-	-	-	2	-	-
C202.3	2	2	-	-	2	-	-	-	-	2	-	-
C202.4	2	2	1	-	-	-	-	-	-	2	-	-
C202.5	2	2	1	2	-	-	-	-	-	2	-	-
C202.6	2	1	1	2	-	-	-	-	-	2	-	-
Average	**2.00**	**1.83**	**1.00**	**1.50**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.50**	**0.00**	**0.00**

2 . course name : C214

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214.1	2	2	2	2	2	-	-	-	2	2	-	1
C214.2	1	2	1	2	-	-	-	-	-	2	-	1
C214.3	1	2	1	2	2	-	-	-	1	2	-	2
C214.4	1	2	2	1	-	-	-	-	1	2	-	2
C214.5	1	2	2	1	-	-	-	-	2	2	-	2
C214.6	2	2	1	1	1	-	-	-	1	2	-	2
Average	**1.33**	**2.00**	**1.50**	**1.50**	**1.67**	**0.00**	**0.00**	**0.00**	**1.40**	**2.00**	**0.00**	**1.67**

3 . course name : C304

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304.1	2	1	2	2	2	1	-	-	-	-	-	1
C304.2	2	2	2	2	1	-	-	-	-	1	-	1
C304.3	3	2	2	1	2	-	-	-	-	1	2	1
C304.4	2	2	2	2	2	-	2	2	2	1	1	2
C304.5	1	2	-	-	1	2	2	1	1	1	2	1
C304.6	1	1	1	2	2	1	1	2	2	1	2	1
Average	**1.83**	**1.66**	**1.80**	**1.80**	**1.66**	**1.33**	**1.66**	**1.66**	**1.66**	**1.00**	**1.75**	**1.17**

4 . course name : C311

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	1	1	2	1	1	-	-	-	-	-	-	-
C311.2	-	2	1	3	1	-	-	-	1	-	-	-
C311.3	2	-	2	1	-	1	-	-	-	-	1	-
C311.4	1	3	1	2	2	1	-	1	-	-	-	1
C311.5	1	1	2	-	3	-	1	1	-	1	-	-
C311.6	2	1	-	2	1	1	-	1	-	-	-	-
Average	**1.17**	**1.60**	**1.60**	**1.80**	**1.60**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**

5 . course name : C405

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C405.1	2	1	1	2	2	1	-	2	3	1	1	1
C405.2	1	3	2	2	1	-	-	1	3	3	3	-
C405.3	1	3	2	2	1	-	-	1	2	3	-	-
C405.4	2	1	2	3	1	1	1	2	3	2	3	-
C405.5	1	2	1	2	3	-	-	-	2	2	1	-
C405.6	2	2	1	2	3	-	-	-	1	2	2	-
Average	**1.50**	**2.00**	**1.50**	**2.17**	**1.83**	**1.00**	**1.00**	**1.50**	**2.33**	**2.17**	**2.00**	**1.00**

6 . course name : C410

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C410.1	3	3	-	-	3	-	-	-	-	-	-	2
C410.2	3	2	2	2	1	-	-	-	-	-	-	1
C410.3	3	2	2	2	2	-	1	-	-	-	-	1
C410.4	1	2	1	1	2	-	1	-	-	-	-	1
C410.5	2	2	3	2	2	-	-	-	-	-	-	1
C410.6	1	2	2	2	2	-	-	-	-	-	2	-
Average	**2.17**	**2.17**	**2.00**	**1.80**	**2.00**	**1.00**	**1.00**	**0.00**	**0.00**	**1.00**	**2.00**	**1.20**

1 . Course Name : C202

Course	PSO1	PSO2	PSO3
C202.1	2	2	2
C202.2	2	2	2
C202.3	2	2	2
C202.4	2	2	2
C202.5	2	2	2
C202.6	2	2	2
Average	**2.00**	**2.00**	**2.00**

2 . Course Name : C214

Course	PSO1	PSO2	PSO3
C214.1	1	1	-
C214.2	1	1	-
C214.3	1	1	-
C214.4	1	-	-
C214.5	1	1	-
C214.6	1	1	-
Average	**1.00**	**1.00**	**0.00**

3 . Course Name : C304

Course	PSO1	PSO2	PSO3
C304.1	2	2	-
C304.2	2	2	-
C304.3	2	2	-
C304.4	2	2	-
C304.5	2	2	-
C304.6	2	2	-
Average	**2.00**	**2.00**	**0.00**

4 . Course Name : C311

Course	PSO1	PSO2	PSO3
C311.1	2	2	1
C311.2	1	1	1
C311.3	1	1	1
C311.4	1	1	1
C311.5	1	1	1
C311.6	2	1	1
Average	**1.33**	**1.17**	**1.00**

5 . Course Name : C405

Course	PSO1	PSO2	PSO3
C405.1	-	1	1
C405.2	3	2	2
C405.3	3	1	3
C405.4	3	2	2
C405.5	-	1	3
C405.6	-	2	3
Average	**3.00**	**1.50**	**2.33**

6 . Course Name : C410

Course	PSO1	PSO2	PSO3
C410.1	2	2	1
C410.2	2	1	1
C410.3	2	2	1
C410.4	2	2	1
C410.5	-	2	1
C410.6	1	1	1
Average	**1.50**	**1.67**	**1.00**

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

C1011	3.00	2.00	PO3	2.00	2.00	PO6	PO7	PO8	PO9	1.00	PO11	1.00
C1012P	3.00	2.00	2.00	3.00	2.40	PO6	PO7	PO8	3.00	2.00	PO11	2.00
C1102C	3.00	2.50	1.80	PO4	1.70	3.00	1.50	PO8	1.80	2.00	PO11	1.00
C1103	3.00	2.33	1.60	1.20	1.00	2.00	1.80	PO8	PO9	1.00	PO11	2.00
C1104EE	2.67	2.00	2.00	2.00	PO5	2.00	PO7	PO8	1.00	1.00	PO11	1.50
C1104EX	3.00	1.83	1.67	PO4	1.50	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C1105P	2.00	2.00	1.80	2.00	2.00	PO6	PO7	PO8	1.25	2.00	PO11	2.00
C1105E	3.00	3.00	1.67	1.00	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C1201	3.00	2.00	PO3	2.00	2.00	PO6	PO7	PO8	PO9	1.00	PO11	1.00
C1205	1.83	1.80	1.00	PO4	2.17	1.00	1.80	PO8	PO9	1.50	PO11	PO12
C1106	3.00	1.00	3.00	PO4	PO5	3.00	PO7	1.00	2.00	PO10	PO11	2.00
C1206	3.00	2.00	2.75	2.75	2.75	2.25	2.25	2.25	3.00	2.50	2.25	3.00
C201	1.83	2.00	2.00	2.00	1.83	PO6	PO7	PO8	PO9	1.67	PO11	PO12
C202	2.00	1.83	1.00	1.50	1.00	PO6	PO7	PO8	PO9	2.00	PO11	PO12
C203	2.00	1.67	1.00	1.00	1.00	PO6	PO7	PO8	PO9	1.00	PO11	PO12
C204	2.00	1.40	1.00	1.33	1.00	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205	2.00	2.00	1.67	1.67	1.00	PO6	PO7	PO8	PO9	1.00	PO11	PO12
C206	1.75	1.75	1.75	1.00	1.00	PO6	PO7	1.00	2.00	3.00	PO11	PO12
C207	2.00	2.00	2.00	2.00	1.00	PO6	PO7	1.00	PO9	2.00	PO11	PO12
C208	2.00	1.83	1.83	1.67	1.00	PO6	PO7	1.00	1.00	2.00	PO11	PO12
C209	PO1	PO2	PO3	PO4	PO5	PO6	PO7	2.00	2.25	2.00	PO11	1.00
C210	PO1	PO2	PO3	PO4	PO5	1.00	1.60	1.40	1.67	1.50	PO11	1.33
C211	2.00	1.75	1.50	2.00	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212	1.60	1.50	1.33	1.00	PO5	PO6	PO7	PO8	PO9	2.00	PO11	PO12
C213	2.00	2.00	2.33	2.00	2.00	1.50	1.33	1.75	2.00	2.00	2.00	2.00
C214	1.33	2.00	1.50	1.50	1.67	PO6	PO7	PO8	1.40	2.00	PO11	1.67
C215	3.00	2.83	2.83	2.67	2.67	1.60	1.00	2.33	2.00	1.00	2.67	3.00
C216	2.00	1.40	1.90	1.67	PO5	PO6	PO7	1.00	3.00	3.00	1.00	PO12
C217	2.00	2.00	2.67	2.00	1.50	PO6	PO7	1.67	2.00	2.50	PO11	1.25
C218	2.00	2.33	2.33	2.33	2.16	2.00	1.80	1.25	1.83	2.66	2.16	2.66
C219	PO1	PO2	PO3	PO4	PO5	PO6	2.25	2.25	PO9	PO10	PO11	PO12

C301	2.00	2.00	2.80	1.50	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.60
C302	3.00	3.00	2.00	2.00	1.00	PO6	PO7	PO8	PO9	2.00	PO11	1.60
C303	2.00	2.17	2.00	2.00	1.00	PO6	PO7	PO8	PO9	PO10	1.00	1.17
C304	1.83	1.67	1.80	1.80	1.67	1.33	1.67	1.67	1.67	1.00	1.75	1.17
C305	2.00	2.00	2.33	2.00	2.50	1.00	1.33	1.17	1.33	1.50	1.33	2.00
C306	1.60	1.07	2.00	PO4	1.87	0.80	1.07	0.80	2.40	1.07	1.07	1.00
C307	2.00	2.00	2.00	1.00	1.20	1.00	1.00	1.00	1.50	1.00	1.00	1.00
C308	1.17	2.00	2.17	1.67	2.33	2.00	PO7	PO8	2.17	2.00	1.67	1.00
C309	1.50	2.00	2.00	2.00	2.00	1.00	1.00	3.00	3.00	3.00	1.00	2.00
C310	1.16	2.00	1.67	1.5	2.00	1.00	PO7	PO8	1.00	PO10	PO11	1.00
C311	1.17	1.60	1.60	1.80	1.60	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C312	1.33	2.17	2.17	1.33	2.00	1.00	1.00	3.00	1.00	2.00	PO11	2.00
C313	1.75	2.08	2.00	1.67	1.92	PO6	PO7	PO8	PO9	PO10	2.50	2.00
C314	1.67	2.00	2.00	2.00	2.33	1.50	1.50	1.50	1.40	1.75	1.50	1.50
C315	2.00	2.00	2.50	1.67	2.16	1.16	PO7	PO8	1.60	PO10	PO11	2.66
C316	1.75	1.75	2.67	1.50	1.33	1.00	1.00	1.00	PO9	1.00	1.00	1.00
C317	1.16	1.00	2.00	2.00	3.00	2.00	PO7	2.00	2.00	2.00	1.80	2.00
C401	1.83	0.83	1.33	1.00	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.16
C402	2.00	1.75	2.00	1.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
C403	2.56	2.50	2.00	2.00	2.00	2.00	2.00	1.67	1.60	PO10	PO11	2.60
C404	1.67	2.67	1.50	0.80	0.17	0.33	PO7	0.50	PO9	0.17	PO11	2.67
C405	1.50	2.00	1.50	2.17	1.83	1.00	1.00	1.50	2.33	2.17	2.00	1.00
C406	3.00	2.67	2.67	1.75	1.67	1.33	PO7	1.00	2.00	PO10	2.00	2.50
C407	1.50	2.60	1.50	2.17	1.83	1.00	1.00	1.50	2.33	2.17	2.00	1.00
C408	2.00	2.50	2.00	2.00	2.00	2.00	1.00	1.00	3.00	2.00	1.60	1.60
C409	2.00	2.50	1.67	1.00	2.00	2.40	1.00	1.00	2.00	2.00	1.00	1.00
C410	2.17	2.17	2.00	1.80	2.00	1.00	1.00	PO8	PO9	1.00	2.00	1.20
C411	0.92	1.50	1.83	1.83	2.00	1.00	1.00	PO8	1.00	1.00	1.00	1.00
C412	1.40	1.83	1.67	1.67	1.50	1.00	PO7	PO8	PO9	3.00	PO11	PO12
C413	2.00	2.25	1.80	2.00	2.33	1.33	1.00	1.00	2.00	PO10	1.60	1.20
C414	2.00	2.50	2.50	2.67	1.75	1.00	PO7	PO8	3.00	3.00	2.67	PO12

C415	1.33	1.00	1.00	1.33	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.17

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

Course	PSO1	PSO2	PSO3
C201	2.00	2.00	0.83
C202	2.00	2.00	2.00
C203	2.00	2.00	1.00
C204	2.00	2.00	2.00
C205	1.00	PSO2	PSO3
C206	2.00	2.00	2.00
C207	1.33	2.00	1.50
C208	1.00	PSO2	PSO3
C209	PSO1	PSO2	1.17
C210	PSO1	PSO2	1.00
C211	PSO1	PSO2	PSO3
C212	2.00	2.00	2.00
C213	1.83	1.40	1.40
C214	1.00	1.00	PSO3
C215	1.00	1.33	2.00
C216	2.00	2.00	2.20
C217	1.20	PSO2	1.00
C218	3.00	2.00	1.00
C219	PSO1	PSO2	PSO3
C301	1.67	1.17	1.50
C302	PSO1	2.00	PSO3
C303	2.00	1.40	1.40
C304	2.00	2.00	PSO3
C305	1.17	0.83	1.00
C306	1.60	1.47	1.33
C307	3.00	2.00	PSO3
C308	2.50	2.00	2.00

C309	2.00	2.00	2.00
C310	2.00	2.00	2.00
C311	1.33	1.17	1.00
C312	1.67	2.00	1.20
C313	2.25	1.54	1.38
C314	1.83	2.00	2.17
C315	2.00	2.00	2.00
C316	2.00	1.60	2.00
C317	2.50	2.00	2.00
C401	1.35	1.50	0.72
C402	2.00	2.00	2.00
C403	2.00	1.67	1.75
C404	1.50	1.67	1.00
C405	3.00	1.50	2.33
C406	2.67	2.00	3.00
C407	3.00	1.50	2.33
C408	1.00	1.00	1.17
C409	1.00	1.00	1.50
C410	1.50	1.67	1.00
C411	0.92	1.53	0.92
C412	1.00	2.00	1.50
C413	2.60	2.00	3.00
C414	2.50	2.75	2.75
C415	1.17	1.17	0.83

3.2 Attainment of Course Outcomes (50) Total Marks 46.00

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

A. List of assessment process

Process Details:

Assessment of Course Outcome: Course Outcome assessment is an important part of evaluating the effectiveness of a course and determining whether it has achieved its intended goals.

The following steps are used for this assessment process:

1. Define the Course Outcomes: The initial step is to clearly outline the course outcomes by identifying the specific knowledge, skills, and competencies students are expected to develop by the end of the course. The course is usually structured into six units, and for each unit, the course teacher defines one Course Outcomes.

2. Use Assessment Tools: The evaluation of assessment tools like Unit Tests, Assignments are planned in Academic Calendar by committee at the start of semester to effectively measure students' performance of those outcomes. The course teacher in alignment with the specified course outcomes evaluates different cognitive levels as outlined in Bloom's Taxonomy. This includes checking unit test answer sheets and theory assignments, evaluating lab experiments, internships, seminars, and projects.

3. Prepare Attainment Sheet: Once data has been collected, the attainment sheet is prepared to find Course Outcome Attainment. It is used to determine how well students have achieved the course outcomes.

4. Implement data-driven improvements to the course: Finally, analysis highlights specific areas where the course content, instructional methods, or assessment strategies may need improvement. This analysis informs evidence-based decisions for preparing action plan to enhance student learning outcomes.

B. The quality/relevance of assessment processes and tools used

Evaluation of Course Outcomes (COs) of all courses is measured using Direct Assessment Method

Direct Assessment Method: Direct Assessment Method is used to evaluate, measure, and document students' learning progress, skills, knowledge, or performance in relation to the intended course outcomes of a particular course.

The assessment of Course Outcomes (COs) includes internal examination assessment and external University examination assessments. Internal examination assessments contribute 20% and external University examination assessment contributes 80% to the overall assessment of COs.

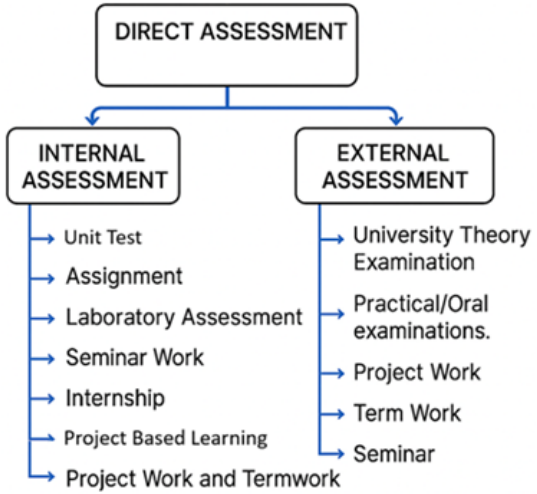


Figure: 3.2.1.1 Course Outcome Attainment Tools

1. Theory:

- **Internal Examination Assessment:** To make sure that students are keeping up with the course content, internal unit tests and theory assignments are used as effective measures of their progress. The course is usually divided into six units (as per University syllabus), each of which is evaluated through a corresponding unit test or assignment. The questions in these assessments are designed in accordance with Blooms Taxonomy and are mapped to the specific Course Outcomes (COs) of the course. The Course Teacher sets target level for Course Outcomes considering averaging performance of current year, against which the students performance is evaluated.
- Performance of Internal Assessment is calculated based on the marks scored by the student in Unit Test-I (30 Marks-), Unit Test-II (40 Marks), Assignment 1 (15 Marks) and Assignment 2 (15 Marks). The Course Outcomes are distributed as shown in Table 3.2.1.1.

Table 3.2.1.1 Distribution % of COs of Theory for Internal Assessment

Assessment Type	CO1	CO2	CO3	CO4	CO5	CO6
Unit Test – I	15%	15%				

Unit Test – II				20%	20%	
Assignment I			15%			
Assignment II						15%

- **External Assessment:**

  University Examination: For evaluating students understanding of the course contents, the university conducts both In-semester and End-semester examinations. Two units of the course are covered in In-semester examination and assesses two specific Course Outcomes (COs), while the End-semester examination covers the remaining four units and evaluates all four remaining COs. These examinations are designed to test students knowledge and comprehension of the course contents, as well as their ability to apply that knowledge to real-world situations.

  Theory Course Performance – University Assessment

The University Examination scheme has two examinations, In-semester examination for 30 Marks and an End-semester examination for 70 Marks. All the Course Outcomes are distributed as shown in Table 3.2.1.2

Table 3.2.1.2: Distribution of COs for University Theory Exam

Assessment Type	CO1	CO2	CO3	CO4	CO5	CO6
University Theory In-Semester Exam	15%	15%				
University Theory End Semester Exam			18%	17%	18%	17%

2. Practical/Lab Assignment:

- **Internal Assessment:** Lab practice courses provide students with valuable hands-on experience, allowing them to apply theoretical concepts learned in class and develop the practical skills essential for success in their field of IT Industry.
- To assess students performance in these practical aspects of the course, a Mock Practical Assessment is used at the end of semester. This sheet evaluates several parameters such as, execution (5 Marks), communication (5 Marks), and understanding (15 Marks).
- **External Assessment:** Practical courses conclude end-semester examination, which may take the form of term work, oral examination or practical examination. Term work evaluation is based on the format followed at institute level. To ensure that the assessment is fair and objective Oral and Practical evaluation is conducted by both an external examiner and an internal examiner. Students are tested on their ability to apply the knowledge and skills they have acquired throughout the course to practical scenarios, through this examination.

3. Seminar Work

The seminar evaluation process in the fifth semester plays a crucial role in achieving Course Outcomes (COs). A Seminar Coordinator is appointed to manage the overall process, ensuring that students select advanced and relevant topics within the field of Computer Engineering, often aligned with their Final Year Projects. Each group is assigned a faculty guide based on topic relevance and expertise. Students are assessed using defined rubrics that cover regular interaction with guides, presentation and communication skills, report quality, content originality, and topic relevance. Department faculty as an external faculty member also evaluates students presentation and communication abilities. The Seminar Coordinator collects all evaluation data and conducts Course Outcomes attainment analysis, ensuring academic rigor and relevance to current research trends. Rubrics for assessment of seminar work consists of literature reviews, contents, presentation, timely submission, report writing etc

4. Project:

Project work evaluation is a key component in assessing the attainment of Course Outcomes. Under the guidance of the Project Coordinator, a structured process is followed for forming student groups, selecting project topics, and allocating guides based on domain expertise. Once topics are approved by a faculty panel, internal guides are assigned to mentor the teams. Continuous monitoring is ensured through weekly review meetings, with detailed records maintained by the guides. Evaluation is conducted through four formal reviews each semester, assessed by both internal and external guides using defined rubrics. Final comprehensive evaluations take place at the end of Semesters VII and VIII, ensuring consistent academic rigor and progress tracking.

Stage 1:

Students finalize a project topic aligned with their interests, preparing for development in the next semester. Evaluation includes Term Work (50 marks) through four reviews. Assessment covers problem understanding, literature survey with gap analysis, proposed design, tool usage, presentation, and report quality. This stage focuses on strong conceptual planning and design for a solid foundation. Rubrics for project stage 1 work evaluation includes following points:-

- problem definition
- literature survey
- requirement analysis
- modeling
- designing
- presentation
- partial report writing

Stage 2:

This phase involves developing, testing, and validating the proposed solution. Evaluation includes Term Work (100 marks) and a Final Oral Exam (50 marks). Assessment focuses on dataset usage, technology application, testing, result analysis, report quality, research publication, and presentation skills, emphasizing effective problem-solving with technical knowledge. Rubrics for project stage 2 work evaluation includes following points:-

- Modeling
- Coding and Implementation
- Testing
- Understanding, Individual Involvement/ Contribution in Project
- Term Work
- Demonstration cum Presentation
- Documents & Report

5.Internship

As per the Savitribai Phule Pune University curriculum, the Department of Computer Engineering requires third-year students to complete a 4 to 6-week internship in the sixth semester, aimed at providing practical industry exposure. The departmental internship coordinator assigns faculty guides to student groups and oversees the entire process. Students submit details of their host organizations, and faculty guides coordinate with external mentors to track progress. Interns maintain a diary and submit weekly updates, while also preparing reports and presentations during lab sessions. Final evaluations involve presenting their work to a panel and are based on a rubric that assesses technical knowledge, communication, teamwork, planning, adaptability, ethics, and more. The internship coordinator then conducts Course Outcome (CO) attainment analysis based on overall performance. Rubrics for internship work evaluation includes following points:-

- Depth of Knowledge
- Team Work
- Creativity
- Planning & Organizational Skills
- Adaptability and Analytical Skills
- Attitude & Behavior at Work
- Societal Understanding
- Regularity and Punctuality
- Log Book
- Internship Record
- Feedback from External Supervisor

6. Project Based Learning

In the PBL implementation for Second-Year Computer Engineering (Semester II), student groups identify real-world or academic problems, propose solutions, and present them using a standard template. They submit a detailed report on the problem, solution, and implementation. Performance is evaluated using predefined rubrics, and Course Outcome attainment is submitted to the department. Rubrics for internship work evaluation includes following points:-

- Idea Inception
- Design of PPTs
- Presentation skills
- Understanding level
- Demonstration and Technical Ability
- Project Outcome
- Report writing
- Attendance

Table 3.2.1.3: Overview of Course Outcome Assessment Tools

Assessment Type	Assessment Method	Course Type	Frequency of Assessment
Direct Assessment: Internal	Unit Test	Theory	Twice in Semester
	Assignment	Theory	Twice in Semester
	Mock oral/practical	Practical	End of semister
	Rubrics	Seminar, Internship, Project	As per defined

Direct Assessment: External	University In-semester Exam	Theory	Mid of Semester
	University End-Semester Theory Exam	Theory	At semester end
	University Oral / Practical Exams	Practical Assignment	At semester end
	University Project and Seminars Exam as per Rubrics defined	Seminar, Internship, Project	At semester end

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

Institute Marks : 36.00

Evaluation of CO Attainment by Direct Assessment Tool:

The evaluation of course outcome (CO) attainment by assessment tool involves a systematic process of collecting and analyzing data to determine the extent to which the course outcomes have been achieved.

The following steps are taken for this evaluation:

a) Communicate assessment details: Clearly establish and communicate the assessment criteria and tools to students to ensure that they understand the expectations and how their performance will be evaluated at the start of semester. This promotes transparency and guides students efforts effectively.

b) Conduct Assessment and Evaluation: Tools such as Unit Tests, Assignments, and Mock oral/practical are conducted in a fair, consistent, and standardized manner as per schedule in Academic Calendar. The results are conveyed to students after evaluation by the Course Teacher.

c) Analyze results and prepare an action plan: The results of the assessment should be analyzed to determine the extent to which the course outcomes have been met and submitted to the Exam Coordinator. Remedial action is also planned for the slow learners. Also, additional activities are planned for advanced learners to boost their learning skills. Following the evaluation of Course Outcome (CO) attainment levels, any identified gaps are measured, and an action plan is developed to address those gaps.

Attainment Levels

- Attainment level is measured in terms of student performance in internal examinations with respect to Course Outcomes of a course and university examinations.
- Target is stated as the average marks in the corresponding examination for this year.

The assessment gives a quantitative measure in each course, and these exhibit the level of attainments of course outcomes as follows:

- Level 1- 40% of students score more than or equal to target marks.
- Level 2- 50% of students score more than or equal to target marks.
- Level 3: 60% of students score more than or equal to target marks.

Mapping of Assessment Tools and COs:

Mapping assessment tools and COs is an important part of the assessment process and can help to ensure that student performance is evaluated consistently and effectively. Mapping of assessment tools and course outcomes (COs) involves identifying which assessment tools are appropriate for evaluating specific COs. This process ensures that the assessment tools align with the intended learning outcomes and measure the desired knowledge, skills, and abilities. This process also helps to ensure that the assessment methods are valid and reliable, and that they provide accurate and meaningful information about student learning.

Notations Used

L1 = 40% to 49% students scoring ≥ target marks

L2 = 50% to 59% students scoring ≥ target marks

L3 = 60% and above students scoring ≥ target marks

$CO_i\_AT\_int$ = Internal attainment of i^{th} CO(individual CO)

$CO_i\_AT\_ext$ = External attainment of i^{th} CO(individual CO)

n = Number of Course Outcomes considered (typically n = 6)

$CO_i\_AT\_Dir$ = Direct attainment of i^{th} CO

$CO_i\_AT\_Final$ = Final attainment of i^{th} CO

W_{int} = Weight for internal assessment (0.2)

W_{ext} = Weight for external assessment (0.8)

Table: 3.2.2.1: Mapping of COs and Assessment Tools

Assessment Tool	**Internal Assessment (20% weightage)** $CO_i\_AT\_int$				**External Assessment (80%)** $CO_i\_AT\_ext$	
	Unit Test 1	Unit Test 2	Assignment 1	Assignment 2	Insem Theory Exam	Endsem Theory Exam
COs mapped	CO1, CO2	CO4, CO5	CO3	CO6	(CO1, CO2)	(CO3, CO4, CO5, CO6)

Steps involved in evaluation of Course Outcome attainment:

1. Measuring individual CO attainment through Internal Assessment for unit Testes and assignments

$$CO_i\_AT\_int = \sum_{i=1}^{n} (L1 + L2 + L3) \quad \text{.....(3.2.2.1)}$$

2. Measuring individual CO attainment through External Assessment for in semester examination and end semester examination.

$$CO_i\_AT\_ext = \sum_{i=1}^{n} (L1 + L2 + L3) \quad \text{.....(3.2.2.2)}$$

3. Course Outcome Attainment:

$$CO_i\_\text{AT\_Dir} = W_{int} * CO_i\_\text{AT\_int} + W_{ext} * CO_i\_\text{AT\_ext} \quad \text{.....(3.2.2.3)}$$

Set Target for the Course Outcome Attainment: At the beginning of the semester, the course teacher defines Target as a baseline for the course, for achieving the Course Outcome Attainment. It serves as a benchmark for evaluating the effectiveness of the course in achieving its intended learning outcomes. The Course Outcome Attainment is compared with the Course Outcome Set Target. If the course outcome attainment is greater than or equal to the course Set Target then the Course Outcome is Attained, else Not Attained. The areas of improvement are identified, and an action plan is prepared.

Action upon not achieving Course Outcome target attainment:

Corrective actions are taken based on the CO attainment values in order to improve the quality of education provided. If the attainment value for any CO is low, it indicates that students are not achieving the expected outcomes for that particular Course Contents.

In this case, the following corrective actions can be taken by Course Teacher:

a) **Course Support Group:** A course support group is formed among students to enhance query resolving and additional input are given to students performing low by Course Teacher

b) **Course Mentor:** A Course Mentor is assigned to provide continuous support and guidance to the Course Teacher. The mentor assists in planning and improving instructional strategies, aligning teaching methods with course outcomes, and addressing any challenges in course delivery. This mentorship aims to enhance the overall quality of teaching and ensure that the course is conducted effectively and in accordance with academic standards.

c) Educational Material: The availability and accessibility of learning resources can be improved to better support student learning and the achievement of the COs.

d) **Faculty Development:** Teachers can be offered professional development opportunities to strengthen their teaching skills and stay current with the latest pedagogical methods and strategies.

e) Evaluate the difficulty level of COs: The complexity of course outcomes can vary, with some being inherently more challenging than others. Therefore, its important to take the difficulty level into account when evaluating whether to adjust target values. COs that already exhibit high attainment may not need further increases in targets, while those with lower attainment and greater difficulty may require additional focus and support.

f) **Teaching methodology:** The teaching methodology should be regularly evaluated and refined to ensure its effectiveness and alignment with the course outcomes. This may involve adopting innovative instructional strategies or modifying existing approaches to better support student learning.

Table: 3.2.2.2: Attainment of Course Outcomes

Course Code	Subject	CO1	CO2	CO3	CO4	CO5	CO6
C1101	Engineering Mathematics-I	2.80	2.80	2.20	2.20	2.20	2.20
C1102P	Engineering Physics	3.00	3.00	1.40	1.40	1.40	1.40
C1102C	Engineering Chemistry	3.00	3.00	3.00	3.00	3.00	3.00
C1103	Systems in Mechanical Engineering	3.00	3.00	2.00	2.00	2.20	2.20
C1104EE	Basic Electrical Engineering	2.8	3.00	2.20	2.20	2.20	2.20
C1104EX	Basic Electronics Engineering	2.6	2.80	3.00	2.80	3.00	3.00
C1105P	Programming and Problem Solving	3.00	2.80	2.20	2.20	2.20	2.20
C1105E	Engineering Mechanics	3.00	3.00	2.80	3.00	2.80	3.00
C1201	Engineering Mathematics-II	3.00	3.00	2.20	2.20	2.20	2.20

C1205	Engg Graphics	3.00	3.00	3.00	3.00	2.80	3.00
C1106	Workshop	3.00	3.00	3.00	3.00	0.00	0.00
C1206	Project Based Learning	3.00	3.00	3.00	0.00	0.00	0.00
C201	Discrete Mathematics	3.00	3.00	2.20	2.20	2.20	2.20
C202	Fundamentals of Data Structure	3.00	3.00	3.00	3.00	2.80	3.00
C203	Object Oriented Programming	3.00	3.00	2.20	2.20	2.20	2.20
C204	Computer Graphics	3.00	3.00	2.40	3.00	3.00	3.00
C205	Digital Electronics and Logic Design	3.00	3.00	3.00	3.00	3.00	2.80
C206*	Data Structures Laboratory	2.60	2.60	2.60	2.60	2.60	-
C207	OOP and Computer Graphics Lab	2.00	2.00	2.00	2.00	2.00	2.00
C208	Digital Electronics Laboratory	3.00	3.0	3.0	3.0	3.0	3.0
C209	Business Communication Skills Lab	2.80	2.80	2.80	2.80	2.80	2.80
C210	Humanities and social science	3.00	3.0	3.0	3.0	3.0	3.0
C211	Engineering Mathematics III	2.00	2.00	1.40	1.40	1.40	1.40
C212	Data Structure and Algorithm	2.20	1.80	2.20	2.20	2.20	2.20
C213	Software Engineering	2.20	2.20	2.20	2.20	2.20	2.20
C214	Microprocessor	1.40	1.20	2.20	2.20	2.20	2.20
C215	Principles of Programming Languages	2.00	2.00	3.00	3.00	3.00	3.00
C216*	Data Structures and Algorithms Laboratory	2.80	2.80	2.80	2.80	-	-
C217	Microprocessor Laboratory	2.80	2.80	2.80	2.80	2.80	2.80
C218	Project Based Learning II	3.00	3.00	3.00	3.00	3.00	3.00
C219*	Code of Conduct	2.80	2.80	2.80	2.80	-	-
C301	Database Management System	2.20	1.80	2.20	2.20	2.20	2.20
C302	Theory of Computation	2.00	2.00	2.20	2.20	1.80	2.20
C303	System Programming and Operating System	2.00	1.80	3.00	2.80	2.60	3.00
C304	Computer Networks and Security	2.20	2.00	2.20	2.00	2.00	2.20
C305	Human Computer Interface	3.00	2.60	2.20	1.80	2.20	2.20
C306	Database Management System Lab	2.40	2.40	2.40	2.40	2.40	2.40
C307	Computer Networks and Security Lab	3.00	3.00	3.00	3.00	3.00	3.00
C308	Lab Practice-I	3.00	3.00	3.00	3.00	3.00	3.00
C309*	Seminar and Technical Communication	3.00	3.00	3.00	3.00	-	-
C310	Data Science and Big Data Analytics	2.20	2.20	1.60	1.80	1.80	2.20
C311	Web Technolgy	3.00	3.00	2.20	2.20	2.20	2.20
C312	Artificial Intelligence	2.20	2.00	2.20	2.20	2.00	2.20
C313	Software Modelling Architecture	2.10	2.00	2.50	2.60	2.40	2.60
C314	Internship	3.00	3.00	3.00	3.00	3.00	3.00

C315	Data Science and Big data Analytics Laboratory	2.60	2.60	2.60	2.60	2.60	2.60
C316*	Web Technology Laboratory	2.60	2.60	2.60	2.60	2.60	-
C317	LP II	2.60	2.60	2.60	2.60	2.60	2.60
C401	Design and Analysis of Algorithms	3.00	3.00	2.80	3.00	3.00	2.40
C402	Machine Learning	2.20	2.20	1.60	1.80	1.80	2.20
C403	Blockchain Technology	3.00	3.00	2.20	2.20	2.20	2.20
C404	Elective III (Cyber Security and Digital Forensics	3.00	3.00	3.00	3.00	2.80	3.00
C405	Elective IV Software Testing and Quality Assurance	2.80	3.00	2.20	2.20	2.00	2.00
C406	Laboratory Practice III	2.40	2.40	2.40	2.40	2.40	2.40
C407*	Laboratory Practice IV	2.60	2.60	2.60	2.60	-	-
C408*	Project Stage I	3.00	3.00	3.00	3.00	3.00	-
C409	High Performance Computing	3.00	2.80	3.00	3.00	2.80	3.00
C410	Deep Learning	3.00	3.00	3.00	3.00	2.80	3.00
C411	Elective V (Image Processing)	2.20	2.00	3.00	2.40	2.40	3.00
C412	Elective VI Business Intelligence	3.00	3.00	3.00	2.80	2.80	3.00
C413*	Laboratory Practice V	2.00	2.00	2.00	2.00	2.00	-
C414*	Laboratory Practice VI	3.00	3.00	3.00	3.00	-	-
C415*	Project Stage II	3.00	3.00	3.00	3.00	3.00	-
	Average	2.68	2.65	2.55	2.50	2.39	2.43

Note: * indicates course having less than 6 Course Outcomes as per university guidelines.

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

Assessment is one or more processes which is carried out by the institution, that identify, collect and prepare data to evaluate the achievement of program outcomes and program specific outcomes. Attainment is the action or fact of achieving a standard result towards accomplishment of desired goals.

A. List of assessment tools and processes

The assessment of Program Outcome and Program Specific Outcome is done using two assessment methods as following:

- **Direct Assessment Method:** It includes the assessment of each Course contributing towards the attainment of Program Outcome (80% weightage). The direct methods display the student's knowledge and skills from their performance in the internal assessment tests, assignment, laboratory work and supporting activities such as projects, seminars, internship, assignments, case study, online quiz, mini project etc.
- **Indirect Assessment Method:** It includes the views of stake holders correlated to the Program Outcomes and Program Specific Outcomes attainment (20% weightage). The indirect method is done through surveys and interviews; it asks the stakeholders to reflect their views on student's learning. The institute assesses opinions or thoughts about graduate's knowledge or skills by different stakeholders.

B. The quality/relevance of assessment tools/processes used

a) Process for Direct Assessment Method:

The direct assessment method gives a quantitative measure in each course, and these exhibit the level of attainment of course outcomes related to that course. Thus, the mapping of course outcomes with program outcomes and program specific outcome will result in % attainment of each POs and PSOs. The assessment of each course outcome is done systematically by the course teacher. The direct assessment methods of COs are considered in the attainment of mapped POs and PSOs.

- The direct assessment method is further classified into two tools namely internal assessment (20% weightage) and external assessment methods (80% weightage).
- The internal assessment includes assessment of internal examinations/activities such as unit tests, assignments, progressive assessment of practical/seminar/project work, presentations etc. In the internal assessment methods, the faculty records the performance of each student in unit test, assignment, practical or any other method/activity. This indicates the knowledge and skill sets gained by the students against the CO and related corresponding PO and PSO.
- The external assessment consists of University In-semester, theory & practical/oral/Project examinations. In the external assessment method, after the declaration of University Examination results, the performance of the students in in-semester, theory, term work, oral and practical examinations are evaluated against each CO and related corresponding PO and PSO.

To assess attainment levels of program outcomes (POs) and program-specific outcomes (PSOs), the same tools and criteria used to define course outcomes (COs) attainment levels are applied. As a result, the attainment levels of COs are used to calculate the attainment levels of PSOs and POs. Direct assessment of PSOs and POs is based on the attainment levels of COs and the degree of correlation between them.

Sample calculation for PO/PSO attainment is described in following three steps:

Notations used

W_{dir} = Weight for direct attainment (0.8)

W_{indir} = Weight for indirect attainment (0.2)

PO_i/PSO_i_AT = PO/PSO attainment

$PO_i/PSO_i\_Dir\_AT$ = Direct PO/PSO Attainment

$PO_i/PSO_i\_Indir\_AT$ = Indirect PO/PSO Attainment

$Total\_Course\_AT$ = Total Course Attainment

Avg_CO_IA_AT = Average Course Internal Attainment

Avg_CO_EA_AT = Average Course External Attainment

Wt_PO_{ij}/PSO_{ij} = Average Weight of particular PO for individual COs of the Course

N=No. of courses from first year to final year in the program

Steps involved in evaluation of PO/PSO Direct attainment:

Step 1: Course total attainment is a weighted calculation of Internal Attainment and External Attainment as follows:

$$\text{Avg\_CO\_IA\_AT} = \frac{\sum_{i=1}^{n} CO_i\text{\_AT\_int}}{n} \quad \text{.....(3.3.1.1)}$$

$$\text{Avg\_CO\_EA\_AT} = \frac{\sum_{i=1}^{n} CO_i\text{\_AT\_ext}}{n} \quad \text{.....(3.3.1.2)}$$

$$Total\_Course\_AT = (W_{int} * \text{Avg\_CO\_IA\_AT} + W_{ext} * \text{Avg\_CO\_EA\_AT}) \quad \text{.....(3.3.1.3)}$$

Step 2: Calculation of attainment of POs through Direct Assessment:

$$PO_i\ /PSO_i\_Dir\_AT = \frac{\sum_{j=1}^{N}(Total\ Course\_AT * Wt\_PO_{ij}/PSO_{ij})/3}{N}$$ .....(3.3.1.4)

Example of above process is shown below:

Step – 1

Table 3.3.1.1: Course Attainment of Fundamentals of Data Structure

		Internal Examination Assessment						University Examination Assessment	
		CO1	CO2	CO3	CO4	CO5	CO6	CO1 &CO2	CO3 to CO6
		UT1	UT1	Assignment 1	UT2	UT2	Assignment 2	Insem	END SEM
	Max Marks	15	15	15	15	15	15	30	70
Sr. No.	Name of the Student								
1	ADITI PATIL	12	12	8	9	13	12	30	56
2	AHIRE ADITI RAJESH	13	11	12	11	15	12	25	64
3	ANUJA NAPHADE	14	15	9	11	14	11	25	60
4	BADGUJAR AISHWARYA	12	15	11	15	15	14	27	63
5	BAGWAN JULEKHA MUJIM	12	10	15	9	13	15	28	60
6	BANDGAR AHILYA	14	15	14	12	13	14	26	66
7	BHAGWAT VRUSHALI	10	10	8	12	13	12	24	55
8	BHAKARE SANDHYA	14	15	12	12	14	14	25	67
9	BHARANE PUJA	15	15	15	14	15	15	27	60
10	BHISE PRATIKSHA	15	15	14	12	13	15	24	63
11	BHOSALE GARGI RAVINDRA	15	14	9	11	12	11	26	57
12	BINNAR KUNDAN UTTAM	13	14	11	11	13	15	29	69
13	BORA SEJAL SANDIP	13	15	11	11	15	11	27	69
14	BORSE PRACHI NARENDRA	13	12	12	12	11	14	30	62
15	BUNDELE CHANCHAL	15	9	14	15	13	12	27	64
16	CHAVAN TANMAYI	15	15	12	12	13	14	30	67
17	CHOUGHULE SIDDHI RAJU	15	15	12	11	15	14	30	67
18	DANDGAVALE KETKI	15	15	12	11	15	14	22	67

19	DATIR SAKSHI VINAYAK	15	10	12	12	13	11	26	64
20	DIVATE SHUBHANGI	10	15	9	11	15	14	25	63
21	DIXIT MADHURA SANJAY	15	15	11	15	15	11	28	64
22	GAIKWAD DIVYA RAVINDRA	14	14	12	12	13	14	30	67
23	HEDGIRE AMRUTA	15	15	11	14	15	15	27	70
24	JADHAV SHWETA	13	10	14	11	15	15	24	67
25	JAGADALE PRANALI	14	13	15	9	11	14	24	67
26	JAGTAP SAKSHI NITIN	15	15	12	12	15	15	28	46
27	KANAWADE ANKITA KAILAS	15	15	15	15	15	15	30	70
28	KHAIRNAR PRAJKTA	11	15	12	15	13	15	29	70
29	KHUSHI GANGRADE	14	14	14	14	14	12	28	69
30	KOTHARE ANISHA AJAY	15	14	12	15	15	12	30	64
31	MADHVI SHARMA	10	9	14	11	13	14	29	70
32	MAHAJAN TANVI PRAMOD	14	10	11	12	15	15	26	63
33	MANE MAYURI DHANAJI	15	15	12	13	15	14	30	70
34	MANEPATIL RAJLAXMI	14	13	14	11	15	15	27	62
35	MUNDHE ANJALI	14	15	12	13	15	12	30	70
36	NAGRALE PURVA PRADIP	12	12	12	11	11	14	21	59
37	NALAVADE ARATI MOHAN	11	9	8	12	14	14	29	50
38	OCHANI ANKITA	13	12	12	15	15	14	29	66
39	PASALKAR SIDDHI DIPAK	13	14	14	12	14	14	27	69
40	PASALKAR VAISHNAVI	12	15	14	11	15	14	29	64
41	PATIL ANJANA ANANT	15	15	12	13	15	14	30	67
42	PATIL BHAKTI ARJUN	13	13	11	15	14	14	26	70
43	PURVANT SAKSHI	9	15	9	10	15	12	28	67
44	RAJ WAGISHA RAJIWA	14	10	14	12	14	14	30	64
45	RANE DIVYA SURENDRA	7	12	14	11	14	14	30	53
46	RANPISE AKANKSHA	12	15	9	12	12	12	27	70
47	RIDHIMA BHAT	11	15	12	11	12	14	28	55
48	RUPANAVAR PRAJAKTA	14	14	8	12	14	14	27	57
49	SAKSHI PRATAP	13	15	9	15	13	14	29	57
50	SALAVE POOJA RAVINDRA	13	13	0	11	13	12	22	67
51	SANCHITA OLA	14	15	12	13	13	14	30	64

52	SARWADE SHEVALI VILAS	12	15	12	15	15	0	23	66
53	SASANE SANIKA SATISH	15	15	12	10	14	12	25	63
54	SHETE SAMRUDHI	14	15	14	15	15	12	30	59
55	SHINDE VAISHNAVI	15	15	14	15	14	14	27	62
56	SHUBHANGI KUMARI	13	10	12	10	13	12	26	69
57	SONAWANE SAKSHI	13	3	14	11	13	15	24	66
58	SUNEHA DEEP KOUR	12	13	11	12	13	11	27	70
59	SURUCHI BIBIKAR	15	11	12	10	14	14	29	60
60	SURYVANSHEE PRANJAL	13	15	14	14	14	15	29	70
61	TANDEL SHRADDHA KIRAN	15	14	12	11	15	14	28	70
62	THAKARE SHRAVANI	13	15	12	15	15	14	28	50
63	THAKUR SHRUTI	12	13	14	11	12	12	29	57
64	WADKAR NEHA LAXMAN	15	15	12	15	15	12	29	70
65	WAGH MRUNALINI	14	15	14	13	15	14	30	70
66	YADAV SHREYA BAJIRAO	13	15	9	12	12	12	27	64
67	TANVI SANEKAR	15	12	9	12	14	12	30	59
68	CHAWLA MAHAK	12	9	11	10	12	15	28	56
69	NAIK SANAH MANSOOR	11	11	11	15	15	14	27	63
70	SARMOKDAM RENUKA	12	11	14	14	13	12	30	53
71	MORE SUHASINI	10	13	11	11	13	14	30	63
72	PONGADE APURVA SANJAY	15	10	14	12	13	14	26	70
73	MAHABARE SHRAVANI	9	11	14	11	14	14	29	70
74	SHAIKH AQSASALIM	10	12	14	12	15	14	30	56
75	SHAH DRISHTI DEVENDRA	11	11	14	13	12	12	24	64
76	INGALE DIVYA	11	10	14	12	14	12	30	64
77	GHOLAP SEJAL S.	10	12	14	13	11	12	29	57
78	KARAD SHRUTI DIPAK	11	10	14	13	12	12	25	69
79	UPASE SANJANA	8	7	14	11	14	12	26	67
80	PARAB VAISHNAVI	9	12	14	11	11	12	28	67
	Total no. of appeared students	80	80	80	80	80	80	80	80
	Target Marks	13	13	12	12	14	13	27	64
	No. of students achieved Target	51	49	56	49	46	49	56	48

	% No. of students achieved Target	63.75	61.25	70	61.25	57.5	61.25	70	60
	Level achieved	3	3	3	3	2	3	3	3
	Average CO_IA-AT	2.83						Average CO_UA-AT	3
	Total CO-AT	2.96							

Total_Course_AT = 2.83 * 0.2 + 3.00 * 0.8 =2.96

Step – 2

Table 3.3.1.2: CO –PO mapping of course Fundamentals of Data Structure

Course Outcomes	**Program Outcomes**											
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C202.1	2	2	1	1	1	-	-	-	-	2	-	-
C202.2	2	2	1	1	-	-	-	-	-	2	-	-
C202.3	2	2	-	-	2	-	-	-	-	2	-	-
C202.4	2	2	1	-	-	-	-	-	-	2	-	-
C202.5	2	2	1	2	-	-	-	-	-	2	-	-
C202.6	2	1	1	2	-	-	-	-	-	2	-	-
Average Mapping	2.00	1.83	1.00	1.50	1.00	-	-	-	-	2.00	-	-

Sample PO1 Attainment Calculation

$PO_2\_Dir\_AT$ = (2.00*2.96)/3 = 1.97

Table 3.3.1.3: PO Attainment of Fundamentals of Data Structure

Attainment	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C202	1.97	1.81	0.98	1.48	0.98	-	-	-	-	1.97	-	-

b) Process for Indirect assessment Method:

- Indirect assessment methods are carried out through surveys such as Exit Surveys, Alumni Surveys, and Employer Surveys.
- Feedback and suggestions are collected from graduating students at the end of the academic year. This information contributes to the assessment of Program Outcomes (POs) and Program Specific Outcomes (PSOs), and also provides insights into the strengths and areas for improvement of the program. These insights serve as a basis for the periodic review and revision of POs and PSOs.
- The attainment of POs/PSOs through indirect assessment tools offers valuable information regarding students' perceptions of their learning experiences and their self-assessed achievement of the program outcomes. While indirect tools may have certain limitations, they provide meaningful perspectives on the effectiveness of the program in meeting students' expectations and aligning with the needs of employers and the wider community.
- By integrating both direct and indirect assessment methods, the department obtains a more holistic understanding of the program's effectiveness in achieving its intended learning outcomes.Bottom of Form

Notations used

Indir _GES_AT = Indirect attainment -Graduate exit survey

Indir _AlS_AT = Indirect attainment – Alumni Survey

Indir _EmpS_AT = Indirect attainment- Employer Survey

$$PO_i \,/\, PSO_i\_Indir\_AT = Average(\text{Indir\_GES\_AT} + \text{Indir\_AlS\_AT} + \text{Indir\_EmpS\_AT}) \quad \text{.....(3.3.1.5)}$$

Final PO/PSO attainment is calculated for Direct and Indirect attainment.

$$PO_i/PSO_i\_AT = \quad (W_{dir} * PO_i/PSO_i\_\text{Dir\_AT}) + \quad (W_{indir} * PO_i/PSO_i\_\text{Indir\_AT}) \qquad \text{.....(3.3.1.6)}$$

The attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs) is measured using both direct and indirect assessment tools. The target for PO and PSO attainment refers to the expected level of achievement or proficiency that students should demonstrate for each PO and PSO. These targets are defined by the department and serve as benchmarks for evaluating how effectively the course and overall program meet their intended learning outcomes. The target set for batch 2023-24 is 1.5.

By establishing clear attainment targets, course instructors and academic units can systematically monitor student progress and take informed actions—such as curriculum improvements or pedagogical interventions—to enhance student learning and ensure alignment with program objectives.

Upon completion of the attainment analysis, a comprehensive PO and PSO attainment report is prepared and submitted to the Internal Quality Assurance Cell (IQAC) for review and further action.

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
C1101	2.37	2.37	PO3	1.58	1.58	PO6	PO7	PO8	PO9	0.79	PO11	0.79
C1102P	1.88	1.25	1.25	1.88	1.50	PO6	PO7	PO8	1.88	1.25	PO11	1.25
C1102C	3.00	2.50	1.80	PO4	1.70	3.00	1.50	PO8	1.80	2.00	PO11	1.00
C1103	2.37	1.84	1.26	0.95	0.79	1.58	1.42	PO8	PO9	0.79	PO11	1.58
C1104EE	2.17	1.60	1.60	1.60	PO5	1.60	PO7	PO8	0.80	0.80	PO11	1.20
C1104EX	2.87	1.75	1.59	PO4	1.44	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C1105P	1.60	1.60	1.47	1.60	1.60	PO6	PO7	PO8	1.00	1.60	PO11	1.60
C1105E	2.93	2.93	1.63	0.98	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C1201	2.44	2.44	PO3	1.63	1.63	PO6	PO7	PO8	PO9	0.81	PO11	0.81
C1205	1.82	1.78	0.99	PO4	2.15	0.61	1.08	PO8	PO9	1.49	PO11	PO12
C1106	1.00	3.00	PO3	PO4	3.00	PO6	1.00	2.00	PO9	PO10	2.00	3.00
C1206	2.00	2.75	2.75	2.75	2.25	2.25	2.25	3.00	2.50	2.25	3.00	3.00
C201	1.49	1.63	1.63	1.63	1.49	PO6	PO7	PO8	PO9	1.36	PO11	PO12
C202	1.98	1.81	0.99	1.48	0.99	PO6	PO7	PO8	PO9	1.98	PO11	PO12
C203	1.46	1.22	0.73	0.73	0.73	PO6	PO7	PO8	PO9	0.33	PO11	PO12
C204	1.93	1.35	0.97	1.29	0.97	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205	1.98	1.98	1.65	1.65	0.99	PO6	PO7	PO8	PO9	0.99	PO11	PO12
C206	1.52	1.52	1.52	0.87	0.87	PO6	PO7	0.87	1.30	2.60	PO11	PO12
C207	1.33	1.33	1.33	1.33	0.67	PO6	PO7	0.67	PO9	1.33	PO11	PO12
C208	2.00	1.83	1.83	1.67	1.00	PO6	PO7	1.00	1.00	2.00	PO11	PO12
C209	PO1	PO2	PO3	PO4	PO5	PO6	PO7	1.87	2.10	1.87	PO11	0.93

C210	PO1	PO2	PO3	PO4	PO5	1.00	1.60	1.40	1.67	1.50	PO11	1.33
C211	1.05	0.99	0.79	1.05	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212	1.14	1.07	0.95	0.71	PO5	PO6	PO7	PO8	PO9	1.43	PO11	PO12
C213	1.47	1.47	1.71	1.47	1.47	1.10	0.98	1.28	1.47	1.47	1.47	1.47
C214	0.86	1.29	0.97	0.97	1.07	PO6	PO7	PO8	0.90	1.29	PO11	1.07
C215	2.70	2.55	2.55	2.40	2.40	1.44	0.9	2.10	1.80	0.90	2.40	2.70
C216	1.87	1.31	1.77	1.56	PO5	PO6	PO7	0.56	2.80	2.80	0.93	PO12
C217	1.87	1.87	2.49	1.87	1.4	PO6	PO7	1.56	1.87	2.33	PO11	0.83
C218	2.00	2.33	2.33	2.33	2.17	2.00	1.80	1.25	1.83	2.67	2.17	2.67
C219	PO1	PO2	PO3	PO4	PO5	PO6	2.10	2.10	PO9	PO10	PO11	PO12
C301	1.43	1.43	2.00	1.07	0.71	1.43	0.71	0.71	1.43	0.71	0.71	1.90
C302	2.07	2.07	1.38	1.38	0.69	PO6	PO7	PO8	PO9	1.38	PO11	1.10
C303	1.69	1.83	1.69	1.69	0.85	PO6	PO7	PO8	PO9	PO10	0.85	0.99
C304	1.28	1.17	1.26	1.26	1.17	0.93	1.17	1.17	1.17	0.70	1.23	0.82
C305	1.54	1.54	1.80	1.54	1.92	0.77	1.02	0.9	1.02	1.15	1.02	1.54
C306	1.60	1.07	2.00	PO4	1.87	0.80	1.07	0.80	2.40	1.07	1.07	1.00
C307	2.00	2.00	2.00	1.00	1.20	1.00	1.00	1.00	1.50	1.00	1.00	1.00
C308	1.17	2.00	2.17	1.67	2.33	2.00	PO7	PO8	2.17	2.00	1.67	1.00
C309	1.50	2.00	1.75	2.00	1.00	1.25	1.00	3.00	3.00	3.00	1.00	2.00
C310	0.75	1.30	1.09	0.98	1.30	0.65	PO7	PO8	0.65	PO10	PO11	0.65
C311	1.01	1.39	1.39	1.56	1.39	0.87	0.87	0.87	0.87	0.87	0.87	0.87
C312	0.95	1.54	1.54	0.95	1.42	0.71	0.71	2.14	0.71	1.42	PO11	1.44
C313	1.32	1.63	1.60	1.30	1.54	PO6	PO7	PO8	PO9	PO10	2.05	1.50
C314	1.67	2.00	2.00	2.00	2.33	1.50	1.50	1.50	1.40	1.75	1.50	1.50
C315	1.73	1.73	2.17	1.44	1.88	1.44	PO7	PO8	1.39	PO10	PO11	2.31
C316	1.52	1.52	2.31	1.30	1.16	0.87	0.87	0.87	PO9	0.87	0.87	0.87
C317	1.01	0.87	1.73	1.73	2.60	1.73	PO7	1.73	1.73	1.73	1.56	1.73
C401	1.83	0.83	1.33	1.00	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.17
C402	1.30	1.14	1.30	0.76	0.65	0.67	0.58	0.67	0.39	0.33	0.33	0.33
C403	2.08	2.03	1.63	1.63	1.63	1.63	1.63	1.36	1.30	PO10	PO11	2.11
C404	1.65	2.64	1.48	0.82	0.16	0.33	PO7	0.49	PO9	0.16	PO11	2.64
C405	1.19	1.58	1.19	1.72	1.45	0.79	0.79	1.19	1.85	1.72	1.58	0.79
C406	2.40	2.13	2.13	1.40	1.33	1.07	PO7	0.80	1.60	PO10	1.60	2.00

C407	1.19	1.58	1.19	1.72	1.45	0.79	0.79	1.19	1.85	1.72	1.58	0.79
C408	2.00	2.50	2.00	2.00	2.00	2.00	1.00	1.00	3.00	2.00	1.67	1.67
C409	1.96	2.45	1.63	0.98	1.96	2.35	0.98	0.98	1.96	1.96	0.98	1.05
C410	2.14	2.14	1.98	1.78	1.98	0.99	0.99	PO8	PO9	PO10	1.98	1.19
C411	0.84	1.26	1.54	1.54	1.68	0.84	0.84	0.84	0.84	0.84	0.84	0.84
C412	1.08	1.41	1.32	1.32	1.16	0.77	PO7	PO8	PO9	2.31	PO11	PO12
C413	1.33	1.50	1.20	1.33	1.56	0.89	0.67	0.67	1.33	PO10	1.07	0.80
C414	2.00	2.50	2.50	2.67	1.75	1.00	PO7	PO8	3.00	3.00	2.67	PO12
C415	1.33	1.00	1.00	1.33	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.17
PO Attainment	1.70	1.74	1.63	1.54	1.55	1.26	1.38	1.38	1.66	1.56	1.48	1.50

PO Attainment Level

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
Direct Attainment	1.69	1.75	1.61	1.47	1.47	1.23	1.13	1.27	1.60	1.49	1.42	1.41
InDirect Attainment	1.74	1.72	1.72	1.84	1.88	1.39	2.37	1.80	1.88	1.82	1.73	1.86

PSO Attainment

Course	**PSO1**	**PSO2**	**PSO3**
C201	1.62	1.63	0.67
C202	1.98	1.98	1.98
C203	1.46	1.46	0.67
C204	1.93	1.93	1.90
C205	0.99	PSO2	PSO3
C206	1.73	1.73	1.73
C207	0.89	1.33	1.00
C208	1.00	PSO2	PSO3
C209	PSO1	PSO2	1.09
C210	PSO1	PSO2	1.00
C211	PSO1	PSO2	PSO3
C212	1.43	1.43	1.38
C213	1.34	1.03	1.03
C214	0.64	0.64	PSO3
C215	0.90	1.20	1.80

C216	1.87	1.87	2.05
C217	1.12	PSO2	0.93
C218	3.00	2.00	1.00
C219	0.93	1.87	1.87
C301	1.19	0.83	1.07
C302	PSO1	1.38	PSO3
C303	1.69	1.18	1.18
C304	1.40	1.40	PSO3
C305	1.54	0.77	0.77
C306	1.60	1.47	1.33
C307	3.00	2.00	PSO3
C308	2.50	2.00	2.00
C309	2.00	2.00	2.00
C310	1.30	1.30	1.30
C311	1.16	1.01	0.87
C312	1.19	1.42	0.85
C313	1.73	1.20	1.09
C314	2.50	2.00	2.17
C315	1.73	1.73	1.73
C316	1.73	1.39	1.73
C317	2.17	1.73	1.73
C401	1.50	1.67	0.72
C402	1.30	1.30	1.33
C403	1.63	1.36	1.42
C404	1.48	1.65	2.67
C405	2.38	1.19	1.85
C406	2.13	2.00	2.40
C407	2.38	1.19	1.85
C408	1.00	1.00	1.17
C409	0.98	1.47	1.47
C410	1.50	1.61	1.20
C411	0.84	1.40	0.84
C412	0.77	1.58	1.19

C413	1.73	1.33	2.00
C414	2.50	2.75	2.75
C415	1.17	1.17	0.83
PSO Attainment	1.60	1.50	1.45

PSO Attainment Level

Course	PSO1	PSO2	PSO3
Direct Attainment	1.59	1.50	1.45
InDirect Attainment	1.63	1.51	1.45

4 STUDENTS' PERFORMANCE (150) Total Marks 134.30

:

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	57	60	59	51	58
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	7	10	7	8	15	10
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	67	67	67	67	66	68

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)	67	45	0	0	0
2022-23 (CAYm2)	67	37	47	0	0
2021-22 (CAYm3)	67	54	53	53	0
2020-21 (LYG)	67	54	49	49	49
2019-20 (LYGm1)	66	51	65	65	65
2018-19 (LYGm2)	68	34	44	44	44

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)	67	57	0	0	0
2022-23 (CAYm2)	67	53	58	0	0
2021-22 (CAYm3)	67	57	64	64	0
2020-21 (LYG)	67	56	64	64	64
2019-20 (LYGm1)	66	51	65	65	65
2018-19 (LYGm2)	68	54	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	57	95.00

Average [(ER1 + ER2 + ER3) / 3] : 98.33

Assessment : 20.00

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

Total Marks 34.15

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

Institute Marks : 19.75

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	67.00	66.00	68.00
Y Number of students who have graduated without backlogs in the stipulated period	49.00	65.00	44.00
Success Index [SI = Y / X]	0.73	0.98	0.65

Average SI [(SI1 + SI2 + SI3) / 3] : 0.79

Assessment [25 * Average SI] : 19.75

4.2.2 Sucess rate in stipulated period (15)

Institute Marks : 14.40

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	67.00	66.00	68.00
Y Number of students who have graduated in the stipulated period	64.00	65.00	64.00
Success Index [SI = Y / X]	0.96	0.98	0.94

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

Assessment [15 * Average SI] : 14.40

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 13.04

Institute Marks : 13.04

Academic Performance	CAYm3 (2021-22)	LYG (2020-21)	LYGm1 (2019-20)
Mean of CGPA or mean percentage of all successful students(X)	8.70	8.06	9.32
Total number of successful students(Y)	64.00	64.00	65.00
Totalnumber of students appeared in the examination(Z)	64.00	64.00	65.00
API [X*(Y/Z)]:	8.70	8.06	9.32

Average API [(AP1 + AP2 + AP3)/3] : 8.69

Assessment [1.5 * AverageAPI] : 13.04

4.4 Academic Performance in Second Year (15)

Total Marks 11.51

Institute Marks : 11.51

Academic Performance	CAYm2 (2022-23)	CAYm3 (2021-22)	LYG (2020-21)
Mean of CGPA or mean percentage of all successful students(X)	8.23	7.33	8.11
Total number of successful students (Y)	58.00	64.00	64.00
Total number of students appeared in the examination (Z)	63.00	64.00	64.00
API [X * (Y/Z)]	7.58	7.33	8.11

Average API [(AP1 + AP2 + AP3)/3] : 7.67

Assessment [1.5 * AverageAPI] : 11.51

4.5 Placement, Higher Studies and Entrepreneurship (40)

Total Marks 35.60

Institute Marks : 35.60

Item	LYG (2020-21)	LYGm1 (2019-20)	LYGm2 (2018-19)
Total No of Final Year Students(N)	64.00	65.00	64.00
No of students placed in the companies or government sector(X)	46.00	54.00	59.00
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	6.00	4.00
No of students turned entrepreneur in engineering/technology (Z)	0.00	0.00	1.00
x + y + z =	48.00	60.00	64.00
Placement Index [(X+Y+Z)/N] :	0.75	0.92	1.00

Average Placement [(P1 + P2 + P3)/3] : 0.89

Assessment [40 * Average Placement] : 35.60

Program Name :
Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	RENUKA UDAY SARMOKDAM	12020254114	BNY Mellon	BNY Mellon/RENUKA SARMOKDAM
2	ANKITA KISHORKUMAR OCHANI	12020253894	BNY Mellon	BNY Mellon/ANKITA OCHANI
3	SANAH MANSOOR NAIK	12020253964	DASSAULT SYSTEMS	DASSAULT SYSTEMS/SANAH NAIK/06 June 2024
4	SHRUTI DIPAK KARAD	12021265402	BNY Mellon	BNY Mellon/SHRUTI KARAD
5	SHRADDHA KIRAN TANDEL	12020253868	FIS	FIS/SHRADDHA TANDEL/18-April-2024
6	MAHAK CHAWLA	12020253996	WESTERN UNION	WESTERN UNION/MAHAK CHAWLA/4-July-2024
7	SHUBHANGI KUMARI	12020253908	WESTERN UNION	WESTERN UNION/SHUBHANGI KUMARI 3-july- 2024
8	DIVYA RAVINDRA GAIKWAD	12020253912	WESTERN UNION	WESTERN UNION/DIVYA GAIKWAD/4 - July-2024
9	SHWETA GORAKSHA JADHAV	12020253931	WESTERN UNION	WESTERN UNION/SHWETA JADHAV /3-July-2024
10	PRACHI NARENDRA BORSE	12020253927	WESTERN UNION	WESTERN UNION/PRACHI BORSE/3-July-2024
11	ANKITA KAILAS KANAWADE	12020253889	TCS	REF:TCSL/CT20234271366/Pune
12	APURVA SANJAY PONGADE	12021265403	CAPGEMINI	CAPGEMINI/APURVA PONGADE/18-MAR-2024
13	SANJANA SOMSHEKHAR UPASE	12021265401	FLIPKART	FLIPKART/SANJANA UPASE/18-July-2024
14	VAISHNAVI GANESH PASALKAR	12020253884	AMDOCS	AMDOCS/VAISHNAVI PASALKAR/10-Oct-2023
15	TANVI PRAMOD MAHAJAN	12020253928	PERSISTENT	PERSISTENT/TANVI MAHAJAN/29-Nov-2023
16	ANJANA ANANT PATIL	12020253872	VOIS	VOIS/ANJANA PATIL/28-Sep-2024
17	ANUJA NAPHADE	12020253915	VOIS	VOIS/ANUJA NAPHADE/31-Aug-2024
18	PRAJAKTA SAHEBRAO KHAIRNAR	12020253907	VOIS	VOIS/PRAJAKTA KHAIRNAR/31-Aug-2024
19	RAJLAXMI UDAY MANEPATIL	12020253892	VOIS	VOIS/RAJLAXMI MANEPATIL/2-Sep-2024
20	VAISHNAVI BALASAHEB SHINDE	12020253932	VOIS	VOIS/VAISHNAVI SHINDE/20-Aug-2024
21	DIVYA RAVINDRA INGALE	12021265398	ACCENTURE	ACCENTURE/DIVYA INGALE
22	PATIL BHAKTI ARJUN	12020253918	PUBLICIS SAPIENT	PUBLICIS SAPIENT/BHAKTI PATIL/13-April-2024
23	SHRAVANI RAVINDRA MAHABARE	12021265397	PUBLICIS SAPIENT	PUBLICIS SAPIENT/SHRAVANI MAHABARE/13-April-2024
24	SURUCHI SANDEEP BIBIKAR	12020253874	PUBLICIS SAPIENT	PUBLICIS SAPIENT/SURUCHI BIBIKAR/13-April-2024
25	SHRAVANI DEVANAND THAKARE	12020253916	PUBLICIS SAPIENT	PUBLICIS SAPIENT/SHRAVANI THAKARE/13-April-2024
26	SANCHITA OLA	12020253905	ACCENTURE	ACCENTURE/SANCHITA OLA/21-Feb-2024
27	AQSA SALIM SHAIKH	12021265394	ACCENTURE	ACCENTURE/AQSA SHAIKH/8-April-2024
28	TANMAYI PRASHANT CHAVAN	12020253901	ACCENTURE	ACCENTURE/TANMAYI CHAVAN/25-June-2024
29	AKANKSHA DNYANESHWAR RANPISE	12020253898	ACCENTURE	ACCENTURE/AKANKSHA RANPISE
30	RUPANAVAR PRAJAKTA TANAJI	12020253875	ACCENTURE	ACCENTURE/ PRAJAKTA RUPANAVAR/25-June-2024
31	SAKSHI PRATAP	12020253902	IBM	IBM/SAKSHI PRATAP/25-OCT-2024
32	JAGTAP SAKSHI NITIN	12020253895	CAPGEMINI	CAPGEMINI/JAGTAP SAKSHI /18-MAR-2024

33	MADHVI SHARMA	12020253871	CAPGEMINI	CAPGEMINI/MADHVI SHARMA/18-MAR-2024
34	JULEKHA MUJIM BAGWAN	12020253890	PARKAR	REF:PAR/0491/2024/PUNE /16-APR-2024
35	WAGISHA RAJ	12020253869	PARKAR	REF:PAR/0483/2024/PUNE/10-JUN-2024
36	MADURA SANJAY DIXIT	12020253899	TCS	Ref: TCSL/CT20234202509/Pune
37	SANJIVANI SHIVAJI MORE	12021265400	CAPGEMINI	CAPGEMINI/SANJIVANI MORE/18-MAR-2024
38	PRANJAL DIPAK SURYVANSHEE	12020253933	CAPGEMINI	CAPGEMINI/PRANJAL SURYVANSHEE/18-MAR-2024
39	SANDHYA BABASAHEB BHAKARE	12020253929	CAPGEMINI	CAPGEMINI/SANDHYA BHAKARE/18-MAR-2024
40	DIVYA SURENDRA RANE	12020253887	CAPGEMINI	CAPGEMINI/DIVYA RANE/18-MAR-2024
41	AHILYA PANDURANG BANDGAR	12020253870	CAPGEMINI	CAPGEMINI/AHILYA BANDGAR /18-MAR-2024
42	PURVA PRADIP NAGRALE	12020253873	CAPGEMINI	CAPGEMINI/PURVA NAGRALE /18-MAR-2024
43	DRISHTI DEVENDRA SHAH	12021265396	CAPGEMINI	CAPGEMINI/DRISHTI SHAH/18-MAR-2024
44	PRANALI MAHADEO JAGADALE	12020253880	CAPGEMINI	CAPGEMINI/PRANALI JAGADALE/18-MAR-2024
45	CHOUGHULE SIDDHI RAJU	12020253919	LTIMINDTREE	REF: LTIMINDTREE/HR/EN11/CAMPUS/2024
46	SAMRUDHI PRASHANT SHETE	12020253888	CAPGEMINI	CAPGEMINI/SAMRUDHI SHETE/18-MAR-2024

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	ANKITA CHANDRAKANT TILEKAR	12019097583	STRIDLEY SOLUTION	STRIDLEY SOLUTION/ANKITA TILEKAR/06-Mar-2023
2	DESHMUKH ANUSHKA SUTESHRAO	12019097591	HURON	HURON/DESHMUKH ANUSHKA/12-Oct-2023
3	PARDESHI JANHAVI SUNIL	12019097567	STRIDLEY SOLUTION	STRIDLEY SOLUTION/PARDESHI JANHAVI/06-Mar-2023
4	SONAWANE SHREYA KRISHNAT	12019097565	STRIDLEY SOLUTION	STRIDLEY SOLUTION/SONAWANE SHREYA/06-Mar-2023
5	RUPALI NITIN BHARAMBE	12019097553	TCS	REF:TCSL/DT20229497705/Pune/24-Sept-2022
6	SHRIYA TICKOO	12019097597	TCS	REF:TCSL/CT20224026272/Pune/21-Sep-2022
7	AHER ARCHANA BHALCHANDRA	12019097574	PRINCIPAL GLOBAL SERVICES	PRINCIPAL GLOBAL SERVICES/AHER ARCHANA/08-Dec-2022
8	KAJOL PRABHU BUKTARE	12019097588	PRINCIPAL GLOBAL SERVICES	PRINCIPAL GLOBAL SERVICES/KAJOL BUKTARE/08-Dec-2022
9	AJABE NIKITA SUBHASH	12019097598	NIELSEN IQ	NIELSEN IQ/AJABE NIKITA/15-June-2023
10	SEJAL DAHAKE	12019097638	THOUGHT WORKS	THOUGHT WORKS/SEJAL DAHAKE
11	BIPALI GADE	12019097571	IBM	IBM/BIPALI GADE/06-12-2022
12	NASHIA FATMA	12019097647	NIELSEN IQ	NIELSEN IQ/NASHIA FATMA/07-JUNE-2023
13	RUTUJA SANTOSH ZAGADE	12020253938	NIELSEN IQ	NIELSEN IQ/RUTUJA ZAGADE/07-JUNE-2023
14	SHRUTI RAJENDRA NAHAR	12019097599	NIELSEN IQ	NIELSEN IQ/SHRUTI NAHAR /07-JUNE-2023
15	DHANASHRI ASHOK GURULE	12019097548	STANDARD CHARTERED GBS	STANDARD CHARTERED GBS / DHANASHRI GURULE /06- July -2023
16	GADEKAR KAJAL DEVIDAS	12019097550	STANDARD CHARTERED GBS	STANDARD CHARTERED GBS / GADEKAR KAJAL /06- July -2023
17	KRITI SHARMA	12019097586	STANDARD CHARTERED GBS	STANDARD CHARTERED GBS / KRITI SHARMA /06- July -2023
18	SAMIKSHA VIJAY BODE	12019097651	STANDARD CHARTERED GBS	STANDARD CHARTERED GBS / SAMIKSHA BODE /06- July -2023
19	SHREYA SAHU	12019097552	STANDARD CHARTERED GBS	STANDARD CHARTERED GBS / SHREYA SAHU /06- July -2023
20	VAISHNAVI SANDEEP MAHAJAN	12020253948	STANDARD CHARTERED GBS	STANDARD CHARTERED GBS / VAISHNAVI MAHAJAN /06- July -2023
21	ZIYA FATIMA SAYED	12019097562	STANDARD CHARTERED GBS	STANDARD CHARTERED GBS / ZIYA SAYED /06- July -2023
22	DAWGHAT SHREYA ANIL	12019097593	ZOMATO	ZOMATO/DAWGHAT SHREYA/10-March-2023
23	PHATAK SAKSHI SAMPATRAO	12019097572	ACCENTURE	ACCENTURE/PHATAK SAKSHI
24	CHAUDHARI ONAL MANOJ	12020253937	AMDOCS	AMDOCS/CHAUDHARI ONAL/10-Oct-2022
25	GAWARSHETTIWAR VILAS PURVAJYA	12019097579	AMDOCS	AMDOCS/GAWARSHETTIWAR PURVAJYA/10-Oct-2022
26	SHITAL SATISH PATIL	12019097642	AMDOCS	AMDOCS/SHITAL PATIL/10-Oct-2022
27	SONAWANE GAURI NITIN	12019097587	AMDOCS	AMDOCS/SONAWANE GAURI /10-Oct-2022
28	ANGALURI VEENA GAYATHRI	12019097675	MINDSTIX	MINDSTIX/ANGALURI VEENA/20-April-2023
29	ADSULE VAISHNAVI PRASAD	12020253945	PERSISTENT	PERSISTENT/ADSULE VAISHNAVI /11-Jan-2023
30	AISHWARYA NAGARAJ KOTTAPALLI	12019097575	VOIS	VOIS/AISHWARYA KOTTAPALLI/06-Dec-2022
31	ANANYA SUNIL VERMA	12019097566	VOIS	VOIS/ANANYA VERMA/06-Dec-2022
32	PATIL PIYUSHA PRAKASH	12019097596	VOIS	VOIS/PATIL PIYUSHA/05-Dec-2022

33	PRACHI MANIK WADHAVANE	12019097570	VOIS	VOIS/PRACHI WADHAVANE/05-Dec-2022
34	SANSKRUTI RAJESH TALWEKAR	12019097663	VOIS	VOIS/SANSKRUTI TALWEKAR/05-Dec-2022
35	SATHE RUCHA ANNASAHEB	12019097557	VOIS	VOIS/SATHE RUCHA/05-Dec-2022
36	SHRADDHA BHAGWAN IDHATE	12019097590	VOIS	VOIS/SHRADDHA IDHATE/05-Dec-2022
37	SUKHPREET KAUR RAYAT	12019097584	VOIS	VOIS/SUKHPREET KAUR/05-Dec-2022
38	UNNATI JITENDRA JADHAV	12019097564	VOIS	VOIS/UNNATI JADHAV/05-Dec-2022
39	DUDHANE KOMAL YUVRAJ	12019097594	TATA TECHNOLOGY	TATA TECHNOLOGY/DUDHANE KOMAL /05-July-2023
40	DANDGE HARSHADA VILAS	12019097576	ACCENTURE	ACCENTURE/DANDGE HARSHADA/04-July-2023
41	SAKSHI PRIYA	12019097646	ACCENTURE	ACCENTURE/SAKSHI PRIYA/04-Nov-2023
42	DIVYA MASKE	12019097661	ACCENTURE	ACCENTURE/DIVYA MASKE /25-May-2023
43	KSHITIJA BHARAT THANGE	12019097556	ACCENTURE	ACCENTURE/ KSHITIJA THANGE/25-May-2023
44	PURVA KERBA GORAVE	12020253942	ACCENTURE	ACCENTURE/PURVA GORAVE /06-Feb-2023
45	VAISHNAVI PRAVIN BANKAR	12019097560	ACCENTURE	ACCENTURE/VAISHNAVI BANKAR/05-Aug-2023
46	APURVA RAJENDRA BARI	12020253950	CAPGEMINI	CAPGEMINI/APURVA BARI/18-Dec-2022
47	ASHITA A HIRMUKHE	12019097659	CAPGEMINI	CAPGEMINI/ASHITA HIRMUKHE /02-Jan-2023
48	DESHMUKH SHARWARI SUNIL	12019097600	CAPGEMINI	CAPGEMINI/DESHMUKH SHARWARI /18-Dec-2022
49	DHANASHREE RAJENDRA PAWAR	12019097653	CAPGEMINI	CAPGEMINI/DHANASHREE PAWAR/18-Dec-2022
50	GITANJALI TUKARAM GADAKH	12020253947	CAPGEMINI	CAPGEMINI/GITANJALI GADAKH/06-Jan-2023
51	MAITHILEE YOGESH CHATURBHUJ	12019097582	CAPGEMINI	CAPGEMINI/MAITHILEE CHATURBHUJ /18-Dec-2022
52	NEMANWAR SATVIKA MANOJ	12019097558	CAPGEMINI	CAPGEMINI/NEMANWAR SATVIKA/18-Dec-2022
53	SAKSHI YOGESH SANER	12019097577	CAPGEMINI	CAPGEMINI/SAKSHI SANER/18-Dec-2022
54	VEDIKA VILAS CHAUDHARI	12019097573	L&T TECHNOLOGY	L&T TECHNOLOGY/VEDIKA CHAUDHARI26-Apr-2023

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	TAMASA SARKAR	12018293301	AMAZON	AMAZON/TAMASA SARKAR/08-OCT-2021
2	SAKSHI SUBHASH PATEL	12018293163	STANDARD CHARTERED GBS (Global Business Services)	STANDARD CHARTERED GBS (Global Business Services)/SAKSHI PATEL/23-DEC-2021
3	RITIKA RAI	12018293261	CAPGEMINI	CAPGEMINI/RITIKA RAI
4	BHANDARI MALLESHWARI CHANDRAKANT	12018293189	STANDARD CHARTERED GBS (Global Business Services)	STANDARD CHARTERED GBS (Global Business Services)/ MALLESHWARI BHANDARI/23-DEC-2021
5	NIKITA NITIN BARVE	12018293153	STANDARD CHARTERED GBS (Global Business Services)	STANDARD CHARTERED GBS (Global Business Services)/NIKITA BARVE/23-DEC-2021
6	PRACHI SOMNATH TODKARI	12019097608	CAPGEMINI	CAPGEMINI/PRACHI TODKARI
7	DASARE VAISHNAVI SURYAKANT	12018293146	ACCENTURE	ACCENTURE/ VAISHNAVI DASARE
8	RENU CHANDRASHEKHAR KANTHI	12018293173	ACCENTURE	ACCENTURE/RENU KANTHI
9	PRACHI SHANKAR DESAI	12018293175	WIPRO	WIPRO/PRACHI DESAI/22-JUL-2022
10	PRANJALI PRAVIN PAWAR	12018293299	XORIANT	XORIANT/PRANJAL PAWAR/23-FEB-2022
11	SHREYA SWAPNIL JAMSANDEKAR	12018293185	XORIANT	XORIANT/SHREYA JAMSANDEKAR/23-FEB-2022
12	SAYYAD SAMINA LADLESAB	12019097607	MERCER	MERCER/SAMINA SAYYAD/31-AUG-2022
13	VAISHNAVI MADHUKAR BHOSALE	12018293165	FORD MOTER PRIVATE LIMITED	FORD MOTER PRIVATE LIMITED /VAISHNAVI BHOSALE /29-JULY-2022
14	POONAM DIGAMBAR DEDE	12019097604	SYNECHRON	SYNECHRON/ POONAM DEDE/05-MAY-2023
15	BARBATE SHIVANI VISHWAJIT	12018293177	VOIS	VOIS/VAISHNAVI BARBATE/21-MAR-2022
16	HENSI THAKKAR	12017027761	VOIS	VOIS/HENSI THAKKAR/08-AUG-2022
17	RATNAPARKHI ARATI ANANT	12018293161	VOIS	VOIS/ARATI RATNAPARKHI/22-MAR-2022
18	SHRAVANI SATISH SHINDE	12018293172	VOIS	VOIS/SHRAVANI SHINDE/14-DEC-2022
19	SWAPNALI AVINASH KALDHONE	12018293176	VOIS	VOIS/SWAPNALI KALDHONE /06-APR-2022
20	TANPURE RUTUJA SANJIV	12018293166	VOIS	VOIS/RUTUJA TANPURE/21-MAR-2022
21	GOHEL PRACHI ASHOK	12017027763	VOIS	VOIS/PRACHI GOHEL/19-DEC-2022
22	GEETA VIJAY THORAT	12018293310	PERSISTENT	PERSISTENT/GEETA THORAT/10-SEPT-2021
23	AKANKSHA PRAKASH KADAM	12018293184	PERSISTENT	PERSISTENT/AKANKSHA KADAM/17-SEPT-2021
24	BHUMIKA TRIVEDI	12018293324	PERSISTENT	PERSISTENT/BHUMIKA TRIVEDI/10-SEPT-2021
25	DISHA VIJAY MHASKE	12018293149	PERSISTENT	PERSISTENT/DISHA MHASKE/09-SEPT-2021
26	ANUSHKA URUNKAR	12019097602	PERSISTENT	PERSISTENT/ANUSHKA URUNKAR/10-SEPT-2021
27	DHIRVA DILIP MAKADIA	12018293170	PERSISTENT	PERSISTENT/DHIRVA MAKADIA/09-SEPT-2021
28	KAWALE PRATIKSHA GOVARDHAN	12018293167	PERSISTENT	PERSISTENT/PRATIKSHA KAWALE/09-SEPT-2021
29	SHRADDHA MISHRA	12018293160	PERSISTENT	PERSISTENT/SHRADDHA MISHRA/09-SEPT-2021

30	SRUSHTI SHEKHAR PAWAR	12018293188	PERSISTENT	PERSISTENT/SRUSHTI PAWAR/09-SEPT-2021
31	SWARADA JALUKAR	12018293137	PERSISTENT	PERSISTENT/SWARADA JALUKAR/09-SEPT-2021
32	VISHWAJEETA AVINASH GHOLAP	12018293181	PERSISTENT	PERSISTENT/VISHWAJEETA GHOLAP /10-SEPT-2021
33	MADHAVI KISAN GAIKWAD	12018293140	ACCENTURE	ACCENTURE/MADHAVI GAIKWAD
34	MRUNAL GHODKE	12018293147	ACCENTURE	ACCENTURE/MRUNAL GHODKE
35	ROSHNI PATIL	12018293155	ACCENTURE	ACCENTURE/ROSHNI PATIL
36	SHIVANI NITIN PAYGUDE	12016066889	ACCENTURE	ACCENTURE/SHIVANI PAYGUDE
37	SRUSHTI PRAVIN SHITOLE	12018293182	ACCENTURE	ACCENTURE/SRUSHTI SHITOLE
38	DIPALI RAJENDRA SALUNKE	12018293145	CAPGEMINI	CAPGEMINI/ DIPALI SALUNKE
39	THORAVE PRADNYA KISHOR	12019097610	VIRTUSA	VIRTUSA/ PRADNYA THORAVE/16 -JUN-2022
40	PRANOTI PRASHANT WAKODKAR	12019097609	MINDSTIX	MINDSTIX/PRANOTI WAKODKAR/28-SEP-2021
41	MANDAVE AISHWARYA ANANDRAO	12019097606	CAPGEMINI	CAPGEMINI/AISHWARYA MANDAVE
42	RIYA VILAS SATAM	12018293206	CAPGEMINI	CAPGEMINI/RIYA SATAM
43	SAKSHI MOGARKAR	12018293180	CAPGEMINI	CAPGEMINI/SAKSHI MOGARKAR
44	TANUSHREE PRABHAKAR KOHAD	12018293144	CAPGEMINI	CAPGEMINI/TANUSHREE KOHAD
45	SNEHAL MACHHINDRA LONDHE	12018293190	ZENSAR	ZENSAR/SNEHAL LONDHE/08-JAN-2022
46	JAGTAP RUTUJA VIJAY	12018293162	CAPGEMINI	CAPGEMINI/RUTUJA JAGTAP/20-JUL-2022
47	YASHIKA PARESH PALAN	12018293139	CAPGEMINI	CAPGEMINI/YASHIKA PALAN/20-AUG-2022
48	RADHIKA ARUN TIKONE	12016066869	RELIANCE JIO	RELIANCE JIO/RADHIKA TIKONE/23-APR-2022
49	RELIANCE JIO/RADHIKA TIKONE/23-APR-2022 PRIYANKA PRADIP SHINDE	12018293148	L&T TECHNOLOGY	L&T TECHNOLOGY /PRIYANKAN SHINDE/08-FEB-2022
50	JAHNAVI SHARMA	12018293150	CAPGEMINI	CAPGEMINI/JAHNAVI SHARMA
51	SRUSHTI ASHOK JADHAV	12018293136	CAPGEMINI	CAPGEMINI/SRUSHTI JADHAV
52	VISHAKHA MANOHAR PATIL	12018293158	CAPGEMINI	CAPGEMINI/VISHAKHA PATIL
53	SAKSHI SHIVDAS SHEDGE	12019097605	EURONET	EURONET/SAKSHI SHEDGE/14-DEC-2021
54	ARAJU ISAK MULLA	12018293174	MSYS TECHNOLOGIES	MSYS TECHNOLOGIES/ARAJU MULLA/01-FEB-2022
55	PALAK MALIK	12018293187	CAPGEMINI	CAPGEMINI/PALAK MALIK
56	SONAL SANTOSH KALE	12019097611	WIPRO	WIPRO/SONAL KALE/22-JAN-2022
57	PRATIKSHA VINAYAK SUTAR	12018293178	TCS	REF:TCSL/CT20194026272/Pune/21-SEPT-2021
58	SUSHMITA ANIL KULKARNI	12018293312	TCS	REF:TCSL/CT20213717495/Pune/14-OCT-2021
59	JADHAV SEEMA MAHADEV	12018293183	WIPRO	WIPRO/SEEMA JADHAV /29-APR-2022

4.6 Professional Activities (20) Total Marks 20.00

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

Institute Marks : 5.00

A) Brief details of Professional societies/chapters

Computer Society of India (CSI) Institutional Membership Duration: 1st Oct 2022 -30th Sep 2024 Institutional Membership No – M10895

Objectives:

- Recognition by Accreditation bodies for associating with professional organization.
- To get benefit of lots of Journals, Computing Resources Knowledge base access on what going on the computer world. (Not available from 2020)
- To arrange Seminars, Workshops and Training Sessions by Industry resource Person.
- Attachment to region and national student coordinator.

Outcomes:

- Skill enhancement through Seminars, Workshops and Training Sessions by Industry resource Person.
- Networking with professionals in the Computer Engineering field.

Table 4.6.1.1: Professional societies/chapters Details

Sr. No.	Name of Professional societies/chapters	Faculty Coordinators	Faculty Members
1	Computer Society of India (CSI) Institutional Membership No – M10895	Prof. S.A. Karande	Prof. DR. S. R. Patil Prof. D. D. Pukale

Table 4.6.1.2: Professional Societies/Chapters Activities Details

(Program Outcome mapped-PO6,PO8,PO11,PO12, PSO3)

Sr. No.	Academic Year	Name of Activity	Date of Activity	Duration of Activity	Class	No. of Participants
1	2024-2025	Seminar on “Word press CMS”	10th May 2025	1 hour	TE	48
2		Webinar on “Copyright filing process”	16th April 2025	1 hour	BE	50
3	2023-2024	Webinar on “Skill wallet and smart internz salesforce internship”	18th June 2024	1 hour	TE	25

4	**2022-2023**	Webinar on “Data visualization using Qlik Sense”	16th Oct 2022	1 Hour	SE & TE	44
5		Modern Database Management System Quiz Competition	30th Nov 2022	1 hour	TE & BE	81
6		Webinar on “Spring Framework of Java”	11th March 2023	1 Hour	TE	49
7		Seminar on “Cloud Computing and Web Hosting Services“	21st March 2023	2 hour	TE & BE	73

B) Computer Engineering Student Association (CESA)

Table 4.6.1.3: Computer Engineering Student Association (CESA) : Summary of CESA Activities

Sr. no	Name of Activity	CAY 2024-2025	CAYm1 2023-2024	CAYm2 2022-2023	CAYm3 2021-2022
1	Seminar/ Webinar	08	10	09	07
2	Workshop	01	0	01	02

Table 4.6.1.4: Computer Engineering Student Association (CESA) Activities Details

(Program Outcome mapped-PO6,PO8,PO11,PO12, PSO3)

Sr. No.	Academic Year	Name of Activity	Date of Activity	Duration of Activity	Class	No. of Participants	Name and Address of Resource Person

1	**2024-2025**	Seminar on "NES Award- Sharing Experience and Project Selection"	6th July 2024	1 hour	SE	40	Miss Tanvi Mahajan,Miss Ankita Kanawade,Miss Samrudhi Shete, Shweta Jadhav (Alumina)
2		Webinar on "Training demo on Aptitude and Technical Preparation "	9th July 2024	1 hour	BE	30	Mr. Abhishek Kumar Singh and Mr. Prabhakar Kumar InLustro PVT. Pune
3		Webinar on "Employability Skill Training-demo by Six Phrase"	10th July 2024	1 hour 30 Min.	BE	27	Mr. Ajinkya Gaikwad and Mrs. Vaishali Vavle
4		Seminar on "Advanced Data Structure"	11th July 2024	1 hour	SE	50	Prof. Nagesh Mhetre Clicking Computer
5		Webinar on "Aptitude and Technical Training "by Eduplus	12th July 2024	1 hour	BE	17	Mr.Dular Shaikh and Mr. Sachin Satpute Corporate trainer Eduplus PVT
6		Webinar on "Aptitude and Technical Training "by Campus Credential	19th July 2024	1 hour	BE	21	Mr.Musharraf H. and Mr.Prashant Zha, Corporate trainer, Campus Credentials Pune
7		Seminar on "100% Scholarship to study abroad"	2nd Aug 2024	1 hour	TE	57	Mr.Subhash Pol, Business development Manager ,Edwise
8		Seminar on " Career Opportunities in Biomedical Engineering Field"	30th January 2025	1 hour	BE	30	Mrs.Vaishnavi Banke, Medifacts INC, Pune
9		Workshop on "Introduction to Java Programming Language	17th March 2025	1 day	SE	58	Mr. Rajesh Kanade Trainer CADD CAREER, Founder of GrayNeurons LLP

10		Seminar on "IPR Awareness Program"	28th July 2023	1 hour	TE	77	Prof. Dr. Sunita Dhotre Associate Professor of Department of Computer Engineering in Bharati Vidyapeeth (Deemed to be University) College of Engineering, Pune
11		Seminar on"AWS Discovery Day"	21st Aug 2023	3 hour	TE	57	Mr. Pranav Phadke, Director of Brainfloss
12		Seminar on "Advanced Data Structure"	23rd Aug 2023	1 hour	TE	58	Prof.Nagesh Mhetre, Clicking Computer
13		Seminar on " BSE - Capital Market Awareness Program "	28th Aug 2023	1 hour	SE & TE	39	Mr. Arvind Savant, Financial Market Analysis Trainer
14		Seminar on "Machine Learning"	8th Sept. 2023	1 hour 30 Min.	SE	53	Prof. P.D.Kale Associate professor of department of Computer Engineering in Bharati Vidyapeeths College of Engineering for Women Pune 43
15	**2023-2024**	Seminar on “Internet of things”	05th Oct 2023	1 hour	TE	50	Prof. S. A. Itkarkar Associate professor of department of Electronics and Telecommunication in Bharati Vidyapeeths College of Engineering for Women Pune 43
16		Seminar on "Placement Assistance for 2024 Batch"	10th January 2024	1 hour	BE	50	Mr. Aditya Wakodakar, Client Relation Manager seventh sense PVT LTD

17		Seminar on " Career Opportunities in Biomedical Engineering Field"	1st Feb 2024	1 hour	BE	40	Mrs.Vaishnavi Banke, Medifacts INC, Pune
18		Seminar on " Grooming Program on Cyber Security as per the Industry Standards"	9th Feb 2024	1 hour	SE	74	Mr. Manish Singh, Manager-Services Sales Inflow Technologies PVT LTD
19		Seminar on " Grooming Program on Cyber Security as per the Industry Standards"	9th Feb 2024	1 hour	TE	40	Mr. Manish Singh, Manager-Services Sales Inflow Technologies PVT LTD

20	**2022-2023**	Seminar on “Higher Studies Opportunities and IELTS Examination"	20th Sept. 2022	1 hour	TE	65	Mr. Rahul Kamble Sr.IELTS Operation executive
21		Seminar on "Carrier Opportunities in the Armed Forces for Women"	23rd Sept. 2022	1 hour	SE	62	GP Capt. Sanjay Pethkar Dignitary Defence Academy
22		Seminar on "Carrier in IT Industry"	23rd Sept. 2022	45 Min	SE & TE	120	Mrs. Supriya Lande, IANT Pvt.Ltd.
23		Seminar on “Higher studies abroad with 100% scholarship"	10th Oct. 2022	1 hour	SE	63	Mr.Subhash Pol, Business development Manager
24		Workshop on" Python Programming for machine learning"	23rd & 24th Nov. 2022	2 days	SE	68	Mr.Atul Wadkar Director, Algorithmic electronics, pune
25		Webinar on aptitude and Technical Training	25th Feb 2023	2 hour	TE	50	Mr. Aditya Wakodakar, Carporate trainer,Seven-sense pvt.ltd.
26		Training Demo on Aptitude and Technical Preparation	9th March 2023	2 hour	SE	55	Mr. Aditya Wakodakar,Carporate trainer, Seven-sense pvt.ltd.
27		Training Demo on Soft skill, Aptitude and Technical Preparation	11th March 2023	2 hour	TE	35	Mr. Avinash Pathak,Carporate trainer, Carpe diem Boot camp
28		Webinar on aptitude and Technical Training	21st March 2023	1 hour	TE	32	Mr.Sachin Satpute, Carporate,trainer, Eduplus pvt.ltd
29		Webinar on "Coding Super Power: Go Easy with C++ and Logic Building"	24th March 2023	1 hour	SE	28	Miss. Bhakti Jagtap Director,BrightSea Technology OPC Private Limited

30		Webinar on Profile Building and Career Opportunities	18th Aug 2021	1 hour	TE	65	Mr. Satish Anand and Mr. Bhupendra Singh, Life skills trainer and content Developer, Career Labs.
31		Workshop on Data structures and algorithms	24th and 25th 2021	2 hours	TE & BE	80	Mr. Swapnil Gupta and Mr. Shantanu Shubham, Coding Ninjas
32		Webinar on Blockchain	16th Sept 2021	1 hour	SE & TE	97	Mr. Sandeep Singh, Koii
33		Webinar on Machine Learning	22st Sept.2021	1 hour	SE & TE	106	Mr. Manish Kumar Singh, Head institutional Sales, ATS learning solutions.
34		Webinar on Internship for developing a portfolio	30th Sept 2021	1 hour	TE	96	Mr. Sachin Mohite, Executive Director, SPACE for ECE.
35	**2021-2022**	Webinar on Speak English Confidently	25th Nov. 2021	1 hour	SE	40	Miss. Kirti S Bajaj, Soft Skills Trainer and a Spoken English Coach in Flamingo Learnings.
36		Workshop on Excellence Bytes	15th Feb 2022	1 day	SE	60	Mr. Ashish, Behavioral Trainer & management consultant
37		Seminar on Engineering is awesome	25th March 2022	1 hour	SE	33	Mr. Raghvan Koli, Motivational Speaker
38		Seminar on Programming Techniques	28th March 2022	1 hour	SE	44	Mr. Nagesh Mhetre, Director of Click-in Computers

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

Institute Marks : 5.00

Annual College Magazine "Oyster"

The annual college magazine highlights the talents and accomplishments of both students and staff. It features articles (Marathi, Hindi, English, Technical) poems, artwork, Drawing, Photography) and reports in the year's events and activities. Capturing the dynamic academic and cultural spirit of the college, it serves as a creative platform. Our college magazine has also earned recognition and awards at the university level. The annual college magazine is a vibrant platform that showcases creative talents of students and staff. It reflects the academic achievements, cultural activities, and innovative spirit of the institution throughout the year. Till date, the institute has received six awards from Savitribai Phule Pune University. In the last three years, the institute secured the First Prize for Oyster'20, announced in the Academic **Year 2023–24.**

This Annual College Magazine activity is mapped with the following Program Outcomes (POS): PO6, PO8, PO9, PO10, PO12.

I] Publication of technical magazines:

Table 4.6.2.1: Publication of technical magazines

Sr. No.	Name of magazine	Name of editor	Editorial Board	No. of issues	Hard copy/soft copy
A.Y. 2023-24					
1	Avyanna Oyster'24	Prof. P.R. Yawle	Prof. S.B.Jadhav, Prof. A.P.Kadam, Prof. K.S.Sawant, Bhargavi Joshi (TE Comp.Student Member), Malishka Salke (TE Comp.Student Member), Khushi Padhar (TE Comp.Student Member), Trupti Kamurti (TE Comp.Student Member), Neha Jadhav (TE Comp.Student Member), Rutuja Shirsat (TE Comp.Student Member), Anikta Swain (TE Comp.Student Member), Diti Jariwala (TE Comp.Student Member) and Neha Potu (TE Comp.Student Member)	Yearly	Yes
A.Y. 2022-23					
1	Abhiyanta Oyster'23	Prof. P.R. Yawle	Prof. S.B.Jadhav, Prof. A.P.Kadam, Prof. K.S.Sawant, Prof. N.I Dalvi, Janhavi Jagtap (SE Comp.Student Member)	Yearly	Yes
A.Y. 2021-22					

1	Anitya Oyster'22	Prof. Y.R. Dhumal	Prof. K.S.Warke Prof. S.B.Jadhav, Prof. A.P.Kadam, Prof. K.S.Sawant, Prof. N.I Dalvi, Sanskruti Talwekar (SE Comp. Student Member), Ananya Verma (SE Comp.Student Member), Deepali Giri (TE Comp.Student Member), Firdos Maniyar (FE Comp.Student Member), Bhargavi Joshi (FE Comp.Student Member), Swara Chavan (FE Comp.Student Member), Diti Jariwala (FE Comp.Student Member), Arya Nigade (FE Comp.Student Member), Ramya Vaddempudi (FE Comp.Student Member) and Neha Potu (FE Comp.Student Member).	Yearly	Yes

II] Publication of e-newsletters:

Department Newsletter:
The Department of Computer Engineering proudly publishes a bi-annual e-newsletter that captures the vibrant academic, technical, and creative spirit of the department. This digital publication serves as a comprehensive reflection of the departments milestones, highlighting significant events, activities, and achievements of our students, faculty, and staff.

Released at the beginning of each semester, the e-newsletter provides a snapshot of all key initiatives and accomplishments from the previous semester. It includes updates on events conducted at both the institute and departmental levels, fostering a sense of unity and shared purpose across the academic community.

Key Highlights of the e-Newsletter:

- Updates on **College Initiatives** and developments
- Insights from the **IQAC (Internal Quality Assurance Cell)**
- Overview of **Computer Engineering Department** activities
- Reports on major **technical events and workshops**
- **Guest technical articles** from employers and parents
- **Alumni contributions** on emerging technologies and industry trends
- Recognition of **faculty, staff, and student achievements**
- Detailed insights into **student placement records and success stories**

The editorial board, comprising both faculty and student contributors, curates the content with creativity and care to ensure quality and relevance.

This initiative strengthens the communication bridge between the institute and its stakeholders—students, faculty, staff, alumni, parents, and industry professionals—fostering engagement, transparency, and collaborative growth.The activities under e-newsletter are mapped to Program Outcomes (POs) PO7, PO8, PO9, PO10, and PO12.

Editorial Board: Comprising department faculty and students. They are responsible for content creation, editing, and design at the department level.

Coordinator: Prof. Dr. D. A. Godse

The Coordinator is responsible for the final compilation of the e-newsletter and its dissemination among stakeholders.

Publisher: Bharati Vidyapeeth's College of Engineering for Women, Pune.

Table: 4.6.2.2: Publication of e-newsletters

Sr. No.	Newsletter Issue	Newsletter Coordinator	Editorial Board	Hard copy/soft copy
A.Y. 2023-24				
1	e-newsletter, Dept. of Computer Engg., Vol.6, Issue 2, 2023-24	Prof. Dr. D. A. Godse	Prof. K.S.Warke (Chief Editor), Prof. Dr. S.A Pawar (Editor), Prof. D. P. Chopade (FE Staff), Dr. Smita Jadhav (FE Staff), Sanjana Upase (BE Comp. Student Member), Chanchal Bundele (BE Comp.Student Member), Sae Jamdade (TE Comp. Student Member), Mitali Chavan (TE Comp.Student Member), Aishwarya Nalawade (SE Comp.Student Member), Shweta Gogawale (SE Comp.Student Member)	**Yes**
2	e-newsletter, Dept. of Computer Engg., Vol.6, Issue 1, 2023-24	Prof. Dr. D. A. Godse	Prof. K.S.Warke (Chief Editor), Prof. Dr. S.A Pawar (Editor), Prof. D. P. Chopade (FE Staff), Dr. Smita Jadhav (FE Staff), Sanjana Upase (BE Comp. Student Member), Chanchal Bundele (BE Comp.Student Member), Sae Jamdade (TE Comp. Student Member), Mitali Chavan (TE Comp.Student Member), Aishwarya Nalawade (SE Comp.Student Member), Shweta Gogawale (SE Comp.Student Member)	**Yes**
A.Y. 2022-23				
1	e-newsletter, Dept. of Computer Engg., Vol. 5, Issue 2, 2022-23	Prof. Dr. D. A. Godse	Prof. K.S.Warke (Chief Editor), Prof. Dr. S.A Pawar (Editor), Prof. D. P. Chopade (FE Staff), Dr. Smita Jadhav (FE Staff), Sukhpreet Kaur (BE Comp. Student Member), Shreya Lodhi (BE Comp. Student Member), Sanjana Upase (TE Comp. Student Member), Chanchal Bundele (TE Comp. Student Member), Sae Jamdade (SE Comp. Student Member), Mitali Chavan (SE Comp. Student Member).	**Yes**

2	e-newsletter, Dept. of Computer Engg., Vol. 5, Issue 1, 2022-23	Prof. Dr. D. A. Godse	Prof. K.S.Warke (Chief Editor), Prof. S.A.Deshmukh (Editor), Prof. D. P. Chopade (FE Staff), Dr. Smita Jadhav (FE Staff), Sukhpreet Kaur (BE Comp. Student Member), Shreya Lodhi (BE Comp. Student Member), Sanjana Upase (TE Comp. Student Member), Chanchal Bundele (TE Comp. Student Member), Sae Jamdade (SE Comp. Student Member), Mitali Chavan (SE Comp. Student Member).	**Yes**
A.Y. 2021-22				
1	e-newsletter, Dept. of Computer Engg., Vol. 4, Issue 2, 2021-22	Prof. Dr. D. A. Godse	Prof. K.S.Warke (Chief Editor), Prof. S.A.Deshmukh (Editor), Prof. N. N. Chavan (FE Staff), Prof. D. P. Chopade (FE Staff), Swarada Jalukar (BE Comp. Student Member), Shreya Jamsandekar (BE Comp. Student Member), Sukhpreet Kaur (TE Comp. Student Member), Shreya Lodhi (TE Comp. Student Member), Sanjana Upase (SE Comp. Student Member), Chanchal Bundele (SE Comp. Student Member)	**Yes**
2	e-newsletter, Dept. of Computer Engg., Vol. 4, Issue 1, 2021-22	Prof. Dr. D. A. Godse	Prof. K.S.Warke (Chief Editor), Prof. S.A.Deshmukh (Editor), Prof. N. N. Chavan (FE Staff), Prof. D. P. Chopade (FE Staff), Swarada Jalukar (BE Comp. Student Member), Shreya Jamsandekar (BE Comp. Student Member), Sukhpreet Kaur (TE Comp. Student Member), Shreya Lodhi (TE Comp. Student Member), Sanjana Upase (SE Comp. Student Member), Chanchal Bundele (SE Comp. Student Member)	**Yes**

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

Institute Marks : 10.00

A) Participation of Students in Inter Institute Activities within the state

Table: 4.6.3.1: Summary of Participation of Students in Inter Institute Activities within the state

Sr. No.	Events	A.Y. 2024-2025		A.Y. 2023-2024		A.Y. 2022-2023		A.Y. 2021-2022	
		No. of Students Achieved Prizes	No. of Students Participated	No. of Students Achieved Prizes	No. of Students Participated	No. of Students Achieved Prizes	No. of Students Participated	No. of Students Achieved Prizes	No. of Students Participated
1	Poster Presentation / Project Exhibition	16	94	08	26	04	51	00	61

Table 4.6.3.2: Participation in inter-institute events by students within State

(Program Outcome mapped-PO6,PO8,PO11,PO12, PSO3)

Sr. No.	Academic Year	Name of Project Competition	Organized by	Level	Number of Students Participated

1		Aavishkaar Research Project Competition 2025	PDEAs Annasaheb Magar Mahavidyalaya Hadapsar, Pune	Zonal	05
2		DIPEX 2025	Pimpri Chinchwad College of Engineering & Research, Ravet,Pune	State	37
3		DIPEX 2025	COEP Technological University, Pune	State	02
4		Project exhibition (Impetus and Concepts25)	PICT	International	08
5		ASPIRE-2K25: National Level Project Competition	Progressive Education Societys Modern College of Engineering	National	08
6		NCIET 2025	AISSMS College	National	04
7		CONVENE-20205	SKNCOE, Pune	National	08
8	**2024-2025**	Bharatiyam-2k25	BVDUCOEP	National	07
9		Techmantra -2025	Zeal Institute, Pune	National	04
10		Codzilla Hackathon	CSI,VIT Pune	National	01
11		SheInspires women’s hackathon	AWS Zensar	National	01
12		InnovateYou Techathon 2.0	AISSMS	National	01
13		Codebits 3.0 Hackathon	GIT, Lavel	National	08

13	**2023-2024**	BRAINit ON 2.0	PVPIT	National	04
14		Project Exhibition(Impetus and Concepts ’24)	PICT	International	08
15		Project Competition Avinya 2024	D.Y Patil Institute of Technology, Pimpri	State	04
16		National Level Project Competition	Smt. Kashibai Navale College of Engineering, Pune	National	03
17		National Level Project Competition (INNOVATIONS’24)	CSI SIES GST	National	03
18		National Level Project Competition (INNOVISION 2024)	JSPM, Tathawade	National	04
19	**2022-2023**	National Level Project Competition 2023	IETE Pune Center	National	18
20		Project exhibition(Impetus and Concepts ’23)	PICT	International	08
21		National Level Project Competition	Smt. Kashibai Navale College of Engineering, Pune	National	15
22		AAVISHKAR 2022	SPPU	Zonal	02
23		Project Competition Techno-sci 2K23	MMIT, Lohgaon,Pune	National	04
24		Project Competition	ACM RSCOE	National	04

25		Project exhibition (Impetus and concepts ’22)	PICT	International	46
26		National Level Project Competition	PVG COEP	National	04
27		Regional level project competition	AISSMS Institute of Information Technology, Pune	National	04
28		National Level Online Project Competition (LOGICA)	JSPM RSCOE ACM Student Chapter	National	02
29	**2021-2022**	National Level Poster Presentation Competition	CSI Student Branch of SIESGST	National	03
30		National Level Project Competition	CSI Student Branch of SIESGST	National	02

B) Participation of Students in Inter Institute Activities Outside the state

Table 4.6.3.3: Summary of Participation of Students in Inter Institute Activities Outside the state

Sr. No.	Events	A.Y. 2024-2025		A.Y. 2023-2024
		No. of Students Achieved Prizes	No. of Students Participated	No. of Students Participated
1	Project Exhibition/ National Integration Camp	03	20	05

Table 4.6.3.4: Participation in inter-institute events by students Outside State

(Program Outcome mapped-PO6,PO8,PO11,PO12, PSO3)

Sr. No.	Academic Year	Name of Event	Organized by	Level	Number of Students Participated

1		BOROSA-Bosch Road Safety Hackathon 2024	Bosch Global Software Technologies	National	04
2		Sparkathon	Walmart Global Tech	National	01
3		Development of Web based App	National Institute of Hydrology, Roorkee	National	01
4		Level1: E-Commerce & Tech Quiz of the Flipkart GRiD 6.0-Software Development Track	Flipkart	National	02
5		Aakruti Global 2024	Dassault Systemes	National	02
6		Manipal Biopharma Hackathon 2025	Manipal-G0vernment of Karnataka Bioincubator Manipal Academy of Higher Education	National	04
7		Smart India Hackathon, 2024	AICTE	National	06
8		ADCET Hackathon	ADCET Ashta	National	04
9	2023-2024	National Integration Camp	Karnataka State Rural Development And Pancgayat Raj University Gadag	National	01

C) Awards received by Students in inter-institute events

I] Within State

Table 4.6.3.5: Awards received by Students in inter-institute events

(Program Outcome mapped-PO6,PO8,PO11,PO12, PSO3)

I] A.Y. 2024-25							
Sr. No.	**Name of Competition**	**Organized by**	**Level**	**Date**	**Type of Achievement**	**Project Title**	**Name of Students**
1	DIPEX 2025	COEP Technological University, Pune	National	3rd April to 6th April 2025	2nd Prize Winner	CySpark: A Comprehensive Cyber Defense Toolkit	Tanvi Deore
2	DIPEX 2025	COEP Technological University, Pune	National	3rd April to 6th April 2025	2nd Prize Winner	CySpark: A Comprehensive Cyber Defense Toolkit	Mitali Rajesh Chavan

3	DIPEX 2025	COEP Technological University, Pune	National	3rd April to 6th April 2025	2nd Prize Winner	CySpark: A Comprehensive Cyber Defense Toolkit	Saba Aslam Sayyad
4	Sinhagad Techtonic	Sinhagad Institutes	National	2025	2nd Prize Winner	Calculate Damage assessment in flood mapping using multiple satellite data	Gayatri Maruti Temgire
5	Sinhagad Techtonic	Sinhagad Institutes	National	2025	2nd Prize Winner	Calculate Damage assessment in flood mapping using multiple satellite data	Trupti Sunil Pokharakar
6	Sinhagad Techtonic	Sinhagad Institutes	National	2025	2nd Prize Winner	Calculate Damage assessment in flood mapping using multiple satellite data	Vaishnavi Thorat
7	Codebits 3.0 Hackathon	GIT,Lavel	National	6th & 7th March 2025	3rd Prize Winner	Next-Gen Communication: AI-Driven Video Translation to Sign Language	Sanika Chaudhari
8	Codebits 3.0 Hackathon	GIT,Lavel	National	6th & 7th March 2025	3rd Prize Winner	Next-Gen Communication: AI-Driven Video Translation to Sign Language	Shruti Bhumkar
9	Codebits 3.0 Hackathon	GIT,Lavel	National	6th & 7th March 2025	3rd Prize Winner	Next-Gen Communication: AI-Driven Video Translation to Sign Language	Samruddhi Deshmukh
10	Codebits 3.0 Hackathon	GIT,Lavel	National	6th & 7th March 2025	3rd Prize Winner	Next-Gen Communication: AI-Driven Video Translation to Sign Language	Manasi Deshmukh
11	SheInspires Women's Hackathon	AWS Zensar Learning Academy	National	21st March 2025	Winner	An AI - powered learning platform for Farmers	Ankita Swain
12	Web Fusion	ZION Dr.D.Y Patil Institute of Technology, Pimpri	National	27th and 29th March	2nd Winner 3000	E-Commerce Website	Neha Ajay Chandele
13	Artathon Summer 2025	Central India Educators & Learners Forum, Nagpur	National	25th Feb 2025	2nd Winner	Cybersecurity:Protecting data in a digital world	Divyashri Ramdas Salunke
14	SheInspires women's hackathon	AWS Zensar	National	21st March 2025	2nd Winner	An AI - powered learning platform for Farmers	Ishika Thakur

15	JP Morgan Chase Generation Design Challenge 2024	JP Morgan Chase	National	21st September 2024	1st winner	App design for Zero Hunger problem statement	Deepshikha Sharma
16	Katalyst Tech Fest 2025	Katalyst India	National	1st March 2025	1st Winner	Tech Talk competition	Deepshikha Sharma
II| A.Y. 2023-24							
1	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Shweta Jadhav
2	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Ankita Kanawade
3	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Tanvi Mahajan
4	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Samruddhi Shete
5	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Aditi Ahire
6	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Pratisha Bhise

7	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Kundan Binnar
8	NES Innovation Awards 2024	Natarajan Education Society (NES) , Pune	National	15th February 2024	Selected in TOP 50 Projects List	Smart Inventory: Object Detection And Counting With Yolo	Sakshi Datir
III] A.Y. 2022-23							
1	Capgemini CodeX Hackathon	Capgemini	National	11th may 2023	3rd Prize Winner	EcRD: Edge-cloud Computing Framework for Smart Road Damage Detection and Warning	Kajal Gadekar
2	Capgemini CodeX Hackathon	Capgemini	National	11th may 2023	3rd Prize Winner	EcRD: Edge-cloud Computing Framework for Smart Road Damage Detection and Warning	Anuradha Birajdar
3	Capgemini CodeX Hackathon	Capgemini	National	11th may 2023	3rd Prize Winner	EcRD: Edge-cloud Computing Framework for Smart Road Damage Detection and Warning	Rakshanda Borse
4	Capgemini CodeX Hackathon	Capgemini	National	11th may 2023	3rd Prize Winner	EcRD: Edge-cloud Computing Framework for Smart Road Damage Detection and Warning	Ankita Tilekar

II] Outside State

Table 4.6.3.6: Awards received by Students in inter-institute events

(Program Outcome mapped-PO6,PO8,PO11,PO12, PSO3)

A.Y. 2024-25							
Sr. No.	**Name of Competition**	**Organized by**	**Level**	**Date**	**Type of Achievement**	**Project Title**	**Name of Students**

1	Udyam Mahila Ideathon Challenge	ACCESS Development Services	National	22nd May 2025	3rd Prize Winner and 20,000 cash prize	Skilling For Entrepreneurship	Shrushti Sachin Kunjir
2	Udyam Mahila Ideathon Challenge	ACCESS Development Services	National	22nd May 2025	3rd Winner and 20,000 cash prize	Skilling For Entrepreneurship	Sanika Namdev Ghogare
3	Udyam Mahila Ideathon Challenge	ACCESS Development Services	National	22nd May 2025	3rd winner and 20,000	Skilling For Entrepreneurship	Sanjana Balaji Annam

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 155.48

Institute Marks :

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)	In case of NO, Date of Leaving	IS HOD?
Prof. Dr. Kadam Sonali Popatrao	ARTPK9433D	Ph.D	05/10/2015	Software Engineering	21	4	0	Associate Professor	01/08/2016	22/08/2005	Regular	Yes		Yes
Prof. Ms. Kadam Anjali Prakash	AVGPK1190C	M.E/M.Tech	20/10/2016	Cloud computing	4	0	0	Assistant Professor		08/01/2007	Regular	Yes		No
Prof. Mrs. Kulkarni Vinaya Deepak	AXRPK5572D	M.E/M.Tech	09/05/2012	Machine Learning	10	0	0	Assistant Professor		09/07/2007	Regular	Yes		No
Prof. Mrs. Patil Kanchan Lalit	ABEPW4515F	M.E/M.Tech	16/02/2013	Machine Learning	9	0	0	Assistant Professor		02/11/2007	Regular	Yes		No
Prof. Ms. Dalvi Nilam Ishwar	BAYPD3332B	M.E/M.Tech	31/01/2015	Cloud computing	1	0	0	Assistant Professor		27/09/2010	Regular	Yes		No
Prof. Mrs. Jadhav Jayshree Dhananjay	AREPJ4471H	M.E/M.Tech	04/08/2014	Machine Learning	5	0	0	Assistant Professor		04/10/2010	Regular	Yes		No
Prof. Mr. Yesugade Kiran Dinkar	ABFPY9299K	M.E/M.Tech	17/11/2008	Deep Learning and Machine Learning	9	0	0	Assistant Professor		05/08/2011	Regular	Yes		No
Prof.Dr.Pawar Shital Ashok	BIDPP8779D	Ph.D	24/12/2022	Internet of Things	15	0	0	Assistant Professor		05/10/2012	Regular	Yes		No
Prof. D.D.Pukale	ALGPP7540R	M.E.	01/12/2001	Computer Science & Engg	2	0	0	Associate Professor	01/12/2010	03/08/2002	Regular	Yes		No
Prof. P.D.Kale	AIVPK4333P	M.E.	01/09/2005	Data Science	3	0	0	Associate Professor	01/12/2010	01/07/2002	Regular	Yes		No
Prof. Dr. S.A. Deshmukh	BAYPD3184P	M.E. and Ph.D.	03/03/2023	IOT	1	0	0	Assistant Professor		13/07/2015	Regular	No	18/05/2023	No
Prof. S.A.Karande	AIFPJ8428G	M.Tech	01/03/2012	Image Processing	5	0	0	Assistant Professor		18/08/2006	Regular	Yes		No
Prof. K.S.Sawant	CBLPS5417B	M.Tech	01/01/2015	Machine Learning	9	0	0	Assistant Professor		18/09/2010	Regular	Yes		No

5.1 Student-Faculty Ratio (20)

Total Marks 18.00

Institute Marks : 18.00

UG

No. of UG Programs in the Department 1

Computer Engineering						
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)	12 **F1**	12 **F2**	13 **F3**
Student Faculty Ratio(SFR)	16.50 **SFR1=S1/F1**	16.50 **SFR2=S2/F2**	15.23 **SFR3=S3/F3**
Average SFR	16.08 **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)	12	0
CAYm1(2023-24)	12	0
CAYm2(2022-23)	13	0

Average SFR for three assessment years : 16.08

Assessment SFR : 18

5.2 Faculty Cadre Proportion (25) Total Marks 13.00

Institute Marks : 13.00

Year	**Professors**		**Associate Professors**		**Assistant Professors**	
	Required F1	**Available**	**Required F2**	**Available**	**Required F3**	**Available**
CAY(2024-25)	1.00	0.00	2.00	1.00	6.00	11.00
CAYm1(2023-24)	1.00	0.00	2.00	1.00	6.00	11.00
CAYm2(2022-23)	1.00	0.00	2.00	1.00	6.00	12.00
Average Numbers	1.00	0.00	2.00	1.00	6.00	11.33

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 13.00

5.3 Faculty Qualification (25) Total Marks 16.48

Institute Marks : 16.48

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2024-25(CAY)	2	10	9.00	16.67
2023-24(CAYm1)	2	10	9.00	16.67
2022-23(CAYm2)	1	12	9.00	16.11

Average Assessment : 16.48

5.4 Faculty Retention (25) Total Marks 25.00

Institute Marks : 25.00

Description	2023-24	2024-25
No of Faculty Retained	12	12
Total No of Faculty	9	9
% of Faculty Retained	133	133

Average : 133.00

Assessment Marks : 25.00

5.5 Innovations by the Faculty in Teaching and Learning (20) Total Marks 18.00

Institute Marks : 18.00

Initiatives in teaching and learning process followed by the department:

a. Productivity and Presentation Tools

- Faculty members leverage various productivity and presentation tools to enhance teaching effectiveness such as power point presentation,Google Docs and Google Slides for creating collaborative documents and presentations.
- Canva for designing engaging visuals for course materials and assignments.

b. Online Quizzes

- To assess and engage students, Google Forms are used for creating quizzes.
- These online quizzes allow real-time assessment and feedback form students.

c. Blog, Online Platforms, and Channels

- Faculty use different online platforms to share course materials and foster communication.
- WordPress for hosting blogs and course-related content.
- YouTube for sharing instructional videos and recorded lectures.
- Microsoft Teams and Google Meet for conducting live sessions and discussions, enriching the learning experience.

d. Assessment and Learning Management Tools

- Faculty members uses Google Classroom to share learning resources, assignment questions, PPTs, and notes, providing students with easy access to e-content anytime, anywhere.
- Faculty members are encouraged to integrate insights from programs like NPTEL to adopt more student-centric teaching approaches.

e. Collaborative working with students

- Faculty members collaboratively work with students in preparation of papers at National/International Conferences and publication of articles in reputed journals to encourage research and developments in their subject areas.

f. Access of Virtual labs through Industry Collaboration for Enhanced Learning

- BVCOEW has established collaborative partnerships with AWS and Oracle to provide faculty and students with opportunities for professional growth. Through AWS Academy collaboration enables students to access latest platforms and tools via virtual labs.

g. Encourage students for certification courses

- Through AWS and Oracle academy courses on latest topics are available for students, faculty facilitates certification opportunities for students. Students are motivated to complete certifications, and some faculty members are also internationally certified.

Table 5.5.1 - List of the Innovative techniques used by the faculties in the Department.

Sr No	Name of Faculty	Innovative Methods used	Aim & Significance	Outcome
1	All Faculty	Think Pair Share	Encourage Students to solve the problems with discussion	A group of students discuss and find the solution for the given problem. Problem solving skills are improved.
2	Prof.Dr.S.A.Pawar Prof.K.D.Yesugade Prof.S.A.Karande,	Quiz	Encourages participation and keeps students mentally active during sessions.	Quizzes promote analytical thinking and problem-solving skills.
3	All faculty	Project based learning	Enhancing students' technical, analytical, and problem-solving abilities by engaging them in real-world, interdisciplinary projects that integrate theoretical knowledge with practical application, preparing them for industry, research ,and innovation.	Student gain hands on experience in applying theoretical knowledge

4	All faculty	Experiential learning	Bridge the Gap between Theory and Practice. Provide real-world learning experiences to reinforce academic concepts.	Students gain hands-on experience in applying theoretical knowledge.
5	Some faculty	Industrial Visit/Training / Internship	To bridge a gap between academia and industry	To learn the working culture of corporate field. To know how the problems are solved by using modern tools &techniques
6	Some faculty	Peer to peer learning	To allow students to reinforce and deepen their understanding by teaching their peers.	Improved Academic Performance: Both student-teachers and learners gain better understanding through teaching and discussion. Enhanced Confidence and Communication Skills.Students gain public speaking, articulation, and interpersonal communication skills.

Faculty members maintain academic blogs to share articles, resources, insights, and updates related to their subject areas. Faculty members create and maintain YouTube channels to share educational content with students. These channels serve as a powerful digital platform for enhancing learning outside the classroom.

Table 5.5.2 - List of YouTube Links / Blog used by the faculties.

Sr. No	Name of Faculty	YouTube channel/Blog address
1	Prof.Dr.S.P.Kadam	https://www.youtube.com/@SonaliAnjaliKadam (https://www.youtube.com/@SonaliAnjaliKadam)
2	Prof.D.D.Pukale	https://youtube.com/@pukalesir?si=TRmjwHgHYkPq64wI (https://youtube.com/@pukalesir?si=TRmjwHgHYkPq64wI)
3	Prof.P.D.kale	https://youtube.com/@bvcoew-impartingknowledge2867?si=I4TXAIb46ebtoV2E (https://youtube.com/@bvcoew-impartingknowledge2867?si=I4TXAIb46ebtoV2E)
4	Prof.S.A.Karande	https://www.youtube.com/@shitaljadhav4316 (https://www.youtube.com/@shitaljadhav4316) https://shitaljadhavblog.wordpress.com/database-management-system/ (https://shitaljadhavblog.wordpress.com/database-management-system/)
5	Prof.A.P.Kadam	https://anjalikadamblog.wordpress.com/ (https://anjalikadamblog.wordpress.com/)
6	Prof.V.D.Kulkarni	http://vinayakulkarni7.wordpress.com/ (http://vinayakulkarni7.wordpress.com/)
7	Prof.K.S.warke	https://www.youtube.com/results?search_query=kanchan+warke (https://www.youtube.com/results?search_query=kanchan+warke)
8	Prof.J.D.Jadhav	https://www.youtube.com/@jayashreejadhav9566 (https://www.youtube.com/@jayashreejadhav9566)
9	Prof.K.D.Yesugade	https://kiranyesugade.wordpress.com/home/ (https://kiranyesugade.wordpress.com/home/)
10	Prof.Dr.S.A.Pawar	https://facultyprofile1blog.wordpress.com/ (https://facultyprofile1blog.wordpress.com/)

The innovative methods used by the faculties are uploaded on the institute website- https://coewpune.bharatividyapeeth.edu/

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)
Prof. Dr. Kadam Sonali Popatrao	5.00	5.00	3.00
Prof. Ms. Kadam Anjali Prakash	5.00	5.00	5.00
Prof. Mrs. Kulkarni Vinaya Deepak	3.00	5.00	5.00
Prof. Mrs. Patil Kanchan Lalit	5.00	3.00	5.00
Prof. Ms. Dalvi Nilam Ishwar	0.00	3.00	5.00
Prof. Mrs. Jadhav Jayshree Dhananjay	5.00	0.00	5.00
Prof. Mr. Yesugade Kiran Dinkar	5.00	5.00	5.00
Prof.Dr.Pawar Shital Ashok	5.00	3.00	3.00
Prof. D.D.Pukale	5.00	0.00	0.00
Prof. P.D.Kale	5.00	3.00	0.00
Prof. Dr. S.A. Deshmukh	0.00	0.00	3.00
Prof. S.A.Karande	3.00	3.00	3.00
Prof. K.S.Sawant	5.00	5.00	3.00
Sum	51.00	40.00	45.00
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)]	30.91	24.24	27.27

Average assessment over 3 years: 27.47

5.7 Research and Development (30) Total Marks 15.00

5.7.1 Academic Research (10)

Institute Marks : 5.00

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

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

Table 5.7.1.1 - Research paper Publications

Sr.No	Name of Faculty	CAY (2024-25)	CAY (2023-24)	CAY (2022-23)
1	Prof.Dr.S.P.Kadam	5 (J)+2 C	4+3(C)+1 (BC)	2(J)+1(C)+3 (BC)
2	Prof.D.D.Pukale	-	2(J)	-
3	Prof.P.D.kale	1(J)	2(J)	-
4	Prof.S.A.Karande	1(J)	2(J)	1+1(C)
5	Prof.A.P.Kadam	-	2(J)	2(J)
6	Prof.V.D.Kulkarni	3(J)+2 (C)	1(J)+1(C)	3(J)
7	Prof.K.S.Warke	3(J)+1 (C)	2(J)	3(J)
8	Prof.J.D.Jadhav	2(J)+1 (C)	2(J)	-
9	Prof.K.D.Yesugade	3(J)	4(J)	2(J)
10	Prof.Dr.S.A.Pawar	3(J)	3(J)	4(J)+4 (C)+1 (BC)

NOTE: - J- Journal publications, C – conference publications and BC – Book Chapter

Table 5.7.1.2 -Citations

Sr.No	Name of Faculty	Citations	
		Scopus	GS
1	Prof.Dr.S.P.Kadam	39	152
2	Prof.D.D.Pukale	5	17
3	Prof.P.D.kale	-	11
4	Prof.S.A.Karande	3	18
5	Prof.A.P.Kadam	-	-
6	Prof.V.D.Kulkarni	4	22
7	Prof.K.S.Warke	-	3
8	Prof.J.D.Jadhav	-	24
9	Prof.K.D.Yesugade	-	34
10	Prof.Dr.S.A.Pawar	78	114
11	Prof.K.S.Sawant	-	-
12	Prof.N.I.Dalvi	-	-

List of Publicatios

Table 5.7.1.3 -Year wise Publication Details.

Academic Year :- 2024-25

Sr. No.	Title of paper	Author	Name of journal	ISBN /ISSN	Volume/Issue	Month and Year of Publication
1	Security Key generation using RSA Algorithm	Prof.P.D.kale	Journal of Information Systems Engineering and Management	2468-4376	10(13)	Feb-2024
2	ECG signal classification via ensemble learning: addressing intra and inter-patient variations	Prof.Dr.S.P.Kadam & Prof.V.D.Kulkarni	International Journal of Information Technology	2511-2112	16(6)	Aug-2024
3	The performance of Logistic Regression, Decision Tree, KNN, Naive Bayes and SVM for identifying Automotive Cybersecurity Attack and Prevention: An Experimental Study	Prof.Dr.S.P.Kadam	J. Electrical Systems	1112-5209	20(2)	Jul-2024
4	Energy Efficient Clustering Protocol for Green IoT using Improved Tunicate Swarm Intelligence for Benchmark Texas Data	Prof.Dr.S.P.Kadam	Advances in Nonlinear Variational Inequalities	1092-910X	28(5s)	Jan-2025
5	Evaluating Yolov7, Yolov8, Adaboost, And RCNN For Object Detection In Dental Prosthetic Imaging	Prof.Dr.S.P.Kadam	Library Progress International	0970 1052	44(3)	Dec-2024
6	Evaluation of Random Forest algorithms for mapping of land use land cover using remote sensing data for Baitarani River	Prof.Dr.S.P.Kadam	International Journal of Information Technology	2511-2104	17(6)	Feb-2025
7	Plant Species Identification Using Machine Learning	Prof.S.A.Karande	International Research Journal of Modernization in Engineering Technology and Science(IRJMETS)	2582-5208	7(2)	Feb-2025
8	Enhanced ECG Signal Classification	Prof.V.D.Kulkarni	International Research Journal on Advanced Engineering Hub (IRJAEH)	2584-2137	2(7)	Jul-2024
9	Data Stream Learning Evaluation: Experimenting with Prequential Approach Over Real Data Streams	Prof.V.D.Kulkarni	Journal of Information Systems Engineering and Management	2468-4376	10(9)	Feb-2025
10	Next-Gen Communication: LSTM-Powered Speech-to-Sign Language Translation	Prof.V.D.Kulkarni	International Journal of Innovative Research in Technology - an UGC approved journal	2349-6002	11(11)	Apr-2025
11	Pastpath : Virtual Heritage Expeditions	Prof.K.S.warke	International Journal of Advanced Research in Computer and Communication Engineering	2278-1021	13(12)	Dec-2024

12	AlgoSphere: Visualizing Data Structure & Algorithms	Prof.K.S.warke	International Journal of Advanced Research in Computer and Communication Engineering	2278-1021	13(12)	Dec-2024
13	Evaluating Yolov7, Yolov8, Adaboost, And RCNN For Object Detection In Dental Prosthetic Imaging	Prof.K.S.warke	Library Progress International	0970 1052	44(3)	Dec-2024
14	Unmasking Depression: Analyzing Disclosure Behavior on Social Media	Prof.J.D.Jadhav	International Research Journal on Advanced Engineering and Management	2584-2854	2(7)	Jul-2024
15	Automated Web Service Discovery Correlated To Biomedical From Public Repositories- Unique Approach Through Probabilistic Matchmaking	Prof.J.D.Jadhav	African Journal of Biomedical Research	1119-5096	27(4s)	Dec-2024
16	A Study on Regression Based Machine Learning Models to Predict the Student Performance	Prof.K.D.Yesugade	Journal of Engineering Education Transformations (JEET)	2349-2473	38(2)	Oct-2024
17	Face Detection and Recognition for Criminal Identification System	Prof.K.D.Yesugade	International Research Journal on Advanced Engineering Hub (IRJAEH)	2584-2137	2(7)	Jul-2024
18	CYBERSECURITY CHALLENGES IN THE MODERN BANKING SECTOR	Prof.K.D.Yesugade	IPE Journal of Management	2249-9040	4(16)	Dec-2024
19	Vision-Based Empty Shelf Detection in Retail with Real-Time Telegram Notifications for Efficient Restocking	Prof.Dr.S.A.Pawar	SSRG International Journal of Electronics and Communication Engineering	2348-8549	11(7)	Jul-2024
20	Dynamic Hand Gesture Detection using CNN-based Key point Estimation	Prof.Dr.S.A.Pawar	SSRG International Journal of Electronics and Communication Engineering	2348-8549	12(4)	Apr-2025
21	Exploring the Natural Pothole Dataset Generated by the Abrasion and Cavitation Effects of River Water on Rocks	Prof.Dr.S.A.Pawar	International journal .Data in Brief	2352-3409	7(-)	Dec-2024
22	Detection of Lane and speed Breaker Warning System for Vehicle using Machine Learning	Prof.K.S.Sawant	International Research Journal on Advanced Engineering and Management	2341-2347	2(7)	Jul-2024
Academic Year :- 2023-24						

Sr. No.	Title of paper	Author	Name of journal	ISBN /ISSN	Volume/Issue	Month and Year of Publication
1	Image Forgery Detection and Localization using Deep Learning	Prof.D.D.Pukale	Journal of Emerging Technologies and Innovative Research	2349-5162	11(1)	Jan-2024
2	Weathernova: Deep learning powered image retrieval for weather analysis	Prof.D.D.Pukale	Journal of Engineering Technologies and Innovative Research	2349-5162	11(1)	Jan-2024
3	Diet Recommendation System using Machine Learning	Prof.P.D.Kale	International Journal for Research in Applied Science & Engineering Technology	2321-9653	11(12)	Dec-2023
4	Comparative Analysis of Image Annotation Tools: Label Img,VGG,Annotator ,Label Studio, and Roboflow	Prof.P.D.Kale	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	11(5)	May-2024
5	Assessing Emission and Reduction Strategies For Volatile Organic Compounds (VOCs) In Refinery	Prof.Dr.S.P.Kadam	Journal of Indian Association for Environmental Management	e-ISSN No.: 2582-4228	43(3)	Nov-2024
6	The performance of Logistic Regression, Decision Tree, KNN, Naive Bayes and SVM for identifying Automotive Cybersecurity Attack and Prevention: An Experimental Study	Prof.Dr.S.P.Kadam	Journal Electrical Systems	1112-5209	20(2)	Apr-2024
7	Predictive YOLO V7 Model of Dental Implant for Radiographic Images	Prof.Dr.S.P.Kadam	International Journal of Intelligent Systems and Applications in Engineering	2147-67992	12(18)	May-2024
8	Advancement in Green and Eco-friendly Technologies for Industrial waste Remediation	Prof.Dr.S.P.Kadam	Journal of Indian Association for Environmental Management	2582-4228	44(1)	Apr-2024
9	Anxiety Level Analysis through Real Time Image	Prof.S.A.Karande	International Journal of Scientific Research & Engineering Trends	ISSN (Online): 2395-566X	9(4)	Aug-2023
10	Face Mask Detection and Social distance monitoring with customized Convolutional Neural Network	Prof.S.A.Karande	International Journal of Novel Research and Development	ISSN2456-4184	8(6)	Jun-2023
11	Development of car loan web application using Cryptography	Prof.A.P.Kadam	International Journal of Creative Research Thought	2320-2882	11(12)	Dec-2023

12	Decentralized Block chain Based Result Generation And Verification System	Prof.A.P.Kadam	International Journal of Creative Research Thoughts(IJCRT)	2320-2882	12(3)	Mar-2024
13	A System to Identify Threats on Social Media Conversations and Providing Preliminary Legal Actions	Prof.V.D.Kulkarni	International Journal of Research and Analytical Reviews (IJRAR)	ISSN 2348-1269	10(4)	Dec-2023
14	Energy Audit and Energy Conservation Potential of Medical College	Prof.K.S.warke	The Indian Journal of Technical Education	0971-3034	46(3)	Sept-2023
15	Sustainable Energy Assessment and Optimization for Higher Education Institute! A pathway to achieve SDG 7 and 12	Prof.K.S.warke	TuiginJishu Journal of Propulsion Technology	1001-4055	44(6)	2023
16	Unmasking Depression : Analyzing Disclosure Behavior on Social Media	Prof.J.D.Jadhav	International Journal of Research and Analytical Reviews (IJRAR)	2349-5138	11(4)	Dec-2023
17	Automated Video and Audio based Stress Detection using Deep Learning Techniques	Prof.J.D.Jadhav	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	11(11)	Oct-2023
18	Deep Learning Techniques for Detection of Myopic Disorders	Prof.K.D.Yesugade	Journal of Emerging Technologies and Innovative Research (JETIR)	ISSN: 2349-5162	11(3)	Mar-2024
19	Deep Learning Techniques for Detection of Myopic Disorders	Prof.K.D.Yesugade	International Research Jr. of Innovations in Engineering & Technology (IRJIET)	2581-3048	8(5)	May-2024
20	Face detection and recognition for Criminal Identification System	Prof.K.D.Yesugade	International Journal of Creative Research Thoughts(IJCRT)	ISSN: 2320-2882	12(1)	Jan-2024
21	An Exploratory Study of Venture Capital Funding to Fintech Start-ups in India	Prof.K.D.Yesugade	Madhya Pradesh Journal of Social Sciences A biannually Journal of M. P. Institute of Social Science Research, Ujjain	ISSN: 0973-855X	28(2(iii))	Dec-2023
22	A Novel Stack Ensemble Approach for Emotion Recognition from EEG Signals: Performance and Robustness Analysis	Prof.Dr.S.A.Pawar	International Journal of Intelligent Systems and Applications in Engineering	ISSN 2147-679921	11(7s)	Jun-2023
23	Vision Based Empty Shelf Space Detection in Retail Application with Telegram Notification to Staff	Prof.Dr.S.A.Pawar	High Technology Letters	ISSN NO: 1006-6748	30(6)	Jun-2024
24	Evaluation of quality of service parameters for MQTT communication in IoT application by using deep neural network	Prof.Dr.S.A.Pawar	International Journal of Information Technology	ISSN:2511-2104	16(2)	Feb-2024

25	CNN based Block chain Information Protection Model for Emerging Cloud Applications	Prof.K.S.Sawant	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	12(1)	Sept-2023
26	Lane and Speed Breaker Warning System for Vehicles	Prof.K.S.Sawant	International Journal of Creative Research Thoughts(IJCRT)	2320-2882	11(11)	Nov-2023
27	Identification of Security Threats and Legitimate Status	Prof.K.S.Sawant	International Journal of Creative Research Thoughts(IJCRT)	2320-2882	11(11)	Nov-2023
28	Identification of Security Threats and Legitimate Status	Prof.K.S.Sawant	Journal of Emerging Technologies and Innovative Research	2349-5162	11(6)	June-2024
Academic Year :- 2022-23						
Sr. No.	**Title of paper**	**Author**	**Name of journal**	**ISBN /ISSN**	**Volume/Issue**	**Month and Year of Publication**
1	Review Of Artificial Intelligence Techniques For Dental Implants Using Radiographic Images	Prof.Dr.S.P.Kadam	International Journal of Creative Research Thoughts	2320-2882.	11(5)	May-2023
2	Factory Downtime Prediction Using Machine Learning Algorithms	Prof.Dr.S.P.Kadam	Journal of Emerging Technologies and Innovative Research	2349-5162.	10(5)	May-2023
3	Predicting the Growth of COVID Pandemic using Machine Learning	Prof.S.A.Karande	International Journal for Scientific Research & Development	2582-5208	4(11)	Nov-2022
4	Smart Road Damage Detection and Warning	Prof.A.P.Kadam	International Journal of Creative Research Thoughts (IJCRT)	2320-2882	11(2)	Feb-2023
5	Weather Prediction Using Machine Learning	Prof.A.P.Kadam	International Journal of Creative Research Thoughts (IJCRT)	2320-2882	11(5)	May-2023
6	ML Based Stock And Supply Regulation System	Prof.V.D.Kulkarni	International Journal of Trendy Research in Engineering and Technology	2582-0958	6(4)	Aug-2022
7	Helmet, Number Plate Detection and Stolen vehicle recognition using Machine Learning	Prof.V.D.Kulkarni	International Journal of creative research thoughts	2320-2882	11(3)	Mar-2023
8	Advancements in Deep Learning Based Sign Language Gesture Recognition for Enhanced Communication Accessibility	Prof.V.D.Kulkarni	Bulletin For Technology And History Journal	0391-6715	23(3)	Jun-2023
9	Deep fake Detection through Deep Learning using Resnext CNN and LSTM	Prof.K.S.warke	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	10(5)	May-2023

10	Deep fake Detection through Deep Learning	Prof.K.S.warke	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	10(5)	May-2023
11	Fall Detection for Elderly People Using Machine Learning	Prof.K.S.warke	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	10(4)	May-2023
12	A System for Early Flood Detection and Alarming Using Machine Learning Techniques	Prof.K.D.Yesugade	International Journal For Basic Sciences	1006-8341	23(5)	May-2023
13	Deep Learning Approach For Suspicious Activity Detection	Prof.K.D.Yesugade	Journal of Emerging Technologies and Innovative Research	2349-5162	10(2)	Feb-2023
14	Dental Disease Detection using Deep Learning", Journal of Emerging Technologies and Innovative Research	Prof.Dr.S.A.Pawar	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	10(5)	May-2023
15	Trust Management System in Internet of Things: A Survey	Prof.Dr.S.A.Pawar	International Journal of Safety and Security Engineering	2041-9031	13(2)	Apr-2023
16	Security and QoS (Quality of Service) Related Current Challenges in IoT	Prof.Dr.S.A.Pawar	SSRG International Journal of Electronics and Communication Engineering	2348-8549	10(4)	Apr-2023
17	Evaluation of Delay Parameter of MQTT Protocol", International Journal of Engineering Trends and Technology	Prof.Dr.S.A.Pawar	International Journal of Engineering Trends and Technology	2231-5381	71(3)	Mar-2023
18	Depression Detection Using Face .Text and Audio Using Machine Learning	Prof.K.S.Sawant	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	9(11)	Nov-2022
19	Depression Detection Using Face, text And Audio	Prof.K.S.Sawant	International Journal of Novel Research and Development	2456-4184	8(5)	May-2023
20	Object Detection for Blind Peoples	Prof.K.S.Sawant	International Research Journal of Modernization in Engineering Technology and Science	2582-5208	5(5)	May-2023

Table 5.7.1.4 - Conference publications

AY 24-25					
Sr. No.	**Name of the teacher**	**Title of the paper**	**Name of the conference**	**Year of publication**	**ISBN/ISSN number of the proceeding**

1	Prof.Dr.S.P.Kadam	Google Earth Engine based Web Application for Flood Monitoring with Region and Time Frame Customization	12th International Conference on Computing for Sustainable Global Development (INDIACom-2025)	2025	978-93-80544-58-8
2	Prof.Dr.S.P.Kadam	LULC based Damage Assessment of Flood using Sentinel-1 and Sentinel-2: Case study of Brahmani-Baitarani	12th International Conference on Computing for Sustainable Global Development (INDIACom-2025)	2025	978-93-80544-58-8
3	Prof.V.D.Kulkarni	Enhanced ECG Signal Classification through Ensemble Learning	International Conference on Recent Trends in Science, Technology and Management (ICRTSTM)	2024	978-81-971821-8-1
4	Prof.V.D.Kulkarni	Exploring GANs for image synthesis and recognition in forensic contexts	International conference on computing for sustainable global development, INDIACom-2025	2025	978-93-80544-58-8
5	Prof. K. S. Warke	AI Formed Audio and Human Audio Detection	International Conference on Recent Trends in Science, Technology and Management (ICRTSTM)	2024	978-81-971821-8-1
6	Prof.J.D.Jadhav	Unmasking Depression: Analyzing Disclosure Behavior on social media	International Conference on Recent Trends in Science, Technology and Management (ICRTSTM)	2024	978-81-971821-8-1
7	Prof.K.S.Sawant	Detection of Lane and Speed Breaker Warning System for Vehicles Using Machine Learning	International Conference on Recent Trends in Science, Technology and Management (ICRTSTM)	2024	978-81-971821-8-1
AY 23-24					
Sr. No.	**Name of the teacher**	**Title of the paper**	**Name of the conference**	**Year of publication**	**ISBN/ISSN number of the proceeding**
1	Dr.Sonali Kadam	Future Trend: Review of Artificial Intelligence Applications in Prosthodontics	International Conference on Computing for Sustainable Global Development (INDIACom)	Mar-24	978-93-80544-51-9
2	Vinaya D. Kulkarni & Dr.Sonali Kadam	A Machine Learning Framework for the Classification of ECG Signals	International Conference on Computing for Sustainable Global Development (INDIACom)	Mar-24	978-93-80544-51-9

3	Dr.Sonali Kadam	An Artificial Intelligence Approach to Predict the Hybrid Nanofluids based Application for Radiators	International Conference on Computing for Sustainable Global Development (INDIACom)	Mar-24	978-93-80544-51-9
4	Dr.Sonali Kadam	Improving Earth Observations by correlating Multiple Satellite Data: A Comparative Analysis of Landsat, MODIS and Sentinel Satellite Data for Flood Mapping	International Conference on Computing for Sustainable Global Development (INDIACom)	Mar-24	978-93-80544-51-9
AY 22-23					
Sr. No.	**Name of the teacher**	**Title of the paper**	**Name of the conference**	**Year of publication**	**ISBN/ISSN number of the proceeding**
1	Prof. S. B. Jadhav	Comparative Analysis of Image Segmentation Techniques for Real Field Crop Images	International Conference on Innovative Computing and Communications	Sep-2022	978-981-19-2534-4, 522162_1_En,
2	Prof. Dr.S.P. Kadam	A systematic review on security mechanism of Electric Vehicles	22nd International Conference on Intelligent Systems Design and Applications	Dec-2022	-
3	Dr. S.A.Pawar	Detection of Leaf Diseases for Multiple Plants using Convolutional Neural Network	3rd International Conference on Smart Electronics and Communication (ICOSEC IEEE Conference)	Oct-2022	978-1-6654-9764-0
4	Dr. S.A.Pawar	Identification of Flowers using Machine Learning	International Conference on Innovations in Science and Technology for Sustainable Development (ICISTSD IEEE Conference)	Jan-2023	978-1-6654-9937-8
5	Dr. S.A.Pawar	A Strategic approach to Model the Machine to Machine Communication of Industrial IoT system for MQTT Protocol with a Case Study	Proceedings of 3rd International Conference on Machine Learning, Advances in Computing, Renewable Energy and Communication. Lecture Notes in Electrical Engineering (LNEE), vol. 915, pp. 581-593. Springer, Singapore	Sept-2022	978-981-19-2827-7
6	Dr. S.A.Pawar	An Intelligent Smart Bin System for Solid Waste Management in Smart Cities	2022 International Conference on Decision Aid Sciences and Applications (DASA)	May-2022	978-1-6654-9502-8

Table 5.7.1.5 -Number of books/book chapter published

AY 23-24						
Sr. No.	**Title of Book**	**Title of paper**	**Author**	**Name of Publisher**	**ISBN /ISSN**	**Year of Publication**
1	Applied Computer Vision and Soft Computing with Interpretable AI	Artificial Intelligence and the Internet of Things in smart Agriculture towards Green Engineering	Dr.S.P.Kadam	Chapman and Hall/CRC	9781003359456	2023
AY 22-23						
Sr. No.	**Title of Book**	**Title of paper**	**Author**	**Name of Publisher**	**ISBN /ISSN**	**Year of Publication**
1	Disruptive Developments in Biomedical Applications	Recent Advances of Artificial Intelligence for Nano biomedical Applications: Trends, challenges and future Prospects	Dr.S.P.Kadam	CRC Press/Taylor & Francis, Boca Raton, FL	978-1-03222470-1	Dec-2022
2	International conference on Intelligent systems Design & Applications	A systematic review on security mechanism of electric vehicles	Dr.S.P.Kadam	Springer	-	Dec-2022
3	Applied computer vision and soft computing with interpretable AI.	The role of Artificial Intelligence and the IoTs in smart agriculture towards green engg.	Dr.S.P.Kadam	Taylor & Francis Group	978-100095249-0	Jan-2023
4	Proceedings of 3rd International Conference on Machine Learning, Advances in Computing, Renewable Energy and Communication. Lecture Notes in Electrical Engineering (LNEE)	A Strategic approach to Model the machine to Machine communication of Industrial IoT system for MQTT Protocol with a case study.	Dr. S.A. Pawar	Springer	978-981-19-2827-7	Sept-2022

Table 5.7.1.6 - Grant received

Sr. No.	**Name of the research project/ endowment**	**Name of Faculty**	**Name of the Principal Investigator/Co-Principal investigator**	**Year of Award**	**Amount Sanctioned**	**Name of the Funding Agency**	**Duration of the project**	**Type (Government/non-Government)**
1	Security Enhancement of MQTT Protocol with Improved Quality of Service for Industrial Internet of Things	Dr.S.A.Pawar	(Principal Investigator)	2024-25	Rs.2,50,000/-	Savitribai Phule Pune University	2 Yrs.	Non-Government

2	Design and Development of Dental Implant System using Additive Manufacturing	Dr. S.A.Pawar	Co-Principal Investigator	2024-25	Rs.1,50,000/-	Bharati Vidyapeeth Deemed to be University, Pune	1 Yr.	Non-Government
3	FDP on Research opportunities in sustainable development using GIS technologies	Dr.S.P.Kadam	(Principal Investigator)	2024-25	Rs.3,50,000/-	AICTE ATAL	1 Yr.	Government
4	FDP on Navigating Climate Variability and Impacts for Effective Water Management, Disaster Preparedness, Resilience and Mitigation	Dr.S.P.Kadam	(Principal Investigator)	2024-25	Rs.1,00,000/-	AICTE ATAL	1 Year	Government
5	Efficient embedded system for fruit and vegetable crop disease diagnosis and recommendation	Prof.S.A.Karande	Co-Principal Investigator	2024-25	1,50,000	Bharati Vidyapeeth Deemed to be University, Pune	1 Year	non government

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

Table 5.7.1.7 - Ph.D. guidance

Sr. No.	Name of Faculty	Year of Recognition as Research Guide	Name of the scholar	Year of registration of the scholar	Title of the thesis for scholar
1	Dr. Sonali P. Kadam Completed Ph.D on 05/10/2015	2019	Ashwini D.Khairkar	22/7/2022	Novel artificial Intelligence model of dental implant for radiographic images using deep learning
			Vaishali Mishra	17/05/2022	Security and adaptive control mechanism in a Wide Area Electrical Vehicle Interface
			Yogesh kadam	26/02/2021	Model Based Test Case Prioritization using Learning Techniques in Regression Testing
			Umakant tupe	6/3/2020	Optimised energy efficient protocol for M2M communication towards Green IoT.
2	Dr.Shital A. Pawar Completed Ph.D on 24/12/2022	NA	NA	NA	NA

Table 5.7.1.8 -Number of PhD awarded in assessment years: 02

Name of the Faculty	Details of Faculty	Year in which PhD awarded	University

Prof.S.A.Pawar	Assistant Professor	Dec -2022	Bharati Vidyapeeth Deemmed to be Universty
Prof.S.A.Deshmukh	Assistant Professor	March -2023	Bharati Vidyapeeth Deemmed to be Universty

Table 5.7.1.9 - Number of faculties pursuing PhD in Department: -05

Sr. No	Name of the Faculty	Branch	Registration Year	College Name	University Name
1	Prof.K.A.Karande	Computer Engineering	2018-19	Bharati Vidyapeeth (Deemed to be)University College of Engineering, Katraj	Bharati Vidyapeeth (Deemed to be)University
2	Prof.K.D.Yesugade	Computer Engineering	2022-23	Bharati Vidyapeeth (Deemed to be)University College of Engineering, Katraj	Bharati Vidyapeeth (Deemed to be)University
3	Prof.A.P.Kadam	Computer Engineering	2022-23	Bharati Vidyapeeth (Deemed to be)University College of Engineering, Katraj	Bharati Vidyapeeth (Deemed to be)University
4	Prof.V.D.Kulkarni.	Computer Engineering	2023-24	Vishwakarma University, Kondhwa, Pune	Vishwakarma University
5	Prof.J.D.Jadhav	Computer Engineering	2024-25	Bharati Vidyapeeth (Deemed to be)University College of Engineering, Katraj	Bharati Vidyapeeth (Deemed to be)University

5.7.2 Sponsored Research (5)

Institute Marks : 0.00

2023-24 (CAYm1)

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

2022-23 (CAYm2)

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

2021-22 (CAYm3)

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

Cumulative Amount(X + Y + Z) = 0.00

5.7.3 Development Activities (10)

Institute Marks : 10.00

•Product Development

The department faculties have developed multiple applications as shown in below table that will help all faculties in their day to day work.

Table 7.7.3.1 - Product Development by Faculty members

Sr.No.	Name of Faculty	Chart Name	End User Benefits
1	Prof.Dr.S.P.Kadam	CO-PO Mapping Tool	This will help the course in charge to calculate the mapping with CO and PO.
2	Prof.K.S.Warke	CO-PO Attainment Tool	This will help to calculate the attainment of the course.
3	Prof.J.D.Jadhav	Publication Tool	This will help the in charge to calculate faculty publications..
4	Prof.K.D.Yesuagde	Student Information Tool	This will help the in charge to calculate student data.
5	Prof.S.B.Jadhav	Project Tool	This will help Project coordinator to generate analysis of project.
7	Prof.V.D.Kulkarni Prof.K.S.Sawant	Internal Assessment Tool	This will help coordinator to generate analysis of internal assessment.

The department has developed products to solve societal issues and all products are in working condition.

Table 7.7.3.2 - Product Developement by student under guidance of faculty.

Sr. No.	Product Name	Team & Department Name	Product Specification	Product Application & Deployment
1	IFAMS: India Flood Analysis and Mapping System (2024-25)	Prof. Dr. Sonali Kadam Ravindra Kale (NIH), Student Team – Sae Jamdade, Apurva Gadilkar, Chahal Ohri, Namrata Rathi	IFAMS is a web-based platform that analyzes flood events using satellite imagery, rainfall, and hydrological data to generate real-time flood extent maps. It integrates water delineation tools for watershed analysis and supports decision-making with visualizations and historical flood insights	National Institute of Hydrology, Roorkee
2	Web-based Baseflow Separation and Analysis Tool	Prof. Dr. Sonali Kadam Ravindra Kale (NIH), Student Team- Parivita Sampagaonkar, Tanvi Narayankar	Backend: Python, Flask, Pandas, NumPy, SciPy (for filtering, curve fitting) Frontend: React, React-Bootstrap, Plotly.js (for interactive plots) Development Environment:Visual Studio Code (with virtual environment) Data Storage: Excel files for input and output	National Institute of Hydrology, Roorkee

3	Next-Gen Communication: AI-Driven Video Translation to Sign Language (2024-25)	Prof. V.D.Kulkarni Shruti Bhumkar, Sanika Chaudhari Manasi Deshmukh Samruddhi Deshmukh	AVATAR-ISL is a hybrid web-based platform that converts spoken content from video or audio input into Indian Sign Language (ISL) gestures. It utilizes speech recognition, natural language processing, and gesture generation using pre-trained models and datasets. The platform adapts grammatical structure for ISL and allows customizable avatar animation speed for accessibility. It is designed to improve communication for the deaf and hard-of-hearing community.	Educational institutions, accessibility centers, social organizations promoting inclusive communication technologies. Hosted on local servers
4	Plant disease identification System (2023-24)	Prof.Shital Karande, Student Team – Madhvi Sharma, Sanjana Upase, Vaishnavi Patki	Plant Disease Identification System for Tomato crop.	Tools for farmers , Home gardeners and deployed on portable devices
5	Cotton Disease Detection using Custom CNN Model	Prof. Kavita Sawant (Contributor),Student Team – Payal Gawande, Vaishnavi Kedar, Sanika Jagtap, Shravani Konde .	This Android-based application is developed to identify and classify cotton leaf diseases using a custom Convolutional Neural Network (CNN). Users can capture or upload a cotton leaf image, and the app predicts whether the leaf is healthy or affected by diseases such as Fusarium Wilt, Aphids, Bacterial Blight, Powdery Mildew, Curly Leaves, Army Worm, Target Spot. The model is trained on a labeled image dataset and achieves high accuracy for real-time diagnosis.	Deployed as a lightweight Android application for use by farmers and agricultural field workers to assist in early disease detection and reduce crop loss

• Research laboratories

- The Department of Computer Engineering has a Research Laboratory to foster innovation, encourage research, support project-based learning among undergraduate students, as well as faculty members.
- It is equipped with computers, essential software tools and high-speed internet connectivity
- The research lab is equipped with plagiarism detection software.

Objectives of the Research Laboratory:

- To provide infrastructure and technical support for conducting research projects.
- To support faculty and student research activities, including paper publication, patent filing, and prototype development.

Utilization: -

- UG students use the lab for research level projects work, hackathon activities, technical paper writing.
- Faculty members use the lab to carry out research projects funded by AICTE, University, or other agencies.

Outcome: -

- Publications in indexed journals and international conferences.
- Prototypes and models showcased in project exhibitions and innovation contests.
- Patent filings and IPR awareness among students.

• Instructional materials

The Department of Computer Engineering places strong emphasis on the development of instructional material to ensure effective delivery of curriculum, promote independent learning, and facilitate outcome-based education.

Types of Instructional Material Developed and Utilized:

- Teaching Plans: - Well-structured lesson plans are prepared for each subject in alignment with COs, POs and PSO.
- Lab Manuals: - Lab manuals are prepared for practical courses, containing objectives, theory, algorithm, conclusion and viva questions.
- PPTs & Notes - PowerPoint presentations and short video lectures are prepared to explain complex topics with clarity. Notes or PPTs are shared with students.
- Question Banks: - Subject-wise question banks are prepared.

- Assignments: - Topic-wise assignments are designed to promote analytical and design skills.

•Working models/charts/monograms etc.

To enhance the effectiveness of teaching and promote experiential learning, the Department of Computer Engineering actively develops and uses various **instructional aids**, such as **charts, posters etc.** These resources help in visualizing complex computer engineering concepts and foster deeper student engagement. Charts prepared by faculty members are displayed in the respective laboratory.

5.7.4 Consultancy(from Industry) (5) Institute Marks : 0.00

2023-24 (CAYm1)

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

2022-23 (CAYm2)

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

2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Nil	Nil	Nil	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

Performance appraisal provides a periodic review and evaluation of individual staff performance. Performance appraisal is a systematics procedure to achieve the individual and institute goals. Performance appraisal helps to measure expected competency level set by the institute. The appraisal forms are filled and submitted in the administrative office twice in a year by offline and online mode.

1. Appraisal Procedure:

Appraisal provides a common and unified measure of performance, so that all staff are evaluated in the uniform manner.

Appraisal Framework:

Appraisal of staff performance is carried out within a framework:

1. Self-Appraisal 2. Performance Appraisal 3. Confidential Report

Self-Appraisal:

- Self-Appraisal provides teaching engagement, teaching methodology, innovative ideas. It provides contribution in research area, contribution for college,community. It also measures special achievements, difficulties faced and suggestions for improvement.
- Self-appraisal helps staff member to be more alert and competent. Self-appraisal helps to improve the quality of work performance.
- It is verified at the department level by Head of the department (HOD).

Performance Appraisal:

- Performance appraisal gives us a complete information in the form of records. It provides actual conduction of practical and lectures.
- It provides Evaluation of individual staff by the Head of Department in planning, control, working methodology, actively contribution for college in different activities. Performance standards are measures by rating ‘excellent, good, average and poor’.
- Performance appraisal helps HOD to analyse staff and to implement policies for the department.

Confidential Report:

- Confidential Report provides ability of team work, teaching and participation in extracurricular activities. It is a overall evaluation of staff by Head of the department.
- Head of the department forwards confidential report with his/her remark for the further verification and approval of Principal and management.
- The Principal obtains approval from the management, then informs the Head of the Department, who subsequently communicates the information to the faculty members.

Acknowledgment of Faculty Excellence

As part of the **Faculty Performance Appraisal and Development System (FPADS)**, the department takes this opportunity to formally acknowledge and appreciate the commendable contributions of faculty members.

1. Appreciation Letter

In alignment with FPADS parameters under **Academic Results and Student Outcomes**, the department appreciates the faculty members for exemplary teaching performance reflected through student results with the criteria as follows.

- **Second Year (SE):** If Course result percentage is above 80%
- **Third Year (TE):** If Course result percentage is above 90%
- **Final Year (BE):** If Course result percentage is above 98%

Such results demonstrate effective curriculum delivery, outcome-based teaching methodologies, and consistent student engagement.

2. Research, Publications, and Doctoral Contributions

Under the **Research and Academic Advancement** category of FPADS, the following achievements are specially recognized:

- Faculty members who **successfully completed their Ph.D. degrees** during the academic year. (Appreciated by the Institute)
- Faculty contribution in publications in recognized journals and conferences. (Appreciated by the Institute)

These accomplishments contribute significantly to the department’s research output and academic reputation.

3. Incentives to faculty members for their valuable contributions.

- High-quality publications reflect the faculty’s dedication to impactful research and academic excellence. As a token of encouragement, the management appreciates the faculty members who publish their research work in reputed journals and monetary incentives to faculty members for their valuable contributions.

4. Financial Assistance: -

- The institution provides financial assistance to faculty members for attending FDPs.
- This support encourages continuous learning, skill enhancement etc.
- The faculty should be upadted with latest technology trends.

Incentive Policy of the Institute:

The Institute has implemented the incentive policy as per the framework established by the management. The Faculty members of the institute are encouraged and rewarded with incentives for publishing articles in reputed journals, presenting at conferences, and contributing to books and book chapters.

Refer incentive policy in below table.

Table 5.8.1 - Incentive Scheme

Quartile	Amount (Rs.)
Scopus-Q1	10,000/-
Scopus-Q2	7,500/-
Scopus-Q3	5,000/-
Scopus-Q4	2,500/-
PubMed	7,500/-
Web of Science	7,500/-
UGC CARE Group-1	5,000/-
Conference paper indexed in IEEE, Springer, Elsevier and listed in Scopus, WoS, PubMed*.	5,000/-
Books and Book chapters published in Springer, Wiley, Elsevier, Oxford University Press and Listed in Scopus, WoS, PubMed*.	5,000/-

5.9 Visiting/Adjunct/Emeritus Faculty etc. (10) Total Marks 10.00

Institute Marks : 10.00

The department has Mrs. Nandini Tambolkar visiting/Adjunct faculty for AY 2023-24 ,2024-25 and Ms Renuka Dhanajay Pathank is for AY 2022-23.

Table 5.9.1 - The details of faculties are given in below Table.

Sr. No.	Visiting/Adjunct Faculty	Designation	Course name	Year	Class	Duration (Hrs.)
1	Mrs. Nandini Tambolkar	Corporate Trainer at Japan location companies	Japanese Language Module I & II	2024-25	SE COMP	60
2	Mrs. Nandini Tambolkar	Corporate Trainer at Japan location companies	Japanese Language Module I & II	2023-24	SE COMP	60
3	Ms Renuka Dhanajay Pathank	Visiting Teacher	German Language Module I & II	2022-23	SE COMP	60

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 75.00

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

Total Marks 25.00

Institute Marks : 25.00

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	Software Laboratory-II	20	PC, Printer, UPS, switch	20 Hrs.	Mr. V.V. Patil	Lab Assistant	ME-Mechanical
2	Computer Organization Lab	20	PC, Printer, switch	19 Hrs.	Mrs. Nutan Patil	Lab Assistant	Diploma-Computer Technology
3	Project Lab	20	PC, Printer, switch	26 Hrs.	Mrs. Nutan Patil	Lab Assistant	Diploma-Computer Technology
4	Linux Lab	20	PC, Printer, UPS, switch	24 Hrs.	Mr. V.V. Patil	Lab Assistant	ME-Mechanical
5	Development Center Lab	20	PC, Printer, UPS, switch	30 Hrs.	Mr. V.V. Patil	Lab Assistant	ME-Mechanical
6	Hardware Lab	20	PC, switch, Digital Hardware Kits	11 Hrs.	Mrs. Nutan Patil	Lab Assistant	Diploma-Computer Technology
7	Software Lab-I	20	server, PC, Switch	19 Hrs.	Mr. Saurabh Arbhune	Lab Assistant	BSC
8	Computer center	108	server, PC- i5, smart board, Audio system switch, UPS	30 Hrs	Mr. Saurabh Arbhune	Lab Assistant	BSC

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

Total Marks 25.00

Institute Marks : 25.00

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	Lab manual	Lab manuals with step-by-step instructions, expected outcomes, rubrics and mapping to COs/POs	To ensure uniformity, clarity, and systematic execution of lab experiments.	Distributed to students at the start of the semester; referred during lab sessions and internal assessments.	Experimental design, documentation, steps for execution, analysis of results, technical report writing.	PO10,PO1 , PO2,PO3,PO4, PSO1
2	E-learning tools (All Laboratories)	NPTEL Video Lectures	Topic-wise NPTEL videos from IIT professors integrated with lab syllabus	To provide expert insights and conceptual clarity	Watched for self-learning	PO1 , PO2,PO3,PO4, PSO1
3	iThenticate: Plagiarism Detection Software	Subscription based plagiarism detection tool used to check originality of research papers and reports	To ensure academic integrity and promote original work among students	Used project laboratory for report and project submissions	Understanding academic honesty, research ethics, and proper citation practices	PO8
4	LCD projector	LCD projectors available in departmrnt and used in all laboratories to support visual-based teaching	To enhance student understanding through presentations and demonstrations	To enhance student understanding through presentations and demonstrations, Used during lab sessions for presentations	Improved conceptual clarity, visualization of complex procedures, and understanding of experiments	PO10, PO1 , PO2, PSO1
5	High Bandwidth Internet Facility	High-speed internet connectivity across all laboratories	To support seamless access to online resources	Utilized by all laboratories for research, simulations, and remote learning	Enhanced skills in cloud computing, data-intensive applications, collaborative projects	PO6, PO9,PO1, PO2, PO3, PSO2
6	IOT kits	IOT kits	To enable hands-on learning in IoT-based systems and smart device integration	Used in IoT, Embedded Systems, and Mini Projects labs	IoT architecture, sensor integration, real-time data processing	PO1, PO2, PO3, PO5, PSO1, PSO2
7	Department Library	Collection of textbooks, reference books, available for department students	To provide easy access to technical knowledge and enhance self-learning and research	Used by students and faculty for study	Improved research skills, subject knowledge, and reference management	PO12,PO7, PO1,PO4,PSO1,PSO3
8	Audio Video Facility (Computer Center)	Equipped with projector,microphones, speakers in all laboratories	To enhance interactive learning, presentations, and remote collaboration	Used during lectures, seminars, workshops, and remote lab sessions across all laboratories	Improved communication skills, presentation abilities, and collaborative learning	PO5, PO6, PO2, PO3, PSO2
9	Server Room	Centrally managed room housing servers, networking equipment, and data storage systems with controlled environment	To provide reliable infrastructure for monitoring networking	Utilise by all laboratory	Skills in server management, virtualization, network administration, and data security	PO5, PO6, PO1, PO3,PSO1
10	Wifi Internet Facility	High-speed wireless internet access available throughout all laboratories	To enable easy and flexible access to online resources, research databases, and cloud platforms	Utilised by students and faculty across all laboratories for research, collaboration, and learning	Enhanced remote access skills and online research capabilities	PO6,PO1, PO2, PO3, PSO2
11	GPU	Virtual GPU	To support GPU virtualization for AI/ML programs and project , cloud computing, and multi-user simulation platforms	Used in cloud-based VDI labs, AI model deployment practice, and remote GPU access	Cloud computing, GPU virtualization, deep learning deployment, infrastructure simulation	PO1, PO5, PO12, PSO2,PSO3

6.3 Laboratories: Maintenance and overall ambiance (10) Total Marks 10.00

Institute Marks : 10.00

Maintenance

The course instructor and Lab Assistant regularly monitor the laboratory to identify any maintenance needs. When issues arise, they are reported for necessary action. A departmental committee, led by the Head of the Department (HoD) detailed in table 6.3, is responsible for overseeing the maintenance of all laboratory equipment. This committee ensures that all equipment remains in proper working condition and that timely maintenance is carried out.

Table 6.3 Laboratory Maintenance Committee

Sr. No.	Committee Member	Role and Responsibility
1	Head of Department	Take major decisions for technical issues related to the Program.
2	IT Administrator	Supervises the flow of technical maintenance and provides expert advice on important issues.
3	Lab Assistant	Taking care and responsibility of smooth laboratory functionality, including checking and maintenance laboratory hardware and software.

A. POLICY:

At the beginning of each semester, the committee provides instructions to the Laboratory In-charge and the respective Lab Assistant (LA) regarding the inspection and rectification of software and equipment issues. If any problem arises in a laboratory, it is first assigned to the concerned LA. If the issue is not resolved, it is escalated to the IT Administrator. If the problem is not handle by IT administrator, after disscussion with HOD it is then forwarded to an external agency. Most maintenance activities are handled in-house, and only in rare cases is external assistance sought.

In addition to departmental maintenance, the college is also overseeing maintenance across the entire college. Faculty members report issues via a requisition form where that form is forwarded by HoD further action as illustrated in figure 6.3 This procedure is monitored by the IT Administrator, who ensures timely resolution of reported problems.

- The computer laboratories are allotted to the students as per their curriculum requirements of SPPU.
- The respective program coordinator prepares the schedules for allocating the computer labs to the students as per the timetables.
- The student-computer ratio is 1:1.
- The maintenance of the computer lab is taken care of by the laboratory In-charge, with the Laboratory Assistant and the system administrators taking care of the repairs and maintenance of all computers.
- All outdated and under configured computers are disposed of by standard procedure.
- Additional requirements, if needed, are processed through the Governing body as per the proposal raised by the concerned Head of Department during the budget proposal.
- The students utilize laboratory facilities for their project work.
- Stock register is maintained and updated regularly.
- Student entry register is maintained.
- Only safe, secure, authentic & trusted websites are accessed.
- Stock verification and inspection are carried out by the department at the end of the Academic Year. Also, inter-department stock audit is carried out regularly.
- A annual maintance contract with third-party look for major maintance.

B. Procedure:

Procedure of maintenance is diagrammatically presented in Figure 6.3.

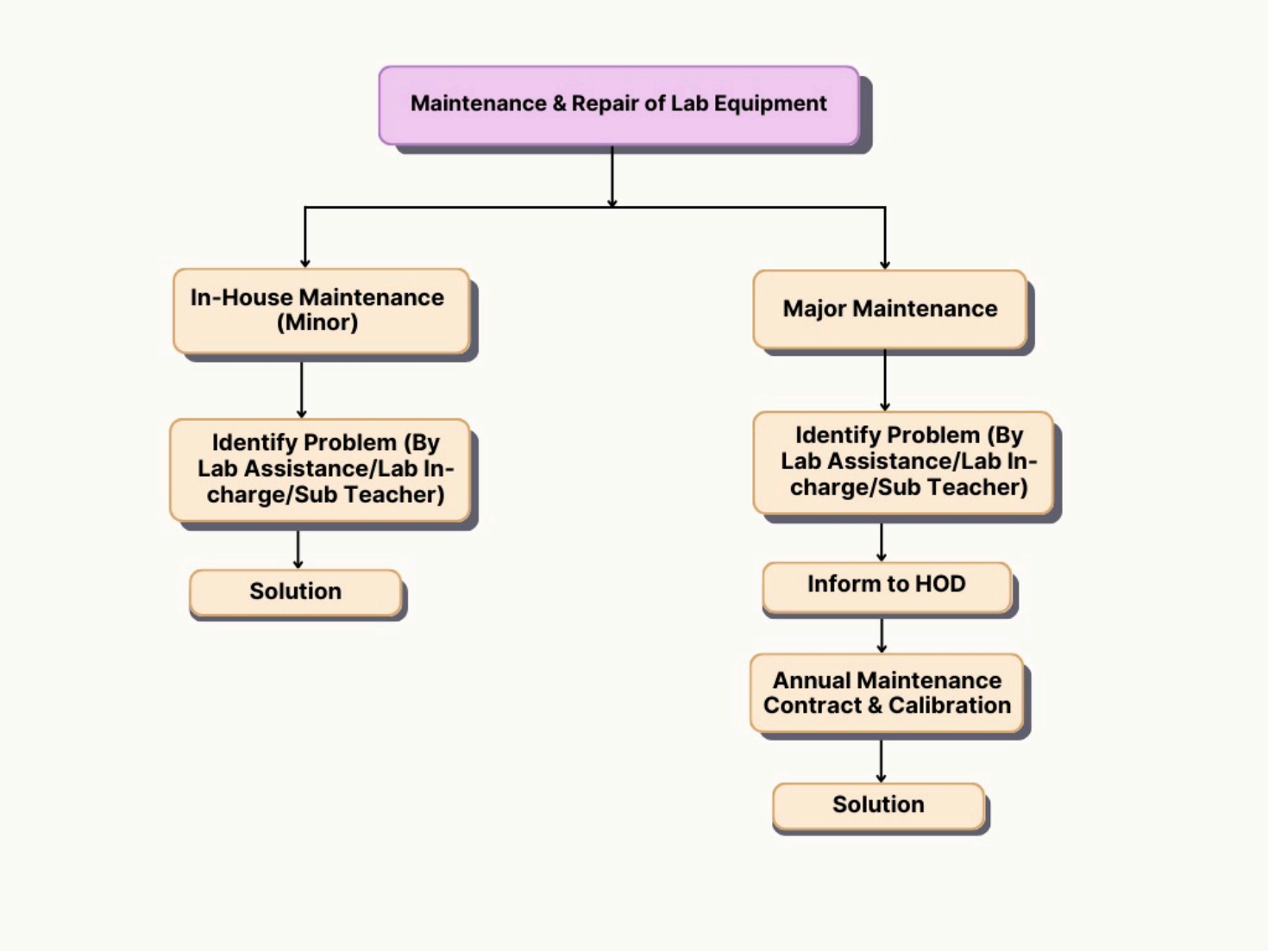


Figure 6.3 Procedure of Laboratory Maintenance

C. Maintenance parameters include the following:

- Do's and Don'ts and Safety measures rules are displayed in each laboratory.
- Standard Operating Procedure (SOP's) for hardware devices in each laboratory.
- Lab Assistant performs scheduled maintenance and calibrations of hardware like internal dust cleaning.
- Periodic software maintenance is carried out, including tasks such as formatting machines, installing the operating system, updating antivirus software, removing junk files and unwanted programs, cleaning the keyboard and mouse, and backing up data if required.
- User credentials for filtered internet are managed and continuously monitored through log reports.
- Institute level Electrician is appointed for the maintenance of Electrical equipment

Ambience in the Department:

Each Laboratory is designed to provide the ambience required for implementing the teaching-learning process effectively. The laboratories are spacious, airy and exhibit an functional design, affording an excellent learning experience to students. All the laboratories have a single entry & exit facing on to the central corridor. Boards containing quotes of renowned personalities and technical information are displayed at appropriate locations within the laboratory.

- Necessary working tables, chairs/stools provided for the comfort of students are maintained in good condition.
- Proper ventilation/air circulation is provided in each laboratory. Windows provide excellent air circulation which is supported by several ceiling fans.
- All laboratories offer proper seating arrangements for students.
- Ambient lighting assisted by fluorescent tubes provides adequate lighting. Curtains are provided in each laboratory for windows to ensure good visibility.
- The labs are always kept clean, neat and tidy. They are cleaned by the housekeeping staff every day. The overall ambience and maintenance of each laboratory is very good. Housekeeping time table is provided to the attendant and is maintained in each laboratory.
- All laboratory equipped with soft boards and white board.
- In corridor and inside laboratory LED tube lights for efficient consumption of electricity.
- In college well equipped washroom with sensor tube light for efficient use.
- Classroom is equipped with smartboard and good internet facility for efficient learning.

6.4 Project laboratories (5)

Total Marks 5.00

Institute Marks : 5.00

The department’s project laboratory helps to build essential skills such as technical proficiency, mathematical aptitude, problem-solving, and decision-making critical for success in the field of Computer Engineering. To foster innovation and applied learning, the Department of Computer Engineering has established a dedicated Project Laboratory within department. The primary objective of this laboratory is to inspire and support students in undertaking both major and mini projects. It provides a dedicated space where students can work collaboratively in teams or independently on their project work.

- The primary purpose of the lab is to provide the space and resources needed by students to complete their Projects.
- The lab is fully equipped with essential resources, including high-performance computers, IOT kits, Audio Video Facility and highly qualified staff. Staff guides students into different topics with proper information from various research documents.
- Many students also use this lab to work on supplemental learning projects to enhance their understanding of class and lab assignments.
- All systems are connected to the internet, and Wi-Fi access is also available within the lab.
- The facility is managed by the designated Lab Assistant under the supervision of the Lab In-charge. While the day-to-day maintenance is handled internally, major hardware-related issues are addressed by a third-party maintenance service.
- Project lab having facility of plagiarism check software which used by student and faculty.
- All required documents like Project workbook, Synopsis, SRS, project evaluation report and progress report and final project reports of previous batches are available in the Project lab.
- Trained faculties are available to assist and guide students in their project development and experimentation.

Table A. 6.4 Lab Utilization for Project Work

Sr. No.	Name of Activity	A.Y. 2024-25	A.Y. 2023-24	A.Y. 2022-23	A.Y. 2021-22
1.	Projects	19	20	21	20

6.5 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Software Laboratory-II	The Fire Extinguisher is placed at strategic location. Uninterrupted power supply is provided through UPS. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for video surveillance throughout the lab sessions First Aid Box
2	Computer Organization Lab	The Fire Extinguisher is placed at strategic location. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for video surveillance throughout the lab sessions First Aid Box
3	Project Lab	The Fire Extinguisher is placed at strategic location. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for video surveillance throughout the lab sessions First Aid Box
4	Linux Lab	The Fire Extinguisher is placed at strategic location. Uninterrupted power supply is provided through UPS. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for video surveillance throughout the lab sessions First Aid Box
5	Development Center Lab	The Fire Extinguisher is placed at strategic location. Uninterrupted power supply is provided through UPS. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for video surveillance throughout the lab sessions First Aid Box,
6	Hardware Lab	The Fire Extinguisher is placed at strategic location. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for First Aid Box,
7	Software Laboratory-I	The Fire Extinguisher is placed at strategic location. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for First Aid Box
8	Computer Center	The Fire Extinguisher is placed at strategic location. Anti-virus is installed on each machine. Proper earthing is ensured for all electrical installations. Firewall is available in centralized server room. Electronic surveillance system is installed in laboratory for

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 43.00

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

Total Marks 17.00

Institute Marks : 17.00

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

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.5	1.70	• The target level has been achieved. • The fundamental engineering knowledge of students is improved.
Action 1: Conduct extra lectures for lateral entry students to strengthen their understanding of fundamental engineering concepts essential for solving complex engineering problems. Action 2: Conduct the remedial or revision classes for numerical and analytical courses to improve the fundamental knowledge required to solve complex engineering problems.			
PO 2 : Problem Analysis			
PO 2	1.5	1.74	• The target level has been achieved. • Students have improved analytical thinking to effectively analyze the problem.
Action 1: Encourage the students to solve the complex problems on platforms like HackerRank and LeetCode. Action 2: Give more problems to solve for the courses like Data Structure, Theory of Computation, and Design and Analysis of algorithms, Database Management System etc. to improve their problem-solving skills			
PO 3 : Design/development of Solutions			
PO 3	1.5	1.63	• The target level has been achieved. • The students can apply their knowledge to design/develop the solutions.
Action 1: Encourage and support students to participate in Avishkar, Dipex, NES competitions, and the SIH hackathon. Action 2: Give extra practical assignments for the Machine learning course and motivate students to solve the problems thoroughly for the Data Science and Big Data Laboratory to make them prepared to solve complex engineering problems.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.5	1.54	• The target level has been achieved. • Focus on Project-related activities and guidance for project development has enhanced the attainment level.
Action 1: Give more emphasis on literature surveys in project reviews to provide effective solutions to real-life problems and use rubrics to evaluate the quality and depth of these surveys. Action 2: Encourage the students and provide the opportunities to publish research papers based on their projects in conferences and journals.			
PO 5 : Modern Tool Usage			
PO 5	1.5	1.55	• The target level has been achieved. • The students have used the modern tools and techniques for their projects. More emphasis on the technical courses related to Modern Tools and technologies can be given to further improve the industry-relevant skills.
Action 1: Motivate students to learn modern engineering and IT tools through technical courses like AWS and Oracle. Action 2: Guide and motivate students to pursue internships that emphasize the use of modern engineering and IT tools and techniques to develop industry-relevant skills.			
PO 6 : The Engineer and Society			
PO 6	1.5	1.26	• The target level has not been achieved. • Students need to focus on investigation of problems faced by society.
Action 1: Motivate and guide the students to undertake projects on public health and safety, cultural, societal, and environmental considerations. Action 2: Encourage students to utilize free time to read newspapers and magazines related to societal and health issues and motivate them to share the knowledge gained with peers. Action 3: Arrange seminars/visits through NSS and the Student Development Cell to help students to understand safety concerns and the social responsibilities of engineers and encourage their participation. Action 4: Arrange industrial visits for students to provide exposure to real-world challenges and practical engineering solutions.			
PO 7 : Environment and Sustainability			
PO 7	1.5	1.38	• The target level has not been achieved. • There is a need to improve the awareness of students about the environment and sustainability.

Action 1: Encourage and guide the students to undertake the final year projects that address societal and environmental issues. Action 2: Adopt green initiatives to sustain the environment through various online platforms like Google Classroom, WordPress sites, and the ERP (Enterprise Resource Planning) system. Action 3: Motivate the students to participate in outreach activities/seminars related to societal and environmental aspects. Action 4: Arrange workshop on making eco-friendly Ganesh idols every year to promote sustainability and environmental responsibility.			
PO 8 : Ethics			
PO 8	1.5	1.38	• The target level has not been achieved. • Need to inculcate technical and societal ethics in students.
Action 1: Conduct an audit course every year on “Leadership and Personality Development” for third-year students to foster ethical leadership and professional ethics. Action 2: Use the iThenticate software to check the plagiarism of final-year student's project reports to promote ethical behavior. Action 3: Conduct a session on intellectual property rights, entrepreneurship and innovation to create awareness about professional ethics. Action 4: Give more emphasis to the Code of Conduct course to help students to understand the expected professional and ethical behavior.			
PO 9 : Individual and Team Work			
PO 9	1.5	1.66	• The target level has been achieved. • Students are able to coordinate and manage projects, seminars and internships individually and in teams.
Action 1: The courses, such as Project, Seminar, Internship, and Project-based learning, helped the students to develop teamwork and individual skill contribution through collaborative activities. Action 2: Guide the students to actively participate in inter-college tech fests and technical competitions to develop leadership and teamwork skills. Action 3: Organize various events under the student association that facilitate students in enhancing their leadership and teamwork abilities. Action 4: Motivate students to get involved in training and placement activity as volunteers.			
PO 10 : Communication			
PO 10	1.5	1.56	• The target level has been achieved. • Students showcase effective communication through multiple activities.
Action 1: Give more emphasis on courses like BCSL to improve communication skills and report writing skills. Action 2: Encourage the students to demonstrate and present their seminar work and project work effectively to showcase their solution to society. Action 3: Conduct the capacity-building program to improve students communication skills essential for lifelong learning and professional growth. Action 4: Conduct the personal and technical interviews of students to prepare students for professional opportunities.			
PO 11 : Project Management and Finance			
PO 11	1.5	1.48	• The target level has not been achieved. • There is a need to enhance the project management skills of students to manage the projects more effectively.
Action 1: Use the project workbooks to track and review projects for better project management and timely completion. Action 2: Give more emphasis on courses like software modeling and architecture and project-based learning to learn project management skills. Action 3: Encourage the students to take technical or research internships to apply engineering and management principles for gaining experience in managing projects and working effectively in teams. Action 4: Motivate the students to complete the industry-relevant courses to learn project management skills.			
PO 12 : Life-long Learning			
PO 12	1.5	1.50	• The target level has been achieved. • The ability of continuous learning demonstrated by students.
Action 1: To inculcate lifelong learning among the students, the program promotes online certification courses. Action 2: Conduct the career counseling sessions to promote lifelong learning. Action 3: Organize the Peer-to-peer training sessions to provide students with career guidance from their peers. Action 4: Arrange alumni sessions to offer career guidance and share experiences to motivate lifelong learning.			

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

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Professional Skills: The ability to understand, analyse and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexities.			
PSO 1	1.5	1.60	• The target level has been achieved. • Students have developed their professional skills aligned with industry needs.
Action 1: Conduct the additional technical certification courses like AWS and Oracle along with the regular curriculum. Action 2: Motivate the students to participate in coding competitions, hackathons, and technical events to enhance their problem-solving and coding skills. Action 3: Conduct the Zensar Employability Skill Development (ESD) industrial training for students to learn professional skills.			
PSO 2 : Problem-Solving Skills: The ability to apply standard practices and strategies in software project development using open-ended programming environments for betterment of society.			
PSO 2	1.5	1.50	• The target level has been achieved. • Students demonstrate foundational problem-solving skills but require more exposure to complex, real-world challenges for further improvement.
Action 1: Encourage the students to solve the complex problems on platforms like HackerRank and LeetCode Action 2: Motivate the students to select societal problems for their project-based learning and final-year projects and apply standard practices and strategies in projects. Action 3: Encourage and support students to participate in Avishkar, Dipex, NES competitions, and the SIH hackathon. Action 4: Encourage the students to solve the societal problems and present their solutions through research papers to promote problem-solving abilities for betterment of society.			
PSO 3 : Successful Career: Empower women with modern computer languages, environments, platforms, communication and leadership skills to build a successful career			
PSO 3	1.5	1.45	• The target level has not been achieved. • Further support and exposure is needed to strengthen student's technical, professional, and leadership skills for career success.
Action 1: Training and Placement Cell continuously work to provide better career opportunities for the students. Action 2: Encourage the students to learn modern engineering and IT tools, resources, and techniques through various technical certification courses. Action 3: Conduct the capacity-building program for second-year students, which helps them to improve their communication skills, lifelong learning, and professional growth. Action 4: Motivate and guide the students to actively participate in inter-college tech fests and technical competitions to develop leadership and teamwork skills for their successful careers. Action 5: Organize career guidance sessions to empower women for higher studies and successful careers.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10) Total Marks 8.00

Institute Marks : 8.00

An academic audit systematically evaluates the departmental processes and strategies to ensure quality assurance and foster continuous improvement. To support the ongoing development of students, faculty, and the department as a whole, focused efforts are undertaken to strengthen the effectiveness of teaching and learning practices.

Objectives of the Academic Audit:

1. To evaluate the quality of teaching and learning practices within the institution.
2. To identify strengths and areas for improvement in academic programs.
3. To ensure academic standards are being met and suggest steps for continuous improvement.

The academic audit is carried out through two practices:

I. Internal Audit
II. External Audit

The acdemic audit is conducted as per the guidelines given by Internal Quality Assurance Cell (IQAC).

I. **Internal Audit**

The Internal Academic Audit is conducted through a structured approach involving various key components that collectively support quality assurance and improvement. Specific audit criteria are formed for different functional units, ensuring a comprehensive evaluation of academic and administrative practices. The assessment criteria, along with mechanism and frequency of conduction are systematically presented in Table 7.2.1

Table 7.2.1: Internal Academic Audit Assessment criteria, mechanism and frequency of conduction

Assessment Criteria of Audit	Conduct Mechanism	Responsible Authority	Frequency of Audit
Academic Calendar audit	• Review of Department Academic Calendar Compliance • Report on Planned and Actual Event Dates	HOD and IQAC	Twice in a semester
Course File Audit	• Verification of contents of course file with respect to contents mentioned in the course file index • Report will be prepared by the auditor for compliance and enhancement	HOD and IQAC	End of semester
Syllabus Completion Audit	• Monitoring the progress of curriculum delivery • Ensuring compliance with the teaching plan • The Guardian faculty member (GFM) prepares the syllabus completion report through course teachers of respective class at the end of every month	GFM, HOD and IQAC Coordinator and Principal	Monthly
Internal Examination Audit	• Assessment of Question Paper Quality • Verification of Questions According to Course Outcomes (CO) and Bloom's Taxonomy (BT) • Acceptance/rejection of paper Based on CO mapping, BT Levels, marking scheme and question paper format.	Internal Evaluation Committee	For every internal Examination (UT1 and UT2)
Laboratory Audit	• Monitoring of Conduction of practical sessions • Practical Completion Report filled in Academic Record Book • Monitoring of Rubrics based/Continuous Assessment of practical work evaluation through ARB and ERP • Checking of Lab attendance register, Lab Manual, Notice boards and sample files	HOD and IQAC	Monthly

Activity Audit	• Report preparation for all activities conducted for students • Audit of Event like Capacity Building, CESA activities,industrial visit etc.	Event coordinator, HOD and IQAC	End of semester
Attendance Monitoring	• The GFM prepares the monthly attendance report. • Submission of all attendance reports to Academic Coordinator. • Preparation of defaulter list and Communicates to the parent regarding the progress of students.	GFM, HOD and IQAC Coordinator and Principal	Monthly
Student Performance	• Performance Analysis of students in the internal examination e.g. Unit Tests • Student Progress report of Unit test submitted to Unit Test In charge • Identification of weak and bright students • Activities conducted for weak and bright students progress.	Course Teacher and Internal Evaluation Committee	After conduction of Unit Test
Faculty mentoring	• Conduction of Faculty Mentoring activity • Recording the mentoring report by mentor	Mentor, HOD and IQAC Coordinator	Three times in a semester
Student mentoring	• Conduction of the student mentoring activity by student mentor • Monitoring the student mentoring activity	Mentor, HOD and IQAC Coordinator	Three times in a semester
Feedback Analysis	• End semester feedback analysis • Analysis of feedback and corrective actions taken	Feedback committee	End of Semester
CO-PO-PSO Attainment	• Questions as per CO • CO PO mapping with curriculum • CO evaluation based on each question and gap identification • Attainment of CO • Attainment of PO • Attainment of PSO	Course Teacher, CO-PO coordinator, HOD and IQAC	End of Semester

The process of continuous improvement is guided by an action plan developed in alignment with the assessment criteria of the academic audit. This plan identifies specific areas for enhancement across teaching, learning, and program operations based on audit findings. The detailed action plan is presented in Table 7.2.2.

Table 7.2.2: Academic Audit report and action plan

Assessment Criteria of Audit	Audit Reports	Action Plan
Academic Calendar audit	Compliance report of Planned and conducted date of the event	If any Event is not conducted according to the scheduled date, the event is rescheduled by the concerned Faculty.
Course File Audit	Course File Audit Report	If any of the Faculty is not able to complete files or any documents, the HoD and IQAC coordinator gives the reminder and gets it done.
Syllabus Completion Audit	Syllabus Completion Report	If any course is lagging in the syllabus coverage as per the course teaching plan, the respective faculty will be personally called and given Suggestions by HoD. They also advised to take extra classes to complete the syllabus within time.

Internal Examination Audit	Question Paper Preparation and Answer Sheet Evaluation Audit Report	Every Faculty prepares the question paper for the assigned course and verified by respective members of Internal Examination Evaluation Committee.The members suggest the modification based on Course Outcomes and Blooms taxonomy.
Laboratory Audit	Practical Completion Report	According to the laboratory work plan coverage, if any laboratory-related asssignment is lagging as per the syllabus, the respective faculty will be personally called and given Suggestions by HoD. They also advised to conduct extra sessions to complete the assignments within time.
Activity Audit	Event Report	If the event report is not completed by Event coordinator then HOD reminds about its completion.
Attendance Monitoring	Class Wise Monthly attendance Preparation of defaulter list	The GFM compiles monthly attendance report for each class and identifies the student having low attendance. At the end of semester parents of such students are informed for a meeting with higher authorities.
Student Performance	Student progress report for internal marks Course wise student progress report	The Retest/Oral is scheduled for failed and absent students in unit test. The status of the same is maintained in the Aacademic Record Book.
Faculty Mentoring	Mentoring activity report	Mentor provides the remarks to the mentee for the smooth and effective conduction of the course. Mentor also provides the guidance on course planning, content delivery, student engagement, and timely assessment to ensure quality teaching and learning outcomes.
Student Mentoring	Mentoring Activity Report	If the mentoring reports are not properly filled out or if any records are incomplete, the Department Mentor Coordinator sends reminders to mentors and gets the work completed.
Feedback Analysis	Analysis of feedback	Faculty are encouraged to improve in the teaching-learning process based on feedback received from students.
CO-PO-PSO Attainment	Observation Report	CO-PO-PSO attainment is observed and the actions are taken for the improvement.

II. External Audit

The external audit of the program is conducted at both the program and institute levels. It is carried out by program-specific External Auditors and members of the Internal Quality Assurance Cell (IQAC). The action plans developed by IQAC aim to continuously update quality parameters for enhancing performance in higher education.

The aspects of external audits include the Annual Quality Assurance Report (AQAR), the Academic and Administrative Audit (AAA) Report for Outcome-Based Practices.

1. AQAR (Annual Quality Assurance Report)

The audit report is prepared at the program level to detail the achievements of the program in different key areas:

- Student and Faculty Performance
- SWOC Analysis

The IQAC collectively prepares the AQAR at the institute level.

The AQAR details:

- The results of the prospective plan worked out by the IQAC.
- The plan of action chalked out by the IQAC at the beginning of the year toward quality enhancement.
- The outcomes achieved by the end of the year.

2. AAA Report (Academic and Administrative Audit)

The AAA is a peer review process that includes a self-study and a site visit by peers from both inside and outside the institution.

The purpose of the academic audit is to:

Encourage programs and the institution to evaluate their quality processes and standards. Use predetermined benchmarks to suggest necessary activities for improving the quality of whole system including curricular and co-curricular programs, activities, infrastructure, and support services.

Audit Process:

Once the audit report is prepared, the external audit team is invited to conduct the AAA.

The external committee conducts the audit in all departments, administrative units, and facilities.

Based on their visit, observations, and discussions with the IQAC Coordinator and the Principal, external team gives remarks on the report.

A detailed plan of action prepared to implement the suggestions in organized manner.

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10) Total Marks 8.00

Institute Marks : 8.00

Analysis of Placement, Higher study and Entrepreneurship:

The year-wise count of placement, higher study and entrepreneur is mentioned in table 7.3.1.

Table 7.3.1: Year-wise count of placement, higher study and entrepreneur

Item	CAYm1 (2023-2024)	CAYm2 (2022-2023)	CAYm3 (2021-2022)
Total No. of Final Year Students	64	65	64
No. of students placed in companies or Government Sector	46	54	59
No. of students admitted to higher studies	02	06	04
No. of students turned entrepreneur in engineering/technology	0	0	1
Total count of placement, higher study and entrepreneur	48	60	64
Percentage	75.00	92.30	100

A. Placement:

To improve student placements, the institute has undertaken several initiatives to strengthen students technical competencies.As a part of these efforts, the institute conducts the Employability Skill Development (ESD) training for third year students through Zensar. Aditionally the institute conducts the mock interviews of final year students to help them to build confidence and improve their communication skills and become better prepared for placement interviews. The institute actively runs several clubs such as aptitude,coding, HR etc. for students, that focuses on building their core skills. Together, these continuous efforts have contributed to qualitative improvements in placement.

- **Core Companies:**

  The year-wise list of of core companies visited and the number of students placed is given in table 7.3.2.

Table 7.3.2: Year-wise list of core companies visited and number of students placed

Academic Year	Number of students placed	Name of industry	Package in LPA	Number of students placed

2023-24	46	ACCENTURE	4.6	1
			4.5	5
		AMDOCS	6.5	1
		BNY Mellon	10.63	2
			9.5	1
		CAPGEMINI	4.25	8
		DASSAULT SYSTEMS	10.6	1
		DELOITTE	4.5	2
		DIGITAL	7	2
			4.29	1
			3.37	1
		FIS	8.71	1
		FLIPKART	7	1
		IBM	4.5	1
		LTIMINDTREE	4	1
		PARKER DIGITAL	4.5	2
		PERSISTENT	5.01	1
		PUBILICIS SUPIENT	4.59	4
		VOIS	5	5
		WESTERN UNION	7.25	5

2022-23	54	ACCENTURE	6.58	1
			4.61	2
			4.60	4
		AMDOCS	6.5	4
		CAPGEMINI	4.25	8
		HURON	4	1
		L&T TECHNOLOGY	4	1
		MINDSTIX	6	1
		NIELSEN IQ	10.38	4
		PERSISTENT	11	1
			5.01	1
		PRINCIPAL GLOBAL SERVICES	3	2
		STANDARD CHARTERED GBS	7.5	7
		STRIDLEY SOLUTION	4	3
		TATA TECHNOLOGY	4.71	1
		TCS	3.37	2
		THOUGHT WORKS	11.10	1
		VOIS	4.75	9
		ZOMATO	7	1

2021-22	59	ACCENTURE	6.5	2
			4.50	5
		AMAZON	8.94	1
		CAPGEMINI	7.5	2
			4.25	5
			4	5
			3.8	1
		EURONET	4.00	1
		FORD MOTER PRIVATE LIMITED	4.97	1
		L&T TECHNOLOGY	4	1
		MERCER	5	1
		MINDSTIX	4.3	1
		MSYS TECHNOLOGIES	4.0	1
		PERSISTENT	4.71	11
		RELIANCE JIO	4.00	1
		STANDARD CHARTERED GBS	7.5	3
		SYNECHRON	4.82	1
		TCS	3.36	2
		VIRTUSA	4.50	1
		VOIS	4.75	7
		WIPRO	5.50	1
			3.50	2
		XORIANT	5.50	2
		ZENSAR	4.06	1

The service-based companies like Accenture, Persistent, Capgemini, and VOIS have shown consistent hiring over the years, indicating trust in students' adaptability and foundational skills. Product-based companies like Dassault Systèmes, NielsenIQ, FIS , Flipkart, etc.are also actively participating in placements, offering valuable opportunities that highlight students' strong technical skills. The presence of both service and product companies highlights students' versatility and readiness for diverse career paths in today's evolving industry.

- **Placement Count, Pay Package and Quality Placement:**

The year-wise placement count, pay package and quality placement are mentioned in table 7.3.3.The placement trends from A.Y. 2021–22 to A.Y. 2023–24 show clear growth in both opportunities and package quality. The number of students receiving highest salary packages has increased, with more students now getting offers above 5 LPA. The minimum and average packages have also improved, showing better opportunities for students. Overall, both the pay package and quality placements have shown clear progress.

Table 7.3.3: Year-wise placement count, pay package and quality placement

Academic Year	No. of final year students	No. of students placed	Placement in percentage	Min Package (LPA)	Average Package (LPA)	Max Package (LPA)	Number of students received highest package	Number of students received package > 5 LPA
2023-24	64	46	71.87	3.37	6.06	10.64	2	20
2022-23	65	54	83.08	3	5.91	11.10	1	21
2021-22	64	59	92.18	3.36	4.92	8.94	1	10

B. Student progression to Higher Studies:

The year-wise student progression to higher studies is represented in table 7.3.4.

Table 7.3.4: The year-wise student progression to higher studies

Academic Year	Number of students admitted to Higher Study
2023-24	2
2022-23	6
2021-22	4

C. Entrepreneur:

The year-wise count of students turned entrepreneur is represented in table 7.3.5.

Table 7.3.5: Year-wise count of students turned entrepreneur

Academic Year	Number of students turned Entrepreneur
2023-24	0
2022-23	0
2021-22	1

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 JEE Examination	No of students admitted	16	7	6
	Opening Score/Rank	92.11	92.31	88.60
	Closing Score/Rank	42.41	52.93	84.72
State/ University/ Level Entrance Examination/ Others MHT-CET	No of students admitted	104	46	51
	Opening Score/Rank	96.17	94.62	94.71
	Closing Score/Rank	9.60	10.58	3.27
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	8	11	8
	Opening Score/Rank	94.51	92.41	92.47
	Closing Score/Rank	85.71	81.26	86.69
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		71	63	70

8 FIRST YEAR ACADEMICS (50)

Total Marks 36.47

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.G.G.Patil	AKDPP1063B	Ph.D	07/09/2015	Physical Education	Assistant Professor	01/07/2020	100	100	100	Yes	Regular	
Dr.M.K.Kapse	AXPPK0292E	Ph.D	30/10/2023	English	Assistant Professor	16/10/2024	100	0	0	Yes	Regular	
Dr.S.S.Khan	DYUPK0818K	Ph.D	26/08/2023	Mathematics	Assistant Professor	05/11/2024	100	0	0	Yes	Regular	
Mr.S.R. Mitkari	ALJPM4479P	M.Sc	26/09/2001	Mathematics	Assistant Professor	02/02/2005	100	100	100	Yes	Regular	
Mr.Y.D.Kute	AWHPK6609C	M.Tech	21/05/2018	Mechanical Engineering	Assistant Professor	03/07/2007	100	100	100	Yes	Regular	
Mrs. D.P. Chop	AIMPC1525E	M.Tech	14/01/2012	Electrical Engineering	Assistant Professor	02/08/2007	100	100	100	Yes	Regular	
Mrs. U.S. Zope	BYBPS8842R	M.Tech	16/10/2015	Mechanical Engineering	Assistant Professor	02/01/2012	100	100	100	Yes	Regular	
Mr.K.B. Naikwa	AJHPN8180A	M.Sc	08/07/2008	Mathematics	Assistant Professor	12/09/2016	100	100	100	Yes	Regular	
Mrs.S.R.God	AFUPV1281P	M.E.	17/12/2005	Civil Engineering	Assistant Professor	17/08/2023	100	100	0	Yes	Regular	
Mr.A.B.Vitekar	ADWPV8474A	M.E.	28/11/2015	Electronics Engineering	Assistant Professor	04/08/2009	100	100	100	Yes	Regular	
Mrs. K.S.Sawa	CBLPS5417B	M.Tech	31/01/2015	Information Technology	Assistant Professor	18/09/2010	100	100	100	Yes	Regular	
Mr.K.S.Aware	CRSPA6167P	M.Tech	13/10/2023	Civil Engineering	Assistant Professor	04/11/2024	100	0	0	Yes	Regular	
Dr. S.S.Jadhav	AFCPA5581R	Ph.D	15/02/2022	Chemistry	Assistant Professor	18/07/2019	100	100	100	Yes	Regular	
Dr.A.Pawar	AIGPP7322L	Ph.D	29/03/2019	Mechanical Engineering	Associate Professor	25/09/2000	100	100	100	Yes	Regular	
Dr.M.A.Patwar	APJPP8841C	M.Sc. (Physics) and Ph.D.	29/11/2024	Physics	Assistant Professor	07/08/2006	100	100	100	Yes	Regular	
Prof.Dr.P.V.Jad	AGKPJ6476H	Ph.D	09/05/2014	Mechanical Engineering	Professor	07/03/2024	100	0	0	Yes	Regular	
Mrs. Bonsale I	DMMPM5181D	M.E.	28/01/2023	Computer Science and Engineering	Assistant Professor	14/10/2024	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)	240	11	22	5
2023-24(CAYm1)	240	12	20	5
2024-25(CAY)	300	17	18	5
Average	260	13	20	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 3.33

Institute Marks : 3.33

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	3	10	12	3.00
2023-24	3	11	12	4.00
2024-25	4	12	15	3.00

Average Assessment: 3.33

8.3 First Year Academic Performance (10) Total Marks 8.14

Institute Marks : 8.14

Academic Performance	2024-25	2023-24	2022-23
Mean of CGPA or mean percentage of all successful students(X)	9.07	8.09	8.73
Total Number of successful students(Y)	57.00	53.00	57.00
Total Number of students appeared in the examination(Z)	60.00	57.00	60.00
API [X*(Y/Z)]	8.62	7.52	8.29

Average API[(AP1+AP2+AP3)/3] : 8.14

Assessment [1.5 * Average API] : 8.14

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

First Year Engineering (2019 Pattern)

[Common to All UG Engineering Programs]

(With effect from Academic Year 2019-20)

Assessment and Attainment Process

Assessment refers to a systematic set of processes undertaken by the institution to identify, collect, and analyze data that evaluates the achievement of **Course Outcomes (COs)** and **Program Outcomes (POs)**. **Attainment** signifies the degree to which students achieve the desired learning outcomes, primarily gauged through academic performance in tests, examinations, and other evaluative tools.

Assessment methods are broadly categorized into **Direct** and **Indirect** approaches. This section focuses on the **Direct Assessment Method**, which provides tangible evidence of student learning by evaluating their performance in unit tests, semester examinations, assignments, and practical assessments. These evaluations are mapped directly to specific COs, which in turn are linked to relevant POs.

Direct Assessment Method

The Direct Assessment Method evaluates the extent to which students achieve COs through continuous assessment tools such as:

- **Internal Assessments** (20% weightage): Unit Tests, Assignments, and other classroom-based evaluations.
- **External Assessments** (80% weightage): University In-Semester and End-Semester Examinations.

Each component is aligned with specific COs. Internal assessments assess student performance via unit-wise tests and assignments, offering insights into their conceptual understanding, technical skills, and communication abilities. Assignments may also include oral components to further evaluate comprehension and articulation.

University examinations are evaluated after result declaration, and the marks obtained in In-Semester (30 marks) and End-Semester (70 marks) are mapped against COs and corresponding POs. The cumulative data offers a quantitative measure of attainment for each course.

Attainment Levels

Course Outcome attainment is calculated based on the percentage of students exceeding a predefined target:

- **Level 1:** ≥ 40% of students score above the set target
- **Level 2:** ≥ 50% of students score above the set target
- **Level 3:** ≥ 60% of students score above the set target

At the beginning of each semester, faculty define the **Course Set Target** based on the average marks of all students. If the **Course Attainment** meets or exceeds this target, the course is considered **Attained**; otherwise, it is marked as **Not Attained**, prompting identification of improvement areas and the formulation of an **Action Plan**.

Corrective Measures for Non-Attainment of COs and POs

When CO and/or PO attainment targets are not met, the following corrective actions are initiated:

1. **Revision of Teaching Methodologies**
   Instructional strategies are evaluated and improved to better align with COs and support effective student learning.
2. **Improvement of Assessment Tools**
   Assessment methods are reviewed to ensure they accurately measure student performance with respect to the intended outcomes.
3. **Faculty Development Initiatives**
   Faculty members are encouraged to participate in Faculty Development Programs to enhance teaching effectiveness and promote adoption of innovative pedagogical techniques.
4. **Enhancement of Learning Resources**
   Academic materials and digital content are updated or expanded to provide comprehensive support for student learning.
5. **Strengthening Student Support Services**
   Additional mentoring, remedial classes, and counseling are offered to assist students in meeting the expected COs and POs.

These actions aim to continuously improve educational quality and ensure that students achieve the desired graduate attributes.

Structure of Direct Assessment Implementation

The continuous internal evaluation is structured as follows:

- **Unit Test I** (30 marks) covers Units 1 and 2.
- **Unit Test II** (30 marks) covers Units 4 and 5.
- **Assignment I** (15 marks) evaluates Unit 3.
- **Assignment II** (15 marks) evaluates Unit 6.

Assignments are designed to promote self-learning and are assessed not just on written content but also through **oral examinations**, focusing on comprehension, communication, and technical knowledge.

For university examinations:

- **In-Semester Exam** (30 marks) covers the first two units.
- **End-Semester Exam** (70 marks) covers the remaining four units.

Final grades and marks are published in the university mark sheet, as per the defined **university evaluation scheme** (refer to Table 8.4.1.1).

Table 8.4.1.1: University marks scheme

Marks Range	Grade Points	Grade	
90-100	10	O	Outstanding
80-89	9	A	Very Good
70-79	8	B	Good
60-69	7	C	Fair
50-59	6	D	Average
40-49	5	E	Below Average
Below 40	0	F	Fail
FX	Detained, Repeat the Course		
IC	Incomplete- Absent for Exam but continue for course		
AC	Audit Course Completed		
ACN	Audit Course Not Completed		

Theory Course Performance – University Assessment

The University Examination scheme has two examinations, first is In-semester examination for 30Marks with 1 hr. duration and an End-semester examination for 70 Marks of 2 and a half hr duration. All the COs are distributed as shown in Table 8.4.1.2

Table 8.4.1.2: Distribution of COs for University Theory Exam

Assessment Tool	CO1	CO2	CO3	CO4	CO5	CO6
University Theory In semester Exam	15%	15%				
University Theory End semester Exam			18%	17%	18%	17%

Theory Course Performance – Internal Assessment

Internal Assessment performance is calculated based on the marks scored by the student in Unit Test-I (30), Unit Test-II (30), and Assignment. Assignment is given for each unit and all subjects for self-learning. The COs are distributed as shown in Table 8.4.1.3

Table 8.4.1.3 Distribution % of COs (Theory)

Assessment Tool	CO1	CO2	CO3	CO4	CO5	CO6
Unit Test – I	15%	15%				
Unit Test - II				20%	20%	
Assignment I			15%			
Assignment II						15%

The overall Percentage Distribution for assessing COs based on Internal assessment tests for theory subjects is shown in Table 8.4.1.4

Table 8.4.1.4 Distribution % of Assessment Methods (Theory)

Assessment Tool	UT - I	UT - II	Assignment - I	Assignment -II
% Distribution	30%	40%	15%	15%

Lab Performance: Internal Assessment

During the Laboratory session, the student practically performs all the experiments with the help of various equipment’s and software to enrich their knowledge in various domains. The students maintain the observations and practical notebook for each Laboratory course which reflects their work during the laboratory session and verified by the respective subject teacher. Lab assessment is carried out on continuous basis and record is maintained in the Academic Record Book.

National Education Policy (NEP)-2020 Compliant Curriculum

First Year Engineering (2024 Pattern)

[Common to All UG Engineering Programs]

(With effect from Academic Year 2024-25)

Guidelines for Examination Scheme

Theory Examination: The theory examination shall be conducted in two different parts Comprehensive Continuous Evaluation (CCE) and End-Semester Examination (ESE).

Internal Evaluation Comprehensive Continuous Evaluation (CCE) of 30 marks

University Evaluation End-Semester Examination (ESE) of 70 marks

Comprehensive Continuous Evaluation (CCE)

Comprehensive Continuous Evaluation (CCE) of 30 marks based on all the Units of course syllabus to be scheduled and conducted at Department level. To design a Comprehensive Continuous Evaluation (CCE**)** scheme for a theory subject of 30 marks with the specified parameters, the allocation of marks and the structure can be detailed as follows:

Table 8.4.1.5 Distribution of Assessment Marks

Sr.	Parameters	Marks	Coverage of Units
1.	Unit Test	12 Marks	Units 1 & Unit 2 (6 Marks/Unit)
2.	Assignments / Case Study	12 Marks	Units 3 & Unit 4 (6 Marks/Unit)
3.	Seminar Presentation / Open Book Test/ Quiz	06 Marks	Unit 5

Table 8.4.1.6 Distribution % of COs CCE (Theory)

Assessment Tool	CO1	CO2	CO3	CO4	CO5
Unit Test – I	6%	6%			
Assignment I			6%		
Assignment II				6%	
Seminar Presentation / Open Book Test/ Quiz					6%

Format and Implementation of Comprehensive Continuous Evaluation (CCE)

Unit Test:

Format: Questions designed as per Blooms Taxonomy guidelines to assess various cognitive levels (Remember, Understand, Apply, Analyze, Evaluate, Create).

Implementation: Schedule the test after completing Units 1 and 2. Ensure the question paper is balanced and covers key concepts and applications.

Sample Question Distribution:

- Remembering (2 Marks): Define key terms related to [Topic from Units 1 and 2].
- Understanding (2 Marks): Explain the principle of [Concept] in [Context].
- Applying (2 Marks): Demonstrate how [Concept] can be used in [Scenario].
- Analyzing (3 Marks): Compare & contrast [Two related concepts] from Units 1 and 2.
- Evaluating (3 Marks): Evaluate the effectiveness of [Theory/Model] in [Situation].

Assignments / Case Study:

Students should submit one assignment or one Case Study Report based on Unit 3 and one assignment or one Case Study Report based on Unit 4.

Format: Problem-solving tasks, theoretical questions, practical exercises, or case studies that require in-depth analysis and application of concepts.

Implementation: Distribute the assignments or case study after covering Units 3 and 4. Provide clear guidelines and a rubric for evaluation.

Seminar Presentation:

Seminar Presentation Format:

- Oral presentation on a topic from Unit 5, followed by a Q&A session.
- Deliverables: Presentation slides, a summary report in 2 to 3 pages, and performance during the presentation.

Implementation: Schedule the seminar presentations towards the end of the course. Provide students with ample time to prepare and offer guidance on presentation skills.

Open Book Test:

Format: Analytical and application-based questions to assess depth of understanding.

Implementation: Schedule the open book test towards the end of the course, ensuring it covers critical aspects of Unit 5.

Quiz :

Format: Quizzes can help your students practice existing knowledge while stimulating interest in learning about new topic in that course. You can set your quizzes to be completed individually or in small groups.

Implementation: Online tools and software can be used create quiz. Each quiz is made up of a variety of question types including multiple choice, missing words, true or false etc

End-Semester Examination (ESE)

End-Semester Examination (ESE) of 70 marks written theory examination based on all the unit of course syllabus scheduled by university. Question papers will be sent by the University through QPD (Question Paper Delivery). University will schedule and conduct ESE at the end of the semester.

Question Paper Design

Below structure is to be followed to design an End-Semester Examination (ESE) for a theory subject of 70 marks on all 5 units of the syllabus with questions set as per Blooms Taxonomy guidelines and 14 marks allocated per unit.

Balanced Coverage: Ensure balanced coverage of all units with questions that assess different cognitive levels of Blooms Taxonomy: Remember, Understand, Apply, Analyze, Evaluate, and Create. The questions should be structured to cover:

- Remembering: Basic recall of facts and concepts.
- Understanding: Explanation of ideas or concepts.

- Applying: Use of information in new situations.
- Analyzing: Drawing connections among ideas.
- Evaluating: Justifying a decision or course of action.
- Creating: Producing new or original work (if applicable).

Detailed Scheme: Unit-Wise Allocation (14 Marks per Unit): Each unit will have a combination of questions designed to assess different cognitive levels. By following this scheme, you can ensure a comprehensive and fair assessment of students understanding and application of the course material, adhering to Blooms Taxonomy guidelines for cognitive skills evaluation.

Table 8.4.1.7 Distribution % of COs ESE (Theory)

Assessment Tool	CO1	CO2	CO3	CO4	CO5
ESE	14%	14%	14%	14%	14%

Guidelines for Term Work Evaluation

Term Work assessment shall be conducted for the theory courses, lab practical, VSE, IKS, AEC and CCC assignments submitted in journal form. Term work is continuous assessment based on work done, submission of work in the form of report/journal, timely completion, attendance, and understanding.

It should be assessed by subject teacher of the institute and the final grade for a Term Work shall be assigned based on the performance of the student and is to be submitted to the Savitribai Phule Pune University (SPPU) at the end of the semester.

Evaluation Criteria:

Completeness (20%): All practical assignments are included, completed, and properly labeled. Reflective entries are present for each practical assignment.

Quality of Work (40%): Practical assignments are completed with a high level of accuracy and thoroughness. Demonstrates a strong understanding of practical techniques and principles. Reflective entries provide meaningful insights into the learning process.

Organization (20%): The journal is well-organized and easy to navigate. Practical assignments and reflections are clearly labeled and ordered chronologically. Supplementary materials are appropriately linked and referenced.

Presentation (10%): The journal is neatly presented and free of spelling and grammatical errors. Includes a cover page with the students name, course title, and submission date. Utilizes a consistent format and style throughout.

Creativity and Engagement (10%): Demonstrates creativity in approach and presentation. Engages deeply with the practical work, going beyond surface-level understanding. Shows evidence of critical thinking and personal engagement with the assignments.

Table 8.4.1.8 Distribution % of COs TW (Practical/Tutorial)

Assessment Tool	CO1	CO2	CO3	CO4	CO5
TW/PR/Tutorial	20%	20%	20%	20%	20%

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

Institute Marks : 5.00

Justification for Setting CO Attainment Target Levels

The Course Outcome (CO) attainment target levels were set as:

- **1.5 for 2021–22**
- **1.6 for 2022–23**
- **1.7 for 2023–24**

These targets were decided based on the following reasons:

1. **Based on Past Performance:**
   The target of 1.5 was set in 2021–22 by looking at the average performance of students in previous years. It was a realistic starting point.
2. **Gradual Improvement:**
   To improve the quality of teaching and learning each year, we increased the target slightly. This helps faculty to focus more on student learning and take steps like giving better study materials and extra support.
3. **Continuous Improvement:**
   This step-by-step increase helps the institute improve steadily over time. It encourages teachers and students to do better each year.

The attainment level for each course is determined by the respective faculty member. For all first-year subjects in the academic years 2021–22, 2022–23, and 2023–24, Course Outcome (CO) attainment has been evaluated using a weighted system: 80% from university examination performance and 20% from internal assessment tests.

Table 8.4.2.1 Attainment of Course Outcomes (AY 2023-24)

Course Code NBA	Subject code	Subject name	Target Level for CO Attainment	Total CO Attainment	Remarks
C1101	107001	Engineering Mathematics-I	1.7	2.37	Attained
C1102P	107002	Engineering Physics	1.7	2.40	Attained
C1102C	107009	Engineering Chemistry	1.7	2.44	Attained
C1103	102003	Systems in Mechanical Engineering	1.7	2.17	Attained
C1104EE	103004	Basic Electrical Engineering	1.7	2.44	Attained
C1104EX	104010	Basic Electronics Engineering	1.7	2.41	Attained
C1105P	110005	Programming and Problem Solving	1.7	2.2	Attained
C1105E	101011	Engineering Mechanics	1.7	2.13	Attained

C1201	107008	Engineering Mathematics-II	1.7	1.88	Attained
C1205	102012	Engineering Graphics	1.7	3	Attained
C1106	111006	Workshop	1.7	3	Attained
C1206	110013	Project Based Learning	1.7	3	Attained

Table 8.4.2.2 Attainment of Course Outcomes (AY 2022-23)

Course Code NBA	Subject code	Subject name	Target Level for CO Attainment	Total CO Attainment	Remarks
C1101	107001	Engineering Mathematics-I	1.6	2.34	Attained
C1102P	107002	Engineering Physics	1.6	2.10	Attained
C1102C	107009	Engineering Chemistry	1.6	2.37	Attained
C1103	102003	Systems in Mechanical Engineering	1.6	2.19	Attained
C1104EE	103004	Basic Electrical Engineering	1.6	2.40	Attained
C1104EX	104010	Basic Electronics Engineering	1.6	2.03	Attained
C1105P	110005	Programming and Problem Solving	1.6	1.8	Attained

C1105E	101011	Engineering Mechanics	1.6	2.11	Attained
C1201	107008	Engineering Mathematics-II	1.6	2.17	Attained
C1205	102012	Engineering Graphics	1.6	3	Attained
C1106	111006	Workshop	1.6	3	Attained
C1206	110013	Project Based Learning	1.6	3	Attained

Table 8.4.2.3 Attainment of Course Outcomes (AY 2021-22)

Course Code NBA	Subject code	Subject name	Target Level for CO Attainment	Total CO Attainment	Remarks
C1101	107001	Engineering Mathematics-I	1.5	2.37	Attained
C1102P	107002	Engineering Physics	1.5	1.80	Attained
C1102C	107009	Engineering Chemistry	1.5	2.4	Attained
C1103	102003	Systems in Mechanical Engineering	1.5	2.37	Attained
C1104EE	103004	Basic Electrical Engineering	1.5	2.44	Attained
C1104EX	104010	Basic Electronics Engineering	1.5	2.31	Attained
C1105P	110005	Programming and Problem Solving	1.5	2.4	Attained

C1105E	101011	Engineering Mechanics	1.5	2.40	Attained
C1201	107008	Engineering Mathematics-II	1.5	1.87	Attained
C1205	102012	Engineering Graphics	1.5	2.9	Attained
C1106	111006	Workshop	1.5	3	Attained
C1206	110013	Project Based Learning	1.5	3	Attained

8.5 Attainment of Program Outcomes from first year courses (20) Total Marks 10.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15) Institute Marks : 5.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C1101	2.37	2.37	PO3	1.58	1.58	PO6	PO7	PO8	PO9	0.79	PO11	0.79
C1102P	2.4	1.6	1.6	2.4	1.92	PO6	PO7	PO8	2.4	1.60	PO11	1.60
C1102C	2.4	2	1.5	PO4	1.4	2.4	1.2	PO8	1.5	1.6	PO11	0.8
C1103	2.17	1.69	1.16	0.87	0.72	1.45	1.3	PO8	PO9	0.72	PO11	0.72
C1104EE	2.17	1.62	1.62	1.62	PO5	1.62	PO7	PO8	0.81	0.81	PO11	1.22
C1104EX	2.41	1.47	1.34	PO4	1.21	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C1105P	1.47	1.47	1.34	1.47	1.47	PO6	PO7	PO8	0.92	1.47	PO11	1.47
C1105E	2.13	2.13	1.18	0.71	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C1201	1.88	1.88	PO3	1.25	1.25	PO6	PO7	PO8	PO9	0.63	PO11	0.63
C1205	3	2	1.5	PO4	2.17	1.33	PO7	PO8	PO9	1.67	PO11	PO12
C1106	3	1	3	PO4	PO5	3	PO7	1	2	PO10	PO11	2
C1206	3	2	2.75	2.75	2.75	2.25	2.25	2.25	3	2.5	2.25	3

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.37	1.77	1.70	1.58	1.61	2.01	1.58	1.62	1.77	1.31	2.25	1.36
CO Attainment	2.37	1.77	1.70	1.58	1.61	2.01	1.58	1.62	1.77	1.31	2.25	1.36

PSOs Attainment:

Course	PSO1	PSO2	PSO3
	PSO1	PSO2	PSO3

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	1.5	2.37	Attainment is good but still 21.33% below ideal. CO-PO mapping is moderate; deeper lab integration recommended.
Action Taken: Action 1. Extra practice sessions arranged for difficult topics. Action 2. Collaborative learning strategies such as Think-Pair-Share were implemented during key conceptual discussions to promote peer interaction, critical thinking, and deeper understanding of the subject matter.			
PO 2 : Problem Analysis			
PO 2	1.5	1.77	Attainment is above target, but 41% below ideal. Scope exists for deeper conceptual and analytical training.
Action Taken: Action 1. Explained real-world use of science in class. Action 2. Used simple models to explain key concepts.			
PO 3 : Design/development of Solutions			
PO 3	1.5	1.70	Attainment is slightly above target. Still 43.67% below ideal. Design-thinking needs reformed.
Action Taken: Action 1. Group activities included in tutorials. Action 2. Extra examples solved during lab sessions.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.5	1.58	Attainment is barely above target. Moderate mapping. Project -based learning needs enhancement.
Action Taken: Action 1. Small group projects introduced. Action 2. Students asked to present simple solutions to problems.			
PO 5 : Modern Tool Usage			
PO 5	1.5	1.61	Target attained. Still 46.33 % below ideal. Moderate mapping. Additional hands-on tool practice needed.
Action Taken: Action 1. Basic design tasks given as assignments. Action 2. Encouraged students to explain their logic. Action 3. Encouraged students to work with Virtual Lab by IIT Bombay and Amrita University			
PO 6 : The Engineer and Society			
PO 6	1.5	2.01	Attainment is good but still 34% below ideal. CO-PO mapping is moderate; Community projects may help bridge gap.
Action Taken: Action 1. Regular mentor meetings conducted. Action2. Students guided to take part in social activities.			
PO 7 : Environment and Sustainability			
PO 7	1.5	1.58	Attainment is barely above target. 47.33% below ideal. More experiential learning needed.
Action Taken: Action 1. Poster-making on environment awareness conducted. Action 2. Classroom discussion on sustainable habits.			
PO 8 : Ethics			
PO 8	1.5	1.62	Attainment is above target but 46% below ideal. More focuss on Case studies is needed.
Action Taken: Action 1.Discussed basic workplace practices in class.			
PO 9 : Individual and Team Work			
PO 9	1.5	1.77	Attainment is Moderately achieved but below 41% from ideal. Peer assessment or structured group tasks could help.

Action Taken: Action 1. Students were actively encouraged to participate in NSS activities to develop a sense of social responsibility. Action 2. Students were motivated to contribute as volunteers during institutional and community events, enhancing their teamwork and organizational skills.			

PO 10 : Communication

PO 10	1.5	1.31	Target not attained. 56.33% below ideal. Communication needs strong integration and tracking.
Action Taken: Action 1.Commumication skills are encouraged. Action 2.Group discussions encouraged. Action 3. Basic tips for presentations shared.			

PO 11 : Project Management and Finance

PO 11	1.5	2.25	Though attainment is good ; still 25% below from ideal. Integrating budgeting and real planning exercises for carrying out Mini Projects is needed.
Action Taken: Action 1. Students motivated to join coding or idea competitions Action 2. Simple team activities held in class.			

PO 12 : Life-long Learning

PO 12	1.5	1.36	Target not attained. 54.33% gap from ideal. Need for structured self-learning modules.
Action Taken: Action 1. Introduced students to professional bodies like IEEE. Action 2. Motivated students to read Journal articles, Technical magazines.			

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

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Professional Skills: The ability to understand, analyse and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexities.			
PSO 1			
PSO 2 : Problem-Solving Skills: The ability to apply standard practices and strategies in software project development using open-ended programming environments for betterment of society.			
PSO 2			
PSO 3 : Successful Career: Empower women with modern computer languages, environments, platforms, communication and leadership skills to build a successful career			
PSO 3			

9 STUDENT SUPPORT SYSTEMS (50) Total Marks 44.00

9.1 Mentoring system to help at individual level (5) Total Marks 4.00

Institute Marks : 4.00

A mentoring relationship is established to support students in developing their skills, expanding their knowledge, and fostering personal and professional growth. Our students come from various parts of Maharashtra also from India, often residing far from home. So, they require consistent mentoring and counseling support, both on a personal and professional level. To address this, each faculty member is assigned as a mentor to a group of 20 to 25 students and the meetings conducted thrice in a semester. Additionally, a **Guardian Faculty Member (GFM)** is appointed for each class to ensure the smooth conduct of academic activities.

The institute has implemented a robust and effective mentoring system designed to assist students in multiple domains—**coursework, laboratory work, professional guidance, career advancement**, and a**ll-round Development**. This mentoring is provided by the **Principal**, **Heads of Departments (HODs)**, **Guardian Faculty Members (GFMs)**, **Course Coordinators**, and other **professional experts**.

Role of the Principal

The Principal addresses students at the beginning of first year, introducing them to academic procedures, available campus facilities, and the curriculum's relevance in the current industrial and societal context. During this session, stakeholders such as alumni and employers are also introduced to inspire students and align them with real-world expectations. The Principal remains accessible to students for academic concerns or facility-related issues via email, SMS, or in-person meetings. Regular updates about important events, academic performance, attendance, and examination schedules are communicated through notices. The Principal holds weekly meetings with the Heads of Departments (HODs), during which he also reviews students' performance in exams and their attendance.

Role of Vice Principal

The Vice Principal plays a pivotal role in ensuring the effectiveness of the student mentoring system. They act as a bridge between the Principal and academic departments, monitoring the mentoring activities across all levels. The Vice Principal regularly reviews reports from HODs, Guardian Faculty Members (GFMs), and Course Coordinators to ensure timely resolution of student concerns related to academics, discipline, or personal issues. They also help design strategies to improve the mentoring framework, address escalated student grievances, and ensure smooth coordination between faculty and administrative units for student support. Through periodic meetings and feedback mechanisms, the Vice Principal ensures that student development remains a continuous and focused priority.

Internal Quality Assurance Cell

IQAC plays a strategic role in enhancing the effectiveness and quality of student mentoring. They ensure that the mentoring system aligns with institutional objectives and quality benchmarks set by accreditation. The coordinator monitors the planning, implementation, and documentation of mentoring activities across departments. They collect feedback from students and mentors to assess the impact of mentoring and recommend improvements. By conducting awareness sessions through Anti-ragging, ICC and SGRC cells, the IQAC Coordinator ensures that mentoring contributes to the overall academic, emotional, and professional development of students in a systematic and measurable manner.

Role of the Head of Department (HOD)

HOD's meets with students, accompanied by the GFM. These meetings provide a platform for students to voice concerns regarding academics, discipline, or infrastructural facilities. The HOD takes necessary action or escalates the matter to the Principal, if required. HODs also communicate essential information through instructions, notices and online platform.

Role of the Guardian Faculty Member (GFM)

GFM is a Guardian faculty member of a particular class who plays an important role in mentoring of students. GFM also acts as mediator between student and parents.

Objectives of GFM:

1. To bridge the gap between the students, faculty and parents.
2. To monitor the academic involvement & progress of students.
3. To solve issues faced by the students & address their grievances.
4. To communicate with the wards parents & provide necessary counseling.
5. To enlighten students on professional ethics & conduct.

- **Responsibilities of a GFM:**
- Ensuring timely conduct of lectures and practical sessions, arranging substitutes when faculty are on leave.
- Holding regular meetings with students to discuss academic or personal issues.
- Identifying students with low attendance and offering guidance.
- Maintaining regular communication through calls, WhatsApp, and emails.
- Assisting with administrative processes, academic grievances, and personal matters.
- Promote the students to participate in co-curricular & extra- curricular activities for their all-round development as well as competitive examinations for their further studies.
- Staying in touch with parents to discuss student progress.

- Providing support during medical emergencies and offering motivation for academic success.

Types of Mentoring

- **Professional Guidance**

Each department has a Training and Placement Coordinator who works in coordination with the central Training and Placement Cell to connect with the students. Seminars and workshops are conducted to keep students informed about current industry trends and to equip them with essential skills. Industry experts, HR managers, technical experts interact with the students in online or offline mode for providing professional guidance. AWS academy and Oracle academy industry experts provide company specific professional guidance by conducting workshops, seminars and certification courses at the institute level. Faculty members also guide students on emerging areas such as startups, entrepreneurship, and innovations in various industries through various courses taught in the curriculum such as Project Management, Digital Marketing, Innovation & Entrepreneurship, Digital Business Management etc.

- **Career Advancement**

Institute has an exclusive Career Guidance cell to support students in their higher education and career goals. Guest lectures and seminars of eminent speakers are organized to conduct sessions such as GATE, GRE, TOEFL, entrepreneurship, and competitive exams. Many of these initiatives are also conducted through active student chapters at the departmental level. Students are motivated to undertake projects, write technical papers for conferences and journals, and participate in various technical competitions.

- **Coursework-Specific Mentoring**

Coursework-specific mentoring focuses on supporting students in understanding and excelling in their academic subjects. Faculty members play a key role in this by teaching both theory and practical of the syllabus. They assist students in resolving doubts, guide them in solving question papers, and help them prepare for internal assessments and oral examinations. Remedial lectures and practical are conducted by the course teacher for better understanding of the concept, topics and experiments of the respective course. Additionally, course teacher takes feedback in regular classes for continuously improving the teaching-learning process.

- **Laboratory-Specific Mentoring**

For laboratory sessions, each faculty member is assigned a batch of students from particular class. The laboratory manuals are prepared to give instructions and procedures for conducting the laboratory experiments. Continuous assessment is carried out for maintaining discipline, punctuality and regularity. Faculty help students to understand experimental setups, conduct experiments, and address queries specific to lab work. Feedback is taken about the understanding of assignment/experiment. Special attention is given towards slow learners while performing the laboratory experiments. Tutorials are discussed in groups so that the queries are resolved.

- **All-round Development**

The institute promotes holistic development by encouraging students to participate in various social clubs that enhance both interpersonal and intrapersonal skills. Opportunities are provided for organizing and engaging in sports activities, while the annual national-level technical and cultural festival fosters creativity, leadership, and teamwork. Students are also motivated to contribute articles, poems, and both technical and non-technical content to the college magazine.

The **National Service Scheme (NSS)** plays a vital role in shaping students personalities through community service, inspiring them to take part in social initiatives that build responsibility, discipline, and a spirit of national integration. Under the **Student Development Section (SDO)**, the institute organizes self-defense workshops and gender sensitization seminars. Additionally, students are encouraged to benefit from the Earn and Learn Scheme to support their education financially while gaining practical experience. Internal complaint committee, Anti-ragging committee, Grievances committee are constituted at the institute level to support the students.

- **Faculty as a Mentor**

Each class has three batches. One faculty is assigned as a student mentor for each batch. Faculty member conducts batch-wise mentoring. There are three mentoring meetings as per academic calendar in a semester. Students issues are discussed in meetings, and staff members offer advice to students with their coursework, extracurricular activities, and co-curricular. Attendance, Unit test performance, family and personal issues, issues related to hostel food and facilities, payment of college and examination fees, remedial actions etc. are the points of discussion in the meetings. Students propose actions to be taken for improvement in the teaching learning process and other support facilities. These suggestions are conveyed to the appropriate level of authority for further necessary action.

- **Mentor Mentee Ratio department wise:**

Department Name: Computer Engg.

Table 9.1.3 Faculty Mentor: Student Mentee Ratio

Academic Year	Class	Number of Students	Total Students	Number of Faculty	No. of students per mentor
2024-25	SE	76	220	11	20
	TE	69			
	BE	75			

2023-24	SE	74	230	11	20.9
	TE	76			
	BE	80			
2022-23	SE	77	241	12	20
	TE	80			
	BE	84			
Average Faculty Mentor : Student Mentee Ratio					**1: 20**

Academic Year 2024-2025, TERM-I

Department of Computer Engineering

Mentor-Mentee Allotment

Table 9.1.2 Mentor List 2024-25 Sem I

Sr. No	Class	Batch	Name of Faculty	Number of Students
1	SE COMP	A	Prof. K.S.Warke	22
2		B	Prof.K.D.Yesugade	22
3		C	Prof. J.D. Jadhav	23
4		D	Prof. D. D. Pukale	9
5	TE COMP	A	Prof.V.D.Kulkarni	23
6		B	Prof. P. D. Kale	23
7		C	Prof. S. A. Karande	23
8		D	Prof. Dr.S. A. Pawar	22
9	BE COMP	A	Prof. Dr.S. A. Pawar	22
10		B	Prof. A. P. Kadam	22
11		C	Prof. Dr. S. P.Kadam	23
12		D	Prof. D. D. Pukale	9

Academic Year 2023-2024, TERM-II

Department of Computer Engineering

Mentor-Mentee Allotment

Table 9.1.3 Mentor List 2024-25 Sem II

Sr. No	Class	Batch	Name of Faculty	Number of Students

1	SE COMP	A	Prof. K.S.Warke	22
2		B	Prof.K.D.Yesugade	22
3		C	Prof. J.D. Jadhav	23
4		D	Prof. D. D. Pukale	9
5	TE COMP	A	Prof.V.D.Kulkarni	23
6		B	Prof. P. D. Kale	23
7		C	Prof. S. A. Karande	23
8		D	Prof. Dr.S. A. Pawar	22
9	BE COMP	A	Prof. Dr.S. A. Pawar	22
10		B	Prof. A. P. Kadam	22
11		C	Prof. Dr. S. P.Kadam	23
12		D	Prof. D. D. Pukale	9

9.2 Feedback analysis and reward /corrective measures taken, if any (10) Total Marks 9.00

Institute Marks : 9.00

YES, feedback is collected for all courses.

For every course, student input is gathered once every semester. Over 90 percent of students participate in the feedback. At the conclusion of specific study modules, students receive an email invitation with a link to a quick online feedback form. Over the course of a single academic year, this process takes place every six months. As per the institute academic calendar at the conclusion of each odd or even semester in a respective academic year, the student feedback process is carried out.

The following concerns are the main emphasis of the student feedback form:

1. Basic questions related to the study unit
2. A comparison between the description of the study unit and its actual delivery
3. Methodology for delivering lectures
4. Qualities of lecturers
5. Assessment technique
6. Administration and resources
7. Extra remarks (if any)

- **Effectiveness of feedback**

1. To give students a chance to offer feedback on the caliber of educational experiences, as needed in advance of and during review procedures
2. To evaluate the effectiveness of instructional offerings in light of students expectations
3. To offer input to enhance the study units content and/or delivery.
4. To Improve teaching learning process
5. To Improve CO-PO attainment

- **The Types of stakeholder's feedback collected are as follows:**

1. Student's Feedback Form
2. Parent's Feedback form
3. Course Feedback Form
4. Employers Feedback Form
5. Alumni Feedback Form
6. Graduate Exit Survey
7. External Examiner Feedback
8. External internship Mentor feedback

9 Workshop/ seminar/ activity feedback

Feedback Process –

The Institute is committed to maintaining a robust feedback mechanism involving various stakeholders. The centralized feedback committee collects feedback from students, teachers, parents, alumni, and employers to enhance the overall development of the institution. Key aspects of the feedback process include:

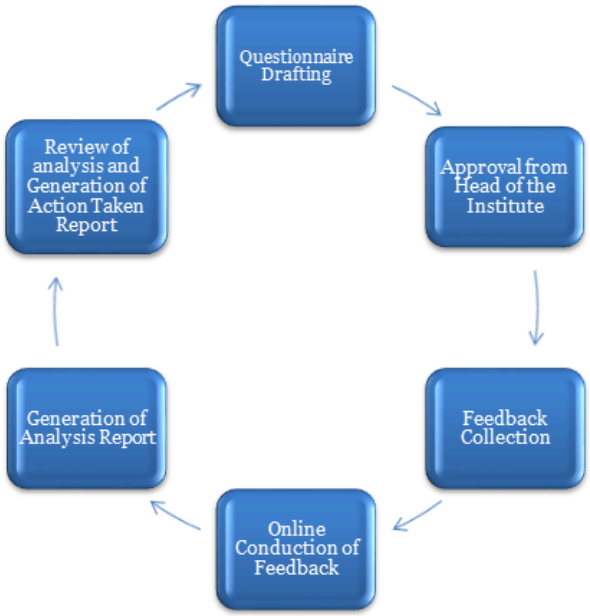


Figure 9.2.1: Institute Feedback Process

- **Questionnaire Drafting**

Drafting of questionnaires for feedback involves meticulous formulation of questions based on mapping of program outcomes (Pos) and perspectives from stakeholders, with a focus on areas identified for improvement. This process adheres to NAAC guidelines, ensuring questions are structured to align with institutional goals.

- **Approval from the Head of the Institute**

Approval from the Head of the institute further ensures that the feedback collection process facilitates comprehensive insights from stakeholders, contributing to continuous enhancement and compliance with accreditation standards.

- **Feedback Collection**

Feedback is collected through different methods over the years to ensure maximum participation and accurate data gathering.

2018-2019 to 2021-2022: Methods Used: Feedback was gathered via Google Forms.

Organization: Stakeholders were managed through Google Groups for efficient communication and distribution of forms.

2022-2023 Onwards: The new feedback collection approach utilizes the Institutes ERP portal, "vmedulife," where faculty and students log in to submit feedback on educational aspects. Employers, alumni, and other stakeholders provide feedback through external links generated from the "vmedulife" portal. This transition enhances data management, accessibility, and participation, facilitating comprehensive insights for continuous institutional improvement.

- **Generation of Analysis Report**:

Upon collection, the feedback will undergo analysis, utilizing appropriate statistical methods tailored to each stakeholder group. Results will be presented graphically to enhance clarity and understanding, aligning with the mode of data collection (offline or online).

- **Review of analysis and Generation of Action Taken Report**

Analysis results are reviewed by committees such as IQAC, DAB, and PAC. Meetings with faculty, staff, and administration are held to discuss findings and necessary actions.

- **Action Planning:**

Action plans are developed based on the review. Responsibilities are assigned to relevant individuals or departments.

- **Implementation of Actions:**

Actions such as additional classes, career programs, and the incorporation of modern pedagogical tools are implemented. Regular monitoring ensures proper implementation. Actions are monitored and documented.

- **Reporting and Feedback Loop:**

Outcomes are reported to stakeholders. Stakeholder feedback is collected for future planning and continuous improvement. This systematic approach ensures effective utilization of feedback for continuous improvement in academic and administrative practices**.**

- **Basis of reward / corrective/remedial measures for feedback on faculty by students**

From the Academic year 2024 -2025 institute has decided, faculty members graded above 90% will receive a certificate of appreciation and a token of recognition for each course. Those graded below 90% will be individually counselled by the HOD/Principal and advised to seek assistance from senior faculty, attend refresher/orientation courses, observe senior faculty classes, watch relevant instructional videos, and interact with peers, students, and alumni to identify and address weak areas. However, faculty may opt to withdraw from the subject for one semester for thorough preparation and improvement. This iterative process is designed to enhance teaching quality**.**

TYPES OF FEEDBACK

Feedback mechanisms are integral in maintaining and enhancing the quality of academic and administrative processes in educational institutions. At our institute, a structured and comprehensive feedback system has been implemented to gather insights from various stakeholders, including students, faculty, alumni, employers, and parents. This system ensures continuous improvement and alignment with stakeholder expectations, contributing to the institutions overall quality and effectiveness. The following types of feedback are collected:

1. **Academic Performance and Institution Ambience Feedback:**

Collected annually from teachers, students, alumni, and employers to assess and improve the academic environment and overall institutional atmosphere. This feedback is initiated from academic year 22-23

2. **Faculty Feedback by Students:**

Conducted at the end of every semester to enhance the teaching-learning process. Students provide feedback on faculty performance, which is crucial for identifying areas of improvement.

Title: BVCOEW-Faculty Feedback A.Y. 24-25-Computer Dept

Name of faculty: Prof. P.D.Kale Subject : DSBDA

Class : TE Computer

Table 9.2.1 Questionnaire for Faculty Feedback

Q. No.	Questions	Response %
Q. 1	Name of the Student	Text
Q. 2	Branch name	60
Q.3	Contact Number	Text
Q. 4	Name of the Organization	Text
Q. 5	Email	Text
Q. 6	My teacher is punctual to the class	100
Q. 7	I understand easily what my teacher is teaching	95.31
Q. 8	My teacher is well prepared for the class at all classes	94.38
Q.9	My teacher communicates clearly	94.38
Q. 10	My teacher makes good use of examples and illustrations	95.00
Q. 11	My teacher completes the syllabus on time during the semester	95.63
Q. 12	My teacher meets the class regularly	94.38
Q. 13	My teacher constantly follows up the regularity of the student	95.94

Q. 14	My teacher is helpful to weaker student	95.63
Q. 15	My teacher is fair to all students in evaluation/grading	95.63
Q. 16	My teacher inspires/motivates me for learning the subject	95.63
Q. 17	My teacher is available during practical/lab hours and is helpful	94.69
Q. 18	My teacher takes active part in all students co-curricular activities	95.00
Q. 19	My teacher creates awareness of recent developments in the subjects	95.94
Q. 20	My teacher gives more information about the subject out of textbooks	93.75
Q. 21	My teacher is holding the attention of the students throughout the class	96.25
Q. 22	My teacher is encouraging discussions in the class	93.75
Q. 23	My teacher is giving useful explanation while returning answer papers and assignments	95.31
Q. 24	Overall rating of teacher among the teachers of the class	95.64
Q. 25	Are You a defaulter?	94.69
Q. 25	Overall Impression/Remark	95.36

3. **NAAC Student Satisfaction Survey:**

An annual survey is conducted at the end of each academic year to gauge overall student satisfaction and identify areas needing attention.

4. **Graduate Exit Survey:**

Collected from final-year students at the time of their project examinations. This feedback focuses on the students overall educational experience and preparedness for future endeavours.

Title: BVCOEW-Graduate Exit Survey

A.Y. 24-25- Computer Dept

Table 9.2.2 Questionnaire for Graduate Exit Survey

Q. No.	Questions	Response %
Q. 1	Name of the Graduate	Text
Q. 2	Branch name	60
Q.3	Mobile No.	Text
Q. 4	Email	Text
Q. 5	At what academic level did you enter this programme?	50
Q. 6	Ability to apply knowledge of Information Technology /Computer Engg. /Electronics Engg to the solution of complex engineering problems:	82.50
Q. 7	Ability to use appropriate techniques, skills, and modern engineering tools, instrumentation, software and hardware necessary for complex engineering practice with an understanding of their limitations.	77.50

Q. 8	Ability to articulate ideas, communicate effectively, in writing and verbally, on complex engineering activities with the engineering community and with society at large.	75
Q.9	Ability to function effectively as an individual, and as a member or leader in diverse teams.	67.50
Q. 10	Ability to execute responsibility professionally and ethically	80
Q. 11	I have learnt a great deal in my study	75
Q. 12	I am well prepared for employment in my field	75
Q. 13	The course work required in my study met my expectation	72.50
Q. 14	Modern engineering tools were incorporated into my class and/or laboratory activities	75
Q. 15	The computer and laboratory equipment and facilities were satisfactory and adequate	75
Q. 16	Faculty was available for assistance with my educational process	75
Q. 17	The overall quality of teaching and learning activities in the programme was good	75
Q. 18	Department academic Counsellors were available to help and they met my needs	75
Q. 19	would definitely recommend the programme to others	80
Q. 20	Career Enrichment activities & Placements	80
Q. 21	Grade the students considering Ability to relate theory to practice.	60
Q. 22	Do you currently have job offer / offers	56.25
Q. 23	Do you plan to further your studies to postgraduate level	93.75
Q. 24	Your Plan and Miscellaneous Information.	Text
Q. 25	Based on your experience, what can BVCOEW improve upon?	Text

5. **External Feedback Based on Project Examination:**

Initiated this year, external examiners provide feedback during project examinations to ensure an unbiased assessment of student performance.

6. **Internship External Mentor Feedback:**

Gathered from internship mentors at the end of each students internship. This feedback evaluates the practical skills and professional development of students during their internships.

Title: BVCOEW-Internship Feedback From External Mentor A.Y. 24-25-Computer Department

Table 9.2.3 Questionnaire for Internship Feedback From External Mentor

Q. No.	Questions	Response %
Q. 1	Name of the Intern	Text
Q. 2	Branch name	60

Q.3	Name of the Company	Text
Q. 4	Name of the External Superviser	Text
Q. 5	Email	Text
Q. 6	Mobile No. of external Supervisor	Text
Q. 7	Rating to be given for internship done by respective intern; Technical knowledge	81.18
Q. 8	Rating to be given for internship done by respective intern; Discipline and Punctuality	80.39
Q.9	Rating to be given for internship done by respective intern; Commitment and Willingness to do the work	72.55
Q. 10	Rating to be given for internship done by respective intern; Communication Skills	86.27
Q. 11	Rating to be given for internship done by respective intern; Individual work	78.43
Q. 12	Rating to be given for internship done by respective intern; Team work and Leadership	83.33
Q. 13	Remarks if any	-Text

7. **Activity-Based Feedback:**

Collected from students at the end of each activity organized by the institution. This feedback helps in assessing the effectiveness and impact of various extracurricular and co-curricular activities.

8. **Syllabus and Curriculum Feedback:**

Feedback regarding the syllabus and its implementation is gathered every semester from teachers and students, and at the end of the academic year from alumni and employers. This feedback is crucial for conveying appropriate changes in courses to the Board of Study members of the respective departments, ensuring that the curriculum remains relevant and up to date. As our institute is affiliated with Savitribai Phule University, this process helps maintain academic standards and align with university guidelines.

9. **Alumni Feedback:**

Collected during alumni meets, this feedback provides insights into the long-term impact of the educational programs and suggestions for future improvements.

10. **Parent Feedback:**

Gathered during parent meets, this feedback helps in understanding the parents perspective on the institutions performance and their childrens development. By systematically collecting and analysing this diverse feedback, the institution can ensure that its programs and services meet the standards expected by all stakeholders, fostering an environment of continuous improvement and excellence.

- **Action Taken:**

Faculty feedback analysis is conducted, and an improvement or appreciation letter is provided to the respective faculty member. The faculty feedback analysis includes semester wise satisfactory score and Improvement score for the academic year. Based on the analysis and remarks from the students about the subject, faculty is advised to improve. Failure to improve the same will lead to disciplinary action by the authority. If the Satisfactory score is good, then an Appreciation letter is given to the respective faculty member. Faculty course feedback is taken regularly and suggestions are forwarded to the respective authorities for necessary action. Program Outcomes attainment is calculated based on feedbacks through surveys. Attainment levels are revisited if not attained for continuous improvement. Various programs, focusing on human values, life skills, and employability, are organized based on feedback suggestions for the continual advancement of the Institute. This comprehensive feedback system reflects the Institutes commitment to continuous improvement, ensuring that the influences of students, faculty, alumni, employers, and parents contribute to the ongoing development of the institution. The inclusion of online feedback through the ERP portal demonstrates the Institutes adaptability and commitment to leveraging technology for effective feedback processes.

- **Faculty Feedback AY 2024-25 (Sem I)**

Table 9.2.4 Faculty Feedback AY 2024-25 (Sem I)

Sr. No.	Name of Faculty	Class	No. of students	Subject	% Feedback
1	Prof. D. D. Pukale	SE	53	Computer Graphics	83.24 %
2	Prof. J D Jadhav	SE	54	DELD	90.26 %
3	Prof. J D Jadhav	SE	55	Discrete Mathematics	91.22 %
4	Prof. K. S. Warke	SE	53	Fundametals of Data structures and Algorithms	88.28 %
5	Prof Mr. K. D. Yesugade	SE	55	OOP	89.68 %
6	Prof Mr. K. D. Yesugade	TE	44	Computer Network & Security	90.78 %
7	Prof S.A Pawar	TE	44	Theory of Computation	86.75 %
8	Prof. S. A. Karande	TE	42	DBMS	84.20 %
9	Prof. V. D. Kulkarni	TE	44	SPOS	90.40%
10	Prof. V. D. Kulkarni	BE	65	Blockchain Technology	92.92%
11	Prof A P Kadam	BE	61	DAA / Cyber security & digital forensic-Ele-III	92.53%
12	Prof Sonali Kadam	BE	64	STQA - Elective	90.40%
13	Prof Pranoti Kale	BE	61	Machine learning	93.79%

- **Faculty Feedback AY 2024-25 (Sem II)**

Table 9.2.5 Faculty Feedback AY 2024-25 (Sem II)

Sr. No.	Name of Faculty	Class	No. of students	Subject	Feedback
1	Prof. D. D. Pukale	SE	64	PPL	84.10 %
2	Prof. Simi Khan	SE	64	EM-III	93.58 %
3	Prof. S A Pawar	SE	66	Software Engineering	85.16%
4	Prof. K. S. Warke	SE	65	Data structures and Algorithms	92.14%
5	Prof J D Jadhav	SE	64	Microprocessor	90.74%
6	Prof Mr. K. D. Yesugade	TE	63	Software modeling and Architectures - Elective	93.98%
7	Prof Pranoti Kale	TE	64	DSBDA	95.36 %
8	Prof. S. A. Karande	TE	64	Web Technology	91.11%
9	Prof A P Kadam	TE	63	Information Security	92.93%
10	Prof. V. D. Kulkarni	TE	64	Artificial Intelligence	93.59%
11	Prof. J D Jadhav	BE	75	NLP – Elective V	90.18%

12	Prof A P Kadam	BE	75	Deep learning	91.65%
13	Prof Sonali Kadam	BE	75	Bussines Intelligence -Elective VI	91.10%
14	Prof S A Pawar	BE	75	HPC	91.28%
15	Prof Sheetal Karande	BE	75	Image Processing	90.45%

- **Action Taken Report for A.Y. 2022-2023**

Table 9.2.6 Action Taken Report

Stakeholder	Suggestions By Stakeholders	Action Taken	Outcome
Students	Final Year Students requested curriculum should include project-based approach with recent and updated technology.	Conveyed the suggestion to Board of Studies (Comp. Engg.) members at the time of B.E. Comp.Engg.(2019 Course) syllabus revision.	Artificial Intelligence, Machine Learning, Deep Learning, High Performance Computing and Block chain Technology courses with mini project for each subject included in curriculum of B.E. Comp. Engg.
Teachers	Fundamental Programming Languages like C, C++ should be included in First year course.	Conveyed the suggestion to Board of Studies (Comp. Engg.) members at the time of B.E. Comp.Engg.(2019 Course) syllabus revision.	In various Practical's in BE allowed programming in various language like C, C++,Java, Python for more convenience and comfort to students
Employers	Need for programming courses like C, and C++ which develop the system-level implementation capability of the students. Basic concept of each subject should be clear, and students should try to implement this by their own. Students are lagging in practical implementation. More assignments should be planned for hands-on experience.	Conveyed the suggestions to Board of Studies (Comp.Engg.) members. AWS, Oracle, Salesforce courses conducted subject wise for basic knowledge and more hands-on assignments.	Course teacher has provided links of reputable portals such as Coursera and Swayam for students to pursue certifications in relevant courses, aiming to enhance their programming capabilities. AWS, Oracle, Salesforce courses are designed by Global industrial technical members who updates course material according to their need as well as its available for them for lifetime.
Alumni	Hands-on training, at least Proficiency in one language, good Internship	Conveyed the suggestion to Board of Study according (Comp.Engg.) members at the time of B.E. Comp.Engg (2019 Course) syllabus.	Various audit courses added in Curriculum of B. E. Comp.Engg 2019 Course.

9.3 Feedback on facilities (5) Total Marks 4.00

Institute Marks : 4.00

Through the following strategies for fostering stronger stakeholder relationships, the institution makes sure that facility feedback is swiftly addressed and successfully handled.

- The purpose of the grievance redressal committee is to handle any type of grievance complaint that staff members and students make. This committee assesses the situation, determines whether any outstanding concerns require attention based on past experiences, and establishes procedures and acts appropriately.
- To stop ragging, an anti-ragging committee was established. This committee was established to stop ragging at the institutes residence halls and on campus in general. It is operating effectively, with squad members—including senior students and faculty—working around the clock at the start of each academic year to ensure the safety of the current student and foster an extremely secure learning environment at the institution.
- From time to time, feedback is taken from students by their assigned mentor regarding what can be done to improve the available facilities. And according to the survey and feedback, further steps are being taken.
- Students were asked to rate several facilities, including the library, training and placement services, laboratories, and general amenities, using the following scale: Excellent, Good, Average.
- After every semester feedback is collected from students manually to improve the quality of the available facilities.
- A suggestion box is placed to collect feedback from the students.

Based on the feedback taken from overall, the corrective measures are being taken like:

- In laboratories, the number of display charts has increased for better comprehension.
- Damaged equipment is identified and repaired as soon as possible.
- The number of computers and lab equipment has increased.
- The lab equipment is calibrated regularly.
- For student safety, the institute has a first-aid kit and a fire extinguisher.
- The number of general, novel, and competitive books in the library has increased.
- The working hours and library hours have been extended to allow students to use the library after regular working hours. It is also open on weekends and holidays.
- Incinerator and vending machine for sanitary napkins is fitted in every washroom.
- Proper hygiene and cleanliness is maintained in all washroom.
- Girls common room and sick room is well equipped and is maintained.

Title: BVCOEW-Students Feedback on Infrastructural Facilities

Academic Year: 2024-25

Table 9.3.1 Students Feedback on Infrastructural Facilities

Q. No.	Questions	Response %
Q. 1	Academic Facilities Classrooms are clean and well-maintained.	77.33
Q. 2	Laboratory equipment is functional and sufficient.	72.00
Q.3	Computer labs have working systems and internet.	75.00
Q. 4	The library has sufficient books and e-resources.	77.00
Q. 5	Drinking water and washrooms are clean and functional.	76.67
Q. 6	Medical and first-aid facilities are available.	75.00
Q. 7	Sports and extracurricular facilities are provided	72.00
Q. 8	Cafeteria provides hygienic food.	70.67
Q.9	Girls' common room is clean and accessible.	75.00
Q. 10	Security and CCTV arrangements are adequate.	73.33
Q. 11	Mention any facility you found most useful	Remarks
Q. 12	Mention any facility that needs improvement	Suggestions
Q. 13	Any other suggestions	Inputs

Action Taken Report: Academic Year 2024-25

Table 9.3.2 Action Taken Report for Academic Year 2024-25

Stakeholders	Suggestion by stakeholders	Action Taken	Action Implemented
Students	Washrooms need to be cleaner and more hygienic	Issue is reported to HOD and then coordinated with Admin	Increased cleaning frequency and Renovation is in process
	Labs should be tested and should have all working pcs with proper internet connection	Requested for lab audit and report faults.	Pcs repaired/replaced; internet upgraded
	Library time should increase	Request for extended hours to librarian.	Library hours extended to 7 PM
	Drinking water should not be near washroom area	Identified the space and new spots suggested.	Water cooler placed at proper space.
	Xerox facilities should be available inside college premises	Suggestion is forwarded to higher authority.	Higher authority is working on it.
	Cafeteria food	Conducted food audit; updated menu	Food quality improved; new menu introduced
	Gym and common room facility need improvement.	Renovated facilities	New gym equipment and renovated common room provided
	E resources and IEEE access	Institutional access provided	IEEE and e-resources enabled
	Wi-Fi password should be given to all and speed	Requested to increase bandwidth and register new devices	Wi-Fi access granted to students; speed improved
	Need an auditorium in college	Plan proposed in budget	Seminar Hall is provided for activities
	Parking space for vehicles	Parking space issue reported to higher authority.	Higher authority is working on this

9.4 Self-Learning (5) Total Marks 4.00

Institute Marks : 4.00

Institute has provided a large scope to students to learn on their own as per their interest. To help students become independent learners, the college encourages them to take part in various online courses offered by platforms like **NPTEL, SWAYAM, Coursera, edX, AWS Academy, and Oracle Academy.** These courses allow students to learn new skills at their own pace, based on their interests and career goals. The college also uses **Learning Management Systems (LMS)** such as Google Classroom or Moodle to share study materials, conduct quizzes, and give assignments that support self-learning.

Students have access to a **digital library** where they can read e-books, journals, and research papers from trusted sources like **IEEE and DELNET**. Institute has introduced "Knimbus" platform for Digital Library services it includes open Access resources and Subscribed resources. Each department also has its own **departmental library** with textbooks, project reports, and question papers. A special **reference book section** is available in the main library with standard books that help students study topics in more detail.

Regular assignments, mini-projects, and case studies that help students think and learn on their own is an important practice in all departments. Faculty mentors guide them in choosing the right resources and tracking their progress. Students also form study groups and take part in activities by clubs, student associations such as **ETSA, CESA, ITECHSA and student chapters,** where they learn from each other by sharing knowledge, attending workshops, and participating in events. This creates a strong learning environment beyond the classroom.

B. The institution needs to specify the facilities, materials for learning beyond syllabus,

Webinars, Podcast, MOOCs etc. and demonstrate its effective utilization (3) -

Facilities created for self-learning:

- All laboratories are open to students so they can work independently and test their knowledge through brainstorming, problem-solving, and debates centered on learning outcomes and academic careers.
- Professional skill development courses are arranged through student associations.
- Facility of Language laboratory.
- Department-organize industrial visits.
- Technical talks by external/internal experts are arranged for the students.
- Lab manuals are provided.
- Internet facilities, smart boards are provided in the college.
- Students are encouraged for writing research papers and present them at conferences.
- Educational resources made available on Google Classroom.
- Students can test their ideas in the labs.
- Pre-placement training for the students.
- Library facilities are extended beyond working hours. Digital library and Reference book section provides a wealth of information to support in-depth learning.
- Smart boards are available in classrooms for interactive learning. The campus is equipped with Wi-Fi to encourage self-study.
- Under student's Association, department organize online seminars, webinars, workshops, and training programs that contribute to the overall personality development of students.
- Repository of seminar/project reports in the department library for the reference of students and faculty.
- Online course participation is encouraged for students.
- The curriculum offers courses and important projects with subjects that students can choose for themselves or that are offered by a guide. In these courses, the self- learning component is evaluated.
- Every student is required to turn in two theoretical assignments for every course, each of 15 marks. To encourage students to improve their capacity for self-learning, several of these assignments go beyond the syllabus. Capacity building program is conducted for the second year students for knowing their own self and their SWOT analysis.
- Books of all branches are available for students to read in the library.
- Students are given links to various informative YouTube and other e-Learning sites to help them expand their knowledge.
- The programs weekly schedule and facilities were designed to give students enough time and space to develop and put their ideas into practice. Academic calendar is displayed well in advance to plan their activities.
- Students have access to a well-equipped common computing lab with around-the- clock internet access.
- As per the academic calendar, the institute has plans for industrial training, company specific training such as Zensar ESD training.

- **Digital Library Access Facility:**

Institute has provided a large scope to students to learn on their own as per their interest. This is in the form of online and offline, on campus and off campus. AICTE's NPTEL platform has attracted students a lot at par with regular courses. Students can register online and learn at their pace. Subscribed E-resources are K-hub, DELNET, iThenticate Plagiarism Software, IEEE, ShodhSindhu, Shodhganga, Science Direct. NPTEL, Knimbus Digital Library Access to Provide. Digital Library: institute has introduced "Knimbus" platform for Digital Library services it includes open Access resources and Subscribed resources.

E-resources: Access Provide to Self-Learning facilities: Details of Digital Library/Remote Access

Table 9.4.1 Library e-resources with link

E Resource	Link

DELNET	https://discovery.delnet.in (https://discovery.delnet.in/)
K-hub (elibrary)	https://www.k-hub.in (https://www.k-hub.in/)
NDLI (National Digital Library in India)	https://ndl.iitkgp.ac.in (https://ndl.iitkgp.ac.in/)
NPTEL	https://onlinecourses.nptel.ac.in (https://onlinecourses.nptel.ac.in/)
IEEE (EJournals) ASSP, POP	https://ieeexplore.ieee.org/Xplore/home.jsp (https://ieeexplore.ieee.org/Xplore/home.jsp)
eShodhSindhu	https://ess.inflibnet.ac.in/memberdetails-1.php?catid=5 (https://ess.inflibnet.ac.in/memberdetails-1.php?catid=5)
Shodhganga	https://shodhganga.inflibnet.ac.in (https://shodhganga.inflibnet.ac.in/)
Science Direct	https://www.sciencedirect.com (https://www.sciencedirect.com/)
Knimbus (Digital Library Platform)	https://bvuniversity.knimbus.com/portal/v2/custom/source (https://bvuniversity.knimbus.com/portal/v2/custom/source)
iThenticate- Plagrisum Software	https://app.ithenticate.com/en_us/login (https://app.ithenticate.com/en_us/login)

Institute Library has made the following online resources available to the staff and students. Various online resources are available in Library. For easy access, all the online resources are subscribed as IP Based access subscription. This helps users to access any resource from any computer connected to the LAN and through WiFi enabled devices. This helps users to search multiple databases at a stretch. Remote off campus access facility is created, and this can be used by students from home.

- **Knimbus Digital Library**

Digital Library: Knimbus Digital Library and Remote Access -

Link : https://bvuniversity.knimbus.com/portal/v2/default/home (https://bvuniversity.knimbus.com/portal/v2/default/home)

Remote Access to E resources facility is available under the platform.

- **Knimbus:**

Knimbus is the leading digital library platform used by 700+ reputed institutions. Institutions are transforming their library for a digital future with the Knimbus mLibrary platform. Knimbus mLibrary is a one-stop solution with rich features to build a powerful and user friendly digital library through which users can seamlessly access the digital resources anytime, anywhere and on any device.

- **DELNET**

Link for DELNET Service – https://discovery.delnet.in (https://discovery.delnet.in/)

Facilities available:

1 Interlibrary Loan - Required books /Articles can be borrowed from member Library

2 Free access to digital resources ebooks

3 Remote access is available

- **K-hub (elibrary): - ebooks, ejournals, etc.**

K-Hub (elibrary) Link : https://www.k-hub.in/ (https://www.k-hub.in/)

K-HUB is the leading platform for collective academic e-resources, offering one of the biggest subject's collection among other very rare and useful databases.

- **NDLI Membership Certificate**

The National Digital Library of India (NDLI) is a virtual repository of learning resources accessible through a single-window interface. Its sponsored by the Ministry of Education, Government of India, as part of the National Mission on Education through Information and Communication Technology (NMEICT).

- **Quality of learning resources**

The Learning Resource Center, the Central Library excellent resources plays proactive role in providing excellent user services, optimal use of resources supporting quality enhancement in teaching-learning, research and extension. keeping pace with the developments in the ICTs, Institute library works as a digitized knowledge Center for accessibility with print and e-resources and provides focused services to the students and faculty. The Library has significant collection of books, journals, e-books, e-journals, secondary sources, databases, digital primary sources.

- **Integrated Library Management System (KOHA):**

Integrated Library Management System (KOHA) is used to manage different functions of library for improving accessibility to students. Institute Central Library is using commercial software as well as Open Source software for Automation of Library Services. With KOHA retrieval of information becomes easy and even a catchy phrase in the description of the catalogued item can be used for searching. supports flexible workflow to cover activities related to Circulation, Cataloging, Patrons, Serials, Advance Search, Tools, Lists, About KOHA.

- **KOHA Software**

With the growing popularity of e-resources, library is gradually migrating from print documents to e-resources. Qualified and experienced staff plays an important role in providing easily accessible and cost- effective information services. The Institute library has subscribed / implemented learning and e-learning resources as shown in the tables below.

- **Departmental Library details –**

The Departmental Library of the Computer Engineering Department at BVCOEW, Pune, is a cozy and well-organized space that supports students and faculty in their academic journey. It offers a wide range of resources including textbooks, project reports, research papers, and previous university question papers, especially in key areas like AI, Machine Learning, Data Structures, and Cybersecurity. What makes it special is its easy accessibility and focus on the department's specific needs. The library also proudly showcases the work of students and faculty, encouraging a culture of learning, innovation, and research. Whether youre preparing for exams, working on a project, or exploring new ideas, the departmental library is a quiet corner that's always there to help.

Table 9.4.2 Departmental library details

Sr. No.	Details	Numbers
1	Total number of books/Volumes	324
2	No. of Titles	254
3	National Journals	Nil
4	Periodicals/ Magazines	Nil
	Total No. of Books	324

Table 9.4.3 Certification Courses

Sr. No.	Academic Year	Name of Certificate Course	Count of Students	Total Count

1	2024-25	AWS Academy Cloud Foundation	6	849
2		AWS Academy Architecture	75	
3		AWS Academy Data Engineering	81	
4		AWS Academy Cloud Developing	75	
5		AWS Academy Cloud Operations	75	
6		AWS Academy Machine Learning	7	
7		Oracle Application Development foundation	69	
8		Oracle Primavera P6 Professional Project Management Fundamentals	76	
9		Oracle Java Foundation	76	
10		Artificial Intelligence with Machine Learning in Java	76	
11		Java for AP and CSA English	76	
12		Java Fundamentals	76	
13		Java Programming	76	
		NPTEL courses	3	
14		Mastering Data Structures & Algorithms using C and C++	1	
15		Infosys Springboard: Data Science	1	634
16	2023-24	AWS Academy Introduction to Cloud:	78	
17		AWS Academy Introduction to Cloud:	78	
18		AWS Academy Data Center Technician	149	
19		AWS Academy Data Engineering	81	
20		AWS Academy Cloud Operations	79	
21		AWS Academy Cloud Developing	79	
22		AWS Academy Cloud Architecting	80	
23		Python for Data Science	1	
24		Data Visualization with Python	1	
25		Data Science for Engineers	1	
26		C++ Data structure and Algorithm	1	
27		Python programming	1	
28		Full Stack Developer in Java	1	
29		Full Stack Web Development using PHP	2	
30		Java Programming	1	
31		C++ Programming	1	

32	2022-23	AWS Academy Data Center Technician	26	314
34		AWS Academy Introduction to Cloud Semester1 and 2	214	
35		AWS Academy Data Engineering	48	
36		AWS Academy Machine Learning for Natural Language Processing	21	
39		Introduction to Data Analytics	1	
40		Develop a Company Website with Wix	1	
41		Infrastructure and Application Modernization with Google Cloud	1	
42		C++ Tutorial	1	
43		Java_Programming	1	

9.5 Career Guidance, Training, Placement (10) Total Marks 10.00

Institute Marks : 10.00

A. Availability of career guidance facilities

The Career Guidance Cell (CGC) of the institute plays a key role in mentoring students aiming for higher education or careers in government and defense sectors. It regularly conducts awareness sessions and expert talks on postgraduate opportunities like M.Tech, MS, MBA, and PhD—in India and abroad. The CGC also guides students on application procedures, writing Statements of Purpose (SOPs), selecting universities, securing scholarships, and preparing for exams such as GATE, GRE, TOEFL, and IELTS.

For those preparing for competitive exams, the cell offers support through coaching resources and sessions focused on GATE, UPSC, and MPSC. It also creates awareness about careers in the Indian Armed Forces through sessions on NDA, CDS, AFCAT, and SSB interviews, often involving experienced professionals. The CGCs efforts have led to an increasing number of students succeeding in competitive exams and pursuing higher education. Regular student feedback helps the cell improve its programs and stay aligned with students goals, contributing significantly to their overall growth and success.

Table 9.5.1 Career Guidance Cell (CGC) committee list

Name of the Member	Designation
Prof. V. D. Kulkarni	Coordinator
Prof. S. M. Patil	Co-coordinator

B. Counseling for higher studies

Activities conducted under Career Guidance Cell regarding higher studies

Table 9.5.2 Details of Activities conducted under Career Guidance cell

Sr. No.	Date	Time	Title of Session	organized by	Resource person	Number of students attended
1	29-07-24	10.00am – 11.00am	How to prepare for Competitive exams	Unique Academy, Pune	Mr.Ketan Kumar Patil	82
2	07-12-24	10:00am – 11.00am	Internship opportunities and importance of Microsoft certification	Kasnet Technologies	Mr.Amol Aher	44
3	11-01-25	04:00pm – 5.00Pm	Importance of Profile Building and Career Mapping	EUGATEWAY	Benita Albert	59
4	25-01-25	11:00am – 12.00pm	GATE Exam Aptitude Tips and Tricks	Ohm Institutes, Hyderabad	Mr. Amarnadh Emani	42
5	18-02-25	02:15 pm – 03.45 pm	Higher studies in India and abroad	IMS Learning Resources Pvt Ltd	Mr.Ranjit Kalangutkar	18
6	04-03-25	03:45pm – 4.30Pm	Introduction to futuristic engineering courses by DADB Germany	DADB Academy of Digital Education	Ms.Pooja Sinha	82
7	22-03-25	11.30am - 1.00pm	Career Opportunities in Armed Forces After Graduation	Retired Naval officer	Captain Rammohan Oka	32
8	26-08-23	11.00am to 12.00 pm	A session on How to prepare for GATE	ACE engg. Academy	Mr.Arjun Chhabra	17

9	13-09-23	6.00pm to 7.00pm	A session on Scope of foreign language for engineering students	ASAP Language Institute	Mr.Anand Bannatkar	24
10	23-09-23	11.00am to 12.00 pm	A session on How to prepare for competitive exams MPSC, UPSC	Unique Academy	Mr.Sunny Mankoskar	26
11	27-09-23	9.00am to 10.00 am	A session on Crack GATE exam in first attempt	Imperial Institutes	Mr. Paresh Gugle	26
12	02-02-24	10.00am to 11.00 am	A session on How to prepare for GATE 2024 examination	ACE engg. Academy	Arjun Chhabra	28
13	03-02-24	11.00am to 12.00pm	A session on Career Guidance on study abroad	Admit 360 Edu Abroad Solutions	Mr. Vivek Gupta	56
14	27-02-24	11.00am to 12.00pm	A session on Higher Studies in the U.S. and Student Visa	EducationUSA	Dr.Aditi Lele, EducationUSA adviser.	45
15	30-04-24	11.00am to 12.00pm	A session on Give wings to your higher education dream abroad	ETS, the tracker and maker of TOEFL/GRE	Sarika Balchandani	25
16	27-08-22	11.00am to 12.oopm	Career opportunities after Engineering	ACE Engineering Academy, Pune	Mr. Shankar Wadne	63
17	17-03-23	3.00 to 4.00 pm	Career Guidance for Abroad study options after engineering	Jamboree Institutes, Pune	Mr. Shreyas Ramkrishnan	65
18	24-03-23	3.00 to 4.00 pm	Importance of Aptitude for Placement and Higher studies	ACE Engineering Academy, Pune	Ms. Aishwarya Vijay	64
19	07-07-21	3.30 to 4.30pm	MBA in India	IMS Pune	Mr. Ranjit Calangutkar	86
20	12-08-21	2.00 to 4.00pm	Overseas education	IDP education	Mr. Omkar Kargar	163
21	14-08-21	1.00 to 2.00pm	Benefits & career opportunities in GATE	The GATE Academy	Mr. Akash Pushkar, M.Tech. IIT, Kanpur	91
22	21-09-21	4.00 to 5.00pm	How to prepare for banking/SSC Insurance during graduation	Unique Academy, Pune	Ms. Mayuri Sawant, Pune	24
23	29-01-22	11.00am to 12.00pm	How to clear GATE exam in first attempt	ACE engineering Academy	Mr. Anish Singh Rajput	23
24	19-03-22	12.30 to 1.30pm	Study abroad for engineers	Jamboree Institutes	Mr. Rajarshi Banergee	11

25	23-04-22	5.00 to 6.00pm	How to prepare for competitive exams-UPSC/MPSC	Unique Academy, Pune	Mr. Pankaj Vhatte	110

- **Students progression for higher studies**

Table 9.5.3 Students summary count for higher studies

Sr. No	Academic Year	Count of students
1	AY 2023-24	2
2	AY 2022-23	5
3	AY 2021-22	5

C. Pre-placement training

The institute has a well-structured system to help students improve their skills, get ready for jobs, and plan their careers. From the second year onwards, students take part in a Pre-Placement Training Program that helps them understand their strengths, set goals, and learn better through activities like SWOC analysis and peer feedback. Senior students who are already placed share their experiences with juniors through Peer-to-Peer Training, building confidence and motivation. A major part of this is the Employability Skill Development (ESD) Program, which gives more than 400 hours of training in areas like programming, SQL, testing, aptitude, and communication skills. Student-run clubs such as the Coding Club, Aptitude Club, HR Club, and Test Series Club offer regular practice and discussions, helping students prepare for company tests and interviews.

The Training and Placement Cell also works with industry partners to offer expert-led training programs like the RPG Zensar Employability Program and AI Skilling Program in collaboration with RT-MSSU and Microsoft. These programs teach students in-demand skills like Java, Python, and Artificial Intelligence, and focus on practical knowledge. Mock interviews, resume writing sessions, and company-specific training are regularly organized to help final-year students prepare for real job interviews.

- **Skill Enhancement Club**

Different Coding Clubs like Coding, Aptitude and HR are conducted by students, observed and corrective actions are suggested by the Training Coordinator. One of the students gives a task daily and other students solve it by end of the day which enhance their thinking power and also receive constructive solutions from other students. These clubs are helpful to broaden the knowledge of students in terms of Placement.

HIGHLIGHTS OF THE ACTIVITIES HELD:

1. Capacity Building Programme for SE: These sessions focus on **different VAK learning styles, Knowing yourself, Life values, How to do self and peer diagnosis and SWOC analysis**. Many fun activities are also conducted in the process to cheer up the students and help them boost confidence. Every student is able to self-analyze their own **Strengths, Weaknesses, Opportunities and Challenges**. At the end, this does help the students in their placement recruitment process and to achieve a great future.

2. Capacity Building Programme of Students by Students (Peer to Peer Training Programme): In this training programme, BE students who are placed in various MNC companies deliver the seminars to SE and TE students on various topics such as **Aptitude test, Coding, Technical, HR interviews and Company Specific Training.** The entire programme covers all the aspects of placement procedures, professional future post and completing graduation. It eases and prepares the students for their future journey.

3. HR Group [Group Discussion Programme]: This activity is conducted for all the students from SE to BE of all departments and it engages students in **developing their communication skills** and making themselves more **comfortable for HR rounds** in placement. During these sessions' students get a brief review about different current affairs, expected topics in GD round and learning styles.

4. Coding and Aptitude skill Enhancement Clubs: To enhance Coding and Aptitude skills of students, these enhancement clubs are started for SE, TE and BE students of all branches. It eradicates the fear of coding and increases their computational thinking. It helps them to acquire the requisite skill set to think "Out of the box" and develop a rational approach towards Problem-solving. It prepare students to solve questions in aptitude and coding tests conducted during placement drives and in competitive exams.

5. Activities conducted in Coding group: The questions are posted related to coding in these groups. These are either **Mcqs or problems statements type** Special focus is on problem statements which are repeatedly asked in **company campus drives.** Students co-ordinator also share YouTube videos which are beneficial for learning concepts. This makes the students, especially weak ones, comfortable with different coding questions and helps to eradicate the fear of coding.

6. Activities conducted in Aptitude group: The student co-coordinators posts questions on aptitude group. These are divided into **Arithmetic, Verbal and Current Affair** section. Also 5 new words are posted along with their meanings, synonym and their use in sentence to increase vocabulary. Every night the solutions are sent for students to refer. The main focus is on questions which are asked in **competitive exams** and **campus drives**. This helps the students to practice and get familiar with aptitude and increase their knowledge on the same.

7. Test Series Club: The main objective of this club is to prepare the students for the different competitive stages in campus drives like **the aptitude test, coding test, English (verbal ability) test.** These tests help the students to understand the pattern of various placement drives tests and gives them a real time experience. The technical tests are conducted on Hacker rank platform .This way the students became well versed with online compilers and it helps in increasing their confidence too. They also get an opportunity to work on their weak points.

- **RPG ZENSAR TRAINING**

Table 9.5.4 RPG Zensar Training students summary for Computer department

Sr. No.	Academic Year	No of shortlisted Students for Zensar Training	No of Students Placed	% Placement of Zensar trained Students
1	2023-24	40	29	71.5
2	2022-23	74	34	46
3	2021-22	41	30	73

Table 9.5.5 Employability Skills Development (ESD) Training details

Sr. No.	Date	Type of Event	Name of activity	Name and Address of resource person	Contact Details	Organized for	No of students attended
1	19/7/2023 to 29/7/2023, 2/8/2023 & 5/8/2023	Training	Employability Skills Development Training by Campus Credentials	Mr. Rohit Runwal, Mr. Ronak Mitra, Mrs. Sapna Sood Campus Credentials Trainer	8888519569 8653830911 9272730903	BE	32

Table 9.5.6 Mock Interview and placed students summary of Computer department

Sr. No	Academic Year	No. of shortlisted Students for Mock Interview	No of Students Placed	% Contribution of Mock Interview in total AY Placement
1	2024-25	67	58	86.5
2	2023-24	78	46	58.9
3	2022-23	83	54	65
4	2021-22	77	59	77

D. Placement process and support

Campus Placement process is as follows

- The Institute follows “one student one job policy”. Software companies and Core (Non Software) Companies are the major categories of the companies conducting the campus placement drive throughout the Academic Year.
- Students who are interested in Placements, the academic database of the students is collected, verified. The database is updated after each SPPU 6th, 7th semester exam result declaration.
- An invitation mails are sent to the HR Team, based on the requirements HR revert back to the mail. The dates are mutually finalized.
- The Campus Placement schedule is confirmed based on Eligibility criteria (maximum number of students should get the opportunities), Job Profile, Annual Salary Package offered by the company, Past history of recruitment, feedback of the selected students’ experience from past batches regarding the company.
- The company selection process, Job Profile, Annual Salary Package, eligibility criteria, date of conduction of the process, mode of conduction of the process is broadcasted once a confirmation mail is received from HR.
- The recruitment process may be online, offline or hybrid mode.
- The recruitment process includes Pre Placement talk, Proctored test, Group discussion, Technical Interview, Management Interview etc.
- It is mandatory for students to follow College uniform dress code at the time of Campus Placement drive.
- Pre Placement talk in most of the cases is preferred in offline mode. Company higher authorities elaborate about salary break-up, job profile, place of work, bond details, company culture, projects etc. Attendees are expected to clarify their doubts (if it is) from company authority in Q and A session.
- Post Pre Placement talk interested and eligible students appear for aptitude, technical, coding tests in Computer Center. The PCs are enabled with web cameras and the test is a proctored test.
- Department Placement Coordinators and the team supervise the test along with Company authorities.
- Placement Cell Team along with Placement Cell Student volunteers assure the arrangement of Group Discussion room, Interview Rooms and the necessary prerequisites.
- The selects are declared orally on the same day and in most of the cases written mail in the next few days.
- Based on the Company policy the Expression of Interest or Offer letter is mailed to Placement Officer or the selects.
- All students are expected to accept the offer letter by signing on the hard copy, scanning the signed offer letter and mailing it to HR, sometimes the HR expects it in a centralized way through the Placement Officer.
- **Placement cell infrastructure and facilities:**

Table 9.5.7 Placement cell infrastructure and facilities details

Sr. No.	Facilities	Quantity
1.	Training cell	1
2.	Placement cell	1
3.	Seminar Hall	1
4.	Computer center for online placement drives/tests	Capacity of 110 PCs
5.	Meeting room	1
6.	placement coordinator	1 college level 3 department level
7.	Supporting staff	2

Table 9.5.8 List of companies visited for placement

Sr. No.	A.Y. 2024-25	A.Y. 2023-24	A.Y. 2022-23
1	AIRBUS	PERSISTENT	ACCENTURE
2	RTCAMP	TCS	ALOHA TECHNOLOGIES
3	STANDARD CGARTERED GBS	ACCENTURE	AMAZON
4	PERSISTENT	VOIS	AMAZON CUSTOMER SUPPORT
5	DASSAULT SYSTEMS	RTCAMP	AMDOCS

6	ALSTOMGROUP	STANDARD CHARTERED GBS	ATOS
7	ION GROUP	DASSAULT SYSTEMS	ATOS
8	ACCENTURE	IBM	BNY MELLON
9	ATLAS COPCO	RELIANCE JIO	CAPGEMINI
10	AMDOCS	KANINI SOFTWARE	CIMPRESS
11	NICE	AMAZON	CIRRIUS TECHNOLOGIES
12	BOSCH	AMDOCS	COGNIZANT
13	FUNDSROOM	GOLDMAN SACHS	DELOITTE
14	UNO MINDA	NOMURA	DELOITTE
15	CAPGEMINI	SUEMENS (ONLY E&TC)	eEMPHASYS
16	UBS	IBM	EURONET
17	FORVIA	LTTS	EURONET WORLDWIDE
18	L & T TECHNOLOGY SERVICES	NATIONAL PAYMENTS CORPORATION OF INDIA 9NPCL-UPI,RUPAY,FASTAG ETC)	FIDELITY INTERNATIONAL
19	NEILSON IQ	VISTEON	FINULENT SOLUTIONS
20	TATA TECHNOLOGIES	RUDDER ANALYTICS	FLENTAS TECHNOLOGIES (Cloud Consulting and Devops)
21	ICON IT TECHNOLOGIES	FIS	FPX SOLUTIONS (IOT BASED CORE COMPANY OPTION)
22	RUDDER ANALYTICS	VODAFONE IDEA	FUTURENSE TECHNOLOGIES
23	RINEX TECHNOLOGIES	DELOITTE	GOLDMAN SACHS
24	COGNIZANT GENC	NEEYAMO	HEXAWARE
25	FIS	SECLORE TECHNOLOGY	HURON CONSULTING GROUP
26	BNY MELLON	UNO MINDA (only E*TC) Campus	IBM
27	DEUTSCH	IDFCFIRST BANK	IDFY
28	FAURECIA	DASSAULT SYSTEMS	INDUS TOWERS
29	TECHMAHINDRA	ICON SINGAPORE	JOHNSON CONTROL
30	COVIE	SPARK MINDA (ONLY E&TC) CAMPUS	KPIT
31	WNS	PARKAR DIGITAL	KYNDRYL GLOBAL TECHNOLOGY SERVICES(GTS)

32	PARKER DIGITAL	PETROFAC	L&T TECHNOLOGY SERVICES LIMITED
33	RED HAT	MICRON	LTTS
34	VANDERLANDE (TOYATO)	CAPGEMINI	MAERSK
35	MINDSTIX	BNY MELLON	MASTEK
36	ZENSAR	WALMART 9THROUGH HACKATHON)	MINDSTIX
37	INFOSYS	CCTech	NEOSOFT
38	COVINE	EQW	NIELSEN IQ (Campus)
39	EQUATIONS WORK	RSQUARESOFT TECHNOLOGIES	NTT DATA
40	CODITUDE	ADOR POWETRON (E&TC)	PERSISTENT
41	VOIS	AMAZON	PRINCIPAL GLOBAL SERVICES
42	TCS	PUBLICIS SAPIENT	PTW
43	AMAZON	WESTERN UNION	PUBMATIC
44	REDHAT INDIA	AIRBUS	QUALITY KIOSK
45	PLANET SPARK	WILEY EDGE	RELIANCE JIO
46	WIPRO	VOIS	RENAULT NISSAN TECHNOLOGY
47	WESTERN UNION	ZENSAR	SPARK MINDA (Campus)
48	INTELLIPAAT SOFTWARE SOLUTIONS PVT LTD	IT WORLD WEB.COM	STANDARD CHARTERED GBS
49	BUSINESS OCTANE	IDEAL RESOURCES PRODUCTS PVT LTD (CORE E&TC)	STRIDLEY SOLUTION
50	LTI Mindtree	BHARARPE	TATA TECHNOLOGY
51	ENCORA	DIGITAL	TCS
52	SOLARSQUARE ENERGY (core)	FOURCOLOURS	TCS
53	TRINITY TOUCH (core)	LTIMINDTREE	TECH MAHINDRA
54	HANYAA AUTO TECHNOLOGIES	SAMPRADAA SOFTWARE TECHNOLOGIES	THOUGHT WORKS
55	SMARTDATA ENTERPRISES	JADE GLOBAL	UBISOFT
56	KANINI	PTC	UBISOFT
57	SILVER PUMPS (core)	ZENSAR	UNOMINDA LTD (E&TC)

58	APPLUS IDIADA (core)		UPGRAD
59	INNOVATECH TECHNOLOGY SOLUTIONS		VIRTUSA
60	RINEX TECHNOLOGIES		VIRTUSA
61	GE HEALTHCARE		VODAFONE IDEA
62	SILVER PUMPS (core)		VOIS
63	EXENITY EXCELLENCE INFINITE		WILEY EDGE
64	PTC		WIPRO
65	DELOITTE		ZOMATO
66	GEMINUS TECH PRIVATE LIMITED		ZYNGA TECHNOLOGY
67	RIBBON COMMUNICATION		
68	COGNIZANT		

Table 9.5.9 Placement Summary of Computer Department

Academic Year	Number of Students Placed with single offer	Number of Students Placed with multiple offers
2024-2025	58	14
2023-2024	46	12
2022-2023	54	32
2021-2022	59	46

The Industry-Institute Interaction Cell (IIIC) plays an important role in connecting the college with industries. It works to reduce the gap between what students learn in the classroom and what is needed in the real world. The III Cell arranges guest lectures by industry experts, industrial visits, hands-on workshops, and collaborative projects with companies. It also helps the college sign MoUs (agreements) with industries to support training, internships, research, and skill development activities. These efforts give students a better understanding of current technologies, tools, and industry expectations.

Through its partnerships, the III Cell supports internship opportunities for students in various sectors. It works with the Training and Placement Cell to help students get internships during their vacations. These internships give students valuable work experience, help them learn professional behavior, and improve their technical and communication skills. Industry mentors guide students and give feedback that helps them grow.

The college has a proper system to manage internships. Students are guided before and during the internship, and their work is reviewed after completion. They submit reports and give presentations on what they learned. In some cases, internships are linked to academic credits. Overall, the III Cell ensures that students are better prepared for jobs, have industry exposure, and are ready for future careers.

Table 9.5.10 Industry Institute Interaction Cell (IIIC) Data

Academic Year	Industrial visits	Industrial Interaction through Internships	Number of Internships	Placements	MOU's
2024-25	13	73	278	129	31
2023-24	7	73	282	150	16
2022-23	6	93	338	153	20
2021-22	0	63	285	198	28

9.6 Entrepreneurship Cell (5)

Total Marks 4.00

Institute Marks : 4.00

- **Innovation and Entrepreneurship are promoted through two distinct yet collaborative bodies within the college: The Institute Innovation Cell (IIC) and the Entrepreneurship Development Cell (EDC):**

The **Institute Innovation Cell (IIC)** focuses on cultivating a spirit of innovation among students. It encourages them to think creatively and develop solutions to real-world problems. Through regular activities such as idea generation workshops, innovation competitions, hackathons, and prototype building sessions, the IIC provides students with a platform to turn their concepts into viable projects. The cell also connects students with mentors and industry experts who guide them through the innovation lifecycle, from problem identification to proof of concept. It actively promotes participation in national innovation challenges and supports students in patent filing and product development.

The **Entrepreneurship Development Cell (EDC)** is dedicated to fostering an entrepreneurial mindset and helping students turn innovative ideas into business opportunities. The EDC organizes seminars, startup boot camps, and guest lectures by successful entrepreneurs to expose students to the world of startups and business planning. It provides guidance on preparing business models, securing funding, understanding legal compliance, and building a minimum viable product (MVP). Students with entrepreneurial aspirations are supported with mentorship, networking opportunities, and assistance in participating in incubation programs. The cell acts as a catalyst in bridging the gap between innovation and entrepreneurship.

The ED Cell acts as a vibrant platform that encourages creativity, leadership, and innovation by offering necessary resources, guidance, and mentoring. It is committed to building an entrepreneurial ecosystem within the campus that evolves continuously to meet the changing needs of the start-up environment.

Objectives of the ED Cell:

- To instill entrepreneurial spirit and leadership qualities in students.
- To provide guidance and mentorship for converting innovative ideas into start-ups.
- To create awareness about entrepreneurship as a career option.
- To build a self-sustaining start-up ecosystem within the institute.
- To support students in accessing funding opportunities, incubation, and networking.

Key Activities Conducted:

- **Entrepreneurship Awareness Programs (EAPs):** Workshops and seminars to sensitize students toward entrepreneurship.
- **Mentorship Opportunities:** Students receive personalized guidance from experienced entrepreneurs, alumni, and industry experts.
- **Start-Up Showcases:** Platforms to pitch innovative ideas to potential investors and incubation partners.
- **Skill Development Workshops:** Training sessions on business model canvas, design thinking, financial literacy, and legal compliance.

The ED Cell has contributed significantly for promoting an entrepreneurial culture across disciplines. Students have actively participated in ideation events, pitch competitions, and national innovation contests. A few student start-ups have progressed to early-stage funding and incubation. The Cell continues to evolve as a hub of entrepreneurial excellence by fostering innovation and ethical business practices. The department had one entrepreneur in the academic year 2021–22

Table 9.6.1 Activites conducted by Entrepreneurship Development Cell (EDC)

Sr. No.	Details of activity conducted	Name of chief guest/coordinator	Date and duration	Total number of students and faculty participated
1	Poster Competition “Poster Vision”,Bharatiyugam’ 25	Ergen Technovision Pvt. Ltd.	08/04/2025	29 students
2	Startup Idea Competition “Pitchforge”,Bharatiyugam’ 25	Ergen Technovision Pvt. Ltd.	08/04/2025	20 students
3	Internship	Ergen Technovision Pvt. Ltd.	15/01/2024	35 Students
4	IIC “Impact Lecture Series 2024” Session1: “Entrepreneurship an Innovation as a career opportunity”	Synnollect Innovations	12/04/2024	60 Students

5	Poster Competition "VisioVerse", Technophilia' 24	Ergen Technovision Pvt. Ltd.	04/04/2024	150 students
6	Internship	Ergen Technovation Pvt. Ltd.	01/01/2023- 15/02/2023	TE E&TC -35 Students
7	"Yukti (poster Competition)" in Avinya'23 Techfest	BVCOEW, Pune	27/04/2023	17 students
8	Start-up Idea Competition- "AAROHANA" in Avinya, 23 Techfest	BVCOEW, Pune	28/04/2023	45 Students
9	Seminar on Entrepreneurship Development	deAsra Foundation	31/05/2023	150 students
10	Workshop on "Start-up & Entrepreneurship Development"	Opex Accelerators	15/09/2023	102 students
11	Interaction with Entrepreneur	Symbiosis Institute of Technology, Lavale	16/12/2023	04 Faculty
12	Interaction with Entrepreneur	Mr. Nityanand Prabhu Tendolkar Ergen Technovation Pvt. Ltd.	28/09/2022	05 Faculty

- **IPR Cell:**

IPR cell is established in the year 2024. IPR Committee is formed including internal and external stakeholders. Internal stakeholders are Principal and faculty. External stakeholders are Alumni, Industry expert and IPR expert. To create awareness among students and faculty, in total 06 various activities were conducted at department and institute levels.

Also, Institute has registered for KAPILA in 2021-22, a scheme by MoE IIC &AICTE to provide financial assistance to students and faculty of the institutes who filed, published or granted patents. Institute has joined the NISP Campaign. Student's cell is formed for start-up and innovation activities In-line with NISP Ministry of Education (MoE) policy, institute has drafted institute NISP. The approved I&E policy is notified / published among all the stakeholders via notice boards and on the institute website.

The outcome of this cell resulted in 19 patents filed by 21 faculty members out of which 6 are granted.

- **Start-up Cell**

As a part of our commitment to fostering an **entrepreneurial** ecosystem, the Start-up Cell at Bharati Vidyapeeth's College of Engineering for Women, Pune, operates in alignment with the National Innovation and Start-up Policy (NISP) 2021 guidelines. The Start-up Cell is driven by the institutes vision to promote innovation, support early-stage entrepreneurial initiatives, and bridge the gap between academia and industry. In line with the institutional policy, we have established a dedicated infrastructure and governing mechanism to support student and faculty-led innovations. To strengthen our ecosystem, the institute has signed two Memoranda of Understanding (MOUs) with reputed external organizations, aiming to provide mentorship, incubation support, and industry collaboration for emerging start-ups.

Every academic year, the Start-up Cell organizes a wide range of initiatives, including start-up competitions, industrial visits, and internships, to encourage hands-on learning and real-world problem-solving among students. Notably, 30 students are offered internship opportunities through this platform annually, helping them gain valuable industry exposure and entrepreneurial skills. These efforts are supplemented by workshops, awareness drives on IPR and innovation, and the active involvement of the Institution's Innovation Council (IIC). Through a structured and inclusive approach, the Start-up Cell continuously nurtures entrepreneurial thinking and contributes to the national goal of building a robust, innovation-driven economy.

Together, the IIC and EDC create a comprehensive ecosystem that motivates students to explore new ideas and pursue entrepreneurial ventures, equipping them with the skills, exposure, and confidence required to become future innovators and job creators. The activities conducted under IIC cell are listed below.

Table 9.6.2 Activites conducted by Institution's Innovation Council

Sr. No.	Academic Year	Activity	Resource Person	Activity Date	No. of students attended

1	2024-25	Session on Business Model Canvas (BMC)	Prof. Sunita Dhotre, Associate Professor, Dept of CSE, BVUCOE	27/09/2024	59 TE IT Students
2		Workshop on “Simulation & Modelling using Python”	Mr. Santosh Yadav Business Consultant, CADD CAREER	18/03/2025 & 19/03/2025	196 FE Students
3	2023-24	Celebration activity on “Successful Landing of Chandrayan 3 on moon at south pole”	-	14/09/2023	143 SE Students
4		Seminar on “Intelluctual Property Rights & Technology Transfer”	Prof. Dr. Nidhi Jain, BVCOE, Lavale, Pune	07/02/2024	58 TE IT Students
5		Workshop on “Intelluctual Property Rights”	Mrs. Kalyani Ahir	12/04/2023	78 SE & TE Students
6	2022-23	Motivational Session by Successful Enterpreneur	Dr. Prakash Sharma (Founder & CEO Passion Infotech)	16/02/2023	180
7		How to plan for Start Up	Dr. Prakash Sharma (Founder & CEO Passion Infotech	11/05/2023	70
8		Workshop on Enterprenuership and Innovation	Dr. Prakash Sharma (Founder & CEO Passion Infotech	19/05/2023	75

Table 9.6.3 Activities conducted under MOU

Sr. No.	Academic year	Organisation with which MoU is signed	Duration	List the actual activities under each MOU year wise	Number of students/ teachers participated under MoUs
1	AY 2024-25	Pralhad P. Chhabria Research Center (PPCRC)P-, Pune	1 Year	Internship for TE students	20
		Springup Labs Pvt. Ltd.	2 Years	Project sponsorship and Internship for students	18
2		Kasnet Technologies	1 Year	Internship for TE students	5
3		RPG zensar	1 Year	Employability skill development training for TE Students	291
4		AWS Academy	Till date	Certification courses	319
5		Oracle Academy	Till date	Certification courses	380
6		NexGen Analytix	1 Year	Internship for TE students	5

7	AY 2023-24	Kasnet Technologies	1 Year	Webinar on Internship opportunities in cloud and Microsoft Azure by Mr.Amol Aher and	60
8				Internship for TE students	4
9		RPG zensar	1 Year	Employability skill development training for TE Students	243
10		AWS Academy	1 Year	Certification courses	624
11		Oracle Academy	1 Year	Certification courses	76
12	AY 2022-23	Kasnet Technology Pvt Ltd	1 Year	Webinar on Internship opportunities in cloud and Microsoft Azure by Mr.Amol Aher	70
13		RPG FOUNDATION	2 Year	ESD Program for TE students, Aptitude training, softskill training	100
14		AWS Academy	Till date	AWS certification courses, AWS awareness sessions/Workshop	352
15		Oracle Academy	Till date	Oracle Courses	70

9.7 Co-curricular and Extra-curricular Activities (10) Total Marks 9.00

Institute Marks : 9.00

Bharati Vidyapeeth's College of Engineering for Women offers a vibrant and inclusive environment for the holistic development of its students through a rich blend of co-curricular and extra-curricular activities. These activities are designed to promote creativity, leadership, technical excellence, physical well-being, social awareness, and a strong sense of community—complementing academic learning and helping students grow into well-rounded professionals. Ensuring safety, inclusivity, and student welfare, the Internal Complaint Committee (ICC) addresses concerns related to harassment or inappropriate behavior in a confidential and just manner. Regular awareness programs are conducted to create a culture of respect and dignity on campus. The Student Grievance Redressal Committee (SGRC) provides a platform for students to voice academic and infrastructure-related concerns, resolving them promptly. Additionally, the Reservation Committee ensures equitable access to opportunities, admissions, and scholarships for students from reserved categories, following government norms. Technical and cultural festivals remain central to student life, providing platforms for students to engage in coding contests, hackathons, paper presentations, exhibitions, drama, music, and dance. These festivals encourage innovation, collaboration, and strategic thinking while fostering friendships and team-building. With active student participation, faculty mentoring, and industry involvement, these events serve as a key measure of the quality and relevance of student engagement. Together, all these initiatives create an enriching and inclusive ecosystem at Bharati Vidyapeeth's College of Engineering for Women—one that not only emphasizes academic excellence but also fosters leadership, compassion, innovation, and personal growth.

- **Art Circle:**

The Art Circle is a dynamic platform that allows students to explore various forms of creative expression including music, dance, drawing, painting, and photography. It helps cultivate skills like leadership, time management, and event coordination. Through cultural events, workshops, and intercollegiate competitions, students are encouraged to express their creativity and gain confidence.

Table 9.7.1 Activities conducted under Art Circle

Sr. No.	Date	Activity Name	Resource Person/Guest	Faculty/Staff/Students	Number of students participated
1	13/8/2024	Rakhi Making and Mehandi Competition	Prof. Charuta Kharokar BV Fine art College, Katraj	SE, TE, BE Students and College staff	58
2	28/8/2024	Eco-Friendly Ganesha Idol Making Workshop	Prof. Deshpande, BV Fine art College, Katraj	SE, TE, BE Students and College staff	60
3	19/2/2025	Chhatrapati Shiv Jayanti Celebration	-	FE, SE Students and College staff	44
4	29/2/2024 to 2/3/2024	Cultural Days	Dr. Kavita Murugkar, BV Architecture College, Pranali Shende, BV Fine Art College, Katraj, Arpita Sonpatki Actress and Model	FE, SE, TE, BE Students and College staff	600
5	29/02/2024 to 02/03/2024.	Cultural Days	Prof. Mahima Chandra Prof. Hardip Kuar BV Optometry College	SE, TE, BE Students and College staff	500
6	8/8/2022	Rakhi Making and Mehandi Competition	-	SE, TE Students and College staff	60
7	27/8/2022	Eco-Friendly Ganesha Idol Making Workshop	Prof. Deshpande, BV Fine art College, Katraj	SE, TE, BE Students and College staff	60
8	27/09/2022 to 30/09/2022	Zest Fiesta 2022	-	SE, TE, BE Students and College staff	500

9	19/2/2023	Chhatrapati Shiv Jayanti Celebration	-	SE, TE, BE Students and College staff	40
10	25/3/2023	Women's Day Celebration- Women's health Seminar for teaching and non-teaching staff	Dr. Edalabadkar	SE Students and College staff	35
11	19/4/2023 to 21/4/2023	Cultural Days	Miss. Mugdha Deshpande, Actress and Model	FE, SE, TE, BE Students and College staff	500

- **Annual College Magazine "Oyster"**

Additionally, the annual college magazine highlights the talents and accomplishments of both students and staff. It features articles (Marathi, Hindi, English, Technical) poems, artwork, Drawing, Photography) and reports in the year's events and activities. Capturing the dynamic academic and cultural spirit of the college, it serves as a creative platform. Our college magazine has also earned recognition and awards at the university level. The annual college magazine is a vibrant platform that showcases creative talents of students and staff. It reflects the academic achievements, cultural activities, and innovative spirit of the institution throughout the year. Till date, the institute has received six awards from Savitribai Phule Pune University. In the last three years, the institute secured the First Prize for Oyster'20, announced in the academic year 2023–24.

- **Tech fest**

Table 9.7.2 Students Participation in Annual Technical Fest

Academic Year	Event Name	No. of students participated
2024-25	BharatiYugam 2025 – "Transforming Dreams into Reality"	275
2023-24	Technophilia	235
2022-23	Avinya	232

- **Annual Social Gathering**

Table 9.7.3 Students Participation in Annual Social Gathering

Academic Year	**Event Name**	**No. of students participated**
2024-25	BharatiYugam 2025- "Retro to Metro"	275
2023-24	Silverstone	235
2022-23	Adwitiya	232

- **Student Development Section:**

The Student Development Section organizes a variety of student-centered programs focused on life skills, social values, and personal growth. Events such as self-defense workshops, meditation sessions, awareness campaigns on minority rights, charity drives, and language appreciation days help students become socially responsible and emotionally resilient. The section also implements student welfare initiatives like the K.B.P. Earn and Learn scheme and career counseling sessions to ensure all-round student support.

Table 9.7.4 Students Development Section Activity list

Sr. No.	**Date**	**Activity Name**	**Venue**	**Resource Person**	**Number of Staff/Students participated**
1	13 -15/08/ 2024	Har Ghar Tiranga Campaign	BVCOEW ,Pune	Principal BVCOEW,Pune	78 students
2	14/08/2024	Awareness and Implementation of "Partition Horrors Remembarance day" Play	BVCOEW ,Pune	National School of Drama	210 students

3	1/09/2024 to 15/09/2024	Swacchta Pandharawada	BVCOEW ,Pune	All the staff members and Students	60 staff, 250 students
4	24/09/2024	Hindi Diwas celebration	BVCOEW ,Pune	SDO BVCOEW,Pune	40 students
5	11/12/2024	Bharatiya Bhasha Utsav Cebration	BVCOEW ,Pune	Online Mode: Mr.Pravin Tarade	6 staff, 58 students
6	18/12/2024	Alpasankhyank Hakka Din Celebration	BVCOEW ,Pune	Prof.Nikita Chaudhari(PVG,Pune)	2 staff, 66 students
7	25/01/2025	Road Safety Awareness	BVCOEW ,Pune	Mr. Ram Takbhate ,Mr. Mr. Sacheen Jahagirdar Dy. General Manager – Human Resource Kirloskar Ferrous.	60 staff, 249 students
8	27/01/2025	Know Your Hospital	BVCOEW ,Pune	Bharati Hospital,Pune	60 staff
9	30/01/2025	हुतात्म्यांना श्रद्धांजली कार्यक्रमा	BVCOEW ,Pune	Principal ,BVCOEW, Pune	60 staff, 250 students
10	11-13/03/2025	3-Day Workshop on Core Well-being Practices for First-Year Students	BVCOEW ,Pune	Heartfullness team,Pune	150 students
11	1/02/2025	Self Defence Workshop	BVCOEW ,Pune	School of Marshal arts,Pune	132 students
12	20- 22/02/2025	Workshop on Skill Development and Complementary Activities	BVCOEW ,Pune	BVCOEW Pune and Tronics 365 Pune	2 staff, 70 students
13	22/01/2025	Sakal YIN Event (Young Inspiration Network)	BVCOEW ,Pune	Principal ,BVCOEW, Pune	4 staff, 60 students
14	14/01/2025	Stationary Distribution and Visit to Janseva Foundation,Pune	Janseva Foundation,Pune	Principal ,BVCOEW, Pune	9 staff, 12 students
15	13/01/2025	Youth Day	BVCOEW ,Pune	Principal ,BVCOEW, Pune	42 staff, 291 students
16	19/02/2025	Jay shivaji jay bharat padyatra	COEP Ground Pune	--	4 staff, 150 students
17	28/07/2023	Activities under NEP 2020	BVCOEW, Pune	Principal BVCOEW,Pune.	15 students
18	9/08/2023	Swatantryacha Amrut Mahotsav Oath	BVCOEW, Pune	Principal BVCOEW,Pune	38 staff, 295 students
19	11/08/2023	Essay and Speech Competition Shivrajy abhishek -350	BVCOEW, Pune	Principal BVCOEW,Pune	15 students
20	14/09/2023	Vishesh Nav matador Nondani Abhiyan	BVCOEW, Pune	Principal BVCOEW,Pune	63 students
21	26/11/2023	Sanvidhan Diwas Celebration	BVCOEW, Pune	Principal BVCOEW,Pune	60 students
22	3/01/2024	Savitribai Phule Jayanti	BVCOEW, Pune	Principal BVCOEW,Pune	35 students
23	13/01/2024	सामाजिकप्रबोधनसप्ताह Celebration	Sumatibalvan,Nimbalkarwadi	Principal BVCOEW,Pune	45 students
24	30/01/2024	Hutatma Din	BVCOEW, Pune	Principal BVCOEW,Pune	236 students

25	17/02/2024	Nirbhaya Kanya	BVCOEW, Pune	Mrs.HemlataGawade(Bhaarati Vidyapeeth Police Station)	70 students
26	20/02/2024	Nirbhaya Kanya: Women Rights	BVCOEW, Pune	Mrs.Anisa Shaikh(New Law College Pune)	70 students
27	21/02/2024	Generation of Electricity from Green Energy	BVCOEW, Pune	Mr.RahulNalawade	84 students
28	22/02/2024	Nirbhaya k Kanya: Change in Lifestyle and Gynaecological Disorders	BVCOEW, Pune	Dr.MrudulaKharnar (kulkarni)Bharati Vidyapeeth ayuvedic College	50 students
29	13/04/2024	Women Health Awareness Session	BVCOEW, Pune	Miss.AartiShitole,from Unimax India	39 students
30	11/05/2024	Student Health Check-up Camp	BVCOEW, Pune	Bharati Hospital,Pune	100 students
31	May 2023 to Feb 2024	KBP Earn and Learn	BVCOEW, Pune	----	32 students
32	21/06/2022	International Yoga day	BVCOEW, Pune	Dr.G.G.Patil,Mrs.Pravina Shete	55students
33	12/07/2022	Workshop on Electric Vehicles for Smart Cities	BVCOEW, Pune	Prof.Vaishali Yawale and Prof.Krutuja Gadgil of AISSMS IOIT Pune.	71students
34	12/08/2022	Tree Plantation	Taljai pathar	Dr.S.R.Patil ,staff members and Students	12 students
35	12/08/2022	Swatantryacha Amrut Mahotsav,Har Ghar Tiranga	Bharati Vidyapeeth Campus	Dr.S.R.Patil ,staff members and Students	240 students
36	12/08/2022	Amali Padarth Virodhi Pratidnya	BVCOEW, Pune	Dr.S.R.Patil ,Teaching and non-teaching staff members	21 staff
37	17/08/2022	Samuhik Rashtrageet Gaan:Swarajya Saptaha	BVCOEW, Pune	Principal	30 staff
38	3/10/2022	Gandhi Jayanti Cleanliness Drive	BVCOEW, Pune	All the staff members	50 staff
39	15/10/2022	Wachan Prerana Din	BVCOEW, Pune	All the staff members	27 staff, 118 students
40	31/10/2022	Rashtriya Ekata Diwas	BVCOEW, Pune	All the staff members	26 staff, 127 students
41	31/102022	Alpasankhyanka Hakka Din	BVCOEW, Pune	All the staff members	15 staff
42	25/11/2022	Matdar Din	BVCOEW, Pune	–	2 staff, 40 students
43	26/01/2023 to 10/02/2023	Lokshahi Padharawada Celebration	BVCOEW, Pune	Principal,All HOD,Student Development Officer, ,Students	5 staff, 48 students
44	28/02/2023	Seminar On Nirbhaya Kanya	BVCOEW, Pune	Dr Ujwala Bendale ,Principal,BV law College,Pune	3 staff, 280 students

45	17/02/2023	Seminar On Women Health	BVCOEW, Pune	Dr.Vandana Nimbargi,Bharati Hospital, Pune	30 staff
46	15/02/2023	Seminar On Cyber Security"	BVCOEW, Pune	Mr.Maharudra Gitte, B.E.(IT),M.Tech.(CSE),LL.B. ,Diploma in Cyber LaW, Advocate,Pune	10 staff, 50 students
47	27/02/2023	Marathi Bhasha Gaurav Din	BVCOEW, Pune	–	82 students
48	3- 4/03/2023	Workshop on Green Electric Power Generation	BVCOEW, Pune	Mr. Yogesh Mahaparale,General Manager ,Hella Automotive Pvt.Ltd.	4 staff, 130 students
49	16/05/2023	G20 Antargat 3rd Energy Transition Working Group Upakram	BVCOEW, Pune	Prof.Diksha Chopade	1 staff, 55 students
50	A.Y. 2022-23	K, B, P. Earn and Learn	BVCOEW, Pune	–	20 students

- **Internal Complaint Committee:**

As per the guidelines and regulations laid by Maharashtra State Commission for Women (MSCW), an Internal Complaint Committee (ICC) is made mandatory to be formed at every educational institute. The ICC was formed at BVCOEW, Pune on 27th February 2017 with an inauguration function and a half day workshop on sexual harassment and awareness. This committee is setup in the view of giving guidelines about sexual harassment at workplace and helping a victim against it. This committee also ensures prevention, prohibition and redressal of sexual harassment. Reconstitution of the committee was done on 25th February 2021.

The students can drop in their complaints in written form in the drop box provided and also contact the ICC members for any kind of help they require.

Objectives of ICC:

- Improving the status and dignity of women in the society.
- Investigate into practices derogatory to women and suggest suitable remedial measures.
- Effectively monitor implementation of laws affecting women.

Functions of ICC:

- Provide assistance if an employee or a student chooses to file a complaint with the police.
- Provide mechanism of dispute redressal and dialogue to anticipate and address issues.
- Protect the safety of the complainant.
- Ensure victims and witnesses get proper treatment.

Table 9.7.5 ICC Activity list

Sr. No.	Date	Activity List	No. of Students
1	07/01/2025	Seminar on "From Awardees to Action: Stopping Violence Against Women & "Damini Pathak operating System (Karyapranali)"	300
2	08/10/2024	Awardees Session "ICC" for newly admitted (FE) Students.	300

3	27/02/2024	One Day Workshop on Empower Her: Strengthening women Safety, Rights and Health.	200
5	28/08/2023	Awareness session on “Internal Complaint Committee” and code of conduct at the Institute for Newly admitted (FE) student.	200
6	07/12/2022	As per the AICTE guidelines women “Pakhawada” is celebrated at BVCOEW Pune during 25/11/2022 to 10/12/22	146

- **Student Grievance Redressal cell**

The Institute has formed STUDENTS’ GRIEVANCE REDRESSAL COMMITTEE (SGRC) As per the AICTE circular. The primary objective of the committee is to provide opportunities for redressal of certain grievances of students already enrolled. Once in a semester the committee meeting is held to discuss and resolve the student’s grievances.

Table 9.7.6 Student Grievance Redressal cell Activity list

Meeting Number	Date	Discussions	Action Taken	Class	No. of. students
1	2/08/2024	Attendance Consideration and extension of Internship duration	Request form all TE students forwarded to all departments HOD	All class CRs	15
		Arranging seminars on specific domain for basic knowledge of that domain.	This request with domain name forwarded to HODs.		
		Provision of wi-fi facility in library	Forwarded to Network administrator for further action.		
2	15/03/2025	Feedback related to all points of discussion is taken by SGRC committee members and Principal sir from all classes	All suggestions from students forwarded to respective authority.	All classes	1000
3	28/08/2023	Maintenance of tube lights and fans in classrooms as well as laboratories.	Suggestion is forwarded to store for regular maintenance of lights and fans. It was done.	All class CRs	11
4	2/11/2023	Query related to fee payment in online mode	Query is forwarded to account section.		9
5	3/2/2024	Regular cleaning of all classrooms, labs. Extra practical sessions.	Suggestions are forwarded to higher authority		12
6	24/4/2024	Extension of library hours from 8:00 am in morning	Suggestion forwarded to Librarian and higher authority for further action		10

7	29/08/2022	a) Cleanliness of classrooms b) Increase in library hours	a) All suggestions are forwarded to higher authority. b) Library hours are extended during exam period.	All class CRs	14
8	13/03/2023	Cleanliness of washrooms on daily basis with uninterrupted water supply	Suggestion is forwarded to higher authority		13
9	2/12/2022	Requirement of smart boards in all classrooms	Suggestion is forwarded to higher authority and smart boards are installed in all classrooms		12
10	15/05/2022	Requirement of Sanitary Pad machines in washrooms	Suggestion is forwarded to higher authority and machines are installed in washrooms of each floor.		11

- **Anti- Ragging Committee (ARC):**

Anti -Ragging Committee is constituted in our college to prevent ragging and to take anti-ragging measures as per the guide lines issued by the Hon. Supreme Court of India & UGC. The undertaking by students regarding non-involvement in ragging act is introduced in admission process. Anti-ragging committee was reconstituted with senior and junior student representative, Sub Inspector of Police, Media Person, NGO, Representative from Non-teaching Staff etc. Anti-Ragging Committee was formed at BVCOEW, Pune in 2014

Objectives of ARC:

1. To Prevent, Prohibit, and Redress any and all forms and instances of Ragging in the College.
2. To educate the students on the meaning of ragging and what constitutes it.
3. To educate the students on the ill-effects of ragging and the consequences, including legal

   Consequences of indulging in ragging.
4. To keep a continuous watch and vigil over ragging so as to prevent its occurrence and

   Recurrence.

Anti-ragging Week Celebration

Table 9.7.7 Anti-ragging cell Activity list

Sr. No.	Date	Event Name	Participation	
			Faculty and non-teaching staff	students
1.	12/08/2024	Pledge, Introduction and video of Anti ragging	03	200
2.	12/08/2024	Screening of short films and documentaries on anti-ragging	03	200
3.	13/08/2024	Digital Poster Making and Slogan Writing Competition	06	58

- **Gymkhana:**

Sports and Gymkhana activities are central to promoting physical fitness and team spirit. Students actively participate in college and university-level sports competitions in games such as basketball, volleyball, cricket, table tennis, and chess. Events like Yoga Day, Fit India Movement, and the Annual Sports Week help students maintain a healthy lifestyle while instilling qualities such as discipline, leadership, and perseverance. The sports facilities are well-equipped, and winners are recognized during the college's annual social gathering. Activities conducted during the assessment period are listed below:

Table 9.7.8 Sports Activity list

Sr. No.	Name of the Event	No. of Players participated in Sports activities		
		2024-25	2023-24	2022-23
1	Yogasan	03	01	01
2	Chess	03	04	03
3	Badminton	03		04
4	Basketball	09	10	07
5	Volleyball	10	06	
6	Kho-Kho	12		
7	Athletics	09	06	06
8	Football	11	19	
9	Annual Sports	500	200	500
10	Cross-Country		01	03
11	Weight-Lifting		01	
12	Power-Lifting		01	
13	Kabaddi		10	
14	Fencing			01
15	Handball			01
16	Cricket			12
	Total No of Students	**560**	**259**	**538**

- **Alumni Association:**

A key pillar of institutional growth and student mentorship is the Alumni Association. Registered under the Charity Commissioner's Office, Pune (Reg. No. Maha/1403/2017/Pune dated 6 October 2017), the alumni association has over 4700 registered members. Its mission is to maintain a strong and lifelong connection between the institution and its graduates. This is accomplished through alumni meets, guest lectures, workshops, and mentoring sessions. Alumni share their professional journeys and industry insights, inspiring current students and offering valuable guidance on higher studies, placements, and career paths. Their active involvement significantly enhances the learning environment and strengthens the college's industry network.

Table 9.7.9 Alumni Activity list

Sr. No.	Date	Name of the Activity	Name of the Alumna	Class
1	18/07/2024	MPSC Exam Preparation	Ms. Puja Khumkar	SE E&TC
2	18/07/2024	Job Opportunities in US Based Company	Ms. Sayali Kumbhar	SE E&TC
3	22/07/2024	Seminar on Career Path and Industry Insights	Ms.Utkarsha Kakade	SE IT
4	21/09/2024	Mastering the placement process	Ms. Tejas Takalkar	TE E&TC
5	03/10/2024	Higher Studies and Professional Experience in Company	Ms. Sneha Kumari Ms. Palak Agrawal	TE E&TC

6	19/10/2024	Seminar on Discussions on Emerging Trends in Technology	Ms. Smiti Chandwadkr	TE IT
7	13/01/2025	Seminar on Angular for Frontend Developers	Ms. Komal Jha	SE IT
8	03/02/2025	Guidance on Higher Education	Ms. Tanushree Desale	BE E&TC
9	03/02/2025	Understanding Company Expectations and Hiring Trends	Ms. Sayali Patil	BE E&TC
10	07/02/2025	Seminar on Career Pathways in Software Engineering	Ms. Smiti Chandwadkr	BE IT
11	18/02/2025	From Campus to Career: MS experience in UK	Ms. Shreya More	SE E&TC
12	22/03/2025	Data Cloud and Gen AI	Ms. Julekha Bagwan	SE Comp
13	21/04/2025	Career Opportunities in AI	Ms. Tanvi Sanerkar	SE Comp
14	08/08/2023	Preparation of CDAC entrance examination	Ms.Revati Gajbhar	TE E&TC
15	11/08/2023	Cracking Placemnet in hardcore company	Ms.Purva Mahadik	TE E&TC
16	19/08/2023	Seminar on Career Guidance and Alumni Interaction Session	Ms. Rajshri Ghatkar	SE IT
17	03/02/2024	Seminar on Oracle Application developer	Ms.Vaishnavi Bhutda	TE IT
18	29/02/2024	Guidance on Placement	Ms Shruti Burhade	SE E&TC
19	04/03/2024	Guidance on Group Discussion & Personal Interview	Ms.Radha Kure	BE E&TC
20	09/03/2024	Transitioning from academia to industry	Ms. Surbhi Malav	TE Comp
21	13/03/2024	Placement Preparation	Ms. Maithili Chaturbhuj	SE Comp
22	15/03/2024	Preparation for Competitive Examinations	Ms. Shital Vaidya	TE E&TC
23	16/03/2024	Professional Etiquettes	Ms. Rekha Takalkar	SE E&TC
24	27/03/2024	Seminar on Internship and Project Guidance	Ms.Aachal Bhatt	SE IT
25	16/04/2024	Preparation for placement and career opportunities	Ms.Vishakha Patil	SE Comp
26	19/04/2024	Seminar on Insights into industry expectation, career paths and professional development	Ms. Meenakshi Sinha	SE IT
27	2504/2024	Seminar on Windows and networking-Citrix Technology	Ms. Shital Bhoite	SE and TE IT

28	18/05/2024	Balancing Academic Excellence and Career Advancement: Strategies for Placement Preparation	Ms. Aditi Kokil	SE Comp
29	15/09/2022	Seminar on Website Development using Wordpress	Ms. Shruti Lokhande	TE-IT
30	22/09/2022	Importance of Academics in view of Placement	Ms. Samrudhdhi Shukla	TE E&TC
31	15/02/2023	Placement and Interview Guidance	Ms. Aishwarya Mokashi	SE E&TC
32	22/02/2023	Work Etiquettes in IT Company	Ms. Komal Singh	SE E&TC
33	18/05/2023	Seminar on Career Guidance	Ms. Shruti Lokhande	SE-IT
34	26/08/2023	Cloud Computing	Ms. Siddhi Deshpande	SE Comp
35	30/08/2023	Balancing Academic Excellence with Enriching Extracurricular Activities	Ms. Harshada Ankam	FE

- **Department Student Associations:**

  Student Associations such as ETSA, ITechS'A, CESA functions as a technically-focused student bodies that organize coding competitions, technical talks, seminars, industry interactions, and study-abroad awareness programs. These activities bridge the gap between academic learning and real-world applications, empowering students with the skills and exposure needed to thrive in competitive environments. Professional ethics, Technical skills, personality development, advance technology awareness and soft skills are the key topics covered through the events and activities conducted through the department student's associations. These associations are run by the students for the students with the guidance of faculty and staff.

Computer Engineering Student Association (CESA) Activity List

Table 9.7.10 Computer Engineering Student Association (CESA)

Sr. No.	Date	Type of Event	Name of Activity	Name and Address of resource person	Contact Details	Class	No of Students
1	06/07/24	Seminar	Seminar on "NES Award-Sharing Experience and Project Selection"	Miss Tanvi Mahajan,Miss Ankita Kanawade,Miss Samrudhi Shete, Shweta Jadhav	BE students (Alumina)	SE	40
2	09/07/24	Webinar	Webinar on "Training demo on Aptitude and Technical Preparation "	Mr. Abhishek Kumar Singh and Mr. Prabhakar Kumar "InLustro PVT. Pune	8805192409	BE	30
3	10/07/24	Webinar	Webinar on "Employability Skill Tranining-demo by Six Phrase"	Mr. Ajinkya Gaikwad and Mrs. Vaishali Vavle	7045488107	BE	27

4	11/07/24	Seminar	Seminar on "Advanced Data Structure"	Prof. Nagesh Mhetre Clicking Computer	9881549749	SE	50
5	12/07/24	Webinar	Webinar on "Aptitude and Technical Training" by Eduplus	Mr.Dular Corporate trainer Eduplus PVT	9112361213	BE	17
6	19/07/24	Webinar	Webinar on "Aptitude and Technical Training"by Campus Credential	Mr.Musharraf H. and Mr.Prashant Zha Corporate trainer, Campus Credentials Pune	7841087169	BE	21
7	02/08/24	Seminar	Seminar on "100% Scholarship to study abroad"	Mr.Subhash Pol Business development Manager ,Edwise email-subhash@edwiseinternational.com	9403823004	TE	57
8	30/01/25	Seminar	Seminar on Career Opportunities in Biomedical Engineering Field	Mrs.Vaishnavi Banke Medifacts INC, Pune medifacts2016@gmail.com	9823012299	BE	30
9	17/03/25	Workshop	One day workshop on "Introduction to Java Programming Language	Mr.Rajesh Kanade Trainer CADD CAREER, Founder of GrayNeurons LLP, rkanade@gmail.com	9890303698	SE	58
10	28/07/23	Seminar	Seminar on "IPR Awareness Program"	. Prof.Dr. Sunita Dhotre Associate professor of Department of computer Engineering in Bharati Vidyapeeths Deemed University	9922917341	TE	77
11	21/08/23	Seminar	Seminar on "AWS Discovery Day"	Mr.Pranav Phadke Director of Brainfloss	9960579824	TE	57
12	23/08/23	Seminar	Seminar on "Advanced Data Structure"	Prof. Nagesh Mhetre Clicking Computer	9881549749	TE	58
13	28/08/23	Seminar	Seminar on "BSE - Capital Market Awareness Program "	Mr.Arvind Savant Financial Market Analysis Trainer	9833908204	SE, TE	39

14	08/09/23	Seminar	Seminar on "Machine Learning"	Prof.P.D.Kale Associate professor of department of computer Engineering in Bharati Vidyapeeths College of Engineering for Women Pune 43	9890164361	SE	53
15	05/10/23	Seminar	Seminar on “Internet of things”	Prof. S. A. Itkarkar Associate professor of department of Electronics and Telecommunication in Bharati Vidyapeeths College of Engineering for Women Pune 43	8668826508	TE	50
16	10/01/24	Seminar	Seminar on "Placement Assistance for 2024 Batch"	Aditya Wakodakar Client Relation Manager seventh sense PVT LTD aditya@seventhsensetalent.com	7022492155	BE	50
17	01/02/24	Seminar	Seminar on " Career Opportunities in Biomedical Engineering Field"	Mrs.Vaishnavi Banke Medifacts INC, Pune medifacts2016@gmail.com	9823012299	BE	40
18	09/02/24	Seminar	Seminar on " Grooming Program on Cyber Security as per the Industry Standards"	Mr.Manish Singh Manager-Services Sales Inflow Technologies PVT LTD manishkumar.s@inflowtechnologies.com	8867787311	SE, TE	114
19	20/09/22	Seminar	Seminar on"Higher Studies Opportunities and IELTS Examination"	Mr.Rahul Kamble Sr.IELTS Operation executive	9429371758	TE	65
20	23/09/22	Seminar	Seminar on "Carrier Opportunities in the Armed Forces for Women"	GP CAPT.Sanjay Pethkar Dignitary Defence Academy	9449994003	SE	62
21	23/09/22	Seminar	Seminar on "Carrier in IT Industry"	Mrs. Supriya Lande IANT Pvt.Ltd.	9325627273	SE, TE	120

22	11/10/22	Seminar	Seminar on "Higher studies abroad with 100% scholarship"	Mr.Subhash Pol Business devlopment Manager	91-20-41045333	SE	63
23	23/11/22 24/11/22	Workshop	Workshop on" Python Programming for machine learning"	Mr.Atul Wadkar Director,Algorithmic electronics,pune	9049301122	SE	68
24	25/02/23	Webinar	Webinar on Aptitude and technical training	Aditya Wakodakar Carporate trainer seven sense pvt.ltd.	7022492155	TE	50
25	09/03/23	Webinar	Webinar on Aptitude & Technical Preparation	Aditya Wakodakar Carporate trainer seven sense pvt.ltd.	7022492155	SE	55
26	11/03/23	Webinar	Webinar on Training demo on Soft Skill, Aptitude & Technical Preparation	Avinash Pathak Carporate trainer Carpe diem Boot camp	7875437744	TE	35
27	21/03/23	Webinar	Webinar on Aptitude and Technical Training	Mr.Sachin Satpute Carporate trainer Eduplus pvt.ltd	8956319404	TE	32
28	24/03/23	Webinar	Webinar on "Coding Super Power: Go Easy with C++ and Logic Building"	Bhakti Jagtap Director,BrightSea Technology OPC Private Limited	7796208181	SE	28

Table 9.7.11 Computer Scociety of India CSI Activity list

Sr. No.	Name of Activity	Date of Activity	Duration of Activity	Class	No. of Participants
1	Seminar on “Word press CMS”	10th Feb 2025	1 hour	TE	48
2	Webinar on “Copyright filing process”	16th April 2025	1 hour	BE	50

3	Webinar on “Skill wallet and smart internz salesforce internship”	18th June 2024	1 hour	TE	25
4	Webinar on “Data visualization using Qlik Sense”	16th Oct 2022	1 Hour 1 day	SE,TE	44
5	Modern Database Management System Quiz Competition	30th Nov 2022	1 hour	TE,BE	81
6	Webinar on “Spring Framework of Java”	4th March 2023	1 Hour	TE	49
7	Seminar on “Cloud Computing and Web Hosting Services“	21st March 2023	2 hour	TE BE	73

NSS Unit:

The National Service Scheme (NSS) is a powerful platform for students to engage in social service and nation-building activities. The NSS unit at *Bharati Vidyapeeth's College of Engineering for Women, Pune* was established in the academic year **2006–07** with an initial enrollment of **50 student volunteers**. Over the years, the unit received enthusiastic participation from students and strong institutional support, leading to a steady increase in its strength. The number of volunteers grew to **100** in **2010-11**, and further expanded to **200** in **2016-17**. With continued interest and commitment towards community development, the NSS unit has now reached a total strength of **250 volunteers** as of the academic year **2023-24**. The unit functions actively under the guidance of the Principal and appointed NSS Programme Officers, aligning with the objectives set by the Ministry of Youth Affairs and Sports, Government of India.

- **Objectives of NSS:**

The primary objective of the National Service Scheme (NSS) is to develop the personality of students through community service. It aims to help students understand the community in which they work and recognize their role within it. By engaging with local communities, students are encouraged to identify and analyze social problems and actively participate in finding and implementing practical solutions. The scheme fosters a sense of social and civic responsibility, cultivates democratic attitudes, and enhances leadership qualities. It also promotes group living, cooperation, and sharing of responsibilities. Through various activities, students acquire the skills needed to mobilize community participation and respond effectively to emergencies and natural disasters. Moreover, NSS instills the values of national integration, unity in diversity, and social harmony, shaping students into responsible and aware citizens.

- **Major Activities Conducted under NSS:**

The NSS unit of the college actively organizes and participates in a wide range of social, cultural, and developmental activities throughout the academic year. These include **tree plantation drives**, **Shramdaan (voluntary labour work)**, **blood donation camps**, **awareness campaigns** on health, hygiene, environment, and gender sensitization, as well as **lectures, seminars, and competitions** to promote civic and social values among students. The volunteers frequently **visit old age homes, orphanages, and schools for underprivileged children**, fostering empathy and community engagement.

Special emphasis is given to the celebration of important national and international days such as **Independence Day, Republic Day, Constitution Day, Engineers' Day, and Women's Day**. One of the key highlights of the NSS calendar is the **Seven-Day Special Residential Camp** held in rural or semi-urban areas, where students undertake activities like cleanliness drives, sanitation awareness, and socio-cultural programs focused on rural development. The residential camp in rural areas provide exposure to the grassroots realities and enabling community service for the students. The unit also takes pride in its volunteers being **selected to represent the college at prestigious events such as the State Republic Day Parade (SRD)** and the **National Republic Day Parade (NRD)** camps, showcasing their leadership, discipline, and active involvement in NSS at higher levels. Such selections reflect the dedication and excellence of the volunteers and contribute significantly to the visibility and impact of the institution's NSS initiatives.

Table 9.7.12 National Service Scheme (NSS)Activity list

Sr. No.	Event Name	A.Y. 2022-23		A.Y. 2023-2024		A.Y. 2024-25	
		No. of activities	No. of students participated	No. of activities	No. of students participated	No. of activities	No. of students participated
1.	Har Ghar Tiranga	3	260	4	190	2	250
2.	Cleanliness Drive	1	60	4	50	4	55

3.	NSS Orientation Program	4	260	3	166	4	250
4.	Voter Awareness	1	80	1	200	5	250
5.	Tree plantation	1	50	1	28	2	150
6.	Mental health and meditation program	1	77	3	125	3	150
7.	Grantha Dindi	2	113	2	125	2	150
8.	Trekking	1	100	1	125	1	150
9.	Science day	1	100	1	66	1	150
10.	Health checkups	3	300	2	120	3	150
11.	Cultural gathering	1	100	1	125	1	150
12.	National Festivals & Patriotic Events	5	80	5	70	6	180
13.	Ganesh idol making workshop	1	50	1	35	1	250
14.	Seven Days Residential Camp in Village	1	100	1	125	1	125
	National/State/District level workshops						
15.	State Level Workshop on Contribution of Transgender in Election Process	1	10	-	-	-	-
16.	Gadsanvardhan (Fort conservation)	-	-	-	-	1	50
17.	Gender sensitization	-	-	-	-	1	100
18.	Meri mati mera desh	-	-	1	146	-	-
19	Viksit Bharat	-	-	1	168	-	

Table 9.7.13 FE Induction Program Activity list

Sr. No	Date	Activity	Resource Person
1	20/09/2024	Meditation/ Yoga	Prof. U. S. Zope Prof. K. S. Sawant
		Physical Activity Out Door(Ground)	Prof. K. B. Naikwadi Prof. Dr. G. G. Patil

2	23/09/2024	Happy Thought Session	Student Volunteers
		Youth for Nation	Vikram Magar
3	24/09/2024	Empowering Women by Incubating ideas to Startups	Dr.Atual Ayare
	24/09/2024	Department visit (COMP)	Prof. K. S. Sawant
4	25/09/2024	Katalyst Scholarship Session	Prof. Dr. S. S. Jadhav Prof. D. P. Chopade
	25/09/2024	Department visit (IT)	Prof. M. A. Rane
5	26/09/2024	Introduction of ICC	Prof. Dr. S. S. Chorage Prof. Dr. S. S. Jadhav
	26/09/2024	Community Outreach Program Info Session	Prof. S. A. Itkarkar
6	27/09/2024	Museum Visit	Prof. Y. D.Kute Prof. A. B. Vitekar
	27/09/2024	One minute game/Art related activities	Prof. M. A. Patwardhan Prof. U. S. Zope
7	28/09/2024	Principal address to students and Parents	
	28/09/2024	Cultural activities	Prof.Anjali Kadam
8	30/09/2024	Tree Plantation	All F.E. Teaching and Non-teaching staff NSS Unit
9	29/08/2023	Meditation/ Yoga	Prof. U.S. Zope Prof.S.R.God
		Katalyst Scholarship Session	Prof. Dr.S.S. Jadhav Prof. D. P. Chopade
10	30/08/2023	Meditation/ Yoga	Prof. U.S. Zope Prof.S.R.God
		Department visit (Comp)	Prof. D.P.Chopade Prof. U.S.Zope Prof.KS.Sawant

11	31/08/2023	Introduction of ICC	Prof.Dr.S.S.Chorage Prof. M.A. Patwardhan
		Department visit (IT)	Prof. Y. D. Kute Prof. Smita God Prof.M.A.Rane
12	01/09/2023	Cummins Scholarship Session	Prof. D.P.Chopade Prof. U.S. Zope Prof.S.R.God
		Department visit E & TC	Prof. Y. D. Kute Prof. M.A. Patwardhan Prof. K. D.Mahajan Prof. P.R.Yawale Prof. S.V. Shelake Prof. R. Sapakal
13	02/09/2023	Museum Visit	Prof. Y.D.Kute
		Practice for Cultural Activities	Practice for Cultural activities
14	04/09/2023	Sports activities (BV Ground)	Prof. K. B.Naikwadi Prof.Dr.G.G.Patil
15	05/09/2023	Cultural activities	FE ALL Teaching & Nonteaching Staff
16	22/11/2022	Meditation/ Yoga	Prof. U.S. Zope
		Physical Activity Out Door(Ground)/Indoor	Prof. K. B.Naikwadi
17	23/11/2022	Student Development session	Prof. K.R. Chaudhari Prof. D. P. Chopade Prof. Dr. S. S. Jadhav
		Feedback & allocation of next activity	
18	24/11/2022	Meditation and Yoga	Prof. U.S. Zope
		Physical Activity Out Door(Ground)/Indoor	Prof. K. B.Naikwadi
19	25/11/2022	Exam section Session	Prof. Dr. S.S. Thite Prof. M.A. Patwardhan
		Auditions for Cultural activities	Prof. D. P. Chopade Prof. Dr. S.S. Jadhav

20	26/11/2022	Meditation and Yoga	Prof. U.S. Zope
		Katalyst Scholarship Session	Prof. D. P. Chopade Prof. Dr. S.S. Jadhav

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)

Total Marks 110.00

10.1 Organization, Governance and Transparency (40)

Total Marks 36.00

10.1.1 State the Vision and Mission of the Institute (5)

Institute Marks : 5.00

Vision :
Women Empowerment through Technical Education.
Mission :
M1: Develop women students to rise to their full potential. M2: Impart knowledge and prepare competent engineers.

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

Institute Marks : 9.00

A] List of Governing Body Composition, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities, frequency of the meetings; participation details of external members and attendance there in.

To achieve the organization's objectives and ensure transparency, a clear organizational structure and hierarchy of authority have been established. Duties, responsibilities, and powers are systematically assigned and coordinated across various levels of management. (The organizational chart is available on institutional website.)

1. **Governing Body:**

Table 10.1.2.1: Composition of Governing Body

Sr. No.	Nominations / Designation	Name
1	Chairman-Nominated by Trust	Hon. Dr. Vishwajeet Kadam
2	Members Nominated by Society /Trust	Dr. U. B. Bhoite
		Dr. S. F. Patil
		Principal Dr. K. D. Jadhav
		Dr. Mandar Karmarkar
3	Nominee of AICTE Regional office EX Officio.	
4	An Industrialist/ Techno. Educationist from region nominated by regional committee as nominee of council	Dr. A. S. Padalkar
5	Nominee of affiliating body/uni. /State Board of Technical Education	
6	Nominee of State Government DTE Ex. Officio.	Dr. D.V Jadhav
7	An Industrialist/ Techo. / Educationist from region nominated by Stat Government	Dr. P. B. Mane
8	Principal/Member Secretary (Nominated by Society/Trust)	Prof. Dr. P. V. Jadhav
9	Two Facility members regular (Prof. and Asst. Prof. level)	Prof. Dr. S. S. Chorage
		Prof. Dr. A. M. Pawar

Functions and responsibilities:

1. **Financial Approvals**
   - Approve the annual budget estimates in advance.
2. **Audit and Accounts**
   - Review and approve the audited financial statements for each year.
3. **Human Resource Management**
   - Approve the recruitment of faculty and staff.
   - Approve promotions and recognize outstanding performance of faculty and staff.
4. **Regulatory Compliance**
   - Ensure compliance with the requirements set by AICTE, the State Government, and the affiliating University.
5. **Infrastructure Development**
   - Review and approve proposals for new infrastructure and facility upgrades.
6. **Academic Expansion**
   - Approve proposals for increasing student intake and launching new academic programs**.**
7. **Service Conditions**
   - Implement service conditions for faculty and staff in accordance with guidelines from the State Government and affiliating University.

8. Academic Review

- Review the Principal's report on student admissions and academic performance.

Frequency of meeting: Two times in a year

2. **College Development Committee:**

As per the Maharashtra Public Universities Act 2016, Section 97, the College Development Committee is formed at the college level.

Table 10.1.2.2: Composition of College Development Committee

Sr. No.	Nominations / Designations	Name	
1.	Chairperson of the management or his nominee ex officio Chairperson	Hon. Dr. Vishwajeet Kadam	
2.	Secretary of the Management or his nominee	Dr. K. D. Jadhav	
3.	One head of Department (to be nominated by the principal or the head of the Institution)	Prof. Dr. D. A. Godse	
4.	Three teachers in the College or recognized Institution elected by the full time amongst themselves out of whom at least one shall be women	1.	Prof. Mrs. P. D. Kale
		2.	Prof. Dr. V. R. Pawar
		3.	Prof. Dr. Mrs. K. A. Malgi
5.	One non-teaching employee elected by regular non-teaching staff from amongst themselves	Mr. S. J. Deshmukh	
6.	Four local members, nominated by the Management in consultation with the principal, from the fields of education, industry, research and social service of whom at least one shall be alumnus	1.	Dr .U.B. Bhoite
		2.	Dr. S. F. Patil
		3.	Dr. Mandar Karmarkar
		4.	Dr. Tansen Chaudhari
7.	Coordinator, Internal Quality Assurance Committee of the College	Prof. Dr. S. S. Chorage	
8.	President and Secretary of the College Students Council	Miss. Hrucha Gohad	
9.	Principal / Director of the College or Head of the Institution-Member – Secretary	Prof. Dr. P. V. Jadhav	

Frequency of meeting: Two times in a year

3. **Internal Quality Assurance Committee (IQAC)**

IQAC Objectives:

- To decide upon quality initiatives and improvements needed at the institute for the benefit of the students.
- To imbibe quality environment at institute in all academic and administrative processes.
- To be instrumental in review of teaching learning process, structures, methodologies and student centric methods for achieving best educational environment.

Table 10.1.2.3: Internal Quality Assurance Committee (IQAC)

Sr. No.	Name of the IQAC Member	Designation	Position
1	Prof. Dr. P. V. Jadhav	Head of the Institute	Chairperson
2	Dr. K. D. Jadhav	Joint Secretary of Bharati Vidyapeeth	Member of Management
3	Dr. S. F. Patil	Executive Director of Bharati Vidyapeeth	Member of Management
4	Prof. Dr. S.R. Patil	HOD, E & TC Engineering	Teacher Representative
5	Prof. Mrs. Khot S.T	Training cell Coordinator	Teacher Representative

6	Prof. Dr. V. R. Pawar	Academic & Research Coordinator	Teacher Representative
7	Prof. Dr. S. M. Rajbhoj	Industry institute Interaction	Teacher Representative
8	Prof. Ms. K. D. Mahajan	Alumni Coordinator	Teacher Representative
9	Prof. Mr. D. D. Pukale	HOD, Computer Engineering	Teacher Representative
10	Prof. Mrs. P. D. Kale	Placement cell Coordinator	Teacher Representative
11	Prof. Dr. D. A. Godse	HOD, Information Technology	Teacher Representative
12	Prof. Dr. K. A. Malgi	ICT & IT Infrastructure Coordinator	Teacher Representative
13	Prof. Dr. A. M. Pawar	HOD, Engineering Sciences and Allied Engineering	Teacher Representative
14	Mrs. Vaishali Kadam	Office Superintendent	Admin. Representative
15	Dr. V.M. Mohite	Librarian	Admin. Representative
16	Mr. Nityanand Prabhu Tendolkar	Chief Technical Officer, Ergen Technovation Pvt. Ltd.	Industry Representative
17	Mr. Sanjaykumar Gupta	Parent	Parent Representative
18	Ms. Shital Patil	Alumna (IT)	Alumni Representative
19	Ms. Khushi Mittal	Student (E & TC)	Student Representative
20	Prof. Dr. S. S. Chorage	Professor (E & TC)	Coordinator of the IQAC

Roles and Responsibilities of IQAC:

- Keeping regular updates of NBA/NAAC and other quality improvement circulars.
- Preparing Strategic plan of the institute.
- Preparation and submission of Annual Quality Assurance Report (AQAR) yearly.
- Maintaining academic records and conducting various audits (e.g. energy audit, environment audit, academic and administrative audit, gender audit etc.) at required intervals.
- Taking review of updating of hardware and software requirements and internet facilities.
- Updating feedback forms as per guidelines from regulatory bodies.
- Providing guidelines for research proposals, implementing ERP and data management system.
- Mentoring to organize various technical and nontechnical events.
- Guiding for preparation of reports of various activities for quality improvement.

Frequency of meeting: Four times in a year.

B] The Published service rules, policies and procedures with year of publication

The rules and policies regarding recruitment and promotion are as per AICTE, DTE, and Savitribai Phule Pune University Pune.

C] Minutes of Meeting and action taken reports:

Agendas, notifications, minutes of meetings, and action taken reports for all previously held meetings of the Governing Body and the College Development Committee are available at the institute's administrative office.

10.1.3 Decentralization in working and grievanceredressal mechanism (10) Institute Marks : 9.00

A] List the names of the faculty members who have been delegated powers for taking administrative decisions

The institution promotes a decentralized administrative structure to ensure effective governance and participative decision-making. Administrative powers and responsibilities are distributed among various faculty members and staff to streamline academic and operational efficiency. Key positions such as Principal, Vice Principals, Heads of Departments, and Office Superintendent are entrusted with specific decision-making authorities related to their roles. This empowers them to take independent decisions within their scope of work, thereby improving institutional functioning and responsiveness to stakeholder needs.

Table 10.1.3.1: Faculties Delegated with Administrative Powers

Sr. No.	Name	Designation
1	Prof. Dr. Pradeep V. Jadhav	Principal
2	Prof. Dr. A. M. Pawar	Vice Principal (Administration)
3	Prof. Dr. S. S. Chorage	Vice Principal (Academic)
4	Prof. Dr. S. R. Patil	Head of Electronics and Telecommunication Engineering
5	Prof. Dr. D. A. Godse	Head of Information Technology
6	Prof. Dr. S. P. Kadam	Head of Computer Engineering
7	Mrs. Vaishali Kadam	Office Superintendent

- To promote decentralised and participative governance, the institute has established various functional committees. Each committee is led by a senior faculty member serving as the coordinator.
- The coordinator has well defined roles and responsibilities to perform. The issues discussed in the respective meetings are considered and forwarded for further necessary action.
- The institute believes that decentralization will help involve every member of the institute and assign authority to representatives for decision making.
- Mainly decentralization at the institute is classified into Academic decentralization, Administrative decentralization and Students representation.
- Department heads are responsible for effective planning and implementation of academics and curriculum-based activities.
- Heads of the Department recommend new purchases in view of revised curriculum to the college level purchase committee.
- In administrative decentralization, all the activities related to the student section, establishment section, examination section, store, maintenance, accounts and audit are administered by the office superintendent.
- Important committees such as Internal Complaint Committee, Internal Quality Assurance Cell, Department Advisory Board, Anti ragging Committee etc. have effective representation of all stakeholders: parents, alumni, industry representative, counselors, campus police team etc. This assures participative management.
- The institute has a central feedback committee which looks after the feedback process of the institution. Feedbacks are collected from employers, students, examiners, etc.
- Faculty members who are representing as a subject chairman at university level can participate in reforms related to their respective courses and can convey the suggestions given by different stakeholders to the respective Board of Studies.

Details of all other statutory and non-statutory committees are available on the institutes official website. https://coewpune.bharatividyapeeth.edu/index.php (https://coewpune.bharatividyapeeth.edu/index.php)

B] Specify the mechanism and composition of Grievance Redressal Cell

Table 10.1.3.2: Composition of Grievance Redressal Cell

Sr. No.	Name	Designation	Mobile No.
1	Prof. Dr. Pradeep V. Jadhav	Chairperson	9665696022
2	Prof Dr. Avinash M. Pawar	Vice-Chairman	9028771377
3	Prof. Dr. Suvarna S. Chorage	Vice-Chairman	9881717562
4	Prof. Dr. Sandip R. Patil	HOD of E & TC	9423211277
5	Prof. Dr. Godse Deepali A.	HOD of IT	9371444481

6	Prof. Dr. Sonali P. Kadam	HOD of Comp	9860623126
7	Mrs. Vaishali S. Kadam	Office superintendent	8805638555
8	Mr. Shivaji J. Deshmukh	Sr. Clerk	9767436197

Table 10.1.3.3: Composition of Student Grievance Redressal Committee (SGRC)

Sr. No.	Name	Designation	Mobile No.
1	Prof. Dr. P. V. Jadhav	Chairman	9665696022
2	Prof. S. R. Mitkari	Member	9960687039
3	Prof. S. A. Sagar	Member	9607557103
4	Prof. K. S. Warke	Member	9922414563
5	Miss Samiksha Pardeshi	Student Member	9420873914
6	Miss. Jagruti Kumbhar	Student Member	9322121765
7	Miss. Aarya Deshmukhe	Student Member	8788156489

Grievance Redressal Mechanism:

The Grievance Redressal Cell plays a crucial role in ensuring fair, timely and impartial resolution of concerns raised by students, faculty, and staff. It is headed by the Principal and includes senior faculty and administrative representatives. It addresses a wide range of concerns including academic issues, infrastructure-related complaints, faculty behavior, and general student welfare. Serious matters like harassment or ragging are directed to the Internal Complaints Committee (ICC) or Anti-Ragging Committee respectively.

Grievances may be submitted through the physical complaint boxes. Once received, the grievance is acknowledged, reviewed and resolved or escalated as needed in time. A fair hearing process ensures confidentiality and justice.

Any complaints oral or written submitted by students are first recorded by the Head of the Department through the designated Guardian Faculty Member. The grievances are then discussed and suitable action is taken.

This structured grievance redressal system contributes to a positive campus climate.

In addition to the Grievance Redressal Cell, the institute has constituted several other important bodies such as the Anti-Ragging Committee and the Internal Complaint Committee. Details of these committees are available on the official website. (https://coewpune.bharatividyapeeth.edu/index.php (https://coewpune.bharatividyapeeth.edu/index.php))

C] Action taken report as per 'B' above

The action taken reports are maintained by the Cell and the Departments.

Sample Case

Meeting held on: 25/04/2022

Agenda:
Ms. Bhavana Khaire submitted an application regarding restriction from filling the Third Year examination form.

Action Taken:

The case was discussed in the SGRC meeting held on 25/04/2022. The SGRC directed the Examination Section to follow up with Savitribai Phule Pune University (SPPU) on the matter. As per the directions, the Examination Section communicated the issue to SPPU through the referenced letter. Subsequently, the issue was resolved, and the student was permitted to fill the examination form.

Ref.:

- Students application dated 11/04/2022
- Examination Section's letter to SPPU: Ref. No. BV/COEW/27-2022-23 dated 18/04/2022

10.1.4 Delegation of financial powers (10)

Institute Marks : 9.00

A] Financial powers delegated to the Principal, Heads of Departments and relevant in-charges

The institution follows a structured and decentralized approach to financial decision-making. Financial powers are delegated across various administrative levels to ensure smooth functioning and timely execution of academic, administrative, and infrastructural activities.

- The Governing Body holds the apex authority and is responsible for approving major financial decisions, ensuring alignment with institutional goals.
- The Principal is delegated with operational-level financial decisions related to academic and campus development.
- Principal, Vice Principal and Heads of Department, office superintendent have the authority to handle academic and administrative expenses.
- Provision of petty cash Rs 45,000/- per month is available and Principal, Vice Principal and Heads of Department, office superintendent can make expenses using petty cash.

This delegation ensures timely utilization of resources, promotes accountability, and supports the effective implementation of institutional plans.

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks : 4.00

A] Information on the policies, rules, processes is to be made available on web site

The institution ensures transparency by proactively sharing accurate and unambiguous information with all stakeholders. Key institutional details such as vision, mission, admission procedures, faculty profiles, academic policies, course structures, examination schedules, placement data, grievance redressal mechanisms, and committee structures are regularly updated and published.

Information is made available through:

- Institute website
- Departmental notice boards
- Email circulars and internal communication

This openness enhances trust and ensures stakeholders—students, parents, faculty, and regulatory bodies—can access the required information at any time.

B] Dissemination of the information about student, faculty and staff

- Notices and circulars relevant to students are communicated in classrooms and prominently displayed on notice boards.
- Notifications from regulatory authorities are circulated to the Heads of Departments and further shared with faculty members and students to ensure awareness and compliance.
- The academic progress of the students is regularly informed to the parents by guardian faculty members.
- The institutes official website is regularly updated to provide timely information related to institutional policies, student services, faculty updates, and other essential announcements.

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30)

Total Marks 27.00

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 125387654				Actual expenditure(till…): 166388231			Total No. Of Students 1195
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
122859606	0	630360	1897688	133022076	32933305	432850	139237.01

Table 2 - CFYm1 2023-24

Total Income 113319782				Actual expenditure(till…): 139936659			Total No. Of Students 1092
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
110811207	0	0	2508575	118939263	20419896	577500	128147.12

Table 3 - CFYm2 2022-23

Total Income 112347980				Actual expenditure(till…): 131134332			Total No. Of Students 1118
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
111020996	0	0	1326984	109120036	21625528	388768	117293.68

Table 4 - CFYm3 2021-22

Total Income 103104365				Actual expenditure(till…): 101430816			Total No. Of Students 1093
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
101367288	0	462700	1274377	87132504	14241312	57000	92800.38

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	12055000	11709000	12500000	11419993	13000000	12436992	13000000	12384500
Library	1690000	882528	980000	643953	1195000	1007694	714000	405516

Laboratory equipment	22850000	19914569	8000000	6817187	8084800	7030446	1935000	300900
Laboratory consumables	7300000	5758339	7500000	6200416	4500000	3781306	3500000	3181901
Teaching and non-teaching staff salary	104600000	100980853	96654200	92112374	90060600	88186050	83087900	68985747
Maintenance and spares	4945000	4381839	2500000	1997829	2000000	1847835	1500000	1222560
R&D	650000	659150	200000	715000	600000	843425	300000	57000
Training and Travel	275000	218356	200000	137281	340000	308104	150000	87244
	0	0	0	0	0	0	0	00
Others, specify	24300100	21883597	22771200	19892626	19689200	15692480	16878300	14805448
Total	**178665100**	**166388231**	**151305400**	**139936659**	**139469600**	**131134332**	**121065200**	**101430816**

10.2.1 Adequacy of budget allocation (10)

Institute Marks : 9.00

A well-planned and sufficient budget is allocated to various departments and sections, based on academic goals, infrastructural needs, student strength, and forthcoming initiatives. Prior to the start of the academic year, departmental heads submit their budget proposals, which are compiled, reviewed, and sanctioned accordingly. The allocated budget is sufficient to support:

- Laboratory and equipment upgrades
- Faculty development programs
- Infrastructure maintenance
- Research and innovation activities
- Teaching-learning enhancements

The financial planning is aligned with the institution's growth and quality improvement goals.

The sanctioned budget is designed to effectively meet the infrastructural, academic, and administrative needs of the institute.

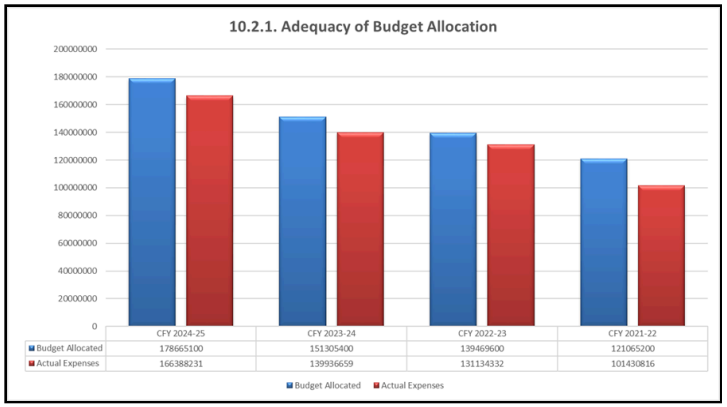


Figure 10.2.1.1 Adequacy of Budget Allocation

10.2.2 Utilization of allocated funds (15)

Institute Marks : 14.00

The funds allocated are effectively utilized aiming to enhance program outcomes. Each department utilizes its allotted budget through a well-structured and transparent process. Once approved, the Head of the Department holds discussions with faculty to identify procurement needs such as equipment, consumables and developmental tools. Faculty members responsible for laboratories and courses are assigned the task of identifying the necessary items. Quotations are collected from multiple vendors, and a comparative statement is prepared by the departmental purchase committee based on the received quotations.After receiving necessary approvals, purchase orders are placed, and the procurement is carried out as per institutional procedures. The HoD regularly monitors the process to ensure timely completion of purchases and full utilization of the allocated funds.

Table 10.2.2.1 Utilization of allocated funds in percentage

Items	2024-25	2023-24	2022-23	2021-22
Infrastructural built-up	97.13	91.36	95.67	95.27
Library	52.22	65.71	84.33	56.79
Laboratory Equipment	87.15	85.21	86.96	15.55
Laboratory Consumables	78.88	82.67	84.03	90.91
Teaching and Non-teaching staff salary	96.54	95.30	97.92	83.03
Maintenance & spares	88.61	79.91	92.39	81.50
R & D	34.82	68.75	75.78	0
Training and Travel	79.40	68.64	90.62	58.16
Other, Specify	90.06	87.36	79.70	87.72

10.2.3 Availability of the audited statements on the institute's website (5) Institute Marks : 4.00

The institute's audited financial statements are made publicly accessible on the official website. (https://coewpune.bharatividyapeeth.edu/index.php/downloads/fra-proposal (https://coewpune.bharatividyapeeth.edu/index.php/downloads/fra-proposal))

10.3 Program Specific Budget Allocation, Utilization (30) Total Marks 28.00

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

34496040		Actual expenditure (till…): 31570119.80		Total No. Of Students 198
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
21908000	12588040	20953745.80	10616374	159445.05

Table 2 :: CFYm1 2023-24

14200300		Actual expenditure (till…): 12060059.25		Total No. Of Students 198
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
6507500	7692800	5459755	6600304.25	60909.39

Table 3 :: CFYm2 2022-23

13027250		Actual expenditure (till…): 10881076		Total No. Of Students 198
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
6644950	6382300	5446748	5434328	54954.93

Table 4 :: CFYm3 2021-22

9919325		Actual expenditure (till…): 8322692.25		Total No. Of Students 198
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
4674750	5244575	3786003	4536689.25	42033.80

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	14010000	13113286	2537500	1952660	2696200	1918634	908750	300900
Software	0	170883	275000	384691	275000	205871	275000	287599
Laboratory consumable	2920000	2132452	1600000	1165413	850000	739456	600000	507876
Maintenance and spares	1978000	1752736	625000	499457	500000	461959	375000	305640

R & D	260000	523370	50000	34375	150000	193839	75000	14000
Training and Travel	110000	87342	50000	34320	85000	77026	37500	21811
	15218040	13790050	9062800	7989143	8471050	7284292	7648075	6898866
Total	**34496040**	**31570119**	**14200300**	**12060059**	**13027250**	**10881077**	**9919325**	**8336692**

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 9.00

- During the annual budgeting process, departmental requirements are thoroughly assessed and integrated into the overall financial planning.
- Before the commencement of the financial year, all recurring and non-recurring purchase needs are gathered from departmental laboratory in-charges.
- The Head of the Department (HoD) finalizes the budget proposal by taking into account various factors such as student intake, university curriculum, industry needs, and the development of laboratory and infrastructure. Budget requirements for equipment, computers, software, consumables, maintenance, and furniture are consolidated accordingly.
- Once finalized, the departmental budget proposals are submitted by the Head of Department to the Principal. These are subsequently presented at the College Development Committee (CDC) and Governing Body (GB) meetings for discussion and revision if required
- Following this, the management reviews the proposals and grants final approval, incorporating any necessary modifications.
- The approved departmental budget supports upgrading of laboratories, procurement of equipment, consumables, software, computers, and maintenance materials, as well as facilitating both academic and extra curricular initiatives.

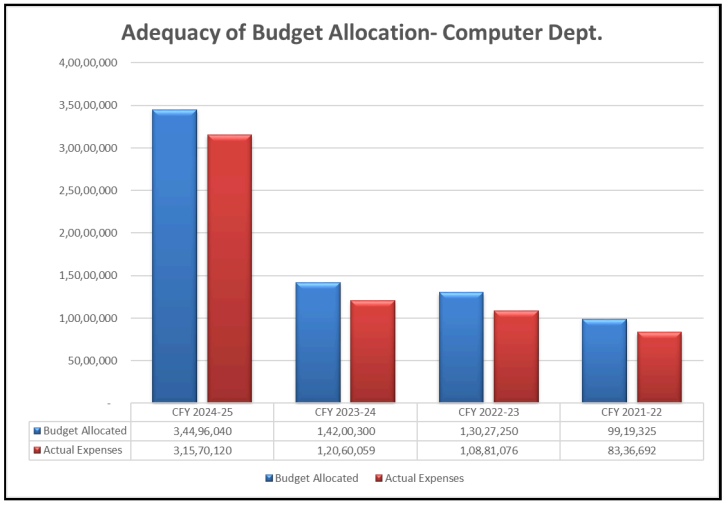
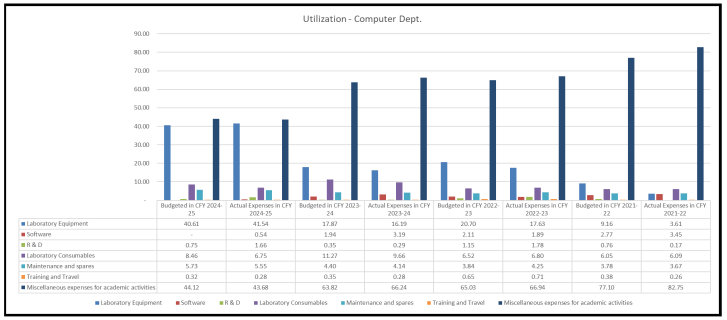


Figure 10.3.1.1 Adequacy of Budget Allocation

10.3.2 Utilization of allocated funds (20)

Institute Marks : 19.00

The funds allocated to the departments are effectively utilized , aiming to enhance program outcomes. This process ensures thorough planning is carried out prior to the commencement of each semester.



	Budgeted in CFY 2024-25	Actual Expenses in CFY 2024-25	Budgeted in CFY 2023-24	Actual Expenses in CFY 2023-24	Budgeted in CFY 2022-23	Actual Expenses in CFY 2022-23	Budgeted in CFY 2021-22	Actual Expenses in CFY 2021-22
Laboratory Equipment	40.61	41.54	17.87	16.19	20.70	17.63	9.16	3.61
Software	-	0.54	1.94	3.19	2.11	1.89	2.77	3.45
R & D	0.75	1.66	0.35	0.29	1.15	1.78	0.76	0.17
Laboratory Consumables	8.46	6.75	11.27	9.66	6.52	6.80	6.05	6.09
Maintenance and spares	5.73	5.55	4.40	4.14	3.84	4.25	3.78	3.67
Training and Travel	0.32	0.28	0.35	0.28	0.65	0.71	0.38	0.26
Miscellaneous expenses for academic activities	44.12	43.68	63.82	66.24	65.03	66.94	77.10	82.75

Figure 10.3.2.1 Utilization of Allocated Fund in percentage

10.4 Library and Internet (20) Total Marks 19.00

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

Institute Marks : 9.00

A] Availability of Relevant Learning Resources Including E-Resources and Digital Library

Our institution takes pride in offering a robust and resourceful Central Library that caters to the academic and intellectual needs of students and faculty alike. Since its inception in the year 2000 with a modest collection of 937 books, the library has grown tremendously, now 24,039 printed books volumes, 3,144 e-journals, 2,635 e-books, 53 print journals/magazines, 8 newspapers and 3,315 CDs/DVDs. This expansion reflects the institute's firm commitment to supporting quality education and research.

The library covers an area of 408 square meters and houses a spacious, well-lit reading hall with a seating capacity of approximately 200 students, offering a peaceful and conducive learning environment.

To support advanced learning, the institute subscribes to a wide range of national and international journals, including platforms such as DELNET, K-Hub and NPTEL. The access to these resources ensures that students stay updated with the latest developments in their respective domains.

Digital Library & E-Resource Access:

- **Knimbus Digital Library**: A unified, user-friendly platform allowing access to digital content anytime, anywhere. It is accessible through: Knimbus Portal (https://bvuniversity.knimbus.com/portal/v2/default/home)
- **DELNET**: Offers interlibrary loans, free e-resources and remote access: DELNET Portal (https://discovery.delnet.in/)
- **K-Hub (eLibrary)**: A rich repository of academic e-books and journals: K-Hub Portal (https://www.k-hub.in/)
- **NDLI (National Digital Library of India)**: As a registered member of NDLI, our students benefit from access to a national repository of curated academic content, supported by the Ministry of Education, Govt. of India.

In a bid to stay aligned with the digital transformation in education, our library functions as a hybrid knowledge hub with both physical and digital learning materials.

Library Automation: KOHA ILMS

The library is powered by the KOHA Integrated Library Management System, which ensures efficient cataloging, circulation, search and user services. KOHA enhances accessibility by enabling smart retrieval of content, even through keywords or descriptive tags.

The institute employs both commercial and open-source software for automating various library services ensuring the best possible user experience for both physical and digital access.

Table 10.4.1.1: Learning resources available in Library

Sr. No.	Learning Resource	Number/Details
1	Books	24,039
2	E-Journals (K-Hub + DELNET)	3,144
3	E-Books (K-Hub + DELNET)	2,635
4	Print Journals / Magazines	53
5	Newspapers (English & Marathi)	8
6	CDs / DVDs	3,315
7	Digital Platforms Subscribed	Knimbus, K-Hub, DELNET, NDLI
8	Library Management System	KOHA ILMS

B] Accessibility to Students

Our library has been thoughtfully designed to be accessible and inclusive, ensuring all students can benefit from its vast repository of knowledge, whether on campus or from home.

On-Campus Access

Library services are available during the following hours:

- **Monday to Friday**: 8:00 AM to 8:00 PM
- **Saturday**: 8:00 AM to 2:00 PM
- **Sunday and Holiday**: Closed

The extended weekday hours accommodate students with varied schedules, allowing them to engage in academic activities at their own pace.

Remote Access & Connectivity

To ensure continuous learning beyond campus boundaries, our institute has enabled remote access to all major e-resources. Through IP-based authentication and Wi-Fi connectivity across the campus, students can access resources from any device. Remote login features make sure that students have uninterrupted access to journals, e-books and databases from their homes or while on internships and research projects.

C] Support to students forself-learning activities

A qualified and supportive library staff is always available to guide students and faculty in utilizing the resources effectively be it locating a research paper, accessing an e-book, or navigating digital platforms like DELNET, K-Hub, or Knimbus.

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	Gazon Communications India Ltd.
Available band width	300 Mbps
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Internet access in available in all the labs, classrooms, library and offices of all departments and administrative office.
Security arrangements	Internet usage is monitored and controlled through a Cisco Firewall and Squid Proxy Server, ensuring secure and filtered access. Antivirus software is installed on all computers and laptops of the institute.

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	Professional Skills: The ability to understand, analyse and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexities.
PSO2	Problem-Solving Skills: The ability to apply standard practices and strategies in software project development using open-ended programming environments for betterment of society.
PSO3	Successful Career: Empower women with modern computer languages, environments, platforms, communication and leadership skills to build a successful career

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

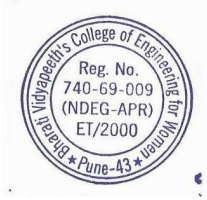
Prof. Dr. Pradeep Vitthal

Name : Jadhav

Designation : Principal

Signature :

Seal of The Institution :



Place : Pune

Date : 28-07-2025 16:06:46