

## SELF ASSESSMENT REPORT

## BE Computer Science and Engineering

## CRITERION – 1: VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES

S. NO.	SUB CRITERIA	MARKS	EVALUATION GUIDELINES	Expected Marks	
				Expected	Total
1	1.1. State the Vision and Mission of the Department and Institute	5	A. Availability of the Vision & Mission statements of the Department (1)	1	5
			B. Appropriateness/Relevance of the Statements (2)	2	
			C. Consistency of the Department statements with the Institute statements (2)	2	
2	1.2. State the Program Educational Objectives (PEOs)	5	A. Listing of the Program Educational Objectives (3 to 5) of the program under consideration (5)	5	5
3	1.3. Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders	10	A. Adequacy in respect of publication & dissemination (2)	2	10
			B. Process of dissemination among stakeholders (2)	2	
			C. Extent of awareness of Vision, Mission & PEOs among the stakeholder (6)	6	
4	1.4. State the process for defining the Vision and Mission of the Department, and PEOs of the program	25	A. Description of process involved in defining the Vision, Mission of the Department (10)	10	25
			B. Description of process involved in defining the PEOs of the program (15)	15	
5	1.5. Establish consistency of PEOs with Mission of the Department	15	A. Preparation of a matrix of PEOs and elements of Mission statement (5)	5	15
			B. Consistency/justification of co-relation parameters of the above matrix (10)	10	
TOTAL MARKS C1		60	OVERALL C1 MARKS EXPECTED		60

**CRITERION 1 – MARKS 60**  
**Vision, Mission and Program Educational Objectives**

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

**The VISION of SSM Institute of Engineering and Technology is**

**Vision of the Institute**

To inculcate strong knowledge of engineering among the students to excel in their domain through a standard of excellence in learning, research and transform them to face challenges and cater to the needs of the society by imparting competent technical and entrepreneurial skills with human values and ethics.

**The MISSION of SSM Institute of Engineering and Technology is**

**Mission of the Institute**

- To encourage students to become self-disciplined individuals through appropriate teaching learning process.
- To empower students by providing conducive environment to develop them as systematic professionals and responsible citizens.
- To maintain a healthy relationship with industries by establishing centres of excellence for multiple skill development and technological training.
- To provide conceptual knowledge that supports design and development of new products for sustainable development.

The Computer Science and Engineering Department of SSM Institute of Engineering and Technology has the VISION as

### **Department Vision**

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**To establish as an eminent department by imparting strong knowledge in Computer science and engineering, fostering a dynamic learning environment that cultivates practical skills in software development, computing technologies, and ethical principles to meet industrial needs and societal expectations.**

To achieve this Vision, the Computer Science and Engineering Department of SSM Institute of Engineering and Technology has the MISSION as

### **Department Mission**

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- **To upskill knowledge among students through the latest technologies**
- **To empower students with the essential skills required to excel in their field through the collaborative initiatives with industries.**
- **To inculcate a sense of responsibility towards society with ethical values.**

## Consistency of Department Vision with Institute Vision Statement

Institute Vision	Department Vision
<p>To inculcate strong knowledge of engineering among the students to excel in their domain through a standard of excellence in learning, research and transform them to face challenges and cater to the needs of the society by imparting competent technical and entrepreneurial skills with human values and ethics.</p>	<p>To establish as an eminent department by imparting strong knowledge in computer science and engineering, fostering a dynamic learning environment that cultivates practical skills in software development, computing technologies, and ethical principles to meet industrial needs and societal expectations.</p>
<p style="text-align: center;"><b><u>Consistency</u></b></p> <p>The institute and department vision emphasize strong foundational knowledge, with the institute focusing on engineering broadly and the department focusing on specialized knowledge in computer science and engineering. The institute's vision highlights research and caters them to face challenges, which the department reflects by fostering practical skills in software development. Both visions aim to meet societal and industrial needs, ensuring that students are prepared for professional challenges. Additionally, both incorporate human values and ethics, ensuring that students excel both technically and ethically.</p>	

## Consistency of Department Mission with Institute Mission Statement

Institute Mission	Department Mission
<ul style="list-style-type: none"> <li>✓ To encourage students to become selfdisciplined individuals through appropriate teaching learning process.</li> <li>✓ To empower students by providing conducive environment to develop them as systematic professionals and responsible citizens.</li> <li>✓ To maintain a healthy relationship with industries by establishing centres of excellence for multiple skill development and technological training.</li> <li>✓ To provide conceptual knowledge that supports design and development of new products for sustainable development.</li> </ul>	<ul style="list-style-type: none"> <li>✓ To upskill knowledge among students through the latest technologies.</li> <li>✓ To empower students with the essential skills required to excel in their field through the collaborative initiatives with industries.</li> <li>✓ To inculcate a sense of responsibility towards society with ethical values.</li> </ul>
<p style="text-align: center;"><b><u>Consistency</u></b></p> <ul style="list-style-type: none"> <li>✓ The institute promotes self-discipline through effective teaching, while the department supports this by upskilling students with the latest technologies, enhancing them as an self-disciplined individuals.</li> <li>✓ The institute empowers students as professionals and responsible citizens, and the department furthers this by equipping them with essential skills through industry collaborations, aiding their professional and personal development.</li> <li>✓ The institute fosters industry relationships through centers of excellence, and the department strengthens this by enhancing student skills via industry partnerships, aligning with the institute's goal of robust industry connections.</li> <li>✓ The institute provides knowledge for sustainable development, and the department complements this by instilling a sense of responsibility and ethical values, ensuring students apply their knowledge responsibly.</li> </ul>	

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

The Program Educational Objectives (PEOs) outlined below were formulated as a result of collaborative brainstorming sessions, aimed at fulfilling the vision and mission of both the department and the institution. A few years after completing their undergraduate degree in Computer Science and Engineering, students will be able to:

**PEO 1: Graduates will be recognized for their ability to apply advanced technological skills with a passion for learning, empowering them to tackle emerging challenges and drive meaningful societal progress.**

**PEO 2: Graduates will excel in their professional careers by utilizing the essential skills and knowledge acquired through collaborative industry initiatives, equipping them to solve real-world challenges effectively.**

**PEO 3: Graduates will demonstrate ethical and moral integrity in their professional practice, creating positive contributions to society by applying their knowledge and skills to address real world challenges.**

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

The Vision, Mission and PEOs of the Computer Science and Engineering have been adequately disseminated and published to the stakeholders in different ways. The stakeholders of the program are as follows:

### Internal Stake Holders

- ✓ Management Trustees
- ✓ Faculty members
- ✓ Non-Teaching Staff
- ✓ Students

### External Stake Holders

- ✓ Parents
- ✓ Employers / Industry Experts
- ✓ Alumni

### Vision, Mission and PEOs are displayed at the following places:

- ✓ College website <https://ssmiet.ac.in/CSE.html>
- ✓ HOD Cabin
- ✓ Staff Rooms
- ✓ Notice Boards of the Department
- ✓ Department Library
- ✓ Department Laboratories
- ✓ Department Premises
- ✓ Class Rooms

### Vision, Mission and PEOs are published at,

- ✓ Department News Letter
- ✓ Course Plan
- ✓ Laboratory Manuals
- ✓ Mentees Book

## Details of Dissemination

### College Website

The screenshot shows the website of SSM Institute of Engineering and Technology. The header includes the SSM logo and navigation links: About Us, Courses, Placements, Gallery, IQAC, Life At SSM, and Contact us. The main content area features a sidebar with links: Value added Course, News Letter, MOU, Internship, Facilities, and Contact. The main text describes the department's establishment in 2011, its accreditation by NAAC, and its commitment to providing quality education and industry-ready graduates. It also mentions the department's focus on co-curricular and extracurricular activities.

**Value added Course**

**News Letter**

**MOU**

**Internship**

**Facilities**

**Contact**

Department is established in the year 2011. It is approved by all India Council for Technical Education (AICTE), Accredited by NAAC and affiliated to Anna University, Chennai. Our department is committed to promote and support effective learning and teaching through talented and experienced team of faculty members who motivate students to achieve their academic and career goals. Academic counseling to the needy helps the students identify their innate talents, shed inhibitions and emerge as industry ready technocrats. Special lectures and introduction of latest techniques in imparting quality education will earn a special place for our CSE Department in the arena of technical education. Emphasis on co-curricular and extracurricular activities provides variety to the learning atmosphere and the students emerge as multi-faceted personalities. We equip our students with the State of Art computer laboratories comprises of computer systems with latest configurations, operating systems, and as well as the developmental platforms of software and helping applications. We are motivating our students to achieve University Results, to undergo in plant training, Industrial visits and Internships in multinational companies continuously. Our students are placed in Mindtree, Infosys, Infosys, Wipro, Accenture and many more corporates every year.

**Vision**

To establish as an eminent department by imparting strong knowledge in computer science and engineering, fostering a dynamic learning environment that cultivates practical skills in software development, computing technologies, and ethical principles to meet industrial needs and societal expectations.

**Mission**

- To upskill knowledge among students through the latest technologies
- To empower students with the essential skills required to excel in their field through the collaborative initiatives with industries.
- To inculcate a sense of responsibility towards society with ethical values.

The screenshot shows the 'Program Educational Objectives (PEOs)' and 'Program Outcomes (POs)' section of the SSM Institute of Engineering and Technology website. The PEOs table lists three objectives: graduates will be recognized for their ability to apply advanced technological skills, graduates will excel in their professional careers, and graduates will demonstrate ethical and moral integrity. The POs table lists four outcomes: Engineering knowledge, Problem analysis, Design / development of solutions, and Conduct investigations of complex problems.

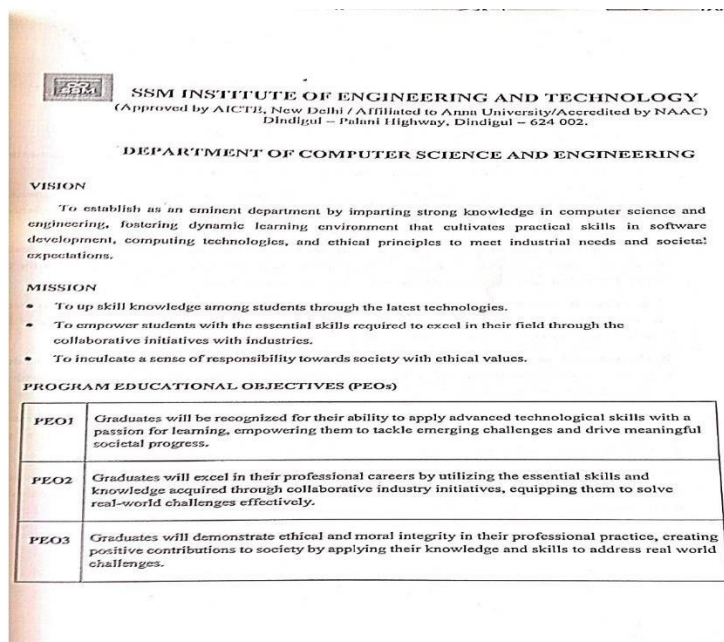
**Program Educational Objectives (PEOs)**

PEO	Description
PEO1	Graduates will be recognized for their ability to apply advanced technological skills with a passion for learning, empowering them to tackle emerging challenges and drive meaningful societal progress.
PEO2	Graduates will excel in their professional careers by utilizing the essential skills and knowledge acquired through collaborative industry initiatives, equipping them to solve real-world challenges effectively.
PEO3	Graduates will demonstrate ethical and moral integrity in their professional practice, creating positive contributions to society by applying their knowledge and skills to address real world challenges.

**Program Outcomes (POs)**

PO	Description
PO1 - Engineering knowledge	Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PO2 - 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.
PO3 - Design / development of solutions	Design solutions for the 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.
PO4 - 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.

## Lab Manual



## Course Plan

### Vision

To establish as an eminent department by imparting strong knowledge in computer science and engineering, fostering dynamic learning environment that cultivates practical skills in software development, computing technologies, and ethical principles to meet industrial needs and societal expectations.

### Mission

- To up skill knowledge among students through the latest technologies.
- To empower students with the essential skills required to excel in their field through the collaborative initiatives with industries.
- To inculcate a sense of responsibility towards society with ethical values.

### Programme Educational Objectives (PEOs)

Graduates of Computer Science and Engineering Programme will:

PEO	Program Outcome(s)
<b>PEO1</b>	Graduates will be recognized for their ability to apply advanced technological skills with a passion for learning, empowering them to tackle emerging challenges and drive meaningful societal progress.
<b>PEO2</b>	Graduates will excel in their professional careers by utilizing the essential skills and knowledge acquired through collaborative industry initiatives, equipping them to solve real-world challenges effectively.
<b>PEO3</b>	Graduates will demonstrate ethical and moral integrity in their professional practice, creating positive contributions to society by applying their knowledge and skills to address real world challenges.

### Programme Specific Outcomes (PSOs)

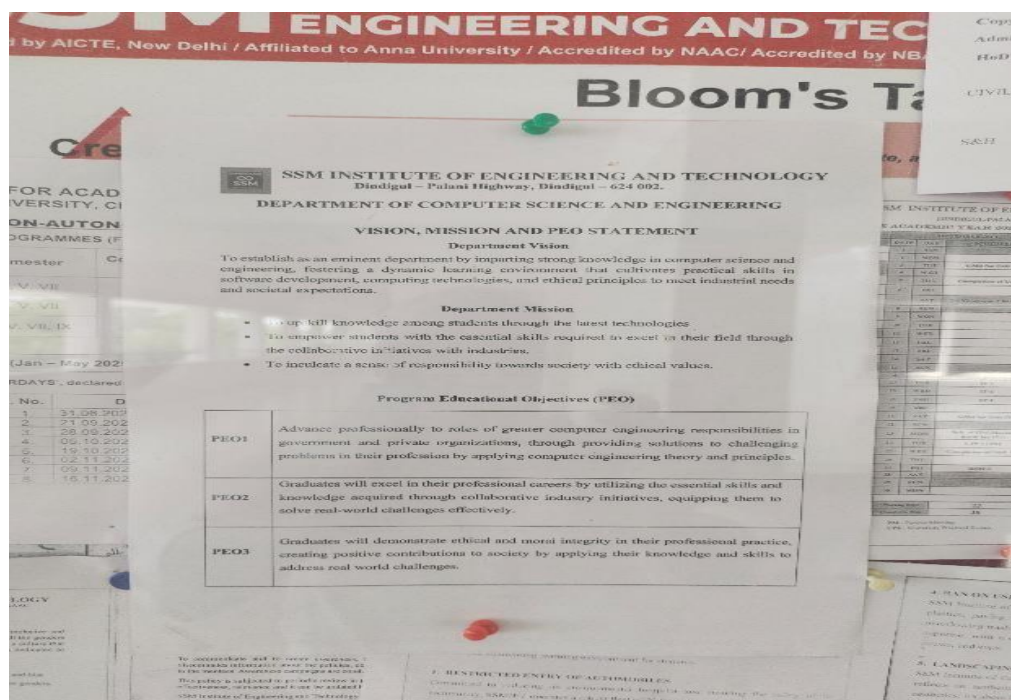
At the end of the Programme graduate will be able to

PSO	Description
<b>PSO.1</b>	Exhibit design and programming skills to build and automate business solutions using cutting edge technologies.
<b>PSO.2</b>	Strong theoretical foundation leading to excellence and excitement towards research, to provide elegant solutions to complex problems.
<b>PSO.3</b>	Ability to work effectively with various engineering fields as a team to design, build and develop system

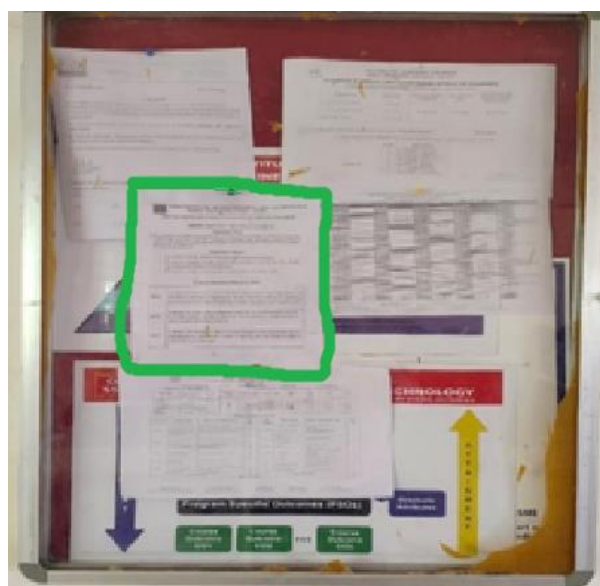
### Assessment Plan for the course

S. No	Course Outcome	How measured	When measured
1	CS3551.1(CO1)	Based on the Internal Test I, Assignment I, Anna University Exam	After Internal Test I, Anna University Exam
2	CS3551.2(CO2)	Based on the Internal Test I, Assignment II, Anna University Exam	After Internal Test I, Anna University Exam
3	CS3551.3(CO3)	Based on the Internal Test I (50%) and Internal Test II (50%), Assignment III, Anna University Exam	After Internal Test II, Anna University Exam
4	CS3551.4(CO4)	Based on the IA Test II, Assignment IV, Anna University Exam	After Internal Test II, Anna University Exam
5	CS3551.5(CO5)	Based on the Internal Test II, Assignment V, Anna University Exam	After Internal Test II, Anna University Exam

### Department Noticeboard



### Class Room Noticeboard



**Dissemination of Vision, Mission & PEO at the beginning of the Academic Year 2024 -25**



**II – BE CSE Dissemination by Class In charge**



**III – BE CSE Dissemination by Class In charge**



#### IV – BE CSE Dissemination by Class In charge

The Vision, Mission and PEO of the department are disseminated to the stakeholders in the following ways:

S. No	Stakeholders	Ways of Dissemination
1.	Student	College Website, Lecture Plan, Lab Manuals, News Letters, Magazines, Notice Boards, Department library, Classrooms
2.	Faculty	College Website, Display Boards in the Department, Department Faculty Meeting, Departmental Advisory Committee (DAC), News Letters, Magazines, Department library
3.	Alumni	College Website, Survey Forms, DAC meetings
4.	Parents	College Website, Survey Forms
5.	Industry Experts/ Employers	College Website, DAC meeting, Email Correspondences, , Survey Forms.

**Particulars of published vision and mission statement**

The stake holders are made aware of the Vision, Mission and PEOs as follows:

- At the beginning of every academic year, the faculty members explain the Vision, Mission, and PEOs to the students.
- The Vision and Mission statements are explicitly communicated to the newly enrolled students during the start of their third semester.
- Alumni are informed about the Vision, Mission and Program Educational Objectives (PEOs) during the Alumni Meet Interaction.
- Parents are informed about the Vision, Mission and PEOs through Parents Survey Form.
- Professional bodies and Industrial people are conveyed through events organized in the department.
- Further Vision, Mission and PEOs are disseminated during the meetings such as DAC, Board of Studies Meeting, etc.,

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

The department vision and mission statement were discussed in the department level through a review process involving the stakeholders of the department and approved through the Department Advisory Committee (DAC), Internal Quality Assurance Cell (IQAC) and the Governing Council (GC). Following process were adopted in developing Departmental Mission and Vision statements in accordance with Institution Vision and Mission statement:

**Step 1:** The process starts with the Departmental Advisory Committee (DAC), the chairperson of the DAC collects feedback/inputs from the stakeholders and discuss with the DAC members which consists of HoD, senior faculty members, student's coordinators, Alumni members, industry and academic experts to modify vision and mission statement for the department.

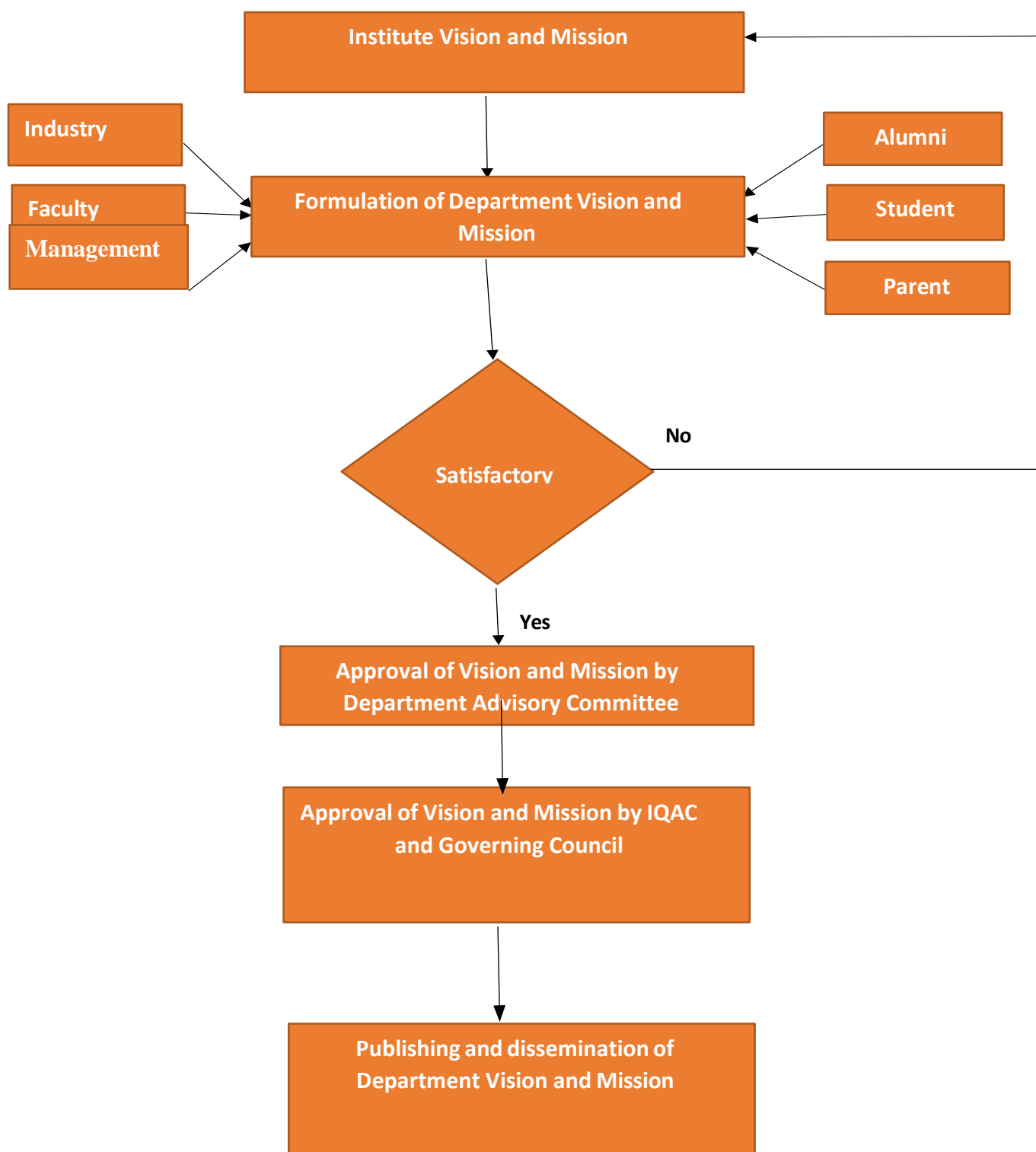
**Step 2:** Using the feedback received from the stakeholders, the vision and mission statements are modified.

**Step 3:** The final vision and mission statements for the Department are arrived with the consent of all stakeholders.

**Step 4:** Internal Quality Assurance Cell (IQAC) and Governing Council (GC) finally approves the Department Vision and Mission statements.

**Step 5:** Finally, the final vision and mission statement are disseminated to the stakeholders.

**Process for defining Vision and Mission of the Department**



**Following process were adopted in developing the PEOs of the program:**

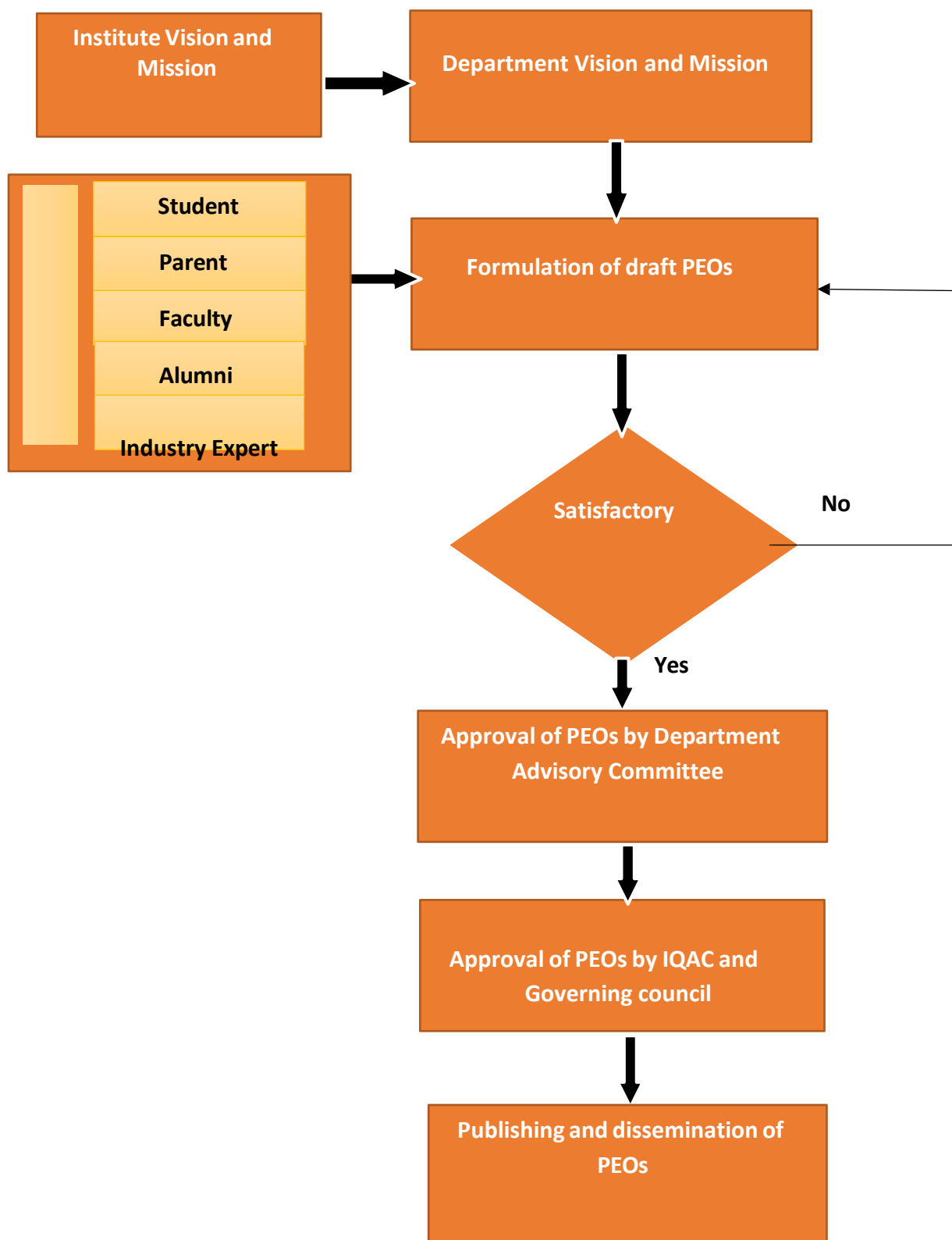
**Process for Establishment of PEOs**

**Step1:** HoD of the department prepares the inputs for PEOs. The PEO is formulated based on the feedback received from the various stake holders.

**Step 2:** The newly framed PEOs are discussed with the entire faculty team to refine PEOs in line with the department vision and mission statements.

**Step 3:** It is then fine-tuned based on stakeholder's feedback when the faculty members of the department meet stakeholders on various occasions like delivering expert lectures, visiting industries, campus drives, conference/ workshop/ seminars, viva-voce examinations, parents meeting, alumni interaction, etc.

**Step 4:** The finalized PEOs are implemented after obtaining approval from the Department Advisory committee, Internal Quality Assurance Cell (IQAC) and Governing Council.



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

#### **MISSION OF THE DEPARTMENT:**

**Mission 1:** To upskill knowledge among students through the latest technologies

**Mission 2:** To empower students with the essential skills required to excel in their field through the collaborative initiatives with industries.

**Mission 3:** To inculcate a sense of responsibility towards society with ethical values.

#### **PROGRAM EDUCATIONAL OBJECTIVES OF THE DEPARTMENT:**

**PEO 1:** Graduates will be recognized for their ability to apply advanced technological skills with a passion for learning, empowering them to tackle emerging challenges and drive meaningful societal progress.

**PEO 2:** Graduates will excel in their professional careers by utilizing the essential skills and knowledge acquired through collaborative industry initiatives, equipping them to solve real-world challenges effectively.

**PEO 3:** Graduates will demonstrate ethical and moral integrity in their professional practice, creating positive contributions to society by applying their knowledge and skills to address real world challenges.

**Consistency of PEOs with Mission of the Department**

<b>PEOs / Mission Statements</b>	<b>Mission 1:</b> To upskill knowledge among students through the latest technologies.	<b>Mission 2:</b> To empower students with the essential skills required to excel in their field through the collaborative initiatives with industries.	<b>Mission 3:</b> To inculcate a sense of responsibility towards society with ethical values.
<b>PEO1:</b> Graduates will be recognized for their ability to apply advanced technological skills with a passion for learning, empowering them to tackle emerging challenges and drive meaningful societal progress	3	2	1
<b>PEO2:</b> Graduates will excel in their professional careers by utilizing the essential skills and knowledge acquired through collaborative industry initiatives, equipping them to solve real-world challenges effectively.	3	3	1
<b>PEO3:</b> Graduates will demonstrate ethical and moral integrity in their professional practice, creating positive contributions to society by applying their knowledge and skills to address real world challenges.	2	1	3

**JUSTIFICATIONS FOR PEO-MISSION MAPPING**

<b>MAPPING</b>	<b>LOW/MEDIUM /HIGH</b>	<b>JUSTIFICATION</b>
<b><u>PEO1:M1</u></b>	<b>H (3)</b>	Graduates will be recognized for their technological expertise and empowering them to tackle new challenges and drive societal progress through latest technological education.
<b><u>PEO1:M2</u></b>	<b>M (2)</b>	By providing essential skills through industry collaborations, graduates will be equipped to tackle emerging challenges and contribute to societal progress.
<b><u>PEO1:M3</u></b>	<b>L (1)</b>	To instill a sense of responsibility and ethical values, graduates will be equipped to address new challenges and contribute to societal progress.
<b><u>PEO2:M1</u></b>	<b>H (3)</b>	By upskilling students with the latest technologies, graduates will excel in their careers by applying essential skills and knowledge gained from industry collaborations, effectively solving real-world challenges.
<b><u>PEO2:M2</u></b>	<b>H (3)</b>	By empowering students with essential skills through industry collaborations, graduates will excel in their careers by leveraging this knowledge to effectively address real-world challenges.
<b><u>PEO2:M3</u></b>	<b>L (1)</b>	By instilling responsibility and ethical values, graduates will excel by using skills and knowledge from industry collaborations to tackle real-world challenges effectively.
<b><u>PEO3:M1</u></b>	<b>M (2)</b>	By upskilling students with the latest technologies, graduates will demonstrate ethical and moral integrity in their professional practice, making positive contributions to society by using their knowledge and skills to address real-world challenges.
<b><u>PEO3:M2</u></b>	<b>L (1)</b>	Empowering students with essential skills through industry collaborations will enable graduates to uphold ethical standards and contribute positively to society by addressing real-world challenges.
<b><u>PEO3:M3</u></b>	<b>H (3)</b>	By inculcating a sense of responsibility and ethical values, graduates will demonstrate integrity in their professional practice and make positive societal contributions by addressing real-world challenges with their knowledge and skills.