# DEPARTMENTAL ALUMNI FEEDBACK REPORT DEPARTMENT OF MECHANICAL ENGINEERING (ME)

## Introduction

This report presents a comprehensive analysis of the Alumni Feedback collected for the Mechanical Engineering Department based on Program Outcomes (POs), Program Specific Outcomes (PSOs), and Program Educational Objectives (PEOs). Alumni feedback is essential in assessing the effectiveness of academic programs and aligning them with industry expectations and professional competence. This report analyses the data, identifies strengths and weaknesses, proposes remedial actions, and outlines an implementation strategy.

# **Summary of Alumni Feedback Scores**

## **Program Outcomes (POs)**

| PO Description                             | Score |
|--|-------|
| Engineering Knowledge                      | 4.14  |
| Problem Analysis                           | 4.57  |
| Design/Development of Solutions            | 4.07  |
| Conduct Investigations of Complex Problems | 4.21  |
| Modern Tool Usage                          | 4.43  |
| The Engineer and Society                   | 4.36  |
| Environment and Sustainability             | 4.07  |
| Ethics                                     | 4.36  |

| Individual and Team Work       | 4.43 |
|--------------------------------|------|
| Communication                  | 2.64 |
| Project Management and Finance | 4.36 |
| Life-long Learning             | 4.14 |

# **Program Specific Outcomes (PSOs)**

PSO Description Score

Practical Skill 4.57

Career in Industries 4.14

Entrepreneurship 4.29

# **Program Educational Objectives (PEOs)**

| PEO Description                                    | Score |
|--|-------|
| Succeed in Engineering Field & Pursue Research     | 4.21  |
| Provide Sustainable Solutions for Complex Problems | 4.21  |
| Team Work  | 4.43  |
| Meet Social Needs                                  | 4.50  |
| Ethical Value System                               | 4.29  |
|  |       |

# **Analysis**

# Strengths

1. **Problem Analysis (4.57)** and **Practical Skill (4.57)** – Alumni recognize strong analytical and hands-on skills.

- 2. **Modern Tool Usage (4.43)** and **Individual & Team Work (4.43)** The department has successfully integrated modern tools and fostered collaborative skills.
- 3. **Social Responsibility (PEO 4.50)** Graduates are seen as contributing meaningfully to societal needs.
- 4. **Ethical Understanding (PO & PEO ~4.36)** Ethics is consistently viewed as a well-developed trait among graduates.

#### Weaknesses

- 1. **Communication (2.64)** This is the lowest-rated attribute and a significant concern.
- Design/Development of Solutions (4.07) and Environment &
   Sustainability (4.07) Slightly lower than other technical POs and need reinforcement.
- 3. **Career in Industries (4.14)** While not poor, this could be strengthened to ensure employability.

## **Remedial Measures**

#### **For Communication Skills**

- Workshops & Seminars: Regular sessions on technical writing, presentation, and interpersonal communication.
- **Language Labs:** Reinforcement through specialized language labs focusing on real-life engineering scenarios.
- **Industry Presentations:** Encourage students to present internship or project work before panels.

## For Design & Sustainability

- **Capstone Projects:** Make design thinking and sustainability mandatory components.
- **Guest Lectures:** Experts from industries and environmental organizations can bring real-world challenges to classrooms.

## **For Industrial Readiness**

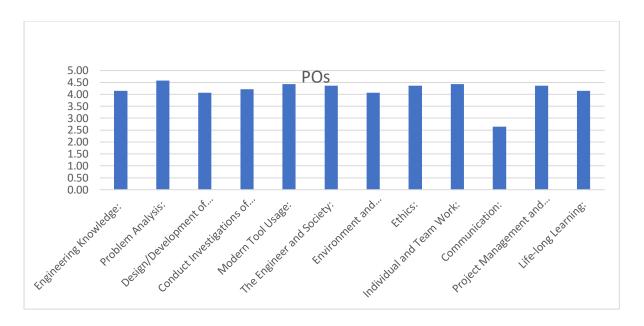
- Internships: Strengthen internship programs in core mechanical sectors.
- Industrial Visits: Mandatory visits to industries with post-visit report presentations.

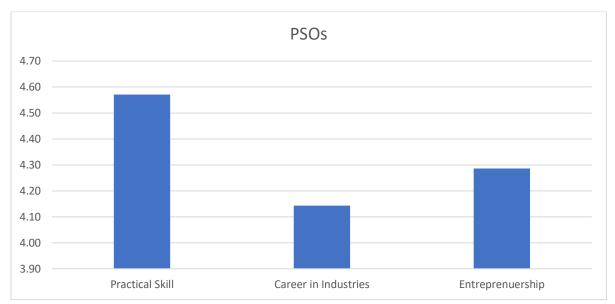
# **Implementation Strategy**

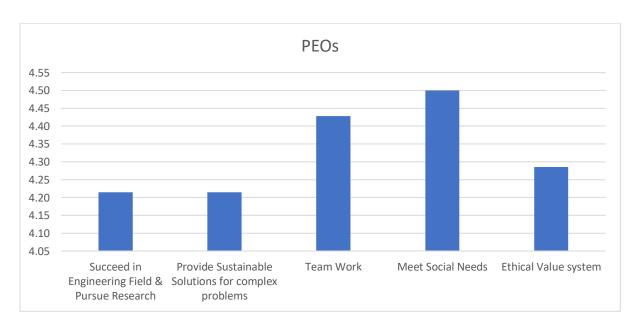
| Action Item                             | Timeline   | Responsibility     |
|---|------------|--------------------|
| Launch communication workshops          | Start next | HoD & Language     |
|   | semester   | Faculty            |
| Introduce advanced design &             | Within 6   | Curriculum         |
| sustainability modules                  | months     | Committee          |
| Industry collaborations for internships | Ongoing    | Placement & Alumni |
|   |            | Cell               |
| Conduct yearly alumni feedback &        | Annual     | IQAC & Department  |
| review                                  |            |                    |

# **Graphical Analysis**

Bar charts and comparative graphs of PO, PSO, and PEO scores are presented here below:







### Conclusion

The Mechanical Engineering Department demonstrates strong technical foundations and societal values among its graduates. However, communication skills remain a significant area of improvement. With focused interventions in the curriculum, training, and industry collaboration, these gaps can be effectively addressed to ensure well-rounded graduate outcomes.

# STRATEGIC INITIATIVES ALREADY TAKEN TO STRENGTHEN COMMUNICATION AND EMPLOYMENT SKILLS

To address the gaps identified in communication and employability skills, the institute undertook a series of well-structured and impactful measures:

## 1. Incorporation of Employment Skills into the Curriculum:

Employment skills were integrated into the academic credit structure, ensuring that students receive formal instruction and evaluation in this critical area. This strategic inclusion makes skill development an essential component of their academic journey.

## 2. Creation of a Dedicated Department:

A specialized department was established to focus exclusively on communication and employability skills. This initiative ensures that the development of these competencies receives continuous attention and structured guidance.

### 3. Appointment of an Experienced Anglo-Indian Professor as Department Head:

To lead the newly formed department, an Anglo-Indian professor with extensive expertise in communication and professional skill development was appointed. Their multicultural background and proven experience bring a global outlook and innovative approaches to the department.

## 4. Adoption of a Robust Assessment System:

A refined assessment system, recommended by subject matter experts, was implemented to evaluate student progress effectively. This system emphasizes

continuous improvement by identifying skill gaps and addressing them through targeted interventions.

These initiatives are designed to equip students with the necessary skills to excel in professional environments, ensuring they are well-prepared for the demands of the global workforce.