# Joint Action Taken Report (ATR) – 2024 Department of Computer Science and Engineering

### 1. Introduction

The Computer Science and Engineering Department conducted a thorough analysis of feedback received from key stakeholders—Alumni, Employers, and Parents—on the attainment of Program Outcomes (POs), Program Specific Outcomes (PSOs), and Program Educational Objectives (PEOs). The goal was to identify existing strengths, detect improvement areas, and initiate corrective measures that enhance curriculum relevance, student skillsets, and industry readiness.

# 2. Key Strengths Identified

| Area                               | Source            | Highlights   |
|------------------------------------|-------------------|--|
| Problem Analysis                   | All Stakeholders  | Scores: Parents (4.60),<br>Employers (4.4), Alumni<br>(4.28) – indicates strong<br>analytical grounding.           |
| Design and Software<br>Development | Employers, Alumni | Scores: Employers (4.6),<br>Alumni (3.83), Parents<br>(4.10) – effective training in<br>practical software skills. |
| Ethics & Teamwork                  | All               | High consensus across<br>stakeholders, e.g., Alumni<br>(4.44 Ethics), Parents (4.15),<br>Employers (4.3).          |
| Modern Tool Usage                  | All               | Scores: Employers (4.5),<br>Alumni (4.28), Parents<br>(4.05) – reflects<br>curriculum's tech<br>relevance.         |
| Research & Innovation              | Alumni, Employers | Scores: Alumni (4.22),<br>Employers (4.25) – shows<br>growing research culture<br>and application of<br>knowledge. |

# 3. Key Weaknesses and Action Plan

#### A. Communication Skills

(Lowest Scores: Alumni – 2.11, Employers – 2.45, Parents – 2.30) Issues Identified:

- Students lack fluency in technical and professional communication.
- Limited platforms for public speaking, collaborative writing, or formal presentation practice.

#### **Actions Taken:**

- A dedicated Communication and Employability Skills Department was established.
- An Anglo-Indian professor was appointed as Head to provide native English fluency training and global exposure.
- Communication workshops, resume writing, mock interviews, and group discussions are now mandatory.
- Technical presentation contests and rubric-based assessments introduced.

### B. Environmental Sustainability & Social Responsibility

#### **Issues Identified:**

- Scores: Parents (3.85), Alumni (3.78), Employers (4.15) reflecting a need for real-world context and SDG integration.
- Sustainability poorly embedded in current curriculum.

#### **Actions Taken:**

- Sustainability and social impact modules embedded in coursework.
- Live projects on green technology and field-based outreach assignments initiated.
- SDG-focused seminars and community engagement integrated with final-year assessments.

#### C. Innovation and Entrepreneurship

#### **Issues Identified:**

- Moderate PSO scores (Alumni 3.83, Employers 4.25).
- Limited exposure to start-up culture and business design thinking.

#### **Actions Taken:**

- An Incubation Hub was launched with support from local entrepreneurs and alumni.
- Startup Hackathons and interdisciplinary electives (Tech + Business) introduced.
- Business model contests and mentorship programs integrated across semesters.

# 4. Strategic Implementation Phases

| Phase   | Timeline | Key Actions   |  |
|---------|----------|---|--|
| Phase I | 0–2      | Establish Communication Lab and Innovation Cell; Assign       |  |
|         | Months   | faculty coordinators.   |  |
| Phase   | 2–4      | Launch technical writing, group projects, and sustainability  |  |
| II      | Months   | seminars.   |  |
| Phase   | 4–6      | Implement research mentoring, student-led startup challenges, |  |
| Ш       | Months   | project showcases.  |  |
| Phase   | Ongoing  | Annual monitoring, stakeholder feedback loop, update rubrics  |  |
| IV      |          | and documentation.  |  |

# 5. Continuous Monitoring and Review

- Alumni and employer panels will evaluate progress annually.
- Outcome-based evaluations using structured rubrics for POs, PSOs, and PEOs.
- IQAC and BoS will review curriculum changes every academic year.
- A performance dashboard will track startups, research publications, and communication progress.

#### 6. Conclusion

The Computer Science and Engineering Department has demonstrated strong academic foundations in technical competencies, ethics, and team collaboration. However, communication, sustainability integration, and entrepreneurial innovation remain key

development areas. With a clearly structured action plan, strategic implementation, and continuous stakeholder feedback, the department is well-positioned to elevate its graduate output and meet national and global expectations in engineering education.