DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING PO, PSO & PEO ATTAINMENT REPORT ON ALUMNI FEEDBACK

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1. Introduction

This report presents an in-depth analysis of alumni feedback on Program Outcomes (POs), Program Specific Outcomes (PSOs), and Program Educational Objectives (PEOs) for the Department of Computer Science and Engineering (CSE). It aims to identify the department's strengths, weaknesses, and areas for improvement while recommending appropriate remedial actions and implementation strategies to align with NBA accreditation goals.

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2. Summary of Alumni Feedback Data

Program Outcomes (POs)

PO	Description	Score (Out of 5)
PO1	Engineering Knowledge	4.11
PO2	Problem Analysis	4.28
PO3	Design/Development of Solutions	3.83
PO4	Conduct Investigations of Complex Problems	4.11
PO5	Modern Tool Usage	4.28
PO6	The Engineer and Society	4.11
PO7	Environment and Sustainability	3.78
PO8	Ethics	4.44
PO9	Individual and Team Work	4.00
PO10	Communication	2.11
PO11	Project Management and Finance	4.22
PO12	Life-long Learning	4.11

Program Specific Outcomes (PSOs)

PSO	Description	Score (Out of 5)
PSO1	Design & Develop Software	3.89
PSO2	Entrepreneurship	3.83
PSO3	Research	4.22

Program Educational Objectives (PEOs)

PEO	Description	Score (Out of 5)
PEO1	Solve Industrial & Technological Problems	4.22
PEO2	Innovation	3.94
PEO3	Social Responsibility	3.72
PEO4	Teamwork	4.22
PEO5	Innovation (Repeated)	4.22

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3. Analysis of Feedback

3.1 Program Outcomes (POs)

- **High Scoring Areas:** Ethics (4.44), Problem Analysis (4.28), Modern Tool Usage (4.28)
- **Moderate Scoring Areas:** Engineering Knowledge, Design/Development, Society, Life-long Learning
- **Low Scoring Area:** Communication (2.11)

3.2 Program Specific Outcomes (PSOs)

- Strong performance in Research (4.22)
- Moderate competency in Software Development and Entrepreneurship

3.3 Program Educational Objectives (PEOs)

- High scores in Industrial Problem Solving, Teamwork, and Innovation
- **Area of Concern:** Social Responsibility (3.72)

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4. Strengths

- Alumni perceive strong ethical grounding and professional knowledge.
- Effective use of modern tools and sound engineering practices.
- Strong research and problem-solving focus.

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5. Weaknesses

- **Communication skills** among graduates are a significant concern (2.11).
- **Social responsibility** and **environmental sustainability** need more attention.
- Entrepreneurial skills and innovation capacities are underdeveloped relative to expectations.

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6. Remedial Measures Proposed

- **Communication:**
  - Introduce mandatory technical communication workshops.
  - Organize group discussions, presentations, and seminars.
- **Sustainability & Social Responsibility:**
  - Embed related topics in design projects.
  - Encourage community engagement and service-learning modules.
- **Innovation & Entrepreneurship:**
  - Collaborate with incubators, offer start-up bootcamps, and host innovation hackathons.

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7. Implementation Strategy

- **Short-Term (6 months):**
  - Conduct workshops and training sessions for communication and innovation.
  - Faculty training for outcome-based teaching methodologies.
- **Mid-Term (1 year):**
  - Integrate social responsibility components into existing curriculum.
  - Partner with industry and alumni for mentorship programs.
- **Long-Term (2–3 years):**

- Monitor outcome achievements annually and revise curriculum based on feedback.
- Develop electives and minors around sustainability, entrepreneurship, and communication.

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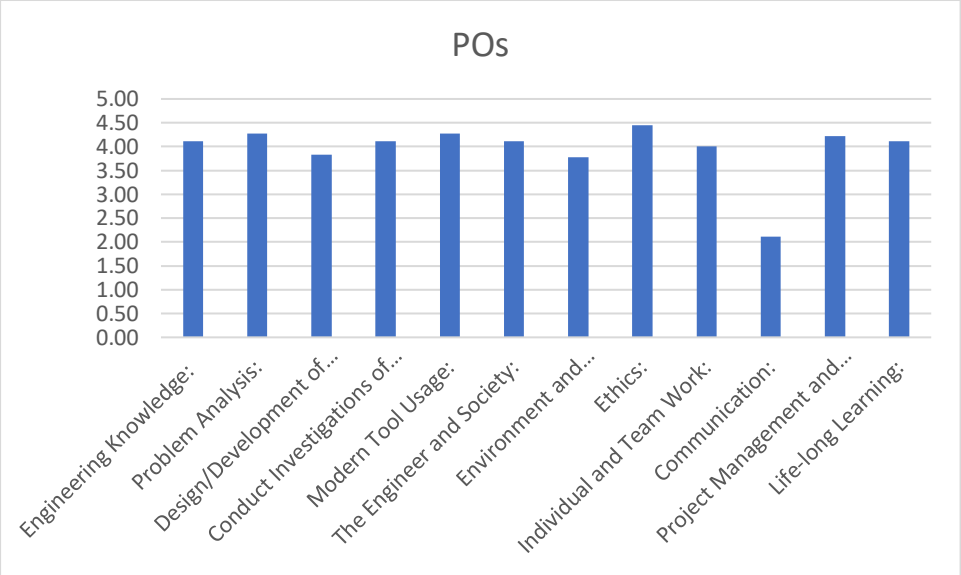
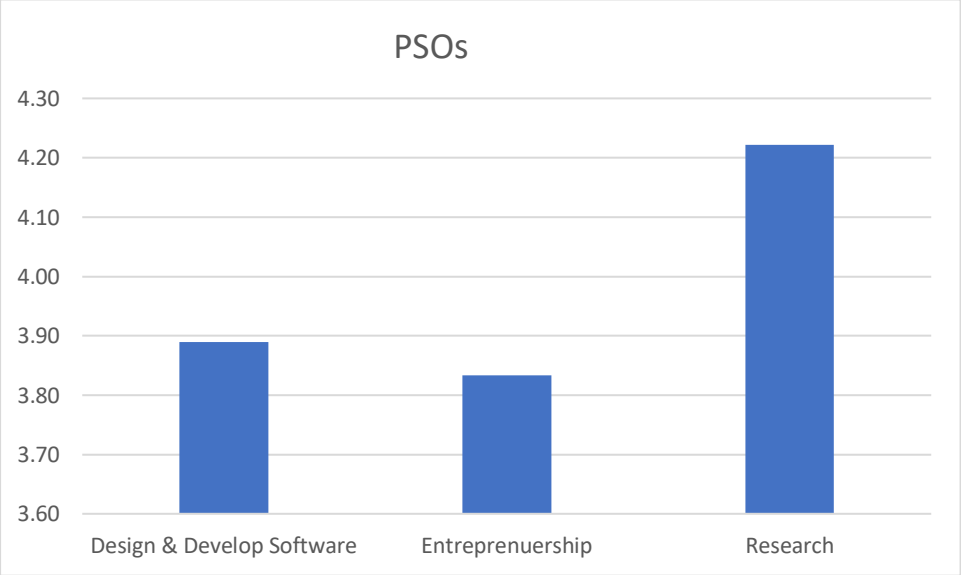
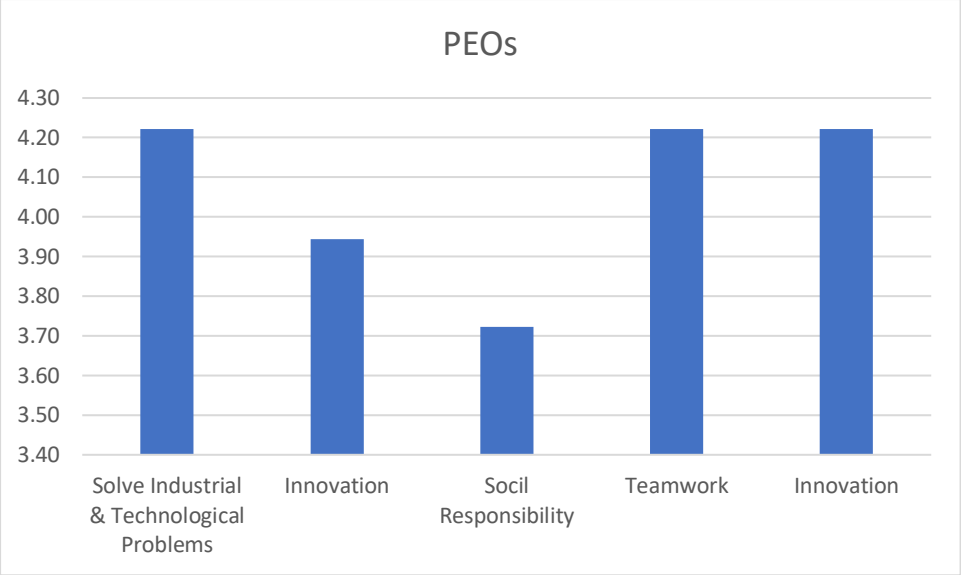
8. Visual Representation







9. Conclusion

The alumni feedback demonstrates a robust foundation in technical and ethical competencies among CSE graduates. However, gaps in communication, sustainability, and social engagement must be bridged to ensure all-round development. The proposed remedial actions and implementation plan will help achieve targeted improvements and strengthen NBA compliance.

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10. Annexure

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.