

Joint Action Taken Report (ATR) – 2024

Department of Electrical Engineering

Stakeholders: Alumni, Employers, Parents

1. Introduction

The Electrical Engineering Department collected and analysed feedback from key stakeholders—**Alumni**, **Employers**, and **Parents**—to assess the attainment of Program Outcomes (POs), Program Specific Outcomes (PSOs), and Program Educational Objectives (PEOs). The aim is to enhance program quality, bridge skills gaps, and ensure alignment with real-world demands.

2. Key Strengths Identified

Area	Source	Highlights
Engineering Knowledge & Problem Solving	All	High ratings: PO1 & PO2 (Alumni: 4.27 & 4.00, Employers: 4.33 & 4.65, Parents: 4.58 & 4.47).
Modern Tool Usage & Product Design	Employers, Parents	Strong ratings across all groups (4.37–4.75), reflecting hands-on skills.
Ethics & Social Responsibility	All	PEO2 Ethics (4.36), PO6 (4.36–4.66), and PO8 Ethics (4.09–4.25) consistently scored high.
Teamwork & Lifelong Learning	Parents, Alumni	PO9 & PO12 ~4.0+ in all categories – graduates exhibit collaborative attitudes.
Environment and Sustainability	Alumni, Employers	PO7: 4.45 (Alumni), 4.50 (Employers), 4.32 (Parents) – sustainability education embedded.
Project Management & Finance	Alumni, Employers	PO11 scored 4.21–4.64 – students are gaining financial planning exposure.

3. Key Weaknesses and Action Plan

A. Communication Skills (Lowest PO Score)

- **Scores:** Alumni – 2.45, Employers – 2.41, Parents – 3.05

- **Issues:** Insufficient training in professional, technical, and verbal communication.
- **Actions Taken:**
 - Communication Lab established; led by an Anglo-Indian professor.
 - Mandatory workshops on public speaking, report writing, resume design.
 - Mock interviews, technical paper presentations, and peer feedback systems.

B. Collaborative Research & Product Design

- **Scores:** PSO2 (4.00–4.38), PSO3 (3.82–4.44)
- **Issues:** Limited exposure to interdisciplinary R&D and real-world design thinking.
- **Actions Taken:**
 - Research Cells formed focusing on AI, smart grid, renewables.
 - Bi-annual product design hackathons.
 - Credit-linked internships and research publication mentoring.

C. PO4 – Investigation of Complex Problems

- **Scores:** Alumni (3.91), Employers (4.32), Parents (4.58)
- **Issue:** Gap between classroom theory and practical analytical application.
- **Actions Taken:**
 - Final-year projects now mandate investigative experiments and analysis.
 - Simulation modules (e.g., MATLAB, PSCAD) integrated into labs.
 - Problem formulation and design iterations added to project rubrics.

4. Strategic Implementation Phases

Phase	Timeline	Key Actions
I	0–2 Months	Establish research and communication cells; assign faculty coordinators.
II	2–4 Months	Conduct ethics workshops, simulation labs, research writing bootcamps.
III	4–6 Months	Host Innovation Expo, Industry Seminars, and Community Projects.

IV	Ongoing	Annual reviews, stakeholder surveys, outcome audits, and policy adaptation.
-----------	---------	---

5. Monitoring and Review

- **360° Feedback:** Faculty, peer, and mentor evaluation of communication and teamwork.
- **Outcome Tracking:** Dashboards for PO/PSO/PEO improvements via internal audit systems.
- **Curriculum Review:** Annual review by BoS & IQAC using employer and alumni panels.
- **Research & Innovation Tracker:** Research papers, projects, patents, and grants monitored.

6. Conclusion

The Electrical Engineering Department has established a robust academic foundation as reflected in high ratings for technical, ethical, and teamwork outcomes. However, challenges persist in communication skills, collaborative research, and applied innovation. The remedial actions outlined in this ATR are strategically designed and already underway. They reflect a unified commitment to producing industry-ready, socially responsible engineers.