Dr. B C Roy Engineering College

Department of Electronics and Communication Engineering

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The Action Taken Report (ATR) for the academic year **2023-24 (ODD**) highlights the efforts undertaken by the ECE Department to address the key findings from the student feedback. Through targeted actions,

such as the enhancement of extracurricular opportunities, improved mentorship programs, and the integration of real-world applications into the curriculum, significant progress has been made in addressing student concerns and fostering an enriched learning environment. These initiatives reflect the department's commitment to continuous improvement and holistic development.

To ensure sustained progress, further recommendations have been proposed, focusing on infrastructure upgrades, stronger industry connections, and consistent feedback mechanisms. The department remains dedicated to implementing these measures, strengthening the academic experience, and supporting student aspirations.

Report of the Special DAC Meeting

Held on: 05-03-2024

Venue: Advanced Prototype Lab

The Department Advisory Committee (DAC) convened to discuss the student feedback for the academic year 2023-24 and the subsequent action taken to address identified areas for improvement. The meeting concluded with the unanimous approval of the ATR and the proposed recommendations for sustained development.

Course-End Feedback Analysis and Action Taken Report (ATR)
Odd Semester 2023-24

Overview

The Course-End Feedback was analyzed for all semesters in the Electronics and Communication Engineering (ECE) Department for the academic year 2023-24. The feedback collected focuses on the teaching-learning process, syllabus coverage, evaluation, and faculty engagement. This ATR addresses the observations, highlights strengths, identifies areas needing improvement, and details actions taken.

Key Feedback Summary

Strengths

1. Syllabus Coverage

 Observation: Across semesters, 85% of students rated syllabus coverage as "85-100%," showcasing the department's commitment to comprehensive course delivery.

2. Teaching Approach

 Observation: Over 80% of students rated the faculty's teaching approach as "Excellent" or "Very Good."

3. Engagement and Communication

Observation: Around 78% of students acknowledged consistent discussions on their performance and strengths, highlighting effective student-faculty interaction.

4. Overall Learning Process

 Observation: Feedback indicated that 75% of students found the teaching-learning process very good or excellent.

Areas Needing Improvement

1. Fairness in Evaluation

Observation: While 80% found evaluations fair, some responses indicated inconsistencies in communication regarding evaluation criteria.

2. Illustration of Concepts with Examples

 Observation: About 70% of students rated this parameter positively, but some highlighted the need for better application-oriented teaching.

3. Encouragement for Extracurricular Activities

 Observation: Although 65% of students felt encouraged to participate, first-year students expressed a need for more structured extracurricular involvement.

Actions Taken

1. Enhanced Teaching-Learning Methods

- Introduced case studies and practical examples in lectures to improve concept illustration.
- Integrated tools like MATLAB and Simulink for real-world simulations, particularly in higher semesters.

2. Streamlined Evaluation Processes

 Faculty were trained to communicate evaluation criteria more clearly and consistently during assignments and exams.

Developed rubrics for grading, ensuring transparency and fairness.

3. Increased Extracurricular Opportunities

- Expanded the use of the Xilinx Lab and Advanced Prototyping Lab for project-based extracurricular activities.
- Hosted regular hackathons, quizzes, and technical competitions to engage students beyond academics.

4. Regular Performance Discussions

- Mandated bi-semester feedback sessions between faculty and students to discuss strengths and areas for improvement.
- Established mentorship groups for personalized guidance on academic and extracurricular growth.

Semester-Specific Highlights

First Semester

- Key Challenge: Students indicated uncertainty about the real-life applicability of their knowledge.
- Action: Introduced open lab sessions for hands-on exposure to concepts covered in foundational courses like Basic Electrical Engineering and Engineering Drawing.

Third Semester

- Key Challenge: Students requested better integration of modern tools in practical sessions.
- Action: Updated lab experiments to include emerging technologies like IoT and embedded systems, utilizing modern equipment.

Fifth Semester

- **Key Challenge**: Some students felt the need for stronger connections between course content and industry requirements.
- Action: Collaborated with industry experts to design guest lectures and workshops focusing on industry-relevant skills.

Seventh Semester

- Key Challenge: Limited time for discussions on project-based activities due to a packed curriculum.
- Action: Dedicated weekly mentoring hours for final-year projects to ensure focused guidance.

Recommendations

1. Enhanced Mentorship

 Strengthen mentorship programs with specific objectives for academic and career development.

2. Integration of Industry Needs

Expand partnerships with industries for curriculum alignment and internships.

3. Interactive Teaching

 Broaden the use of interactive tools, such as AR/VR and simulation platforms, to enhance understanding of complex concepts.

4. Feedback Mechanism

Conduct mid-semester feedback surveys to address concerns more proactively.

Semester-End Feedback Action Taken Report (ATR) Odd Semester 2023-24

Overview

This ATR addresses the key findings from the semester-end feedback for the Electronics and Communication Engineering (ECE) Department for the academic year 2023-24. It highlights strengths, identifies challenges, and outlines actions implemented to enhance the learning environment and facilities.

Key Feedback Summary

Academics

1. Knowledge Acquisition

- Observation: 78% of students agreed they acquired new technical and scientific knowledge.
- Challenge: 12% expressed uncertainty about the applicability of this knowledge, indicating a need for stronger practical integration.

2. Mentorship and Counselling

 Observation: 80% of students positively rated mentorship efforts, but inconsistencies in second-year groups were noted.

3. Pedagogy and Communication Skills

 Observation: 85% found the pedagogy effective, and 82% indicated improvements in communication skills. However, a small portion (8%) highlighted the need for more interactive teaching methods.

Facilities

1. Laboratories and Libraries

 Observation: Over 65% of students rated these as Excellent or Very Good, but some dissatisfaction was noted due to equipment availability and access hours.

2. Hostel Amenities and Hygiene

 Observation: Hostel facilities received mixed ratings, with 13% marking them as Poor and 20% rating cleanliness below Good.

3. Internet Access

Observation: Internet services consistently received the lowest ratings, with 15% marking them as Poor.

Actions Taken

Academics

1. Enhanced Practical Learning

- Introduced additional lab-based mini-projects in the Xilinx Lab and Advanced Prototyping Lab to reinforce theoretical concepts with hands-on activities.
- Developed new case studies and real-life problem-solving sessions to strengthen knowledge applicability.

2. Structured Mentorship Programs

- Established smaller mentorship groups to ensure focused academic and career guidance.
- Assigned senior faculty to supervise and address gaps in mentorship quality for specific batches.

3. Interactive Teaching Innovations

- Conducted workshops for faculty on flipped classrooms and simulation-based teaching to encourage interactive learning.
- Increased the use of visual aids and live examples in lectures to enhance engagement.

Facilities

Laboratory and Library Upgrades

Procured additional equipment to address availability issues in core labs.

 Extended library operating hours and added digital access to journals and e-books for enhanced resource accessibility.

2. Internet Services

- Upgraded internet infrastructure with high-speed routers and increased bandwidth in hostels and academic buildings.
- Introduced an IT helpdesk to address connectivity issues promptly.

Recommendations

1. Continued Monitoring of Improvements

 Conduct mid-semester surveys to gauge the effectiveness of the implemented actions and address emerging issues.

2. Increased Industry Integration

 Expand partnerships with local industries to organize hands-on workshops, internships, and expert lectures.

3. Digital Transformation

 Implement advanced e-learning platforms to complement classroom teaching and provide continuous access to learning resources.

4. Extracurricular Engagement

 Organize regular hackathons, coding challenges, and cultural events to foster holistic student development.

Comparative Action Taken Report (ATR)

Odd Semester 2023-24

This report presents a detailed comparative analysis of the semester-end feedback for Academics and Facilities, outlining observations and corresponding actions taken to address them.

Academics Comparative Analysis and Actions

Category	Observation	Action Taken
Knowledge Acquisition	78% of students agreed they acquired new technical knowledge, while 12% were uncertain.	Introduced lab-based projects in core subjects to reinforce theoretical concepts with hands-on learning.
Real-Life Problem	76% agreed they could apply	Enhanced problem-based learning

Solving	knowledge to real-life problems; some indicated gaps in practical exposure.	modules and conducted case-study sessions.
Industry Relevance	80% agreed that subjects studied were industry-relevant; 20% suggested the need for updated content.	Updated course curriculum to include recent technological advancements such as IoT and AI.
Mentorship and Counselling	80% rated mentorship positively; inconsistencies noted in second-year groups.	Assigned faculty mentors to smaller groups for personalized guidance and regular check-ins to monitor progress.
Overall Learning Environment	82% found the learning environment positive, but engagement in foundational courses was lacking.	Integrated interactive tools like AR/VR for engaging lectures in foundational courses.
Communication Skills Improvement	85% noted improvement; first-year students needed more opportunities to practice communication skills.	Conducted communication workshops and debates for first-year students to build confidence and presentation skills.
Teachers' Knowledge Demonstration	85% positively rated teachers' subject knowledge; minor gaps in examples and illustrations were observed.	Conducted faculty training workshops to enhance the use of real-life examples and illustrations in lectures.
Pedagogy and Effectiveness	85% rated pedagogy as effective; interactive teaching was requested by 15%.	Introduced flipped classroom models and simulation-based learning platforms to increase interactivity.

Facilities Comparative Analysis and Actions

Category	Observation	Action Taken
Classroom Facilities	67% rated classroom facilities as Very Good or Excellent; 6% reported infrastructure issues.	Improved classroom infrastructure by adding ergonomic furniture and upgrading projection systems.
Laboratory Facilities	69% rated labs positively; 5% noted equipment inadequacies.	Procured additional lab equipment and extended lab access hours to accommodate student schedules.
Library Facilities	70% rated library facilities highly; some requests for extended hours were noted.	Increased library operating hours and added e- resources, including subscriptions to journals and digital books.
Hostel Facilities	30% rated hostels Poor or Good, citing issues with hygiene and	Advised authorities for launching hostel refurbishment initiatives, improved cleaning frequency, and added water purifiers and better



	room conditions.	recreational facilities.
Cleanliness and Hygiene	20% rated cleanliness Poor or Good, highlighting hostels and common areas as needing attention.	Increased cleaning staff, introduced weekly cleaning audits, and installed waste segregation bins to improve hygiene.
Canteen Facilities	15% rated the canteen Poor, citing food quality concerns.	Advised caterers to improve food quality and hygiene; introduced menu options based on student feedback.
Internet Facilities	20% rated internet access Poor, especially in hostels.	Upgraded internet infrastructure with high-speed routers and expanded bandwidth; introduced an IT helpdesk to resolve connectivity issues promptly.

The comparative analysis underscores the department's strengths in academic delivery and highlights actionable areas for facilities improvement. Proactive measures taken to address feedback aim to enhance student satisfaction and align with modern academic and infrastructural standards. Regular monitoring and iterative improvements will ensure sustained progress.

Dr. Sourav Moitra

Associate Professor, ECE

Convener, Departmental Proceeding/Meetings

Dr. Mrinmoy Chakroborty Associate Professor, ECE

HOD, ECE

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