

Dr. B C Roy Engineering College

Department of Electronics and Communication Engineering

Ref: BCREC/ECE/DAC/2024-25/EVEN/2

Date: 07/08/2024

The Action Taken Report (ATR) for the academic year **2023-24 (EVEN)** 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: **02-08-2024**

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 for ECE Department

Overview

This report analyzes the student feedback collected at the end of the academic year 2023-24 to evaluate the teaching-learning processes and extracurricular support in the ECE Department. The report incorporates specific actions already undertaken to address feedback and proposes further steps to improve the overall academic and student experience.

Key Findings

1. Overall Performance

The overall average feedback rating is **3.61** out of 4, signifying a strong academic foundation with some areas requiring attention.

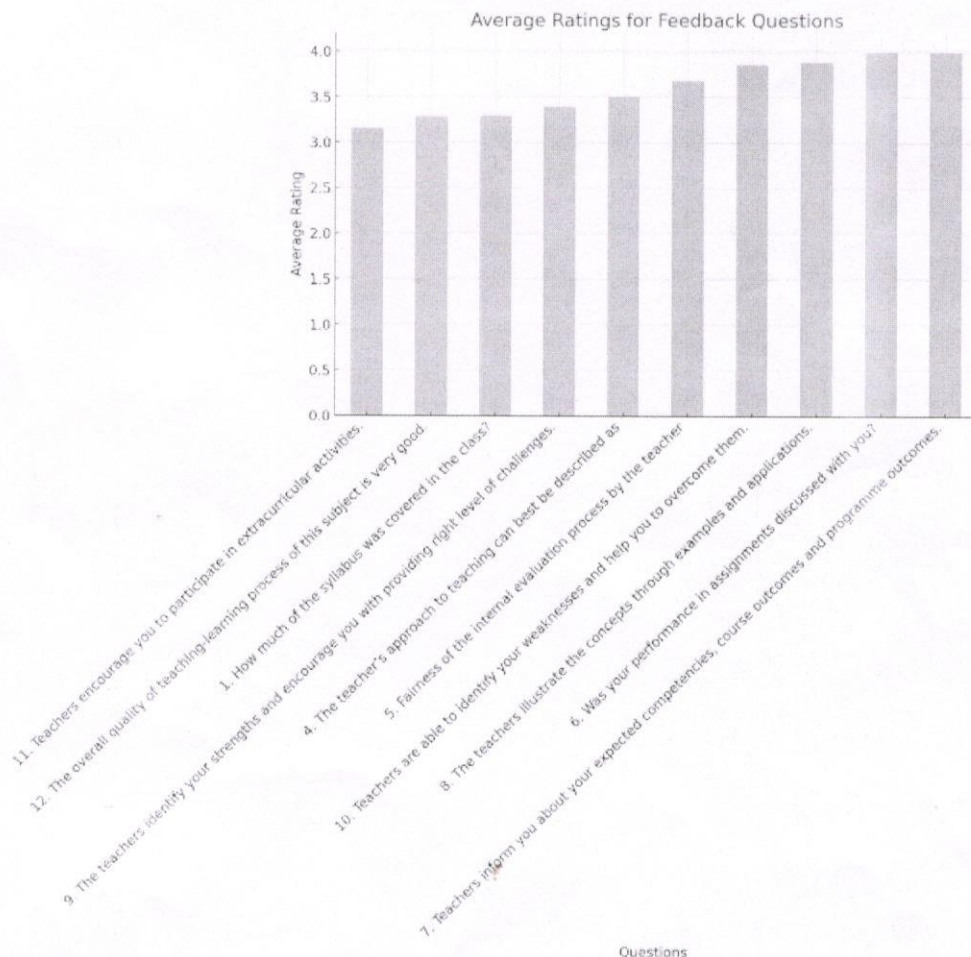

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2. Strengths

- **Performance Feedback:** Students highly appreciated (average: 4.0) discussions on assignment performance, reflecting robust student-teacher engagement.
- **Structured Syllabus Delivery:** Syllabus coverage (average: 3.9) and teaching approach (average: 3.85) were commended, indicating a well-planned curriculum delivery.

3. Areas Needing Improvement

- **Extracurricular Activities Engagement:** The lowest-rated parameter (average: 3.0) indicates a need for increased focus on encouraging students to participate in extracurricular and co-curricular activities.
- **Application-Oriented Teaching:** While relatively well-rated (average: 3.6), feedback suggests enhancing the use of real-life examples and practical applications during lectures.



Actions Taken

1. Enhanced Use of Labs for Extracurricular Activities


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- The **Xilinx Lab** has been opened for extracurricular project work beyond class hours, enabling students to work on FPGA-based design projects and industry-relevant problem-solving activities.
 - The **Advanced Prototyping Lab** has been designated as a hub for co-curricular activities, allowing students to experiment with advanced prototyping tools for IoT, robotics, and hardware-software co-design.
 - Faculty mentors have been assigned to guide students on lab-based extracurricular projects.
2. **Introduction of Real-Life Application Focus in Curriculum**
- Real-world case studies and industry-standard tools (e.g., MATLAB, Simulink, Xilinx Vivado) have been integrated into lectures and practical sessions.
 - Guest lectures and workshops from industry professionals were organized to bridge the gap between theory and practice.
3. **Strengthened Feedback Mechanisms**
- Individualized feedback dashboards have been introduced using in-house software tools. These dashboards provide a detailed performance summary for each student, emphasizing strengths and areas for improvement.
 - Faculty members now conduct regular one-on-one mentorship sessions to better understand and address students' academic and personal challenges.
4. **Faculty Development Initiatives**
- Faculty members attended workshops on **Outcome-Based Education (OBE)** and **Innovative Teaching Practices**, focusing on active learning strategies and student engagement.
 - Training sessions on using prototyping labs effectively in project-based learning were also conducted.

Recommendations for Sustained Improvement

1. **Encourage Greater Participation in Labs**
 - Schedule regular hackathons, competitions, and inter-departmental projects in the **Xilinx Lab** and **Advanced Prototyping Lab** to promote student involvement.
 - Offer course credits or certificates for outstanding project work in these labs to motivate students.
2. **Expand Real-World Integration in Curriculum**


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- Collaborate with industry to introduce mini-projects based on current technological challenges in areas such as IoT, machine learning, and embedded systems.
- Organize semester-end exhibitions for students to showcase their projects developed in labs.

3. Focus on Holistic Development

- Develop structured extracurricular programs that combine technical and soft skills (e.g., leadership workshops, technical writing sessions).
- Actively encourage faculty to participate in cultural and technical extracurricular events as mentors to create a well-rounded learning environment.

4. Continuous Feedback Analysis

- Conduct mid-semester feedback surveys to assess the impact of implemented changes.
- Establish a feedback review committee comprising faculty and students to ensure action plans align with student expectations.

Impact of Actions Taken

The integration of the **Xilinx Lab** and **Advanced Prototyping Lab** as extracurricular and co-curricular spaces has significantly improved accessibility for hands-on learning. Students have reported increased interest in participating in lab-based activities and a noticeable improvement in their understanding of practical concepts. Guest lectures and real-life applications in teaching have been particularly well-received, fostering a deeper appreciation of course material.

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Semester-End Feedback Report for ECE Department

Overview

This report consolidates the semester-end feedback collected across all years (First to Fourth) in the ECE Department for the academic year 2023-24. The feedback covers two main aspects: academic experience and facilities. The responses highlight program strengths and areas for improvement, accompanied by specific actions to enhance the student learning experience.

Feedback Analysis by Year

First Year (97 Students) (analysis-ece_first)

- **Academics:**
 - New knowledge acquisition: 79.38% agreement (Strongly Agree/Agree).
 - Real-life application of knowledge: 76.29% agreement.
 - Learning environment: 82.47% agreement.
 - **Facilities:**
 - Lab and library facilities were rated highly (Excellent/Very Good: ~58%).
 - Internet facilities showed dissatisfaction, with 28.87% rating it as Poor.
 - Hygiene and cleanliness scored lower than expected, with 19.59% rating it as Poor.
-

Second Year (26 Students) (analysis-ece_second)

- **Academics:**
 - New knowledge acquisition: 92.31% agreement.
 - Industry relevance: 84.61% agreement.
 - Mentorship and counselling: 80.77% agreement.
 - **Facilities:**
 - Lab and library facilities received mixed reviews, with around 42.31% rating them as Good.
 - Internet access showed issues, with 19.23% rating it Poor.
 - Canteen facilities saw 50% Good ratings, indicating room for improvement.
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Third Year (95 Students) (analysis-ece_third)


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- **Academics:**

- Strong agreement on technical knowledge acquisition (53.51%) and real-life application (52.63%).
- Teacher pedagogy: 90.52% agreement (Effective/Interesting).
- Learning environment: 93.69% agreement.

- **Facilities:**

- Laboratory facilities: 76.84% Excellent/Very Good.
- Cleanliness and hygiene scored well (72.63% Excellent/Very Good).
- Internet dissatisfaction remained notable, with 15.79% rating it as Poor.

Fourth Year (127 Students) (analysis-ece_fourth)

- **Academics:**

- Strong agreement on mentorship and counselling (94.49%).
- Real-life application: 92.91% agreement.
- Communication skills improvement: 92.13% agreement.

- **Facilities:**

- Laboratory and library facilities scored well, with ~67.71% Excellent/Very Good.
- Canteen dissatisfaction was evident, with 10.24% rating it Poor.

Key Observations

1. **Academics:**

- Strong agreement on technical knowledge acquisition and real-life application across all years, averaging **88%** agreement.
- Mentorship and counselling showed improvement in higher years, averaging **86% agreement**.
- Learning environment scored positively but highlights in early years a need for engagement-focused interventions.

2. **Facilities:**

- Lab and library facilities were rated above average but require enhancement in infrastructure and accessibility for consistency.


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- Internet access and canteen services consistently received lower ratings, demanding immediate attention.

Actions Taken

1. Internet Facilities Upgrade

- Collaborated with IT services to install high-speed Wi-Fi routers in classrooms, labs, and hostels.

2. Canteen Overhaul

- Menu revision based on student preferences and quality control measures initiated with periodic cleanliness audits.

3. Enhanced Mentorship

- Introduced structured mentorship programs across all years, pairing students with faculty mentors for career and academic guidance.

4. Modern Lab Equipment

- Procured new tools for the **Xilinx Lab** and **Advanced Prototyping Lab**, improving access to state-of-the-art equipment.
- Initiated open lab hours for project-based learning and extracurricular activities.


5. Workshops and Holistic Development

- Conducted regular workshops on research skills, communication, and industry-relevant topics, averaging 2 events per semester.


Recommendations

1. Sustained Infrastructure Improvement

- Allocate resources for internet and canteen upgrades to meet consistent student satisfaction levels.
- Regular maintenance and audits for cleanliness and hygiene in hostels and campus facilities.



Dr. Sourav Moitra
Associate Professor, ECE
Convener, Departmental Proceeding/Meetings



Dr. Mrinmoy Chakroborty
Associate Professor, ECE
HOD, ECE

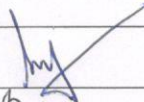

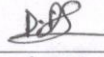
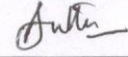
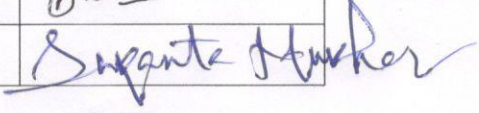

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MEMBERS PRESENT:

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Dr. Khondekar Mofazzal Hossain	Professor	
Dr. Tapas Mondal	Associate Professor	
DR. Rajdeep Ray	Associate Professor	
Dr. Tribeni Prasad Banerjee	Associate Professor	
Dr. Mrinmoy Chakraborty	Associate Professor	
DR. Rajib Banerjee	Associate Professor	
Dr. Abhijit Banerjee	Associate Professor	
Ms. Keka Hajra	Assistant Professor	
Ms. Dipta Chaudhuri	Assistant Professor	
Dr. Aritra Bhowmik	Assistant Professor	
Dr. Anirban Chattopadhyay	Assistant Professor	
Dr. Sourav Moitra	Associate Professor	
Dr. Debipriya Dutta	Assistant Professor	
Ms. Moutusi Mondal	Assistant Professor	
Mr. Nilkamal Bhunia	Assistant Professor	
Dr. Ankita Mitra	Assistant Professor	
Mr. Pradipta Sarkar	Assistant Professor	
Mr. Tapas Roy	Assistant Professor	
Dr. Anup Kumar Das	Assistant Professor	
Mr. Surajit Batabyal	Assistant Professor	
Ms. Subhadra Debroy	Assistant Professor	
Mr. Moloy Mukherjee	Assistant Professor	
Mr. Samujjwal Ray	Assistant Professor	
Mr. Soumendrapain	Assistant Professor	
Dr. Ramkrishna Rakshit	Assistant Professor	

Dr. ALOKE SAHA

Associate Professor

Mr. Santanu Roy	Sr. Technical Assistant	
Mr. Samar Nath Rajak	Sr. Technical Assistant	
Ms. Dolan Das	Sr. Technical Assistant	
Mr. Sonatan Dutta	Technical Assistant	
Mr. Sukanta Mukherjee	Supervisor	



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