

2023-2024



# NEWSLETTER



## DEPARTMENT OF ELECTRICAL ENGINEERING



The Circuit: Connecting  
Knowledge & Innovation





## DEPARTMENT OF ELECTRICAL ENGINEERING AJAY BINAY INSTITUTE OF TECHNOLOGY



### VISION OF THE INSTITUTE

To promote quality teaching, exploration, research and facilitate holistic development of students that would help create capable technical manpower needed for industry and academia.



### MISSION OF THE INSTITUTE

M1: To enable efficiency and prosperity in the society through application of technical knowledge and in collaboration with industry and other institutions.

M2: Ensure an effective teaching on contemporary topics and a rational examination system.

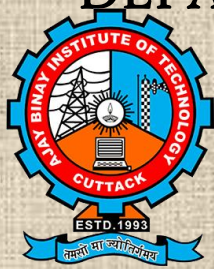
M3: Support and create centers of excellence for exploratory technical and behavioral projects that would promote originality and uniqueness.

M4: Establish partnership with local industries for collaborating, understanding and addressing real life technical challenges.



# DEPARTMENT OF ELECTRICAL ENGINEERING

## AJAY BINAY INSTITUTE OF TECHNOLOGY



### VISION OF THE DEPARTMENT



VISION

To become a leader in bringing out proficient Electrical Engineers, academicians and entrepreneurs and thereby contribute values to knowledge-based economy and society.

### MISSION OF THE DEPARTMENT



MISSION

**M1 :** To impart high quality technical education, & promote research activities among the students enabling them to excel as innovative and globally competent professionals.

**M2 :** To bridge the gap between industry and academia by fostering student development initiatives that meet industry needs.

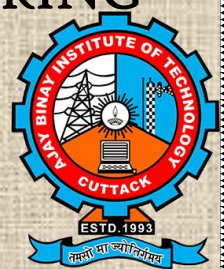
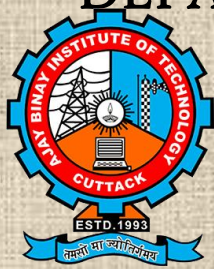
**M3 :** To develop expertise in complex technical problem-solving skill among the students through application-based learning approach.

**M4 :** To nurture ethical and socially responsible engineers by providing an educational environment that emphasizes professional integrity, creativity, and teamwork.



# DEPARTMENT OF ELECTRICAL ENGINEERING

AJAY BINAY INSTITUTE OF TECHNOLOGY



## PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

**PEO1 :** Apply technical knowledge to solve complex engineering problems, emphasizing ethics, social responsibility, and professional integrity.

**PEO2 :** Excel in various engineering roles such as design, research, testing, and manufacturing, with skills tailored to meet industry demands.

**PEO3 :** Engage in continuous learning to enhance their professional skills, fostering innovation and leadership in their respective fields.

**PEO4 :** Demonstrate creativity and entrepreneurial spirit in developing sustainable solutions to engineering challenges.

**PEO5 :** Contribute positively to society by applying their engineering expertise to address societal needs, while upholding ethical standards and social commitment.

## PROGRAM SPECIFIC OUTCOMES (PSOS)

**PSO1.** Apply electrical engineering knowledge to design and solve complex electrical and power system problems, ensuring safety and sustainability.

**PSO2.** Use modern tools and techniques to model, analyze, and improve electrical systems in areas like power and automation.

**PSO3.** Demonstrate project management, teamwork, and ethical skills to contribute to engineering projects that address societal and environmental challenges.



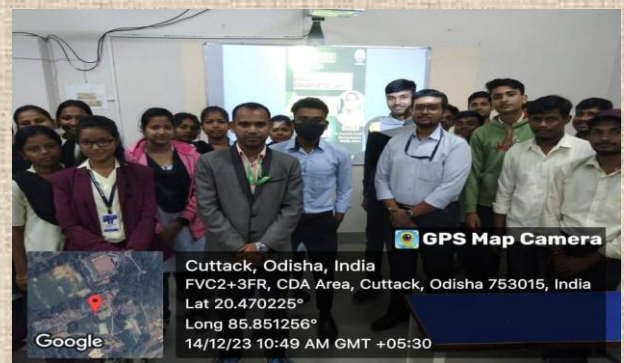
# ANNUAL NEWSLETTER – 2023-24

**DEPARTMENT OF ELECTRICAL ENGINEERING**  
**AJAY BINAY INSTITUTE OF TECHNOLOGY, CDA, SECTOR-1, CUTTACK**

The Department of Electrical Engineering, ABIT, Cuttack, organized an incredible industrial visit for 3rd-year students to the OPTCL 220/132/33KV Grid Substation, Bidanasi, on September 30, 2023. This visit provided students with valuable practical exposure to substation operations, power transmission, and grid management, enhancing their technical knowledge and industry readiness.



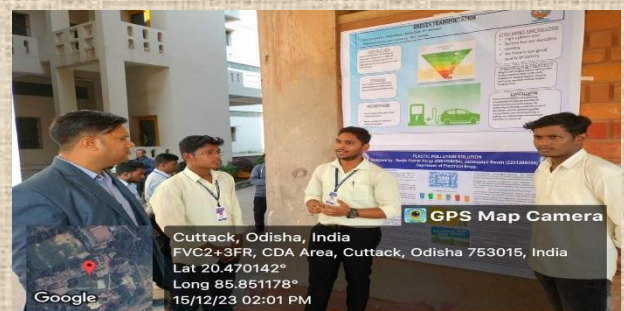
The Department of Electrical Engineering hosted an insightful seminar led by Er. Pravat Ranjan Samal, Planning Engineer, TPCODL, Cuttack, Odisha shedding light on Energy Conservation's vital role in Nation building. The students also participated in an awareness campaign for empowering the public for a sustainable future on 14.12.2023.



The Department of Electrical Engineering, ABIT, Cuttack, was honored with the prestigious Odisha State Energy Conservation Award (OSECA) 2023 in the Educational Institute Category on December 14, 2023. This recognition highlights the department's outstanding efforts and commitment toward promoting energy efficiency, sustainability, and innovative practices in the field of technical education.



A Poster Presentation Competition on the theme “7R-New Choice for Green Life” was organized by the Department of EE in collaboration with the Mechanical Department on 15<sup>th</sup> December, 2023. 17 teams had participated in this event demonstrating their creative ability.





A Seminar on “Business Start-Up for students” by Mr. Roushan Kumar Niraj, Founder & Managing Director at Oltron Technology 03.02.2024 was conducted by Department of Electrical Engineering. The aim of the Seminar was to equip participants with the essential knowledge, skills, and mindset required to successfully initiate and manage their own businesses.



A Student Development Workshop on “Solar Power System Design” organised by ABIT's Centre of Applied Research (Energy Efficiency & Sustainability) on 28.02.2024 for 3rd Year Electrical Engineering Students under the supervision Er. Subrat Behera. The aim of the workshop was to Students learnt how to build a small-scale solar PV system with practical components.



## **FACULTY PUBLICATION**

1. Prof. Debayani Mishra published a paper titled “Frequency Management of an Interconnected Power System using Modified Differential Evolution Algorithm” in IJRER, June 2023.
2. Prof. Debayani Mishra published a paper titled “A modified differential evolution algorithm for frequency management of interconnected hybrid renewable system” in IJPEDS, Sep,2023.
3. Prof. Durgamadhab Swain & Prof. Debayani Mishra published a paper titled “A Key to Sustainable Development-Solar Powered Water-Cooling System” in Journal of Engineering Innovation and Research, July,2023.
4. Prof. Durgamadhab Swain published a paper titled “Asymmetrical Fault Analysis Using P2P Coordinated Control System for DFIG-STATCOM” in IEEE, Nov-2023.
5. Prof. Durgamadhab Swain published a paper titled “Support Vector Regression Framework for Reactive Power Prediction based on Real Power Demand” in IEEE, Dec-2023.



## **STUDENT PUBLICATION**

1. Mr. Satya Narayan and Mr. Jijnyansu Rout published a paper titled “power quality improvement of grid connected wind energy system implementing STATCOM” in UGC CARE, 2023.
2. Mr. Arian Mishra and Mr. Pratik Priyadarshi published a paper titled “solar EV charging station” in UGC CARE ,2023.

## **FDP/STTP/SEMINAR:**

1. Er. Durgamadhab Swain participated in a one-week Faculty Development Program (FDP) on “Advanced Process Control using PLC, DCS, and SCADA” from 28th August 2023 to 1st September 2023, organized by NITTTR, Kolkata.
2. Er. Satyaranjan Das participated in a one-week Faculty Development Program (FDP) on “Advanced Process Control using PLC, DCS, and SCADA” from 28th August 2023 to 1st September 2023, organized by NITTTR, Kolkata.
3. Er. Chandan Mandal participated in a one-week Faculty Development Program (FDP) on “Advanced Process Control using PLC, DCS, and SCADA” from 28th August 2023 to 1st September 2023, organized by NITTTR, Kolkata.
4. Er. Ilyas Ahmed participated in a one-week Faculty Development Program (FDP) on “Advanced Process Control using PLC, DCS, and SCADA” from 28th August 2023 to 1st September 2023, organized by NITTTR, Kolkata.
5. Er. Debayani Mishra participated in a one-week Faculty Development Program (FDP) on “Advanced Process Control using PLC, DCS, and SCADA” from 28th August 2023 to 1st September 2023, organized by NITTTR, Kolkata.
6. Er. Subhadra Behera participated in a one-week Faculty Development Program (FDP) on “Advanced Process Control using PLC, DCS, and SCADA” from 28th August 2023 to 1st September 2023, organized by NITTTR, Kolkata.
7. Er. Durgamadhab Swain participated in a one-day Conclave on “Startup and IPR” on 11th September 2023, organized by CSIR-IMMT, Bhubaneswar.
8. Er. Debayani Mishra participated in a workshop on “National Board of Accreditation (NBA)” from 22nd August 2023 to 24th August 2023, organized by Biju Patnaik University of Technology, Odisha at CIME, Bhubaneswar.

## **STUDENT ACHIEVMENTS:**

1. Alok Choudhury participated and secured 3rd Position in the 1st Odisha Club Powerlifting Championship, organized by the Odisha Powerlifting Association & Utkal Karate School, held from 3rd to 5th September 2023.
2. Alok Choudhury participated and secured 3rd Position in Rayagada Classic: 2023-24, organized by the Rayagada Body Building & Fitness Association, held on 10th December 2023.
3. Alok Choudhury participated and secured 3rd Position (Senior-B Category) in Rayagada Classic: 2023-24, organized by the Rayagada Body Building & Fitness Association, held on 10th December 2023.
4. Chandan Biswal participated and secured 2nd Position in YUKYTI (Technical) Coding, organized by Rajdhani Engineering College (REC), Near Mancheswar Rly. Station, held on 28th August 2023.
5. Kaibalya Prasad Ojha participated and secured 2nd Position in Lakshya 2k23 (Technical Fest), Design Competition, organized by Aryan Institute of Engineering & Technology, held on 12th September 2023.
6. Arghyarupa Panda, Soumya Ranjan Samal, and Amit Kumar Sahoo participated and secured 2nd Position in Lakshya 2k23 (Technical Fest), ROBOWAR, organized by Aryan Institute of Engineering & Technology, held on 12th September 2023.
7. Sagupta Khan participated and secured 3rd Position in GARIMAA XTREME (Technical Fest), Junkyard, organized by Gandhi Institute of Engineering, held on 30th January 2024.
8. Sulin Behera and Subhashree Suchismita Biswal participated and secured 2nd Position in YUKYTI (Technical), Paper Presentation, organized by Rajdhani Engineering College (REC), held on 8th January 2024.
9. Arian Mishra and Chandan Senapati participated and secured 3rd Position in EXTACY-2023 (Techfest), Truss Design, organized by Capital Engineering College (CEC), held on 20th February 2024.
10. Neelatmaj Swain, Gayatree Das, and Pratik Priyadarshi participated and secured 3rd Position in GARIMAA XTREME (Technical Fest), Model Presentation, organized by Gandhi Institute of Engineering, held on 30th January 2024.