





IETE-SF MPSTME Presents

U'LECTRO 2024

PRE LECTRO

Pre'lectro, the exhilarating precursor to U'Lectro, serves as a hype event, creating anticipation and excitement for the upcoming U'Lectro. This pre-event is a vibrant blend of fun-filled and technical activities, offering participants a platform to showcase their talents, explore interests, and connect with peers. By infusing energy and enthusiasm, Prelectro sets the stage for U'Lectro, building a buzz and fostering a sense of community among participants.

U'LECTRO

U'Lectro 2024, a project display competition for engineering students, focuses on blending tech with real-world impact. Expert judges give feedback, enhancing students' learning. Last year, winners bagged a 1 Lakh Rupees cash prize, recognizing their hard work, and got a shot at a Jio internship interview, bridging academia with practical industry experience. It's a fantastic opportunity for engineering students to showcase their innovations and explore potential career paths.

STRUCTURE

The participants will present their projects based on the Domains they choose.

The projects will be categorised into Technical or Peacemaker categories and then be evaluated.

The projects will be evaluated by our inhouse judges and industry experts. 1st round of judging will be done by our inhouse judges who are the revered faculty members of MPSTME. The 2nd round of judging will be done by industry experts.

From the Technical category there will be one winner and one runners-up and same for the Peacemaker category.

AI/ML & BLOCKCHAIN

Al/ML is about teaching computers to learn and make decisions while blockchain ensures secure and transparent transactions. Whether applied together or separately, they create smart and secure systems from predictive analytics and sentimental analysis to trustworthy digital transactions. This means that projects may focus solely on Al/ML blockchain, or the integration of both, offering flexibility and versatility in addressing technological challenges.

PROJECT EXAMPLES (TECHNICAL CATEGORY):

Decentralised ID Management System

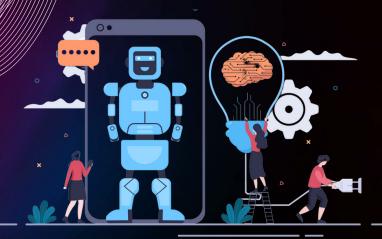
Blockchain Voting System

Al-Driven Fraud Detection in Blockchain Transaction

Predictive Maintenance for Industrial Equipment

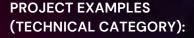
PROJECT EXAMPLES (PEACEMAKER CATEGORY)

Carbon Footprint Tracker on Blockchain Blockchain for Healthcare Records Al for Environmental Conservation Monitoring Al-Powered Accessibility Solutions



ROBOTICS AND AUTOMATION

Robotics & Automation involve the use of robots and automated systems to perform tasks. Robotics is about designing and building robots, while automation focuses on making processes work automatically. In practical terms, this domain includes everything from self-driving cars and manufacturing robots to smart home systems that make life more convenient.



Autonomous Surveillance Drones Robotic Arm with Al Gripper Underwater Exploration Robots

PROJECT EXAMPLES (PEACEMAKER CATEGORY):

Robotics for Waste Management Assistive Robots for Elderly Care Agri- Robots for Precision Farming Industrial Robotics Arm Smart Grid Automation





COMMUNICATIONS SYSTEMS

Communication Systems deal with how information is transmitted and received. This includes technologies like the internet, mobile phones, and more. In simpler terms, it's about how we connect and share data with each other. Whether it's improving internet speed or creating better ways for devices to talk to each other, the goal is efficient and reliable communication.

PROJECT EXAMPLES (TECHNICAL CATEGORY):

Bluetooth-based Indoor Positioning System
Software-Defined Radio (SDR) Implementation
Smart Lighting Control using Visible Light Communication (VLC):

PROJECT EXAMPLES (PEACEMAKER CATEGORY):

Energy-Efficient Wireless Sensor Network
Green Data Centers
Communication Technologies for Disaster Management



orand EMEDDED SYSTEMS

& Embedded Systems involve connecting everyday devices to the internet and creating smart systems. IoT is about making objects "smart" by giving them the ability to send and receive data. Embedded systems are the brains behind these devices. In essence, it's about creating a network of interconnected devices, from smart fridges to wearable health trackers, making life more efficient and connected.

PROJECT EXAMPLES (TECHNICAL CATEGORY):

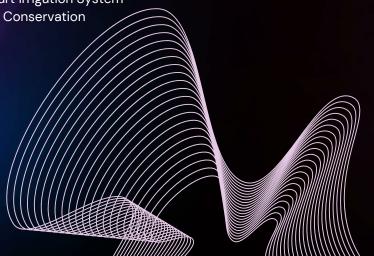
RFID-based Access Control System Embedded System for Gesture Recognition Smart Home Automation System

PROJECT EXAMPLES (PEACEMAKER CATEGORY):

loT-based Waste Management System

IoT-based Smart Irrigation System
IoT for Wildlife Conservation







Pre' lectro: 21 st March 2024 U' Lectro: 22nd March 2024



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