

Report on Drone Assembly Demonstration and Training Program
Organized by: Electrical Engineering Department & JIS Drone Academy
Demonstrated by: Mr. Suwendu Mondal
Date: 20th February 2025
Venue: Engineering Institute for Junior Executives

Introduction

The Electrical Engineering Department, in collaboration with JIS Drone Academy, successfully organized a hands-on demonstration and training program on drone assembly and operation. The session was conducted by **Mr. Suwendu Mondal** and aimed to educate students on drone technology, its applications, and related technical aspects. The event was hosted at the Engineering Institute for Junior Executives on 20th February 2025 and witnessed an overwhelming response from students. Our 2nd-year student **Prithish Nandy** was also present alongside **Mr. Suwendu Mondal**.

Event Overview

The event consisted of multiple segments, including:

- **Drone Assembly Demonstration:** A detailed step-by-step guide on assembling a drone, explaining each component and its functionality.
- **Three-Day Drone Training Course Overview:** Introduction to an upcoming intensive training program focused on drone operation, maintenance, and regulations.
- **Hackathon Announcement:** A competitive event challenging participants to develop innovative drone-based solutions.
- **Project Competition – 'Upcycling Brilliance':** Encouraging students to create unique drone projects using upcycled materials.

Drone Assembly Demonstration

Mr. Suwendu Mondal led the session by explaining the fundamental components of a drone, including:

- Frame structure
- Motors and propellers
- Flight controller and ESCs
- Battery and power distribution
- Remote control and telemetry systems

He demonstrated the step-by-step process of assembling a functional drone and shared insights on troubleshooting common issues, safety protocols, and real-world applications.

Three-Day Drone Training Course

A comprehensive training program was introduced, covering the following topics:

- Basics of Aerodynamics and Drone Technology
- Flight Control Mechanisms and Sensors
- Programming and Automation in Drones

- Safety Regulations and Legal Compliance
- Hands-on Flight Simulation and Testing

The course aims to equip students with practical knowledge and skills essential for drone development and piloting.

Hackathon & Project Competition – 'Upcycling Brilliance'

Students were encouraged to participate in a hackathon, fostering innovation in drone technology. Additionally, the 'Upcycling Brilliance' project competition was introduced, urging participants to develop drones using recycled and upcycled materials, promoting sustainability in technology.

Student Participation and Response

A large number of students actively participated in the event, showing immense enthusiasm and curiosity towards drone technology. The interactive Q&A session allowed students to clarify doubts, explore career opportunities in UAV (Unmanned Aerial Vehicle) technology, and engage in meaningful discussions about the future of drones.

Conclusion

The event proved to be a great success, inspiring students to delve into the world of drones and UAV applications. The demonstration and discussions set the foundation for further learning and research in drone technology, marking a significant step towards technological innovation in academia.

The organizers extend their gratitude to Mr. Suvendu Mondal, faculty members, and all participating students for making this event a remarkable learning experience. The future holds great promise for students interested in drone technology, and initiatives like these will continue to nurture young talents in the field.

