THE NATIONAL INSTITUTE OF ENGINEERING

(Autonomous Institute, Affiliated to VTU)

&

Department of
Electronics and Communication Engineering

Organizes 3 Days

INTER DEPARTMENT STUDENT DEVELOPMENT PROGRAM

On

"AERO PULSE"

Feel the Pulse of Next-Gen Drone Innovation

By

Raghavendra B S

Director - Technology

Model Aero Sports Pvt. Ltd.

Chief Patron's

Dr. Nagendra Parashar, Principal, NIE

Dr. Likith Kumar M V, Vice-Principal, NIE-North

Patron & Advisor

Dr. Rajalekshmi Kishore, Assoc. Prof & Head, Dept. of ECE

Faculty Coordinator

Prof. Nitesh K A, Asst. Professor, Dept. of ECE

Organizing Committee

Ms. Lavanya M S, Research Scholar, Dept. of ECE

12th - 14th Mar 2026

9:00AM to 5PM

IV & VI Sem

ECE, EEE & MECH

Sir. M V Hall, GJB Block

The National Institute of Engineering

South Campus, Manandavadi Road, Mysuru

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SCHEDULE

DAY 1 - 12.03.2026 - Thursday

Fundamentals of Unmanned Aircraft Systems

Session	Time	Topic
1	10AM TO 11:15AM	Introduction to Aviation and UAV Ecosystem
11:15AM TO 11:30AM - BREAK		
2	11:30AM TO 12:30PM	Basic Principles of Flight
3	12:30PM TO 1:30PM	UAV System Architecture
1:30PM TO 2:30PM - LUNCH BREAK		
4	2:30PM TO 3:30PM	UAV Airframes
3:30PM TO 3:45PM - BREAK		
5	3:45PM TO 5PM	Drone Regulations in India

DAY 2 - 13.03.2026 - Friday

Drone Engineering and System Integration

Session	Time	Topic
6	9AM TO 11:15AM	Propulsion Systems
11:15AM TO 11:30AM - BREAK		
7	11:30AM TO 12:30PM	Flight Controllers and Avionics
8	12:30PM TO 1:30PM	Communication Systems
1:30PM TO 2:30PM - LUNCH BREAK		
9	2:30PM TO 3:30PM	Ground Control Stations
3:30PM TO 3:45PM - BREAK		
10	3:45PM TO 5PM	Payload Integration

DAY 3 - 14.03.2026 - Saturday

UAV Operations, Flight Testing & Future Technologies

Session	Time	Topic
11	9AM TO 11:15AM	Flight Testing and Safety
11:15AM TO 11:30AM - BREAK		
12	11:30AM TO 12:30PM	Autonomous Systems and AI in Drones
13	12:30PM TO 1:30PM	Hybrid VTOL Aircraft
1:30PM TO 2:30PM - LUNCH BREAK		
14	2:30PM TO 3:30PM	Drone Applications
3:30PM TO 3:45PM - BREAK		
15	3:45PM TO 5PM	Career Opportunities in UAV Industry

Hands-On Activities (Recommended)	
1	Drone assembly workshop
2	Flight controller setup
3	Mission planning simulation
4	Basic drone flight demo
5	Telemetry monitoring exercise

Student Deliverables
Students will:

- Understand UAV engineering fundamentals
- Learn drone system architecture
- Perform mission planning
- Understand drone regulations
- Get exposure to flight testing

Report on

Inter-Department Student Development Program

"AERO PULSE – Feel the Pulse of Next-Gen Drone Innovation"

The **Department of Electronics and Communication Engineering, The National Institute of Engineering, Mysuru**, organized a **three-day Inter-Department Student Development Program (SDP)** titled **"AERO PULSE – Feel the Pulse of Next-Gen Drone Innovation"** from **12 March 2026 to 14 March 2026** at **Azeez Sait Hall, GJB Block, NIE South Campus**. The program was conducted for students of **IV and VI semester from the ECE, EEE, and Mechanical Engineering departments**.

The program was delivered by **Mr. Raghavendra B. S., Director – Technology, Model Aero Sports Pvt. Ltd.**, who served as the resource person and provided expert insights into drone technology and unmanned aircraft systems.

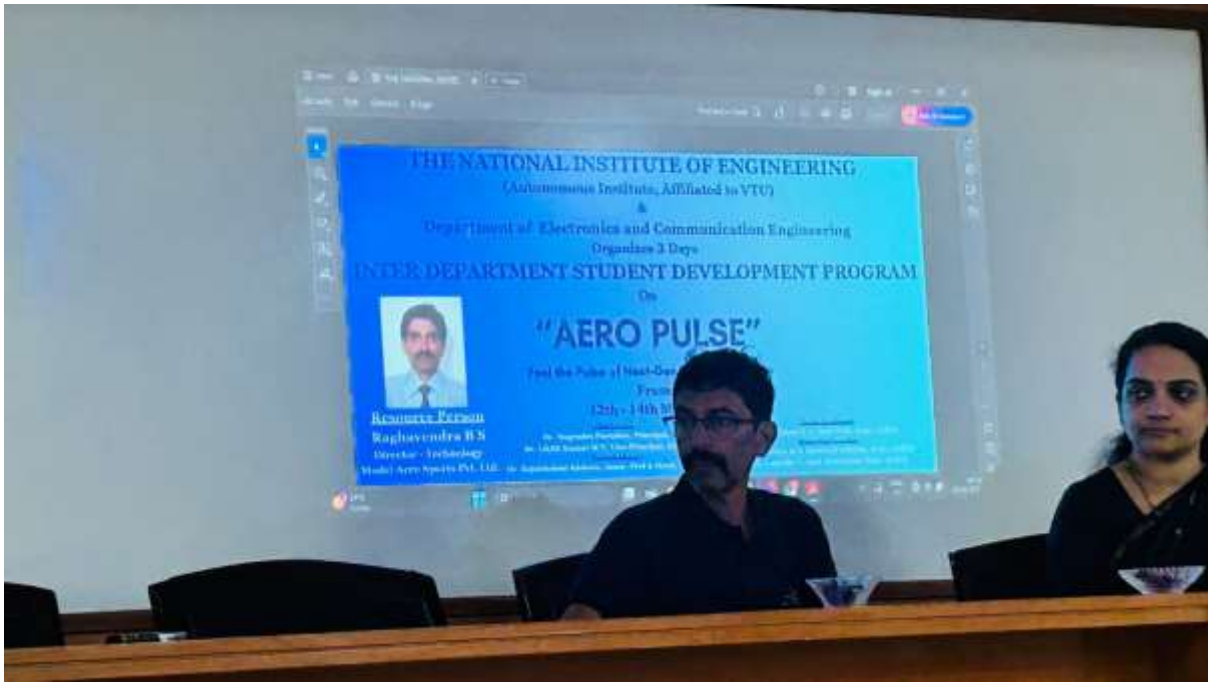
The program was conducted under the guidance of **Dr. Nagendra Parashar, Principal, NIE**, and **Dr. Likithkumar M. V., Vice-Principal, NIE North Campus**. The event was organized with the support of **Dr. Rajalekshmi Kishore, Associate Professor and Head of the Department of ECE**. The program was coordinated by **Prof. Nitesh K. A., Assistant Professor, Department of ECE**, along with the organizing committee consisting of **Ms. Lavanya M. S., Research Scholar**, and **Mr. Lokesha C., Assistant Instructor**.

During the three-day program, participants were introduced to various aspects of **Unmanned Aerial Vehicle (UAV) technology**, including **fundamentals of unmanned aircraft systems, principles of flight, UAV system architecture, airframes, and drone regulations in India**. The sessions also covered **propulsion systems, flight controllers, avionics, communication systems, ground control stations, and payload integration**. Advanced topics such as **flight testing and safety, autonomous systems and AI in drones, hybrid VTOL aircraft, and drone applications** were also discussed.

In addition to theoretical sessions, students participated in **hands-on learning activities**, including **drone assembly workshops, flight controller setup, mission planning simulation, telemetry monitoring exercises, and a basic drone flight demonstration**. These practical sessions enabled students to gain real-time exposure to drone system integration and operation.

The program successfully enhanced students' understanding of **UAV engineering, drone system architecture, mission planning, regulatory aspects, and emerging career opportunities in the UAV industry**. The initiative provided valuable exposure to the rapidly evolving field of drone technology and motivated students to explore future research and career opportunities in this domain.

Overall, the **AERO PULSE Student Development Program** was highly informative and beneficial, offering both theoretical knowledge and practical insights into modern drone technologies.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