RAMACHANDRA
COLLEGE OF ENGINEERING
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NH-16 Bypass Road, Eluru-534007, A.P.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

WORKSHOP REPORT

Tile	: **A Five-day workshop on "UAS(Drone workshop): Design,Build & Fly"**
Organized by	: **Department of Electronics & Communication Engineering**
Resource Person	: **1.Mr. V.manikanta, 2.S. Sai Suraj**
Designation	: **1.Design Engineer Anitha Technologies,2.Trainee Engineer, Vijayawada.**
Faculty Coordinator	: **1.K. Jeevana jyothi**
Co-Coordinators	:**2.T.Vinoditha, 3. Y.Naveen kumar**
Venue	: **VI-203**
Date	: **23 to 27th Feb, 2026**
Time	: **9:30 AM – 4:50 PM**
Conducted for	: **I,II ,III ,IV ECE Students**
No. of Participants	: **110**

1. Report in brief by Organizer / Coordinator / Convener

The Department of Electronics and Communication Engineering (ECE) successfully conducted a five-day workshop titled **"UAS(Unmanned Areal System): DESIGN, BUILD, & FLY"** from 23rd to 27th February 2026.

During the workshop, Mr. S. Sai Suraj guided students in the design and assembly of quad copter drones. Participants gained hands-on experience in frame assembly, ESC wiring, flight controller integration, sensor calibration, and power management.

The session provided practical exposure to embedded systems and UAV technologies. With drone assembly nearly complete, students are eagerly awaiting the flight testing phase, marking an exciting milestone in their learning journey.

The Resource person demonstrated the following Modules with various examples

- **Introduction to Drones**
- Types of Drones (Multi rotor, Fixed Wing, VTOL)
- Drone Components Overview
- Working Principle of Drones
- Basic Aerodynamics
- Applications of Drones
- Drone Safety & Regulations

Identifying Components

- Frame Assembly
- Motor Mounting
- ESC Connections
- Flight Controller Installation
- Power Distribution Setup
- Wiring & Soldering Basics
- Propeller Installation
- Pre-flight Inspection

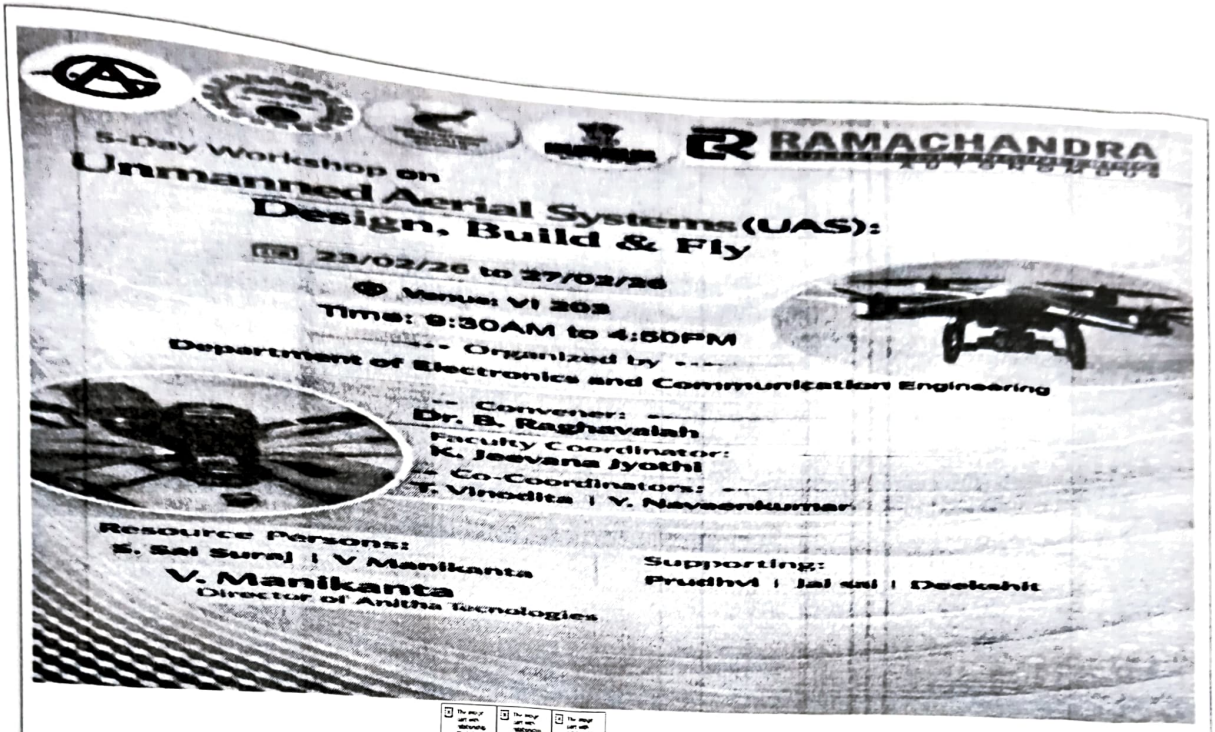
Flight Controller Configuration

- Radio Calibration
- Basic Flight Testing
- Troubleshooting
- Safety Checks

2. Profile of the Guest

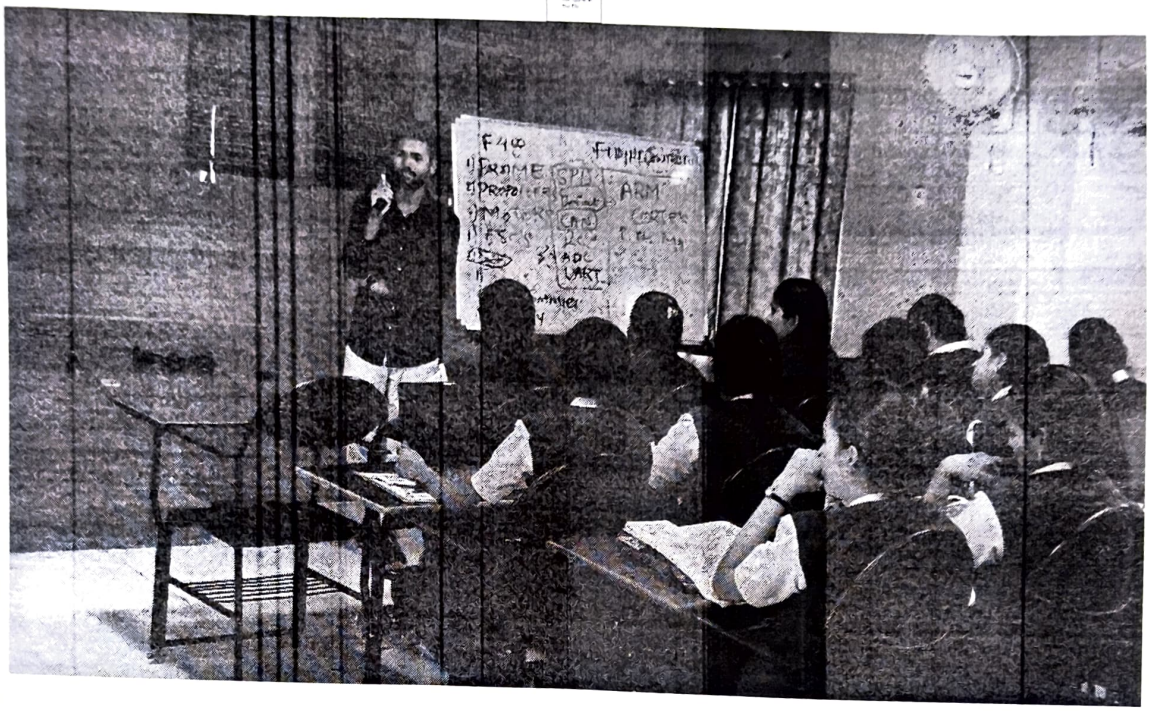
Dedicated and skilled engineering graduate with a solid foundation in designing drone and flying management, seeking to leverage my expertise as a Trainee Engineer and contribute to innovative projects. Collaborated on real-time projects, enhancing technical skills in engineering applications. Instructed students for various practical applications of Drone . Programming Languages: For high-level control and mission planning, and **C/C++** for low-level firmware and real-time flight control. The specific language used often depends on the type of drone and the complexity of the tasks taught in the workshop.

3. Few Glimpses of the Technical Event:



Poster of the Event

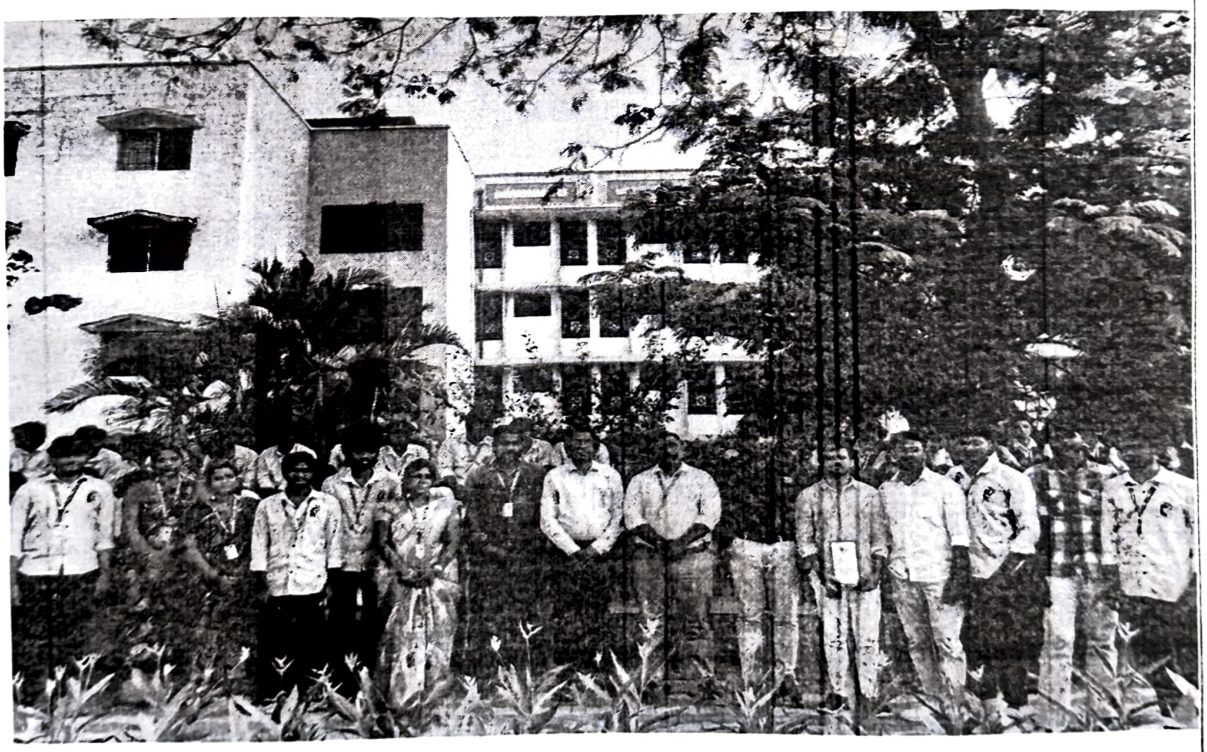
Inaugural Session



Theoretical Session by Trainee Engineer

Designing of Drone

Flight fying



Closing Statements by Principal

4. Feedback from Participants

The students of the Electronics and Communication Engineering (ECE) at RCE were happy to participate in the workshop sponsored by the ECE Department at RCE. This training was very beneficial and instructive for candidates pursuing embedded core roles, as it promoted their professional development. Moreover, it improved our understanding of the significance of the ESC controller in Drone and flight control. This course is particularly advantageous for students seeking to begin their careers in the Embedded Application Domain. The students like to express their sincere gratitude to the coordinator, Head of the Department of ECE, the Principal, and the Management of RCE for providing them with the opportunity to participate in this excellent workshop.

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5. Remarks from Resource Persons:

Attending a workshop hosted by RCE Department of ECE is a pleasure for me. It is remarkable how well the students are in tune and how engaged they are. A lot of the students' responses are solid. I am grateful to the RCE HOD-ECE, Principal, and Management for the chance to plan this outstanding event, and I hope that we have more opportunities like this in the future.

..... Mr S. Sai Suraj

Coordinator **HoD** **Dean- Academics** **Principal**