



SOUTH EAST ASIAN EDUCATION TRUST<sup>®</sup>

# S.E.A. COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by All India Council for Technical Education (AICTE), New Delhi)

Affiliated to Visvesvaraya Technological University (VTU), Belagavi, Recognised by Government of Karnataka)

## A REPORT ON DRONE WORKSHOP

**Introduction:** The rapid advancement in drone technology has led to its widespread adoption across various industries, making drones an essential tool in fields such as agriculture, construction, surveying, and environmental monitoring. Drones, or unmanned aerial vehicles (UAVs), offer numerous benefits, including the ability to reach inaccessible areas, conduct surveys efficiently, and capture high-quality aerial data. Given these advantages, there is a growing demand for professionals skilled in both the operation and application of drone technology.

This workshop on drone technology was organized to address this demand and provide participants with a comprehensive understanding of drones. It aimed to cover the fundamentals of drone components and operation, provide practical training, and showcase real-world applications across multiple industries. Additionally, the workshop emphasized safety protocols and regulations to ensure responsible drone usage.



### S.E.A College of Engineering and Technology

Affiliated to VTU, Belagavi and Approved by AICTE, New Delhi and Accredited by NAAC  
Ekta Nagar, Near Ayyappa Nagar Circle, Devasandra Main Road, K.R.Puram, Bangalore-49



#### Department of Computer Science & Engineering

Organizes  
**Workshop on**  
**“DRONE TECHNOLOGY”**

Speakert : Tammaneni Subbareddy  
Founder of Suvochi robotics private Ltd.  
In Association with IQAC, IIC

On 9<sup>th</sup> November 2024  
at 9.30AM



## **Objective:**

The primary objective of the workshop was to equip students with the knowledge and skills needed to safely and effectively operate drones, understand their potential applications, and explore innovative uses. By combining theoretical instruction with hands-on training, the workshop sought to foster technical proficiency, creative problem-solving, and a deeper understanding of the role of drones in the modern technological landscape. This report provides a detailed account of the workshop's structure, activities, and outcomes, as well as insights into the impact of drone technology on various fields.

### **Objectives of the Drone Technology Workshop**

1. **Introduce Fundamental Concepts of Drone Technology**
  - Provide participants with a foundational understanding of drone types, components, and how they operate.
2. **Develop Practical Skills in Drone Operation and Maintenance**
  - Teach participants how to assemble, troubleshoot, and safely operate drones, including navigation, maneuvering, and data capture.
3. **Educate on Drone Safety, Regulations, and Legal Compliance**
  - Familiarize participants with safety protocols, flight regulations, and licensing requirements relevant to drone use.
4. **Explore Industry Applications of Drones**
  - Showcase how drones are used across various sectors like agriculture, construction, logistics, and environmental monitoring.
5. **Encourage Innovation and Creative Use of Drone Technology**
  - Inspire participants to think of new and innovative ways to use drones in their own fields of interest or work.
6. **Build Data Collection and Analysis Skills Using Drones**
  - Train participants on collecting aerial data and processing it for practical applications, emphasizing how to extract valuable insights.
7. **Highlight Emerging Trends and Future Opportunities in Drone Technology**
  - Discuss future developments, such as AI integration, autonomous drones, and other advancements that may shape the industry.

These objectives aim to equip participants with both the theoretical knowledge and practical skills necessary for safe, effective, and innovative drone usage.



## **Workshop Schedule**

- **Day 1: Theory and Fundamentals**
  - Basics of Drone Technology: Discussed types of drones, components, and general principles of flight.
  - Technical Overview: Covered GPS systems, remote controls, and different types of sensors and cameras used.
  - Safety and Regulations: Introduced local and international drone laws, licensing requirements, and safety measures.
- **Day 2: Hands-On Practice**
  - Assembly and Testing: Participants assembled and tested drones, troubleshooting common issues.
  - Flight Training: Practical training on operating drones, focusing on control, maneuvering, and data capture.
  - Data Collection & Processing: Participants practiced capturing aerial images and analyzed data for practical applications.
- **Day 3: Applications and Future of Drones**
  - Use Cases in Different Industries: Drones in agriculture, construction, surveying, delivery, etc.
  - Emerging Trends: Discussed autonomous drones, AI integration, and advances in drone technology.
  - Project Presentation: Participants presented mini-projects based on real-life applications.

## **Key Learnings and Outcomes**

- Outline the key knowledge 3<sup>rd</sup> semester students gained, like safe drone operation, application insights, and potential ethical and regulatory consideration

## **Conclusion**

Overall, 3<sup>rd</sup> semester students attended the work shop & the workshop achieved its goals of imparting essential knowledge and inspiring students to think creatively about drone technology. The experience not only prepared them for immediate applications but also encouraged them to consider future innovations, further enhancing the potential impact of drones. Students left the workshop with the skills, awareness, and enthusiasm necessary to make meaningful contributions to this dynamic field.



## Glimpse

