

# AVIAN AEROSPACE

INSPIRATION THROUGH INNOVATION



**WORKSHOP ON  
QUADCOPTER**



# About Avian Aerospace

Avian Aerospace is a Research & Development, Services and Training Company started with the motto of "Inspiration through Innovation", having vision to imply modern technologies to solve the untouched problems in industry. Avian focuses on the design and development of unmanned systems, Robotics, Automation, Computer Vision, Internet of Things (IoT) etc.,

Avian has always tried to keep the student sector in loop with the current industrial trends. It has a separate training arm for that called **Avian Workshops**. The training arm connects with students through workshops and training programs that are designed in a way for the students to have hands-on experience for the concepts they have been studying theoretically. These programs serve as connecting platform for the industrial practices to theoretical principles.

## Highlights of Avian Aerospace

Established 5 research centers in south India

Working with industrial giants like TATA, Godrej, Sterlite, NHPC etc.,

Tutors with years of research and industry experience

More than 12000 students trained from 150+ institutions

Conducted international training programs in Nepal

Trained international students from Nepal, France, Nigeria, Ethiopia

Courses designed to bridge industry practices with theoretical principles

Workshops and courses on basic to advanced aspects of next-gen technology

# Program Content

1. Introduction to Aeronautics, UAVs, Model Aeronautics
2. History of UAVs and the development over the ages
3. Importance of Model Aeronautics
4. Impact of Aeromodelling in Aerospace and Other Industries
5. Different types of Unmanned Vehicles
6. Vertical Takeoff and landing Vehicle (VTOL) operating principles
7. Comparison between quadcopter and other flying vehicles
8. Four Forces, Aerodynamics, flight dynamics aspects of multirotor vehicles
9. Structural design, Material selection
10. Propulsion systems selection
11. Basics of Avionics and navigation systems, Autopilot system
12. Basics of Control Algorithm of Quadcopter
13. Introduction to Coding for Quadcopter
14. Introduction to Electro optical payload and other sensor payloads
15. Introduction to Piloting, Simulator Flying session
16. Unmanned Vehicle maintenance procedures
17. Advantages, Applications of UAVs
18. Research and Higher Studies opportunities in Unmanned Vehicles field
19. Fabrication of Quadcopter
20. Basic coding, debugging and tuning for Quadcopter
21. Flight Trials of Quadcopter

## Kit Contents

**BLDC Motors**  
**Electronic Speed Controller**  
**Propeller**  
**Propeller Hub**  
**Gold/Bullet Connectors**  
**Frame**  
**Nuts & Bolts**





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OUR COMPANY ON



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