EDUXLABS
edu's Xpert (Esoir Solution)

2-Days National Level Workshop on Drone/Quadcopter Building

Workshop Features:

- practical based learning during workshop
- workshop will be delivered by Professional Expert
- Workshop Certificate of completion to each participants

About Two Days Workshop

The purpose of this training is to help build QuadCopter project. Training will be provided with Drone kits and our Engineers will give you the knowledge to develop drone project from scratch. The majority of your time in the course will be spent on hands-on activities.

In this training program, participants will develop this knowledge by QuadCopter. Here's what you'll learn by hands-on sessions:

- Introduction to Multirotor, Components requirement and Constructional techniques
- Learning about the working of accelerometer sensors, gyros and controllers.
- Flight controller calibration techniques.
- Hands on Flight controller, ESC, BLDC motors, Propellers, Transceivers
- Real time Flying experience

Propeller

- Basic of Aerodynamics
- Working principle
- Bernoulli's principle
- Aerofoil and its Types
- Selection of propeller based on motor
- Selection of propeller based on payload
- Calibration between payload and propeller

Motor

Transmitter & Receiver

- Working principle
- Pulse position modulation
- Selecting transmitter based on flight range
- Range testing techniques
- Transmitter setup
- Channels explained

Battery

- Battery and its Types
- Li-Po battery and application
- Selecting battery based on motor & ESC
- Selecting battery based on payload
- Alternate power source

2-days Quadcopter Course Content

Day	Session 1	Session 2
Day 1	• Introduction to multi-rotor UAV and UAV industry. • Different types of multi-rotors. • Understanding the Physics behind multi-rotors. • Introduction to different components required for multi-rotors. • Application of multi-rotors in different environment.	• Motor • ESC • Battery • Propeller • Assembly of Frame. • Installing BLDC motor to the frame. • Connecting ESC to the frame and motors. • Motor Rotation Check.
Day 1	**Frame:** • Material selection, Constructional techniques • Types of configuration, Weight balance techniques **Motors:** • Working principle ,Types of motor • Advantages and application of BLDC motor • Selecting right motor for multi-copter , RPM calculation techniques	**Electronic speed controllers (ESCs):** • Working principle, Pulse width modulation techniques • Relation between Motor and ESC ,Choosing ESC based on Motor **Propeller:** • Basic of Aerodynamics • Working principle • Bernoulli's principle

2-days Quadcopter Course Content

Day	Session 1	Session 2
Day 2	• Installing Flight Controller. • Configuring different Parameters. Arming Check • Introduction to Transmitters and Transmitter programming. • Binding process of transmitter to receiver	**Battery:** • Battery and its Types • Li-Po battery and application Selecting battery based on motor and ESC • Selecting battery based on payload • Alternate power source
Day 2	**Transmitter & Receiver :** • Working principle • Pulse position modulation Selecting transmitter based on flight range • Range testing techniques Transmitter setup • Channels explained	**Understanding DGCA rules and regulations.** • Preflight checks • Flight Testing. • Field instructions. • Disassembling

Benefits for Participants

- Learn with Industry specialists having broad industry experience.
- Workshop Certificate of completion to each participants

Benefits for Institute

- Authorized Team will visit your College to organize the entire training.
- Email Promotion will be sent to regional colleges about training program.
- Posters and Flexes will be sent to you for effective regional publicity
- Name and Logo including website link will be published on our official website mentioning that “You are our workshop Center”.
- Opportunity to sign the MOU between EduxLabs & Your estimated college.
- We can assist as knowledge partner during college Tech Event/Exhibitions/ Projects Expo/ Tech competition.
- Opportunity to associate as center of excellence for short term courses.

Participants Eligibility

All engineering students & hobbyist of UAVs or Drones and Robotic backbone industries
all other peoples who are interested can attend.

Training Requirements

- Seminar hall/Computer lab having the enough capacity to conduct hands-on-session for all participants.
- Good Quality public address system ideally two cordless mikes will be required.
- Projector/ Screen along with black/white board for teaching and presentation purposes.
- This training center can only be arranged for a minimum of 60 Attendees.
- 2-Days Accommodation for a training expert.
- Trainer travel allowance will be managed by eduxlabs

Workshop Charges	Research Scholar/Student
2-Days Registration charges	Rs1800/-per attendee

The workshop fee is negotiable based on the number of participants.

THANK YOU

Team EduxLabs

Phone: +91:8318635606 | 7053133032

Email: info@eduxlabs.com

Website: www.eduxlabs.com