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**SPACENXT LABS**  
Course Brochure

India | Sri Lanka | UAE  
[www.spacexlabs.com](http://www.spacexlabs.com)

# Unmanned Aerial Vehicles (UAVs)

## Title

Certification of Specialisation in Multi Rotor Drones

## Syllabus

- Principles of Flight
- Aerodynamics
- Drone Architecture
- Fixed Wing
- Multi-Rotor
- Sensors
- CAD/CAE/CFD Modeling
- Drone Programming
- Types of Drones
- Application of Drones
- Building a Drone
- Drone Rules/Law
- Flight Operation
- Project

## Pre-Requisite

Basic Physics, Aero Dynamics and Maths

## Duration

32 Hours

## Mode

Online – Live (MS Teams)

## Schedule

4 Hour Programs – Every Wednesday (Morning or Afternoon)

2 Hour Programs – Every Saturday or Sunday (Evening)

**Course Fee** (Check our website for the updated pricing)

150 USD | 10,000 INR | 40,000 SLR

\* No Registration Fee

\*\* Two Installment options available

## Payment Mode

Bank Transfer/ Card Payment

## Registration Procedure

Fill out the [contact form](#) and we will reach out to you

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# Design of Aircrafts (CAD)

## Title

Certification in Basic Aircraft Design using CAD

## Syllabus

- Basic Sketching
- Part Modeling
- Assembly of Parts
- Surface Design
- Sheet Metal
- Weldment
- Drafting
- Rendering the final model

### Tools Used

CATIA (and)  
SOLIDWORKS (or)  
NX CAD

## Pre-Requisite

Basics of drawing and AutoCAD, Aircraft architecture terminologies and theoretical basics of flight

## Duration

32 Hours

## Mode

Online – Live (MS Teams)

## Schedule

4 Hour Programs – Every Wednesday (Morning or Afternoon)

2 Hour Programs – Every Saturday or Sunday (Evening)

**Course Fee** (Check our website for the updated pricing)

150 USD | 10,000 INR | 40,000 SLR

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# Analysis of Mechanical and Aerospace Structures (CAE)

## Title

Certification in Structural Analysis using CAE

## Syllabus

- Static structural analysis on Mechanical components
- Static structural analysis of aerospace components
- Vibrational Analysis
- Buckling Analysis
- Thermal Analysis
- Coupled Field Analysis
- Design optimization
- Drop Test
- Crash Test

## Tools Used

SOLIDWORKS (and) ANSYS

## Pre-Requisite

Basics of CAD Modeling, finite element analysis, structures and materials

## Duration

32 Hours

## Mode

Online – Live (MS Teams)

## Schedule

4 Hour Programs – Every Wednesday (Morning or Afternoon)

2 Hour Programs – Every Saturday or Sunday (Evening)

**Course Fee** (Check our website for the updated pricing)

150 USD | 10,000 INR | 40,000 SLR

\* No Registration Fee

\*\* Two Installment options available

## Payment Mode

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# NanoSatellite Engineering

## Title

Certification in NanoSatellite Engineering Fundamentals

## Syllabus

- Introduction to Satellites
- NanoSatellite Architecture
- NanoSatellite Structures
- Sensors
- Software and Technology
- Ground Station
- Power and Communication Systems
- Launching a NanoSatellite

## Pre-Requisite

Basics of Space systems, STEM students

## Duration

24 Hours

## Mode

Online – Live (MS Teams)

Hybrid mode will be introduced shortly

## Schedule

4 Hour Programs – Every Wednesday (Morning or Afternoon)

2 Hour Programs – Every Saturday or Sunday (Evening)

**Course Fee** (Check our website for the updated pricing)

120 USD | 8,000 INR | 32,000 SLR

\* No Registration Fee

\*\* Two Installment options available

## Payment Mode

Bank Transfer/Card Payment

## Registration Procedure

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