रा.इ.सू.प्रौ.सं
NIELIT
GORAKHPUR

Online Course on Drone Technology

Fees ₹ 900/-
(Including GST)

Topic Covered:

- Introduction to Drones
- Drone Components and Mechanics
- Drone Flight Theory
- Drone Assembly
- Flight Simulator Training
- Basic Flight Training on Simulator
- Maintenance and Troubleshooting
- Written Test

REGISTER NOW

For more information please visit
https://nielit.gov.in/gorakhpur/index.php
OR
https://regn.nielitvte.edu.in

Contact Information
- Sh. A. G.Rao – JD (M. No. 8317093870), agrao@nielit.gov.in
- Sh. Bhairav Mishra – STO (M. No. 8317093885), bmishra@nielit.gov.in

NIELIT, GORAKHPUR
Deoria Road, Gorakhpur
Uttar Pradesh – 273010

Interested candidates may visit *https://nielit.gov.in/gorakhpur/index.php* for details and apply online

TABLE1: COURSE DETAIL	
Course Title	Online Basic Course on Drone Technology
Duration	*30 Hours, 3 Hours Per Day, 2 Weeks (As per Fees Committee Recommendation)*
Mode	Online Mode
Registration Fees	*Rs30/- Per Hour (As per Fees Committee Recommendation)* *Total Fees Rs30/-× 30 Hours = Rs 900/- Including GST*
Qualification	Candidates with 10th Appearing onwards without prior knowledge of any technology must register for this course.
Registration Process	**https://regn.nielitvte.edu.in**
Contact Person	1. Sh. Bhairav Mishra – Senior Technical Officer (M. No. 8317093885), bmishra@nielit.gov.in 2. Sh. A. G. Rao – Joint Director (M. No. 8317093870), agrao@nielit.gov.in
Course Content	
Module	**Course Content**
Module 1 **Duration: 3 Hours**	***Introduction to Drones*** 1. History and Evolution of Drones • Early developments • Modern advancements 2. Types of Drones • Fixed-wing • Rotary-wing (Multicopters) • Hybrid 3. Applications of Drones • Agriculture • Surveillance and Security • Mapping and Surveying • Photography and Videography • Industrial Inspections
Module 2 **Duration: 4 Hours**	***Drone Components and Mechanics (8 hours)*** 1. Basic Drone Anatomy • Frame Motors and Propellers • Flight Controller • Battery and Power Systems 2. Sensors and Cameras • Types of sensors (GPS, IMU, LiDAR, etc.) • Camera types and their uses 3. Radio Communication and Control Systems (2 hour) • Transmitters and receivers • Remote control basics 4. Assembly and Disassembly • Basic tools and techniques Safety precautions
Module 3 **Duration: 5 Hours**	***Drone Flight Theory (6 hours)*** 1. Principles of Flight • Aerodynamics • Thrust, lift, drag, and weight 2. Flight Dynamics and Control • Pitch, roll, yaw • Stabilization and navigation

	3. Drone Regulations and Safety 4. No-fly zones and restricted areas and Digital Sky
Module 4 **Duration: 5 Hours**	***Drone Assembly*** 1. Hands-on Assembly • Assembling a drone from scratch • Installing and configuring components 2. Pre-Flight Checks and Calibration • Battery check and charging Sensors Interface
Module 5 **Duration: 6 Hours**	***Flight Simulator Training (7 hours)*** 1. Introduction to Flight Simulators • Benefits and setup 2. Basic Flight Manoeuvres • Take-off and landing • Hovering and altitude control 3. Intermediate Flight Manoeuvres • Forward, backward, and lateral movements • Turns and rotations 4. Advanced Flight Manoeuvres • Obstacle course navigation Emergency procedures
Module 6 **Duration: 6 Hours**	***Basic Flight Training on Simulator*** 1. Initial Flight Training • Basic maneuvers in open space • Controlled take-off and landing • Maintaining stable hover 2. Intermediate Flight Training • Flying patterns and routes • Coordinated turns and making Figure “EIGHT” • Flight in varying wind conditions
Module 7 **Duration: 2 Hours**	***Maintenance and Troubleshooting*** 1. Routine Maintenance • Cleaning, Firmware updates and inspecting parts 2. Common Issues and Fixes • Motor and propeller issues • Battery and power problems • Troubleshooting Guide Diagnosing sensor malfunctions & Addressing flight controller errors
Final Assessment and Certification	***Written Test*** • 50 Multiple-choice questions covering all modules • No Negative Marking • Duration 1 Hours • For certification, students must secure 50% and above Marks in the Final Assessment. • The certificate will be in ONLINE Mode which can be downloaded