



**Post Graduate Certificate Programme
in
Unmanned Aircraft Vehicle Technology**



**Department of Mechanical Engineering
National Institute of Technical Teachers Training and Research
(NITTTR)**

**Government of India, Ministry of Education
Taramani, Chennai – 600 113, Tamil Nadu, India**

in Collaboration with

**VAAYUSASTRA AEROSPACE Pvt. Ltd.
IITM RESEARCH PARK, E Block, 1st, Kanagam,
Taaramani, Chennai – 600 113, Tamil Nadu, India**

Course Focus

This course focuses on developing skilled persons in the domain of Unmanned Aircraft Systems (UAS) through imparting key UAS technologies (theoretical and practical aspects) and its applications

Course Outcomes:

- To impart and gain knowledge in UAS domain
- To provide hands on experience in handling diverse categories of UAS systems
- To train the participants as per the UAS industry requirements
- To develop various UAS systems for multifaceted environments and applications
- To assist the students for venturing as a start-up and contribute to address industrial and societal missions
- To design, plan, and execute UAS missions while adhering to safety guidelines and industry best practices

Eligibility:

- Diploma / UG / PG Graduates of all disciplines in Engineering and Technology
- The candidates must have secured minimum 50% of marks in their qualifying examination

Course Duration : 1 Year

Maximum No. of Candidates: 25

Courses will be conducted at NITTTR, Chennai in collaboration with Vaayusastra Aerospace Pvt. Ltd., IITM Research Park, Chennai.

Course Outline

Sl.No	Course Name	Credits	Marks
1	Introduction to Unmanned Aircraft Vehicles	3	100
2	Aerial Robot Modeling and Analysis	3	100
3	Unmanned Aircraft Systems : Aerodynamics and Propulsion	4	100
4	UAV Design and Prototyping	4	100
5	Avionics and UAV Autonomy	4	100
6	UAV Payloads and Data Processing	4	100
7	UAV Dynamics, Control and Navigation	4	100
8	UAV Regulations, Piloting skills and Licensing	4	100
9	Project Work	8	100
Total		38	900

Course Fee:

- Application & Prospectus Cost : Rs.100/-
- Tuition Fee : Rs.75,000/-* (Non-refundable) including course materials in the form of CD

Examination Fee:

- Each Theory Paper : Rs.500/- x 8 = Rs.4,000/-
- Project Fee : Rs.1,000/-
- Total Examination Fees = Rs. 5,000/-

Evaluation Scheme

Sl.No	Course Name	Internal Marks	External Marks
1	Introduction to Unmanned Aircraft Vehicles	40	60
2	Aerial Robot Modeling and Analysis	40	60
3	Unmanned Aircraft Systems : Aerodynamics and Propulsion	40	60
4	UAV Design and Prototyping	40	60
5	Avionics and UAV Autonomy	40	60
6	UAV Payloads and Data Processing	40	60
7	UAV Dynamics, Control and Navigation	40	60
8	UAV Regulations, Piloting skills and Licensing	40	60
9	Project Work	50	50
Total		370	530

Internal Evaluation

Mode of Internal Assessment	Marks
Assignment	1 x 5 = 5 Marks
Model Tests (2 Nos)	2 x 15 = 30 Marks
Attendance	5 marks

- 75% Attendance is compulsory for examination
- Minimum pass mark of 50 % in the internal exams is mandatory for appearing final exam

Project Work

Assessment	Marks
Design of UAV (Modeling, Analysis and Fabrication)	50
Real time testing and demonstration of UAV	50

- Assessment of the project would be done with the faculty from NITTTR, Chennai and Vaayusastra Aerospace Pvt. Ltd., IITM Research Park, Chennai.
- Project work should be submitted before theory examination.
- Project Viva-voce will be held after theory examination at NITTTR, Chennai with an external expert.

Qualification Criteria

Minimum of 50% in Internal and External marks is needed to qualify for the certification.



Further Details Please Contact

**DIRECTOR
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Course Co-ordinators

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To know more about Training programmes, please visit: www.nitttrc.ac.in