



Glimpses of NESAC



Campus Entrance



Residential Hostels



Modern Conference Hall



Smart Learning Lab



UAV-RS Batch 2025



Hands-on UAV training

Master UAV Remote Sensing through expert-led lectures, hands-on flying & real-world applications

Contact Us



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About NESAC

North Eastern Space Applications Centre (NESAC), a joint initiative of the Department of Space (DoS), Government of India, and the North Eastern Council (NEC), has been serving the North Eastern Region for over 25 years through Space Science and Technology applications. With expertise in Remote Sensing, GIS, Satellite Communication, Space & Atmospheric Sciences, Disaster Management, & capacity building, NESAC provides operational services, supports research, and delivers space-based solutions for natural resource management, infrastructure planning, education, healthcare, and disaster management.

Through its state-of-the-art facilities and experienced scientists, NESAC regularly conducts capacity-building program to equip professionals, students, and researchers with practical skills in geospatial technologies and UAV-based remote sensing.



Important Dates

6th August 2026

Opening of registration

30th August 2026

Closing of registration

1st September 2026

Intimation of selected candidates

10th September 2026

Last date for course fee payment

15th September 2026

Final list of participants

5th - 16th Oct. 2026

Two-week course period



Two-Week Advance Training Course on

UAV REMOTE SENSING

Technological Advances and Applications

Explore . Learn . Analyse . Apply



Advanced Technologies



Hands-on Training



Real-world applications



Expert Guidance

www.nesac.gov.in



5th – 16th
October 2026



UMIAM,
MEGHALAYA

BACKGROUND

NESAC has been conducting a two-week residential/on-campus course on “UAV Remote Sensing: Technological Advances and Applications” annually since 2016, except during the Covid-19 pandemic (2020-2021). The course is designed to impart advance theoretical & practical skills in UAV technology & its applications in Remote Sensing & related fields. Participants gain a comprehensive understanding of end-to-end UAV Remote Sensing workflows and develop practical skills to implement them across diverse application domains. Since its inception, the program has successfully trained over 180 professionals and researcher from diverse academic, government and industry backgrounds.

COURSE MODULES

- ✓ **Fundamentals of UAV Systems & Regulations** – UAV flight principles, UAV components, Rules, airspace classification, & eGCA/Digital Sky overview
- ✓ **UAV Sensors & Technologies** – Principles and applications of RGB, Multispectral, Hyperspectral, Thermal and LiDAR Remote Sensing
- ✓ **Data Acquisition & Processing** – UAV mission planning, data acquisition, GNSS survey (DGPS), geometric Corrections, & Orthomosaic/DEM/DSM generation, Point-cloud, and 3D reconstruction
- ✓ **Applications & Case Studies** – Applications in Agriculture, water resources, urban & terrain mapping, infrastructure planning, forestry & ecological monitoring, & disaster management. Hands-on 3-day applications based mini project.
- ✓ **Hands-on Training & Projects** – Simulator, UAV flight operations, data processing, and thematic mini-projects.



COURSE OUTCOMES

1

Develop UAV piloting skills – safely operate multirotor UAVs, plan missions and execute end-to-end UAV data acquisition workflows

2

Apply UAV-based Remote Sensing techniques – perform end-to-end survey planning, data acquisition, and post processing using professional and open-source software.

3

Interpret and analyse UAV data products – Orthomosaics, DSM/DTM, point clouds, Thermal, Lidar datasets, multispectral/hyperspectral data

4

Evaluate the accuracy and suitability of UAV-derived datasets for diverse thematic and decision-support and research applications

5

Design and implement UAV-based solution in for agriculture, forestry, water resources, infrastructure monitoring, disaster management and other real-world applications

COURSE VENUE

The course is hosted at the NESAC Outreach Facility, Umiam, Meghalaya—a modern residential training campus equipped with smart classrooms, advanced geospatial laboratories, high end computer labs, and comfortable hostel accommodation. The serene campus with pleasant and cool weather near Umiam Lake provides an ideal environment for immersive learning, practical field exercises, and professional interaction.



NESAC Outreach facility,
Umiam, Meghalaya



Smart Classrooms



Advanced Labs



Residential Hostel
and dining

COURSE FEE

Course fee: ₹ 9,500/- * (Inclusive of GST charges)

- Per shortlisted participant
- The course fee includes

- ✓ Tuition fee
- ✓ Registration kit and course material
- ✓ Field visit
- ✓ Food and snacks during training hours

Accommodation and Fooding[#]



Accommodation and fooding will be arranged at NESAC Outreach hostels on chargeable basis and will be over and above the course fee



Lodging charges
₹ 240 per bed/day



Breakfast: ₹ 60
Dinner: ₹ 75

[#]Billed based on actual usage and shall be paid during hostel checkout

WHO CAN APPLY

- Professionals from Government departments, universities and private organisations involved in geospatial projects.
- Students, Researchers and Scholars with basic knowledge of GIS/ Remote Sensing/ Photogrammetry and with a keen interest in UAV operations for RS applications.

Note: The number of spots under the course is limited to 25. Early registration is strongly recommended.

HOW TO APPLY

All registrations are via online portal only.
Please visit the following link to register

<https://outreach.nesdr.gov.in/>

Or scan the QR code



All participants will be awarded a certificate of completion upon successful participation in the course.

Note: This is not a DGCA certified RPAS pilot license course



*Preference will be given to employees of government departments & working professionals & on first come first serve basis for other applicants.