

# IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/ institutions has now grown substantially to 3900+ network institutes. The beneficiaries of the programme may include:

- Central/State/Private Universities & Academic Institutions
- Central & State Government Departments
- Forest Resource Professionals
- State Forest Departments/Forest Training Academies
- Research Institutes
- Geospatial Industries
- NGOs

## Feedback Mechanism

IIRS takes continuous feedback from participating institutions to improve the quality of future courses.



Feedback session during IIRS User Academia Meet (IAM)-2025

## Awards

IIRS has received national awards for excellence in training for outreach and e-learning programme during 1st National Symposium on Excellence in Training conducted during April 11-12, 2015 in New Delhi by Department of Personnel & Training (DoPT), Govt. of India in collaboration with United Nations Development Programme (UNDP). IIRS has also received National Geospatial Enabler Award, 2025 by Ministry of Education, Govt. of India at IIT Bombay.

## About IIRS

Indian Institute of Remote Sensing (IIRS) under Indian Space Research Organisation (ISRO), Department of Space, Govt. of India is a premier Training and Educational Institute set up for developing trained professionals in the field of Remote Sensing, Geoinformatics and GNSS Technology for Natural Resources, Environmental and Disaster Management. Formerly known as Indian Photo-interpretation Institute (IPI), founded in 1966, the Institute boasts to be the first of its kind in entire South-East Asia. While nurturing its primary endeavour to build capacity among the user community by training mid-career professionals, the Institute has enhanced its capability and evolved many training and education programmes that are tuned to meet the requirements of various target groups, ranging from fresh graduates to policy makers including academia.

IIRS also conducts e-learning programme on Remote Sensing and Geoinformation Science (<http://elearning.iirs.gov.in>).

### Contact Details

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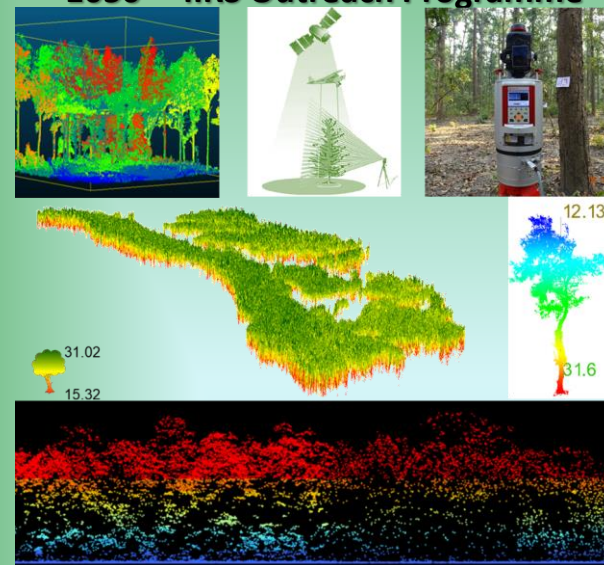
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## 1050<sup>th</sup> IIRS Outreach Programme



## One Day Online Workshop on Advances in Laser Remote Sensing of Forest Ecosystem

**October 31, 2025**



**Organised by**

**Indian Institute of Remote Sensing**  
Indian Space Research Organisation  
Department of Space, Govt. of India  
Dehradun

[www.iirs.gov.in](http://www.iirs.gov.in)



## About the Workshop

Laser remote sensing, particularly Light Detection and Ranging (LiDAR), has revolutionized forest ecosystem studies by providing highly accurate three-dimensional information on vegetation structure, canopy height, and terrain. LiDAR penetrates the canopy and captures vertical forest profiles, enabling detailed mapping of biomass, carbon stock, and habitat diversity. Recent advances in airborne, terrestrial, and spaceborne LiDAR systems have significantly enhanced spatial and temporal coverage, making it possible to monitor forest dynamics at multiple scales. Cutting-edge developments include waveform LiDAR, multispectral LiDAR, and drone-based platforms, which offer unprecedented detail for analyzing forest composition, canopy gaps, regeneration, and degradation processes. Integration of LiDAR with hyperspectral and radar data further improves classification of forest types, assessment of structural complexity, and biodiversity indicators. Machine learning and artificial intelligence are increasingly applied to LiDAR-derived datasets, enabling automated processing, predictive modelling, and ecosystem service quantification. These advances are critical in addressing global challenges such as climate change, deforestation, and biodiversity loss. By offering robust tools for forest monitoring, management, and conservation, laser remote sensing is reshaping the way we understand and sustain forest ecosystems in the 21st century.

We invite you to join the online workshop on “Advances in Laser Remote Sensing of Forest Ecosystem” scheduled for October 31, 2025. The workshop will feature expert lectures from ISRO and other leading national organisations.

## Course Content:

LiDAR Remote Sensing in Forestry: Principles, Platforms and Perspectives, Airborne LiDAR Remote Sensing for Forest Mensuration, UAV LiDAR Remote Sensing of Forest Structure, Terrestrial Laser Scanning (TLS) in Forestry and Space-Borne LiDAR missions and their Applications in Forestry and Ecology

### Target Participants

The course is designed for Professionals, researchers and students (at least Graduate) engaged in the field of Forest Management, Conservation, Vegetation Ecology, Environmental Studies, Geospatial Technology and Modelling.

### Workshop Fee

**There is no fee for attending this workshop.**

### Workshop Registration

Workshop updates and other details will be available on URL- <http://www.iirs.gov.in/Edusat-News/>

**Registered “through Nodal centres”:**

- The participant’s registration must be approved by the coordinator of nodal centers.
- The participants can register and see their application status through URL- <https://elearning.iirs.gov.in/edusatregistration/>
- In case, the application is pending for approval then participants are advised to contact the coordinator of respective nodal center.

**Registered as “Individual registrations”:**

The participants with individual registration will be automatically approved. All the registered participants will get their login credentials for ISRO Learning Management System (LMS)- <https://isrolms.iirs.gov.in> .  
**There are a limited number of seats.**  
**Registration will be done on a first-come, first-served basis.**

## Workshop Funding & Technical Support

The workshop is sponsored by Indian Space Research Organisation, Department of Space, Government of India.

### Programme Reception

- The workshop can be attended through e-class platform of IIRS-ISRO using internet connectivity. No specific hardware/software required. However, it is recommended good internet connectivity at user end. To run the programme in class room, following hardware will be required:
- Desktop computer with web camera microphone and output speakers or laptop with microphone camera and output speaker.
- Large display screen/projector/TV.

### Important links

To participate in this programme the interested organisations/universities/departments/institutes shall identify coordinators who will register online his/her institute as nodal centre in IIRS website (<https://elearning.iirs.gov.in/edusatregistration/coordinator>)

### Award of Certificate

**Registered through Nodal centres :** Based on the attendance, participants will be awarded a “Workshop Participation Certificate.”

**Individual Registration:** A certificate for “Workshop Participation” will be awarded to everyone who devotes at least 50% of the total session's hours of the workshop. The certificate will be available on the ISRO LMS platform.