

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>).

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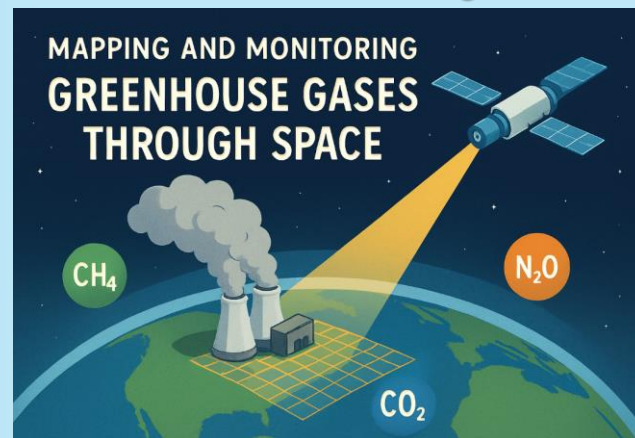
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1049th IIRS Outreach Programme



One Day Online Workshop on Mapping and Monitoring Greenhouse Gases through Space

September 02, 2025



Organised by

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

www.iirs.gov.in



About the Workshop

Greenhouse gases, especially CO₂ and CH₄ are amongst the primary contributors of anthropogenic climate change. Methane (CH₄), a potent greenhouse gas, has a global warming potential over 28 times and 84 times greater than CO₂ over a 100-year and 20-year period, respectively. In the wake of rising global emissions and escalating climate impacts, monitoring GHGs is vital for effective climate action, policy development, and accountability. Satellite based methods of GHG retrieval rely on shortwave infrared (SWIR) and thermal infrared (TIR) bands to detect atmospheric methane through absorption spectroscopy. This workshop will systematically provide an overview of the physics behind retrieval of gas house gases from different airborne/space-borne platforms, impacts on health, and several case studies. We invite you to attend this workshop on **“Mapping and Monitoring Greenhouse Gases through Space”** scheduled on September 02, 2025.

Target Participants

Participants interested in attending the workshop can be Professionals from Central / State Govt. / Private Organizations / NGOs, researchers and students (under graduation and above) aligned to research in Remote Sensing and Image Analysis.

Expected Outcome

The proposed workshop explores the potential of geospatial technology for greenhouse gas monitoring and retrieval through airborne and spaceborne platforms. It will provide a holistic understanding of the physics behind the measurement of GHGs, impact on human health and retrieval algorithms for GHGs through experienced faculty.

Topics of the Workshop

- Topics to be covered in the workshop:
- *Space based measurements of GHGs: Principles and linkage to Climate Change*
 - *Air Quality & Human health in India*
 - *Retrieval algorithms for greenhouse gas monitoring*
 - *Detection of CO₂ using airborne and space-borne imaging spectroscopy*
 - *Methane mapping & monitoring through Space*

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 [\(<https://elearning.iirs.gov.in/edusatregistration/coordinator>\)](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.