

IRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/ institutions has now grown substantially to 3200+ 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

The participants can submit their feedback through online portal. Feedbacks are critically analyzed and implemented in next courses. For one to one feedback the participants and participating organizations are invited to attend annual IIRS User Interactive Meet (IUIM) at IIRS Dehradun.



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).

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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120 IIRS Outreach Programme



**Satellite meteorology applications
in weather and climate studies**

August 7 - 11, 2023



Organised by

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

www.iirs.gov.in



About the Course

With the advancement of satellite remote sensing technology and availability of a range of satellite platforms, various meteorological data products are available for weather and climate studies. The information received from meteorological satellite sensors has greatly enhanced our understanding of the synoptic scale dynamics as well as fine scale processes across a range of spatial-temporal scales within the Earth-atmosphere system. Further these observations are greatly used for operational weather services and for the monitoring of Tropical Cyclones, Monsoon progression, extreme weather events, atmospheric pollution as well as for the numerical weather forecasting. Owing to their larger spatial coverage, satellite data sets also act as a key contributor for the development of meteorological reanalysis products that are widely used for climate change research. Satellite meteorological products are widely used for the assessment of regional and climate model output and thereby supplement the in-situ observations in case of sparse coverage of ground based network. Considering a growing interest of research community in satellite meteorology and data sets, this online course is being conducted at IIRS.

Objective of the Course

The course is designed with a view to provide participants an understanding of the scientific concepts and an overview of approaches & pathways of understanding weather and climate using satellite data. The participants will also gain knowledge and ability to access, analyze, and apply satellite based data products for weather and climate studies. They will also understand the advantages and usages of satellite based meteorological observations for monitoring a variety of weather phenomenon and for operational weather services including numerical weather prediction.

Target Participants

The course is designed to provide a first hand overview of satellite remote sensing concepts for meteorological studies and awareness for the available satellite based meteorological products for the applications in weather and climate studies.

This course is designed for central and state government officials, professionals, specialists and research scholars from universities, educational institutes, operational & research institutes

Prerequisite: Understanding of Basic concepts of Remote Sensing and Atmospheric Science

•The candidate who wants to participate in the course must be graduate.

Course Contents

- Fundamentals of satellite meteorology
- Meteorological satellites sensors and data products
- Applications of Satellite data in monsoon season studies
- Satellite data applications in Tropical Cyclone studies
- Use of satellite data in operational weather services
- Detection of Trace gases from satellite Air quality

Course Study Material

Course study materials like lecture slides, video recorded lectures, open source software & handouts of demonstrations, etc. will be made available through IIRS ftp link. Video lectures will also be uploaded on YouTube Channel (<http://www.youtube.com/user/edusat2004>).

Course Fee

There is no course fee for attending this programme.

Course Registration

- Course updates and other details will be available on URL- <http://www.iirs.gov.in/Edusat-News/>
- To participate in this programme the interested organizations/ universities/ departments/ Institutes has to identify a coordinator at their end. The identified coordinator will register online his/her Institute as nodal center in IIRS website.
- All the participants have to register online through registration page by selecting his/her organization as nodal center.

Course Funding & Technical Support

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

Programme Reception

Programme can be received 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

Courses updates and other details will be available on

URL – <https://www.iirs.gov.in/EDUSAT-News>

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

All the participants have to register online through registration page by selecting his/her organization as nodal centre.

<https://elearning.iirs.gov.in/edusatregistration/student>

Award of Certificate

Working Professionals and Students: Based on 70% attendance

There are limited number of seats. Registration will be done on first come first serve basis