

# IRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/ institutions has now grown substantially to 3100+ 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 has conducted thirteen workshops in 2007, 2009, 2010, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021 and 2022 to take feedback from participating institutions to improve the quality of future courses.



Feedback session during IIRS Academia Meet -2022

## 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

**Dr. Dipanwita Haldar**  
Course Coordinator

**Dr. Suresh Kumar**  
Course Director

**IIRS DLP Team**

**Dr. Poonam S. Tiwari**  
Programme Coordinator  
IIRS Outreach Programme

**Shri Ashok Ghildiyal**  
Technical Officer

**Shri Janardan Vishwakarma**  
Technical Officer

Tel: 0135-2524130  
Email- [dip@iirs.gov.in](mailto:dip@iirs.gov.in)

**Indian Institute of Remote Sensing,**  
Indian Space Research Organisation  
Department of Space, Govt. of India,  
4-Kalidas Road, Dehradun

# 102nd IRS Outreach Programme



## REMOTE SENSING & GIS APPLICATIONS IN AGRICULTURE

July 25- 29, 2022



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 Course

The course will give overview of Remote sensing and GIS applications in Agriculture. The following topics will be covered-

- An overview of RS and GIS for Agricultural applications
- Remote sensing data needs and approaches.
- Crop yield forecasting by linking remote sensing derived bio-physical and agro- meteorological inputs with crop growth simulation models
- Crop condition assessment/drought assessment: Principles, remote sensing approaches, significance of temporal frequency of satellite data
- Microwave Remote Sensing for agricultural applications- crop growth monitoring and assessment, Crop parameters (viz. Crop volume,
- Crop height, biomass, plant water content, LAI) Synergy of optical and microwave for crop growth monitoring.
- Overview of RS and GIS applications for Soil resource management

## Curriculum

Overview of RS and GIS applications in Agriculture

- Crop inventory and production assessment with emphasis on yield forecasting
- Crop condition and drought assessment.
- Overview of Agricultural applications with SAR data
- Overview of RS and GIS applications for Soil resource management

## Expected Outcome

At the end of this course participants would be able to process, analyse/interpret and utilize Remote sensing data for Agricultural applications.

## Target Participants

Agriculture Officers

State Land Resources / Departments / Training Academies

- Central/State/Private Universities & Academic Institutions
- Central & State Government Departments

Research Institutes / Research scholars

Geospatial Industries and

NGOs.

## Course Pre-requisite

Graduate in Science/ Agriculture Science/ allied disciplines

Understanding of Basic concepts of Remote Sensing and GIS

## Course Study Material

Course study materials like lecture slides, video recorded lectures, open source software & handouts of demonstrations, etc. will be made available through e-class. Video lectures will also be uploaded on e-class (<https://www.eclass.iirs.gov.in/login>).

## 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>

To participate in this programme the interested organisations/universities/departments/institutes have to identify coordinator at their end. The identified coordinator will register online his/her institute as nodal centre in IIRS website (<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**