

## IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 Universities/Institutions has now grown substantially to 3300+. The beneficiaries of the programme may include:

- Geology/ Applied Geology/ Geophysics/ Earth Sciences/ Civil Engineering/ Earthquake Engineering/ Mining Engineering/ Geography department in Central/State/Private Universities & Academic Institutions
- Central & State Government Departments
- Research Institutes
- Geospatial Industries
- NGOs

## 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 Geo-information Science (<http://elearning.iirs.gov.in>).

## Geosciences Department

Geosciences Department is involved in training, education, research and operational projects in the fields of remote sensing and GIS applications such as geological mapping and modelling for mineral deposits, engineering geological survey for infrastructure development and slope stability analysis, groundwater targetting, neotectonic and active tectonic analysis, glaciology and climate change studies, and planetary geology of Moon and Mars using optical multispectral and hyperspectral remote sensing, thermal remote sensing, microwave radar remote sensing, spaceborne geophysical observation and ground-based investigation.

### Contact Details

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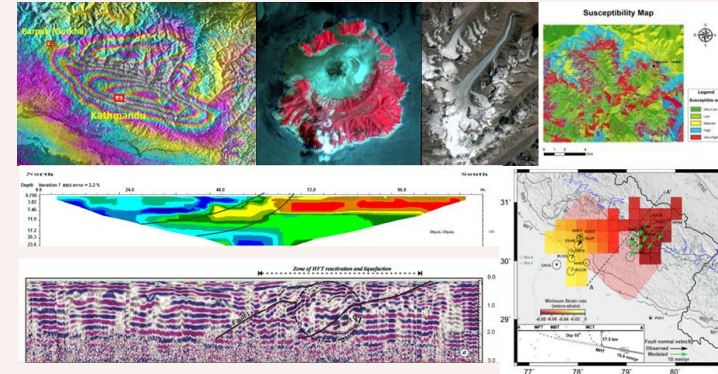
### IIRS DLP Team

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## IIRS Outreach Programme



One day workshop

On

Integration of ground-based in situ observations/measurements with EO data for enhanced Geological Applications: Advantages and Challenges

August 24, 2023



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

Geological studies encompass the details about the solid Earth and include applications such as mineral exploration, geodesy, stratigraphy, groundwater exploitation and monitoring of geological disasters like landslides, seismicity, cloudburst, GLOF, mine collapse and flash floods. Remote sensing technology plays an important role in the geological survey, mapping, analysis and interpretation, which provides a unique opportunity to investigate the geological characteristics of the remote areas of the earth's surface without the need to gain access to an area on the ground. Whereas ground-based techniques have many important applications to mineral & environmental-related problems. Satellite remote sensing-based information may be integrated with ground-based sub-surface data to locate hydrocarbons/minerals/natural resources, hydrology, environmental monitoring, slope stability assessment, infrastructure planning and monitoring, and to study permafrost. The course will provide needful exposure to the utilization of ground-based in situ data along with satellite remote sensing-derived products to address geological applications. It will help inculcate the expertise to review the accuracy aspects and the general strategy required for data selection, resolution requirements and data processing etc. Accordingly, it will provide numerous examples of applications in various branches of geology like geomorphology, structure, lithological mapping, mineralogical identification, alteration mapping, mineral and oil exploration, groundwater and engineering geological studies, coal mine fire mapping, volcano monitoring, earthquake disaster investigations, soil erosion and environmental applications.

We invite you to attend this one-day online workshop on "Integration of ground-based in situ observations/measurements with EO data for enhanced Geological Applications: Advantages and Challenges". The workshop is scheduled on July 27, 2023. The course will contain lectures covering extensive research conducted on various aspects of geological applications using integrated EO and ground-based measurements approach. This information will help in gaining a broad perspective on geological applications in various regions of India.

## Overview of Program

The course is conducted through IIRS outreach facility. IIRS has successfully conducted 163 courses so far through its outreach programme with 5,82,369 participants from 3219+ Institutions/Universities (as of 31st January,2023) spread across India.

**Objective of the Course :** The course will provide needful exposure on utilization of ground based in situ data along with satellite remote sensing derived products to address geological applications. Content : Overview of Geospatial Appl. In geosciences, RS and in situ measurement for mining and surface deformation, Hyperspectral RS and in situ data for mineral exploration, RS for cryospheric studies, RS in mapping, monitoring of landslides and RS, space based geodetic and geophysical measurement for crustal deformation and groundwater study.

## Target Participants

The course is designed for Professionals, researchers and students (at least Graduate) engaged in the field of Geology/ Applied Geology/ Geophysics/ Earth Sciences/ Civil Engineering/ Earthquake Engineering/ Mining Engineering/ Geography department in Central/State/Private Universities & Academic Institutions.

## Registration Fee

There is no registration fee.

## Course Registration

- Course updates and other details will be available on URL- <http://www.iirs.gov.in/Edusat-News/>.
- All the participants have to register online through registration page available on above web page.

## Award of Certificate

All the participants who attend the programme through e-class portal will get a e-certificate for participation.

## Programme Reception

Individuals can attend the course live via any web browser through the e-class portal of IIRS, Dehradun i.e. <https://eclass.iirs.gov.in>.

## 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 on below link: <https://elearning.iirs.gov.in/edusatregistration/student>

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