AI/ML for Geodata Analytics

15th to 26th September, 2025

Organised by

Indian Institute of Remote Sensing

Indian Space Research Organisation
Department of Space, Govt. of India
Dehradun

www.iirs.gov.in

Objective

The main focus of this two weeks training program is to equip participants with the knowledge and practical skills to automate information extraction from geodata using artificial intelligence and machine learning techniques. Focusing on the application of AI/ML tools, the course will explore the processing of diverse geospatial datasets, including high-resolution imagery, and also perform the methods for object-based analysis on geodata.

Course Content

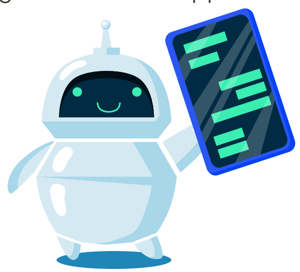
The following content will be covered:

LECTURE DETAILS

•Overview of Geospatial Technology
•GIS data Analysis
•Overview of Image Processing
•Overview of Python
•Cloud Computing using GEE
•Online Data Resources
•Overview of Data Science
•Machine Learning for Geodata Analysis
•Concept of Deep Learning
•Overview of Generative AI and LLM
•Concept of Super resolution
•Simulation and Modelling Approaches

PRACTICAL DETAILS

•Image Processing with Open Source tools
•GIS analysis with Open Source tools
•Non-Spatial Data Analysis using Data Science Approach
•Geoprocessing using Python
•Working with GEE



Duration and mode of course

The course duration is of Two weeks from September 15th to September 26th, 2025. The course will be held in offline mode through a combination of lectures, practical demonstrations and hands on sessions.

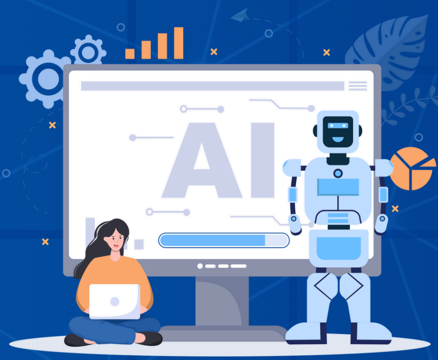
Eligibility

•Graduate in Engineering or Post Graduate in Science (Computer Science/ Mathematics/ Physics/Geoinformatics/ RS&GIS/ Comp. Applications/ Any thematic applications or equivalent)

OR

•Diploma in Engineering with at least three years working experience in related areas.

Prerequisite: Working knowledge of geospatial data and computer programming



How to apply

Application Start Date: **01.04.2025 [10:00 hrs.]**
Only Online Applications will be considered on or before **27.07.2025 [17:30 hrs.].**
Link to Apply: https://admissions.iirs.gov.in/

Refer course flyer on IIRS website (www.iirs.gov.in) for submitting application and additional details.

Contact details

For any course related query, kindly contact

Dr. Harish Karnatak
Head, GITDL
Email: harish@iirs.gov.in;
Ph: +91-135-2524354(o)

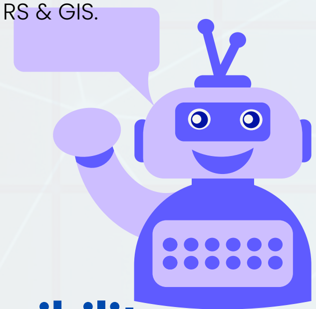
GITDL, GTOPG
Indian Institute of Remote Sensing (IIRS), ISRO
Department of Space, Govt. of India
4, Kalidas Road, Dehradun—248001, India

Course duration and structure

The course will be of 5 days duration in IIRS campus and consists of
~40% lecture Hands on experience (~40%) and Case study (~20%).

About IIRS

Indian Institute of Remote Sensing (IIRS) is a premier institute with a primary aim to build capacity in Remote Sensing and Geoinformatics technologies and their applications through training & education, research and outreach programmes. IIRS is a Unit of Indian Space Research Organisation (ISRO), Department of Space, Government of India. Formerly known as Indian Photo- Interpretation Institute (IPI), founded in 1966, the Institute is the first of its kind in entire South-East Asia. IIRS is one of the most sought after institutes for conducting specially designed courses for the officers from the Ministries of the Government of India and State Governments for effective use of Earth Observation (EO) data from satellites for the benefit of society.
Ministry of External Affairs, Government of India has recognised IIRS to conduct international training courses for the participants from ITEC (Indian Technical & Economic Cooperation) Member countries in Asia, Africa, Latin America, Central and Eastern Europe, and several Pacific and Caribbean nations.
IIRS also hosts the headquarters of the Centre for Space Science & Technology Education in the Asia and Pacific (CSSTEAP), affiliated to the United Nations, and conducts its training and education courses in RS & GIS.



Location & Accessibility

Indian Institute of Remote Sensing (IIRS) is located in Dehradun, the capital city of the State of Uttarakhand, at a distance of about 260 km from Delhi and is well- connected by air, rail and road. The city is famous for its picturesque landscape, pleasant climate, high quality school education and is the gateway to several places of religious and tourist importance, such as Haridwar, Rishikesh, Mussoorie, etc.

Accommodation

Participants will be provided accommodation in the IIRS hostel during the course, with the option of additional two days for check-in or check-out. All hostel rooms are well furnished and are allotted on single/double occupancy basis. Local candidates will be considered for hostel accommodation, only if available. Indian cuisine is served in the hostel mess.

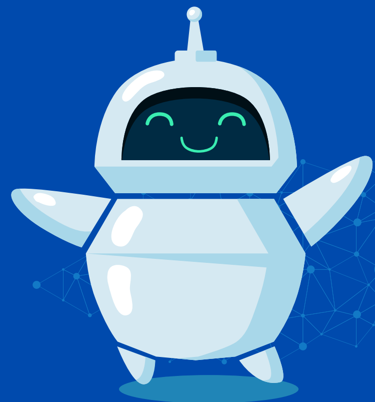
Note: The expenditure towards boarding, lodging will have to be borne by the participants as actual rates of IIRS. Travel to IIRS has to be managed by participants.

Course fee

Application Fee: Rs.500
Course fee: Rs.12,000

Number of seats

Total of 20 seats (Indian nationals only)



Important dates

Start date to apply:	**April 01,2025**
Last date to apply:	**July 27,2025**
Announcement of selection list:	**August 01,2025**
Course start date:	**September 15,2025**
Course completion date:	**September 26,2025**

Formore information and further clarification, please write to:

Dr. Harish Karnatak
Head & Scientist/Engineer "SG"
Geowebservices IT and Distance Learning Department Course Director

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Dr. Poonam S Tiwari
Scientist/Engineer "SG"
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