



Data Science for Geodata Analytics- Integration of AI and Python

28th September to 9th October, 2026



Organised by

Indian Institute of Remote Sensing

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

www.iirs.gov.in

This two-week training program is designed to provide participants with a strong foundation in Data Science for Geodata Analytics through the integration of Artificial Intelligence (AI) and Python. The course covers geospatial data processing, visualization, and analysis using Python-based tools and AI/ML techniques. Participants will gain hands-on experience in data preprocessing, feature extraction, predictive analytics, and workflow automation for extracting meaningful insights from diverse geospatial datasets to support mapping, monitoring, and decision-making.

Course Content

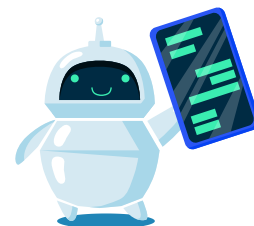
The following content will be covered:

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 28th to October 9th, 2026. The course will be held in offline mode through a combination of lectures, practical demonstrations and hands on sessions.

Eligibility

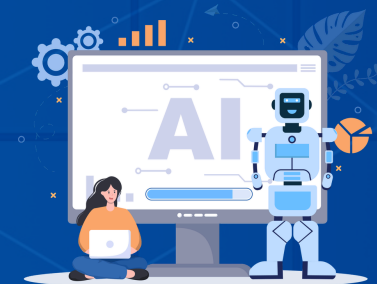
Selection Process for Admission: Only Online Applications will be considered. Refer course flyer on IIRS website (www.iirs.gov.in) for submitting application and additional details.

Essential Qualification:

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

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: **26.04.2026 [10:00 hrs.]**

Only Online Applications will be considered on or before **02.08.2026 [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
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Ph: +91-135-2524354(o)

GITDL, GTOGP
Indian Institute of Remote Sensing (IIRS), ISRO
Department of Space, Govt. of India
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Course duration and structure

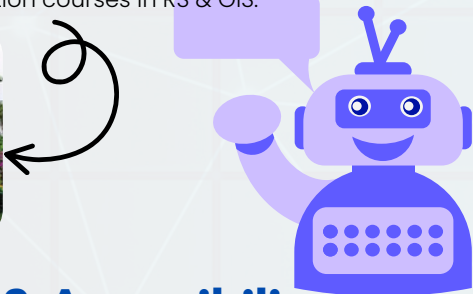
The course will be of 5 days duration in IIRS campus and consists of
~40% lecture Hands on experience (~40%) and Case study (~20%).

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: Candidates nominated by the govt. organisations & professionals working in the related field will be given preference for admission.

Course Fee for Self Financed candidates (INR)/Govt. sponsored candidates (INR)

Rs. 12,000/- (Rs. 4,000: Tuition Fee + Rs. 8,000: Registration & Other Charges). Boarding & lodging charges in IIRS Golden Jubilee Hostel are extra and will have to be paid by the candidate as per the IIRS hostel rules & regulations.

Number of seats

20 (all seats for Indian nationals only)



Important dates

Start Date to apply :	April 26, 2026 [10:00 hrs.]
Last Date to apply :	August 2, 2026 [17:30 hrs.]
Course start date :	September 28, 2026
Course completion date :	October 9, 2026



Formore information and further clarification, please write to:

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

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