SHORT COURSE
ON
Geocomputation and Data Science

October 13-24, 2025

Last date for receipt of application: September 15, 2025

Organized By इसरो ISRO **Conducted By**

CSSTEAP

IIRS, ISRO

Background

GeoComputation applies computer technology to solve spatial problems such as data collection, storage, visualization, analysis, and spatial modeling. Data science extracts insights from large datasets to address problems across various domains..

About CSSTEAP and IIRS

CSSTEAP was established in India in November 1995 with its headquarters at Dehradun. The centre has emerged as a Centre of Excellence in capacity building in the field of space science and technology applications. For more information, visit www.cssteapun.org

IIRS (established in 1966), a constituent unit of Indian Space Research Organization (ISRO), is a key player for training and capacity building in geospatial technology and its applications through training, education and research in Southeast Asia. The training, education and capacity building programmes of the Institute are designed to meet the requirements of professionals at working levels, fresh graduates, researchers, academia, and decision makers (www.iirs.gov.in)

Objective of the course

This training program enhances skills in geoinformation and analysis through a "Geocomputation and Data Science" course, covering GIS, image processing, Python, GEE, machine learning, deep learning, and AI tools. It targets participants with backgrounds in math, statistics, computer science, or geospatial fields, enabling them to apply data science for informed geographic analysis and decision-making.

Faculty & Medium of Instruction

The core faculty is drawn from IIRS and premier agencies from India dealing with AI-ML for Geocomputation . The faculty has rich experience in the field of geospatial data processing. The medium of instruction shall be in English. Participants having competence in spoken and written English language will be given preference.

Course Content

- 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

Number of seats

:20 (Government Nominated Candidates)
:05 Paid Seats (Private & Self-Sponsored Candidates)

Course Fee & Accommodation

A course fee of US $300 (equivalent to INR for Indian participants) is applicable for paid seats which includes course materials. However, for government sponsored candidates from Asia Pacific region, the Director CSSTEAP may waive off the course fee. Preference in admission will be given to the candidates who are financially supported by their organizations. Accommodation for the participants will be arranged in the International Hostel at IIRS, Campus on chargeable basis of Rs. 120/day. Course fee may be sent through online transfer/ NEFT/RTGS/SWIFT in favour of CSSTEAP, payable at Dehradun with following bank details:

Banking Institution: Punjab National Bank
Account Name: Centre for Space Science and Technology Education in Asia and the Pacific
Account Number: 0111032100000236
SWIFT: PUNBINBBDPR
IFSC Code: PUNB0445600
Address Bank: Survey of India Branch, New Cantt. Road, Dehradun, India

Fellowship

A few fellowships covering to and fro international air travel, domestic travel in India and living expenses (INR15,500 for two weeks) in India are available from the Government of India.

However, first preference will be given to the fully self-sponsored candidates and then to the candidates whose sponsoring organization will be bearing international to and fro travel.

Medical Insurance

Medical, life, and disability insurance should be undertaken before leaving their country for India by the participants themselves or on their behalf by their sponsoring institute/organization for covering entire health and disability risks. No medical expenses will be borne by the Centre. Candidates in sound physical and mental health only need to apply.

Medical fitness certificate from Authorized Government medical officer covering status of Eye, Chest (Tuberculosis), Vaccinations, heart, lungs, liver, spleen, Hydrocele, skin & V.D., Hepatitis, HIV, Yellow fever and other contagious diseases be enclosed with the application form. In case if any information requiring medical attention is hidden and if found during the course, the Centre will be obliged to send the candidate back to their home country any time. The travel cost will be borne either by the nominating/sponsoring authority or by the candidates themselves.

Eligibility and Selection Procedure

- The course is aimed at users, decision-makers, researchers, and professionals working in the field of marine and atmospheric sciences.
- The candidate should have a Master's degree in science or Bachelor's degree in engineering or equivalent qualification (Essential Qualification).
- 5 years of experience in the relevant field (Desirable).
- Basic knowledge in mathematics and/or statistics is desirable.
- Limited seats are available for this course, which will be filled with participants from different Asia Pacific countries
- Five paid seats are available for Private & Self sponsored candidates from different Asia Pacific countries.
- The candidates have to pay full course fee of US$ 300 (equivalent to INR for Indian participant) which includes course materials and field trips.
- For Paid Seats or Self-Sponsored Participants travel from place of work to Dehradun and back, tour allowance and daily allowance during the entire period of training will be borne by the candidate/ organization.
- Government employees and professionals working in the field of marine and atmospheric sciences would be given priority.
- Candidate should have proficiency in the English language as the course will be conducted in English.
- The selection of candidates will be carried out by a designated selection committee.

How to Apply

- Eligible candidates can apply online through the CSSTEAP website. https://admissions.cssteapun.org
- Applicants are requested to send the application forwarded by the Head of their respective institute/Organisation.
- Self-sponsored candidates can directly submit application
- Incomplete applications will not be considered for selection
- ***Last date for application: September 15, 2025***

Contact Details

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www.cssteapun.org

Indian Institute of Remote Sensing (IIRS)
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