

**SHORT COURSE  
ON  
“Application of Space Technology  
in Flood Hazard Mitigation and  
Management”**

**May 5-16, 2025**



**Last date for receipt of  
application: March 10, 2025**



**Organized By**



**CSSTEAP**

**Conducted By**



**IIRS, ISRO**

## Background

Asia-Pacific region faces recurrent problem of flood hazard causing massive damage to environment, infrastructure, economy and society. For understanding the flood disaster risk in all its dimensions as outlined under Sendai Framework for Disaster Risk Reduction (SFDRR) earth observation and GIS serves as an important tool. Space technology can be useful particularly in the risk assessment, monitoring, response, mitigation and preparedness phases of disaster management, including early warning.

## 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](http://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

## Objective of the course

The overall objective of this two weeks training programme is to generate awareness among users/researchers/professionals/decision-makers/academicians on Space technology and its applications for disaster management and in the line of implementing Sendai Framework for DRR.

## Faculty & Medium of Instruction

The core faculty is drawn from IIRS and premier agencies from India and abroad dealing with flood hazards. The faculty has rich experience in the field of coastal sciences and applications based on space-based observations. The medium of instruction shall be in English. Participants having competence in spoken and written English language will be given preference.

## Course Content

Course will cover lectures, demonstration and field visits.

- Overview of remote sensing & GIS technology
- Basic concepts of flood hydrology
- Remote sensing of inundation
- Flood hazard, depth, damage, risk and vulnerability
- Crop damage assessment
- Satellite Altimetry
- Glacial Lake Outburst Flood (GLOF)
- Flood modelling
- Urban flooding
- Machine Learning for flood hazards

## 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 decision-makers, managers, researchers, and professionals working in the field of flood hazard.
- 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).

- 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 coastal zone management would be given priority.
- Candidates working in flood hazard and disaster mitigation activities will be given preference
- 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: March 10, 2025***

## Contact Details

**Mr. C.M.Bhatt  
(Course Director )**

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Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP)  
(Affiliated to the United Nations)

[www.cssteapun.org](http://www.cssteapun.org)



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Indian Space Research Organisation (ISRO),  
Department of Space, Government of India  
Dehradun, India

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