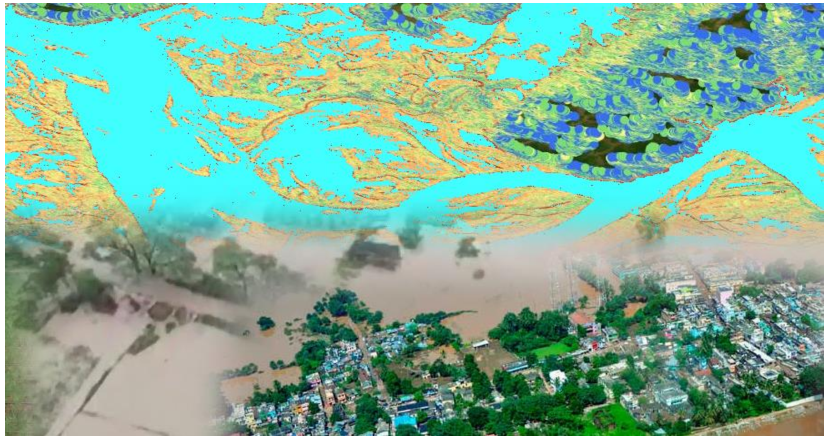
SHORT COURSE

ON

"Mapping, Monitoring and Modelling of Floods using Geospatial Data"

November 17-28, 2025



Last date for receipt of application: September 28, 2025

Organized By

Indian Institute of Remote Sensing Indian Space Research Organisation
Department of Space, Govt. of India
Dehradun
www.iirs.gov.in

Background

Floods are among the most devastating natural disasters. With increasing frequency and intensity driven by climate change and rapid urbanization, there is a growing need for timely, accurate, and wide-scale flood management solutions. Space-based technologies have become powerful tools for near-real-time flood mapping and monitoring and providing timely support for disaster response. Geospatial tools further enhance flood management by enabling flood simulations and dynamic visualizations, which support effective decision-making, early warning systems, and resource allocation during emergencies.

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 since its inception in 1966. IIRS is a Unit of Indian Space Research Organization (ISRO), Department of Space, Government of India. IIRS also hosts the headquarters of the Centre for Space Science & Technology Education in the Asia and Pacific (CSSTEAP), affiliated to the United Nations.

Objective of the course

The primary objective of this two-week training programme is to provide an overview and raise awareness about the potential applications of space technology in flood mapping, monitoring, and modelling. The programme aims to equip participants with the knowledge and tools necessary for effective flood hazard mitigation and management, emphasizing the critical role of geospatial and satellite-based technologies in enhancing preparedness and response strategies.

Target Participants

The course is designed for working level professionals/ disaster professionals working in the field of disaster management and flood hazard mitigation. **Preference will be given to the working professionals from Govt. and public sector organizations.**

Course Content

Course will broadly cover the following topics:

- 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 & Eligibility

Twenty-five (25)

Please refer to the Course Calendar available in IIRS website (https://www.iirs.gov.in/academiccalendar) for the Essential Qualifications required to apply.

Accommodation

The lodging and boarding facilities will be provided to the selected candidates at IIRS in its hostels. Local candidates will be considered for hostel accommodation, only if available. No accommodation will be provided to the accompanying person/ children. Indian cuisine is served in the hostel mess.

How To Apply

Please fill up the online application form available in IIRS website (https://admissions.iirs.gov.in). Incomplete applications will not be considered for selection. The last date to apply for the course is Sep 28, 2025 (17:30 hrs).

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