



iirs

One-week Online Course

**Applications of Multi-wavelength SAR for
Forest Disturbance and Biomass Assessment**

21–25 September, 2026

**Centre for Space Science and Technology
Education in Asia and the Pacific (CSSTEAP)
(Affiliated to the United Nations), IIRS Campus,
4, Kalidas Road, Dehradun, India,
www.cssteapun.org**

Register now!



<https://admissions.cssteapun.org>

About the CSSTEAP

CSSTEAP was established in India in Nov. 1995 with its headquarters in Dehradun and over the past 28 years, the center has emerged as a Centre of Excellence in capacity building in the field of space science and technology. It has been imparting training and educational programmes related to RS & GIS, Satellite Communication, Satellite Meteorology, Space Science, Global Navigation Satellite Systems, and Small Satellite Mission, through its Master Degree, Post Graduate and Certificate programmes.



IIRS (established in 1966), a constituent unit of 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.

About This Course

This one-week online course is designed to provide participants with a comprehensive understanding of Synthetic Aperture Radar (SAR) remote sensing and its applications in forestry. The course will introduce the fundamental principles of SAR technology, the characteristics of major SAR satellite missions operating at different wavelengths (X-, C-, L-, and P-band), and their advantages for forest monitoring under diverse environmental conditions. Special emphasis will be placed on the application of SAR data for forest disturbance mapping, forest biomass and carbon stock estimation, and other emerging applications in sustainable forest management.

Participants will gain insights into the unique advantages of L-band and P-band SAR for mapping forest structure, detecting disturbances, and improving biomass and carbon stock estimation, particularly in dense forest ecosystems. Through expert lectures, case studies, and practical demonstrations, participants will gain both theoretical knowledge and practical skills in processing, analyzing, and interpreting SAR data for forestry applications. The course will also highlight the capabilities of NASA-ISRO Synthetic Aperture Radar (NISAR) and the European Space Agency's BIOMASS mission, two next-generation SAR missions that are expected to significantly enhance global forest monitoring. The course will showcase the complementary strengths of multi-wavelength SAR datasets and their integration for improved forest resource assessment, climate change studies, and evidence-based decision-making.

The course is intended for forest managers, academicians, researchers, students, and professionals seeking to enhance their expertise in geospatial technologies and advanced SAR applications for sustainable forest management, carbon accounting, and climate change mitigation.

Course Highlight

The overall objective of this one-week online course is to familiarize forest managers, academicians, researchers, and students with the fundamentals and applications of Synthetic Aperture Radar (SAR) remote sensing for forestry. The course aims to provide a comprehensive understanding of various SAR satellite datasets and their capabilities for forest monitoring, with emphasis on their use in forest disturbance mapping and the estimation of forest biomass and carbon stocks. Through expert lectures, case studies, and practical demonstrations, participants will gain the knowledge and skills required to effectively utilize SAR data for forest resource assessment, sustainable forest management, and climate change-related applications.

Eligibility and How to Apply

The course is designed for Professionals, researchers and students (least Graduate in science) engaged in the field of Forest Management, Conservation, Vegetation Ecology, Environmental Studies, Geospatial Technology and individuals for organization working in Forest carbon markets. The course will be conducted in English, the candidate is expected to Independent user or above in English language. Eligible candidates can apply online through the CSSTEAP website.

<https://admissions.cssteapun.org/login>

Announcement of course: July 20, 2026

Last date for application: August 20, 2026 (17:30 Hrs IST)

Contact Detail

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