



ONLINE SHORT COURSE

ON

“HYPERSPECTRAL REMOTE SENSING AND ITS APPLICATIONS”

Organized By

Conducted By



**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**

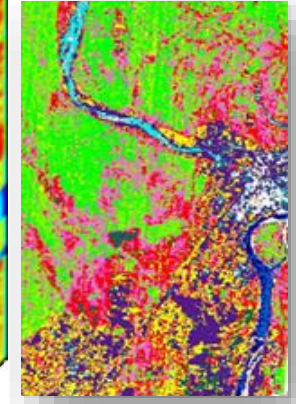
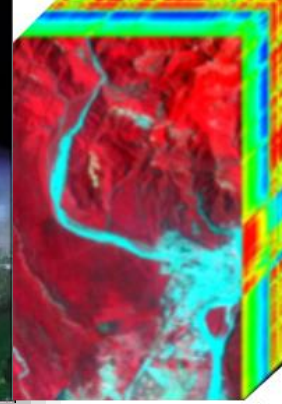
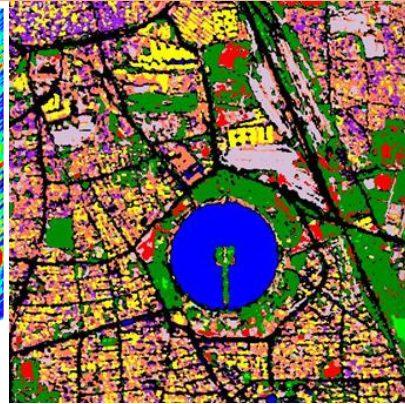
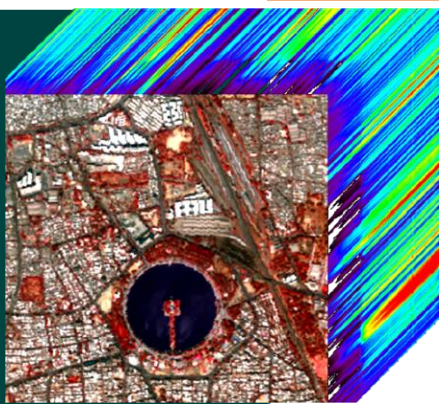
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**Indian Institute of Remote Sensing (IIRS)
Indian Space Research Organisation (ISRO)
Department of Space, Government of India
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**Through: Virtual Platform
May 16 – June 03, 2022**



INTRODUCTION

Hyperspectral Remote Sensing is one of the promising technology in remote sensing which enables detection and identification of earth surface materials. Spectrally rich hyperspectral data has the ability to identify specific earth surface features with very high accuracy. Due to the unique capability of these datasets several airborne and spaceborne hyperspectral sensors are working across the globe. Now-a-days hyperspectral remote sensing has become significantly advanced in different applications, due to its specific capability of extracting quantitative information. This technology has proved its potential for mineral identification and mapping of specific minerals and mapping the variability in soil properties. Hyperspectral data are also capable of species level vegetation mapping, crop growth modelling and monitoring plant's damage etc. Imaging spectroscopy also proven it's potential for monitoring land and coastal waters, and can also be used for snow characterization and mapping. Urban material identification using these spectrally rich datasets is also one of the focus for many. Hyperspectral data is not only used for Earth's surface characterization but also to study extra-terrestrial objects like Moon and Mars. Hyperspectral remote sensing has created new opportunities for research among remote sensing community for extracting more information from hyperspectral data. In view of aforesaid development this course will have provide information on basic and advanced concepts of hyperspectral remote sensing technology, processing, and analysis of data from several airborne and spaceborne sensors for various applications. The proposed international training programme on "Hyperspectral Remote Sensing and its Applications" is scheduled on **May 16 –June 03, 2022** at Indian Institute of Remote Sensing, Dehradun, India.

OBJECTIVES

The overall objective of this three week training course is to make the awareness among users/researchers/professionals/decision-makers/ academicians about the concept of Hyperspectral Remote Sensing and disseminate knowledge and practical applications on use of hyperspectral data.

COURSE CONTENT

This training offers a blend of both theory, hands-on exercise and exercises. The following content will be covered: Introduction to hyperspectral remote sensing, hyperspectral sensors, data preprocessing and atmospheric correction, data analysis and mapping techniques, hyperspectral remote sensing data processing for different applications in Agriculture & Soils, Forestry, Urban & Land use mapping, Water & snow and Geology.

ELIGIBILITY

Participants should be a post graduate in science or graduate in engineering or equivalent qualification in relevant field of study with 2-3 years of experience in teaching/research on professional experience in the field of Remote sensing technology or environment. The course will be conducted in English, the candidate should have proficiency in English language.

COURSE FEE AND HOW TO APPLY

There is no course fee for applicants applying through proper channel. Applicants are requested to send the scan copy of their application forwarded by the Head of their respective organization / institution for consideration through e-mail at cssteap-admissions@iirs.gov.in. Link of lectures will be shared with selected candidates only. It is mandatory for selected participants to attend all lecture/practical sessions for successful completion of this course.

Announcement of course: March 03, 2022

Last date for application (via e-mail): April 20, 2022

ABOUT CSSTEAP AND IIRS

CSSTEAP was established in India in November 1995 with its headquarters in Dehradun and over the past 26 years, the center has emerged as a Centre of Excellence in capacity building in the field of space science and technology application. The CSSTEAP programmes are executed by the faculty of Department of Space at campuses namely, Indian Institute of Remote Sensing (IIRS), Dehradun, Space Applications Centre and Physical Research Laboratory, Ahmedabad and UR Rao Satellite Centre, Bengaluru. The training programmes includes M.Tech. PG Diploma and Short Courses on RS & GIS, Satellite Communications, Satellite Meteorology and Global Climate, Space & Atmospheric Science, Global Navigation Satellite Systems, Small Satellite Missions and DRR regularly. Besides this many short courses, webinars, MOOC and workshops on various themes are also organized.

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.

CONTACT DETAILS

For any course related query, kindly contact to

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