

ABOUT IIRS

Indian Institute of Remote Sensing (IIRS), a constituent unit of Indian Space Research Organization (ISRO), Department of Space, Govt. of India is a Premier training and education institute setup to develop trained professionals in the field of Remote Sensing, Geoinformatics & GPS technology for natural resources, environmental and disaster management. While nurturing its primary endeavor to build capacity among the user community by training mid-career professionals, the institute has enhanced its capability and evolved many training & educational programmes that are tuned to meet the requirements of various target groups, ranging from fresh graduates to policy makers including academia. Its alumni include around 11,000 participants from India and about 1200 international participants from 96 countries.

The institute also conducts distance learning programmes which are first of its kind in the country in the field of 'Earth observation and Geo-information technologies'. To widen its outreach, IIRS has started live and interactive Distance Learning Programme (DLP) since 2007. Today around 950 institutions and organizations are networked with IIRS and about 1,12,000 participants have attended various DLP courses. IIRS has also launched e-learning courses on Remote Sensing and Geo-information Science since 2014. Its experienced faculty offer a multi-disciplinary dimension to the training programmes. IIRS is also one of the most sought after institute for conducting tailor made courses for professionals from Central and State Government Ministries and stakeholder departments for effective utilization of Earth Observation (EO) data.

The institute campus also hosts Centre for Space Science and Technology Education in Asia and Pacific (CSSTEAP), affiliated to UN and conducts international training programs in Remote Sensing and GIS. For more details please visit: www.iirs.gov.in.



LOCATION & ACCESSIBILITY

IIRS is located in Dehradun and well connected to major cities via, air/rail/road. City is famous for its picturesque landscape, pleasant climate, high quality school education and several scientific organizations of national & international reputation. Places of religious & tourist importance like Haridwar, Rishikesh and Mussoorie etc. are located in the vicinity of Dehradun.

CONTACT DETAILS

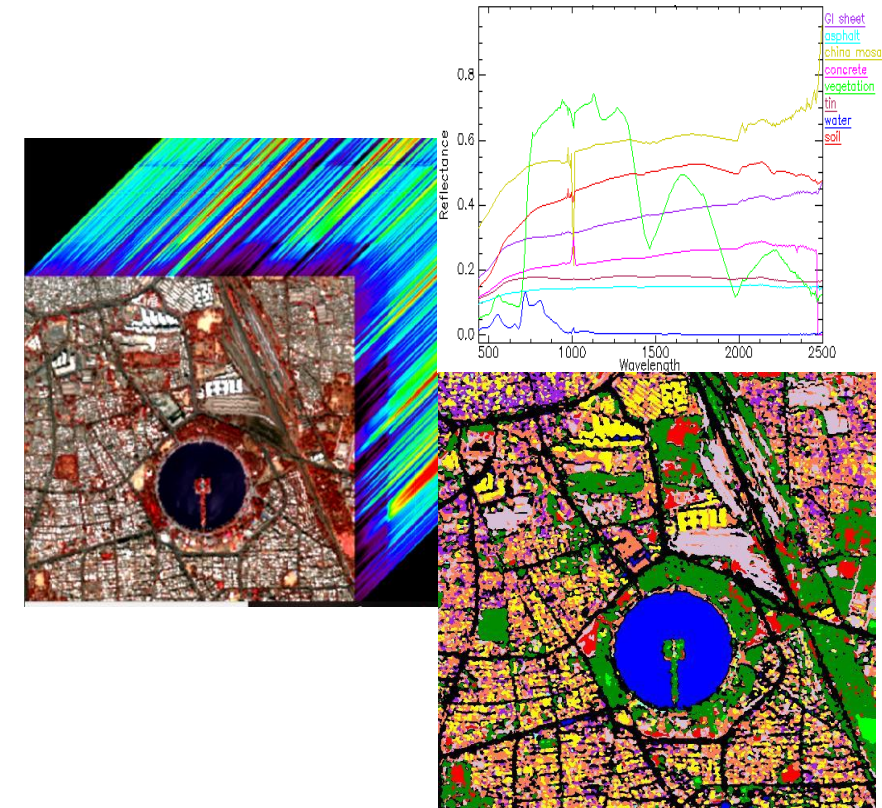
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iirs

Hyperspectral Remote Sensing and its Applications

December 09 – 20, 2019



Organised by

Indian Institute of Remote Sensing
Indian Space Research Organisation
Department of Space, Govt. of India
Dehradun
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INTRODUCTION

Hyperspectral remote sensing has emerged as a standard tool in the field of material identification and mapping. One of the most significant advancement in remote sensing is hyperspectral remote sensing. This technology is also known as imaging spectrometry and has emerged as one of the promising tool which enables detection and identification of materials. Hyperspectral datasets are contiguous and contain bands with very narrow bandwidth of 5-10 nm in the visible to reflected IR region. Several airborne and spaceborne hyperspectral sensors are available globally. India collaborated with NASA to acquire AVIRIS- next generation sensor hyperspectral data for some of the sites of India. India has recently launched one of the spaceborne hyperspectral sensor HySIS in 2018, for earth resource applications. In Chandrayan-2 Mission also one of the hyperspectral sensor was launched which will be used for carrying out research for mineralogical studies and crater identification of the moon surface using visible and infrared spectral range. Various tools are developed for data processing and analysis for information extraction. These tools include algorithms for data pre-processing, atmospheric correction, data dimensionality reduction, endmember selection, classification and spectral unmixing for information extraction. The current trends are towards automation of the whole processing chain enabling cost-effective and timely data processing. Hyperspectral remote sensing has created new opportunities for research among remote sensing community for extracting more information from hyperspectral data. With all these developments, large volume of datasets are expected. In view of aforesaid developments, a short training cum

workshop on hyperspectral remote sensing is envisaged with the following objectives.

OBJECTIVES

- To create awareness on use of hyperspectral remote sensing technology among professionals, researchers, academicians and students.
- To disseminate knowledge required for hyperspectral data processing
- To demonstrate the potential of hyperspectral data for natural resource management.

TRAINING CUM WORKSHOP STRUCTURE

The training cum workshop offers a blend of both theory, hands-on exercise and field exercises. The following content will be covered:

- Introduction to hyperspectral Remotes sensing
- Hyperspectral sensors, data preprocessing and atmospheric correction
- Data analysis and mapping techniques
- Field data collection
- Hyperspectral remote sensing applications.

DURATION AND MODE OF TRAINING CUM WORKSHOP

The training cum workshop duration is of two week from December 09th to December 20th 2019. The course would delivered through lectures on above topics, by IIRS faculty, case studies, demonstrations and hands on exercises.

TARGET PARTICIPANTS

The training cum workshop is designed for professionals, faculty, scientists and researchers (JRF/SRF/RA) in working geospatial technologies. Preference will be given to the working professionals from Govt. and public sector organizations. Incase large number of applications are received, selection will be done based on the criteria decided by IIRS.

REGISTRATION FEE

The training cum workshop has a nominal registration fee of ₹ 10,000/- per participant (including boarding and lodging). Only selected candidates have to send a crossed Demand Draft from any Nationalized Bank drawn in favor of 'Pay and Accounts Officer, Indian Institute of Remote Sensing' payable at Dehradun after selection and before commencement of the course. List of selected candidates will be uploaded on IIRS website www.iirs.gov.in by November 10, 2019.

IMPORTANT DATES

The training cum workshop will commence on December 09 and will end on December 20, 2019. Last date to apply for the training cum workshop is October 31, 2019.

HOW TO APPLY

The aspirant participants may fill the online form available in IIRS website (<https://admissions.iirs.gov.in/shortcourse>) on or before October 31, 2019. Applicants are advised to apply well before last date.