5-Day Training on

Hyperspectral Remote Sensing

(July 22 – 26, 2024)

Brief:
Hyperspectral Remote Sensing or Imaging spectroscopy is the acquisition of hundreds of registered contiguous spectral bands leading to data that offers complete spectral reflectance of the imaged targets. The data acquired presents unique opportunities in understanding physical and chemical properties of various terrain features, atmospheric phenomenon and their composition. Target characterization from image pixels opens numerous opportunities for automatic feature identification, classification, comparison, abundance estimation and unmixing. The complexity in retrieving information from hyperspectral data demands proper understanding of not only the data but also energy-matter interactions and its assessments. The resurgence of space borne Hyperspectral sensors providing images of Earth’s environment has brought new challenges in analyzing, exploration and understanding the Hyperspectral data.

AVIRIS, HYDICE, HySI, HYMAP, Hyperion and now Data from Hyperspectral sensors like AVIRIS-NG, PRISMA has resulted in progressive research and utilization in applications ranging from atmospheric characterization & climate research, snow and ice hydrology, monitoring coastal environment, ecosystem functioning, water studies, mineral exploration, landuse/landcover and vegetation mapping. The potential and various applications possible with use of hyperspectral data from space platform is making it preferred choice of imagery for many scientist and researchers.

The main objective of the training is to impart a broad and working level knowledge of the data, its analysis for natural resource assessment & environment monitoring.

Training Focus:
The Training is essentially for users intending to use Hyperspectral data for research and development projects and its utilization in various fields. The course could help the participants gain insight into the complexities of using Hyperspectral data, processing techniques, analysis and applications with necessary demonstrations & Hands-on (using ENVI) to enhance the understanding on the subject. Domain experts in the respective areas will deliver and interact with participants during the course. Data transformations, feature extraction techniques, classification & spectral quantitative analytical methods will be dealt-with during the course.
Eligibility & Selection

Users having Masters in Science or Bachelor’s degree in Engineering or Graduation with 2 years of experience in relevant areas. Knowledge in Remote Sensing Applications using multispectral data and experience in using Image Processing software is essential. Selection of candidates is subject to fulfillment of eligibility criteria, current utilization, scope of work in the domain and prior exposure to remote sensing tools will be considered.

Who can apply?

Duly filled application forms with sponsorship certificate are invited from working professionals of State Government / Central Government Departments, NGOs, Industry and Faculty/Research Scholars from Academic Institutions who are gearing up to utilize the Hyper spectral Remote Sensing data. The application form should reach NRSC, Hyderabad by speed post (EMS) at address given below by July 13th, 2024. Candidates can send a scanned copy of the application form to training@nrsc.gov.in (attachment < 4 MB) along with fee payment details as advance copy and duly send the originals by speed post to reach the address mentioned below before the due date.

Course Fee & Admission

The course tuition fee given in below table to be made by Electronic Bank Transfer to NRSC account. Visit our website for more details. Tuition fee does not include lodging & boarding charges. Kindly enclose and send duly filled application form with sponsorship certificate should reach us on or before the due date. Selected candidates will be intimated by email/mobile. Applicants will be provided accommodation in NRSC Guest House II inside the campus and food is served by NRSC canteen at a nominal price. Right of admission reserved with NRSC.

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<tr>
<th>Central Govt./State Govt./PSUs/Pure Govt. Organizations/Govt. Academic Colleges/Institutes</th>
<th>Industry/Autonomous Bodies &amp; its Institutes, Private Orgn./NGOs/Private Academia/Other Institutes)*</th>
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<td>Rs. 9,500/-</td>
<td>Rs. 11,210/-</td>
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*Course Fee Rs. 9,500/- + 18% GST.

Postal Address & Contact:

Head, TPCD  
Training Education & Outreach Group,  
National Remote Sensing Centre  
Indian Space Research Organisation  
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