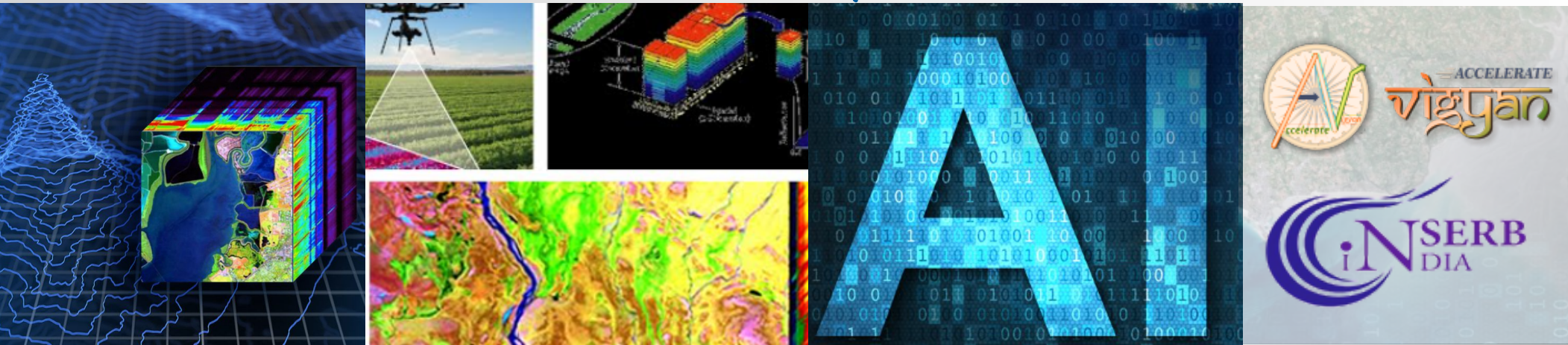**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY TIRUCHIRAPPALLI**

SERB Sponsored High End Workshop (Karyasala)
On

AI Driven Hyperspectral Image Analysis For GIS Applications (AiHiA-2024)

01-07 July 2024

About Workshop

Hyperspectral remote sensing relies on AI to revolutionize our ability to glean useful information from massive amounts of spectral data. AI techniques that use machine learning and deep learning are particularly good at finding intricate patterns and connections in hyperspectral data. They can help with environmental monitoring, agriculture, mineral extraction, and other activities by automatically classifying different land cover types, spotting anomalies, and identifying certain materials or chemicals.

Who can attend

- PhD, PG Students
- UG Final year students
- Faculties

Important Info

- Limited Seats– 25 Only
- NOC from head of the department/institution is mandatory
- No Registration Fee
- Accommodation will be arranged
- TA will be provided as per SERB rule

Important Dates

- Registration starts on 22/04/2024
- Confirmation to candidates 20/06/2024

Click to Register

About Institute

Indian Institute of Information Technology Tiruchirappalli (IIITT) was established in the year 2013-14 as the Institute with National Importance under Public Private Partnership Mode by Ministry of Education (MoE), Govt. of India. The Stakeholders of IIITT are Central Govt. of India, State Govt. of Tamil Nadu, and Industry partners, viz., TCS, CTS, Infosys, Ramco Systems, ELCOT, and Navitas. The main objective of IIITT is to impart world class education in Engineering and Technology to conduct research in the relevant fields, and to further advance learning and dissemination of knowledge. The Institute has been conferred with autonomy in financial and administrative matters to achieve rapid development.

Major objective in establishing IIITT is to set up a model of education which can produce best-in-class human resources in IT and harnessing the multidimensional facets of IT in various domains. While the number of students produced would be small, the impact they create would be great. As of June 14, 2021, IIIT Tiruchirappalli has started operating from the permanent campus at Sethurappatti.

Chief Patron

Prof. N V S N Sarma
Director
IIIT Tiruchirappalli

Patron

Prof. G. Seetharaman
Registrar (i/c)
IIIT Tiruchirappalli

Convener

Dr R. Dhanalakshmi
Head of the Department, CSE
IIIT Tiruchirappalli

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Organized by

**Department of CSE
IIIT Tiruchirappalli**

Course Outline

- Introduction to hyperspectral images (HSI)
- AI/ML era in hyperspectral image processing
- Dimensionality reduction in HSI
- Classification techniques
- Denoising and atmospheric correction
- HSI based decision agriculture
- Disaster monitoring using HSI
- Hands on sessions in HSI data processing
- HSI in Forestry and soil applications