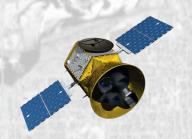




ANRF Sponsored Workshop On

Geospatial Intelligence: Applications and Challenges in the Big Data Era

10 - 14 June 2025





Relevance of the Workshop

Geospatial intelligence is an evolving field that integrates geographic information science, remote sensing, global navigation satellite systems (GNSS), and spatial data analytics. With rapid advancements in artificial intelligence (AI) and machine learning (ML), geospatial technologies are becoming increasingly powerful and indispensable across domains such as defense, agriculture, urban planning, environmental monitoring, and disaster management. The convergence of geospatial strategies with AI/ML and Big Data analytics opens up new opportunities to enhance data analysis, improve decision-making, and solve complex real-world challenges. A solid grasp of the fundamentals, emerging issues, and future prospects in geospatial intelligence is essential for early-career researchers and professionals dedicated to innovation. This workshop is designed to deliver both theoretical insights and hands-on practical experience in addressing these challenges with modern techniques. The interactive format—comprising keynote lectures, panel discussions, hands-on sessions, and project-based learning—ensures that participants are exposed to the latest tools and research directions.

Course Objectives

- Address Challenges: Tackle emerging issues in geospatial intelligence, given the big data and multimodal nature.
- **Foster Collaboration:** Bridge the gap between industry experts and academic professionals in geospatial intelligence and AI/ML.
- **Hands-On Training:** Provide practical exposure to modern tools and techniques related to geospatial intelligence and Big spatial data analytics.
- **Explore Applications:** Highlight key applications in sectors such as defense, agriculture, mineral prospectivity modeling, ecology, and urban planning.
- **Develop a Research Forum:** Establish a structured platform for advancing geospatial intelligence research in India.

Application Form

Link to Registration form: https://forms.gle/HSPzRxiaxiyy36c76



Resource Persons

- Prof. Nagesh Kumar, IISc Bangalore
- Prof. B Krishna Mohan, IIT Bombay
- Shri. Vishnu Chandra, Former DDG, NIC
- Shri. Sudhir Dhamija, DRDO
- Dr. Uday Kumar, NIC
- Prof. Surya S Durbha, IIT Bombay
- Dr. Rekha Gogoi, ISRO
- Dr. Sameer Saran, ISRO
- Dr. Anil Kumar, ISRO
- Shri. Nikhil Sarathy, HyVista Corporation
- Shri. Denil Chawda, GalaEye
- Dr. Rahul Raj, Pixxel
- Dr. Rabi Narayana Sahoo, IARI, New Delhi
- Shri. Neeraj Gurjar, Survey of India
- Dr. Arun P V, IIIT Sri City
- Shri. Deepak Choksi, Transvolt Inc., Mumbai
- Dr. Maitreya Mohan Sahoo, Hebrew University of Jerusalem
- Dr. Pratyush Talreja, IIT Bombay
- Dr. Sandeepan Dhoundiyal, Sysmex corporation, Japan
- Shri. Dil Thomas, DAR

| Schedule of the Workshop | | | | | |
|--------------------------|---|--|---|---|---|
| Ny 'm | Day1 | Day2 | Day3 | Day 4 | Day 5 |
| Time | 10/06/25 | 11/06/25 | 12/06/25 | 13/06/25 | 14/06/25 |
| 9.30 - AM - 10.00 AM | Inauguration | | | | |
| 10.00 AM - 11.00 AM | Introduction to Geospatial Technologies and the relevance of Geospatial Intelligence | Location Intelligence & Challenges (Shri. Vishnu Chandra) | Multimodal Sensing & Geointelligence (Prof. Surya S Durbha) | Big Data Analytics and Spatial Intelligence for Logistics management (Dr. Sameer Saran) | GeoSpatial Intelligence for Defense (Shri. Sudhir Dhamija) |
| 11.00 AM - 12.00 PM | Role of Geographic Coordinate Systems & Surveying for GeoInt (Shri. Neeraj Gurjar) | Radar Sensing & GeoIntelligence (Shri. Denil Chawda) | Hyperspectral Analysis for Image Intelligence (Shri. Nikhil Sarathy) | Explainable and Reliable Deep Learning Models for Geospatial Intelligence (Dr. Arun P V) | Geospatial Intelligence for Disaster Management (Dr. Rekha B Gogoi) |
| 12.15 PM - 1.15 PM | Geospatial Big Data Processing & Analytics for Geoint (Shri. Deepak Choksi) | Challenges in Geospatial Intelligence (Dr. Rahul Raj) | Geospatial Intelligence for Agricultural Applications (Dr. Rabi Narayan Sahoo) | Geospatial Intelligence in Water Management & Hydrology (Prof. Nagesh Kumar) | Geospatial Intelligence for disaster management (Dr. Uday Kumar, NIC) |
| | | | Lunch Break | | Head for a |
| 2:30 PM-3:30 PM | Spatial Image Intelligence & Big Data: Remote Sensing Perspective (Dr. Anil Kumar) | Machine Learning and Deep Learning for addressing challenges in GeoInt (Dr. Arun P V) | Hands-on session on QGIS and Python for Geospatial Intelligence (Shri. Dil Thomas) | Hands-on Session on deep learning for Spatial Intelligence & Mining (Dr. Pratyush Talreja) | Assignment & Case Studies |
| 4.00 PM - 5.00 PM | Geospatial Intelligence & Emerging Trends (Prof. B Krishna Mohan) | Basic Hands-on on Handling Spatial Data using QGIS (Dr. Sandeepan D) | Hands-on session on deep learning-based spatial data processing and analysis (Dr. Maitreya Mohan Sahoo) | Hands on on Open Source Datasets & Tools for Geospatial Intelligence (Dr.Arun P V) | |

Registration Fee

Students: 500 /-

Faculties/Industry Professionals: 1000 /-



NB: Please fill Aadhaar number instead of roll number and mention "Geospatial Intelligence workshop 2025" in remarks

Mode of workshop

The workshop will be in hybrid mode (online & offline)

Organizers

Dr. Arun P V, Asst. Professor, Indian Institute of Information Technology, Sri City

Dr. Sreeja S R, Asst. Professor, Indian Institute of Information Technology, Sri City

Student Coordinators

Ms. Soorya S, Indian Institute of Information Technology, Sri City Mr. Rama Krushna Rath, Indian Institute of Information Technology, Sri City

Application Deadline

Application Last Date: May 31, 2025

Contact Details

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