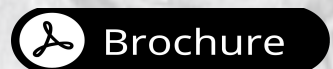


**ANRF Sponsored  
Workshop  
On**

**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/HSPzRxiaksiy36c76>





## Resource Persons

- Prof. Nagesh Kumar, IISc Bangalore
- Prof. B Krishna Mohan, IIT Bombay
- Shri. Sudhir Dhamija, DRDO
- Prof. Alok Porwal, IIT Bombay
- Prof. Surya S Durbha, IIT Bombay
- Dr. Rekha Gogoi, NESAC, ISRO
- Dr. Sameer Saran, ISRO
- Prof. Surya S Durbha, IIT Bombay
- Prof. Avik Bhattacharya, IIT Bombay
- Dr. K. H. V. Durga Rao, ISRO
- Dr. Rabi Narayana Sahoo, IARI, New Delhi
- Mrs. P Srilakshmi, NRSC, ISRO
- Dr. Rama Rao Nidamanuri, IIST, Trivandrum
- Shri. G Varuna Kumar, Survey of India
- Shri. Neeraj Gurjar, Survey of India
- Col. Kuldeep Yadav, Amazon
- Dr. Arun P V, IIIT Sri City
- Dr. Deepak Choksi, Transvolt Inc., Mumbai
- Dr. Maitreya Mohan Sahoo, Hebrew University of Jerusalem
- Dr. Pratyush Talreja, IIT Bombay
- Dr. Sandeepan Dhoundiyal, Rakuten, Japan
- Dr. Dil Thomas, ESRI, Dubai

**Schedule of the Workshop**

	<b>Day1</b>	<b>Day2</b>	<b>Day3</b>	<b>Day 4</b>	<b>Day 5</b>
<b>Time</b>	<b>10/06/25</b>	<b>11/06/25</b>	<b>12/06/25</b>	<b>13/06/25</b>	<b>14/06/25</b>
9.30 - AM - 10.00 AM	Inauguration				
10.00 AM - 11.00 AM	Geospatial Intelligence & Emerging Trends (Prof. B Krishna Mohan)	Location Intelligence & Challenges	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. G Varuna Kumar )	Challenges in Geospatial Intelligence (Prof. Alok Porwal)	Hyperspectral Analysis for Image Intelligence (Prof. Rama Rao Nidamanuri)	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)	Machine Learning and Deep Learning for addressing challenges in GeoInt (Dr. Arun P V)	Geospatial Intelligence for Agricultural Applications (Dr. Rabi Narayan Sahoo)	Geospatial Intelligence in Water Management & Hydrology (Prof. Nagesh Kumar)	National Database for Emergency Management
<b>Lunch Break</b>					
2:30 PM-3:30 PM	Spatial Image Intelligence & Big Data : Remote Sensing Perspective (Prof. Alok Porwal)	Radar Sensing & GeoIntelligence	Hands-on session on QGIS and Python for Geospatial Intelligence (Dr. Dil Thomas)	Hands-on Session on deep learning for Spatial Intelligence & Mining ( Dr. Pratyush Talreja)	Assignment & Case Studies
4.00 PM - 5.00 PM	GNSS for Augmenting Large Scale Spatial Intelligence (Shri. Neeraj Gurjar)	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

## **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. Ameya R, Indian Institute of Information Technology, Sri City**

## **Application Deadline**

**Application Last Date: May 20, 2025**

## **Contact Details**

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