

FIVE-DAY WORKSHOP ON

NEXT-GEN GEO-AI

for Sustainable Agriculture
and Water Resources
Management

Offline [In person] Mode

12th – 16th Oct 2026



JOINTLY ORGANISED BY

Mitti Labs Limited, USA
in association with

Department of Water Resources & Ocean Engineering,
Department of Electronics and Communication Engineering,
NITK IEEE GRSS Student Branch Chapter
National Institute of Technology Karnataka, Surathkal
and
IEEE GRSS Bangalore Chapter



ABOUT THE WORKSHOP

The Workshop aims to provide participants with a comprehensive understanding of next-generation remote sensing, geoinformatics and AI-driven techniques for sustainable agriculture and water resources management. The program integrates theoretical concepts with practical applications, covering geoinformatics fundamentals, agricultural remote sensing, satellite data analysis, agricultural mapping, econometrics, AI/ML/DL-based image processing, data analytics and modelling. Strong emphasis is placed on hands-on learning through practical sessions on Google Earth Engine (GEE), Python-based satellite data processing and deep learning applications. Participants will also explore UAV-based remote sensing, multispectral and other sensor data and open-source geospatial datasets for agricultural and water-resource studies. The workshop aims to bridge theory and practice, equipping participants with practical skills for crop monitoring, precision agriculture, geospatial analysis and data-driven decision-making for sustainable agricultural and water resources management.



KEY OBJECTIVES

1. Gain practical knowledge of satellite, UAV and AI/ML-based techniques for crop monitoring, crop health assessment, precision agriculture, yield prediction using open source technologies
2. Apply ML and DL methods (like LSTM, CNN, Random Forest) to solve real-world Agri-water problems
3. Experience field-based data collection and agricultural remote sensing workflows.



PATRON

Prof. B. Ravi

Director, National Institute of Technology Karnataka, Surathkal



ADVISORY COMMITTEE

- **Prof. Subhash C Yaragal**, Deputy Director, NITK Surathkal.
- **Prof. B Ramachandra Bhat**, Dean (R&I), NITK Surathkal.
- **Prof. Annappa B**, Dean (Academics), NITK Surathkal.
- **Prof. B Venkatesa Perumal**, Dean (P&D), NITK Surathkal.
- **Prof. T Laxminidhi**, Dean (F&SW), NITK Surathkal.
- **Prof. Govinda Raj Mandela**, Dean (SW), NITK Surathkal.
- **Prof. Prasanna Belur**, Dean (ACR), NITK Surathkal.
- **Prof. Ramesh H**, Department of Water Resources & Ocean Engineering, NITK Surathkal.
- **Prof. Ramesh Kini M**, Department of Electronics and Communication Engineering, NITK Surathkal.
- **Dr. Preethi Konkathi**, Remote Sensing Lead, Mitti Labs Limited.
- **Er. Dilip Kumar Dalei**, Chair, IEEE GRSS, Bangalore chapter, India.



COORDINATORS

- **Dr. Chandan M. C., Dr. Shwetha H. R., Dr. Chandan Pradhan**
Assistant Professors, Department of Water Resources & Ocean Engineering, NITK Surathkal.
- **Dr. Shyam Lal**, Associate Professor, Department of Electronics and Communication Engineering, NITK Surathkal.



ABOUT MITTI LABS, IEEE GRSS AND NITK, SURATHKAL



Mitti Labs combines satellite technology, AI, and field operations to create a water and climate-resilient future for rice farming

Since its launch in 2023, Mitti Labs has scaled to deliver the largest Alternate Wetting and Drying rice program globally, with 1Lakh+ farmers onboarded across 6 states in India and expansion plans to the Philippines and Indonesia. To date, its programs have saved 500 billion litres of water. Customers include global technology, service, food and agriculture businesses. Mitti Labs has an active MoU with NITK Surathkal (since 2025) for collaborative R&D, student internships and placements, strengthening industry-academia collaboration in agricultural remote sensing and related technologies.



The Bangalore Section IEEE Geoscience and Remote Sensing Society (GRSS) Chapter, unites like-minded IEEE members interested in satellite remote sensing and geographical information science (GISci).

The chapter conducts seminars/workshops on GRS topics, promotes contributions to IEEE GRSS journals and organizes short courses for PG students, researchers, faculty and industry professionals



National Institute of Technology Karnataka (NITK), Surathkal has established itself as a premier Institution engaged in imparting quality technological education and providing support to research and development activities.

NITK is consistently ranked as one of the top 20 technical institutions in India. NITK offers UG, PG and PhD programs. NITK is committed to enhancing the capabilities and potential of our human resources with the objective of transforming them into leaders in their chosen areas of interest. The institutes vision is to strive for excellence, be globally competitive in technical education and focus on knowledge assimilation, generation and dissemination.



WHO CAN ATTEND

- ✓ Faculty members from academic institutions.
- ✓ Engineers and researchers from Industry organizations including R&D laboratories.
- ✓ Research scholars, Ph.D, SRF, JRF and M.Tech students or equivalent.



REGISTRATION FEES (Inclusive of GST)

Category	Fee
 IEEE GRSS Student Members / NITK students (M.Tech/PhD only)	₹ 1,180
 Non-IEEE GRSS Student Members (M.Tech/PhD only)	₹ 1,770
 IEEE GRSS Professional Members (Faculty)	₹ 5,310
 Non-IEEE GRSS Professional Members / Industry / Faculty / Others	₹ 5,900

REGISTRATION



[Click Here](#)

IMPORTANT DATES:



Last date for registration : 28-Sep-2026, 5:00 PM



Notification of selected participants : 06-Oct-2026



Workshop Dates : 12-16 Oct 2026



WORKSHOP INCLUSIONS:



Registration kit will be provided on the day of inauguration.



Working lunch, and refreshments, tea/coffee will be arranged during workshop



E-Certificate will be provided to all participants



ACCOMMODATION:

- Limited AC/Non-AC rooms are available on a single/ sharing basis at NITK campus on a payment basis.
- Accommodation will be provided on a first-come, first-served basis, subject to availability.



IMPORTANT NOTE:

1. Amount once paid will not be refunded.
2. Preference will be given to IEEE GRSS and IEEE members.
3. E-certificate will be issued to those participants whose attendance is minimum 80%, Feedback and Quiz is mandatory.



CONFIRMED RESOURCE PERSONS:

- **Shri. Ramchandra Hebbbar**, Scientist G (Retd.), ISRO.
- **Dr. Jisha Joseph**, IISc Bangalore.
- **Dr. Eswar R**, IIT Bombay.
- **Dr. China Satyanarayana**, NIDM, Vijayawada.
- **Dr. Preethi Konkathi**, Remote Sensing Lead, Mitti Labs.
- **Dr. Pratyush Talreja**, Senior Geospatial Data Scientist, Mitti Labs.
- **Mr. B. Sandeep Reddy**, SatSure Ltd., Bangalore.
- **Dr. S. Saravanan**, NIT Trichy.
- **Prof. Anilkumar T D**, GKV, UAS, Bangalore.
- **Dr. Bharath Setturu**, Chanakya Uni., Bangalore.
- **Prof. Jaidhar, Prof. Pradyot R. Jena, Dr. Shyam Lal, Dr. Pruthviraj U, Dr. Bhawana Rudra**, NITK Surathkal.



FOR MORE DETAILS, CONTACT:

Dr. Chandan M. C. : chandanmc@nitk.edu.in

Dr. Shwetha H.R. : hrshwetha@nitk.edu.in



STUDENT COORDINATORS:

- **Ms. Bhramarambha**: bhramarambhas.257wo001@nitk.edu.in
Mob: +91 9611195028
- **Mr. Yatish Ram**: yatishram.257wo005@nitk.edu.in
Mob: +91 9738667222
- **Mr. Sandip Chhanam**: sandip.252gf011@nitk.edu.in
Mob: +91 8669144355