Anusandhan National Research Foundation

Gujarat Technological University

In association with

Indian Institute of Information Technology Vadodara

Organizes

Karyashala on AI/ML-Enabled Remote Sensing and Drone Technologies for Climate Resilience

From

02nd – 06th February 2026

Gujarat Technological University
Nr. Visat Three Road, Visat-Gandhinagar Road, Chandkheda, Ahmedabad- 382424, Gujarat, India.

About GTU

Gujarat Technological University (GTU) is a renowned state university, established in 2007, with a strong commitment to academic excellence, innovation, and technology-driven development. Headquartered in Ahmedabad, GTU nurtures a multidisciplinary educational environment through its five key academic entities: 1) School of Engineering & Technology 2) School of Pharmacy 3) School of Management 4) School of Applied Science and Technology and 5) Institute of Technology and Research (ITR) - (Mehsana Campus) focused on high-end research and advanced technological education. With over 400 affiliated colleges and a broad spectrum of undergraduate, postgraduate, and doctoral programs, GTU has established itself as a hub of academic innovation, research, and industrial collaboration.

About IIIT Vadodara

Indian Institute of Information Technology Vadodara (IIIT-V) was established by the Ministry of Education (MoE), Government of India, as an Institute of National Importance under a Public Private Partnership (PPP) framework in 2013. Its purpose is to foster new knowledge in information technology and supply globally competitive manpower for the IT industry, along with addressing related matters. IIIT Vadodara conduct innovative research and provide customized solutions broadly in the areas including AI/ML, Quantum Technologies, VLSI & Semiconductor Designs, Drone Technology, IoT, Digital Twins, Human Computer Interaction, AR/VR, Sensors, RF & Radar Technologies, Remote Sensing, Computer Vision & Graphics, Natural Language Processing, Smart Materials, Cybersecurity & Cryptography, Blockchain, 5G/ 6G Communication, Sustainable Development, Cognitive Science & Engineering, Mathematical Algorithms, Applied Linguistics, and Theoretical & Applied Physics.

About Karyashala on AI/ML-Enabled Remote Sensing and Drone Technologies for Climate Resilience

The Karyashala on Application of Remote Sensing & Drone Surveillance for Climate Resilience Study is a five-days intensive, in-person training program designed to build conceptual understanding and hands-on exposure to advanced geospatial and drone technologies. The program brings together experts from academia, government organizations, and industry to provide participants with a comprehensive perspective on modern remote sensing, GIS, LiDAR, Hyperspectral, AI/ML, and drone-based data acquisition and processing techniques. The Karyashala aims to equip participants with practical knowledge and interdisciplinary skills required to apply remote sensing and drone technologies effectively for climate resilience, environmental monitoring, and agricultural sustainable development initiatives.

Objectives of Karyashala on AI/ML-Enabled Remote Sensing and Drone Technologies for Climate Resilience

- To develop a comprehensive understanding of remote sensing, hyperspectral, and LiDAR-based data acquisition techniques for climate resilience applications.
- To equip participants with skills in geospatial data analysis using ML/DL methods, GIS tools, and decision support models.
- To provide practical exposure to drone technologies, including UAV design, swarm drones, and LiDAR-enabled drone surveys through real-world applications.
- To strengthen the teaching, research, and application capabilities of faculty members and research scholars in advanced geospatial and drone-based technologies.

Who should attend?

1. Students of B.E. / B.Tech, M.E. / M.Tech, PhD Scholars from Colleges / Universities recognized by AICTE / UGC.
2. Faculty members of Degree/Diploma level engineering colleges/universities recognized by AICTE/UGC.
3. Start-ups / Entrepreneurs / Industry Person / Professional engineer

Important Dates:

1. Last Date of Registration: **28th January 2026**
2. Notification of Acceptance: **29th January 2026**
3. Inauguration: **02nd February 2026**
   (11:00 AM to 11:30 AM)

SCAN ME

Registration Details:

Registration fees:
NIL, However, it is mandatory to do registration.
Registration Link:
https://forms.gle/XcTARKZHCfZq85tg9
Reporting Time: **02nd February 2026**
(10:30 AM Onwards)

Session wise Schedule of FDP

Mode: Offline

Day	Session (with Time)	Expert Name
Day 01 (02/02/26)	Session 1 (11:30 AM – 01:30 PM) Hyper-Spectral Remote Sensing	**Dr. Jignesh Bhatt** Associate Professor, IIIT Vadodara
	Session 2 (02:30 PM – 04:30 PM) Agriculture Information System	**Dr. Pratik P. Shah** Associate Professor, IIIT Vadodara
	Session 3 (04:45 PM – 05:45 PM) Swarm Drone for Defense Applications	**Dr. Kamal K. Jha** Assistant Professor, IIIT Vadodara
Day 02 (03/02/26)	Session 4 (11:30 AM – 01:30 PM) Types of Data and Its Sources in Remote Sensing	**Dr. Komal Borisagar** Associate Professor, GTU SET
	Session 5 (02:30 PM – 04:30 PM) Application of ML/DL Algorithms for Preprocessing and Feature Extraction	**Dr. Aanal Raval** Assistant Professor, GTU SET
	Session 6 (04:45 PM – 05:45 PM) Multi-Criteria Decision Making Model Integration with GIS for Site Suitability Study	**Prof. Mridul Seth** Assistant Professor, GTU SET
Day 03 (04/02/26)	Session 7 (11:30 AM – 01:30 PM) LIDAR-Based Data Capturing Techniques	**Sachin Patel** Technical Head, 3D Points; Krishna Kant
	Session 8 (02:30 PM – 04:30 PM) Interpretation of Data & Data Processing of LIDAR-Based Drone	**Sachin Patel** Technical Head, 3D Points
	Session 9 (04:45 PM – 05:45 PM) Case Study: LIDAR-Based Drone Survey Applications in the Field	**Sachin Patel** Technical Head, 3D Points
Day 04 (05/02/26)	Session 10 (11:30 AM – 01:30 PM) Design of Drone and Its Components	**Yaksh Patel** Senior Application Engineer, Airotor
	Session 11 (02:30 PM – 04:30 PM) Design of Drone and Its Components	**Monik Patel** Senior Application Engineer, Airotor
	Session 12 (04:45 PM – 05:45 PM) Synthetic Aperture Radar (SAR) Application in Climate Resilience	**Prof. Mridul S. Seth** Assistant Professor, GTU SET
Day 05 (06/02/26)	Session 13 (11:30 AM – 01:30 PM) Legacy of Survey of India and Its Products for RS & GIS Applications	**Dr. Shivangi Suthar** Officer Surveyor, Survey of India
	Session 14 (02:30 PM – 04:30 PM) Urban Heat Islands and Land Surface Temperature Effects: Current Status, Impact, and Mitigation Strategies	**Prof. Rasik V. Makwana** Assistant Professor, GTU SET
	04:30 PM – 05:45 PM: Valedictory and Feedback	---
Break Fast: 10:30 AM to 11:00 AM | Lunch Break: 01:30 PM to 02:30 PM | High Tea: 04:30 PM to 04:45 PM		

Chief Patron

Prof. (Dr.) Rajul K Gajjar
Hon'ble Vice Chancellor
Gujarat Technological University

Prof. Dharmendra Singh
Director
IIIT Vadodara

Patron

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Registrar
Gujarat Technological University

Col Ravi Chugh
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IIIT Vadodara

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GTU-SET

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GTU-SET

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