



ISG-ISRS National Symposium 2025

on

“Geomatics and space innovations towards Atmanirbhar Bharat: Insights and Frontiers”

List of Presentations

25-11-2025

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97	6	B	O-FT	Towards Geospatial Intelligence Framework for near real-time Forest Resource Monitoring and Decision Support System in Manipur
100	3	B	O	Monitoring and Mapping of Coastal Landforms using Object-based Image classification and Earth Observation data
101	6	B	O-FT	Geospatial Assessment of Citrus Gene Sanctuary of Meghalaya, India
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107	5	B	O-FT	Can Google Satellite Embeddings Bridge the Gap in Fire Severity Estimation Beyond Multispectral Limits?
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111	1		O	LiDAR-Derived Topographic Mapping of the Kahilipara Area for Urban Planning in Assam
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118	5	D	O-FT	Understanding Wayanad debris flow dynamics using Rapid Mass Movement Simulation (RAMMS)
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120	6	A	O	A Cellular Automata Approach for Predicting Land Use Change Using Geospatial techniques
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122	5	B	O	Satellite based Solar-Induced Chlorophyll Fluorescence (SIF) as a Proxy for Agricultural Drought Monitoring
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124	2	C	O-FT	AI-Powered Autonomous Drone for Precision Plant Imaging and Remote Data Transmission.
127	2	A	O	Geo-Innovation for Self-Reliance: An Interactive GEE Application for Cumin Crop Monitoring in Arid Rajasthan

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129	2	A	O-FT	Horticultural Diversification Plan for Temperate Fruits utilizing Geospatial Technology
130	6	D	O	Synergistic Use of EOS-04 (RISAT-1A) and Sentinel-1A SAR Data for Improved Detection of Rice Sowing Window in the Krishna Delta, India
131	2	C	O-FT	GeoAI Techniques for Improved LULC Mapping in the Indian Context
132	3	B	O	Estimation of Vertical Wind Speed Exponent using In-Situ Measurements at Kalpakkam for Radiological Impact Assessment
133	2	C	O-FT	Dynamic Spatio-Temporal Modelling Framework using Voronoi-based Graphs for Crash Prediction
134	2	C	O-FT	Predicting District Level Socio-economic Wealth Index using Satellite Imagery and Deep Learning Model
135	6	B	O-FT	Above-Ground Biomass (AGB) prediction from Satellite Remote Sensing Data using DL techniques in Indian context
136	5	D	O	EO-Data Utilisation for Monitoring Recent Volcanic Activity of Barren Island, Andaman Territory, India
138	5	D	O-FT	Multi-Criteria Evaluation of Seismic Hazards in Kolkata, West Bengal
139	3	A	O-FT	Integrated Global Framework for Estimating Urban Flood Vulnerabilities in Coastal Megacities using UC-Flo Model
140	5	C	O	PRISMA data utilization in detecting different igneous components and associated alteration: Its implication for rare earth exploration
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142	5	B	O-FT	Record-Breaking April-May 2024 Heatwave in West Bengal: Multi-Parameter Assessment of Intensity, Duration, and Land-Atmosphere Anomalies
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144	2	C	O	Automatic Cloud and Shadow Mask Generation from Resourcesat-2/2A Liss-4 Satellite Imagery
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147	3	B	O	Relationship between upwelling, productivity and Air–Sea CO ₂ Exchange in the Arabian Sea: Regional Contrasts and Recent Warming Effects
148	5	B	O-FT	Forest Fire Susceptibility Zonation Using Integrated MCDM Models in Chhattisgarh, India
149	6	A	O-FT	Earth observation data analysis of Gangani ravine for understanding its evolution
150	6	A	O	Tracking Shoreline Dynamics and Cyclone-Driven Change in Eastern Indian Coast using Earth Observation and Explainable ML Frameworks
151	6	A	O-FT	Spatial Variability and Drivers of Sea Level Rise along the Indian Coasts: Observations and Model Projections
152	5	C	O	Do large-scale capture episodes drive aneurysm? Geomorphic Insights from the Eastern Himalayan Syntaxis
153	1		O-FT	Topographic Evolution of the Western Himalayan Syntaxis: Testing Tectonic and Climatic Forcing with Landscape Evolution Models
154	3	A	O-FT	Assessing Flood Hazard in the Indian Koshi River Basin
155	3	A	O-FT	FLOOD HAZARD ASSESSMENT IN THE INDIAN RAPTI RIVER BASIN
156	2	A	O	Evaluating Prevented Sowing Status of Kharif Paddy using Satellite Earth Observations and Rainfall Data: Crop Insurance Perspective

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160	4	D	O	In-season assessment of progressive paddy residue burning and GHG emission: An experience over Punjab & Haryana during post-kharif seasons
162	5	A	O	Development of Online Web Portal using Geospatial Technologies for Early Tsunami Warning to Tamil Nadu Coast around Kalpakkam Nuclear Complex
163	3	A	O	Urban Flood Vulnerability Mapping and Assessment of Delhi: A GIS–AHP Integration Approach
164	2	C	O-FT	IndicGeoLLM: Context-Aware Geotagging and Location Intelligence for the Indian Geospatial Ecosystem
165	3	A	O	Machine Learning Based Assessment of Potential Losses in Kharif Crops due to Extreme Rainfall Induced Flood Events in parts of Punjab, India
166	5	C	O-FT	Impact of Polymetallic Nodules Mining on Trace Metal Speciation (Cu, Ni, Co) in Surface Sediments of the Indian Ocean Nodule Field, Central Indian Ocean Basin.
167	5	D	O-FT	Probabilistic Geospatial Modeling of Landslide Susceptibility in the Western Ghats of Kerala Using the Weight of Evidence (WoE) Framework
168	3	C	O	Allometric versus Machine Learning Models for Blue Carbon Estimation Using Multi-Sensor Geospatial Data in the Bhitarkanika Coastal Mangrove System, Odisha
169	6	D	O-FT	Adaptive Selection of Spatial and Temporal Resolution for Forecasting Maritime Activity from SAR Observations
170	4	A	O-FT	Evaluation of Spatial Displacement in NCEP-NOAA 6–24 h Precipitation Forecasts Against CMORPH Satellite Estimates Over India
172	6	D	O	Enhanced Detection of Kharif Paddy Phenology stages through Synthesized Continuous Vegetation profile from SAR–Optical Data Integration
173	3	D	O-FT	Mapping of potential Fishing Zones (PEZs) over the Estuarine Region of Sundarbans
174	2	C	O	A Geo-Intelligent Web Application for Satellite-Based Turmeric Crop Monitoring
178	2	A	O-FT	Long-Term Assessment of Greening and Browning Dynamics in Maharashtra's Agricultural Landscapes Through Vegetation and Climatic Indicators (2000–2024)
180	4	C	O-FT	Influence of LST and Air temperature on precipitation complexity in Krishna River Basin: An entropy-based approach
181	3	C	O-FT	Evaluation of coal mining impacts on groundwater quality using random forest modelling in Dhanbad district, Jharkhand
184	5	C	O-FT	AI-driven integration of lithological variability for groundwater security mapping in a river basin of the Chhotanagpur Craton
185	1		O	Quantitative and Qualitative Assessment of Open- Source DEMs (Cartosat, Fabdem, Alospulsar, SRTM and Aster) in Geospatial Applications Using QGIS, taking Udaipur, Rajasthan, India as the study area
186	6	B	O-FT	Evaluating Neural Network Architectures for Estimating Above-Ground Biomass Integrating Optical Spectral Indices in the Indian Sundarbans
188	2	D	O	AatmaNirbhar Cloud-Based Digital Twin Framework for Urban Resilience and Building Footprint Generation
189	5	B	O	Spatio-temporal Repetition of Forest Fire Alerts in the Uttarakhand Himalaya, India (2019-2024)
190	5	B	O-FT	Integrated Geospatial Assessment of Mine Fire Dynamics and Environmental Stress in the Jharia Coalfield Using NBR–LST–Pollutant Interactions

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192	5	D	O-FT	Geospatial Assessment of Landslide Susceptible Zones in Himachal Pradesh, India.
193	2	D	O	Detection of Archaeological Mounds using Geospatial Technology and validation by Geophysical Technique
197	2	C	O-FT	Modelling Climate Resilient Alternative Livelihood Options Using AI-Driven Geospatial Approaches: Evidence from the Indian Sundarban
198	2	A	O-FT	Soil Moisture Estimation and Climate Change Impact Assessment Using Sentinel-1 SAR and Field Data in Banda District, Uttar Pradesh
199	6	C	O	LiDAR Technology – a Potential Tool for Assessment of Height and Biomass Estimation in Tomato, Solanum lycopersicum Mill.
200	2	C	O	Solar Farm Segmentation Using Dynamic Balanced Batch Training on Hard-Negative-Enriched Resourcesat-2/2A LISS-3 Dataset
201	2	A	O	A Machine Learning Approach to Estimate Potato Yield in the Lower Indo-Gangetic Plains
202	3	D	O	National Level mapping and community zonation of Indian mangroves
203	6	D	O	Sensitivity Assessment of Airborne P-Band Synthetic Aperture Radar (SAR) Data for Selected Applications
204	2	B	O	Determining Nitrogen content of fodder crops using Hyperspectral and multi-spectral remote sensing data
205	2	A	O	Two-Stage Proximal RGB Imaging and Digital Soil Mapping Framework for Predicting Soil Organic Carbon
206	6	B	O-FT	Mapping Deforestation using the BFAST Algorithm and Time-Series Data in the Jhargram and West Midnapore Districts
208	6	B	O	Integrated High-Resolution Satellite and UAV-Based Assessment of Forest Damage Following a Windthrow Event in Tadvai Forest Division, Telangana, India
211	5	D	O-FT	Scalable landslide mapping using deep learning, a Human in the Loop (HITL) framework
212	5	B	O	Estimation of Composite Drought Index using Meteorological and Satellite Remote Sensing Employing Data Science Techniques: A Case Study
214	3	D	O-FT	Assessing the impact of cyclones on the Mangrove ecosystem and species, Lothian Island, Sundarbans
215	2	C	O-FT	DEVELOPMENT OF WEB APPLICATION FOR SOIL PROPERTY PREDICTION USING SENSOR DATA AND ARTIFICIAL INTELLIGENCE
217	1		O-FT	Data-Driven Modelling of Seasonal Variations in landfill leachate Using Artificial Intelligence Approach
218	6	A	O-FT	Environmental Degradation and its mitigation measure - a case study from Northern Part of Lalitpur District of Bundelkhand Region, Uttar Pradesh
220	6	B	O-FT	Spatio-Temporal Analysis of Forest Canopy Density in Saranda Forest, West Singhbhum, Jharkhand using Sentinel Satellite Data
221	4	C	O	Carbon Flux Dynamics and Ecosystem Sustainability in Groundnut (<i>Arachis hypogaea L.</i>) Agroecosystem: Insights from Eddy Covariance Measurements in Semi-Arid Tamil Nadu
223	5	D	O	Integrating Remote Sensing and AHP for Landslide Susceptibility Mapping in a Rainfall-Intense and Tectonically Active Terrain of the East Khasi Hills, Meghalaya
224	2	D	O	Study the impact of feature class variations on road surface temperatures and proximity areas using EOS08 EOIR thermal data
225	2	A	O-FT	Integrating CROPWAT Modelling and Machine Learning for Accurate Estimation of Crop Water Requirement

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226	3	B	O-FT	Comparative Analysis of OCM-3 Algorithms for Chlorophyll-a Retrieval in the Southeastern Arabian Sea
227	6	A	O	An assessment of Spatio-temporal Forest covers Changes Impacts on Land Degradation and Its Consequences in Gida Ayana District, Ethiopia Using Geoinformatics Techniques
231	2	B	O	Deep Learning-Based Radiometric Correction and Enhancement of High-Resolution Satellite Imagery
232	3	A	O	Automatic Flood Inundation Mapping Using AI/ML and SAR Data
233	3	A	O	Spatial Modelling of Soil Erosion and Deposition Using a Transport-Limited Sediment Accumulation Algorithm: A Case Study of the Mahi Upper Catchment
237	2	D	O	Mixed-Use Matters: Revisiting Building Function Classification for Indian Cities
238	3	C	O-FT	Predictive Modelling of Nitrate Pollution in Groundwater using AI/ML Techniques in Jharkhand State, India
239	4	D	O	Analysis of spatio-temporal dynamics of PM2.5 concentrations using machine learning and SHAP
240	2	D	O-FT	Assesment of reinforcement bars in concrete structures using ground penetrating radar (gpr) and synthetic modelling with gprSim
241	4	D	O-FT	Effect of contamination in soil : A comparative study of seasonal variation (Monsoon and Post-monsoon) of dump and non dump soil in Dhanbad.
242	2	D	O-FT	Geospatial Assessment of Morphological Determinants of Urban Heat Island of Planned and Unplanned Cities
243	5	C	O-FT	GOSSAN MAPPING USING EARTH OBSERVATION DATA IN PARTS OF EASTERN INDIA
245	2	D	O-FT	Socio-Technical Geomatics Framework for Smart Urban Mobility: Integrating Dynamic Traffic Management and Public Behavioral Nudges
246	3	D	O-FT	Studies on Coastal Bivalve Mollusks Biodiversity through the Use of Remote Sensing and Geographic Information Systems
247	2	A	O	Site Suitability Analysis for Muga Food Plants in Papumpare district of Arunachal Pradesh Using Geo-Spatial Technology
249	5	C	O-FT	Combined analysis of Remote Sensing, ERT and Spectral data for mineral prospecting.
251	4	A	O-FT	Spatiotemporal Variability and Trend Analysis of Climate Extremes in Kerala (1965–2024): Insights from ETCCDI, GPD, and RClimate-based Statistical Approaches
252	2	A	O	Discrimination of Poppy Cultivated Fields from Rabi Crops Using Remote Sensing, GIS, and Machine Learning Techniques along Riverine Sandbars of Goalpara District in Assam
254	3	D	O	Monitoring Temporal Dynamics of Aquatic Vegetation in Urban Water Bodies Using Optical Satellite Data
255	3	D	O-FT	Multi-Sensor Analysis of Monthly Wetland Dynamics at Sambhar Lake Ramsar Site, India
256	2	A	O	Forecasting Soybean Crop Yields in the Vidarbha Region: Integrating Remote Sensing and Machine Learning to Quantify Heavy Rainfall Effects
257	3	A	O-FT	Study of geomorphological control on flood susceptible in coastal alluvial region using remote sensing and geoinformatics
258	6	A	O-FT	Spatio-Temporal Greening of Mangrove Forests and Its Biophysical Impacts on Phenology: A Synergistic SEM–BRT Framework for Climatic Attribution

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260	4	D	O-FT	Understanding the March 2024 Arctic Total Column Ozone (TCO) high Using Multi-Sensor Observations
263	2	A	O	Moisture-Driven Soil Respiration in Arid Landscapes: Insights from Land-Use Variability in Jodhpur, India
264	6	A	O	Revealing Faint Scripts: Ground-Based 3D Modelling and Deep Learning based documentation of the Kalsi Ashoka Rock Edict
265	2	B	O	Vision Transformer-Based Semantic Segmentation for Accurate Land Use Classification from VHR Satellite Imagery
266	5	D	O	Landslide Vulnerability Assessment of Infrastructure in Tourist Circuits of Northeastern India : A Geospatial Analysis for Sustainable Tourism Development
268	4	B	O	Preliminary Investigation of GNSS-IR-Based Snow Depth Estimation in the Indian Himalayas
270	4	A	O	Spatio-temporal Reconstruction Of Brightness Temperature At High Resolution, and Half Hourly Interval Using A Mix Of Statistical And Deep Learning Techniques
272	5	B	O-FT	Integrating Geospatial Techniques for Forest Fire Danger and Vulnerability Mapping in Meghalaya
273	2	A	O	Soil Moisture Estimation from TIR data using Empirical and Deep Learning Techniques
276	4	A	O	Characterizing Urban Heat Island (UHI) Intensity with a ConvLSTM-Generated Land Surface Temperature (LST)
278	5	C	O-FT	Structural and Spectral Characterization of Mineralization Zones in Parts of Singhbhum Thrust Belt Using Remote Sensing and Gravity Data
279	2	B	O	Assessing hyperspectral responses of fibre crops in field and laboratory conditions using hand-held spectroradiometer for disease identification
280	6	B	O-FT	Improving Aboveground Biomass Estimation in Teal Carbon Ecosystem of a Semi-Arid Region of India Using Multi-Sensor Remote Sensing and Machine Learning Algorithms
281	4	D	O-FT	Decoding Urban Thermal and Air Quality Dynamics Through Machine Learning and SHAP Analysis: A Multi-City Study in the Aravalli Range
286	3	A	O	GIS-Based Multi-Criteria Evaluation of Groundwater Recharge Potential Zones Using Remote Sensing and GIS techniques in Ludhiana District, Punjab
288	2	A	O	Improving rice yield estimation at block level through advanced mathematical modelling and geospatial technology
289	2	C	O-FT	INTEGRATING GEOTECHNICAL AND GEOPHYSICAL METHODS: A STATISTICAL APPROACH TO CORRELATING SPT-N VALUES AND ERT DERIVED RESISTIVITY IN PATNA, BIHAR
292	2	B	O-FT	NIRVANA: A Cloud-Connected CubeSat Platform for Environmental Monitoring and Border Surveillance
293	6	A	O-FT	Study of the significance of estuarine environment in stabilization of coastline in coastal regions of East Medinipur district, West Bengal, India using remote sensing and geophysical techniques
295	3	D	O	Assessment of Risk in the East Kolkata Wetland using Random Forest
300	2	C	O-FT	A Hybrid Flutter-Unity Framework for AR-Based Smart Campus Navigation Using Geospatial Intelligence
301	3	C	O-FT	Assessing Spatio-temporal dynamics of water quality parameters in inland water bodies for sustainable aquaculture using remote sensing
303	2	A	O-FT	From Photosynthesis to Productivity: Satellite-based Estimation of Rice Yield in the Parts of Indo-Gangetic Plain
307	1		O-FT	Investigating the Morphological Changes in Mudflat Topography across the Gulf of Khambat

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310	2	D	O-FT	Indicators for assessing Urban Transportation System Resilience: A Comprehensive Literature Review
311	6	A	O	Morphological Changes of Rivers draining into Vembanad Lake, Kerala state using Geospatial Technologies and preparing towards Disaster Risk Reduction Strategies
312	2	A	O	Geospatial Intelligence Accelerates Agroforestry and TOF Deployment in India
313	2	C	O-FT	Mapping Patterns in Motion: A Scalable Space-Time Framework for Human Movement Detection and Analysis – The IIT Kharagpur Case.
315	6	D	O	Preparation of displacement map using ENVISAT ASAR SLC data pair of Bam city and surroundings, Iran
319	6	A	O-FT	Assessing the Impact of Solar Parks on Land Surface Characteristics over India
320	6	A	O-FT	Automated Land Boundary Mapping and Encroachment Detection Using Deep Learning and Geospatial Data: A Case Study of Nagpur City
322	4	A	O	Emerging Fire Regimes and Climatic Drivers of Global Wildfire Dynamics
323	2	C	O-FT	Assessing Spatial Accessibility and Health Outcomes among Tribal Districts of India – A GIS and LISA-Based Analysis
324	5	D	O-FT	Enhancing Quality of Life in Earthquake-Prone Regions: A Review on Mass-Spring Systems for Seismic Resilience
325	6	B	O	Machine Learning-Driven Estimation of Mangrove Above Ground Biomass Using Multi-Sensor Satellite Imagery in Parts of the Sundarbans, India
328	4	A	O	Variability and Trend Analysis of Rainfall over Burhidihing River Basin, India using Reconstructed Time Series
330	4	A	O	Evaluation of Satellite-Based Precipitation Estimates over the East Coastal States of India Using Multi-Criteria Performance Assessment
331	3	B	O-FT	A Review of Modern Satellite Remote Sensing for Quantifying Ocean Productivity, Bloom Dynamics, and Fisheries Health
332	6	C	O-FT	Comparative Analysis of LiDAR and SfM Based Photogrammetry for Highway Pavement Distress Detection: A Comprehensive Review
333	4	A	O	Leveraging GeoAI to Assess Climate-Driven Changes in Vegetation Dynamics Across India
335	3	A	O	Advancing Flood Risk Intelligence Through Multi-Algorithm Machine Learning: A Case Study for Climate Resilient Agriculture in Khagaria District, Bihar
336	4	D	O-FT	Enhancing Geospatial Precision through Nontidal Atmospheric Loading Correction in CORS Networks of the Himalayan Region
337	2	D	O	Quantitative Assessment of Built-Up Area Dynamics through Geospatial Change Detection
340	2	A	O-FT	Integrating Geomatics and Socio-Environmental Intelligence for Climate-Resilient Agriculture in Bihar
341	4	A	O	Two Decades of Upper Water Mass Variability in the Lakshadweep Sea Revealed by Remote Sensing Observations
344	2	A	O-FT	IRRIGATED AREA MAPPING INTEGRATING REMOTE SENSING AND ML TECHNIQUES
345	3	A	O	Optimized Flood Hazard Mapping Framework Using Multi-Source Satellite Data and Machine Learning in Assam, India
346	2	C	O	State of art early warning system for fisherman in deep sea over equatorial region
348	4	D	O-FT	Evaluation of reanalysis surface ozone in India using multispectral satellite observations

ID	Theme	Sub Theme	Type	Title
349	3	B	O-FT	Remote Sensing and Reanalysis-Based Assessment of the Arabian Sea MiniWarm Pool and Associated Cyclone Dynamics (1982–2022)
350	4	C	O	Quantifying Climate-Vegetation Relationship through Explainable Random Forest Regressor and Uncertainty Analysis
351	6	B	O-FT	An automated processing framework for time-lapse PhenoCam images
352	3	A	O	Integrated Multi-Sensor Modeling of Flood and Drought Probabilities Using MachineLearning: A Decadal Analysis for Patna District, Bihar (2014–2024)
354	3	B	O-FT	Inter-sensor Comparison and Validation of satellite derived Sea Surface Temperature with the reference of In situ data over the Indian Ocean
355	4	A	O	Precipitation Nowcasting using Data-Driven AI and Optical Flow-Based Approaches
356	2	A	O	Automated Detection of Stubble Burning at Land Parcel Scale Using Sentinel-2 Imagery and Decision Tree-Based Classifier
359	2	C	O-FT	Causal Spatio-Temporal Attention Networks for Geospatial Prediction of Airline Delays Using Meteorological and Flight Network Data
360	2	A	O	Scaling Agroforestry through Adaptive Digital Intelligence: A Case Study from Western Odisha, India
361	6	A	O-FT	Spatiotemporal Analysis of Land Use and Land Cover Changes and Urban Heat Island in Kharagpur, India during last two and half decades.
362	2	C	O-FT	Assessing Spatial Equity and Accessibility of Maternal Health Services using the Enhanced Two-Step Floating Catchment Area Method (E2SFCA): A Case Study of Chitrakonda Block, Odisha
365	5	D	O-FT	Enhancing Seismic Hazard Models with Machine Learning Based Declustering: Performance Evaluation on a Novel Frontal Himalayan Arc Dataset.
366	4	C	O-FT	Quantifying the Impact of Spatial Scale and Input Variability on SEBAL (Surface Energy Balance Algorithm for Land) Evapotranspiration Estimates
367	2	C	O	Ballistic Threat Zone Geospatial Estimation for Civilian Early Warning System
368	3	A	O-FT	Quantifying Shifts in Hydroclimatic Extremes across the Ganga River Basin: Insights using ERA5 and CMIP6 Data
369	4	A	O	Geospatial and Temporal Analysis of Predicted Cyclone Severity in Bay of Bengal Region
370	5	D	O	Land Subsidence Monitoring in Hyderabad, India using SBAS-InSAR with Sentinel-1 Data
371	3	A	O-FT	GeoAI-Driven Route Optimization and Augmented Reality Visualization for Flood Response: A Case Study of Kerala, India
372	4	D	O-FT	Multi Satellite Assessment of Agricultural Fires and its Influence on Aerosol Particulate Matter Variability over North India
373	5	B	O-FT	Evaluation of urban heat island and urban moist island to uncover the wet heat stress of a moist Indian city
374	2	D	O	LAND SURFACE TEMPEATURE ANALYSIS OF LUCKNOW CITY AND ITS ENVIRONS, UTTAR PRADESH, INDIA USING LANDSAT DATA AND GIS TECHNIQUES
375	2	D	O-FT	Low-Impact Albedo Enhancement for Thermal Comfort and Microclimatic Cooling during Heatwaves in Historic Cores of Subtropical Indian Cities
378	5	D	O	Multi-temporal InSAR analysis to unravel land subsidence in Kallada delta, Kerala state, India
381	6	B	O	Does Temporal Context Matter? Evaluating Satellite-Derived Vegetation Phenology Using PhenoCam Observations
382	2	C	O-FT	Implementation of Generative AI for Geocoding of Disaster Events from News Reports of North East India

ID	Theme	Sub Theme	Type	Title
383	2	A	O-FT	Pixel-level Wheat Yield Estimation by Modified Semi-Physical Modelling Approach
384	4	A	O-FT	Evaluation of Noah and Noah-MP Land Surface Schemes in WRF-RCM for Simulating Northeast Monsoon Rainfall
386	2	C	O-FT	Integrating Geospatial and Socio-Economic Parameters to Develop a Food Insecurity and Vulnerability Information System for Alirajpur District, Madhya Pradesh
390	4	A	O	Integrated Remote Sensing Approach for Identifying Precipitating Clouds in Tropical Cyclones over the Indian Ocean
391	4	C	O-FT	Towards Improved Gross Primary Productivity Estimates: Intercomparison of Multi-Source GPP Products with Eddy Covariance Flux Measurements in Indian Tropical Forests.
392	4	A	O-FT	Satellite-Based Assessment of Wind–Sea Surface Temperature Coupling and Seasonal Variability in the Eastern Arabian Sea (1993–2024)
394	3	C	O	Data-driven Digital Twin for Tso Moriri Lake: Linking 2015–2024 Water Extent Dynamics to Climate variables with Scenario Forecasting
395	2	C	O	Novel GeoAI Framework for Conversational Satellite Analysis using LangGraph and Google Earth Engine
397	6	D	O	Oil Spill Detection Using SAR data- A Case Study in, Kerala Coast
399	4	A	O-FT	Radiometric Correction of Thermal Infrared observations from Unmanned Aerial Vehicle for Land Surface Temperature Retrieval
400	2	D	O-FT	Use AI/ML urban transport planning traffic modeling.
401	2	D	O-FT	Climate physics of human-centric urban growth in Indian megacities
403	3	B	O-FT	Monsoon-Driven Variability of the West India Coastal Current and Coastal Upwelling in the Eastern Arabian Sea: Insights from Satellite Observations
404	5	B	O-FT	Cloud-Driven Drought Dynamics and Vulnerability Prediction Using Multi-Sensor Indices and Ensemble Learning in Purulia District
405	6	A	O-FT	Cartographic and Geospatial Approaches for Monitoring Mangrove Ecosystem: A Case Study on the Sundarbans using Secondary Data
406	2	A	O-FT	Deep Learning Framework for Winter Crop Mapping in Fragmented Agricultural Landscapes Using Sentinel-2 Time-Series
407	5	A	O-FT	Assessing the β -Effect on Tropical Cyclone Track Dynamics over the Indian Ocean Using Satellite-Derived Wind and Vorticity Fields
408	2	C	O-FT	Sustaining landscape: A GIS and Machine Learning Approach to Ecological Connectivity in Western Jharkhand
409	5	A	O	Economic worth of forest ecosystems in the Aghanashini Watershed
410	6	A	O-FT	Spatiotemporal Dynamics and Prediction of Land Use Land Cover Change in a Himalayan Watershed Using Land Change Modeler
411	6	B	O	Valuation of Forest Ecosystem Services at the watershed level in the Northern Western Ghats
412	5	D	O-FT	Integrated AHP Machine Learning Model for Landslide Susceptibility Mapping in North Bengal, India
413	4	D	O	An Assessment of Wind-Driven Ocean Circulation and Sea Spray Aerosol (SSA) in the North Indian Ocean: An Exponential Linkage between AOD and Wind and Negative Influence of Upwelling
415	2	B	O	Super Resolution of EnMAP Hyperspectral Imagery using Deep Learning Based Spatio-Spectral Hyperspectral SuperNet
417	6	D	O-FT	Assessing waterlogging vulnerability in Mumbai using high resolution SAR data and machine learning techniques.
418	5	B	O-FT	EO-Based Assessment of Agricultural Drought Dynamics in Odisha (2018) Using Google Earth Engine for Drought Risk Reduction
420	2	C	O	AI-Enabled Geospatial Solutions for Early Warning and Management of Transboundary Animal Disease Risks in Assam

ID	Theme	Sub Theme	Type	Title
422	5	A	O-FT	EO data-based assessment of cyclone-induced disasters in the coastal area of West Bengal
423	2	C	O-FT	GeoAI-Driven Wetland Feature Mapping in the East Kolkata Wetlands Using Sentinel-2 and Deep Learning
424	6	A	O-FT	Temporal Land Use Analysis and Modelling Using Remote Sensing Data: A Case Study of Bangalore
426	6	B	O-FT	Sustainable Forest Management using Integrated Framework that Combines Terrain Analysis, Meteorological Data and Deep Learning
427	5	A	O-FT	Assessing Mangrove Vulnerability and Resilience Under the Impact of Tropical Cyclones
428	1		O	Volume and Stability Analysis with Leachate Risk Assessment of Tarakeshwar Dumpyard
429	3	C	O	Earth Observation Derived Spectral Indices For Water Quality Dynamics And Their Application To Examine Wetland Degradation
430	3	C	O-FT	Geospatial Intelligence for Assessing Water-Quality Dynamics in Wetland Ecosystems: A Remote Sensing Framework for Sustainable Aquaculture Management
432	2	C	O-FT	Zone-Adaptive Multivariate Causal (ZAM-Causal) Framework for Analyzing Forest Fire-Climate-Vegetation Interactions Across Agroclimatic Zones
435	2	A	O-FT	Derivative Analysis of Powdery mildew affected tomato leafs using ground based hyperspectral data
437	5	D	O-FT	A Decadal Spatiotemporal Evolution of Landslides in the Mandakini Catchment of Indian Himalayas Post the 2013 Kedarnath Disaster
438	2	C	O	Integrated Assessment of Land Use and Climate Effects on Basin Hydrology using an Interactive Web-Based Modelling Platform
439	4	D	O	Spatio-Temporal Assessment of NO ₂ and SO ₂ Variability over Delhi Using Sentinel-5P Data during 2024
444	4	C	O-FT	Assessing the Reliability of Chlorophyll Retrievals from the Sentinel-2 Simplified Level-2 Prototype (SL2P) Processor under Dusty Environments
445	3	B	O-FT	Satellite-Based Characterization of Westerly Wind Bursts and Their Oceanic Impacts over the Equatorial Indian Ocean (2007–2024)
446	3	D	O	A Hierarchical Classification Framework for Wetland-Specific Land Use/Land Cover for Sustainable Management Practices
448	2	A	O	Operationalisation of methodology developed for Rice acreage estimation in hilly ecosystem of north eastern states of India
449	6	D	O	Soil Moisture Monitoring: A SAR-Driven Machine Learning Framework
450	6	D	O	Slope Stability Monitoring in the Singrauli Open-Pit Mine Using Differential InSAR and Geotechnical Integration
451	3	A	O	Analysis of the flood-affected areas in Punjab during the 2025 monsoon season
452	4	B	O-FT	Multi-Sensor Approach for Debris Cover Mapping Over Himalayan Glaciers
453	2	A	O-FT	Integration of Polarimetric Signatures and Machine Learning for Crop Mapping Using RADARSAT-2 Data
454	4	A	O-FT	Quantifying the Cooling Effects of Urban Green and Blue Spaces Using Multi-Sensor Remote Sensing and GIS
455	2	C	O	AI and Earth Observation for Strengthening Water Resilience through Early Warning and Decision Support for Policy Action
456	6	B	O-FT	Earth Observation for Measuring Forest Disturbances Hotspots in Arunachal Pradesh
458	6	B	O-FT	Estimation of area with Stone Dust as superficial Landcover: Towards Mitigating Environmental Health Hazard

ID	Theme	Sub Theme	Type	Title
459	6	B	O-FT	Ground Validated Comparison of Machine Learning Biomass Models with Global Remote Sensing Products
461	6	A	O-FT	A Machine Learning Approach for Assessing Land Use Change and Ecological Risk in an Open-Cast Coal Mine of India
462	4	A	O-FT	Impact of blue-green spaces on urban micro-climate of Kolkata Metropolitan Area