



Indian Institute of Remote Sensing, ISRO  
Dehradun



**National Seminar**

on

**Recent Advances in Geospatial Technology & Applications**

March 2, 2020

Jointly organised by

Indian Institute of Remote Sensing (IIRS)

&

Indian Society of Remote Sensing (ISRS-DC)

(Dehradun Chapter)

**Registration:** 09:00 - 09:30 hrs. (Venue: Inner Security Gate)

**Programme at a Glance**

09:30 - 10:15 hrs.	10:45 - 11:15 hrs.	11:15 - 17:00 hrs.	17:20 - 18:00 hrs.
<b>Inaugural Ceremony</b> (Venue: Bhaskara Auditorium)	<b>Poster Session</b> (Venue: Aryabhata L.T. Foyer)	<b>Technical Sessions</b> (Venue: Bhaskara Auditorium & Aryabhata L.T.)	<b>Closing Ceremony</b> (Venue: Bhaskara Auditorium)
<b>Technical Sessions</b>	11:15 - 13:15 hrs.	14:00 - 15:30 hrs.	15:30 - 17:00 hrs.
	Technical Session 1 - <b>Theme-1: Geospatial Applications in Geosciences and Natural Hazards</b> (Venue: Bhaskara Auditorium)	Technical Session 3 – <b>Theme-3: Geospatial Technology &amp; Recent Advances</b> (Venue: Bhaskara Auditorium)	Technical Session 5 - <b>Theme-5: Geospatial Applications in Agriculture, Soils and Forestry Sciences</b> (Venue: Bhaskara Auditorium)
	11:15 - 13:15 hrs. (Parallel session)	14:00 - 15:30 hrs. (Parallel session)	15:30 - 17:00 hrs. (Parallel session)
	Technical Session 2 – <b>Theme-2: Geospatial Applications in Urban &amp; Regional Development</b> (Venue: Aryabhata L.T.)	Technical Session 4 – <b>Theme-4: Geospatial Applications in Water Resources</b> (Venue: Aryabhata L.T.)	Technical Session 6 – <b>Theme-6: Geospatial Applications in Atmospheric &amp; Marine Sciences</b> (Venue: Aryabhata L.T.)

**High Tea & Networking:** 10:15-10:45 hrs. & 17:00 - 17:20 hrs. || **Tea:** 15:15-15:45 hrs. (With no break) || **Lunch:** 13:15 - 14:00 hrs.

## Inaugural Ceremony

(09:30 – 10:15 hrs)

Venue: Bhaskara Auditorium

09:30- 09:35	Welcome address by Dr SK Srivastav, Chairman, ISRS-DC
09:35- 09:40	Brief about National Seminar by Pramod Kumar, GH, URSD
09:40- 09:50	Release of Abstract Proceedings
09:50- 09:55	Address by Dr Prakash Chauhan, Director, IIRS
09:55- 10:10	Inaugural address by Dr RR Navalgund, Chief Guest
10:10- 10:15	Vote of Thanks by Dr Bhaskar R Nikam, Secretary, ISRS-DC

**High Tea: 10:15-10:45 hrs.**

**(Venue: Bhaskara Auditorium Foyer)**

## Technical Program

Time 10:45-11:15 hrs.	Event and Venue
	Poster Session (Venue: Aryabhata Lecture Theatre Foyer)
ID	Title and Authors
202000046	<b>Estimation of Net Radiation using LANDSAT-8 (OLI+TIRS) in Tarai Region of Uttarakhand</b> <i>Neha Sharma and Ajeet Singh Nain</i>
202000053	<b>Study of GNSS Interferometry to Analyze the Effect of Soil Moisture on Multipath Phase</b> <i>Sushant Shekhar, Rishi Prakash, Anurag Vidyarthi</i>
202000023	<b>Inventory of Glacial Lakes &amp; Detection of Potentially Dangerous Lakes for GLOF using Remote Sensing &amp; GIS in Pithoragarh District of Uttarakhand, India</b> <i>Sanjay Kumar Dwivedi, Gaurav Joshi, Sachin Pandey, Arvind Pandey</i>
202000032	<b>Importance of Geographic Information System (GIS) to evaluate Seismic Damage State and Damage Probability of RC Building Structure</b> <i>P Shil, A Chourasia, Rabindranatha</i>
202000110	<b>Real Time Ionospheric and Tropospheric Delay Retrieval from IRNSS/NAVIC</b> <i>Virendra A Patel, Shweta Shah</i>
202000005	<b>Trend of Macro And Micro-Urbanization: A Case Study of Bhubaneswar-Cuttack Twin City</b> <i>S Mohanty, J Panda, S S Rath</i>
202000052	<b>Accuracy Assessment of Open Accessible Digital Elevation Models in Urban Areas</b> <i>Esther Metilda, Shweta Khatriker, Kshama Gupta, Ashutosh Bhardwaj</i>

202000203	<b>Impact of Changing Landuse on Groundwater, Case of Alwar Urban Area</b> <i>Ila Pant and Nikhita Bajaj</i>	
202000215	<b>Assessing the Implications of Densification on Quality of Life in Residential areas through GIS: A Case of Ghaffar Manzil Colony, Okhla</b> <i>Afaq Ahmed, Aashima Sharma, Zainab Rao</i>	
202000013	<b>Remote Sensing Study of Glacier Monitoring of Gorichain Mountain in Eastern Himalaya</b> <i>Kireet Kumar, Ashutosh Tiwari, Manoj Kumar Patley, Jyoti Sharma</i>	
202000025	<b>Geoinformatics Application for Evaluation and Analysis of Water Bodies: A Case Study of Shrinking Lake- Chad, Africa</b> <i>Umara Zulum, Vineet Chandan</i>	
202000117	<b>Assessment of Water Resource Management by Private Developers in Gurugram, Haryana</b> <i>Tejwant Singh Brar and Rupali Ashish Dehade</i>	
202000119	<b>Delineation of Groundwater Potential Zone using RS and GIS in Devanahalli Taluk, Karnataka</b> <i>Sanath Kumar K R and Sharanya Ram S R</i>	
202000221	<b>Analysing Impact of Meteorological Drought on Agricultural using Google Earth Engine: A Case Study on Pennar River Basin</b> <i>Arunav Nanda, Bhaskar R Nikam, S P Aggarwal</i>	
202000167	<b>Performance Analysis of Terrestrial Laser Scanners for Point Cloud Integration</b> <i>Saumyata Srivastava, Chandan Grover, Esha Semwal, Hina Pande, Poonam S Tiwari, S Raghavendra, S Agrawal</i>	
202000176	<b>Scientometric Review of Publications on Geospatial Technology</b> <i>Rishabh Singh</i>	
202000217	<b>Study and Analyze the Effects of Hyperparameters of Convolutional Neural Network and their optimization for Object Detection in Satellite Imagery</b> <i>Nikhil Ninad Kulkarni, Hina Pande, Poonam Tiwari, Shefali Agrawal, Prasun Kumar Gupta</i>	
202000138	<b>Decadal Changes in Land Use Land Cover in Sub-Alpine Region of District Baderwah, Jammu and Kashmir Using Remote Sensing and GIS-techniques</b> <i>Irshad Ahmad Lone</i>	
<b>Time</b>	<b>Event and Venue</b>	
<b>11:15-13:15 hrs.</b>	<b>Theme-1: Geospatial Applications in Geosciences and Natural Hazards (Venue: Bhaskara Auditorium)</b>	
	<b>Chair: Dr. R.R. Navalgund, Former Director, SAC</b>	<b>Co-chair: Dr. R.S. Chatterjee, IIRS</b>
	<b>Rapporteur: Ms. Richa Sharma, IIRS</b>	
<b>ID</b>	<b>Title and Authors</b>	
202000102	<b>Estimation of Soil Erosion Using Geospatial Tools: A case study of Indravati Basin, Chhattisgarh</b> <i>Mohit Jani, Praveen K Thakur, Arpit Chouksey, Bhaskar R Nikam, S P Aggarwal</i>	
202000147	<b>Estimating Sediment Yield and runoff using GeoWEPP of Watershed in North West Himalayan Region</b> <i>Abhisek K Singh, Suresh Kumar, Suneet Naithani</i>	

202000195	<b>Planning of Soil Erosion and Conservation Practice factor for Reduction of Soil Loss below Tolerable Limit in Konkan Region of Maharashtra</b> <i>S S Salunkhe, S B Nandgude, D M Mahale, H N Bhangre, M A Phadtare and S V Shejale</i>
202000200	<b>Assessment of sediment yields from MPKV watersheds using Remote Sensing and Geographic Information System (GIS)</b> <i>Thombare PD, Bansod RD, Gavit BK</i>
202000051	<b>Analysis of Uttarakhand forest fire with Landsat 8 imagery for years 2015 to 2019: A case study of Pauri district</b> <i>Pooja Dobhal, Rishi Prakash, Nitin Mishra</i>
202000083	<b>Monitoring Forest Fire Progression during Fire Season in Pauri District using Normalized Burnt Ratio Index</b> <i>Shailja Mangain, Disha Chauhan, Krishna Das, Arijit Roy</i>
202000134	<b>Morphological change studies of Camorta Island, India: a Remote Sensing &amp; GIS based approach</b> <i>Goutham Krishna Teja Gunda, Ajmal S, Harshita Tiwari, Yateesh Ketholia, PK Champatiray</i>
202000218	<b>Applications of Remote Sensing and Photogrammetry Techniques in Landslide Investigation around Guruda- Odisha</b> <i>Lynette Dias, Yengkhom Kesorjit S</i>
202000037	<b>Remote Sensing &amp; GIS Technology and Field Based Monitoring of Urban Flash Flood Zone for Futuristic Management, Kanpur, Uttar Pradesh, India</b> <i>Droupti Yadav, Lakshmi Vikram, Ankit Jaiswal</i>
202000089	<b>Drought Monitoring using Gravity recovery and climate experiment (GRACE) over Marathwada region</b> <i>Sachin Bhere, G K Patil</i>
202000220	<b>Automatic Flood Mapping using Sentinel-1 GRD SAR Images and Google Earth Engine: A Case Study of Darbhanga, Bihar</b> <i>Antony Joh Moothedan, Pankaj R Dhote, Praveen K Thakur, Vaibhav Garg, S P Aggarwal, Manaruchi Mohapatra</i>
202000074	<b>Assessment of Morphometric Parameters of Sub-Watershed for Ghatshila Region Using Remote Sensing and GIS</b> <i>Manish Kumar, Pravendra Kumar</i>
<b>Time</b>	<b>Event and Venue</b>
<b>11:15-13:15 hrs.</b>	<b>Theme-2: Geospatial Applications in Urban &amp; Regional Development (Venue: Aryabhatta Lecture Theatre)</b>
	<b>Chair: Sh. Pramod Kumar, IIRS   Co-chair: Dr. Anil Kumar, IIRS</b>
	<b>Rapporteur: Ms. Asfa Siddiqui, IIRS</b>
<b>ID</b>	<b>Title and Authors</b>
202000010	<b>Evaluation of Urban Sprawl as a Parameter For Disease Spread Using Geomatic Tools</b> <i>Santhosh M</i>
202000028	<b>Use of GIS for Study of Urban Form of Historic Towns In Karnataka</b> <i>Tejwant Singh Brar and Monika Kashkari</i>
202000049	<b>Comprehension of Land use dynamics for designing Smart and sustainable city - Dharwad, Karnataka State, India</b> <i>Ramachandra TV, Karthik Naik, Bharath S, Vinay S</i>
202000060	<b>Study of Heat Waves and Urban Heat Island Interaction in a Single Frame using Regional Climate Model: WRF-Urban</b> <i>Priyanka Rao, Kshama Gupta, Arijit Roy, Ashutosh K Jha, Prashant Kumar</i>

202000070	<b>Spatio Temporal Variability of Air Pollutants and its Relation with Urbanization and Vegetation in Delhi</b> <i>Nitika Lamba, Syed Zubair, Maya Kumari, Shivangi Somvanshi</i>
202000077	<b>Monitoring Spatial LULC Changes and its Growth Prediction based on Statistical Models and Satellite Data of Lucknow City</b> <i>Akanksha, Pranjal Pandey, Shivangi Somvanshi, Maya Kumari</i>
202000116	<b>Reviewing the importance of three dimensional mapping of underground utilities in Bihta, Bihar</b> <i>Amit Kumar</i>
202000146	<b>Assessing the Thermal Behaviour of Urban Materials Using Hyperspectral Data in Ahmedabad City, India</b> <i>Gautami Kushwaha, Asfa Siddiqui, Vinay Kumar</i>
202000170	<b>Analysis of urban spatial growth patterns in Rudrapur city</b> <i>Arifa Begum, PC Tiwari, Sandeep Maithani</i>
202000190	<b>Spatio-temporal dynamics of the thermal comfort index in Dehradun</b> <i>Garima Nautiyal, Archana Sharma, Sandeep Maithani</i>
202000198	<b>Study of LST, NDVI and it's correlation with LULC for Urban Heat Island Analysis of Vadodara, Gujarat</b> <i>Riddhi Joshi, Mithil Modha, Manik H Kalubarme</i>
202000204	<b>Analyzing Relationship between Land Use/Land Cover Dynamics and Land Surface Temperatures over Bhilwara District using Geospatial Techniques</b> <i>Urmi Sharma, Rajesh Kumar Yadav, Seema Jalan &amp; Yogesh Kant</i>
<b>Lunch Break 13:15 – 14:00 hrs</b>	
<b>(Venue: Central Dining Facility)</b>	
Time	Event and Venue
<b>14:00-15:30 hrs.</b>	<b>Theme-3: Geospatial Technology &amp; Recent Advances</b> <i>(Venue: Bhaskara Auditorium)</i>
	<b>Chair: Dr. Sameer Saran, IIRS</b> <b>Co-chair: Dr. Harnam Singh, Hexagon Geospatial</b>
	<b>Rapporteur: Dr. Shashi Kumar, IIRS</b>
ID	Title and Authors
202000168	<b>Web Based Information System using GIS for Rural Development</b> <i>Ashish Mani, Dharmendra Kumar, Deepak Kumar</i>
202000024	<b>Development of Web based framework for Health Disorder Analysis using Open Data Kit: A Health-GIS Approach</b> <i>Souvik Sankar Mitra, Abhinanda Saikia, Anuvi Rawat, Priyanka Rao, Shiva Reddy Koti</i>
202000036	<b>Land-cover classification of satellite images using deep learning</b> <i>Shraddha P Marbhal, Minakshi Kumar</i>
202000064	<b>Implementation of Semantic Segmentation on UAV SAR Data</b> <i>Rajat Garg, Anil Kumar, and Shashi Kumar</i>
202000166	<b>Analysis of Cosine squared distribution based Multiple Component Scattering Model</b> <i>Bhanu Prakash M E, Shashi Kumar</i>
202000156	<b>Role of GIS and advance geospatial applications in agriculture, soils and forestry science</b>

	<i>Priyanka Mishra, Vivek Singh Bhadoriya</i>
202000206	<b>Visualization of UNESCO World Heritage Site on Web Geoportal to aid for future excavation</b> <i>Chandan Grover, Esha Semwal, Saumyata Srivastava, Hina Pande, Poonam S Tiwari, S Raghavendra, S Agrawal</i>
202000212	<b>Analysis of Back-Scattering Coefficient of NovaSAR-1 S-Band SAR Datasets for Different Land Covers</b> <i>Ojasvi Saini, Ashutosh Bhardwaj, R S Chatterjee</i>
<b>Time</b>	<b>Event and Venue</b>
<b>14:00-15:30 hrs.</b>	<b>Theme-4: Geospatial Applications in Water Resources (Venue: Aryabhata Lecture Theatre)</b>
	<b>Chair: Dr. S. P. Aggarwal, IIRS</b>   <b>Co-chair: Dr. Pankaj Srivastava, UPES</b>
	<b>Rapporteur: Dr. Praveen Thakur, IIRS</b>
<b>ID</b>	<b>Title and Authors</b>
202000059	<b>Cloud-based approach for Continuous Monitoring and Assessment of Inland and Estuarine Water Environments using Sentinel-3 OLCI data</b> <i>Chintan B Maniyar, Abhishek Kumar, Deepak R Mishra</i>
202000065	<b>Water Harvesting Systems of the Past- A Case Study of Badami</b> <i>Mythrayi Harshavardhan, Kuili Suganya</i>
202000067	<b>Streamflow modelling of Pindar River Basin , Central Himalaya using remote sensing data and temperature index model</b> <i>Ningombam Prikash Meetei, Rajeev Saran Ahluwalia, S D Khobragade, Shushanta Sarangi, SP Rai, Sanjay K Jain</i>
202000100	<b>Smart Water meters at IITB Campus</b> <i>Ali Nasir Bandukwala, Sana Firdaus</i>
202000127	<b>Generation of Historic, Present and Future Snow Cover Datasets Using Modelling Approach</b> <i>Vishal Sharma, Bhaskar R Nikam, Praveen K Thakur, S P Aggarwal, Vaibhav Garg, Vaibhav Shrivastava, Sachchidanand Singh</i>
202000153	<b>Vulnerability Assessment of Arsenic in Groundwater and its Occurrence in Districts of Bihar, India</b> <i>Sana Dhamija, Himanshu Joshi</i>
202000172	<b>Estimation of Evapotranspiration using Remote Sensing based SEBAL model: A Case Study of Pantnagar Agricultural Farm</b> <i>Deepak Kumar, Kumar Yuvraj, Bhaskar R Nikam</i>
202000199	<b>Geo-Attributes and Parametric Studies of Part of Satna River basin using Geo-Informatics</b> <i>Santosh Kumar, Anoop Kumar Patel, Ravi Chaurey</i>
202000214	<b>Comparative Assessment of MIF &amp; AHP Techniques for Delineation of Ground Water Potential Zone: A Case Study in Cooch Behar District, West Bengal</b> <i>Tapan Kumar Das</i>
<b>Time</b>	<b>Event and Venue</b>
<b>15:30-17:00 hrs.</b>	<b>Theme-5: Geospatial Applications in Agriculture, Soils and Forestry Sciences (Venue: Bhaskara Auditorium)</b>
	<b>Chair: Dr. Suresh Kumar, IIRS</b>   <b>Co-chair: Dr. Manoj Kumar, FRI</b>
	<b>Rapporteur: Dr. Subrata Nandy, IIRS</b>
<b>ID</b>	<b>Title and Authors</b>

202000105	<b>Habitat Distribution Modeling for Medicinal Plant Varaliana Jatamansi in Shivalik Foothills of Doon Valley</b> <i>A P Mishra , N Rawat, M P S Bisht</i>
202000142	<b>Sensitivity of crop biophysical parameters to Shannon entropy derived from dual-polarized Sentinel 1 data</b> <i>Abhinav Verma, Dipanwita Haldar</i>
202000150	<b>Recent developments in cloud computing of remote sensing and climate data for forests monitoring over the semi-arid region in India</b> <i>Rajit Gupta, Laxmi Kant Sharma</i>
202000158	<b>Comparative performance of RS based models for GPP estimation in agricultural ecosystem</b> <i>Shweta Pokhariyal, NR Patel</i>
202000177	<b>Forest Cover Density &amp; Land Surface Temperature Retrieval from Landsat 8 Using QGIS</b> <i>Aniruddha Debnath, Semonti Mukharjee</i>
202000180	<b>Identifying potential climate refugia: Predicting the climate change impact on the biodiversity within the protected areas of India</b> <i>Aniket Prakash, Amritesh Kumar, Debanjan Sarkar, Amit Kumar, Gautam Talukdar</i>
202000183	<b>Quantifying Spatio-Temporal Rice Yield Gap Pattern during Kharif 2019 over Pakur district, Jharkhand (India)</b> <i>Dipti Ladli, Kanhaiya Lal, AK Ranjan</i>
202000202	<b>Mapping and Monitoring of Salt Affected and Waterlogged Areas in Alluvial Plain Using Multi Temporal Satellite Data</b> <i>Shivani Kalra, Akanksha Rawat, T Udaya Bhaskar Jayanth, Rankhambe Prasad</i>
202000031	<b>Potential Agriculture Forestry and Other Land Use (AFOLU) changes in response to climate change scenarios for the Uttarakhand and SAARC nations</b> <i>Ram Kumar Singh, Vinay SP Sinha, Pawan Kumar Joshi, Manoj Kumar, Harnam Singh</i>
<b>Time</b>	<b>Event and Venue</b>
<b>15:30-17:00 hrs.</b>	<b>Theme-6: Geospatial Applications in Atmospheric &amp; Marine Sciences</b> <i>(Venue: Aryabhata Lecture Theatre)</i>
	<b>Chair: Dr. D. Mitra, IIRS</b>
	<b>Co-chair: Dr. N.R. Patel, IIRS</b>
	<b>Rapporteur: Ms. Pooja Jindal, IIRS</b>
<b>ID</b>	<b>Title and Authors</b>
202000071	<b>Extraction of persistent Lagrangian transport patterns in the Bay of Bengal: An application to the oil spill trajectory prediction</b> <i>Trinadha Rao, V, V Suneel, M J Alex</i>
202000162	<b>Variation and Distribution of Total Ozone during Tropical Cyclones and the Exchange process</b> <i>I Kishore Kowtham, K Srinivasa Raju</i>
202000169	<b>Seasonal variability of Methane over Global</b> <i>Shaik Allahudheen, Rabindra K Nayak, A Bhuvana Chandra, M V Lakshmaiah, M V R Sheshasai</i>
202000201	<b>Coral reef mapping using sentinel-2 MSI data in Poshitra and pirotan Islands, Gulf of Kachchh, Gujarat</b> <i>Foram Jadeja, Jalpa Jadeja, P C Mankodi, and Manik H Kalubarme</i>
202000208	<b>Persistency of Thermal Front and its Seasonal Cycle in the Northern Arabian Sea</b>

	<i>Reba</i>
202000192	<b>Spatial and Temporal Precipitation Variability Analysis using Concentration Index for Uttarakhand</b> <i>Tanisha Jaiswal, C M Bhatt, Arijit Roy</i>
202000129	<b>Track Forecast of Extremely Severe Cyclonic Storm MAHA using NWP Model</b> <i>Raviraditya Singh, Sanjeev Kumar Singh and Charu Singh</i>
202000189	<b>Time series gridded precipitation prediction using Long Short-Term Memory model</b> <i>Manaruchi Mohapatra, Bhaskar R Nikam, Praveen K Thakur, S P Aggarwal, Antony Joh Moothedan</i>
202000211	<b>Detection and Classification of Marine Slicks through Decomposition and Supervised Classification using PolSAR data</b> <i>Vaishali Chaudhary, Shashi Kumar</i>
<b>High Tea, Networking and Certificate collection: 17:00 – 17:20 hrs</b>	
<b>(Venue: Bhaskara Auditorium Foyer)</b>	
<b>Valedictory Ceremony</b>	
<b>(17:20 – 18:00 hrs)</b>	
<b>Venue: Bhaskara Auditorium</b>	
17:20-17:25	Summar of presentations in the seminar by Dr. Bhaskar R. Nikam
17:25-17:45	Award distribution by Chief Guest, Dr. R.R. Navalgund
17:45-17:55	Closing remarks by Chief Guest, Dr. R R Navalgund
17:55-18:00	Vote of Thanks by Ms. Asfa Siddiqui