





Emerging Trends in Digital Cartography for Sustainable Ecosystems and Geospatial Economy



Organised by Indian National Cartographic Association

Hosted by

Regional Remote Sensing Centre – West National Remote Sensing Centre Indian Space Research Organisation Jodhpur

Sponsors and Exhibitors



Contents

	Page No.
Programme at a Glance	i
Day 1 (Overview)	1
Day 1 (Detailed Programme)	2-12
Day 2 (Overview)	13
Day 2 (Detailed Programme)	14-40
Day 3 (Overview)	41
Day 3 (Detailed Programme)	42-52







Programme at a Glance									
	Day-1 (06.11.2023, Monday)		Day-2 (07.11.2023, Tuesday)		Day-3 (08.11.2023, Wednesday)				
08:30 - 09:15 hrs	Registration								
09:30 – 11:00 hrs	Inaugural Session		Plenary Session-2 (Invited Talks)	AVSM, NM Shri S. K. S Shri Sajid		Plenary Session-3 (Invited Talks)	Dr. Raj Kum Dr. Shivangi	Kulkarni, IISc nar, SAC/ISRO i S. Somvanshi,	
11:00 – 11:30 hrs					Corp.	Networking	Geospatial World		
11.00 - 11.30 1115		Todar Mal M	emorial Lecture	Tea Break & Networking Technical Sessions – 2 (Parallel)		Technical Sessions – 5 (Parallel)			
	'Digital Cartography for Land Records Modernization in India'		Disas		e & Emergency nent – 1	Disas	ter Resilience Manageme	& Emergency	
11:30 – 13:00 hrs	Plenary Session-1	S. P. Chatterjee 'Space for Sust	Retd.) Memorial Lecture ainable Ecosystems atial Economy'	Sustair	able Water	Management – 1	Sustair	Sustainable Water Management – 2	
			by nu Bhatawdekar RO HQ	Environme	ental & Ecol	ogical Sustainability	Entrepreneurship & Geospatial Economy		
13:00 – 14:00 hrs					Lunch	Break			
14:00 – 15:00 hrs	Inauguration of Exhibition		Popular Talk	ISRO	M. Desai, SAC/ (14:00–14:45 hrs)	Panel Discussion		o for Strengthening	
			Special Session	NRSC/ISF	Sarma & Team, (O (14:45–15:30 hrs)				
		Technical Sessions – 1 (Parallel)			echnical Se Irallel, 15:3	essions – 3 0–16:30 hrs)		Awards & 0 (15:00–15:3	
	Modern Technologies in Cartography		Geospatial Artificial Intelligence – 1		Tea Break & Networking				
15:00 – 16:30 hrs	Smart Governance		Coastal Studies & Oceanography						
	Natural Resource Management		Meteorology & Climate Change						
	Community Health		Energy Security Poster Session						
16:30 – 17:00 hrs		-	Tea Break &	Netwo		ession			
		Tea Dieak o			echnical Sessions – 4 (Parallel)				
				Geosn	Geospatial Artificial Intelligence – 2				
					INC	INCA General Body Meeting			
17:00 – 18:30 hrs		Sponsors Pre	sentations		. ,	Reg. Development	(16:30 hrs onwards)		nwards)
				Urban Greenspaces & Green/Blue Economy Poster Session contd.					
18:45 hrs onwards	Cultural Programme & Dinner (RRSC-West, Amphitheatre)				-				
VENUE									
ICAR-CAZRI	F	RSC – West, IS	SRO Campus, Sect	or 9, Kudi	Bhagtasan	i Housing Board, Jo	dhpur (06.	11.2023, 13:0	0 hrs onwards)
Auditorium (06.11.2023 F/N) (CAZRI Campus, near ITI, Jodhpur)		Hall A 2 nd Floor RRSC-W	Hall B 2 nd Floor RRSC-W	1 st	all C Floor RSC-W	Hall D Ground Floor RRSC-W	2 ⁿ	Hall E ^{Id} Floor RSC-W	Hall F-G 2 nd Floor RRSC-W







Day 1: Overview

(06 November 2023, Monday)

Time	Programme	Venue
08:30 – 09:15 hrs	Registration	ICAR-CAZRI
09:30 – 11:00 hrs	Inaugural Session	Auditorium, CAZRI Campus, near ITI,
11:00 – 11:30 hrs	Tea Break & Networking	Jodhpur
11:30 – 13:00 hrs	Plenary Session - 1	
13:00 – 14:00 hrs	Transit to RRSC – West Campus	
	Lunch	Food Court (RRSC - W)
14:00 – 15:00 hrs	Inauguration of Exhibition	Hall F, G (RRSC - W)
15:30 – 16:30 hrs	Technical Sessions - 1 (Parallel)	Hall A, B, C & D (RRSC - W)
16:30 – 17:00 hrs	Tea & Networking	Food Court (RRSC - W)
17:00 – 18:30 hrs	Sponsors Presentations	Hall A (RRSC - W)
18:45 hrs onwards	Cultural Programme & Dinner	Amphitheatre & Food Court (RRSC - W)







Day 1: Detailed Programme

Inaugural Session

06 November 2023, 09:30 – 11:00 hrs

Venue: ICAR-CAZRI Auditorium, CAZRI Campus, near ITI, Jodhpur

08:30 – 09:15 hrs	Registration
09:30 – 09:35 hrs	Invitation of the Dignitaries to the Dais & Presentation of Bouquet
09:35 – 09:40 hrs	Invocation and Lighting of Lamp
09:40 – 09:45 hrs	Welcome Address – Dr. S. K. Srivastav, Chairman, LOC
09:45 – 09:55 hrs	Presidential Address – Dr. Prakash Chauhan, President, INCA
09:55 – 10:05 hrs	Address by Guest of Honour – Dr. O. P. Yadav Director, ICAR – Central Arid Zone Research Institute
10:05 – 10:15 hrs	Address by Guest of Honour – Vice Admiral Adhir Arora, AVSM, NM Chief Hydrographer to the Govt. of India, NHO
10:15 – 10:25 hrs	Address by Guest of Honour – Prof. (Dr.) K. L. Shrivastava Vice-Chancellor, Jai Narain Vyas University
10:25 – 10:30 hrs	Release of 43 rd INCA International Congress Souvenir, 42 nd INCA Congress Proceedings, Indian Cartographer Volume, Space Image Atlas of Rajasthan – by Chief Guest
10:30 – 10:35 hrs	Prize distribution to INCA Map Quiz-2023 Winners – by Chief Guest
10:35 – 10:50 hrs	Address by Chief Guest – Dr. S. Somanath Chairman, Space Commission / Secretary, Department of Space / Chairman, ISRO
10:50 – 10:55 hrs	Felicitation of Guests
10:55 – 10:59 hrs	Vote of Thanks – Dr. A. K. Bera, Organising Secretary
10:59 – 11:00 hrs	National Anthem

Tea & Networking 11:00 – 11:30 hrs







INCA Memorial Lecture Series

06 November 2023, 11:30 – 13:00 hrs Venue: ICAR-CAZRI Auditorium, CAZRI Campus, Near ITI, Jodhpur

11:30 – 11:35 hrs	Invitation of the dignitaries to the dais		
11:35 – 12:15 hrs	Todar Mal Memorial Lecture		
	Digital Cartography for Land Records Modernization in India by Lt. Gen. Girish Kumar, VSM (Retd.) Advisor (PP & R), Ministry of External Affairs Former Surveyor General of India		
12:15 – 12:55 hrs	S. P. Chatterjee Memorial Lecture		
	Space for Sustainable Ecosystems and Geospatial Economy by Shri Shantanu Bhatawdekar Scientific Secretary, ISRO		
12:55 – 13:00 hrs	Felicitation of Speakers		

13:00 onwards Transit from ICAR-CAZRI Auditorium to RRSC–West Campus

-- Transport arranged by the 43rd INCA conference organisers -- Lunch

at

Food Court, RRSC-West, NRSC, ISRO campus, Sector 9, Kudi Bhagtasani Housing Board, Jodhpur







Inauguration of Exhibition

06 November 2023, 14:00 – 15:00 hrs Venue: Hall F, G (RRSC-W)

14:00 – 14:10 hrs	Inauguration of Exhibition
	by
	Vice Admiral Adhir Arora, AVSM, NM
	Chief Hydrographer to the Govt. of India,
	National Hydrographic Office
14:10 – 15:00 hrs	Tour to Exhibition

Technical Sessions - 1 (Parallel)

06 November 2023, 15:00 – 16:30 hrs

Session Theme	Venue (RRSC-W)
Modern Technologies in Cartography	Hall A
Smart Governance	Hall B
Natural Resource Management	Hall C
Community Health	Hall D







Technical Session 1-A Modern Technologies in Cartography

06 November 2023, 15:00 – 16:30 hrs, Venue: Hall A (RRSC-W)

Chair: Shri R. K. Meena, SOI

Co-Chair: Ms. Manju Sarma, NRSC Rapporteur: Shri Sampath Kumar, NRSC

- 1 1	teur. Siiri Sairipatii Kumai, NKSC	
SI No.	Title	Authors
1	Radiometric correction in Elevation	Swati Upadhyay, Sumit Pandey,
	Direction using Beam Profile in SAR data	Nidhi Chaubey, MV Srivally, Asha
		Rani Ben Reddy, Neeraj Mishra
		Advanced Data Processing Research
		Institute
2	Exploring smartphone-based GNSS for	Drishti Agarwal ¹ , Salil Goel ¹ ,
	positioning and mapping applications	Prashant Chauhan ¹ , Yagnesh Patel ¹ ,
		Deval Mehta ²
		¹ IIT - Kanpur
		² Space Applications Centre
3	Geovisualization of Water Resources in	Satyam Mishra
	Urban Environments	
		Siddharth University
4	Assessing the performance of automatic	Prosenjit Barman, Sk. Mustak
	co-registration technique in satellite image	
	for time series analysis	Panjab University
5	Registration of sparse-dense point cloud	Surbhi Barnwal, Salil Goel, Mansi P.
	from LiDAR and its applications	Koshti
		IIT - Kanpur
6	Seamless Polar mosaic generation from	Baharul Islam, Abdullah S.A. Zinjani
	Chandrayaan-2 TMC-2 DEM	and Amitabh
		Space Applications Centre
7	Change detection and future prediction of	Sajimol S, Immanuel A, Dash SK,
	Landuse / Land Cover at Puducherry, India	Tune Usha
	using Google Earth Engine platform	
		National Centre for Coastal
		Research







8	Detection Transformer (DETR) based	Sourish Chatterjee, Benidhar
	detection of Martian Craters	Deshmukh, Pinaki Roy Chowdhury
		Indira Gandhi National Open
		University
9	Phase Unwrapping Techniques for SAR	Alka Saini ^{1,2} , Deepak Mishra ² , V
	Interferometry: A Comprehensive Review	Manavala Manavala Ramanujam ¹
		¹ Space Applications Centre
		² Indian Institute of Space Science
		and Technology
10	Exploring the Research Trends of AI and	Arup Baidya
	ML in Geospatial Applications: A	University of Delhi
	Bibliometric Analysis	Oniversity of Benn

Technical Session 1-B Smart Governance

06 November 2023, 15:00 – 16:30 hrs, Venue: Hall B (RRSC-W)

Chair: Dr. Sultan Singh, HARSAC Co-Chair: Dr. Rajeev Jaiswal, ISRO HQ Rapporteur: Ms. Anjana Banerjee, NATMO

1.1	tear man mana Banerjee, m mine	
SI No.	Title	Authors
1	Navigating the New World of Work:	Jagriti Lamba, Anjan Sen
	Exploring the Interplay of the Sharing	
	Economy, Digital Platforms, and the	Delhi School of Economics,
	Emergence of Digital Nomad Communities	University of Delhi
2	Establishment of CORS Network for Smart	M. Stalin
	Governance	
		Dy. Surveyor General, Survey of
		India, Shillong
3	Geo Spatial technologies for urban studies	Jyoti Singh
	& Infrastructure planning development:	
	Spatial Integration of Revenue data with	Government of India
	Population data	
4	Identification of Woman Trafficking	Supratim Karmakar, Ambar Subhra
	Hotspots: A study on selected blocks,	Mallick
	South 24 Parganas District, West Bengal	







		Adamas University
5	Emerging Trends in Digitalization of Social	Israt Jahan, Anjan Sen
	Security for Ageing Population in	
	Bangladesh: A case of the newly	Delhi School of Economics,
	introduced Universal Pension System	University of Delhi
6	Potential of high-resolution mapping and	S. Aravind Bharathvaj, Y. Harish,
	field data for identifying facilities and	Kaushik Brahmachari, Swapna Saha
	amenities hotspots and use as a guide for	
	better planning of the city expansion.	National Atlas and Thematic
		Mapping Organisation
7	Leveraging Geospatial Technologies for	Rohit Malhotra
	Enhanced ESG Monitoring	
		Ex- Indian Army
8	Demography, Urbanisation and Urban	Kamlesh Kumar
	Planning of Smart Cities using	
	Geographical Information System (GIS)	Jai Narain Vyas University
9	Application of GIS in Smart Cities planning	Arpana Premi Lina Oraon, Jyotsna
	and Development: A Geographical study of	Roseline Ekka, Perveen Zahra
	Ranchi Smart City, Jharkhand.	
		Kalinga Institute of Social Sciences,
		Bhubaneswar
10	Calculating Discharge for Designing	Noor Ladkhan, Prasun Kumar Gupta
	Drainage Structures with WEBGIS	
	Dashboard	Indian Institute of Remote Sensing -
		Dehradun







Technical Session 1-C Natural Resource Management

06 November 2023, 15:00 – 16:30 hrs, Venue: Hall C (RRSC-W)

Chair: Dr. K. Sreenivas, NRSC

Co-Chair: Dr. P. C. Moharana, ICAR-CAZRI

Rapporteur: Dr. Stutee Gupta, NRSC

SI No.	Title	Authors
1	Analysis of different SAR Polarimetric Decomposition methods using EOS-04 Polarimetric data for Urban and Natural features	M. V. Srivally, Sujata Ghosh, Nidhi Chaubey, Swati Upadhyay, Sumit Pandey
		Advanced Data Processing Research Institute
2	Implementation of partial unmixing methods on AVIRIS NG data to distinguish spectrally similar targets within Serpentinite in Aravalli Craton, Rajasthan	Arindam Guha ¹ , Manche Shiva Shankar ² , Suparn Pathak ¹ , SK Srivastav ³ , K Vinod Kumar ⁴
		¹ RRSC-East, NRSC, Kolkata ² ECSA, NRSC, Hyderabad ³ Regional Centres, NRSC, New Delhi
		⁴ National Remote Sensing Centre, Hyderabad
3	Remote Sensing and GIS in Identification of Soil Constraints for Sustainable Development in Ajmer District, Rajasthan.	Laxman Singh, Rajeev Jain, Manu Sikharwar, Mahendra Prakash Mathur
		State Remote Sensing Application Centre, Jodhpur
4	Comparative analysis of LCLU of Ranchi city and surroundings using multi-sensor remote sensing data with a global land cover product	Nikhil Raj Deep, Girish Pujar, Pondari Satyanarayana, Ronald Singh, Preetilata Murmu
5	Bamboo distribution mapping using hyperspectral remote sensing in Ri Bhoi district of North East India	National Remote Sensing Centre Dhruval Bhavsar, Kasturi Chakraborty, KK Sarma, SP Aggarwal
		North Eastern Space Applications Centre







0	Humana atual Dafla atau aa fan Dualinsin am	Hyderabad ⁴ Indian Space Research Organization HQ, Bengaluru
8	Hyperspectral Reflectance for Preliminary Identification of Degraded or Contaminated Soil Zones in Industrial Sites: Screening Tool Prior to Undertaking	Organization HQ, Bengaluru Amitava Dutta, Rashi Tyagi, Shilpi Sharma, Manoj Datta IIT- DELHI
9	Ground Based Investigations GIS Mapping and IUCN Assessment of the Threatened and Endemic Species of Indian Desert, Rajasthan	C.S. Purohit, S.L. Meena, Amit Kumar Botanical Survey of India, Arid Zone
10	Application of Geospatial technologies in Role of nalas in development of landforms and land use pattern, Leh Valley, Ladakh	Research Institute, Jodhpur Rupam Kumar Dutta University of Calcutta







Technical Session 1-D Community Health

06 November 2023, 15:00 – 16:30 hrs, Venue: Hall D (RRSC-W)

Chair: Dr. J. V. Thomas, ISRO HQ Co-Chair: Dr. Sameer Saran, NRSC Rapporteur: Shri Gaurav Kumar, NRSC

карро	Rapporteur: Shri Gaurav Kumar, NRSC		
SI No.	Title	Authors	
1	Food Safety Trends in India: A Geospatial Analysis	Sachin	
		Panjab University Chandigarh	
2	Increasing Heart Attacks in Indian Youth - Post COVID Health Hazards and Mitigation	B. K. Ram Prasad	
	Measures Using Geospatial Technologies	National Hydrographic Office	
3	Spatial Pattern of Health-Care Facilities in Jammu district of J&K: An Analysis Using Geo-Spatial Technology	Rajender Singh, Gursheen Kour, Davinder Singh, Meetu Sharma, Mehak Patyal	
		University of Jammu	
4	A GeoSpatial Distribution of Primary Health Centres Services in Karur District Using GIS	P. Umasankar, Dr. R. Vijaya, Dr.V. Saravanabavan	
		Madurai Kamraj University	
5	Public Healthcare Facilities in Bathinda District, Punjab: A Geo-Spatial Analysis	Amandeep Singh, Adyan Ul Haq, L. T. Sasang Guite	
		Central University of Punjab	
6	Evaluating Geographical Accessibility to Healthcare Centres in Nagaon Municipal	Ashish Saikia, Bimal Kumar Kar	
	Master Plan Area Using GIS: Obstacles and Prospects	Gauhati University	
7	Assessment of Accessibility to Block Primary Health Centres in West Bengal	Sohini Pal ¹ , AKM Anwaruzzaman ²	
	Using Geographic Information System: A District-Level Analysis	¹ National Atlas and Thematic Mapping Organisation ² Aliah University	







8	Geospatial Analysis of Healthcare Accessibility to Analyse the Implications for Equity and Economic Development. A Case Study of Chitteri Hills in Eastern Ghats	Narmada. K, Bhaskaran G University of Madras
9	Geographical Accessibility and Spatial Coverage Modelling of The Healthcare Centers in Chamarajanagara District (Karnataka)	Divya Shivamallu, N. S. Satheesh Kumar Karnataka State Open University
10	Thematic Mapping of Contraceptive use in Bihar (India) using Geospatial Technology: Evidence from National Family Health Surveys, 2015-16 and 2019-20	Binod Kumar Singh Office of the Registrar General & Census Commissioner, New Delhi

Tea Break & Networking 16:30 – 17:00 hrs







Sponsors Presentations

06 November 2023, 17:00 – 18:30 hrs, Venue: Hall A (RRSC-W)

Session Moderator: Shri Shantanu Bhatawdekar, ISRO HQ

	,
SI No.	Sponsor
1	Ananth Technologies
2	ESRI
3	Haryana Space Applications Centre (HARSAC)
4	Trimble & Pan India Consultants Pvt. Ltd.
5	Vassar Labs

Cultural Programme and Dinner

06 November 2023, 18:45 onwards

Venue: Cultural Programme at Amphitheatre (RRSC-W) and Dinner at Food

Court (RRSC-W)











Day 2: Overview

(07 November 2023, Tuesday)

Time	Programme	Venue
09:30 – 11:00 hrs	Plenary Session - 2	Hall A (RRSC-W)
11:00 – 11:30 hrs	Tea & Networking	Food Court (RRSC-W)
11:30 – 13:00 hrs	Technical Sessions - 2 (Parallel)	Hall A, B, C & D (RRSC-W)
13:00 – 14:00 hrs	Lunch	Food Court (RRSC-W)
14:00 – 14:45 hrs	Popular Talk	Hall A (RRSC-W)
14:45 – 15:30 hrs	Special Session	Hall A (RRSC-W)
15:30 – 1630 hrs	Technical Sessions - 3 (Parallel)	Hall A, B, C & D (RRSC-W)
	Poster Session	Hall E (RRSC-W)
16:30 – 17:00 hrs	Tea & Networking	Food Court (RRSC-W)
17:00 – 18:30 hrs	Technical Sessions - 4 (Parallel)	Hall A, B, C & D (RRSC-W)
	Poster Session (contd.)	Hall E (RRSC-W)







Day 2: Detailed Programme

Plenary Session – 2

07 November 2023, 09:30 – 11:00 hrs Venue: Hall A (RRSC-W)

Session Moderator: TBD

09:30 – 09:35 hrs	Invitation of the dignitaries to the dais	
09:35 – 10:00 hrs	Hydrography-The Blue Chakra for Green Planet by Vice Admiral Adhir Arora, AVSM, NM Chief Hydrographer to the Govt. of India National Hydrographic Office	
10:00 – 10:25 hrs	CORS Network and Geoid Modelling – Redefining the National Geodetic Reference Framework by Shri S. K. Sinha Addl. Surveyor General (Tech) Survey of India	
10:25 – 10:50 hrs	Digital Twin for Resilient and Sustainable Infrastructure by Shri Sajid Malik Chairman & Managing Director Genesys International Corporation Ltd	
10:50 – 10:55 hrs	Discussion	
10:55 – 11:00 hrs	Felicitation of Speakers	

Tea Break & Networking 11:00 – 11:30 hrs







Technical Sessions - 2 (Parallel)

07 November 2023, 11:30 – 13:30 hrs

Session Theme	Venue (RRSC-W)
Disaster Resilience & Emergency Management – 1	Hall A
Sustainable Agriculture	Hall B
Sustainable Water Management – 1	Hall C
Environmental & Ecological Sustainability	Hall D

Technical Session 2-A Disaster Resilience & Emergency Management – 1

07 November 2023, 11:30 – 13:30 hrs, Venue: Hall A (RRSC-W)

Chair: Dr. S. Srinivasa Rao, NRSC Co-Chair: Shri U. N. Mishri, SOI

Rapporteur: Dr. Pondari Satyanarayana, NRSC

SI No.	Title	Authors
1	Socioeconomic Vulnerability to Urban	Vikas Sehra ¹ , Chandra Prakash
	Flooding in Hyderabad, Telangana, India	Morya ²
		¹ Jawaharlal Nehru University, New
		Delhi
		² Rajasthan University
2	Geospatial based monitoring and	Deepesh Goyal, Shipra Tyagi, Varun
	assessment of vegetation recovery in	Joshi
	landslides triggered during 'Uttarakhand	
	Tragedy' in Rudraprayag district	Guru Gobind Singh Indraprastha
		University
3	Landslide susceptibility mapping using GIS-	Debdip Bhattacharjee and Tapas
	based statistical models and Remote	Sarkar
	sensing data in Kalimpong district, West	
	Bengal	Sukanta Mahavidyalaya
4	Ensemble Machine Learning Approach for	Kajal Kumari, S. Abdul Rahaman
	Landslide Susceptibility Mapping in	
	Kodagu District, Karnataka	Bangalore University
5	Application of Advanced Geospatial-Al	Sayantan Mandal







	Integration for Landslide Susceptibility Mapping: Enhancing Prediction accuracy through Deep Learning Integration	Delhi School of Economics, University of Delhi
6	Morphometric Analysis and Geospatial	Raja Ghosh ¹ , Debdip
	Applications for Flash Flood Susceptibility	Bhattacharjee ² ,Sandip Ghosh ¹
	Assessment: A Case Study of Mal River	p
	basin, West Bengal	¹ Khudiram Bose Central College,
	basiii, west bengai	Kildullalli Bose Central College, Kolkatal
		_
7	DCL CDAC LILL 'LL CAD C L L	² Sukanta Mahavidyalaya
7	PSI, SBAS and Hybrid InSAR for Land	Hari Shankar ¹ , Dharmendra Singh ² ,
	Deformation Analysis over Himalayan	Prakash Chauhan ³
	Terrain	
		¹ Indian Institute of Remote Sensing
		² Indian Institute of Technology -
		Roorkee
		³ National Remote Sensing Centre,
		Hyderabad
8	Geo-Mapping of Covid-19 Incidence and	Amit Chatterjee ¹ , Shib Sankar
	its Relationship with Inequalities of Urban	Bagdi ² , Monidip Mondal ³
	Housing and Basic Services in Bhopal city	Zagar , memaip memaar
	(India)	¹Visva-Bharati, Santiniketan
	(maia)	² Independent Researcher
		³ Jawaharlal Nehru University
9	Village-Level Flood Scenario Analysis of an	-
9		G. Sreenivasan, Jugal Kishore Mani
	Extreme Flood Event using Geospatial	and A. O. Varghese
	Techniques for Disaster Emergency	
	Management	Regional Remote Sensing Centre-
		Central, NRSC, Nagpur
10	Landslide Susceptibility mapping of	P.P Sreekala ¹ , Vandita Srivastava ² ,
	Malappuram District, Kerala using	Shovan Lal C ²
	Analytical Hierarchy Method	
		¹ Cochin University of Science and
		Technology
		² Indian Institute of Remote Sensing
11	Flood Inundation Mapping using SAR and	Aishwarya Makwana ¹ , Shivani
	Deep Learning	Pathak ² , Vaibhav Garg ¹
	F	Sansar , Care , Sang
		¹ Indian Institute of Remote Sensing
		² ESRI R&D Center, New Delhi
		LONI NOD CEILEI, NEW DEIIII







Technical Session 2-B Sustainable Agriculture

07 November 2023, 11:30 – 13:00 hrs, Venue: Hall B (RRSC-W)

Chair: Shri K. R. Hebbar, NRSC Co-Chair: Dr. V. K. Verma, PRSC Rapporteur: Dr. Neetu, NRSC

Rapporteur: Dr. Neetu, NRSC			
SI No.	Title	Authors	
1	Identifying the potential limiting factors towards crop intensification over Panrui gram panchayat of Birbhum, West Bengal	Prabir Kumar Das ¹ , Tanumi Kumar ¹ , Nivedita Sinha ¹ , Sharmistha B Pandey ¹ , Saikat Laha ¹ , Subrata Mandal ² , Soumya Bandopadhyay ³ , Suparn Pathak ¹ ¹ Regional Remote Sensing Centre - East, NRSC, Kolkata	
		² Rathindra Krishi Vigyan Kendra, ICAR ³ Earth observation applications & Disaster management support Programme Office, ISRO HQ.	
2	Synergistic Integration of Optical, Microwave, Weather, and Pheno-phase Information Towards Developing a Robust Wheat Yield Proxy	Varun Pandey, Karun Kumar Choudhary, V. M. Chowdary National Remote Sensing Centre,	
3	Kharif Crop Typing of Haryana State Using Geo-Spatial Approach	Hyderabad Dharmendra Singh, Neha Pandey, Priti Atri, Parmod Kalkal, Sultan Singh Haryana Space Applications Centre	
4	Geographical Analysis of the Need for Modernization of Agriculture in Bihar	Jyotshana, Namrata Anand Veer Kunwar Singh University	
5	GIS-based Probabilistic Profitable horticulture land use for sustainable agriculture planning Using Multi Variables Decision Making, Machine Learning Models in Raiganj Subdivision, Eastern India	Sunil Saha ¹ , Prolay Mondal ² ¹ National Atlas and Thematic Mapping Organisation. ² Raiganj University	
6	Rice plant disease detection using Artificial	Arati Paul ¹ , Sanskar Goel ² , Suparn	







	Intelligence	Pathak ¹
		¹ Regional Remote Sensing Centre - East, NRSC, Kolkata ² Amity University, Kolkata
7	Mapping of Climatic Suitability to Sugarcane Cultivation and Assessment of Irrigation Requirement in Pune District Using Eco-crop and CROPWAT Models	D D Bombe Sathaye College, Vile Parle, Mumbai
8	from Geospatial Technology Vegetative health assessment of citrus orchards using geospatial techniques	Jugal Kishore Mani, A. O. Varghese, G. Sreenivasan
		¹ Regional Remote Sensing Centre - Centre, NRSC, Nagpur
9	A Stacked Generalization Approach and Machine Learning Based Crop Classification Using Sentinel-1A Satellite	Nandani Shrivastava, Rani Singh, Akash Goyal
	Imagery for Aligarh District	Birla institute of Scientific Research Centre, Jaipur
10	Appraisal of Agricultural Situation and Challenges in Sirohi District, Rajasthan	Balak Ram
		ICAR-CAZRI, Jodhpur

Technical Session 2-C Sustainable Water Management – 1

07 November 2023, 11:30 – 13:00 hrs, Venue: Hall C (RRSC-W)

Chair: Dr. V. M. Chowdary, NRSC

Co-Chair: Shri Rajesh Kumar Khatri, NHO Rapporteur: Dr. Arjun Meena, JNVU

SI No.	Title	Authors
1	Groundwater potential mapping of a	Biman Ghosh, Soumen Sadhukhan
	tropical river basin using data driven	
	evidential Belief function, knowledge-	National Atlas and Thematic
	based analytic hierarchy process and an	Mapping Organisation
	ensemble model	
2	Empowering water supply for Selected	Gangadharappa R
	Urban Local Bodies (ULBs) using GIS, IoT	







	and Artificial Intelligence technologies in Karnataka	Karnataka State Council for Science and Technology
3	From Abundance to Depletion: A	Ratnadeep Dutta, Milap Punia,
	Geospatial Approach to Understanding	Suvamoy Pramanik
	Groundwater Dynamics in the Yamuna Upper Sub-basin	Jawaharlal Nehru University
4	Prediction of landuse/landcover change	Abhijit Paul, Soumen Sadhukhan
	using CA-ANN approach and its	Transfer aut, 20 umen 2 um um um um
	association with river-bank erosion on a	National Atlas and Thematic
	stretch of Bhagirathi river of Lower Ganga	Mapping Organisation
	Plain	
5	Spatial variability of paleochannels and	Sucheta Mukherjee
	their significance in groundwater reserves and riparian ecosystems – A study in	Sripat Singh College, Murshidabad
	Murshidabad district, India	Stipat Singil College, Warshidabad
6	Holistic Characterization of Ramsar	Vipan Kumar Verma, Koyel Sur,
	Wetland Site, North India for Sustainable	Brijendra Pateriya
	Management: A Case Study using	
	Geospatial Techniques	Punjab Remote Sensing Centre
7	Estimation Of Soil Erosion in Part of	Sunil Kumar, Shruti Kanga
	Siwalik Region Using Revised Universal Soil Loss Equation (RUSLE) Model	Central University of Punjab
8	Application of Fuzzy C-means clustering	Sudipa Halder
	and Fuzzy EDAS for evaluating the	Suarpa Haraer
	suitability of groundwater irrigation and	National Atlas and Thematic
	prioritizing agricultural development in an	Mapping Organisation
	intricate hydrogeological basin	
9	Delineation of groundwater potential zones	Khushwant Rao ¹ , Arkoprovo
	and its extension of contamination to	Biswas ² , Dev Sen Gupta ³
	human health risk assessment with special reference to arsenic contamination in	¹ National Atlas and Thematic
	Malda district of West Bengal, India	Mapping Organisation
	Walda district of West Bengal, maia	² Banaras Hindu University, Varanasi
		³ Defence Geoinformatics Research
		Establishment, DRDO Chandigarh
10	Hydrogeomorphological Approach in	Pijush Roy
	Water Resource Management of Asan	
	Watershed, Western Doon Valley,	National Atlas and Thematic
	Uttarakhand, India	Mapping Organisation







Technical Session 2-D Environmental & Ecological Sustainability

07 November 2023, 11:30 – 13:00 hrs, Venue: Hall D (RRSC-W)

Chair: Dr. Mukunda Dev Behera, IIT-Kharagpur

Co-Chair: Dr. A. O. Varghese, NRSC Rapporteur: Shri Rakesh, NRSC

Rappor	teur: Shri Rakesh, NRSC	
SI No.	Title	Authors
1	Assessment of forest fragmentation in the	Poonam Chandel
	Sub-Himalayan region in Haryana state and	
	adjoining area	Panjab University
2	Estimation of soil loss in Mandakini River	Neeraj Bohat, Varun Joshi
	Watershed on sub watershed scale using	
	RUSLE model and Geospatial technology	Guru Gobind Singh Indraprastha
		University
3	Assessment and Application of Geo-spatial	Kutti Rawat
	Technology for Sustainable Development	
	Planning in Tehri Garhwal, Uttarakhand	Hemwati Nandan Bahuguna
		Garhwal University
4	Assessment of land degradation and its	Vishwmaitri Sekhawat
	impact on Agriculture in Pali (Rajasthan): A	
	remote sensing based analysis	Govt. Bangur PG College Pali
5	Mapping and Analysis of Ecosystem	Pawan Kumar Yadav
	Services of East Kolkata Wetlands	
_		Jamia Millia Islamia
6	Assessing the Resilience of Surface Water	Aakash Verma ¹ , Kunal Lende ¹ ,
	Bodies to Population Outbursts and	Srashti Singh ² , and Anugya Shukla ³
	Climate Fluctuations	177
		¹ Tata Institute of Social Sciences
		² Indian Institute of Technology -
		Roorkee
		³ Indian Institute of Technology -
7	Assessing Significant Changes in The	Jodhpur Kumbhakarna Mallik, Krishna Pada
/		Bauri
	Geomorphology and Biological Productivity of Chilika Lagoon Under the	Dauii
	Influence of Natural Events and	C.V. Raman Global University
		C.v. Kaman Giobai University
8	Anthropogenic Interventions Vegetation Dynamics in Open Cast Mining-	Avinash Kumar Ranjan, Amit Kumar
O	Dominated Regions of Eastern India:	<u> </u>
	Dominated Regions of Eastern India:	Gorai







06-08	November	2023	-	Jodhpur
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	Insights from Time-Series Landsat Satellite	
	Data	National Institute of Technology -
		Rourkela
9	Geospatial Based Trend Assessment of	Deepanshi Tanwar
	LULC Influences on Groundwater Depth	
	Levels: A Case Study of South Delhi	Guru Gobind Singh Indraprastha
	Region	University
10	Application of Geospatial technologies in	Deepa Bhattacharyya
	Landscape Assessment: Upper Alaknanda	
	River Basin	University of Calcutta, Kolkata

Lunch 13:00 – 14:00 hrs

Popular Talk

07 November 2023, 14:00 – 14:45 hrs Venue: Hall A (RRSC-W)

14:00 – 14:05 hrs	Invitation of the dignitar	y to the dais
14:05 – 14:35 hrs		India's Moon Mission: Chandrayaan-3 by Shri Nilesh M. Desai Director Space Applications Centre, ISRO
14:35 – 14:40 hrs	Discussion	
14:40 – 14:45 hrs	Felicitation of Speaker	







Special Session

07 November 2023, 14:45 – 15:30 hrs Venue: Hall A (RRSC-W)

14:45 – 14:50 hrs	Invitation of the dignitaries to the dais	
14:50 – 15:20 hrs	Bhoonidhi: ISRO's EO Data Hub by Ms. Manju Sarma & Team National Remote Sensing Centre, ISRO	
15:20 – 15:25 hrs	Discussion	
15:25 – 15:30 hrs	Felicitation of Speakers	

Technical Sessions - 3 (Parallel)

07 November 2023, 15:30 – 16:30 hrs

Session Theme	Venue (RRSC-W)
Geospatial Artificial Intelligence (GeoAl) – 1	Hall A
Coastal Studies & Oceanography	Hall B
Meteorology & Climate Change	Hall C
Energy Security	Hall D
Poster Session	Hall E







Technical Session 3-A Geospatial Artificial Intelligence (GeoAl) - 1

07 November 2023, 15:30 – 16:30 hrs, Venue: Hall A (RRSC-W)

Chair: Shri. M. Arulraj, NRSC

Co-Chair: Dr. Rakesh Paliwal, NRSC

Rapporteur: Ms. Nagashree Mohan Kumar, NRSC

Rapporteur: Ms. Nagashree Mohan Kumar, NRSC			
SI No.	Title	Authors	
1	Enhancing Canopy Modeling through Deep	Suraj Reddy Rodda, Praveen MSS,	
	Learning: Integrating Multi-Source EO Data	Rajashekar Gopalakrishnan	
	and Aerial LiDAR Observations		
		National Remote Sensing Centre,	
		Hyderabad	
2	Assessing Machine Learning Classifiers for	Krishnaveni K S, Anilkumar P P	
	Tropical Land Use/Land Cover Mapping: A	N. C. Li C. C. C. L. L.	
	Study in Kochi Urban Agglomeration, India	National Institute of Technology –	
		Calicut	
3	Understanding the effects of influential	Mudit D. Mankad	
	attributes on house prices using Extreme	Maharaja Sayajirao University of	
	Gradient Boosting (XGBoost) – A case	Baroda	
	study of Vadodara city, Gujarat, India		
4	Characterization of Urban Waterbodies	Sampath Kumar P, Saiveena Suresh,	
	Using Deep Learning	Satish Chandra Jayanthi	
		National Romata Sansing Contra	
		National Remote Sensing Centre, Hyderabad	
5	Tracking Informal settlements in Descrit	, , , , , , , , , , , , , , , , , , ,	
3	Tracking Informal settlements in Desert	Reedhi Shukla, Sampath Kumar P,	
	Terrain through Space and Deep Learning:	Satish Jayanthi, Dr. Prakash	
	Case Study around Rajasthan Region	Chauhan, Kamini	
		National Remote Sensing Centre,	
		Hyderabad	
6	Pixels in Focus: Deep Learning's	Dhiroj Kumar Behera, Ronald Singh,	
	Breakthrough in Remote Sensing Built-Up	Pondari Satyanarayana, Rajiv Kumar	
	Segmentation	1 5 Saty anaray ana, majir Italilai	
	558	National Remote Sensing Centre,	
		Hyderabad	
7	Mangrove Forest Monitoring Using Deep	Shivani Pathak	
	Learning and Landsat-8 Satellite Imagery		
		ESRI R&D Center, India	
8	Prediction of Soil Nutrient Suitability	Chiranjit Singha, Kishore Chandra	







Mapping Using VIs-NIR Spectroscopy and	Swain
Sentinel 2 Images	
	Institute of Agriculture, Visva-Bharati

Technical Session 3-B Coastal Studies & Oceanography

07 November 2023, 15:30 – 16:30 hrs, Venue: Hall B (RRSC-W)

Chair: Cmde Peush Pawsey, NHO

Co-Chair: Dr. Sucheta Mukherjee, Sripat Singh College Rapporteur: Shri Sushilkumar B. Rehpade, NRSC

SI No.	Title	Authors
1	Hydrographic Surveys and Geospatial	Ram Ashish Prasad
	Technology for Chart Compilation	
		Indian Navy
2	Legal Provisions Enabling Coastal Zone	Manik Mahapatra, Badarees K. O,
	Management in India	Dharma Raj M, Purvaja
		Ramachandran, Ramesh
		Ramachandran
		National Centre for Sustainable
		Coastal Management
3	Assessment of Coastal Vulnerability along	Manikandan N
	the Tamil Nadu Coast: A Geospatial	
	Approach	University of Madras
4	Application of Universal Hydrographic	Pankaj Kumar Mahato, BK
4	Application of Universal Hydrographic	,
4	Data Model S-100 standards for Marine	Ramprasad
4	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone	Ramprasad
	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies	Ramprasad National Hydrographic Office
5	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies Analysis of Shoreline Change using AI and	Ramprasad
	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies	Ramprasad National Hydrographic Office Soumili Dutta, Prasun Kumar Gupta
5	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies Analysis of Shoreline Change using AI and Contemporary Techniques over Kerala	Ramprasad National Hydrographic Office Soumili Dutta, Prasun Kumar Gupta Indian Institute of Remote Sensing
	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies Analysis of Shoreline Change using AI and Contemporary Techniques over Kerala Impact Assessment of Sewage Outfall	Ramprasad National Hydrographic Office Soumili Dutta, Prasun Kumar Gupta
5	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies Analysis of Shoreline Change using AI and Contemporary Techniques over Kerala Impact Assessment of Sewage Outfall Discharges on Sea Surface Salinity Using	National Hydrographic Office Soumili Dutta, Prasun Kumar Gupta Indian Institute of Remote Sensing Hanisha Mamidisetti ¹ , Ritesh Vijay ²
5	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies Analysis of Shoreline Change using AI and Contemporary Techniques over Kerala Impact Assessment of Sewage Outfall	Ramprasad National Hydrographic Office Soumili Dutta, Prasun Kumar Gupta Indian Institute of Remote Sensing Hanisha Mamidisetti ¹ , Ritesh Vijay ² ¹ CSIR - NEERI,
5	Data Model S-100 standards for Marine Spatial Data Management, Coastal Zone Management and Ocean Studies Analysis of Shoreline Change using AI and Contemporary Techniques over Kerala Impact Assessment of Sewage Outfall Discharges on Sea Surface Salinity Using	National Hydrographic Office Soumili Dutta, Prasun Kumar Gupta Indian Institute of Remote Sensing Hanisha Mamidisetti ¹ , Ritesh Vijay ²







Technical Session 3-C Meteorology & Climate Change

07 November 2023, 15:30 – 16:30 hrs, Venue: Hall C (RRSC-W)

Chair: Dr. Anil V. Kulkarni, IISc Co-Chair: Dr. M. V. Ramana, NRSC Rapporteur: Shri Hansraj Meena, NRSC

Kappor	teur: Shri Hansraj Meena, NRSC	
SI No.	Title	Authors
1	Climate Change Impacts on Runoff and	Arpit Chouksey ¹ , Subashisa Dutta ²
	Sediment Yield	
		¹ Indian Institute of Remote Sensing
		² Indian Institute of Technology -
		Guwahati
2	Quantification of Forest Degradation Area	Subhas Garai, Sanup Mandal, Sk
	and its Contribution to Global Climate	Mujibar Rahaman, Sraboni
	Change: A Case Study in Asia's Largest	Bhattacharya Pakrasi
	Dense Sal Forest, Saranda, Jharkhand, India	
		National Atlas and Thematic
		Mapping Organisation
3	Synergy of Satellite and In-Situ Data for	Avinash Kumar Ranjan, Amit Kumar
	Foliar Dust Approximation in Coal Mining	Gorai
	Regions	
		NIT - Rourkela
4	Increase in Land Surface Temperature and	Veedhya Chettry ¹ , Sabarinath D ² ,
	Urban Thermal Field Variance Index	I.K Manonmani ¹
	(UTFVI) Phenomenon Observed at the	1
	Eastern Himalayan Urban Centers of India	¹ Madurai Kamaraj University
		² Indian Institute for Human
		Settlements
5	Investigation Of the Spatiotemporal	Ahana Mukhopadhyay, Charu Singh
	Variability of Meteorological Parameters	
	Associated with The Extreme Rainfall	Indian Institute of Remote Sensing
	Events Using Indian Geostationary Satellite	
	Data	21
6	Response of maize yield in future climate	Vinothkanna S ¹ and V
	of Namakkal district with reference to	Emayavaramban ²
	HADGEM2-ES and GFDL-CM3 climate	1.5
	models, Tamil Nadu, India	¹Government Arts College (Aut)
		² Madurai Kamaraj University







Technical Session 3-D Energy Security

07 November 2023, 15:30 – 16:30 hrs, Venue: Hall D (RRSC-W)

Chair: Dr. M. V. Punia, Birla Institute of Scientific Research

Co-Chair: Dr. Vandita Srivastava, IIRS

Rapporteur: Ms. J. Nalini

SI No.	Title	Authors
1	Role of Government Subsidies in	Vimal Kumar, Abhishek Y
•	Promoting LPG as a Clean Cooking Fuel in	viniai ramai, violistick i
	India	National Atlas and Thematic
	The latest and the la	Mapping Organisation
2	Solar Power Estimation: Use Case of Large	Rama Dasu M, Bhavani SVL, Kamini
_	Scale Urban Geospatial Data	J, Satish C Jayanthi
	Scale Orban Geospatiai Data	3, Satisfi C Jayantin
		National Remote Sensing Centre,
		Hyderabad
3	Identification of suitable sites for solar	Akshita Tomar, Sadhana Jain, A O
	panel plants using Geospatial Technology	Varghese, G. Sreenivasan
		Regional Remote Sensing Centre-
		Central, NRSC, Nagpur
4	Solar Panel detection: a study using EOS	Jaydip Dey ¹ , Chitralekha Das ² , Stutee
	Data	Gupta ¹
		¹ National Remote Sensing Centre,
		Hyderabad
		² National Atlas and Thematic
		Mapping Organisation







Poster Session

07 November 2023, 15:30 – 16:30 hrs, Venue: Hall E (RRSC-W)

Sl No. T	Title	Authors
1 C	Geospatial Blockchain: A Catalyst for	Mary Chingthianhoih
S	Smart Governance and Sustainable	
	Development	TERI School of Advanced Studies
2 C	Contribution of Geospatial Technologies in	Sukhdev Meghwal
P	Promoting Sustainable Agriculture and	
Ir	rrigation Resources Study with Reference	Jai Narain Vyas University
	o Pali District (Raj.)	
	Assessment of Land Use and Land Cover	Degu Zewdu, Muralee C Krishnan
	Change using Geospatial Techniques in	
R	Raichur District, South India	Amrita Vishwa Vidyapeetham
	LULC Changes after State Formation: A	Manju Tiwari ^{1,2} Prasun Kumar
C	Case Study of Chhattisgarh	Gupta ¹
		¹ Indian Institute of Remote Sensing
		² Indira Gandhi Krishi
		Vishwavidyalaya
5 S	Spatio-Temporal Analysis of Land Use and	Deendayal, Om Prakash
	Land Cover Changes in Bhaniyana Tehsil	,
	of Jaisalmer District Using Remote Sensing	Jai Narain Vyas University
	and GIS Techniques	
6 D	Dynamics of Land use Land Cover Change	Sunil Madde ¹ , Akash Rathod ¹ , Rama
(1	LULCC) using Geospatial Techniques	Subramoniam S ² , B Mahalingam ¹ ,
		Vishwanath B.C ¹ , R Hebbar ²
		¹ Central University of Karnataka
		² Regional Remote Sensing Centre –
		South, NRSC, Bengaluru
7 R	Rice Yield Estimation Using Semi-Physical	Dharmendra Singh, Praveen Sharma,
A	Approach at Village Level in Northern parts	Sultan Singh
О	of Haryana	
		Haryana Space Applications Centre
8 P	Parcel Level Crop mapping using Temporal	Gali Brahmavar ¹ , Nagashree M. K ² ,
	Satellite Data and Machine Learning	S. Rama Subramoniam², Muskan







	Techniques.	Sindagi ¹ , R Ganiger ¹ , R. Hebbar ²
		¹ Karnataka State Rural Development and Panchayat Raj University ² Regional Remote Sensing Center- South, NRSC, Bengaluru
9	Mapping Cropping Intensity Using Sentinel-2 and Google Earth Engine (GEE) for two Contrast Years in the Western Part of West Bengal	Debarati Bera, Dipanwita Dutta Vidyasagar University
10	Estimation of Surface Soil Moisture from Agricultural Lands Using Multi-Spectral Optical satellite data: A Study of	Goutam Kumar Das Vidyasagar University
	Bhagwanpur-I CD Block, East Medinipur, West Bengal, India.	vidyusugui Omiversity
11	Protected Cultivation in Haryana: A Geospatial Analysis	Abhishek Goyat Survey of India
12	Toposequence Wise Crop Suitability for Agricultural Sustainability in Red and Lateritic Terrain of Bankura District of	Indrajit Chowdhuri, Subodh Chandra Pal
13	West Bengal Multipoint Statistics and Directional Distribution of Future Trend of Vegetation Dynamics in the Hindu Kush Himalaya Region	The University of Burdwan Nashim Nawaz, Aaisha Fatma, Nehal Ahmad, Mohd Sayeed Ul Hasan Aliah University
14	Development of a Cloud-based Application for the Assessment and Monitoring of Waterbodies in Haryana	Dharmendra Singh, Parveen Kumar, Sultan Singh Haryana Space Applications Centre
15	A Comparative Assessment of Ground Water Resources using GRACE and Ground data in highly populated regions of	Dharmendra Singh, Nandini Sharma, Tripti Singhal, Sultan Singh Haryana Space Applications Centre
16	Haryana, India Geospatial Approach for Land and Water	Subhajit Roy ¹ , Sagar Subhashrao







	Resource Development Planning for Dausa	Salunkhe ^{1*} , Suparn Pathak ² , Rakesh
	District of Rajasthan	Paliwal ¹
		¹ Regional Remote Sensing Centre
		West, NRSC, Jodhpur
		² Regional Remote Sensing Centre
		East, NRSC, Kolkata
17	Spatially Distributed CN Technique and	Sagar Subhashrao Salunkhe ¹ , Gaurav
	Earth Observation Data Sets for Grid Wise	Kumar ¹ , Apurba Kumar Bera ¹
	Runoff Assessment in Sarasvati River	Designal Demote Sonsing Contra
	Catchment	¹ Regional Remote Sensing Centre
10	CIC Deced Consultant on Overline	West, NRSC, Jodhpur
18	GIS Based Groundwater Quality	Subhasish Sutradhar ¹ , Prolay
	Assessment and Pollution Index of Bankura	Mondal ²
	District, West Bengal, India	¹ National Atlas and Thematic
		Mapping Organisation
		² Raiganj University
19	Crop Yield & Acreage Estimation using	Sunita Singh
	Sentinel Data: A Case study of Varanasi	
	District, Uttar Pradesh, INDIA	Central University of South Bihar
20	Assessing The Impact of Urbanization on	V. Rengan ¹ , M. Kirithiga ² and S.
	Shrinking Surface Water Sources in Salem	Vinothkanna ³
	City Using Geospatial Technology	
		¹ Government Arts College, Salem
		² Department of Geography, M.V.
		Muthiah Government Arts College
		for Women,
		³ Department of Geography,
		Government Arts College,
		Coimbatore
21	Role of ENM, GeoCAT and Arc-GIS	C.S. Purohit, Bishnu Charan Dey,
	software's in Conservation, mapping and	L.J. Singh, Vivek C.P.
	IUCN Assessments of Threatened Palms in	
	Andaman & Nicobar Islands (ANI's), India	Botanical Survey of India, Arid Zone
		Research Institute, Jodhpur
22	Emerging Trends in Digital Cartography and GIS	R.A Prasad, Naresh Pant







		National Hydrographic Office, Dehradun
23	Investigation of buried archaeological sites using Satellite images, GIS processing and	Ashish Kumar Jain, Hansraj Meena
	2D/3D Resistivity Survey in parts of Rajasthan	RRSC-W, NRSC/ISRO
24	Monitoring and Assessment of the Jodhpur Mining Area Using Remote Sensing and	S.K.Yadav, S.L. Borana
	GIS	Defence Laboratory, Jodhpur
25	Forest Biomass Estimation using Multi Frequency SAR Data	Rakesh Fararoda ¹ , Souvik Maji ¹ , Rakesh Paliwal ¹ , G Rajashekar ² , A K Bera ¹ , S K Srivastav ³
		¹ Regional Remote Sensing Centre- West, NRSC, ISRO, Jodhpur. ² RegionalForestry & Ecology Group, National Remote Sensing Centre, ISRO, Hyderabad.
		³ Regional Remote Sensing Centre, national Remote Sensing Centre, ISRO, New Delhi
26	Multi-crop Classification using Multispectral Satellite Data and Machine Learning Algorithms – A feasibility Study	Manish Verma ¹ , Sushilkumar B. Rehpade ² , Kumare Darshana Rakesh ³ , Rakesh Paliwal ¹ , AK Bera ¹ , SS Rao ⁴
		¹ Regional Remote Sensing Centre – West, NRSC, Jodhpur ² Regional Remote Sensing Centre – Central, NRSC, Nagpur ³ Squadrone Infra and Mining Private Limited
		⁴ National Remote Sensing Centre, Hyderabad
27	Land Surface Temperature and Urban Heat Island: A Case Study of Faridabad City	Deepak Lohan ¹ , Gaurav Kalotra ¹ , Abhishek Malik ¹







		¹ Panjab University, Chandigarh
28	Analysis of drought patterns in the Gundar	Ilamathi Rajendran
	River Basin utilizing diverse indices derived	
	from Ground and Remote Sensing Data	Madurai Kamaraj University,
		Madurai
29	Enhancing Drought Monitoring through	S.K.Yadav, S.L. Borana
	Satellite Imagery: Integrating NDVI,	
	Drought Index, and Vegetation Change	Defence Laboratory, Jodhpur
	Detection Analysis Using MODIS	
30	Bharatmala Pariyojana Initiative in	Ayan Bera, Koushik Ghosh, Subham
	Rajasthan: Roadmap to Achieve	Roy
	Sustainable Development Goals (SDGs)	Birla Institute of Technology and
		Science – Pilani
31	Predicting Cross-Country Mobility of	Rohit Malhotra
	Vehicles over Desert Terrain Using	
	Geospatial Technologies	Ex- Army
32	Physical Features of Ram Setu/Adam's	Giribabu Dandabathula ¹ , Koushik
	Bridge: Interpretations from ICESat-2	Ghosh ¹ , Subham Roy ¹ , Apurba
	Based High-Resolution Digital Bathymetric	Kumar Bera ¹ , Sushil Kumar
	Elevation Model	Srivastav ² , Prakash Chauhan ³
		¹ Regional Remote Sensing Centre –
		West, NRSC, Jodhpur
		² Regional Centres, NRSC, New
		Delhi
		³ National Remote Sensing Centre,
		Hyderabad
33	Application of Geospatial Techniques in	Kishan Kumar
	Agricultural Resource Management	Maharana Pratap University of
		Agriculture and Technology
34	Past LULC prediction using CA-Markov	Sana Rafi, Nitesh Kumar Mourya,
	and MOLUSCE Models	Pragati Verma
		Jamia Millia Islamia
35	Site Suitability Evaluation for Nature-based	Shamim Ahmad Shah, Peer Jeelani,
	Tourism Using GIS and AHP: A Case Study	Huma Rashid, Farzana Ahad, Mir
	of Kashmir Valley, India	Sumira







		University of Kashmir
36	Exploring Potentials and Challenges in	Chhaya Mishra
	Urban Development: A Case Study of	
	Ballia City, U.P., India	Banasthali Vidyapith
37	Approach to ecosystem service assessment	Swarnava Dey
	based on urban form in a tropical city of	
	Lower Gangetic Plain, India	Jadavpur University
38	Urban Expansion in Peri Urban Hisar,	Rahul
	Haryana using Geospatial Technology	Panjab University
39	Dynamics Of Peri-Urban Land	Preeti
	Transformation Using Geospatial	D : 1 II :
	Technology: A Case of Panipat City,	Panjab University
	Haryana, India	
40	Application of Remote Sensing Technique	Sreelakshmy M
	to Identify the Urban Heat Island: A Case	Nirmala College For Women,
	Study of Coimbatore City	Coimbatore
41	Crime Hotspot Detection Using Statistical	Shwetambari Shrinivas Satpute,
	and Geospatial Methods of London,	Majahar Shabbir Shaikh
	England	
		Suresh Gyan Vihar University
42	Effect of climate change on the distribution	Parul Bhatnagar
	pattern and range shift of Himalayan	
	woodpecker (Dendrocopos Himalayensis)	Gujarat Forest Department
	in Uttrakhand using GIS techniques	
43	Flood Mapping and Monitoring Using	Shivani Pathak, Priyanka Tuteja
	Microwave Remote Sensing	
		ESRI R&D Center India
44	Drought Mapping Using Multispectral	Shivani Pathak, Priyanka Tuteja
	Satellite Imagery and Deep Learning	ESRI R&D Center India
		ESKI K&D Center India
45	Decline, Misuse and Degradation of	Abha Mayank
	Government/Common Lands in Rajasthan:	Shri Sohan Lal Manihar Girls Senior
	A Geographic Analysis	Secondary School, Jodhpur
		Secondary School, Journal

<u>Note</u>: All presenters to display their posters well in advance and be available for interaction with the Poster Evaluation Team and delegates.







Tea Break & Networking 16:30 – 17:00 hrs

Technical Sessions - 4 (Parallel)

07 November 2023, 17:00 – 18:30 hrs

Session Theme	Venue (RRSC-W)
Geospatial Artificial Intelligence (GeoAl) – 2	Hall A
Contemporary Earth Science Studies	Hall B
Sustainable Urban & Regional Development	Hall C
Urban Greenspaces & Green/Blue Economy	Hall D
Poster Session (contd.)	Hall E







Technical Session 4-A

Geospatial Artificial Intelligence (GeoAI) – 2

07 November 2023, 17:00 – 18:30 hrs, Venue: Hall A (RRSC-W)

Chair: Dr. N. Aparan, NRSC

Co-Chair: Dr. K. Nagajothi, NRSC Rapporteur: Shri P. V. Vinod, NRSC

SI No.	Title	Authors
1	Predicting Forest Fire Susceptibility	Mukunda Dev Behera, Parthiva
	employing ML and DL approaches	Shome
		IIT-Kharagpur
2	Modelling Canopy structure of forest using	Col Sunil S Fatehpur
	Open Big Geospatial Data AND Deep Learning.	College of Military Engineering, Pune
3	A deep learning approach for monitoring	Ronald Singh, Sachin Gautam,
	urban growth and analyzing surface urban	Nikhilraj Deep, Swastika Mandal,
	heat islands over Hyderabad, Telangana, and visualization through interactive leaflet	Pondari Satyanarayana, Rajiv Kumar
	web map	National Remote Sensing Centre,
		Hyderabad
4	Convolution Neural Networks Based Crop	Preetilata Murmu, Ronald Singh,
	Type Classification Using Spatio-Temporal	Porchelvan A, Satyanarayana P,
	Remote Sensing Data	Girish Shankar Pujar
		National Remote Sensing Centre, Hyderabad
5	Evaluation of Machine Learning Classifiers	Tejash Anand ¹ , Aadrita Chowdhury ¹ ,
	for Landsat 9 and Sentinel-2 Datasets	Srashti Singh², Anugya Shukla³
		¹TISS Mumbai
		² Indian Institute of Technology
		Roorkee
		³ Indian Institute of Technology
		Jodhpur
6	Deep Learning Approach for Classification	R Ganiger ¹ , Nagashree Mohan
	of Horticulture Plantations Using Very	Kumar ² , S Rama Subramoniam ² ,







	High-Resolution Satellite Images	Mahesha D B ¹ , Gali Brahmavar ¹ , R Hebbar ²
		¹ Karnataka State Rural Development and panchayat Raj University ² Regional Remote Sensing Center- South, NRSC, Bengaluru
7	A Framework for Geo-spatial analytics using Deep Learning	Vijender Busi Reddy, D Sree kiran, K Raghavendra, D Mallikarjuna Rao Advanced Data Processing Research
8	Discrimination of Transplanted and Direct Seeded Rice Using Multi-Temporal EOS-4 Sar Using Machine Learning Algorithm	Neetu, Akash Goyal, Amritpal Digra, Sameer Saran
		Regional Remote Sensing Centre- North, NRSC, Delhi
9	Leveraging Geospatial Intelligence and Machine Learning for Enhanced Landslide Susceptibility Assessment in Nilgiri District, India	Aneesah Rahaman, Abhishek Job Dondapati, Stutee Gupta, V Madha Suresh National Remote Sensing Centre,
10	Co-active neuro fuzzy inference system for estimating reference evapotranspiration	Hyderabad. Madhulika Singh ¹ , Ronald Singh ²
	over Indore district of Madhya Pradesh	¹ AKS University ² National Remote Sensing Centre, Hyderabad







Technical Session 4-B Contemporary Earth Science Studies

07 November 2023, 17:00 – 18:30 hrs, Venue: Hall B (RRSC-W)

Chair: Dr. A. K. Bera, NRSC

Co-Chair: Dr. Arindam Guha, NRSC Rapporteur: Shri B. Laxman, NRSC

SI No.	Title	Authors
1	Assessing Seasonal Variations: Correlation	Hritik Kadian, Naresh Chandra
•	Analysis between LST, Rainfall and NDVI	Gupta, Neeraj Bohat, Varun Joshi
	in Sultanpur National Park	Gapta, Neeraj Bonat, Varan sosin
	in Sultanpul National Laik	Guru Gobind Singh Indraprastha
		University
2	Reconnoitering the Intricate Relation	Bhupendra Kumar, Neeraj Bohat,
_	between AOD and LST in Singrauli,	Hritik Kadian, Varun Joshi, Naresh
	Madhya Pradesh: Implications for	Chandra Gupta
	Mitigating Urban Heat Island Effects and	Chanara Capta
	Addressing Air Pollution Challenges	Guru Gobind Singh Indraprastha
		University
3	Evaluation of Spatio-temporal Variation of	Lal Mohammad ¹ , Jatisankar
	Satellite-derived Major Pollutants from	Bandyopadhyay ¹ , Ismail Mondal ² ,
	Sentinel-5p over Eastern India	Sumana Pradhan ¹ , Taslima Khatun ³
	•	,
		¹ Vidyasagar University
		² University of Calcutta
		⁴ Prof. S. N. Hasan College, Farakka
4	State of Aerosol Optical Depth and Black	Gautham T S
	Carbon Concentration Over Western	
	Himalayan Region	Jawaharlal Nehru University
5	Spatio-temporal Characteristics of	Ajay Kumar, Omvir Singh
	Precipitation Concentration over Himachal	
	Pradesh, India	Kurukshetra University
6	Prediction and Mitigation of agricultural	Aravind Raj S, Dipjyoti Gogoi,
	and meteorological drought using ARIMA	Narmada K, Bhaskaran G
	model for Naganathi Watershed, Palar	
	Basin, South India using the remote sensing	University of Madras
	techniques	
7	Inter-comparison of Satellite Rainfall	Jyoti Sharma, Omvir Singh







	Products with Rain Gauge Measurements	
	over Narmada River Basin, India	Kurukshetra University
8	Analysis of Temporal Precipitation	Gursheen Kour, Inderjeet Singh
	Variability in Jammu Region from 1990-	
	2010	University of Jammu
9	Assessment of Drought Hazard,	Divya Saini, Omvir Singh
	Vulnerability and Risk over Rajasthan, India	
		Kurukshetra University
10	Assessing the Impact of Drought on	Kriti Verma
	Agriculture in Jaisalmer and Bikaner,	
	Rajasthan, India	Delhi School of Economics,
		University of Delhi, New Delhi

Technical Session 4-C Sustainable Urban & Regional Development

07 November 2023, 17:00 – 18:30 hrs, Venue: Hall C (RRSC-W)

Chair: Dr. J. R. Sharma, NRSC (Retd.) Co-Chair: Shri P. Krishnaiah, NRSC Rapporteur: Ms. Reedhi Shukla, NRSC

SI No.	Title	Authors
1	Detecting Urban Tree Loss with Synthetic	Unmesh Khati, Anam Sabir
	Aperture Radar Data	
		Indian Institute of Technology - Indore
2	Modelling future urban land dynamics and	Brahampal, Jitendra kumar
	their impact on land surface temperature in	
	Bhiwadi industrial area, India	Central University of Haryana
3	Toward mapping road network patterns	Shamim Ahmad Shah, Farzana
	from Volunteered Geographic Information	Ahad, Huma Rashid, Peer Jeelani,
	Using OpenStreetMap	Mir Sumira
		Heimerika et Kasharia
		University of Kashmir
4	An Assessment of Built-Up Area in	Parvathy M R, Dr. I K Manonmani
	Madurai City Using Geospatial Technology	
		Madurai Kamaraj University
5	Assessment Of Urban Sprawl in Hisar City	Deepak, Shruti Kanga
	Using Remote Sensing and GIS Techniques	
		Central university of Punjab







6	Geospatial Technologies for Urban Development	Gajendra Singh Rathore, Yuvraj Singh Rathore
		Janardan Rai Nagar Rajasthan Vidhyapeeth
7	Optimal cell phone tower location based on 3D GIS	Nalini J, Narender B, Muralikrishnan S, Prakash Chauhan
		National Remote Sensing Centre, Hyderabad
8	Assessment of Inclusion in the Distribution, Availability, and Access to Public Open Spaces in Varanasi City: A geospatial	Garima Jasrotia ¹ , Kiran Kumari Singh ²
	approach for SDG-11.7.	¹ Central University of Punjab ² University of Allahabad
9	Analyzing the Urban Heat Island Dynamics in Kolkata City, India	Aadrita Chowdhury1, TejashAnand1, Srashti Singh2, and Anugya Shukla3
		¹ Tata Institute of Social Sciences ² Indian Institute of Technology - Roorkee,
		³ Indian Institute of Technology - Jodhpur
10	The Role of GIS in Sustainable Urban Planning and Management in India	Kiran Kumari
		Central university of South Bihar







Technical Session 4-D Urban Greenspaces & Green/Blue Economy

07 November 2023, 17:00 – 18:30 hrs, Venue: Hall D (RRSC-W)

Chair: Prof. Bimal Kumar Kar, Gauhati University

Co-Chair: Dr. Balak Ram, ICAR-CAZRI Rapporteur: Dr. Rama Subramoniam, NRSC

SI No.	Title	Authors
1	Assessment of socio-economic	Ravindra Singh, Milap Punia
	embeddedness of Urban green space in	
	Delhi: A micro-level study using geospatial	Jawaharlal Nehru University
	techniques.	
2	Promoting Equitable Urban Greenspaces:	Priyanka Jha
	Hotspot Analysis of Parks in Delhi	
		Jamia Millia Islamia
3	Urban Green Spaces Identification and	Anil Kumar, Rambir Singh
	Planning Using Geo-Informatics Approach	
		Ch. Bansilal Govt. College for
4	Haraf Caranatial Tarkandaria for Food	Women, Tosham
4	Use of Geospatial Technologies for Food	Rajendra Parihar
	Security and Green Economies, a Global	Lai Narain Vyvas Haivarsity
5	Perspective Site Suitability Analysis for Aquaculture	Jai Narain Vyas University Riju Singha Modak, Nirupam
3	and Management Using Multi Criteria	Acharyya, Jatisankar Bandyo-
	Decision Analysis (MCDA) and Analytic	padhyay, Suman Das
	Hierarchy Process (AHP)	padnyay, Suman Das
	Therefore Trocess (Title)	Vidyasagar University Midnapore
6	Analysing Growth Dynamics of Census	Sanjoy Mandal, Amit Chatterjee
	Towns and Access to Drinking Water: A	
	Case Study of Murshidabad District, West	Visva-Bharati, Santiniketan
	Bengal	
7	Assessment of Ecotourism Potential of	Vivek Raj Singh Chauhan, Lalit
	Sariska Tiger Reserve for Growth of Green	Singh Jhala
	Economy	
		Jai Narain Vyas University
8	Assessment of Urban Green Space's	Harsha Choudhary, Asmita, Jitendra
	Availability and Proximity in Kanpur, India	Kumar
		Central University of Haryana







9	Identifying Agricultural Drought Hazard	Rajee R and Dr. V. Emayavaramban
	Area Using AHP Technique in Southern	
	Agro Climatic Zone of Tamil Nadu	Madurai Kamaraj University
10	Economic Analysis of Mushroom	Archana kumari
	Cultivation and its Productivity in Bihar	
		S.K.M. College Begusarai

Poster Session (contd.)

07 November 2023, 17:00 – 18:30 hrs, Venue: Hall E (RRSC-W)

<u>Note</u>: All presenters to display their posters well in advance and be available for interaction with the Poster Evaluation Team and delegates.







Day 3: Overview

(08 November 2023, Wednesday)

Time	Programme	Venue
09:30 – 11:00 hrs	Plenary Session - 3	Hall A (RRSC-W)
11:00 – 11:30 hrs	Tea & Networking	Food Court (RRSC-W)
11:30 – 13:00 hrs	Technical Sessions - 5	Hall A, B, C & D
	(Parallel)	(RRSC-W)
13:00 – 14:00 hrs	Lunch	Food Court (RRSC-W)
14:00 – 15:00 hrs	Panel Discussion	Hall A (RRSC-W)
15:00 – 15:30 hrs	Awards & Closing	Hall A (RRSC-W)







Day 3: Detailed Programme

Plenary Session – 3

08 November 2023, 09:30 – 11:00 hrs, Venue: Hall A (RRSC-W)

Session Moderator: Rear Admiral L. S. Pathania, NHO

09:30 – 09:35 hrs	Invitation of the dignitaries to the dais	
09:35 – 10:00 hrs		Impact of Climate Change on Himalayan Glaciers: Geospatial Retrospective by Prof. Anil V. Kulkarni Distinguished Visiting Scientist, IISc
10:00 – 10:25 hrs		NISAR: A Future Mission for Monitoring Earth's Ecosystem Dynamics by Dr. Raj Kumar Prof Satish Dhawan Scientist SAC, ISRO
10:25 – 10:0 hrs		Geospatial Economy - Prospects and Challenges by Dr. Shivangi S. Somvanshi Director (Geospatial Knowledge Infrastructure) Geospatial World
10:50 – 10:55 hrs	Discussion	
10:55 – 11:00 hrs	Felicitation of Speakers	S

Tea & Networking 11:00 – 11:30 hrs at Food Court (RRSC-W)







Technical Sessions - 5 (Parallel)

08 November 2023, 11:30 – 13:30 hrs

Session Theme	Venue (RRSC-W)
Disaster Resilience & Emergency Management – 2	Hall A
UAV Applications & Advances in Digital Image	Hall B
Processing (DIP)	
Sustainable Water Management – 2	Hall C
Entrepreneurship & Geospatial Economy	Hall D

Technical Session 5-A

Disaster Resilience & Emergency Management – 2

08 November 2023, 11:30 – 13:30 hrs, Venue: Hall A (RRSC-W)

Chair: Dr. G. Sreenivasan, NRSC

Co-Chair: Shri S. S. Rajashekhar, NRSC

Rapporteur: Shri Abhinav Kumar Shukla, NRSC

CLNI	m'.l	A .1	
SI No.	Title	Authors	
1	Flood prone area mapping using Analytic	Jatisankar Bandyopadhyay ¹ , Suman	
	Hierarchy Process (AHP) and Geospatial	Das ¹ , Nirupam Acharyya ¹ , Saroj	
	techniques in the part of Keleghai River	Maity ² , Riju Singha Modak ¹ and Lal	
	1 0	, , , , ,	
	Basin	Mohammad ¹	
		¹ Vidyasagar University	
		² Space Application Centre	
2	Comparative Assessment of Burnt Area	Praveen Mutyala, G. Rajashekar	
	Mapping using UNet Convolutional Neural		
	Network, Random Forest, and Support	National Remote Sensing Centre,	
	Vector Machine.	Hyderabad	
3	Rainfall Induced Landslide Detection Using	Dharmendra Singh, Annu Kumari,	
	Persistent Scatter Interferometry	Sultan Singh	
	·		
		Haryana Space Applications Centre	
4	Geospatial technologies for building	Bhagwat Prakash Dayma, Ashwani	







	disaster resilience and emergency management	Arya
	management	Govt. College, Jodhpur
5	Automated Mapping of Rice Stubble Burnt Area Progression	Parichay S. Raju, Abhishek Chakraborty, Bhavana Sahay, V. M. Chowdary
		National Remote Sensing Centre, Hyderabad
6	Role of Satellites in Disasterramadevi Resilience	A.V. Ramani, N. Rama Devi, K. Sudhakar, V. Ramakrishna Sastry, N. Aparna
		National Remote Sensing Centre, Hyderabad
7	Monitoring ecological crisis of Kolkata Metropolitan Area using spatial technology	Pritam Mitra, Sk Mustak
		Central University of Punjab
8	Assessment of Flood Risk using Analytical Hierarchy Process and Machine Learning Techniques: A Case Study of Guwahati,	Ankita Tamuli, Ransai Basumatary, Sujit Deka
	Assam	Bodoland University
9	Storm Water Inundation Potentiality Mapping of Kolkata Using Advanced	Mampi Pal ¹ , Sasanka Ghosh ²
	Machine Learning Techniques	¹ National Atlas and Thematic Mapping Organisation ² Kazi Nazrul University
10	Forest Fire Risk Assessment Using Machine Learning Approach: A Case Study of	Bhawna Thakur, Shruti Kanga
	Shimla Forest Division, Himachal Pradesh (India)	Central University of Punjab, Bathinda







Technical Session 5-B UAV Applications & Advances in Digital Image Processing (DIP)

08 November 2023, 11:30 – 13:00 hrs, Venue: Hall B (RRSC-W)

Chair: Dr. K. Pramod Kumar, Ex-ADRIN

Co-Chair: Shri Narendran J, NRSC Rapporteur: Shri Ashish K. Jain, NRSC

Rapporteur: Shri Ashish K. Jain, NRSC			
Sl No.	Title	Authors	
1	Automatic Feature Extraction of UAV	Col Ranjan Negi	
	imagery using Deep Learning		
		Survey of India	
2	UAV Application for Monitor and Map the	G. Shivakumar Nayka ¹ , Keshav	
	Health of Solar Power Plant: A Study of Selected States in India	Vajapeyam ¹ , Ramappa K B ²	
		¹ Institute for Social and Economic	
		Change, Bengaluru	
		² Audit Team Evaluator - Flight and	
		Avionics	
3	Fly Over the Farm: Monitor and Map the	Ramappa K B ¹ , G. Shivakumar	
	Health of Sugarcane and Maize Using	Nayka ² , Keshav Vajapeyam ²	
	Drone Application	¹ Audit Team Evaluator - Flight and	
		Avionics	
		² Institute for Social and Economic	
		Change	
4	Tree Detection and Characterization in Diverse Agroforestry Systems using UAV Imagery and DL	Nagashree Mohan Kumar ¹ , Rama Subramoniam S ¹ , Satish Kumar B ² , Shivam Trivedi ¹ , Maddy Reddy S ⁴ , Satisha G.C ³ , Chamundeshwari D ² , Narendran J ² , Premananda.B. D ⁴ , Ramachandra Hebbar ¹ , Srivastav SK ⁵	
		¹ Regional Remote Sensing Center - South, NRSC, Bangalore ² National Remote Sensing Centre, Hyderabad. ³ Indian Institute of Horticulture Research, Bengaluru, ⁴ University of Agriculture Sciences,	







		Danashum
		Bengaluru ⁵ Regional Centres, NRSC, New Delhi
5	A Comparative Assessment of Deep	Vinod PV ¹ , Shivam Trivedi ¹ , Behera
	Learning Architectures for Tree Species	MD ² , Rama Subramoniam S ¹ ,
	Identification using UAV Images	Nagashree MK ¹ , Narendran J ³ ,
		Hebbar R ¹ , Srivastav SK ⁴
		¹ Regional Remote Sensing Center -
		South, NRSC, Bengalore
		² IIT-Kharagpur,
		³ National Remote Sensing Centre,
		Hyderabad.
		⁴ Regional Centres, NRSC, New Delhi
6	Extraction of canopy parameters of Sweet	Laxman Boggarapu, Karun Kumar
	Orange (Citrus sinensis) Trees using UAV	Choudhary, V.M. Choudary, B. Narender
	based multispectral Data through Object- based Analysis	
	based Allalysis	National Remote Sensing Centre,
7	HAV Application for Torrain Manning.	Hyderabad
7	UAV Application for Terrain Mapping: Ascertain Pipeline Network for "Jal Jeevan"	Keshav Vajapeyam ¹ , G. Shivakumar Nayka ¹ , Ramappa K B ² and
	Mission" in Rural and Peri-Urban Areas of	Shivakumara C R ³
	Karnataka	
		¹ Institute for Social and Economic
		Change, Bengaluru
		² Audit Team Evaluator - Flight and Avionics
		³ Department of Minority Welfare,
		Government of Karnataka
8	A Hybrid domain approach to remove	Vikash Tyagi, N Ravi, Wagh Ganesh
	horizontal stripping in remote sensing	Nana, P Suresh Kumar, R.
	images using spatial, frequency & wavelet	Chandrakanth
	components	Advanced Data Durancias December
		Advanced Data Processing Research Institute
9	Band Reconstruction for High Resolution	Md Aminur Hossain, Sanjay K.
	Satellite Images using Deep Learning	Singh, Arvind K. Singh, Devakanth
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	S. Naidu
		Space Applications Centre
10	Enhancing Mining Efficiency and Safety	Darshana Kumare, Amogh Gudekar,
. •	with Autonomous Drone Technology	Cyriac Joseph, Satya Prakash
		Balooni
		Squadrone Infra and Mining Pvt. Ltd.







Technical Session 5-C Sustainable Water Management – 2

08 November 2023, 11:30 – 13:00 hrs, Venue: Hall C (RRSC-W)

Chair: Dr. S. P. Aggarwal, NESAC Co-Chair: Shri Suparn Pathak, NRSC

Rapporteur: Shri Sagar S. Salunkhe, NRSC

		T
SI No.	Title	Authors
1	Sustainable Water Resource Management	Asha Rathore, Priyansha Singh
	and Application of Geospatial Techniques	
	to Identify the Ground Water Quality and	Jai Narain Vyas University
	Quantity in Western Rajasthan	
2	Modelling Of Surface Runoff Estimation	Sneha.J ¹ , Masilamani.P ¹ , Sampath
	Through Geoinformatics Techniques. A	Kumar.P ²
	Case Study of Osman Sagar Reservoir,	
	Ranga Reddy District and Telangana State	¹ Bharathidasan University,
		Tiruchirappalli.
		² National Remote Sensing Centre,
		Hyderabad.
3	GIS Based Delineation of Groundwater	Suvajit Dey, Sumit Ghorai, Atanu
	Potential Zones: A Case Study from Purba	Halder
	Bardhaman, West Bengal	
	<u>-</u>	The University of Burdwan
4	Deciphering Groundwater Potential Zones	Sabarinath D ¹ , Vinothkanna S ² , V
	Using AHP and MIF Models by Integrating	Emayavaramban ³
	GIS Techniques: A Study of Ernakulam	
	District, Kerala	¹ Indian Institute for Human
		Settlements
		² Government Arts College
		(Autonomous), Coimbatore
		³ Madurai Kamaraj University
5	Anthropogenic Impacts on the Migration	Mohd Asim
	Process of River Yamuna in Delhi-NCR	
	Using Geospatial Techniques	Indira Gandhi National Open
		University
6	Impact of Urbanization on Natural Springs	Arpita Goyal, Manoj Kumar
	and Spring Shed Management in Urban	







	Planet. A Case Study of Shimla City,	Indira Gandhi National Open
	Himachal Pradesh	University
7	Spatial-Temporal Analysis of Ground Water	Govind Singh
	Scenario in Nagaur District of Rajasthan	
		Jai Narain Vyas University
8	Predicting Consequential Behavior of	Koyel Sur, Vipan Kumar Verma,
	Ground Water Resources acted upon by	Brijendra Pateriya
	Expeditious Urbanization in Agrarian State	
	of Punjab, India	Punjab Remote Sensing Centre
9	Hydro-Geo Chemical Assessment of	Dhanusree M ¹ , Sreelakshmy M ² ,
	Domestic Ground Water Quality of	Bhaskaran G ³ ,
	Bharathapuzha Sub Catchment of South	
	India.	¹ NIT- Calicut
		² Nirmala College for Women,
		Coimbatore
		³ University of Madras







Technical Session 5-D Entrepreneurship & Geospatial Economy

08 November 2023, 11:30 – 13:00 hrs, Venue: Hall D (RRSC-W)

Chair: Shri A. Arunachalam, NSIL Co-Chair: Ms. N. Rama Devi, NRSC Rapporteur: Ms. Anju Bajpai, NRSC

SI No.	Title	Authors
1	Emerging trends in digital cartography with	Arkaprovo Das, Anjan Sen
	respect to the creative industries and	
	cultural economy associated with 'Durga	Delhi School of Economics,
	Puja in Kolkata' from West Bengal, India	University of Delhi
2	Application Of Geospatial Technologies in	Premangshu Chakrabarty, Subhajit
	Rural Tourism Management: A Study in	Das
	Sikkim, India	
		Visva-Bharati
3	Navigating the New World of Work:	Jagriti Lamba
	Exploring the Interplay of the Sharing	
	Economy, Digital Platforms, and the	Delhi School of Economics,
	Emergence of Digital Nomad	University of Delhi
4	Communities	Deli Hanada Tatianalan
4	Geospatial based mapping of Tribal	Rali Hansda, Jatisankar
	Development areas using Analytical	Bandyopadhyay, Suman Das,
	Hierarchy Process (AHP) approach in the Three Community Development Block of	Nirupam Acharyya
	Jhargram District	Vidyasagar University
5	Spatial Analysis of Mining Allied Non-	Suniti Hembrom, Saibal Kar, Sk.
	Quarry Activities and its impact on Local	Mafizul Haque
	Economy Economy	Wanzar Haque
	200.101119	Centre for Studies in Social Sciences
6	The Role of Geospatial Mapping in	Kanchan Thakur
	Tourism Start-up's: Leveraging Location	
	Intelligence for Enhanced Visitor	Guru Ghasidas Central University
	Experiences.	
7	Spatial Distribution Pattern and Influencing	Carol Christine Lepcha, Debdip
	Factors of Homestays in Kalimpong district,	Bhattacharjee, Arghya Sur
	West Bengal	
		Sukanta Mahavidyala,
8	Trends and Patterns of Scheduled Tribe	Prawal Sharma







	Female Agricultural Workers in India,	
	2001-2011: A Geographical Study	Panjab University
9	An Analysis of Occupational Structure: A	Deepthi P, Manonmani I.K.
	Case Study of Kerala State Using GIS	
	Techniques	Madurai Kamaraj University
10	The Chandrayaan Mission of India:	Anil Kumar
	Geographical Analysis of Geographical	
	Progress in India	R.K.R.V. School Modan Gachi
		Mokama Patna
11	Geospatial Technology Edification:	Abhishek Sharma
	Capacity Building for Viable Evolution	
		Bareilly College, Bareilly

Lı	ınch
13.00 _	1/·00 hrs







Panel Discussion

08 November 2023, 14:00 – 15:00 hrs, Venue: Hall A (RRSC - W)

Theme: Roadmap for Strengthening Geospatial Ecosystem for National Development

Moderator: Dr. Prakash Chauhan, President, INCA & Director, NRSC

14:00 – 14:05 hrs	Invitation of t	he speakers to the dais
14:05 – 14:45 hrs		Dr. M. V. Ramana Murthy Director, National Centre for Coastal Research, Ministry of Earth Sciences, Govt.of India
		Dr. Debapriya Dutta Adviser, Department of Science & Technology, Govt. of India
		Dr. S. P. Aggarwal Director, North Eastern Space Applications Centre (NESAC), Dept. of Space, Govt.of India
		Shri A. Arunachalam Director – Technical & Strategy, NewSpace India Limited (NSIL), Dept. of Space, Govt.of India
		Dr. N. Aparna Group Director, NDC National Remote Sensing Centre
		Dr. Mukunda D. Behera Associate Professor IIT – Kharagpur
		Dr. Nikhil Kumar President – Geospatial Business MapMyIndia
	(E)	Dr. V. S. S. Kiran CEO Garudalytics Private Limited
14:45 – 14:55 hrs	Discussion	
14:55 – 15:00 hrs	Felicitation of	the Panellists







Awards & Closing

08 November 2023, 15:00 – 15:30 hrs, Venue: Hall A (RRSC-W)

15:00 – 15:05 hrs	Invitation of the dignitaries to the dais	
15:05 – 15:10 hrs	Conference Summary by Dr. S. K. Srivastav, Chairman, LOC	
15:10 – 15:15 hrs	Awards to Best Papers & Posters	
15:15 – 15:20 hrs	Mementoes to Sponsors & Exhibitors	
15:20 – 15:25 hrs	Remarks by Dr. Prakash Chauhan, President, INCA	
15:25 – 15:29 hrs	Vote of Thanks – Dr. A. K. Bera, Organising Secretary	
15:29 – 15:30 hrs	National Anthem	

High Tea

INCA General Body Meeting

08 November 2023, 16:30 onwards, Venue: Hall A (RRSC-W)





Contact Details

Organising Secretary
43rd INCA International Congress
Regional Remote Sensing Centre – West
National Remote Sensing Centre
Indian Space Research Organisation
ISRO Complex, Bypass Road
Sector 9, Kudi Bhagtasani Housing Board (KBHB)
Jodhpur - 342 005, Rajasthan, India
Ph. 0291 2796395