





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



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Auditorium

(06.11.2023 F/N)

(CAZRI Campus,

near ITI, Jodhpur)

Hall A

2nd Floor

RRSC-W

Hall B

2nd Floor

RRSC-W





06-08 November 2023 - Jodhpur

Programme at a Glance						
Day-1 (06.11.2023, Monday)		Day-2 (07.11.2023, Tuesday)		Day-3	3 (08.11.2023, Wednesday)	
08:30 – 09:15 hrs	Registration					
09:30 – 11:00 hrs		Inaugural Session	Plenary Session-2 (Invited Talks)	Vice Admiral Adhir Arora, AVSM, NM, NHO Shri S. K. Sinha, SOI Shri Sajid Malik, Genesys Int.	Plenary Session-3 (Invited Talks)	Prof. Anil V. Kulkarni, IISc Dr. Raj Kumar, SAC/ISRO Dr. Shivangi S. Somvanshi,
11:00 – 11:30 hrs				Corp. Break & Networking		Geospatial World
11.00 - 11.30 1115		Todar Mal Memorial Lecture		ical Sessions – 2 (Parallel)		nical Sessions – 5 (Parallel)
	'Digital Cartography for Land Records Modernization in India'			er Resilience & Emergency Management – 1		ter Resilience & Emergency Management – 2
11:30 – 13:00 hrs	ession-	Lt. Gen. Girish Kumar, VSM (Retd.)	S	Sustainable Agriculture UAV Applications & Advances		oplications & Advances in DIP
11.30 - 13.00 1113	Plenary Session-1	S. P. Chatterjee Memorial Lecture 'Space for Sustainable Ecosystems and Geospatial Economy'	stems Sustainable Water Management – 1 Sustainable		nable Water Management – 2	
by Shri Shantanu Bhatawdekar ISRO HQ		Shri Shantanu Bhatawdekar	Environme	ental & Ecological Sustainability	Entrepreneurship & Geospatial Econo	
13:00 – 14:00 hrs				Lunch Break		
14:00 15:00 bro	:00 – 15:00 hrs Inauguration of Exhibition		Popular Talk	Shri Nilesh M. Desai, SAC/ ISRO (14:00–14:45 hrs)	Panel Discussion	'Roadmap for Strengthening Geospatial Ecosystem for National Development'
14.00 - 10.00 1113			Special Session	Mrs. Manju Sarma & Team, NRSC/ISRO (14:45–15:30 hrs)	Pa Discu	
		Technical Sessions – 1 (Parallel)	Technical Sessions – 3 (Parallel, 15:30–16:30 hrs)		Awards & Closing (15:00–15:30 hrs)	
	Mod	ern Technologies in Cartography		atial Artificial Intelligence – 1		
15:00 – 16:30 hrs		Smart Governance	Coastal Studies & Oceanography		Tea, Networking &	
	N	atural Resource Management	Meteorology & Climate Change			Departure
		Community Health	Energy Security			
16:30 – 17:00 hrs		Tea Break &	Netwo	Poster Session		
		iou biour u		ical Sessions – 4 (Parallel)		
				atial Artificial Intelligence – 2		
				porary Earth Science Studies		
17:00 – 18:30 hrs		Sponsors Presentations		ole Urban & Reg. Development		
			Urban Greenspaces & Green/Blue Economy			
			Poster Session contd.			
18:45 hrs onwards		Cultural Programme & Dinner (RRSC-West, Amphitheatre)	INCA General Body Meeting			
ICAD CATO	_	1000 W+ 1000 0 0 0 0		N U E	-ll (00 f	14 0002 42:00 !
ICAR-CAZRI RRSC – West, ISRO Campus, Sector 9, Kudi Bhagtasani Housing Board, Jodhpur (06.11.2023, 13:00 hrs onwards)						

Hall C

1st Floor

RRSC-W

Hall D

Ground Floor

RRSC-W

Hall E

2nd Floor

RRSC-W

Hall F-G

2nd 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 – Shri Shantanu Bhatawdekar Scientific Secretary, ISRO
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	Video Message by Shri S. Somanath, Chairman, Space Commission/ Secretary, Department of Space/ Chairman, ISRO
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 – Prof. K. L. Shrivastava Vice-Chancellor Jai Narain Vyas University Jodhpur
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		
12:15 – 12:55 hrs	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 S. P. Chatterjee Memorial Lecture		
12.13	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 $43^{\rm rd}$ 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: Shri Subhasis Sen, GSI

Rapporteur: Shri Sampath Kumar, NRSC

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
		ИТ. Изгана
(Consider Delay managing and mating from	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	
	5 6 5 5 5 F 3 5 F	National Centre for Coastal
		Research







06-08	Ν	lovember	2023	_	Jodhpur
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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 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 Denn

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. G. C. Sathisha, ICAR-IIHR Rapporteur: Ms. Anjana Banerjee, NATMO

		_
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







	Identification of Degraded or Contaminated Soil Zones in Industrial Sites: Screening Tool Prior to Undertaking	Sharma, Manoj Datta IIT- DELHI
8	Hyperspectral Reflectance for Preliminary	Delhi ³ National Remote Sensing Centre, Hyderabad ⁴ Indian Space Research Organization HQ, Bengaluru Amitava Dutta, Rashi Tyagi, Shilpi
		¹ RRSC-East, NRSC, Kolkata ² Regional Centres, NRSC, New
7	Remote sensing-based fractal dimension algorithm to identify land cover class from time series EVI data	Niraj Priyadarshi ¹ , Suparn Pathak ¹ , Debasish Chakraborty ¹ , Sushil Kumar Srivastav ² , Chandrasekar K ³ , Vemuri Muthayya Chowdary ³ , Soumya Bandyopadhyay ⁴
		¹ RRSC-South, Benguluru ² Regional Centres, NRSC, New Delhi
6	Monitoring Land Use Land Cover Dynamics using High Resolution Satellite Data - A case study in North Goa, India	Deep Chand Chaurasia ¹ , S Rama Subramoniam ¹ , Shivam Trivedi ¹ , R Hebbar ¹ , SK Srivastav ²







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	rteur: 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)
18:30 hrs onwards	INCA General Body Meeting	Hall A (RRSC-W)







Day 2: Detailed Programme

Plenary Session – 2

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

Session Moderator: Smt. G. Uma Devi, NRSC

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. Mishra, SOI

Rapporteur: Dr. Pondari Satyanarayana, NRSC

SI No.	Title	Authors
31 110.		
I	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 Applications for Flash Flood Susceptibility Assessment: A Case Study of Mal River	Raja Ghosh ¹ , Debdip Bhattacharjee ² ,Sandip Ghosh ¹
	basin, West Bengal	¹ Khudiram Bose Central College, Kolkatal
		² Sukanta Mahavidyalaya
7	PSI, SBAS and Hybrid InSAR for Land Deformation Analysis over Himalayan Terrain	Hari Shankar ¹ , Dharmendra Singh ² , Prakash Chauhan ³
		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 its Relationship with Inequalities of Urban Housing and Basic Services in Bhopal city	Amit Chatterjee ¹ , Shib Sankar Bagdi ² , Monidip Mondal ³
	(India)	¹ Visva-Bharati, Santiniketan
		² Independent Researcher
		³ Jawaharlal Nehru University
9	Village-Level Flood Scenario Analysis of an	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 Analytical Hierarchy Method	Shovan Lal C ²
		¹ Cochin University of Science and Technology
		² Indian Institute of Remote Sensing
11	Flood Inundation Mapping using SAR and Deep Learning	Aishwarya Makwana ¹ , Shivani Pathak ² , Vaibhav Garg ¹
		¹ Indian Institute of Remote Sensing ² ESRI R&D Center, New Delhi







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

Rappor	teur: Dr. Neetu, NRSC	
SI No.	Title	Authors
1	Identifying the potential limiting factors	Prabir Kumar Das ¹ , Tanumi Kumar ¹ ,
	towards crop intensification over Panrui	Nivedita Sinha ¹ , Sharmistha B
	gram panchayat of Birbhum, West Bengal	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,	Varun Pandey, Karun Kumar
	Microwave, Weather, and Pheno-phase	Choudhary, V. M. Chowdary
	Information Towards Developing a Robust	
	Wheat Yield Proxy	National Remote Sensing Centre,
		Hyderabad
3	Kharif Crop Typing of Haryana State Using	Dharmendra Singh, Neha Pandey,
	Geo-Spatial Approach	Priti Atri, Parmod Kalkal, Sultan
		Singh
		Haryana Space Applications Centre
4	Geographical Analysis of the Need for	Jyotshana, Namrata Anand
	Modernization of Agriculture in Bihar	
		Veer Kunwar Singh University
5	GIS-based Probabilistic Profitable	Sunil Saha ¹ , Prolay Mondal ²
	horticulture land use for sustainable	
	agriculture planning Using Multi Variables	¹ National Atlas and Thematic
	Decision Making, Machine Learning	Mapping Organisation.
	Models in Raiganj Subdivision, Eastern	² Raiganj University
	India	
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	D D Bombe
	Sugarcane Cultivation and Assessment of Irrigation Requirement in Pune District Using Eco-crop and CROPWAT Models from Geospatial Technology	Sathaye College, Vile Parle, Mumbai
8	Vegetative health assessment of citrus orchards using geospatial techniques	Jugal Kishore Mani, A. O. Varghese, G. Sreenivasan
		¹ Regional Remote Sensing Centre - Central, NRSC, Nagpur
9	A Stacked Generalization Approach and	Nandani Shrivastava, Rani Singh,
	Machine Learning Based Crop	Akash Goyal
	Classification Using Sentinel-1A Satellite Imagery for Aligarh District	Birla institute of Scientific Research Centre, Jaipur
10	Appraisal of Agricultural Situation and	Balak Ram
	Challenges in Sirohi District, Rajasthan	
		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 State Council for Science
	Karnataka	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	
	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	
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	N LA.L. LED
	suitability of groundwater irrigation and	National Atlas and Thematic
	prioritizing agricultural development in an	Mapping Organisation
9	intricate hydrogeological basin	Vhushuvant Dagi Arkannava
9	Delineation of groundwater potential zones and its extension of contamination to	Khushwant Rao ¹ , Arkoprovo
	human health risk assessment with special	Biswas ² , Dev Sen Gupta ³
	reference to arsenic contamination in	¹ National Atlas and Thematic
	Malda district of West Bengal, India	Mapping Organisation
	ivialda district or west beligal, ilidia	² Banaras Hindu University, Varanasi
		³ Defence Geoinformatics Research
		Establishment, DRDO Chandigarh
10	Hydrogeomorphological Approach in	Pijush Roy
	Water Resource Management of Asan	I IJusti Noy
	Watershed, Western Doon Valley,	National Atlas and Thematic
	Uttarakhand, India	Mapping Organisation
	Ottarakriana, maia	iviapping 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	
		¹ Tata Institute of Social Sciences
		² Indian Institute of Technology -
		Roorkee
		³ Indian Institute of Technology -
7	A : C: :C: .CI : TI	Jodhpur N. III. K. I. D. I
7	Assessing Significant Changes in The	Kumbhakarna Mallik, Krishna Pada
	Geomorphology and Biological	Bauri
	Productivity of Chilika Lagoon Under the	CV Dames Clabel Hair
	Influence of Natural Events and	C.V. Raman Global University
0	Anthropogenic Interventions	Asia ala IZana an Dari Aria IZ
8	Vegetation Dynamics in Open Cast Mining-	Avinash Kumar Ranjan, Amit Kumar
	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	ry 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 Domata Consina Contro		
		National Remote Sensing Centre,		
_	Totalia - Informal - Hilamanta in Decemb	Hyderabad		
5	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	i ondan Satyanarayana, Najiv Kulliai		
	Segmentation	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
	Data Model S-100 standards for Marine	Ramprasad
	Spatial Data Management, Coastal Zone	
	Management and Ocean Studies	National Hydrographic Office
5	Analysis of Shoreline Change using AI and	Soumili Dutta, Prasun Kumar Gupta
	Contemporary Techniques over Kerala	
		Indian Institute of Remote Sensing
6	Impact Assessment of Sewage Outfall	Hanisha Mamidisetti ¹ , Ritesh Vijay ²
	Discharges on Sea Surface Salinity Using	,
	Remote Sensing and Tidal Characteristics	¹ CSIR - NEERI,
		² Academy of Scientific and
		Innovative Research







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

Kappoi	Rapporteur: Snri 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	,			
	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				
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				
	models, Tamil Nadu, India	¹ Government 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. P. 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	
	India	National Atlas and Thematic
		Mapping Organisation
2	Solar Power Estimation: Use Case of Large	Rama Dasu M, Bhavani SVL, Kamini
	Scale Urban Geospatial Data	J, Satish C Jayanthi
		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
		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)

SI No.	Title	Authors
1	Geospatial Blockchain: A Catalyst for	Mary Chingthianhoih
	Smart Governance and Sustainable	
	Development	TERI School of Advanced Studies
2	Contribution of Geospatial Technologies in	Sukhdev Meghwal
	Promoting Sustainable Agriculture and	
	Irrigation Resources Study with Reference	Jai Narain Vyas University
	to Pali District (Raj.)	
3	Assessment of Land Use and Land Cover	Degu Zewdu, Muralee C Krishnan
	Change using Geospatial Techniques in	
	Raichur District, South India	Amrita Vishwa Vidyapeetham
4	LULC Changes after State Formation: A	Manju Tiwari ^{1,2} Prasun Kumar
	Case Study of Chhattisgarh	Gupta ¹
		¹ Indian Institute of Remote Sensing
		² Indira Gandhi Krishi
		Vishwavidyalaya
5	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	Dynamics of Land use Land Cover Change	Sunil Madde ¹ , Akash Rathod ¹ , Rama
	(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	Rice Yield Estimation Using Semi-Physical	Dharmendra Singh, Praveen Sharma,
	Approach at Village Level in Northern parts	Sultan Singh
	of Haryana	
_		Haryana Space Applications Centre
8	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	Goutam Kumar Das
	Optical satellite data: A Study of Bhagwanpur-I CD Block, East Medinipur, West Bengal, India.	Vidyasagar University
11	Protected Cultivation in Haryana: A	Abhishek Goyat
	Geospatial Analysis	Survey of India
12	Toposequence Wise Crop Suitability for	Indrajit Chowdhuri, Subodh Chandra
	Agricultural Sustainability in Red and	Pal
	Lateritic Terrain of Bankura District of	
	West Bengal	The University of Burdwan
13	Multipoint Statistics and Directional	Nashim Nawaz, Aaisha Fatma, Nehal
	Distribution of Future Trend of Vegetation	Ahmad, Mohd Sayeed Ul Hasan
	Dynamics in the Hindu Kush Himalaya Region	Aliah University
14	Development of a Cloud-based Application	Dharmendra Singh, Parveen Kumar,
	for the Assessment and Monitoring of	Sultan Singh
	Waterbodies in Haryana	
		Haryana Space Applications Centre
15	A Comparative Assessment of Ground	Dharmendra Singh, Nandini Sharma,
	Water Resources using GRACE and	Tripti Singhal, Sultan Singh
	Ground data in highly populated regions of	
	Haryana, India	Haryana Space Applications Centre
16	Geospatial Approach for Land and Water	Subhajit Roy ¹ , Sagar Subhashrao







	Pasaurea Davalanment Planning for Daves	Salunkhal* Supara Pathak² Pakash
	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	Continue Distributed CN Took signs and	
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	¹ Regional Remote Sensing Centre
	Catchment	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,	Defence Lebeneten, Jedhann
	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,
34	and MOLUSCE Models	Pragati Verma
	and Woldsel Wodels	
		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	Deniele Heissenites
	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. Aparna, 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-
7	A Framework for Geo-spatial analytics using Deep Learning	South, NRSC, Bengaluru Vijender Busi Reddy, D Sree kiran, K Raghavendra, D Mallikarjuna Rao
		Advanced Data Processing Research Institute
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	Hyderabad. Madhulika Singh ¹ , Ronald Singh ²
	estimating reference evapotranspiration 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	
		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	
	Addressing Air Pollution Challenges	Guru Gobind Singh Indraprastha
3	Evaluation of Cratic temporal Variation of	University Lal Mohammad ¹ , Jatisankar
3	Evaluation of Spatio-temporal Variation of Satellite-derived Major Pollutants from	Bandyopadhyay ¹ , Ismail Mondal ² ,
	Sentinel-5p over Eastern India	Sumana Pradhan ¹ , Taslima Khatun ³
	Sentiner-5p over Lastern maia	Sumana Fraunan , Fasinna Khatun
		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	1 (0)
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
11	Application of geospatial techniques in	Saranya R. Chandran ^{1,2} , Sajin Kumar
	deciphering the evolution of a meteorite	K. S. ^{2,3}
	impact crater; insights from Lonar impact	
	crater, Maharashtra, India	¹NATMO, Kolkata
		² University of Kerala,
		Thiruvananthapuram
		³ Michigan Technological University,
		USA

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

Sl 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







		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	Gajendra Singh Rathore, Yuvraj
	Development	Singh Rathore
		Janardan Rai Nagar Rajasthan Vidhyapeeth
7	Optimal cell phone tower location based on	Nalini J, Narender B, Muralikrishnan
	3D GIS	S, Prakash Chauhan
		National Remote Sensing Centre,
		Hyderabad
8	Assessment of Inclusion in the Distribution, Availability, and Access to Public Open	Garima Jasrotia ¹ , Kiran Kumari Singh ²
	Spaces in Varanasi City: A geospatial	Singii
	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
	III Koikata City, Iliula	Anugya Shukla3
		8,44
		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	Kiran Kumari
	Planning and Management in India	Central university of South Bihar
		Central university of South Dillar







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

каррог	teur: Dr. Rama Subramoniam, NRSC	<u></u>
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
		Women, Tosham
4	Use of Geospatial Technologies for Food	Rajendra Parihar
	Security and Green Economies, a Global	
	Perspective	Jai Narain Vyas University
5	Site Suitability Analysis for Aquaculture	Riju Singha Modak, Nirupam
	and Management Using Multi Criteria	Acharyya, Jatisankar Bandyo-
	Decision Analysis (MCDA) and Analytic	padhyay, Suman Das
	Hierarchy Process (AHP)	
		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.

INCA General Body Meeting

07 November 2023, 18:30 onwards, Venue: Hall A (RRSC-W)







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 – 10:50 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	

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	T'al	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	
	, and the second se		
		Haryana Space Applications Centre	
4	Geospatial technologies for building	Bhagwat Prakash Dayma, Ashwani	







	disaster resilience and emergency management	Arya
		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
10	Forest Fire Diels Assessment Heims M. 1.	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: Shri K. Sajikrishnan, NATMO Co-Chair: Shri Narendran J, NRSC Rapporteur: Shri Ashish K. Jain, NRSC

Title	Authors
	Col Ranjan Negi
	contraingent tog.
	Survey of India
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
Fly Over the Farm: Monitor and Map the	Ramappa K B ¹ , G. Shivakumar
Health of Sugarcane and Maize Using	Nayka², Keshav Vajapeyam²
Drone Application	¹ Audit Team Evaluator - Flight and
	Avionics
	² Institute for Social and Economic
	Change
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,
	Automatic Feature Extraction of UAV imagery using Deep Learning UAV Application for Monitor and Map the Health of Solar Power Plant: A Study of Selected States in India Fly Over the Farm: Monitor and Map the Health of Sugarcane and Maize Using Drone Application Tree Detection and Characterization in Diverse Agroforestry Systems using UAV







		Bengaluru
5	A Comparative Assessment of Deep Learning Architectures for Tree Species	⁵ Regional Centres, NRSC, New Delhi Vinod PV ¹ , Shivam Trivedi ¹ , Behera 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 Orange (Citrus sinensis) Trees using UAV based multispectral Data through Object-	Laxman Boggarapu, Karun Kumar Choudhary, V.M. Choudary, B. Narender
	based Analysis	National Remote Sensing Centre, Hyderabad
7	UAV Application for Terrain Mapping: Ascertain Pipeline Network for "Jal Jeevan Mission" in Rural and Peri-Urban Areas of	Keshav Vajapeyam ¹ , G. Shivakumar Nayka ¹ , Ramappa K B ² and 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 Processing Research Institute
9	Band Reconstruction for High Resolution Satellite Images using Deep Learning	Md Aminur Hossain, Sanjay K. Singh, Arvind K. Singh, Devakanth 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: TBD

Co-Chair: Ms. N. Rama Devi, NRSC Rapporteur: Ms. Anju Bajpai, NRSC

SI No.	Title	Authors
1	Emerging trends in digital cartography with respect to the creative industries and	Arkaprovo Das, Anjan Sen
	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	Geospatial based mapping of Tribal	Rali Hansda, Jatisankar
	Development areas using Analytical	Bandyopadhyay, Suman Das,
	Hierarchy Process (AHP) approach in the	Nirupam Acharyya
	Three Community Development Block of	
	Jhargram District	Vidyasagar University
4	Spatial Analysis of Mining Allied Non-	Suniti Hembrom, Saibal Kar, Sk.
	Quarry Activities and its impact on Local	Mafizul Haque
	Economy	
		Centre for Studies in Social Sciences
5	The Role of Geospatial Mapping in	Kanchan Thakur
	Tourism Start-up's: Leveraging Location	
	Intelligence for Enhanced Visitor	Guru Ghasidas Central University
	Experiences.	Court Christian London Dabdin
6	Spatial Distribution Pattern and Influencing	Carol Christine Lepcha, Debdip
	Factors of Homestays in Kalimpong district,	Bhattacharjee, Arghya Sur
	West Bengal	Sukanta Mahavidyala,
7	Trends and Patterns of Scheduled Tribe	Prawal Sharma
′	Female Agricultural Workers in India,	Travial Orialina
	2001-2011: A Geographical Study	Panjab University
8	An Analysis of Occupational Structure: A	Deepthi P, Manonmani I.K.
	Case Study of Kerala State Using GIS	· · · · · · · · · · · · · · ·
	Techniques	Madurai Kamaraj University







9	The Chandrayaan Mission of India:	Anil Kumar
	Geographical Analysis of Geographical	
	Progress in India	R.K.R.V. School Modan Gachi
		Mokama Patna
10	Geospatial Technology Edification:	Abhishek Sharma
	Capacity Building for Viable Evolution	
		Bareilly College, Bareilly

Lunch
Lunch
13:00 – 14:00 hrs
13.00 17.00 1113







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 the speakers to the dais	
14:05 – 14:45 hrs	19-	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
	9	Dr. S. P. Aggarwal Director, North Eastern Space Applications Centre (NESAC), 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
		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	
	 Mementoes to Sponsors & Exhibitors 	
15:15 – 15:20 hrs	Remarks by Dr. Prakash Chauhan, President, INCA	
15:20 – 15:25 hrs	Address by Guest of Honour – Shri M. Maheshwar Rao, IAS,	
	Member Secretary, Space Commission/ Additional Secretary &	
	Financial Advisor, Dept. of Space	
15:25 – 15:29 hrs	Vote of Thanks – Dr. A. K. Bera, Organising Secretary	
15:29 – 15:30 hrs	National Anthem	

Tea, Networking & Departure





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
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