

PROGRAMME REPORT

**ICSSR - TWO WEEK CAPACITY BUILDING PROGRAMME
ON GEOSPATIAL APPLICATIONS IN ENVIRONMENTAL STUDIES**

Sponsored by



***Indian Council of Social Science Research (ICSSR)
JNU Institutional Area, Aruna Asaf Ali Marg
New Delhi – 110067***

Organized by



***University of Madras (Guindy campus)
School of Earth and Atmospheric Sciences
Department of Geography, Guindy
Chennai – 600 025***

DECEMBER – 2021

OVERVIEW OF THE PROGRAMME

Over the past decades Geospatial technology has grown significantly in planning, managing, and decision making. Geospatial technology broadly includes mapping and surveying techniques, remote sensing, cartography, Global Positioning Systems (GPS) and Geographical Information Systems (GIS). With its unique ability for acquisition, integration and analysis of geographically referenced spatial information, this technology has in recent times been recognized as a major contribution towards a better future. Geospatial data lies at the core of decision-making with special reference to location & area and it continues to create its impact on social, economic and environmental benefits.

The major question which was addressed during the training programme was how Geospatial Technology plays a pivotal role in the field of Environmental studies with specific focus into the Socio-Economic aspect of it. It focused on giving the participants insights about what are the techniques and technologies that can be used for effectively implementing Geospatial technology into Environmental studies. A good look into the benefits of using Geospatial technology was also explained to motivate the participants to apply these technologies in various domains.

Objectives:

1. To provide basic training to develop skills in geospatial technology for faculty members / scientist in environmental studies
2. To apply geospatial technology in socio-economic applications
3. To promote and give awareness of geospatial technology to social science / environmental studies faculty members , which will help them to include it in their curriculum of teaching & research

The basics of Geospatial technology were covered during the programme to introduce the participants to the concepts of GIS, Remote Sensing and GNSS. Following this the course was designed to include real life applications and case studies of Geospatial technology to motivate the participants in applying it in their respective domains. Basic training in open source software such as QGIS, SAGA was provided to the participants. This helped them to understand the different GIS tools and its respective application. A brief idea about the different sources of data, data interpretation and how the data can be accessed for their purpose was given.

GENERAL DETAILS

Sl. No.	Particulars	
1.	Course Coordinator	Dr. R. Jaganathan
2.	Co - course coordinator	Dr. M. Sakthivel
3.	Duration of the Course	Two weeks (Dec 06 th 2021- Dec 19 th 2021)
4.	Lecture timings	10.00 AM – 05.30 PM
5.	Number of participants registered	34
	Number of participants attended	20
6.	Number of Resource Persons (Outside state)	6
7.	Number of Resource Persons (Within state)	6
8.	Number of Resource Persons (Local)	10
9.	Number of Lectures	33
10.	Number of Practical sessions	11
11.	Number of Special Lectures	1
12.	Total Expenditure Incurred	Rs. 1,15,800
13.	Online Platform	Google Meet

LIST OF PARTICIPANTS (APPLICANTS) – ICSSR CBP 2021

No.	Title	Name	Mobile	Whatsapp	Email ID	Gender	Designation	Institute	Department
1.	Dr	AKTHAR ALAM	9906416644	9906416644	alamwani@gmail.com	Male	Assistant Professor	University Of Kashmir, Hazratbal, Srinagar,190 006	Geography And Disaster Management
2.	Dr	AMBALAL KATARA	9772900705	9772900705	adkatara.katara@gmail.com	Male	Principal	Gurukul College, Sagwara Durgapur Govind Guru Tribal University, Rajasthan	Department of Geography
3.	Dr	ATUR KIRI INGTI	8135993710	8135993710	aturkiri@gmail.com	Male	Assistant Professor	Assam University,Diphu Campus, Diphu-782462, Assam	Geography
4.	Mr	AUTI SHARAD KARNASAHEB	9284185190	9604136722	skauti14@gmail.com	Male	Assistant Professor	MES, Arts, CommerceAnd Science College, Sonai, Ahmednagar (M.S.)Pin-414105	Geography
5.	Mr	BAPU DNYANDEVDEOKAR	9272344774	9272344774	bapudeokar@gmail.com	Male	Assistant Professor	Department Of Geography, Maharaja Jivajirao Shinde Mahavidyalaya, Distahmednagar, 413701	Geography
6.	Dr	CHANDRASEKARAYYA. T	9440078579	7032754799	tcsdps.svu@gmail.com	Male	Associate Professor	S.V.University, Tirupati	Population Studies
7.	Dr	DIVATE SANJAY PANDURANG	9764525078	9404692956	divate.sanjay77@gmail.com	Male	Assistant Professor	Dahiwadi CollegeDahiwadi, Dist. Satara (Maharashtra)Pin.-415508	Geography
8.	Dr	FAKIR SHOUKAT ZUMBARBHAI	9673732686	7447726862	shoukatfakir@gmail.com	Male	Associate Professor	Mes, Arts, Commerce And Science College Sonai, Tal. Newasa, Dist- Ahmednagar Pin-414105	Geography
9.	Dr	GHAZAL SALAHUDDIN	6396442886	6396442886	ghazal.salahuddin@gmail.com	Female	Assistant Professor	Department OfGeography, Kirori Mal College, University Of Delhi, Delhi -110007	Department Of Geography
10.	Dr	GOLAM MOSTAFA	9434665085	9434665085	golam.mostafa@outlook.in	Male	Assistant Professor	Kabi Sukanta Mahavidyalaya, Bhadreswar, Dist.- Hooghly, West Bengal - 712221	Department Of GEOGRAPHY
11.	Dr	HUMBE TEJASHRI RAHUL	9421893283	9421893283	humbetejashri@gmail.com	Female	Assistant Professor	ITGP's,VishwasraoRansing College, Kalamb- Walchandnagar	Geography
12.	Dr	KAJAL MOITRA	7987970733	9301317547	drkajolmoitra@gmail.com	Female	Professor and Head	Dr.C.V.Raman University Kota Bilaspur Chhattisgarh	Social Science (Geography)
13.	Dr	KARUNAKAR. V	9032509509	9032509509	karunakar.virgu@gmail.com	Male	Assistant Professor	Dept. Of Geography,Osmania University	Geography
14.	Dr	KARUNAKARA RAO. M	9490319117	9490319117	karunamrao@gmail.com	Male	Academic Consultant	Sri Krishnadevara University Anapatpur Andhra Pradesh	Geography
15.	Mr	KESHAB MONDAL	9933122823	9933122823	mondalkeshab83@gmail.com	Male	Assistant Professor	Cooch Behar College,2 No. Kalighat Road, Cooch Behar, West Bengal India, Pin-736101	Geography
16.	Dr	MITRAJIT CHATTERJEE	7278439816	7278439816	chatterjeemitrajit56@gmail.com	Male	Assistant Professor	Kabi Sukanta Mahavidyalaya, P.O. Angus, Bhadreswar, Hooghly	Geography
17.	Dr	NITHIYANANDAM. Y	9818369069	9818369069	nithirsgis.2@gmail.com	Male	Assistant Professor	TERI School Of Advanced Studies, 10 Institutional Area Vasanth Kunj	Natural And AppliedSciences

18.	Dr	PRADIP ASHOK SAYMOTE	9850644465	9850644465	pradip.saymote@mithibai.ac.in	Male	Assistant Professor	SVKM's Mithibai College Of Arts, Chauhan Institute Of Science & Amrutben Jivanlal College Of Commerce And Economics, Bhaktivedanta SwamiMarg, V. L. Mehta Road, Vile Parle (W), Mumbai 400 056.	Commerce (Environmental Studies)
19.	Dr	PRAKASAM. C	8628800475	8628800475	cprakasam@gmail.com	Male	Associate Professor	Assam University, Diphu Campus, Diphu, Karbi Anglong 782462, Assam	Geography
20.	Mr	PRASENJIT PAL	9434556148	9434556148	prasenjitpal@live.com	Male	Assistant Professor	Kabi Sukanta Mahavidyalaya Po-Angus, Bhadreswar Dist.- Hooghly, WB Pin-712221	Geography
21.	Dr	RAJESHVA SANTRAO WAGH	9860330970	9860330970	rajeshwagh2424@gmail.com	Male	Assistant Professor	MES, Arts, Commerce And Science College. Ahmednagar Pin- 414105	Geography
22.	Ms	RITULA PAUL	8777786259	8777786259	georitu20@gmail.com	Female	State Aided College Teacher	Bijoy Krishna Girls' College, 5/3, Mahatma Gandhi Road, Howrah-711 101	Geography
23.	Dr	SADAF	7417222631	7417222631	sadafmalik849@gmail.com	Female	Assistant Professor	Veer Kunwar Singh University, Ara, Bihar, 802301	Geography
24.	Mrs	SANJAYADEVI GANPATRAO PAWAR	8668802060	9403543220	sanjayadevigore7@gmail.com	Female	Associate Professor	Smt. Sushiladevi Deshmukh Senior College, Latur	Geography With Environment
25.	Mr	SANTAN KUMAR RAM	8005134346	8005134346	santanram@gmail.com	Male	Assistant Professor	Government Girls PgCollege Ghazipur Up	Geography
26.	Mrs	SHAIK NAJMA NIKKATH	9600123871	9677051127	najmanikath@gmail.com	Female	Assistant Professor and Head	Bhaktavatsalam Memorial College For Women Korattur Chennai 80	Physics
27.	Dr	SHINDE AMOL SUKHADEV	9604266623	9604266623	asshinde23@gmail.com	Male	Assistant Professor	Walchand Hirachand Marg, Ashok Chowk, Solapur-413006, Maharashtra	Geography
28.	Mr	SUBHANKAR NAHA	8670753293	8670753293	subhankarnaha7@gmail.com	Male	State Aided College Teacher	Naba Barrackpur Prafulla Chandra Mahavidyalaya, North 24 Parganas, Kolkata-700131, West Bengal	Geography
29.	Dr	SUDARSHAN. K	9966155633	9966155633	kandle.sudarshan@gmail.com	Male	PTL	Osmania University, Hyderabad	Department Of Geography
30.	Dr	SURENDRA. P	9731454538	9731454538	surendrabub@gmail.com	Male	Assistant Professor	Bangalore University, Bangalore	Geography
31.	Dr	VINODAKUMAR. S. NAIK	8147138663	8147138663	vin3234@gmail.com	Male	Assistant Professor	Multi Technology Testing Centre & Vocational Training Centre, Central Agricultural University(I), Lembucherra, Tripura (West) 799 210, Tripura	Multi Technology Testing Centre & Vocational Training Centre
32.	Mr	SANDIP NANASAHEB DESHMUKH	9270012710	9270012710	geobabadeshmukh@gmail.com	Male	Assistant Professor	Sangamner College, Sangamner, Dist. Ahmednagar	Geography
33.	Dr	DEEPA. A	9444823559	9444823559	abideepz@gmail.com	Female	Assistant Professor and Head	Bhaktavatsalam Memorial College For Women Korattur Chennai 600 080	Electronics And Communication Science
34.	Dr	ANWESHA HALDAR	9433560156	9433560156	ah.geog.ecgc@gmail.com	Female	Assistant Professor	Department Of Geography, East Calcutta Girls' College, West Bengal State University	Geography

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**ICSSR Sponsored two weeks Capacity Building Programme
on Geospatial Applications in Environmental Studies
(06th Dec, 2021 – 19th Dec, 2021)
Department of Geography, University of Madras
(Schedule of Programme)**



Time	Topic	Name of Resource Person
Day 01: 06.12.2021 (Monday)		
<i>Inaugural function</i>		
Invocation		
10:00-11:30	Welcome Address	Dr. R. Jaganathan (Course Director) <i>Professor & Head, Department of Geography, University of Madras</i>
	About the Programme	Prof. N. Sivagnanam <i>Former Professor and Head, Department of Geography, University of Madras</i> <i>President - Indian Geographical Society</i>
	Inaugural Address	Prof. N. Mathivanan <i>Registrar, University of Madras</i>
	Chief Guest's Speech	Mr. Deepak Srivastava IFS <i>Additional Principal Chief Conservator of Forest, Govt of Tamil Nadu</i>
	Vote of Thanks	Dr. S. Sanjeevi Prasad <i>Assistant Professor, Department of Geography, University of Madras</i>
National Anthem		
11.30-11.45	Break	
11.45-01.15	Introduction to Spatial Awareness and Geospatial Technology	Dr. R. Jaganathan
01.15-02.15	Lunch	
02.15-03.45	Geospatial Technology: A tool for Social Sciences	Dr. K. Kumaraswamy
03.45-04.00	Break	
04.00-05.30	Basics of GIS	Dr.B. Mahalingam
Day 02: 07.12.2021 (Tuesday)		
10.00-11.30	Global Navigation Satellite System and its Application	Dr.B. Mahalingam
11.30-11.45	Break	
11.45-01.15	Mapping Sciences / Cartography	Dr. K. Kumaraswamy
01.15-02.15	Lunch	
02.15-03.45	Basics of Spatial Database Management System	Dr. K. Balasubramani
03.45-04.00	Break	
04.00-05.30	Basics of Remote Sensing	Dr. K. Balasubramani
Day 03: 08.12.2021 (Wednesday)		
10.00-11.30	Geospatial Technology in Watershed Management	Dr. G. Bhaskaran
11.30-11.45	Break	
11.45-01.15	Introduction to GIS & Statistical software	Dr. D. Surendran
01.15-02.15	Lunch	
02.15-03.45	Case Study: Geospatial Technology in Watershed Management	Dr. G. Bhaskaran
03.45-04.00	Break	
04.00-05.30	QGIS (Hands on)	Mr. DharshanShylesh
Day 04: 09.12.2021(Thursday)		
10.00-11.30	Geospatial Technology in Forest Ecology and Management	Dr. S. Jayakumar

11.30-11.45	Break	
11.45-01.15	Case Study: Geospatial Technology in Forest Ecology and Management	Dr. S. Jayakumar
01.15-02.15	Lunch	
02.15-03.45	QGIS (Hands on)	Mr. Dharshan Shylesh & Team
03.45-04.00	Break	
04.00-05.30	QGIS (Hands on)	Mr. Dharshan Shylesh & Team
Day 05: 10.12.2021 (Friday)		
10.00-11.30	Geospatial Technology in Health Care System	Dr. S. Sanjeevi Prasad
11.30-11.45	Break	
11.45-01.15	Case Study: Geospatial Technology in Health Care System	Dr. S. Sanjeevi Prasad
01.15-02.15	Lunch	
02.15-03.45	Environmental Management and Law	Dr. S. Ganapathy
03.45-04.00	Break	
04.00-05.30	Environment Impact Assessment (EIA)	Dr. S. Ganapathy
Day 06: 11.12.2021 (Saturday)		
10.00-01.15	Open Street maps and its Applications (Hands on)	Mr. Arjun Gangadharan
01.15-02.15	Lunch	
02.15-05.30	QGIS & SAGA (Hands on)	Mr. Dharshan Shylesh & Team
Day 07: 12.12.2021 (Sunday)		
Assignments		
Day 08: 13.12.2021 (Monday)		
10.00-11.30	Geospatial Technology in Urban studies	Dr. S. SulochanaSekar
11.30-11.45	Break	
11.45-01.15	Case study : Geospatial Technology in Urban studies	Dr. S. SulochanaSekar
01.15-02.15	Lunch	
02.15-03.45	SAGA (Hands on)	Mr. DharshanShylesh& Team
03.45-04.00	Break	
04.00-05.30	QGIS & SAGA (Hands on Review)	Mr. Dharshan Shylesh & Team
Day 09: 14.12.2021 (Tuesday)		
10.00-11.30	Introduction to R Statistical Software Package	Mrs. S. Ishwari
11.30-11.45	Break	
11.45-01.15	R Statistical Software Package (Hands on)	Mrs. S. Ishwari
01.15-02.15	Lunch	
02.15-03.45	Geospatial Technology in Coastal Zone Management	Dr. R. Arthur James
03.45-04.00	Break	
04.00-05.30	Case Study : Geospatial Technology in Coastal Zone Management	Dr. R. Arthur James
Day 10: 15.12.2021 (Wednesday)		
10.00-11.30	E-libraries, Research tools and Drafting Research Articles	Dr. P. Shoba
11.30-11.45	Break	
11.45-01.15	Geospatial Technology in Crime Mapping and Analysis	Dr. S. Sivasankar
01.15-02.15	Lunch	
02.15-03.45	Web based Mapping tools (Google Earth / Bhuvan)	Dr. R. Aravinth

03.45-04.00	Break	
04.00-05.30	Geospatial Technology for Wetland Mapping (Hands on)	Dr. N. Manikandan / Mr. Stephen Jayaseelan
Day 11: 16.12.2021 (Thursday)		
10.00-11.30	Geospatial Technology and Sustainable Development Goals	Dr. Ashok D. Hanjagi
11.30-11.45	Break	
11.45-01.15	Scales, Econometrics and Sociometrics	Prof. N. Sivagnanam
01.15-02.15	Lunch	
02.15-03.45	Case study : Geospatial Technology and Sustainable Development Goals	Dr. Ashok D. Hanjagi
03.45-04.00	Break	
04.00-05.30	Spatial Statistics in Environmental Studies	Prof. N. Sivagnanam
	Break	
Day 12: 17.12.2021 (Friday)		
10.00-11.30	Geospatial technology development and societal applications - I	Prof. MilapPunia
11.30-11.45	Break	
11.45-01.15	Geospatial technology development and societal applications - II	Prof. MilapPunia
01.15-02.15	Lunch	
02.15-03.45	GIS for Site Suitability Analysis	Dr. R. Jegankumar
03.45-04.00	Break	
04.00-05.30	Case Study : GIS for Site Suitability Analysis	Dr. R. Jegankumar
Day 13: 18.12.2021 (Saturday)		
10.00-11.30	Role of UAV in Generation of 3D Models in Geospatial Technology	Mr. Dharshan Shylesh
11.30-11.45	Break	
11.45-01.15	Research Methods and Project Management	Dr. P. Shoba
01.15-02.00	Lunch	
02.30-04.30	Evaluation	Dr. R. Jaganathan
04.30-05.00	Interaction	Dr. R. Jaganathan
05.00-05.45	Opportunities in Geospatial Technologies from Industries perspective	Mr. R. Narayanan

10:00-11.30	Valedictory function 19.12.2021 (Sunday) 10.00 – 11.30 AM	
	Invocation	
	Welcome Address	Dr. M. Sakthivel (Co-Course Director) <i>Professor of Geography, Controller of Examinations, The Tamil Nadu Dr.JJayalithaa Music and Fine Arts University</i>
	Report by Course Director	Dr. R. Jaganathan <i>Professor & Head, Department of Geography, University of Madras</i>
	Participants impressions	
	Special Address	Prof. N. Sivagnanam <i>Former Professor and Head, Department of Geography, University of Madras</i> <i>President - Indian Geographical Society</i>
	Valedictory Address	Prof.S.Janakarajan <i>Professor(Rtd)Madras Institute of Development Studies</i> <i>President of South Asia Consortium for Interdisciplinary Water Resources Studies</i>
	Vote of Thanks	Dr. G. Bhaskaran <i>Professor, Department of Geography, University of Madras</i>
National Anthem		

LIST OF RESOURCE PERSONS – ICSSR CBP 2021

OUTSIDE THE STATE

Sl. No	Name	Designation & Address	Date & Time	Topic
1.)	Dr. B. Mahalingam	Assistant Professor Department of Geography School of Earth Sciences Central University of Karnataka Kalaburagi - 585 311. <i>mahalingam@cuk.ac.in</i>	06.12.2021 04.00-05.30 PM	Basics of GIS
			07.12.2021 10.00-11.30 AM	Global Navigation Satellite System and its Application
2.)	Dr. Ashok D. Hanjagi	Professor & Chairperson Department of Geography Bangalore University Bangalore - 560 056. <i>ashokhanjagi@gmail.com</i>	16.12.2021 10.00-11.30 AM	Geospatial Technology and Sustainable Development Goals
			16.12.2021 02.15-03.45 PM	Case study : Geospatial Technology and Sustainable Development Goals
3.)	Dr. S. Jaya Kumar	Professor and Head Department of Ecology & Environmental Studies Pondicherry University Pondicherry - 605 014. <i>jayakumar.eco@pondiuni.edu.in</i>	09.12.2021 10.00-11.30 AM	Geospatial Technology in Forest Ecology and Management
			09.12.2021 11.45-01.15 AM	Case Study: Geospatial Technology in Forest Ecology and Management
4.)	Mrs. S. Ishwari	Research Associate Institute for Health Policy Colombo, Srilanka <i>ishwari.s@gmail.com</i>	14.12.2021 10.00-11.30 AM	Introduction to R Statistical Software Package
			14.12.2021 11.45-01.15 AM	R Statistical Software Package (Hands on)
5.)	Mr. Arjun Gangadharan	Co-Founder Geominds Palakkad - 678 001. <i>arjun@geominds.in</i>	11.12.2021 10.00-01.15 AM	Open Street maps and its Applications (Hands on)
6.)	Prof. Milap Punia	Professor Centre for the Study of Regional Development School of Social Sciences Jawaharlal Nehru University New Delhi - 110 067. <i>punia@mail.jnu.ac.in</i>	17.12.2021 10.00-11.30 AM	Geospatial technology development and societal applications - I
			17.12.2021 11.45-01.15 AM	Geospatial technology development and societal applications - II

WITHIN THE STATE

Sl. No	Name	Designation & Address	Date & Time	Topic
1.)	Dr. R. Jegankumar	Professor and Head Department of Geography School of Earth Sciences Bharathidasan University Tiruchirappalli - 620 024. <i>jegankumar@bdu.ac.in</i>	17.12.2021 02.15-03.45 PM	GIS for Site Suitability Analysis
			17.12.2021 04.00-05.30 PM	Case Study : GIS for Site Suitability Analysis
2.)	Dr. S. Sulochana Shekhar	Professor and Head Department of Geography School of Earth Sciences Central University of Tamil Nadu Thiruvavur - 610 005. <i>sulochana@cutn.ac.in</i>	13.12.2021 10.00-11.30 AM	Geospatial Technology in Urban studies
			13.12.2021 11.45-01.15 AM	Case study : Geospatial Technology in Urban studies
3.)	Dr. K. Balasubramani	Assistant Professor Department of Geography School of Earth Sciences Central University of Tamil Nadu Thiruvavur - 610 005. <i>geobalas@cutn.ac.in</i>	07.12.2021 02.15-03.45 PM	Basics of Spatial Database Management System
			07.12.2021 04.00-05.30 PM	Basics of Remote Sensing
4.)	Dr. K. Kumaraswamy	ICSSR Senior Fellow Department of Geography Bharathidasan University Tiruchirappalli - 620 024. <i>kkumargeo@gmail.com</i>	06.12.2021 02.15-03.45 PM	Geospatial Technology: A tool for Social Sciences
			07.12.2021 11.45-01.15 AM	Mapping Sciences / Cartography
5.)	Dr. P. Shoba	Research Assistant Professor Department of Civil Engineering SRM Institute of Science and Technology Kattankulathur - 603 203. <i>shobap@srmist.edu.in</i>	15.12.2021 10.00-11.30 AM	E-libraries, Research tools and Drafting Research Articles
			18.12.2021 11.45-01.15 AM	Research Methods and Project Management.
6.)	Dr. R. Arthur James	Professor and Head Department of Marine Science Bharathidasan University Tiruchirappalli – 620 024 <i>james@bdu.ac.in</i>	14.12.2021 02.15-03.45 PM	Geospatial Technology in Coastal Zone Management
			14.12.2021 04.00-05.30 PM	Case Study : Geospatial Technology in Coastal Zone Management

LOCAL

Sl. No	Name	Designation & Address	Date & Time	Topic
1.)	Dr. S. Sivasankar	Guest Lecturer Department of Geography University of Madras Chennai - 600 025. <i>sivgisfirst@gmail.com</i>	15.12.2021 11.45-01.15 AM	Geospatial Technology in Crime Mapping and Analysis
2.)	Dr. S. Sanjeevi Prasad	Assistant Professor Department of Geography University of Madras Chennai - 600 025. <i>sanjeevi@unom.ac.in</i>	10.12.2021 10.00-11.30 AM	Geospatial Technology in Health Care System
			10.12.2021 11.45-01.15 AM	Case Study: Geospatial Technology in Health Care System
3.)	Dr. D. Surendran	Guest Lecturer Department of Geography University of Madras Chennai - 600 025. <i>surendran.phd@gmail.com</i>	08.12.2021 11.45-01.15 AM	Introduction to GIS & Statistical software
4.)	Dr. G.Bhaskaran	Professor Department of Geography University of Madras Chennai - 600 025. <i>grbhaskaran@unom.ac.in</i>	08.12.2021 10.00-11.30 AM	Geospatial Technology in Watershed Management
			08.12.2021 02.15-03.45 PM	Case Study: Geospatial Technology in Watershed Management
5.)	Dr. R. Jaganathan	Professor and Head Department of Geography University of Madras Chennai-600025. <i>rjnathan@unom.ac.in</i>	06.12.2021 11.45-01.15 AM	Introduction to Spatial Awareness and Geospatial Technology
6.)	Prof. N. Sivagnanam	President (Indian Geographical Society) Former Professor and Head Department of Geography University of Madras Chennai-600025. <i>sivagnanam@gmail.com</i>	16.12.2021 11.45-01.15 AM	Scales, Econometrics and Sociometrics
			16.12.2021 04.00-05.30 PM	Spatial Statistics in Environmental Studies

7.)	Dr. R. Aravinth	Guest Lecturer Department of Geography University of Madras Chennai - 600 025. <i>aravinthraja662891@gmail.com</i>	15.12.2021 02.15-03.45 PM	Web based Mapping tools (Google Earth / Bhuvan)
8.)	Dr. S. Ganapathy	Professor Centre for Environmental	10.12.2021 02.15-03.45 PM	Environmental Management and Law

		Studies Anna University Chennai - 600 025. hellosgvs@gmail.com	10.12.2021 04.00-05.30 PM	Environment Impact Assessment (EIA)
9.)	Dr. N. Manikandan	Guest Lecturer Department of Geography University of Madras Chennai - 600 025. manigeo88@gmail.com	15.12.2021 04.00-05.30 PM	Geospatial Technology for Wetland Mapping (Hands on)
10.)	Mr. R. Narayanan	Global Head - Digital Engineering (CDO) L&T Technology Services Limited narayanan.r@lts.com	18.12.2021 11.45 – 01.15 AM	Geospatial Technology: Career and Business Opportunities

Certificate Format

 <p>ICSSR - TWO WEEK CAPACITY BUILDING PROGRAMME ON GEOSPATIAL APPLICATIONS IN ENVIRONMENTAL STUDIES Department of Geography, University of Madras Chennai - 600 025</p>		
		<h2 style="text-align: center;">Certificate</h2>
<p><i>This is to certify that Dr. Ghazal Salahuddin, Kirori Mal College, University of Delhi - has successfully completed the ICSSR - Two Week Capacity Building Programme on Geospatial Applications in Environmental Studies conducted from 06th December 2021 to 19th December 2021 by the Department of Geography, University of Madras and supported by Indian Council of Social Science Research (ICSSR), Government of India, New Delhi.</i></p>		
 Course Director & HOD Dr. R. JAGANATHAN	 Co – Course Director Dr. M. SAKTHIVEL	 President, Indian Geographical Society Prof. N. SIVAGNANAM

OBSERVATIONS & RECOMMENDATIONS FROM RESOURCE PERSONS

Resource persons from all around the country gave lectures on the various domains of Geospatial technology. The following are the observations and recommendations from the resource persons.

- The resource persons were happy with the theme of the programme since it has stressed on the importance of Geospatial technology towards environmental science applications.
- In regards to the structure of the training programme the general observation was that the programme was structured in a good way to initially introduce the basic concepts and then gradually move towards the applications.
- A key observation was the inclusion of case studies in this training programme which gave the opportunity for the participants to learn on how to carry out a research work by applying this technology.
- The resource persons felt the lecture timings were more than enough to deliver basic talks on the concepts of Geospatial technology.
- The resource persons were satisfied with the response and cooperation from the participants throughout the training programme.
- It is recommended by the resource persons to organize weekend training programmes on a monthly basis for faculties to attend the lectures with ease.
- In regards to the comfort in terms of connectivity, accommodation of more participants and cost effectiveness the online mode of training was recommended.
- However the resource persons felt that the opportunity to discuss and interact efficiently becomes quite challenging in the online environment.
- The observation in regards to practical classes was that the online mode is not able to inject the right amount of knowledge into the participants. With Geospatial technology being more practical oriented this comes as a major point of discussion for the future training programme.
- The lack of field work is also a disadvantage to the online mode of training.
- The resource persons recommend that conducting such kind of training programme on a regular basis and encouraging participants from all regions of the country to take part. In some cases subject specific training programme will also be vital to incorporate more specificity on certain topics.

SUMMARY OF EVALUATION BY THE PARTICIPANTS

- A total number of 20 participants attended the training programme and in general they found the programme useful for their research as well as academic purposes.
- The participants were happy with the programme structure since it gave them the time and space to get a hold of what is Geospatial technology in an easy and comfortable manner.
- The lecture topics were interactive and each resource person provided clarifications and suggestions for each query by the participants.
- The participants were happy with the practical classes and displayed good enthusiasm in learning new open source software.
- The lectures delivered on Open street maps, R programming and the industrialist talks provided the participants with a new dimension or perspective of looking at Geospatial technology.
- Participants were comfortable with the online mode of training but in terms of practical and field work they find the offline mode much preferable and better due to connectivity issues.
- From the organizers perspective the participants were cooperative and their performances in practical and theoretical evaluation was good.
- Overall the participants requested for conducting such training programme regularly and also thanked the ICSSR for providing this opportunity for them to learn.