

Five Days Online Faculty Development Program
On
“Geospatial Technology and Its Application”

December 14th–18th,2020



ORGANIZING COMMITTEE

Patron

Prof. (Dr.) Goutam Sutradhar
Director, National Institute of Technology, Manipur

Coordinator

Dr. Bakimchandra Oinam
Dean Faculty Welfare, Department of Civil Engineering
National Institute of Technology, Manipur

Sponsored by

All India Council for Technical Education (AICTE),
Govt. of India



Organized By:

**NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR, IMPHAL WEST
MANIPUR, INDIA-795004**

Geospatial Technology and Its Application

ABOUT NIT MANIPUR

National Institute of Technology Manipur, a centrally funded institution is set up to impart quality technical education at various levels of higher learning. It is one of the ten new NITs established and developed as Institute of National Importance. The functioning of the institute was started at its temporary Campus at Takyelpat, Imphal under the mentorship of NIT, Agartala. The Institute has acquired 341 hectares of land in the lush green areas of Langol, Imphal. The Institute now has five branches of Engineering viz CSE, EE, ECE, Civil, Mechanical, Physics, Chemistry, Mathematics and Humanities & Social Science Department and offered courses on B. Tech., M. Tech., M. Sc. and Ph.D.

ABOUT THE COURSE

Geospatial technology is the synergy of multiple disciplines, namely GIS, Remote Sensing, Photogrammetry, GPS, Information Technology and Geodesy. It is fundamental to all the disciplines which use data identified by their locations. Geomatics deals with spatial and non-spatial data, their methods of acquisition, management, analysis, display and dissemination. Applications of geomatics are mainly oriented to real world management problems pertaining to natural and man-made environments. Geospatial technology is an increasingly universal information processing system and its ubiquitous nature poses new research challenges and provides new opportunities for wider range of applications.

OBJECTIVES OF THE COURSE

- Introduction to the basics of Remote Sensing, GIS and GPS
- Providing exposure to practical problems and their solutions, through case studies and live projects in the field of Remote Sensing and GIS
- Building in confidence and capability amongst the participants in the applications of Remote Sensing and GIS
- Introduction to the advance geospatial tools and techniques in mapping, visualizing, analyzing and decision making.

WHO CAN ATTEND THIS FDP THROUGH ONLINE?

Faculty members of AICTE recognized Universities and Engineering colleges all over North-East India.

SELECTION CRITERIA: The selection of candidate will be based on educational qualification, working research area. It will be on first come first serve basis.

REGISTRATION AND COURSE SCHEDULE

There is no registration fee for this course

Registration link: <https://forms.gle/PwyNACQKSgoxGkBg8>

Course schedule and Google Meet/Webex meeting links will be shared to the selected participants on or before 12/12/2020.

For any query, you can contact the administrative coordinator

Dr. Anil Kumar Birru, Assistant Professor (ME),

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IMPORTANT DATES

Last Date of Registration

December 11, 2020, till 5:00 PM.

Resource Persons



Dr. Bakimchandra Oinam is an Associate Professor in Department of Civil Engineering, National Institute of Technology, Manipur. He received his PhD from Institute for Modelling Hydraulic and Environmental Systems, University of Stuttgart, Germany. His research area are geo-statistical methods/spatial interpolation techniques to generate a continuous precipitation surface for a complex topography; understanding the role of GIS to capture and model the concept of Resource Management Domain (RMD) for sustainable Agriculture and developing a research methodology for understanding and mapping the land degradation at multi- scale. He has also published several research articles in national and international reputed journals and attended various conferences across India and abroad.



Dr. Chander Kumar Singh is a researcher and educator at TERI School of Advanced Studies. From a geochemistry background his interests have turned to interactions between environment and public health. In his research, he addresses critical issues and concerns of qualitative and quantitative assessment of groundwater in India. The ongoing theme of his work relates to spatial patterns of geogenic contaminants in India and South and South East Asia at large. He focuses on vulnerability of aquifers using deep drilling, carbon dating and more sophisticated techniques in Indus and Gangetic plains of India. Dr. Singh has more than 60 international research papers along with many book chapters to his credit. He has also edited few books published by international publishing houses. He also leads the Analytical and Geochemistry Laboratory at TERISAS.



Dr. Bikash Ranjan Parida is associated as an UGC-Assistant Professor at Central University of Jharkhand (CUJ) since September 2016. He received his PhD from Max Planck Institute for Meteorology, University of Hamburg, Germany. He also did his Post-Doctoral study in University of California, USA. He has been involved in Earth and Environmental studies specifically solving the environmental problems using space-based technologies and climate modeling. He is interested on cross cutting activities related to atmosphere-land surface exchange processes (surface water, energy, carbon fluxes etc.), carbon cycling modeling, application areas in agriculture, forest and natural resources monitoring and assessment, and climate change.



Dr. Saroj K. Meher is an Associate Professor of the System Science and Informatics Unit at the Indian Statistical Institute, Bangalore Centre. He received the B.Sc. degree in Physics (Honours) from the Sambalpur University in 1990, M.Sc. degree in Physics with Electronics Specialization and Ph.D. degree in Science from the National Institute of Technology, Rourkela in 1997 and 2003, respectively. His current research interest is in Image processing & analysis which includes remote sensing imagery, Machine Learning, Pattern Recognition, Granular Computing, Computational Intelligence/Soft Computing. He has contributed about 50 research papers in well-known and prestigious archival journals, international refereed conferences and in the edited monograph volumes.



Dr. B. S. Daya Sagar is a Professor of the Systems Science and Informatics Unit (SSIU) at the Indian Statistical Institute. Sagar received the M.Sc and Ph.D degrees from the Faculty of Engineering, Andhra University, Visakhapatnam, India, in 1991 and 1994 respectively. Earlier, he worked in College of Engineering, Andhra University, and Centre for Remote Imaging Sensing and Processing (CRISP), The National University of Singapore in various positions during 1992-2001. He served as Associate Professor and Researcher in the Faculty of Engineering & Technology (FET), Multimedia University, Malaysia during 2001-07. His research interests include mathematical morphology, GISci, digital image processing, fractals and multifractals their applications in extraction, analyses, and modeling of geophysical patterns. He has published over 85 papers in journals, and has authored and/or guest edited 11 books and/or special theme issues for journals.



Dr. Rama Rao Nidamanuri is currently an Associate Professor in the Department of Earth and Space Sciences at Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram. He received his PhD from Indian Institute of Technology Roorkee (IIT Roorkee). His main research area are methods and procedures for processing and analyzing hyperspectral, multispectral, and LiDAR remote sensing data, segmentation, classification, clustering, dimensionality reduction, spectral knowledge transfer, parallel processing, multiple classifier systems, spectral matching methods etc. He has also published several research articles in national and international reputed journals and attended various conferences across India and abroad.



Dr. P.K. Joshi is associated as a Professor in School of Environmental Sciences, Jawaharlal Nehru University, New Delhi. He was earlier Professor and Head of Department of Natural Resources at TERI University, New Delhi. He also spent a decade with Indian Institute of Remote Sensing (IIRS/ISRO), Dehradun. His research has been recognized by Indian Academy of Sciences (INSA) and National Academy of Sciences India (NASI) through the award of prestigious Young Scientist Medal (2006) and Young Scientist Platinum Jubilee Award (2009). He is trained originally as an environmentalist, and then as an ecologist, developing skills in Remote Sensing and GIS with a firm scientific research basis. His research area includes advanced geospatial, landscape and vegetation analysis and climate change vis-à-vis ecological studies.



Dr. Milap Punia is currently a Professor at Centre for the Study of Regional Development, School of Social Sciences, Jawaharlal Nehru University, New Delhi. He received his PhD from University of Rajasthan. He did Professional Masters in Geovisualisation from University of Twente - ITC, The Netherlands. He also worked as a Scientist in Photogrammetry and Remote Sensing Division at Indian Institute of Remote Sensing part of Indian Space Research Organization (ISRO) from 2001 to 2006. He has published several papers in reputed journals. His main research areas are geographic information science and spatial analysis; with applications in Regional Development, urban studies, spatial planning, disaster research, sustainability, land use change and climate change ; to bridge the research gap between social sciences and GISciences to strengthen social science research.



Dr. Atiqur Rahman is currently a Professor in Department of Geography, Faculty of Natural Sciences, Jamia Millia Islamia University, New Delhi. He received his B.Sc from Aligarh Muslim University (AMU), M.Sc with specialization in Geography and PhD from Aligarh Muslim University (AMU), Aligarh. His research area includes urban environmental management, water resource and management, public health and application of remote sensing, GIS, GPS. He has supervised 09 PhD candidates. He has also published 34 research articles in international journals and 36 research papers in national journal.



Dr. Ng. Romeji Singh is currently an Assistant Professor in National Institute of Technology Manipur (NIT-Manipur). He received his M.Tech and PhD from Indian Institute of Technology, Roorkee (IIT-Roorkee). His research area includes Hydrological and Hydraulic Modelling, Flood Hydrology & Forecasting, Geospatial Applications, River Channel and Fluvial Hydraulics, Experimental Hydraulics, Hydropower Engineering, Ecohydrology & Ecohydraulics, etc. He has also published several research articles in national and international reputed journals and attended various conferences across India and abroad.



Dr. Madhuri Kumari is currently a Professor at Amity School of Engineering and Technology, Noida. She has received her B.E(Civil) from Gandhi Institute of Technology and Management, M.Tech with specialization in Hydraulics & water Resources Engg) from Institute of Technology and Ph.D.(Civil Engg) from Teri University. She is working in the field of Environmental Impact Assessment and Auditing.