

Abhishek Banerjee

Contact

✉ abanerjee.gis@gmail.com
India

Languages

British English
Hindi, Bengali

Software

ERDAS Imagine
ARC GIS
QGIS (Open Source)
AutoCAD Map
ENVI
Global Mapper
Geomatica
MapMaker Pro
MapInfo Professional
MS Office
IBM SPSS

Programming

Python, PostgreSQL, R
Linux/Windows

Hobbies

Music, Singing
Reading Books/Novels
Writing Stories
Photography, Sketching
Games (outdoors/indoors)

Interests

GIS and Remote Sensing, Biomass Assessment, Hydrology, Water and other Natural Resources' Management, Disaster Management, Climate and Environmental Modelling, AI in GeoInformatics, Digital Image Processing, Geospatial Analysis

Education

2013-2017	Ph.D. GeoInformatics and Remote Sensing <i>GIS based integrated Water Resource Management, comprising surface and groundwater analysis; Innovation using MSS and DEM</i>	Amity University, Noida, India
2010-2012	M.Sc. (R.) in GeoInformatics <i>Geoinformation Science & Earth Observation Innovation in Microwave Polarimetric SAR based biomass assessment and modelling</i>	ITC, Enschede, Netherlands
2005-2009	B.Tech. in GeoInformatics <i>Natural Resource management using Hydrological Methods</i>	Vinayaka Missions University, Tamil Nadu, India

Experience

2021-2022	National Institute of Advanced Studies, India <i>Funded Research Project under IREL, DoAE</i>	Post-doctoral Associate
2018-2020	Tata Institute of Social Sciences, Mumbai, India <i>Associated with Geoinformatics and disaster Management related subjects.</i>	Assistant Professor
2017-2018	Shanti India Geo-Spatial Pvt. Ltd., NOIDA, India <i>Rendered training and consultancy services</i>	Consultant
2016-2017	Air Info GeoSpatial Pvt. Ltd., Delhi, India <i>Team Lead (Technical) for LULC and vulnerability mapping of disaster prone areas for Delhi Disaster Management Authority</i>	Consultant
2012-2013	Rajkiya (Govt.) Engineering College, GBTU, Akbarpur, India <i>HOD, Civil Engg. Chairman, Council of Student Affairs</i>	Lecturer

Projects

2022	Special Metal Requirements for Industrial and Domestic purposes	DoAE, Govt. of India
2018	Impediments to smooth logistics in low lying areas of Alappuzha: A study on emergency supply chain logistics <i>Administration, Report preparation and Team Support activities; Field work in a flood hit Panchayat (Alappuzha, Kerala) involved: Mapping of gravel centres, culverts and bridges, animal camps, all public distribution system offices, assessment of supply-chain mechanisms for delivery of relief materials</i>	TISS
2017	Vulnerability assessment of major areas of Delhi	DDMA, Govt. of NCT of Delhi
2016	Smart Geo-locationally locked documents for location aware Information Extraction	Indian Armed Forces, Govt. of India
2011	Species Distribution of Red Lined Lizards	University of Twente, The Netherlands
2009	Village Resource Centre Project, Achrol, Jaipur District <i>Regional Remote Sensing Service Centre, ISRO Field work involved collecting onsite data; Creation of map layers for urban, agricultural, transport (and derivatives) management</i>	IIRMR
2009	Village Resource Centre Project, JKPuram, Sirohi District <i>Regional Remote Sensing Service Centre, ISRO Field work involved collecting onsite data; Creation of map layers for urban, agricultural, transport (and derivatives) management</i>	IIRMR
2008	Space Technologies and Application Awareness Programme <i>Regional Remote Sensing Service Centre, ISRO Student outreach programme for awareness and training</i>	IIRMR

Certifications

Earth Energy Systems <i>The course comprised of energy and flow variations around the earth and different wind systems</i>	University of Toronto, Canada
Global Warming Science <i>This course comprised of the total energy variations and heating effect on the planet</i>	Massachusetts Institute of Technology, USA
Pumping Test Data Analysis <i>Trained to analyse the information obtained after processing the geophysical pumping test data and rendering for visualisation</i>	Ministry of Water Resources, Central Ground Water Board, Govt. of India
Remote Sensing Protocols for Forest Carbon Mapping <i>Workshop on how measurements are done in forest GeoInformatics through field visits Hands on practice on GIS platform for calculations and visualisation of information Development of maps for forest officers and government</i>	Forest PLUS Program, Michigan State University, USA

Programming Approaches in Remote Sensing

IEEE & GRSS

Geospatial programming for handling spatial and non-spatial data along with data visualisation, raster-vector data processing, Machine Learning implementation, Geopandas, Post GreSQL and Numpy

Geospatial Technology For Hydrological Modelling

IIRS - ISRO, Dept. of Space, Govt. of India

This course delved into the Hydrological Modelling and Management of various types of catchment areas using Remotely Sensed data & GIS Techniques

Geospatial Modelling for Watershed Management

IIRS - ISRO, Dept. of Space, Govt. of India

This course relates to mapping & analysis of various types of watersheds using morphometric methods and Geo-Hydrological assessments through Geospatial Modelling

Customer Support Engineer

BSEI, India

Training on handling customer queries regarding computer software and networking problems and provide support (technical/consulting)

Publications (selected)

- [1] **Abhishek Banerjee**, Prafull Singh, and Kamleshwar Pratap. "Morphometric evaluation of Swarnrekha watershed, Madhya Pradesh, India: an integrated GIS-based approach". en. In: *Applied Water Science* 7.4 (July 2017), pp. 1807–1815. issn: 2190-5487, 2190-5495. doi: 10.1007/s13201-015-0354-3.
- [2] **Abhishek Banerjee**, Prafull Singh, and Kamleshwar Pratap. "Hydrogeological component assessment for water resources management of semi-arid region: a case study of Gwalior, M.P., India". en. In: *Arabian Journal of Geosciences* 9.18 (Nov. 2016), p. 711. issn: 1866-7511, 1866-7538. doi: 10.1007/s12517-016-2736-8.
- [3] **Abhishek Banerjee**, Pradiptika Verma, and Prafull Singh. "Impact of Landuse changes on surface heat paradigm: Growth or Decline". en. In: (2015). doi: 10.13140/RG.2.1.2780.3926.
- [4] **Abhishek Banerjee**, Prafull Singh, Manas Banerjee, and Kamleshwar Pratap. "A GIS based approach to study changes of water use pattern of Swarnarekha watershed of Gwalior and adjoining areas in Madhya Pradesh". In: *International Journal for Research in Applied Science & Engineering Technology* (May 2015).
- [5] **Abhishek Banerjee** and Prafull Singh. "Regional Groundwater Prospect Assessment: Role of Hydrogeomorphological and Lithological Indicators using Geoinformation". en. In: (2014). doi: 10.13140/2.1.3204.1764.

Memberships

Indian Society of Remote Sensing

Dehradun

Indian Science Congress Association

Kolkata

Indian Society of Geomatics

Gujarat

Indian National Cartographic Association

Hyderabad

Subjects Taught

Engineering Geology

GeoInformatics

GIS and Remote Sensing

Surveying

Digital Image Processing

CAD/Engineering Drawing/Graphics

Statistical Analysis using modern techniques

Computer Science/Programming

SWAT based studies	Ecology adaptive management and disasters
GIS for Social Sciences (new)	Geospatial Hydrology in Disaster Management (new)
Technologies in Disaster Management (improvised)	Disaster Hazards and extreme events (improvised)
Applications of GIS in the domains of Water Resources, Land Surface Heat Studies, Microwave, Morphometric Analysis	Hazard monitoring Early Warning Systems and Coordinated Action (improvised)

Invited Lectures

Civil and Structural considerations in Disaster Management: Tools and Techniques <i>Public Lecture to inform and educate students about Civil and Structural considerations in Disaster Management and how they work logically</i>	TISS, Mumbai
Business Continuity Planning - An Introduction <i>Educate students regarding Business Continuity Planning and its workings</i>	TISS Mumbai
CBRN Threats and Risks and Technologies: India's Preparedness <i>Educate students about CBRN threats</i>	TISS Mumbai
Structural Mapping <i>Risk mapping, assessment and analysis; sea walls and embankments; Bio shield; shelters</i>	Fr. Rodrigues Institute, Vashi, Mumbai
Technology for Disaster Management	Fr. Rodrigues Institute, Vashi, Mumbai
Hazards and Disasters for Technology and Disaster Management	Fr. Rodrigues Institute, Vashi, Mumbai
Kerala floods 2018, Impediments to smooth logistics in low lying areas of Alappuzha <i>Lecture on the study of emergency supply chain logistics</i>	Govt. of Kerala & TISS, Mumbai
HCRI Summer School for UK students <i>Classroom tutorial session accompanying field work</i>	Jamsetji Tata School of Disaster Studies, TISS, Mumbai
Geoinformatics and its Applications	Delhi University, New Delhi

Conferences/Seminars/Workshops (selected, certified)

2021	5th Summer School on Artificial Intelligence <i>The summer schools brings participant to speed on latest trends in various application areas of Machine Learning and AI along with some hands-on implementation practice.</i>	CVIT, IIIT Hyderabad, India
2021	SAR Application for Flood Hazard Mapping & Monitoring <i>The course focused on applications of SAR data for detection of flood hazards followed by mapping, monitoring and management of various types of floods</i>	IIRS - ISRO, Dept. of Space, Govt. of India
2021	Remote Sensing for Lunar Science <i>This course focused on the use of Remote Sensing for studying the Lunar soil and the Moisture availability, together with the environmental conditions on the Moon</i>	IIRS - ISRO, Dept. of Space, Govt. of India

2020	Advances in Space Technology for Forest Resource Inventory & Management	Gyan Vihar University, India
2019	2nd International Conference on Business, Economics and Sustainable Development (ICBESD-2019) <i>Rooftop Solar Technical Assistance Program</i>	TERISAS, New Delhi
2019	4th World Congress on Disaster Management (WCDM-2019) <i>Climate Change and Disasters</i>	Govt. of India, IIT-TISS, Mumbai
2019	9th International Conference on Climate change <i>Co-benefits and conflicts in climate change and sustainable development</i>	TISS, Mumbai
2019	Promoting Science City to Smart City, Inclusive Cities <i>seminar on urban management and governance intervention</i>	TISS, Mumbai
2019	GIS based Ecology studies	HCRI, England - TISS, Mumbai
2018	Kerala floods 2018: Impediments to smooth logistics in low lying areas of Alappuzha <i>A study on emergency supply chain logistics</i>	Govt. of Kerala - TISS, Mumbai
2017	Digital Image Processing Techniques <i>Workshop on algorithmic approaches to digital image processing techniques</i>	IIIT Allahabad
2016	International conference on Cartography for analysis and management of climate change <i>Presentation: Innovative method for statistical approach based analysis</i>	Vishwa Bharti University, West Bengal