



VIDYASAGAR COLLEGE

39 SANKAR GHOSH LANE
KOLKATA

Dr. Ujwal Deep Saha

1	Name	DR. UJWAL DEEP SAHA		
2	Designation	SACT I		
3	Mail ID	ujsaha.90@gmail.com		
Academic qualifications				
6	Degree	Subject	University	Year
	Ph.D	Geography	University of Calcutta	2024
	MA/M.sc	Geography	University of Calcutta	2013
	BA/B.Sc	Geography	University of Calcutta	2011
PH.D. DETAILS				
7	Title of the Thesis	Evolution of the Torsa River Course in West Bengal and Possible Future Changes		
	Field of specialization under subject/ discipline	Fluvial Geomorphology		
8	PREVIOUS POSITIONS/Engagement	Guest Lecturer- Netaji Nagar College. 2014-2015		
9	Google scholar page:	https://scholar.google.com/citations?user=zkkfUBIAAAAJ&hl=en		
10	ORCID ID	https://orcid.org/0000-0002-0225-7710		
11	HONOURS AND AWARDS	Ulam Post-doctoral Fellowship, 2024 University of Calcutta, International Travel Grant		
12	CURRENT RESEARCH PROJECT/Field of Research	Fluvial geomorphology, sediment dynamics, neotectonics and landscape evolution		
13	TECHNICAL UNDERSTANDING AND EXPERIENCE	Experience of different laboratory testing – water and soil sample, sample testing for geochronological studies and geochemistry. Experience of sophisticated field survey instruments – Total Station and Eco-sounder Computer languages and platform, Python, Google Earth Engine and Matlab Experience of applying for competitive international research grants		
14	SUMMARY OF RESEARCH EXPERIENCE	8 years of research experience; mainly dealt with “How do rivers curve their courses and its response to different allogenic variables”. Worked using gis and remote sensing technology along with field techniques and laboratory processing.		
16	COMPLETE LIST OF PUBLICATIONS (Maintain Harvard Format)	Journal Article Islam, A, Das, B. C., Ghosh, S.*, Saheb, A. M., Barman, S. D., Saha, U. D. , Mohinuddin, Sk., Pal, S. C., Quesada-Roman, A. (2025). Role of riverbed sand mining on planform and cross-sectional morphology of Mayurakshi River, India. Science of the Total Environment. 963(2025), 178465. https://doi.org/10.1016/j.scitotenv.2025.178465 Islam, A., Dey, S., Mohinuddin, Sk., Ghosh, S., Saha, U. D., Pal, S. C. (2024). Planform Metamorphosis of the Rivers in the Ganga-Brahmaputra-Meghna Delta under Variable Damming and Tidal Effects. Catena. 249(2025), 108645. https://doi.org/10.1016/j.catena.2024.108645 Sarkar, B., Mohinuddin, Sk., Islam, A., Islam, A. R. M., Saha, U. D., Sengupta, S., Pal, S. C. Chu, H. J., Huang, C. (2024). Spi-Gamma and Random Forest Modelling for Meteorological Drought Characterization and		

Prediction in The Bengal Delta, Indo-Bangladesh Region. *Theoretical and Applied Climatology*. 156(51). <https://doi.org/10.1007/s00704-024-05293-y>

Saha, U. D., Bhattacharya, H. N., Islam, A. (2024). Neotectonic impact on drainage development in the Eastern Himalayan foreland basin. *Geomorphology*, 462, 109328. <https://doi.org/10.1016/j.geomorph.2024.109328>

Baral, U., Saha, U. D., Mukhopadhyay, U., Singh, D. (2023). Drought risk assessment on the eastern part of Indian peninsula—a study on Purulia district, West Bengal. *Environment Monitoring and Assessment*. <https://doi.org/10.1007/s10661-023-11920-4>

Saha, U.D., Bhattacharya, S., Islam, A., Mondal, S. (2023). Allogenic and autogenic impact on morphodynamics of a tropical river on the Himalayan frontal plain, India. *International Journal of Environmental Science and Technology*. <https://doi.org/10.1007/s13762-023-05187-y>

Yang, D., Zhang, T., Arabameri, A. Santosh, M., Saha, U. D., Islam, A. (2023). Flash-flood susceptibility mapping: a novel credal decision tree-based ensemble approaches. *Earth Science Informatics*. <https://doi.org/10.1007/s12145-023-01057-w>

Saha, U. D., Bhattacharya, S., Bhattacharya, H. N., Islam, A., Jaiswal, M., Narzary, B., Dutt, S. (2023). Development of a hyper-avulsive river course during the Holocene on the Himalayan frontal plains. *Catena*. <https://doi.org/10.1016/j.catena.2023.107279>.

Mohinuddin, Sk., Sengupta, S., Sarkar, B., Saha, U. D., Islam, A., Islam, A. R. M., et al. (2023). Assessing lake water quality during COVID-19 era using geospatial techniques and artificial neural network model. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-023-26878-6>

Islam, A., Sardar, N., Mohinuddin, Sk., Hoque, M., Sengupta, S., Das, B. C., Ghosh, S., Zhang, W., Saha, U. D., Islam, A. R. M., Barman, S. D., Sarkar, B., & Sengupta, B. (2022). Quasi-equilibrium channel metamorphosis in planform of a subtropical river in India in post-dam period. *Catena*. <https://www.sciencedirect.com/science/article/abs/pii/S0341816222007792>

Hoque, M., Islam, A., Sarkar, B., & Saha, U. D. (2022). Assessing the surface and bottom river water quality for irrigation: A study of Damodar River, India. *International Journal of Energy and Water Resources*. <https://link.springer.com/article/10.1007/s42108-022-00206-z>

Saha, U. D, Saheb, A. M., Islam, A., Barman, S., & Dutt, S., & Islam, A. R. M. (2022). Characterizing the Trend of Channel Braiding of a Tropical Transboundary River using Spatial Growth Component Analysis and ARIMA Model. *Advances in Space Research*. <https://www.sciencedirect.com/science/article/abs/pii/S0273117722005038>

Ghosh, S., Hoque, M., Saha, U., & Islam, A. (2022). Assessment of dam-induced changes in ecogeomorphological behaviour and fluvial functionality in the Damodar River, West Bengal, India. *Journal of Water Supply: Research and Technology-Aqua*. <https://iwaponline.com/aqua/article/71/6/722/88841/Assessment-of-dam-induced-changes-in>

Saha, U. D., Mitra, S., Mondal, M., & Biswas N. (2022). Assessment of the impact of anthropogenic stress on wetlands of upper Ganga Delta, India: A multi-criteria decision making approach. *Geocarto International*. <https://www.tandfonline.com/doi/abs/10.1080/10106049.2022.2068678>

Islam, A., Sarkar, B., Saha, U. D., Islam, M., & Ghosh, S. (2021). Can an annual flood induce changes in channel geomorphology? *Natural Hazards*. <https://link.springer.com/article/10.1007/s11069-021-05089-7>

Saha, U. D., Neogy, S., Kar, J., & Mukhopadhyay, U. (2021). Lithological and tectonic response on catchment characteristics of Rishi Khola, Sikkim, India. *Journal of Mountain Science*, 18(11), 3003-3024. <https://link.springer.com/article/10.1007/s11629-021-6666-x>

Saha, U. D., & Bhattacharya, S. (2021). Channel avulsion in the Torsa River course and its response to topographic and hydrological controls on the Himalayan Foreland Basin. *J. Earth Syst. Sci.*, 130(184), 1-29. <https://link.springer.com/article/10.1007/s12040-021-01669-0>

Saha, U. D., & Bhattacharya, S. (2020). Application of multi-criteria decision making approach for ascertaining the avulsion potentiality of the Torsa River course. *Model. Earth Syst. Environ.* <https://link.springer.com/article/10.1007/s40808-020-00967-8>

Saha, U. D., & Bhattacharya, S. (2019). Reconstructing the channel shifting pattern of the Torsa River on the Himalayan foreland basin over the last 250 years. *Bulletin of Geography Physical Geography Series*, 16, 100-114. <https://apcz.umk.pl/BOGPGS/article/view/17088>

Saha, U. D., & Bhattacharya, S. (2016). A Study of river induced major hydro-geomorphic issues and associated problems in Torsa basin, West Bengal. *Geographical Review of India*.

Book chapters

Polley, P.K., Saha, U. D., & Sen, A. (2022). Anthropogeomorphic Understanding of the Damodar Fan Delta, India. In A. Islam, P. Das, S. Ghosh et al. *Fluvial Systems in the Anthropocene; Process, Response and Modelling*. Springer Nature. https://link.springer.com/chapter/10.1007/978-3-031-11181-5_16

Saha, U. D., Bhattacharya, S., Bhattacharya, H. N., & Dutt, S. (2022). Development of Dharala River course and its response to tectonic indentations- evidences from old data inventory, satellite images and sedimentary archives. In H. N. Bhattacharya, S. Bhattacharya, B. C. Das, & A. Islam, *Neotectonic Movements and Channel Evolution in the Himalayas and Frontal Plains*. Springer Nature. https://link.springer.com/chapter/10.1007/978-3-030-95435-2_8

Saha, U. D., Biswas, N., Bhattacharya, S., & Mondal, S. (2022). Morphotectonic expression of the drainage basins and channel long profile forms on a selected part of Sikkim-Bhutan Himalayas. In H. N. Bhattacharya, S. Bhattacharya, B. C. Das, & A. Islam, *Neotectonic Movement and Channel Evolution in the Himalayas and Frontal Basin*. Springer Nature. https://link.springer.com/chapter/10.1007/978-3-030-95435-2_7

Sen, A., Saha, U. D., Majumder, A., & Biswas, N. (2020). Facets of Anthropogenic Encroachment within the Palaeo-Fluvial Regime of Kana–Ghia–Kunti System, Damodar Fan Region. In B. C. Das, A. Islam, S. Ghosh, & S. Roy, *Anthropogeomorphology of Bhagirathi-Hooghly River System in India*. CRC Press.

Saha, U. D., & Ray, R. (2018). Comparison of Different Image Fusion Techniques for the Urban study: A Case Study on Kolkata Municipal Corporation Area (KMCA). In S. Basu, *Perspective of Inclusive Urbanism*. Alphanumeric.

Saha, U. D., & Ray, R. (2017). Application of supervised enhancement techniques to identify the hypersaline tracts within the forest floor of

		Saptamukhi and Muriganga estuarine area, India, West Bengal. In M. Mustaquim, & A. Islam, Challenges of 21st century geography. R.K. Publication.
SEMINARS AND PRESENTATION		<p>35th National Conference 2023, CSRD, Jawaharlal Nehru University, New Delhi. Anthropogeomorphic Understanding of the Damodar Fan Delta, India</p> <p>35th National Conference 2023, CSRD, Jawaharlal Nehru University, New Delhi; Reconstruction of the avulsion history of the Torsa River during the Holocene on the Himalayan frontal plains</p> <p>Foundation of Practicing Geographers, 2022; Channel avulsion in the Torsa River course and its response to topographic and hydrological controls on the Himalayan Foreland Basin.</p> <p>International Association of Geomorphologists, RCG Athens, 2019; Response of Torsa River to Quaternary tectonics and physiographic attributes on the Himalayan Foreland Basin</p> <p>XI International Geographical Union (IGU) Commission Seminar, Guwahati, India, 2018; Reconstructed History of Channel Abandonment in Torsa basin, West Bengal (1764-2015)</p> <p>29th IGI Conference, University of Calcutta, 2016; Application of Remote Sensing and GIS for assessment of Morphological Characteristics of lower Torsa River, West Bengal</p> <p>36th INCA International Congress, Visva Bharati, India, 2016; Land use and Land cover transformation and generation of forest cover in Bishnupur subdivision, Bankura.</p>
WORKSHOPS AND HANDS-ON EXPERIENCE		<p>Statistical techniques and spatial analysis; Women Christian College, Kolkata, 2017.</p> <p>Research Design/Planning for Collection and Analysis of Data for Researchers in Sociology and Allied Areas. Indian Statistical Institute, Kolkata, 2018</p> <p>Processing of RADAR images. Opsis System Pvt. Ltd., 2018</p> <p>Summer School on the use and application of SPSS. Indian Statistical Institute, Kolkata, 2019</p> <p>Intensive Training Programme for the Young Geomorphologists of India. IGI-YGF, 2020</p> <p>Application of Python in Data Analysis. Savitribai Phule Pune University, Department of Geoinformatics, 2020</p> <p>Atmosphere Monitoring Workshop. WEKEO 2025</p>
Scientific contribution (supervision, Editorial board member/reviewing)		<p>Contributed as a reviewer in Journal of Environmental Studies and Sciences, Springer Link</p> <p>Contributed as a reviewer in Environment Monitoring and Assessment, Springer Link</p> <p>Contributed as a reviewer in Water Resource Management, Springer Link</p> <p>Contributed as a reviewer in Acta Geophysica, Springer Link</p> <p>Contributed as a reviewer in Scientific Reports, Springer Nature</p> <p><i>Supervised M.Sc. dissertation (more than 30)</i></p> <p><i>Supervised</i> – Long profile modelling and relative role of lithology and tectonics. M.Sc. Dissertation of Mr Souvik Mondal, Jadavpur University (ongoing)</p>

	<p><i>Supervised</i> –Sedimentation properties of a mid-channel bar succession in the Bhagirathi-Hooghly River – M.Sc. Dissertation of Mr Ujaan Dey, Jadavpur University, 2023-2024</p> <p><i>Supervised</i> –Analysis of channel long-profile forms on a tectonically deformed alluvial surface – M.Sc. Dissertation of Mr Chandrasekhar Roy, University of Calcutta, 2023-24</p> <p><i>Supervised</i> –Morphometric properties of river terraces and impact of tectonic deformation on terrace evolution – a study on Matiali Fan surface on the Eastern Himalayan Foothills. – M.Sc. Dissertation of Mr Amalendu Naskar, University of Calcutta, 2023-24</p> <p><i>Supervised</i> –Drainage characteristics on a deformed alluvial surface on the Himalayan Frontal Basin – M.Sc. Dissertation of Mr Akash Manna, 2022-2023</p> <p><i>Supervised</i> –Impact of structural attributes on drainage development in the Neora River catchment – M.Sc. Dissertation of Mr Bikramjit Roy, 2022-2023</p> <p><i>Supervised</i> –Assessment of drought susceptibility and risk mapping of Purulia district, West Bengal, India – M.Sc. Dissertation of Ms Upali Baral, Symbiosis International, 2022-23.</p> <p><i>Supervised</i> –Spatiotemporal Characteristics of Urban Heat Island in Noida City, Uttar Pradesh, India – M.Sc. Dissertation of Ms Pratiksha Sarkar, Amity University, 2022-23.</p> <p><i>Supervised</i> –Changes in the Nature of Carbon Sequestration in Jaldapara and Buxa Forest Region – M.Sc. Dissertation of Ms Ankita Chatterjee, Amity University, 2022-23.</p>
--	--

