



Dr. Snehasish Saha

Ph.D.
Assistant Professor

Member of Learned Societies: The Deccan Geographical Society, Pune; Geographical Society of North Bengal, Alipurduar; Geographical Society of North Eastern Hill Region, Shillong; Association of Punjab Geographers, Punjab; Bangiyo Bhugol Mancha; Indian Institute of Geomorphologist

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Subject Specialization: Fluvial Geomorphology & Agriculture Geography

Areas of Research Interest: Fluvial Geomorphology, Hydrology, Pedology, Geo-informatics, Environmental Geography.

No. of Ph.D. students: (a) Supervised: 02, (b) Ongoing: 04

No. of M.Phil. Students: (a) Supervised: 01, (b) Ongoing: 01

No. of Publications: (a) Journal (s): 36, (b) Book Chapter (s): 23

No. of Research Advisory Committees involving as member: 24 (a) Ph.D Programme: 21 (b) M.Phil Programme: 03

Mentorship (PG Studies): (a) Fourth Semester: 07, (b) Second Semester :06

Achievement & Awards:

- First Class First in B.A., Geography Honours and got one University Medal
- First Class First in M.A., Geography & Applied Geography and got one University Medal & one Bidhuranjan Adhikari Memorial Medal & Endowment Award.
- Awarded as Junior Research Fellow (JRF) in UGC-NET in December 2005 and June 2006 in Geography
- Qualified West Bengal SLET in February 2006 in Geography for Assistant Professor (Formerly Lecturer)

Administrative/Official/ Professional Experiences:

- Convener of a Webinar on '*Bank Erosion of River Ganga in Malda District, West Bengal*' organized by the Department of Geography & Applied Geography, NBU and sponsored by the DSTBT, Government West Bengal on 19th February 2022
- Joint organizing secretary in the UGC sponsored Seven days workshop on "Contemporary Tools and Techniques in Geography during 12-18th February 2020
- Member of the Cultural Sub-Committee of IGI Conference November 2019
- Member of the P G Draft Syllabus framing Committee since 14.11.2018
- Member of the UG Board of Studies in Geography, NBU (completed)
- Member of the UG Board of Studies in Environmental Science, NBU, DDE (Continuing)

- Member of SAP DRS I and DRS II on Sub-Himalayan North Bengal (Department of Geography & Applied Geography, NBU)
- Member of Transport Sub-Committee, 47th Annual Convocation of University of North Bengal in 2017
- Member of Transport Sub-Committee, 48th Annual Convocation of University of North Bengal in 2018
- Confidential work / assignment, University of Gour Banga as External member in 2016
- Member of the Board of Studies in Geography at CPBU, Cooch Behar in 2016
- Member of the Departmental Research Committee

Social/Institutional Involvement:

- Life Member: The Deccan Geographical Society, Pune, India (LM-912) (Renewal FM/4819)
- Geographical Society of North Bengal
- Life Member of the Geographical Society of North Eastern Hill Region (LM Sl. 280)
- Life Member of the Association of Punjab Geographers
- Life Member of the Bangiyo Bhugol Mancha (LM/002/09/275)
- Life Member of the Indian Institute of Geomorphologist (LM-591)

Faculty Development Programmes (Orientation and Refresher Courses)

- Completed Refresher Course from Osmania University HRDC in Earth System and Exo-Meteorology during 17th August 2020 to 29th August 2020 (Grade 'A')
- One Week Online Faculty Development Program organized by Department of Geography, HNB Garhwal University, Uttarakhand in Collaboration with Geography Department, IASE, Churu, Rajasthan during 21st - 27th July 2020 and focal theme of the webinar was '*Open source GIS Software – QGIS*' – attended and successfully completed.
- Completed Refresher Course from North Eastern Hill University HRDC in Geography during 19th June 2017 to 09th July 2017 (Grade 'A')
- Completed 1st Refresher Course in Geography from North Bengal University HRDC (Erstwhile ASC) in Geography during 9th August 2011 to 29th August 2011 (Grade 'A')
- Completed 6th Orientation Programme from NBU HRDC (Erstwhile ASC) during 19th April 2011 to 16th May 2011 (Grade 'A')

Research Projects Completed:

- Principal Investigator of NBU assistance Research Project on '*Bed Load Distribution and Characteristics of a Fluvio-Dynamic River, Case of Lish- Basin of Sub-Himalayan North Bengal*' (2019-2021).
- Co-Investigator, UGC SAP DRS-II Research Project on '*Geo-Hazards in Sub-Himalayan North Bengal*', (2016-2021).
- Co-investigator of the Departmental Research Project titled '*Preparation of Contour Map for Drainage Management in English Bazar Municipality, Malda*', sponsored by Malda Municipality, Malda, Govt. of West Bengal, (2011-2012).
- Co-Investigator, UGC SAP DRS-I on '*Geo-Hazards in Sub-Himalayan North Bengal*', (2009-2014).
- Principal Investigator of NBU assistance Research Project on "*A Comparative Study on Surface Soil Characteristics and Changing Land Use Land Cover Scenario of Dhupguri and Maynaguri Blocks of Jalpaiguri, West Bengal, India*" (2021-2022).

Research Projects Ongoing

- Principal Investigator of the Research Project titled '*Documentation of Channel Migration and Land Loss with Special Reference to Bank Soil Characteristics: A Case Study of River Ganga in Malda District, West Bengal*', Sponsored by Department of Science and Technology and Bio-Technology (DSTBT), Government of West Bengal, 2019 onwards.

Ph. D. Thesis

- Titled '*Bank Erosion of the River Ganga in between Rajmahal and Farakka*' and awarded in 2013

Guided SAP inducted Students

- Sonika Roy, work published in the Monograph 4; titled Living with Hazards edited by Prof. Subir Sarkar, Research Project Paper title: 'A study of Flood hazard in Malda district with special reference to the 1998 flood'(2014)
- Pallavi Baragaon, Work unpublished and Research Project paper title: "Fluvio-geomorphological characteristics in relation to flood and bank erosion risks of Balason river basin in and around sub himalayan foothills of Darjeeling district" (2020).

Member in the Editorial Board of Book Volumes

- 2019: *Disaster Management in Sub-Himalayan North Bengal* in Prof. S. Sarkar (ed.)
- 2017: *Remote Sensing and GIS in Environmental Management* in Prof. D.K. Mandal (ed.)
- 2014: *Living with Hazards: Monograph 4* in Prof. S. Sarkar (ed.)
- 2013: *Sustainable Livelihood, Environment and Development* in Prof. S. Rohatgi (ed.)
- 2012: *Mapping Hazards and Disasters: Monograph 3* in Prof. S. Sarkar (ed.)
- 2011: *Disaster Perception and Mitigation: Monograph 2* in Prof. S. Sarkar (ed.)
- 2010: *Geo-Hazards in Sub-Himalayan North Bengal: Monograph 1* in Prof. S. Sarkar (ed.)
- Editorial member in all Volumes of 'Geographical Thoughts' (Dept. of Geography and Applied Geography, NBU since 2009)

Publications:

Edited Books: 23

1. Active death cases and recovery rates of the COVID-19 pandemic: A comparative study of developed, developing and least developed countries of the world in N. Mitra & S. Pal (ed.) Environmental Management, book vol. (accepted).
2. Spatiotemporal detection and delineation of Bhagirathi-Hooghly River bank erosion using GIS analytics, West Bengal, India, in P. K. Shit; H. R. Pourghasemi; G. S. Bhunia; P. Das and A. Narsimha (ed.) (jointly with Das, M); *Geospatial Technology for Environmental Hazards Modeling and Management in Asian countries*, 2022; Springer, Cham. ISBN 978-3-030-75197-5; 513-537. <https://doi.org/10.1007/978-3-030-75197-5>.
3. Characterization of Spatial Variability of Soil Properties of Malda District in West Bengal, India, in Rukhsana and A. Alam (eds.) (jointly with Mandal, T., Das, J., and Poddar, D). *Agriculture, Food and Nutrition Security A study of Availability and Sustainability in India*, A study of Availability and Sustainability in India, (ed.), 2021; Springer Nature, Switzerland AG, Cham, ISBN 978-3-030-69333-6; 61-77. https://doi.org/10.1007/978-3-030-69333_6.
4. A Retrospect on Global Case-Distribution Pattern of COVID-19 Pandemics, the Most Unrelenting Fate, in M. Karmakar (ed.); *THE COVID 19 PANDEMIC: A Review of the Social, Economic and Environmental Issues/Challenge*, 2021; Blue Rose pub., ISBN 978-93-5427-451-0; 2-10.
5. Restoration of natural environment towards sustainability in pandemic COVID-19: A special reference to city area of West Bengal, India in M. Karmakar (ed.), (jointly with Das, M); *THE COVID 19 PANDEMIC: A Review of the Social, Economic and Environmental Issues/Challenge*, 2021; Blue Rose Pub., ISBN 978-93-5427-451-0; 222-239.
6. Observation on the Health of Himalayan Lakes in order to Physico-Chemical Properties of Fresh Water in Darjeeling District, West Bengal, India, in I. R. Chowdhury (ed.), (jointly with Das, M); *Population, Development and Environmental Sustainability: Challenges and Opportunities*, 2021; Rajesh Publication, New Delhi, ISBN 978-93-91139-21-6; 239-268.
7. Detecting Land Use and Land Cover Changes in Diara Region of West Bengal Inaia Using Spatio-temporal Landsat Data from 1977-2019, in I. R. Chowdhury (ed.), (jointly with Chakraborty, K); *Population, Development and Environmental Sustainability: Challenges and Opportunities*, 2021; Rajesh Publication, New Delhi, ISBN 978-93-91139-21-6; 278-296.
8. Spatial distribution of Bed load of the Upper Mahananda Basin in the Sub Himalayan North Bengal of West Bengal, India, in I. R. Chowdhury (ed.), (jointly with Thokdar, T); *Population, Development and Environmental Sustainability: Challenges and Opportunities*, 2021; Rajesh Publication, New Delhi, ISBN 978-93-91139-21-6; 347-358.
9. A study on Terrain Classification of the Sanka River Basin, in D.K. Mandal & R. Roy (ed.), (jointly with Biswas, B); *Applications of Geospatial Technology in Geomorphology and Environment*, 2020; The Registrar, University of North Bengal Press ©, ISBN 978-81-925799-3-1; 111-122.
10. Modeling Channel Avulsion Potential Zones (APZ) Using Analytical Hierarchy Process with Fuzzy Logic Method of Chel River, North Bengal (India), in D.K. Mandal & R. Roy (ed.), (jointly with Ghosh, D and

- Roy, M.K.); *Applications of Geospatial Technology in Geomorphology and Environment*, 2020; The Registrar University of North Bengal Press ©, ISBN 978-81-925799-3-1; 102-110.
11. Land Suitability Analysis for Agricultural Development: A Case Study of Malda District, West Bengal, in D.K. Mandal & R. Roy (ed.), (jointly with Mandal, T); *Applications of Geospatial Technology in Geomorphology and Environment*, 2020; The Registrar University of North Bengal Press ©, ISBN 978-81-925799-3-1; 286-294.
 12. Channel Oscillation in view of Sinuosity: A Study of River Gadadhar, Cooch Behar District under RS and GIS Environment, in N. Bhattacharjee (ed.), (jointly with Biswas, B); *Hydrology Application of Remote Sensing and GIS*, 2020; Synergy Books India, New Delhi, ISBN 978-81-944668-7-1, 23-35.
 13. Identification of Population Dynamics: A case study of Malda District, West Bengal, in A. Basak (ed.); *Population Growth, Urbanisation and Land Utilization*, 2019, Lambert Pub. ISBN 978-81-921692-9-3; 273-278.
 14. A Portfolio of Census Towns as indicator of evolving Urbanity: A case of Malda District, West Bengal, in P. K. Kundu (ed.); *Sustainable Urbanisation in East India, August 2019*, ISBN 978-93-88069-43-4; 45-57.
 15. Identification of Landslide Prone Areas in Tista Catchment through Landslide Susceptibility Mapping, West Bengal, in D. K. Mandal (ed.); (jointly with Chakraborty, K; Mitra, R; and Mandal, D. K) *Disaster Management in Sub-Himalayan North Bengal*, 2018, ISBN 978-81-921692-9-3; 1-11.
 16. Morphometric study of Murti River Basin in Jalpaiguri using GIS Environment, in D. K. Mandal (ed.); *Remote Sensing and GIS in Environmental Management*, March 2017, ISBN 978-81-921692-8-6; 53-61.
 17. Morphometric Analysis by using GIS environment: a case of Karala River Basin, Jalpaiguri, in D. K. Mandal (ed.), *Applications of Geospatial Technology for Sustainable Development*, Department of Geography & Applied Geography, University of North Bengal Press ©, ISBN 978-81-921692-7-9, 2015; 399-405.
 18. An assessment of disturbed rural livelihood in riverine environment: a case of river Ganga, Malda district, West Bengal, in S. Rohatgi (ed.), *Sustainable Livelihood, Environment and Development*, ISBN 978-81-9216-4-8, University of North Bengal Press ©, 2015; 52-61.
 19. A Study of Flood Hazard in Malda district with special reference to the 1998 flood, in S. Sarkar (ed.), *Living with Hazards*, SAP DRS I, Monograph 4, Department of Geography & Applied Geography, University of North Bengal Press ©, 2014, ISBN 978-81-921692-6-2; 67-85.
 20. Analysis of Channel Shifting and Resource Depletion of Ganga over Riverine plains: A fact files study in and around Panchanandapur in Malda District, West Bengal; *Resource Utilization, Land Use in relation to Environmental Impact in India*, 2012; NL Publishers, Shivmandir, Siliguri, West Bengal, ISBN 978-81-86860-68-7; 2-21.
 21. Ganga Bank Erosion: A Case study of Manikchak and Kaliachak blocks of Malda district, in S. Sarkar (ed.) *Mapping Hazards and Disasters*, Monograph 3, Department of Geography & Applied Geography, University of North Bengal Press ©, March 2012, ISBN 978-81-921692-3-1; 125-134.
 22. Changes of course of the River Ganga in Malda district and its Impact on economy and society, in S. Sarkar (ed.) *Disaster Perception and Mitigation*, SAP DRS I, Monograph 2, Department of Geography & Applied Geography, University of North Bengal Press ©, 2011, ISBN 978-81-921692-1-7; 64-69.
 23. Study on bank soil characteristics along the left bank of river Ganga in Malda district, West Bengal, India, in S. Sarkar (ed.) *Geo-Hazards in Sub-Himalayan North Bengal*, SAP DRS 1, Department of Geography & Applied Geography, University of North Bengal Press, Monograph 1, 2010, ISBN 978-81-921692-0-0; 106-112.

Journal: 36

24. Assessment of bank erosion and its impact on land use and land cover dynamics of Mahananda River basin (Upper) in the Sub-Himalayan North Bengal, India (jointly with Chakraborty, K); Jr. *SN Applied Sciences*, 2022, Springer Nature, Switzerland AG 4: 20. <https://doi.org/10.1007/s42452-021-04904-x>.
25. Determining the spatio-temporal response of downstream coarse sediment sorting process in the Chel river (North Bengal, India) using cluster analysis (jointly with Ghosh, D); Jr. *Modeling Earth Systems and Environment*, 2021; Springer Nature, Switzerland AG 7(2); 1353-1372. <https://doi.org/10.1007/s40808-020-01028-w>.
26. Groundwater depletion susceptibility zonation using TOPSIS model in Bhagirathi river basin, India (jointly with Mandal, T., Das, J., & Sarkar, A); Jr. *Modeling Earth Systems and Environment*, 2021; Springer Nature, Switzerland AG (Scopus cited); 1-21. DOI: [10.1007/s40808-021-01176-7](https://doi.org/10.1007/s40808-021-01176-7).

27. Spatio-Temporal Changes of Cropping Intensity in Malda district, West Bengal, India (jointly with Mandal, T); *Sodh Sanchar Bulletin, (UGC-CARE)*, Vol.11, issue 41, ISSN 2229-3620; 54-59.
28. Monitoring Channel Migration : A Case Study of River Ganga in Diara Region of Malda District, West Bengal (jointly with Chakraborty, K); *Geographical Thoughts*, 2021; Vol. XIX, ISSN 2229-466X; 102-112.
29. Bed-Load Characteristics as indicator to the evolution of channel bed aggradation, A case of river Lish in Sub-Himalayan Forelnds, Darjeeling, West Bengal; *Geographical Thoughts*, Dept. of Geography and Applied Geography,NBU, 2020; Vol. XVIII, 2229-466X; 78-90.
30. Documentation of surface soil characteristics as indicator of agricultural outcome: a case study of Dhupguri block, Jalpaiguri (West Bengal) (jointly with Roy Prodhan, B); *Annals of the National Association of Geographers of India*, 2020; Vol. 40, No. 2; 248-264. <https://doi.org/10.32381/ATNAGI.2020.40.02.4>.
31. Channel degenerations and hydraulic shrinkages implicated by anthropogenic interference as a temporal outcome: a study of Magurmari River, Darjeeling, India (jointly with Chakraborty, K and Pramanik A.B); *Jr. Modeling Earth Systems and Environment*, Springer Nature, Switzerland AG (Springer Int. Pub.) September 2019; ISSN 2363-6203, (Scopus cited), 1505-1518. <https://doi.org/10.1007/s40808-019-00649-0>.
32. Spatio temporal variability of channel behavior in relation to channel braiding: a milieu of topological braid modeling and quantitative traditional analysis of Chel basin (North Bengal) (jointly with Ghosh, D); *Jr. Modeling Earth Systems and Environment*, Springer Nature, Switzerland AG (Springer Int. Pub.) June 2019; OISSN 2363-6211, PISSN 2363-6203. (Scopus cited) <https://doi.org/10.1007/s40808-019-00616-9>.
33. Estimation of surface soil erosion using USLE Model (modified) of Dhupguri block, Jalpaiguri (West Bengal) (jointly with Ghosh, D); *Annals of the National Association of Geographers of India*, 2019; Vol. 39, No. 1, ISSN 0970-972X, 35-56. <https://doi.org/10.32381/ATNAGI.2019.39.01.3>.
34. A study on land use and land cover of Sanka River basin, Jharkhand and West Bengal (jointly with Biswas, B); *Jr. Indian Journal of Geomorphology*, 2018; Vol. 23 (1), ISSN 0973-2411, e- ISSN 2454-3616, 01-09.
35. A study on Soil Organic Matters as a major Constituent of Soil Quality, Jabalpur, Madhya Pradesh, (Jointly with Ghosh, A) *Geographical Thoughts*, 2018; Vol. XVI, ISSN 2229-466X, 54-61.
36. Detection and Documentation of course change of Gadadhar River in Cooch Behar district: a GIS based assessment (jointly with Biswas, B); *Hill Geographer*, 2017; Vol. XXIII No.1, ISSN 0970-5023, 25-37.
37. Transformations of traditional livelihood and economic composition of Totopara Village (West Bengal) (jointly with Ghosh, D); *Int. Jr. of Scientific Research, Jr. of Humanities and Social Science (IOSR)*, 2017; Vol. 22 Issue 7(Version 7), ISSN 2279-0837, 01-08
38. Impact of Channel Hydraulic Parameters on Channel Capacity: A Case of Karatoya River along the Rajganj Block, Jalpaiguri District, West Bengal (jointly with Chakraborty, K); *Int. Jr. of Innovative Research and Advanced Studies (IJIRAS)*, 2017; Vol. 4 Issue 7, ISSN 2394-4404; 186-190.
39. Effects of Land Utilization on Atrai River: A Case Study of Balurghat Municipality, Dakshin Dinajpur District, West Bengal (jointly with Chakraborty, K); *Geographical Thoughts*, Dept. of Geography and Applied Geography,NBU ©, 2017; Vol. XV, ISSN 2229-466X; 96-104.
40. Analysis of Socio-Economic Status of Toto Tribes: A case Study of Totopara Village, Madarihat, West Bengal; *Geographical Thoughts*, Dept. of Geography and Applied Geography,NBU ©, 2017; Vol. XV, ISSN 2229-466X; 105-115 (Joint).
41. Adjustment of Channel Hydraulics vs. Channel bed-forms: A case of River Diana in Jalpaiguri, West Bengal, *Geographical Thoughts*, Dept. of Geography and Applied Geography,NBU ©, Jan 2016; Vol. 14, ISSN 2229-466 X; 90-97.
42. Stream capacity in relation to hydraulics: a case of Karatoya River, Jalpaiguri district, West Bengal (jointly with Chakraborty, K); *Geo-Analyst*, July 2016; Geographical Society of North Bengal, Vol. 6 No.1, ISSN 2249-2909; 65-76.
43. An Account of the Reconstruction of Geography through historical Annals: Case of Ganga River in Malda District; *Geographical Thoughts*, Dept. of Geography and Applied Geography, NBU © 2015; Vol. 13, ISSN 2229-466X; 78-85.
44. Channel bed aggradation in relation to channel Morphometry: A case study of river Jainti, Jalpaiguri, West Bengal, (Jointly with Ghosh, D); *Int. Jr. of Geomatics and Geosciences*, 2014; Vol. 5, (1), ISSN 0976-4380; 192-208.
45. Causes of Bed infilling Scenario of River Murti in Jalpaiguri District: A conceptual Approach; *Geographical Thoughts*, Dept. of Geography and Applied Geography, NBU ©, 2014; Vol.12, ISSN 2229-466X; 45-50.

46. Diagnostic study of Surface Soil: A Case Study of selected Mouzas of Dhupguri Block, Jalpaiguri, West Bengal (Jointly with Ghosh, D and Jana, A) ; *The Indian Journal of Spatial Science*, 2014; Vol. 05(1), Summer issue, EISSN 2249-4316, ISSN 2249-3921; 32-38.
47. Temporal Variations of Bank Line shifting and Course change of River Ganga in Malda District, West Bengal: A Statistical and GIS based Approach (Jointly with Jana, A); *The Indian Journal of Research, ANVIKSHIKI*, 2013; Vol. 7 (6), ISSN 0973-9777-0-2310; 30-37.
48. Discharge Variations and Consequent Flood of River Sankosh: A micro study, District Kochbihar, West Bengal; *Uttar Bharat Bhoogol Patrika*, 2013; Vol. 43 (1 & 2), March & June issue, 0042-1618; 31-36.
49. Rights of affected people in Agriculture economy: A study on Diara inhabitants alongside River Ganga in Malda District, West Bengal; *Geographical Thoughts*, Dept. of Geography and Applied Geography, NBU © ,2013; Vol. XI, ISSN 2229-466 X; 58-66.
50. A Study on the Changes in Channel Geometry of the River Ganga Using Satellite Data and GIS Tools: A Case Study of District Malda, West Bengal; *Applications of Remote Sensing and GIS in Resource Management*, July 2012; Department of Geography & Applied Geography, University of North Bengal, in Dr. D. K. Mandal (ed), ISBN 978-81-921692-2-4, 69-75. (Joint)
51. Historical Changes of Ganga Course in Malda District, West Bengal: A Critical Analysis; *Jr. of Geo-Environmental Observer*, March 2012; Vol. 1(1), ISSN 2277-6141; 55-65.
52. Assessment of the status of solid waste management in mega cities in India: An Overview; *Int. Jr. of Agriculture, Environment and Biotechnology*, December 2011, Vol. 4, No. 4, PISSN 0974-1712. OISSN 2230-732X; 305-315.
53. Bank Erosion Hazards with a Special Reference to Obstructed River Regime - A Case Study of Ganga River in Malda District, West Bengal; *Hill Geographer*, 2011; Vol. XXVII (1 & 2), ISSN 0970-5023; 103-115.
54. Study on Landslide incidents of Paglajhora and Adjacent Areas-An Overview; Kurseong Block, Darjeeling, India; *Indian Streams Research Journal*, December 2011; Vol. 1, issue X, ISSN 2230-7850; 54-58.
55. Detection of Morphological Oscillation of the River Ganga from Manikchak to Farakka in Malda District, West Bengal; *Jr. of landscape Systems and Ecological Studies*, December 2011; ISSN 0971-4170; 255-270.
56. In-channel mechanisms and related river energy: A Case of Ganga River in Malda District, West Bengal, India; *Geo-Analyst*, 2011; Geographical Society of North Bengal, Vol. 1, (1), Dec., 2249-2909; 16-25.
57. Channel Oscillation of the River Ganga and Reduction of Population size, A Case study in Malda District, West Bengal, India; *Geographical Thoughts*, Dept. of Geography and Applied Geography, NBU ©, 2011; Vol. IX, ISSN 229-466X; 61-69.
58. Channel Migration of the River Ganga: A Case Study of Malda District, West Bengal; *Geographical Thoughts*, Dept. of Geography and Applied Geography, NBU ©, 2010; Vol. VIII, ISSN 2229-466X, vol. 08; 29-34.
59. Present Scenario of Mulberry cultivation in Malda; *Jr. Indian Silk*, 2008; Vol.47, ISSN 0019-6355 No MAG (5), Prb-decl; 45/86-87; 04-07 (jointly Ali, E & S, Parveen).

Seminars/Conferences attended

(b) Total number attended: 48

Seminar/Conference

1. National e-Seminar organized by the Department of Geography, School of Earth Science, Central University of Tamil Nadu, Thiruvavur in Association with the Indian Geographical Society (IGS), Chennai during 7th- 8th April 2022 and focal theme of the webinar was ‘*Geographies of Sustainable Development*’ – presented a paper titled “*Assessing livelihood vulnerability of riparian Settlements in Kaljani River Basin in the Sub-Himalayan North Bengal*”.
2. 21st APG Meet and international E-Conference organized by the Department of Geography, Kurukshetra university, Kurukshetra, Haryana, India during 30-31st December 2021 and focal theme of the seminar was ‘*Agriculture, Food, Security, Health and Wellbeing*’ – presented a paper titled “*Block-wise changing pattern of cropping intensity in Malda: A case statistical approach*”.
3. 32nd Annual Conference of the Indian Institute of Geomorphologists (IGI) organized by Department of Geography, West Bengal State University during 21st – 23rd January 2021 and focal theme of the Conference was ‘*Geomorphology for Human Adaptation to Changing Environment*’ – presented a paper titled “*Identification of the bank erosion signatures and its sub-types factorizing change in channel width: A case study of River Ganga in Malda District, West Bengal, India*”.

4. Online Round Table Conference organized by the Russian Geographical Society (RGS) and the National Association of Geographers, India (NAGI) on 16th July 2020 and focal theme of the Conference was “*Geographical perspectives of water resources: Issues and Challenges*” – attend as a participant.
5. National Seminar on ‘*Geography and Development*’ organized by the Department of Geography & Applied Geography, University of North Bengal, Jalpaiguri Campus on 13-14th March 2020 – presented a joint paper titled “*Documentation of Surface soil characteristics: A case study of East Khasi Hills, Meghalaya*”.
6. National Seminar on ‘*Geography and Development*’ organized by the Department of Geography & Applied Geography, University of North Bengal, Jalpaiguri Campus on 13-14th March 2020 – presented a paper titled “*Riverine Morphology and consequent Nature of Shifting: A case study of Diaras of Ganga in Malda District, West Bengal*”
7. National Seminar on ‘*Climate change and transformative changes in Himalayan and sub-Himalayan socio-economical system (CLIMSES)*’ organized by the Department of Geography & Applied Geography, Siliguri college in collaboration with Bangiyo Bhugol Mancha on 8-9th February 2020 – presented a paper titled “*Potential risk and vulnerability assessment in the riverine wash plains of sub-Himalayan foothills: case of Magurmari*”
8. 4th Regional Science & Technology Congress – 2019 (Northern Region) organized by Alipurduar college in collaboration with Department of science and technology and Biotechnology, Government of West Bengal during 18-19th December 2019 – authored a joint paper & presented by K Chakraborty titled “*Assessment of bank erosion of river Ganga and its influences on the land use and land cover dynamics in Diara region of West Bengal, using geospatial technology*”.
9. 31st IGI Conference and seminar on ‘*Application of geospatial technology in geomorphology and environment*’ organized by the Department of Geography & Applied Geography, University of North Bengal on 12-14th November 2019 – presented a paper titled “*Nature of Bank soil and their characteristic implication on land loss: A case study of Malda district, West Bengal*”.
10. 31st IGI Conference and seminar on ‘*Application of geospatial technology in geomorphology and environment*’ organized by the Department of Geography & Applied Geography, University of North Bengal during 12-14th November 2019 – presented jointly (Biswas, B) a paper titled “*A study on terrain classification of the Sanka River Basin*”.
11. 31st IGI Conference and seminar on ‘*Application of geospatial technology in geomorphology and environment*’ organized by the Department of Geography & Applied Geography, University of North Bengal during 12-14th November 2019 – presented jointly (Biswas, B) a paper titled “*Nature of Bank soil and their characteristic implication on Land Loss: A Case study of Malda District, West Bengal*”.
12. National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal during 15-16th March 2019 and focal theme of the seminar was ‘*Environment, Development and Sustainability*’ – presented a joint (co author: Mandal, T) paper titled “*Assessment of Soil Fertility Status in Malda district of West Bengal, India through Geospatial Technique*”.
13. National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 15-16th March 2019 and focal theme of the seminar was ‘*Environment, Development and Sustainability*’ – presented a joint (co authors: Ghosh, D et al) titled “*Determining Process and Recurrence of Occasional flood in relation to runoff-Discharge-Stage trio relationship in Chel river: A milieu of Empirical & Field based approach*”.
14. National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal during 15-16th March 2019 and focal theme of the seminar was ‘*Environment, Development and Sustainability*’ – presented a joint paper (Co author: K Chakraborty) titled “*Anthropogeomorphological study of the selected reach of river Karatoya, Jalpaiguri district, West Bengal*”.
15. National Seminar organized by Siliguri Mahila Mahabidyalaya, ICSSR-ERC sponsored during 9-10th March, 2019 and focal theme of the National Seminar on Sustainable Urbanization in East India: Present Trends and Future Concerns – presented a paper titled “*Ethno-Demographic Variations of Toto Tribes, :A study of selected village, Madarihat, West Bengal*”.
16. 3rd Regional Science and Technology Congress, WB, Northern Region, DSTBT, GoWB, organized by Jalpaiguri Govt. Engineering college, Jalpaiguri on 12 & 13rd December 2018 – Participated as Co-author (Co-author: T. Thokdar) & paper titled “*A Study on Nature and Distribution of Bed Load of Mahananda River within the reach of Siliguri Subdivision*”.

17. 3rd Regional Science and Technology Congress, WB, Northern Region, DSTBT, GoWB organized by Jalpaiguri Govt. Engineering college, Jalpaiguri on 12 & 13rd December 2018 – Participated as Co-author (Co-author: D. Ghosh) & paper titled “*Spatio temporal Dynamics in Channel Pattern and Behaviour of the Piedmont surface of Darjeeling Himalayas using Traditional Modern Analytics of Chel Basin*”.
18. 3rd Regional Science and Technology Congress, WB, Northern Region, DSTBT, GoWB organized by Jalpaiguri Govt. Engineering college, Jalpaiguri on 12 & 13rd December 2018 – Participated as Co-author (Co-author: K. Chakraborty) and paper titled “*Landslide Susceptibility Mapping of the Tista River basin using Remote Sensing and GIS, West Bengal*”.
19. 3rd Regional Science and Technology Congress, WB, Northern Region, DSTBT, GoWB organized by Jalpaiguri Govt. Engineering college, Jalpaiguri on 12 & 13rd December 2018 – presented a paper titled “*Development and Approaches for Indian Himalayan Region(IHR): A Review*”.
20. National Conference of 40th Indian Geography Congress of NAGI, India organized by Rajiv Gandhi University, Itanagar, Arunachal Pradesh during 29-31st October 2018 – presented a paper titled “*Assessment of Soil erosion using modified USLE Model of Dhupguri Block, Jalpaiguri, West Bengal*”.
21. UGC sponsored National Seminar of SAP DRS-II organized by the Department of Geography & Applied Geography, University of North Bengal on 23 & 24th March 2018 and focal theme of the seminar was ‘Disaster Management with focus on Sub-Himalayan North Bengal’ – presented a paper titled “*Bank Erosion Assessment through BEHI procedure of Mahananda River in Siliguri sub-Division, West Bengal*”.
22. National Seminar of SAP DRS-II organized by the Department of Geography & Applied Geography, University of North Bengal on 23 & 24th March 2018 and focal theme of the seminar was ‘Disaster Management with focus on Sub-Himalayan North Bengal’ – presented a paper titled “*Dynamics of Channel Behaviour in relation to recurring flood potentiality: A case study of Chel River on the Foreland Basin of Darjeeling Sub-Himalaya*”.
23. National Seminar of SAP DRS-II organized by the Department of Geography & Applied Geography, University of North Bengal on 23 & 24th March 2018 and focal theme of the seminar was ‘Disaster Management with focus on Sub-Himalayan North Bengal’ – presented (partial) as co-author & paper titled “*Identification of landslide prone areas in Tista catchment through landslide susceptibility mapping, West Bengal*”.
24. 4th International Seminar organized by the Department of Geography, Gour Banga University, Malda during 21-22nd March 2018 and focal theme of the seminar was ‘Population, Urbanisation and Environment: Contemporary issues and challenges’ – presented a paper titled “*A study on challenges of depopulation scenario of the riverine tracts of Diara belt in Malda District, West Bengal*”.
25. UGC sponsored National Seminar organized by the Centre for Himalayan Studies, University of North Bengal on 15 & 16th February 2018 and focal theme of the seminar was ‘Peace, Conflict and Development in the Himalayas: Process, Issues and initiatives’ – presented a paper titled “*Initiatives to the Developmental Issues in Himalayas: A general discussion on fact finding*”.
26. UGC sponsored National Seminar organized by the Department of Anthropology, University of North Bengal on 14th September 2017 and focal theme of the seminar was ‘Man, Environment and Culture’ – presented a paper titled “*Demographic Characteristics and their Environs: A case analysis of Toto tribes, Totopara village, Madarihat block, WB*”.
27. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 13 & 14th February 2017 and focal theme of the seminar was ‘Population Growth, Urbanisation and Land Utilization’ – presented a joint paper titled “*Analysis of Socio-Economic Status of Toto Tribes: A Case study of Totopara Village, Madarihat (WB)*” (Co-author: D. Ghosh).
28. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 13 & 14th February 2017 and focal theme of the seminar was ‘Population Growth, Urbanisation and Land Utilization’ – presented a paper titled “*A study on changing channel hydraulics in downstream direction, case of River Karatoya in Jalpaiguri district, West Bengal*”.
29. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 13 & 14th February 2017 and the focal theme of the seminar was ‘Population Growth, Urbanisation and Land Utilization’ – presented a joint paper titled “*Effects of land utilization on Atrai River: A case study of Balurghat Municipality area, Dakshin Dinajpur district, West Bengal*”(Co-author: K. Chakraborty).
30. UGC sponsored National Seminar organized by the Department of Geography, Birpara College, Birpara, Alipurduar, WB on 12 & 13th August 2016 and the focal theme of the seminar was ‘Human Interventions: Present and Future state of Environment’ – presented a paper titled “*Basin morphometry as indicator of Flood occurrences: A case study of River Karala in Jalpaiguri district, West Bengal*”.
31. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 2nd & 3rd February 2016 and focal theme of the seminar was ‘Remote

- Sensing and GIS in Environmental Management’ – presented a paper titled “A study on Bank Erosion of River Mahananda using Bank Erosion Hazard Index (BEHI) in Siliguri Sub-division of North Bengal”.
32. A National Seminar organized by Bangiyo Bhugol Mancha, Kolkata on 30-31st January 2016 and focal theme of the seminar was Role of Values and Indigenous Tradition to Sustain Life on Earth’ – presented a paper titled “*Human Rights and Sustainable Development: A case of Diara Inhabitants in Malda District, West Bengal*”.
 33. 37th Indian Geography Congress, NAGI organized by the Department of Geography, Jammu University during 2 - 4th December 2015 and focal theme of the conference was ‘Tourism, Resource, Environment and Development using GIS and Remote Sensing Techniques’ – presented a paper titled “*A Study on Fluvial Morphological Environment of Jaldhaka-Murti System in Jalpaiguri, West Bengal using GIS techniques*”.
 34. A National Seminar organized by the Department of Geography, Maynaguri college and Siliguri Geo-Environmental Welfare Society, Siliguri, West Bengal on 3rd & 4th September 2015. Focal theme of the seminar was ‘Major Environmental Issues: Vulnerability and Impacts’ – presented a paper titled “*Assessment of Bank Erosion Hazard in Malda District, West Bengal: A Geographical Approach*”.
 35. 22nd W.B.S.S. & Tech. Congress, 2015 organized by DST, GoWB and WBSCST (State council & Technology) in collaboration with NBU during 28th February–1st March 2015 and presented a paper titled “*Bank Erosion of River Ganga in Malda District: A Historical and Geographical Background*”.
 36. A UGC sponsored National Seminar organised by the Dept. of Geography and Applied Geography, NBU during 13-14 February 2015 and the focal theme of the seminar was ‘Applications of Geospatial technology for sustainable Development’ – presented a paper titled “*River Energy in relation to channel Hydraulics: A study of River Karala in Jalpaiguri, West Bengal*”.
 37. A UGC sponsored National Seminar organised by the Dept. of Geography and Applied Geography, NBU during 13-14 February 2015 and the focal theme of the seminar was ‘Applications of Geospatial technology for sustainable Development’ – presented a paper titled “*Existing Bank Protection technology in view of Sustainable public safety: A case study of Diara Region of Malda district, West Bengal*”.
 38. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal during 13-14th February 2015 and the focal theme of the seminar was ‘Population, Urbanization and changing state of Environment’ – presented a paper titled “*A study on the reasoning of pocket inundations through morphometric parameters using GIS environment: A case of Karala river basin Jalpaiguri*”.
 39. UGC sponsored National Seminar organized by the Department of Geography, Birpara College, Birpara, Jalpaiguri, West Bengal on 11&12th September 2014 – presented a paper titled “*Transformation of Socio-Economic Status in response to the changing Environment: A case study of Diara natives in Malda District, West Bengal*”.
 40. UGC-SAP DRS-I National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 27th & 28th March 2014 and the focal theme of the seminar was ‘Living with Hazards’ – presented a paper titled “*Assessment of Bank-erosion using BEHI method and its impact on society: A case study of river Ganga in Malda district, West Bengal*”.
 41. UGC sponsored national seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 6-7th March 2014 and the focal theme of the seminar was ‘Land, People and Society’ – presented a paper titled “*Channel Hydraulics and its energy: A case study of River Diana of sub-Himalayan foothills of North Bengal*”.
 42. UGC sponsored national seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 12 &13th March 2013 and the focal theme of the seminar was ‘Environment, Livelihood and Sustainability’ – presented a paper titled “*Geomorphological study of Karala river with special reference to river energy: A case study in and around Jalpaiguri Urban Area, Jalpaiguri, West Bengal*”.
 43. UGC sponsored national seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 12 &13th March 2013 and the focal theme of the seminar was ‘Environment, Livelihood and Sustainability’ – presented a paper titled “*Fluvio-geomorphological study of Balason River in and around Matigara block of Darjeeling District, West Bengal*”.
 44. UGC sponsored national seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 12 &13th March 2013 and the focal theme of the seminar was ‘Environment, Livelihood and Sustainability’ – presented a paper titled “*Geomorphological Study of Karala river with special reference to river energy: A case study in and around Jalpaiguri urban area, Jalpaiguri, West Bengal.*’
 45. A National Seminar organized by the Department of Geography, University of Gour Banga, Malda on 23rd February 2013 and the focal theme of the seminar was ‘River flood and Sustainable resource management’

- presented a paper titled “*A study on major causative factors of Flood and its impact on human life: A case of 1998 flood havoc in Malda District, West Bengal*”.
46. A National seminar organized by Bangiyo Bhugol Mancha at Kolkata on 9-10th February 2013 and the focal theme of the seminar was ‘Natural Resource Management for Sustainable Development’ – presented a paper titled “*Problems of Flood in Malda District, West Bengal: A case study of 1998 Flood situation*”.
 47. 25th National Silver Jubilee Conference of IGI organized by the Department of Geography, Allahabad University during 22-24th December 2012 and the focal theme of the seminar was ‘Upgrading technologies and Degrading Earth’s environment: Reality or Myth’– presented a paper titled “*Mapping and Measurement of Bank Erosion in Malda, West Bengal, India*”.
 48. UGC sponsored National level seminar organized by Gour Mahavidyalaya and GSNB, Alipurduar on 8th & 9th September 2012 and the focal theme of the seminar was ‘Issues on rural livelihood in India’ – presented a paper titled “*Effects of Bank Erosion on Rural Socio Economic Lifestyle of Diara Inhabitants: A case of Malda District, West Bengal*”.
 49. International seminar organized by the Department of Geography, University of Calcutta during 10th -12th March, 2012 and the focal theme of the seminar was ‘Dimensions of Development and Resource Conservation – presented a paper titled “*Fluvial processes over banks of river Ganga in Malda district, West Bengal and related resource depletion*”.
 50. UGC-SAP DRS-I National seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 3rd & 4th March, 2012 on the focal theme Mapping Hazards and Disasters – presented a paper titled “*Bank Erosion :A Case study of Manikchak and Kaliachak blocks of Malda District*”.
 51. International seminar organized by the Department of Geography & Disaster Management, Tripura University during 8th-11th February 2012 and the focal theme of the seminar was ‘Population, Development & Disaster management’ – presented a paper titled “*Course change of Ganga River and its consequences on socio-economic life of local inhabitants- A case study of Malda district, West Bengal*”.
 52. State level seminar (West Bengal) organized by the Bangiyo Bhugol Mancha, Malda on 7-8th January 2012 and the focal theme of the seminar was ‘Social Impact of bank erosion and flooding of Ganga-Padma river’– presented a paper “*Bank soil characteristics and associated bank slumping patterns-A case of Malda district, West Bengal*”.
 53. National level Seminar organized by the Centre for Himalayan Studies, University of North Bengal on 17 & 18th February 2012 and the focal theme of the seminar was ‘The Himalayas: Climate change, land use change and social dynamics’ – presented a paper titled “*River bank erosion and its impact on Social scape of Diaras in Malda district, West Bengal*”.
 54. UGC sponsored National Seminar organized by the Department of Geography, P.D. Women’s college during 26th -27th November 2011 and the focal theme of the seminar was ‘Resource Utilization, land use vis-à-vis Environmental Impact in India with special reference to Himalayan Foothills’ – presented a paper titled “*Analysis of channel shifting and resource depletion of Ganga over Riverine plains: A fact file study in and around Panchanandapur in Malda District, West Bengal*”.
 55. National level UGC-SAP DRS I Seminar organized by the Department of Geography & Applied Geography in collaboration with NIAS, Kolkata on 11 & 12th March 2011 and the focal theme of the seminar was ‘Disaster: Perception and Mitigation’ – presented a paper titled “*Changes of Course of the River Ganga in Malda District and its impact on economy and society*”.
 56. National level 23rd Annual Conference of IGI organized by the Department of Geography, Gauhati University during 20-22nd November 2010 and the focal theme of the seminar was ‘Global Environmental change: Geomorphological Issues and Challenges’– presented a paper titled “*Socio-Economic Impact of Bank Erosion: A Case Study in Malda District, West Bengal, India*”.
 57. National level 23rd Annual Conference of IGI organized by the Department of Geography, Gauhati University during 20th-22nd November 2010 and the focal theme of the seminar was ‘Global Environmental change: Geomorphological Issues and Challenges’– presented a paper titled “*A study on bank soil profiles of River Ganga in Malda District, West Bengal*”.
 58. UGC sponsored DRS-I National Seminar organized by the department of Geography & Applied Geography, University of North Bengal in collaboration with NSIAS, Kolkata during 6th -7th March 2010 and the focal theme of the seminar was ‘Geo-Hazards in the Sub-Himalayan on North Bengal’ – presented a paper titled “*Study of bank soil characteristics along the left bank of river Ganga in Malda district, West Bengal, India*”.
 59. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal during 20-21st March 2009 and the focal theme of the seminar was ‘Application of modern techniques in Geographical study’– presented a paper titled “*Global Positioning System: A Discussion*”.

60. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal in collaboration: Department of Higher education, Government of West Bengal during 28-30th January 2008 – presented a paper titled “*Study on the changes in channel Geometry of the River Ganga using Satellite Data and GIS Tools: A Case Study of District Malda, West Bengal*”.
61. UGC sponsored state level seminar (West Bengal) organized by WBCUTA in collaboration with Malda college in the 78th State conference & 82nd AGM on 15 & 16th November 2008 and the focal theme of the seminar was ‘Higher Education and Employability’ –attended & participated.
62. National Seminar organized by Suri Vidyasagar college during 24-25th November 2006 and the focal theme of the seminar was ‘Recent Development in Disaster Management: An Indian perspective’ – presented a paper titled “*Bank Slumping and Resulting Disaster: A case study of District Malda, West Bengal, India*”.
63. International seminar organized by Natural Disaster Management Cell Visva- Bharati, Shantiniketan, India during 14-16th February 2003 and the focal theme of the seminar was ‘River floods: A Scio-technical Approach– presented a paper titled “*Flood and Associated Socio-economic problems: A case study, village Panchanandapur, Dist-Malda, W.B*”.
64. National seminar organised by the Department of Geography and Applied Geography, University of North Bengal during 23-25th January 2003 and the focal theme of the seminar was ‘*Resource Utilization and Environmental management of Eastern States of India*’– presented a paper titled “*Bank Erosion and Resource Depletion: A case study of Malda District, West Bengal*”.
65. UGC Sponsored National Seminar organised by Malda College, Malda on 11 & 12th January 2003 and the focal theme of the seminar was ‘Conservation and Management of Natural resources to check Environmental Degradation’ - presented a paper titled “*Bank erosion of the river Ganga and associated problems: a case study of District Malda*”.

Workshops/Training Programmes /Webinar/Short Term Courses

(C) Total number attended: 26

1. Convener and Principal Investigator (PI) of the One-day DSTBT, WB Research Project assisted Webinar organized by the Department of Geography & Applied Geography, University of North Bengal on 19th February 2022 and the focal theme of the webinar was “*Bank Erosion of River Ganga in Malda District, West Bengal*”
2. A Webinar organized by Albedo Foundation on 9th January 2022 and focal theme of the webinar was “*Hydrological Modeling with HEC-HMS*” – attended and participated.
3. A Webinar organized by Albedo Foundation on 23rd May 2021 and focal theme of the webinar was “*Digital Farming in Irrigation and Fertigation*” – attended and participated.
4. A Webinar organized by Albedo Foundation on 21st February 2021 and focal theme of the webinar was “*Introduction to Sentinel product & its processing tools*” – attended and participated.
5. A Webinar organized by The International Institute of Bengal and Himalayan Basins (IIBHB) on 6th December 2020 and focal theme of the webinar was “*What’s next on the Global water crises? – Issues, solutions and Hydrogrameen*” – attended and participated.
6. Online Workshop organized by Albedo Foundation on 16th October 2020 and focal theme of the webinar was ‘*LaTeX for Students, Engineers and Professional*’ – attended and participated.
7. One – Day National Webinar organized by the Department of Geography, Maynaguri college collaboration with Siliguri Collage, West Bengal on 27th September 2020 and focal theme of the webinar was “*Emerging issues & challenges in social science: A Retrospect during the period of Covid19 pandemic*” – attended and participated.
8. A Webinar organized by Albedo Foundation on 5th September 2020 and focal theme of the webinar was “*LiDAR Remote Sensing in Forestry*” – attended and participated.
9. National Webinar organized by the Department of Geography, Heremba Chandra College in association with the internal Quality Assurance cell (IQSE) on 31st August 2020 and focal theme of the webinar was ‘*Future Trends of Research in Geographical Studies*’ – attended and participated.
10. A Webinar organized by A. J. Institute of Engineering & Technology, Mangalore, Karnataka during 11-13th August 2020 and focal theme of the seminar was “*3D Modeling on Google sketch up*” – attended and participated.
11. 21 Days Online Training Program organized by the Department of Geography, school of Earth Science, Central university of Karnataka, India from 13th July 2020 to 2nd August 2020 and focal theme of the

- Online Course was “21 days online *GIS Training Program using QGIS*” – attended and participated successfully.
12. A Webinar organized by A. J. Institute of Engineering & Technology, Mangalore, Karnataka on 18th July 2020 and focal theme of the seminar was “Climate Change Impacts on Hydrology of Western Ghat River catchment”- attended and participated.
 13. A Webinar organized by Albedo Foundation on 4th July 2020 and focal theme of the webinar was “*Application of Geospatial Techniques in Hydrology*” – attended and participated.
 14. Online Course organized by Indian Institute of Remote Sensing (IIRS), ISRO Dehradun on 13th June to 1st July 2020 and focal theme of the Online Course was “*Remote Sensing & GIS Technology and Applications for University Teachers & Government officials*”. Attended, participated and completed successfully.
 15. International E-workshop – Talk 01 organized by GeoVigyan on 19th & 20th June 2021 and focal theme of the workshop was ‘*Morphometric Analysis for Geo-Hydrological and Active Tectonics studies by using ArcGIS & Excel*’ – attended as a participated successfully.
 16. Three months (equivalent) or 50 hours Training Programme organized by WEBEL OPSIS Geometrics Academy during 14th to 25th October 2019 (12 days) and focal theme of the workshop was ‘*Application of Geo-spatial Technology*’ –attended and participated successfully.
 17. Two Day Workshop organized by North Bengal St. Xavier’s College, Rajganj Campus, Jalpaiguri, WB, on 13-14th May 2019 and focal theme of the workshop was “*Data Analysis using SPSS*” –attended and participated successfully.
 18. One Week Workshop organized by Aligarh Muslim University Centre, Jangipur, Murshidabad, WB during 28th February- 6th March, 2019 and focal theme of the workshop was “*One Week Research Methodology Workshop-01: Hands-On Training Using SPSS*” –attended as a participant.
 19. One day Workshop organized by the Council for Undergraduate studies in Arts, Science, Commerce and Law, University of North Bengal on 29th January 2019 and focal theme of the workshop was “*Restructuring the Undergraduate Syllabi based on CBCS (Honours and Programme Courses)*” – attended and participated successfully.
 20. *Tier III Training Programme* of CGWB Eastern Region, Kolkata organized by the Department of Geography & Applied Geography, University of North Bengal on 29th December 2017 and focal theme of the workshop was “*Water Budgeting and management at local level*”–attended as a participant.
 21. *One day UG syllabus reconstructing Seminar for UG students of colleges affiliated to NBU under the leadership of UG Board of Under graduate studies on 24th November 2017 at Maynaguri College*- attended and participated actively.
 22. UGC sponsored 7 day Workshop organized by the Department of Geography & Applied Geography, University of North Bengal on 31st January-6th February 2012 and focal theme of the workshop was “*Quantitative Techniques in Geography*” attended and participated.
 23. UGC sponsored Workshop organized by the Department of Geography & Applied Geography, University of North Bengal during 22nd -23rd February 2011 and focal theme of the workshop was ‘*Modern Trends in Geography*’ – attended and participated.
 24. Central Ground Water Authority Eastern Region, Kolkata supported Training Programme organized by the Department of Geography & Applied Geography, University of North Bengal on 24th November 2010 and focal theme of the workshop was “*Ground Water Development and Management with Special Reference to Rainwater Harvesting*” – attended and participated.
 25. ESRI, India Training Programme organized by the Department of Geography & Applied Geography, University of North Bengal on 26th-27th August 2010 and focal theme of the workshop was “*Introduction to Arc GIS 9.3.x*” – attended and participated.
 26. 06 months (upto Jan. 2007) Certificate course themed as ‘IMPACT’ on Computer Fundamental & OS, MS Office etc. from WEBEL Informatics Ltd. (A GoWB undertaking), Dept. of Information Technology, GoWB -Pursued and completed successfully(Grade B:70-84 p. c).

Special Lecture:

(d) Total number : 26

1. Invited for presentation a lecture organized by Siliguri BED College, WB and BBM on 5th June 2022 for Special lecture titled “*The conscience towards Environment and Global perspectives: A detailer tale using Geographical approach*”.
2. Delivered first lecture titled ‘*An Approach to study the channel hydraulics and related equations*’ in UGC sponsored seven days National Workshop organized by the Department of Geography & Applied Geography, University of North Bengal during 12-18th February 2020 and focal theme of the workshop was ‘*Contemporary Tools and Techniques in Geography*’.
3. Delivered second lecture titled ‘*An Approach to study the channel hydraulics and related equations*’ in UGC sponsored seven days National Workshop organized by the Department of Geography & Applied Geography, University of North Bengal during 12-18th February 2020 and focal theme of the workshop was ‘*Contemporary Tools and Techniques in Geography*’.
4. SC Mukhopadhyay Memorial Lecture 01 organized by ABN Seal College, Coochbehar, WB on 10th February 2018 – presented and delivered Special Lecture titled “*Formation and Patterns of Slope*”.
5. SC Mukhopadhyay Memorial Lecture 02 organized by ABN Seal College, Coochbehar, WB on 10th February 2018 – presented and delivered Special Lecture titled “*Formation and Patterns of Slope*”.
6. Special Lecture delivered organized by Maynaguri College, Jalpaiguri, WB on 3rd February 2018 – presented a Special lecture titled “*Map Projection: A Discussion*”.
7. Special Lecture delivered organized by Maynaguri College, Jalpaiguri, WB on 3rd February 2018 – presented a Special lecture titled “*River Channel Dynamics: A Discussion*”.
8. UGC sponsored National level Workshop organized by the Department of Geography & Applied Geography, University of North Bengal during 5th – 11th September 2017 and focal theme of the workshop was ‘*Geography and Applied Geography*’ – presented a Special lecture titled “*GIS and Its Application: A Geographical perspective*”.
9. UGC sponsored National level Workshop organized by the Department of Geography & Applied Geography, University of North Bengal during 5th – 11th September 2017 and focal theme of the workshop was ‘*Geography and Applied Geography*’ – presented a Special lecture titled “*ANOVA and its Applications: A geographical Approach*”.
10. Delivered Special Lecture in West Bengal Government sponsored National Seminar organized by the Department of Geography, Raiganj University, Raiganj, Uttar Dinajpur on 25th March 2017 (during 24th - 25th March 2017) and focal theme of the seminar was ‘*Livelihood Challenges and Spatial Transformation in India*’ – presented a paper titled & presentation on ‘*Transformation of traditional livelihood and economic composition of population: A case study of Toto tribes, Totopara, Madarihat block, Alipurduar district, West Bengal*’.
11. Invited Lecture in Refresher Course organized by HRD Centre, NBU (Erstwhile ASC) on 13th November 2016 and focal theme of the Refresher Course was ‘*Disaster Management and Environmental Studies*’ – presented a Special lecture titled “*Application of GPS*”.
12. Special Lecture delivered on Bhujigyasa contest programme organized by Bangiyo Bhugol Mancha on 21st August 2016 – presented a Special lecture titled “*Old Greek Contributors and evolution of Geographic speculation: An informative Discussion*”.
13. Special Lecture delivered as Resource Person organized by Department of Geography, Maynaguri college, WB on 17th September 2011 – presented a Special lecture titled “*Works of River: A case discussion of River Ganga in Malda district, West Bengal*”.

Chairing/Co-Chairing/Rapporteur in Seminars and Conferences:

(e) Total number performed : 08

1. 32nd IGI Conference and seminar organized by Department of Geography, West Bengal State University during 21st-23rd January 2021 and focal theme of the seminar was ‘*Slope Movements Assessment and Management*’ - **Participated as Rapporteur.**
2. 31st IGI Conference and seminar organized by the Department of Geography & Applied Geography, University of North Bengal during 12th -14th November 2019 and focal theme of the seminar was ‘*Application of geospatial technology in geomorphology and environment*’ - **Actively Participated as Co-Chair person**
3. National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 15 &16th March 2019 and focal theme of the seminar was ‘*Environment, Development and Sustainability*’ - **Actively Participated as Chair person.**

4. 4th International Seminar organized by Department of Geography, University of Gour Banga on 21& 22nd March 2018 and focal theme of the seminar was '*Population, Urbanization and Environment : Contemporary Issues and Challenges*' - **Actively Participated** as a Rapporteur person on 21st March 2018.
5. 4th International Seminar organized by Department of Geography, University of Gour Banga on 21& 22nd March 2018 and focal theme of the seminar was '*Population, Urbanization and Environment : Contemporary Issues and Challenges*' - **Actively Participated as a Co-chairing person on 22nd March 2018.**
6. WB Govt. Sponsored National Seminar organized by Department of Geography, Raiganj University during 24th-25th March 2017 and focal theme of the seminar was '*Livelihood Challenges and Spatial Transformation in India*' - **Actively Participated as a Co-chairing person on 25th March 2017.**
7. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 13-14th February 2015 and focal theme of the seminar was '*Applications of Geospatial Technology for Sustainable Development*' - **Actively Participated as a Co-chair person**
8. UGC sponsored National Seminar organized by the Department of Geography & Applied Geography, University of North Bengal on 13 & 14th February 2015 and focal theme of the seminar was '*Applications of Geospatial Technology for Sustainable Development*' - **Participated as Rapporteur.**