

Dr. Malabika Biswas Roy Associate Professor, Head and PG Subject Coordinator Department of Geography

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Self-Introduction: I, Dr. Malabika Biswas Roy is now currently working as an Associate Professor, Head and PG Subject Coordinator of the Department of Geography, Women's College Calcutta. I have an expertise in Wetland Studies, Hydrology, Fluvial Geomorphology, Forest Hydrology, Biodiversity, Water Quality Modeling and Impact of Climate Change on Wetland System. I have over 20 years of teaching and research experience and provide doctoral guidance to students. I have attended many conferences and has more than 80 national and international journal papers. I have given a number of lectures in national and international conferences as an invited speaker. Currently I acted as an invited speaker in 2nd World Congress on Climate Change, held in Berlin, Germany. I preferably have field experience in various studies related to environmental studies and currently acting as the Co-Principal Investigator of Central DST, NRDMS funded project on coastal vulnerability. At present I am the member of many learned Societies of national and international level. I was also the convener of the International Conference on Sustainable Water Resources Management under Changed Climate, 2020 organized by School of Water Resources Engineering Jadavpur University in collaboration with Women's College Calcutta and National Institute of Technology, Durgapur.

Sex: Female *Nationality:* Indian *Education:*

- Bachelor of Science (Geography Hons), 1999.
- Masters of Science (Geography), 2001.
- Bachelor of Education (B.Ed.), 2003.
- Ph.D. (Science), Entitled- "*Participatory Management of Ecosystem Services : A Case of wetland of West Bengal*" from School of Water Resources Engineering, Jadavpur University, Kolkata ,India (2008)
- Masters of Education (M.Ed.), 2013.
- NET (National Eligibility Test, 2005)

Professional Experience:

- Teaching: 20 years
- *Research:* 18 years
- Research Project as Principal Investigator: 2
- UGC Minor- Completed-(82 thousand) No-43-354/2014 (SR) and UGC Major Research Project-Complete-(14.45 lakhs) No- F. PWS.-181/09-10 (ERO)
- Research Project as Research Team Member:7 (project completed)
- *Research project as the Co-Investigator* : 1(project completed)
- *Training Course:* Refresher Course (3-ASC, Jadavpur University), Orientation course(1-ASC, Jadavpur University) and other (8)
- Journal Publication: (National/ International):94
- *Book Published:* (International publication): 2
- *Edited Volume:* (National-22/ International-2)
- Book Chapter : (International/National):37

• *Post-Doctoral research work* :2 (completed) Institute- Jadavpur University under the faculty of *Interdisciplinary Studies Law & Management*

Teaching Experience

Designation	Designation Name of Institute		Period of service		
Designation	Name of Institute	From	То		
Associate Professor	Women's College, Calcutta	16/12/2022	Till Date		
Assistant Professor	Women's College, Calcutta	06/06/2017	16/12/2022		
Assistant Professor	Gandhi Centenary B.T. College, Habra	01/10/2008	05/06/2017		
Assistant Teacher	Belur Girls High School(H.S.)	02/01/2003	30/09/2008		

Doctoral Guidance as Co-Supervisor: Six Students (under the faculty of Interdisciplinary Studies Law & Management, Jadavpur University)

Name of the students	Title of the thesis	Status
Mihir Pal	Modelling of Wind Induced Circulation in Some Selected Indian Lakes and Reservoirs	Awarded
Debanjana Chatterjee	Role of Hydrological Services with Special Reference to Forest & Water Relationship in a Holistic Participatory Approach	Awarded
Sritama Chatterjee	Risk Assessment of Heavy Metal Toxicity in Agricultural soil and Vegetables due to farming with sewage in EKW area and evolving controlling technique for problem mitigation	Awarded
Arnab Ghosh	Study on river dynamics of floodplain system with special reference to avulsion of Bhagirathi	Awarded
Sudipa Halder	Exchange Process of Surface and Sub-surface Water Assessment for Safe and Sustainable Water Security plan	Awarded
Swetasree Nag	Hydrological Studies : An Eco-Environmental Significance of an Important Eastern River Basin in India	Awarded

Membership:

- Member in Society of Wetland Scientists (SWS) (297113)
- Member in International Water Association (IWA) (1620916)
- Life Member Indian National Cartographic Association (LM -2471)
- Life Member Indian Science Congress (L28415)
- Life Member National Association of Geographers, India (NAGI) LM 2336
- Member International Association of Hydro geologists (IAH)
- Corresponding member biodiversity division, International Geographical Union (IGU)

Invited Speaker

INVITED LECTURES DELIVERED

SI.	Торіс	Date and	Nature of	Organizing committee
No.		Duration	participation	

1	On occasion of the World Environment Day 2024 through a panel discussion on the theme "Land restoration, desertification	8 th June, 2024	Expert speaker	Institute of Public Health Engineers, Kolkata
2	and drought resilience" On occasion of the "World Wetlands Day" A National Level Conference	2 nd February, 2024	Invited speaker	Jointly organized by University of Mumbai, Paryavaran Dakshata Mandal, Enviro-Vigil and Association of
3	Water Security & Sustainable Development Goals	14 th June, 2023	Speaker	Teachers in Biological SciencesStudent Teacher Interface on Sustainable Development Goal organize by Department of Geography and Department of Economics in collaboration with IQAC, Women's College, Calcutta
4	Assessment of the Impact of Covid-19 Pandemic on Water, Environment and Related Socio-economic System	3 rd July, 2021	Invited speaker	National Webinar on Impact of Covid-19 Pandemic on Our Water Resources, Department of Physics, Kabi Nazrul Mahavidyalaya, Sonamura, Tripura & Department of Physics, Ambedkar College, Fatikroy Unakoti, Tripura
5	Issues Related to Water Crisis, Mitigation and Conservation Techniques	11th January 2020	Invited Speaker	School of Water Resources Engineering, Jadavpur University in collaboration with Department of Geography, Visva- Bharati, Santiniketan
6	2nd World Congress on Climate Change, Berlin , Germany	26-29th September 2019	Invited Speaker	Innovinc ,Berlin, Germany
7	National Awareness seminar on conservation and sustainable use of wetland in arsenic prone area with special reference to Suraha tal ,Ballia district ,Uttar Pradesh	21-22 February 2018	Invited Speaker	Gandhi Mahavidyalaya ,Ballia, UP in collaboration with Jananayak Chandrashekhar University ,Ballia, up
8	International Conference on Environment and Ecology Impact of Anthropogenic Activities on Land use and Estimated Water Volume of a Flood Plain Wetland: A Case Study of BhalukaBeel, West Bengal	March 27-29, 2017	Invited Speaker	Department of Botany, St. Xavier's College, Ranchi
9	World Wetland Day (Wetland for conservation of Biodiversity and Restoration of Climate Change. Venue: Raidighi, South 24 Parganas	2 nd February, 2010	Invited Speaker	Regional Centre for National Afforestation and Eco Development Board, Jadavpur University

10	World Forestry Day Importance of Forest and Forest Hydrology	21 st March ,2014	Invited Speaker	Regional Centre for National Afforestation and Eco Development Board, Jadavpur University
	(Venue: Dhamakhali, South 24 Parganas			

Achievements/ Awards

SI.	Mention the name of award/Achievement	Sponsoring agency	Year of award
1	Young Scientist Award 2023	International Academy of Science and Research, Kolkata	2023
2	Sir Ganga Ram Memorial Prize	The Institution of Engineers (India)	2021
3	UGC Travel Grant for 2nd World Congress on Climate Change, Berlin , Germany	UGC	October,2019
4	RULA International Innovation and Betterment Award for Young Scientist of the Year	RULA International Society	2018
5	Nawab Zain Yar Jung Bahadur Memorial Prize	The Institute of Engineers, India	December 21,2017
6	Young Scientist of the Year Award	International Foundation for Environment and Ecology	2016
7	Bharat Jyoti Award	India International Friendship Society	2014

Journal Publications –National/International

- Nag, S., Roy, M. B., & Roy, P. K. (2024). Integrated hydrological modeling and water resource assessment in the Mayurakshi River Basin: A comprehensive study from historical data to future predictions. *Geosystems and Geoenvironment*, 100308. https://doi.org/10.1016/j.geogeo.2024.100308
- Application of machine learning and Fuzzy AHP for identification of suitable groundwater potential zones using field based hydrogeophysical and soil hydraulic factors in Halder, S., Karmakar, S., Maiti, P., **Roy, M. B.,** & Roy, P. K. (2024). a complex hydrogeological terrain. Groundwater for Sustainable Development, 101329. <u>https://doi.org/10.1016/j.gsd.2024.101329</u>
- Ghosh, M., Roy, P. K. & Roy, M. B. (2024). Assessment of Air Quality Index of Kolkata, Howrah, and 24 Parganas North during COVID- 19 Lockdown. <u>https://doi.org/10.35629/2532-10082737</u>
- 4. Saha, S. **Roy, M.B.**, Mandal, R. & Roy, P. K. (2024). Investigation on Possibilities of Constructed Wetlands and Its Energy Management Potential: A Review. Indian Journal of Environmental Protection, 44(6), 507-521.
- Roy, M.B., Saha, S. & Roy, P. K. (2024). Energy Management Potential From Renewable Sources: A Bibliometric Review, Metszet, 9(5), 562-575. DOI: 10.27896/METSZET9.5/44

- Roy, P. K., Sarkar, A., Saha, S., Ray, P. & Roy, M.B. (2024). Spatio-temporal analysis of precipitation in eastern India for last three decades. Spatial Information Research, 32(4), Springer Nature UGC-CARE Listed. <u>https://doi.org/10.1007/s41324-024-00591-z</u>
- Ray, P., Basak, S. K., Mohinuddin, S., Roy, M. B., & Roy, P. K. (2024). Evaluation of groundwater quality by adopting a multivariate statistical approach and indexing of water quality in Sagar Island, West Bengal, India. Environmental Monitoring and Assessment, 196(2), 166., Springer. <u>https://doi.org/10.1007/s10661-024-12307-9</u>
- Halder, S., Biswas Roy, M., Kumar Roy, P., & Sedighi, M. (2023). Groundwater vulnerability assessment for drinking water suitability using Fuzzy Shannon Entropy model in a semi-arid river basin. *Catena*, 229, [107206]. <u>https://doi.org/10.1016/j.catena.2023.107206</u>, <u>Pure</u>, <u>Scopus</u> & <u>Elsevier Fingerprint Engine™</u> © 2023 <u>Elsevier B.V</u>
- Roy, P. K., Ghosh, A., Basak, S. K., Mohinuddin, S., &; Roy, M. B. (2023). Analysing theRole of AHP Model to Identify Flood Hazard Zonation in a Coastal Island, India. Journal of the Indian Society of Remote Sensing, 1-15. <u>https://doi.org/10.1007/s12524-023-01697-x</u>, © 2023 Springer Nature UGC-CARE Listed
- Halder, S., Maiti, P., Karmakar, S., Roy, M. B., &; Roy, P. K. (2023). Enhanced fluoride removal from groundwater using red and white kaolinite lithomarge to develop a low cost eco-friendly defluoridation unit in rural areas of Shilabati river basin, West Bengal. Journal of Water Process Engineering, 53, 103698. <u>https://doi.org/10.1016/j.jwpe.2023.103698</u>, © 2023 Elsevier Ltd.
- Halder, S., Bhattacharya, S., Roy, M.B. et al. Application of fuzzy C-means clustering and fuzzy EDAS to assess groundwater irrigation suitability and prioritization for agricultural development in a complex hydrogeological basin. *Environ Sci Pollut Res* 30, 57529–57557 (2023). <u>https://doi.org/10.1007/s11356-023-26394-7</u>, Springer Nature UGC-CARE Listed
- Nag, S., Karmakar, S., Roy, M. B., &; Roy, P. K. (2023). A Combined use of Hydraulic and Hydrological Model to Characterise Channel Hydro-Geomorphology of a Tropical River Basin of West Bengal, India. <u>https://doi.org/10.21203/rs.3.rs-2409387/v1</u>, Preprint
- Ghosh, A., Roy, M.B. & Roy, P.K. Evaluating the performance of MIKE NAM model on rainfall-runoff in lower Gangetic floodplain, West Bengal, India. *Model. Earth Syst. Environ.* 8, 4001–4017 (2022). <u>https://doi.org/10.1007/s40808-021-01347-6</u>, Springer Nature
- Halder, S., Roy, M.B. & Roy, P.K. Modelling drought vulnerability tracts under changed climate scenario using fuzzy DEMATEL and GIS techniques. *Theor Appl Climatol* 150, 425–452 (2022). <u>https://doi.org/10.1007/s00704-022-04165-7</u>, © Springer Nature UGC-CARE Listed
- Ghosh, A., Roy, M.B. & Roy, P.K. Evaluating lateral riverbank erosion with sediment yield through integrated model in lower Gangetic floodplain, India. *Acta Geophys.* 70, 1769–1795 (2022). <u>https://doi.org/10.1007/s11600-022-00822-7</u>, © Springer Nature UGC-CARE Listed
- 16. Nag, S., Roy, M.B. & Roy, P.K. Study on the functionality of land use land cover over the evaluation of groundwater potential zone: A fuzzy AHP based approach. *J Earth Syst Sci* 131, 146 (2022). <u>https://doi.org/10.1007/s12040-022-01872-7</u>, Springer Nature UGC-CARE Listed
- Roy, P.K., Basak, S.K., Mohinuddin, S. and Roy, MB. Modelling groundwater potential zone using fuzzy logic and geospatial technology of an deltaic island. *Model. Earth Syst. Environ.* 8, 5565–5584 (2022). <u>https://doi.org/10.1007/s40808-022-01392-9</u>, Springer Nature

- 18. Roy, M.B., Ghosh, A., Mohinuddin, S. *et al.* Analysing the trending nature in land surface temperature on different land use land cover changes in urban lakes, West Bengal, India. *Model. Earth Syst. Environ.* 8, 4603–4627 (2022). <u>https://doi.org/10.1007/s40808-022-01367-w</u>, Springer Nature
- Biswas Roy, M., Nag, S., Halder, S. *et al.* Assessment of wetland potential and bibliometric review: a critical analysis of the Ramsar sites of India. *Bull Natl Res Cent* 46, 59 (2022). <u>https://doi.org/10.1186/s42269-022-00740-0</u>, Springer Nature
- Roy, M.B., Ghosh, A., Mohinuddin, S. *et al.* Analysing the trending nature in land surface temperature on different land use land cover changes in urban lakes, West Bengal, India. *Model. Earth Syst. Environ.* 8, 4603–4627 (2022). <u>https://doi.org/10.1007/s40808-022-01367-w</u>, Springer Nature
- Roy, P.K., Basak, S.K., Mohinuddin, S. *et al.* Modelling groundwater potential zone using fuzzy logic and geospatial technology of an deltaic island. *Model. Earth Syst. Environ.* 8, 5565–5584 (2022). <u>https://doi.org/10.1007/s40808-022-01392-9</u>, Springer Nature
- Ghosh, A., Roy, M.B. & Roy, P.K. Evaluating the performance of MIKE NAM model on rainfall-runoff in lower Gangetic floodplain, West Bengal, India. *Model. Earth Syst. Environ.* 8, 4001–4017 (2022). <u>https://doi.org/10.1007/s40808-021-01347-6</u>, Springer Nature
- 23. Halder, S., Roy, M.B. & Roy, P.K. Tropical plateau basin prioritisation for sustainable groundwater management using classical algorithms. *Arab J Geosci* 14, 2187 (2021). <u>https://doi.org/10.1007/s12517-021-08496-z</u>, Springer Nature UGC-CARE Listed
- 24. Roy, M.B., Ghosh, A., Kumar, A. *et al.* Study of water productivity model on wetlands: a case study of Bhagirathi-Hooghly sub-catchment basin, Southern West Bengal, India. *Environ Monit Assess* 193, 675 (2021). <u>https://doi.org/10.1007/s10661-021-09469-1</u>, Springer Nature UGC-CARE Listed
- 25. Halder, S., Roy, M.B. & Roy, P.K. Modelling soil erosion risk of a tropical plateau basin to identify priority areas for conservation. Environ Earth Sci 80, 646 (2021). https://doi.org/10.1007/s12665-021-09941-8, Springer Nature UGC-CARE Listed
- 26. Biswas, Roy, M., Ghosh, A., Kumar, A., Kumar Roy P.(2021) Study of water productivity model on wetlands: A case study of Bhagirathi-Hooghly sub-catchment basin, southern West Bengal, India, Environmental Monitoring and Assessment (Springer) <u>10.1007/s10661-021-09469-110.1007/s10661-021-09469-1</u>, Springer Nature UGC-CARE Listed
- Roy, M.B., Ghosh, A., Mohinuddin, S. *et al.* Analysing the trending nature in land surface temperature on different land use land cover changes in urban lakes, West Bengal, India. *Model. Earth Syst. Environ.* 8, 4603–4627 (2022). <u>https://doi.org/10.1007/s40808-022-01367-w</u>, Springer Nature
- Ghosh, A., Roy, M.B., Roy, P.K. *et al.* Assessing the nature of sediment transport with bridge scour by 1D sediment transport model in the sub-catchment basin of Bhagirathi–Hooghly river. *Model. Earth Syst. Environ.* 7, 2823–2845 (2021). <u>https://doi.org/10.1007/s40808-020-01058-4</u>, Springer Nature
- Biswas Roy M, Ghosh M, Pankaj Kumar Roy, (2021). Assessment of water quality of River Ganga during COVID-19 lockdown (2021). Desalination and Water Treatment 223 (2021) 26–33 May, doi: 10.5004/dwt.2021.27155, Taylor and Francis
- 30. Ghosh,A. Biswas Roy. M., and Kumar Roy. P. (2020). Estimation and prediction of the oscillation pattern of meandering geometry in a sub-catchment basin of Bhagirathi-Hooghly river, West Bengal, India. SN Appl. Sci. 2, 1497 (2020). <u>https://doi.org/10.1007/s42452-020-03275-z</u>, Springer Nature
- Halder, S., Roy, M.B. & Roy, P.K. Fuzzy logic algorithm based analytic hierarchy process for delineation of groundwater potential zones in complex topography. *Arab J Geosci* 13, 574 (2020). <u>https://doi.org/10.1007/s12517-020-05525-1</u>, Springer Nature UGC-CARE Listed
- 32. Ray, C., Roy, P.K., Majumder, A. *et al.* Performance Analysis of Some Low-Cost and Locally Available Adsorbents that Remove Excess Fluoride Ion from Raw Water to Develop a Filter for the Rural Population. *J. Inst. Eng. India Ser. E* 101, 149–160 (2020). <u>https://doi.org/10.1007/s40034-020-00168-z</u>, Springer Nature UGC-CARE Listed
- 33. Nag, S., Roy, M.B. & Roy, P.K. Optimum prioritisation of sub-watersheds based on erosion-susceptible zones through modeling and GIS techniques. *Model. Earth Syst. Environ.* 6, 1529–1544 (2020). <u>https://doi.org/10.1007/s40808-020-00768-z</u>, Springer Nature
- 34. Biswas, Roy. M., Kumar, A., Ghosh, A. and Kumar, Roy, P.(2020) Study to Develop A Co-

Relationship between Water Quality and Landuse Pattern as Index of Riverine Wetland with Statistical Approach. *Quaestiones Geographicae*. Vol-39 (1) 33-43 doi:10.2478/quageo-2020-0003 (Scopus), DOI: <u>https://doi.org/10.2478/quageo-2020-0003</u>

- 35. Halder, S., Roy, M.B. & Roy, P.K. Analysis of groundwater level trend and groundwater drought using Standard Groundwater Level Index: a case study of an eastern river basin of West Bengal, India. SN Appl. Sci. 2, 507 (2020). <u>https://doi.org/10.1007/s42452-020-2302-6</u>, Springer Nature
- 36. Pal, M., Biswas, Roy, M and Kumar Roy, P.(2019).Use of HEC-HMS Software for Qualitative Assessment fo Water of Dumboor Reservoir, Tripura, India. International Journal for Research In Applied Science & Engineering Technology.Vol-7,pp-495-500. DOI: 10.13140/RG.2.2.22940.44164 UGC Approved
- 37. Biswas, Roy, M., Pal,S., Pal. M., Kumar, Roy, P., and Kumar. A., (2019). Study of Conservation and Wise Use of Two Important Indian Wetlands Using Contingent Valuation Technique. *Environment Asia*.12(2)(2019)172-178 ISSN 1906-1714;Online ISSN :2586-8861, UGC Journal No 19858 (Scopus), DOI 10.14456/ea.2019.39
- 38. Halder.S., Biswas, Roy, M., & Kumar, Roy, P.(2019). A Comprehensive Assessment of Land Use and Land Cover In Lateritic Terrain Through Remote Sensing and GIS in West Bengal. *European Geographical Studies*. Vol-6(1), Pg-21-28. DOI: <u>10.13187/egs.2019.1.21</u>(Scopus)
- 39. Kumar, A., Biswas, Roy, M., Singh, A.N. and Mohan, D. (2019) Ground water analysis with special emphasis on arsenic by using multivariate statistical technique: A case Study of Ballia District. *Indian Journal of Environmental Protection*. 39(4):369-374(2019) UGC Journal No 20768 (Scopus) UGC-CARE Listed
- 40. Kumar, A., Roy, M.B., Roy, P.K. *et al.* Assessment of Arsenic Removal Units in Arsenic-Prone Rural Area in Uttar Pradesh, India. J. Inst. Eng. India Ser. A 100, 253–259 (2019). DOI: <u>https://doi.org/10.1007/s40030-018-0349-9</u>, Springer Nature UGC-CARE Listed
- 41. Kumar, Roy, P., Halder, S., Nag, S., Majumder, A. and Biswas, Roy, M. (2018) Study of Ganga River Health Condition Based on Water Quality Indicator with Environmental Aspect and Adaptation Study Thereoff. *Indian Journal of Environmental Protection*. 38(8):659-670 UGC Journal No 20768 (Scopus) UGC-CARE Listed
- 42. Kumar, Roy, P., M., Ghosh, and **Biswas**, Roy, M. (2018). *Desalination and Water Treatment*. (2018) 1–6 UGC Journal No 12911 (Taylor and Francis)
- 43. Biswas, Roy. M., Ghosh,A. Chatterjee.D and Kumar Roy.P.(2018) An Overview on River Morphology Research: A Bibliometric Analysis. *Journal for Advanced Research In Applied Sciences. Volume5*, ISSUE 2, FEB /2018, Page-498-509 ISSN NO: 2394-8442 UGC Journal No 63188 DOI:16.10089.JARAS.2018.V5I2.453459.2356
- 44. Ghosh, A. **Biswas Roy. M.**, and Kumar Roy.P. (2017). A Bibliometric Analysis of Highly Cited papers on Flood plain Research in Science Citation Index Expanded. *International Journal of Scientific Research and Reviews*. 2017, 6(4), 112 127, December 2017ISSN:2279-0543 UGC Journal No 63179
- 45. Debbarma.J., Das, S.,Debbarma,S. Biswas Roy. M., and Kumar Roy.P. (2017) Critical Study of Sub-Surface Aquifer Layer for GroundwaterAvailability Based on Electrical Resistivity Survey: A Part of Dhalai Tripura, India. ARPN *Journal of Engineering and Applied Sciences*. VOL. 12, NO. 21, NOVEMBER 2017 pp 5851-5860 ISSN 1819-6608 UGC Journal No 8551 (Scopus)
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- 47. Kumar.A, Biswas Roy. M., K.N.Prudhvi.Raju. (2017). Analysis of Women's Social Status in Arsenic Prone Area: A Case Study of Ballia district, Uttar Pradesh, India. *International Research Journal of Environmental Science*. Vol. 6(10), 1-6, October (2017).ISSN 2319–1414 UGC Journal No 45402
- 48. Kumar.A, **Biswas, Roy, M.**, and K.N.P. Raju.(2017). Arsenic in Groundwater and its Health Impacts: A Case of Ballia District, Uttar Pradesh, India. *Asian Journal of Science and Technology*. Vol. 08, Issue, 08, pp.5329-5332, August, 2017ISSN : 0976-3376 UGC Journal No
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Assessment of Ballia District Uttar Pradesh India: Causes and Impact Analysis with Environmental Management Plan. *ZENITH International Journal Of Multidisciplinary Research*. Vol.7 (8), AUGUST (2017), pp. 69-81ISSN 2231-5780UGC Journal No 46665

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- 52. Chatterjee, D.,Kumar, A., Kumar, A, Biswas, Roy, M., Kumar, Roy, P (2016). Participation and Dependency of Forest Dwellers in Forest Management- A Comparative Study of Bankadaha and Neora Valley Forest. *Indian Journal of Environmental Protection*. VOL. 36, NO. 12, DECEMBER, 2016ISSN : 0253 – 7141 UGC Journal No 20768, (Scopus) UGC-CARE Listed
- 53. Pal,M.,Biswas, Roy,M., and Kumar, Roy,P.(2016)Modelling of diurnal profile of surface air temperature and surface dissolved oxygen of lake water. *Current Science*. Vol.111, No.5, 10 September 2016ISSN 0011-3891 UGC Journal No 14405 (Scopus) DOI: 10.18520/cs/v111/i5/882-885
- 54. **Biswas, Roy, M.,** Chatterjee, D., Mukherjee.T., and Kumar, Roy, P.Environmental Threat to Wetland Bio-Diversity on Migratory Bird: A Case Study of Peri-Urban Area of West Bengal. *Asian Journal of Current Research*. VOL. 1(1): 30-38, ISSN: 2456-804X UGC Journal No
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- 56. Biswas, Roy, M., Kumar, Roy, P., and Mazumder. A., (2016). Impact of Forest Intervention on Water and Soil Quality- Case Studies. *International Journal of Environmental Engineering*. Volume3: Issue 118 April, 2016 ISSN online: 1756-8471. ISSN print:1756-8463 4 UGC Journal No
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- 60. Biswas, Roy, M., R, Chatterjee, D., Kumar, Roy, P., and Majumdar, A., (2015). Wetland Conservation, Management and Community Education- A Review of Published. *The Journal* of Ecology, Environment And Conservation. VOL. 21 (4): 2015ISSN No.- 0971-765X UGC Journal No 12449 (Scopus) UGC-CARE Listed
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Sl. No	Topic of Seminar	National/Internation al	Organizer	Paper Title
1	Environment and Development	International Conference February ,4-8 2004	Science City,Kolkata	Integrated Management of Wetlands in Nadia, West Bengal: A Case Study
2	Integrated water and waste water management	National Seminar 20th to 22nd November ,2008	SWRE, Jadavpur University ,Kolkata	Wetland, a valuable Resource of Indian Subcontinent: Some study of Wetland in West Bengal
3	Women Empowerment and Role of Teachers	National Seminar 13 April, 2014	SundarbanAshutosh B.Ed. College for Women	Conservation of wetland through women education and empowerment
4	Water :A Threatened Social Resource of Country	UGC Sponsors National Seminar 9th October,2015	Dept. Geography,Women'sChr istian College,Kolkata	Conservation and Management of Wetland in Holistic Approach: A Case Study BhamraBeel of West Bengal
5	Environment ,Ethics and Evaluation	UGC Sponsors National Seminar 23-24 November,2015	Bijoy Krishna Girl's College,Howrah	Impact of Climate Change on Wetland Biodiversity of 6Rural West B7engal
6	3rd International Conference on Advances In Applied Science and Environmental Technology	International Conference 28-29 December ,2015	Institute of Research Engineers and Doctors ,Bangkok ,Thailand	Im8pact of For9est Inter10vention on Wat11er and Soil 12Quality-Ca13se Studies
7	International Conference on Aquatic Resources and Sustainable Management	International Conference 17/18/19 February,2016	Central Calcutta science and cultural organization for youth. in collaboration with University of Calcutta	Stud14y of Water Quality Scenario for Wetland fishery in West Bengal; Case Studies
8	9thinternationa 1 Geographical union (IGU) conference on Land Use Change, Climate	International Conference 18/19/20 March, 2016	9thinternational Geographical union(IGU) conference ,University of Delhi ,Delhi ,India	Wetland, valuable-Natural Resource Management through PRA Technique: A Case Study of West Bengal

	Extremes and Disaster Risk Reduction.			
9	Contemporary Research in Geography	UGC Sponsors National Seminar 5-6 March,2016	Dep't. of Geography,Bhairab Ganguly College in collaboration with National Atlas and Thematic Mapping Organization	Study on Wetland in Rural West Bengal against Environmental Health Impact through Participation
10	Teacher Responsibilitie s in Student Teacher Relationship : The Changing Scenario	UGC Sponsors National Seminar 12-13 May,2016	Gobardanga Hindu College in collaboration with Gandhi Centenary B.T. College ,Habra	A Conceptual Study on the Change in Teacher –Student Relationship and THE Present Scenario.
11	Climate change: Issue and challenges to society ,environment and development	National Seminar 23-24 September, 2016	Dept. of Geography HaringhataMahavidyalay a Subarnapur, Nadia	Study of Optimum Utilization of Wetland with Social and Economic Value: A Case 12Study of A13mdaBeel
12	Geospatial Solution to Urban and Regional	International Conference 27-29 September, 2016	Osmania University ,Hydrabad ,India	Study of Optimum Uses of Available Water Resource with Particular
13	Cartography for Analysis and Management of Climate Change	International Conference 9-11 November, 2016	Dep't. Of Geography VisvaBharati University	Role of Participatory Management in Maintaining the Wetland through GIS Mapping: A Case of BhomraBeel, West Bengal
14	Environment and Sustainability : A Geographic Perspective	National Seminar 18-19, November, 2016	Dep't. Of Geography, Prasanta Chandra Mahalanobis Mahavidyalaya	Study of Major Threats and People Attitude towards Conservation of AmdaBeel, West Bengal
15	Changing Dimension of water resources : A Challenge before mankind	International Conference November 2016	6th NAGI Conference Dept. of Geography Nalanda Open University, Patna	Assessment of Wetland Water Quality Index: A Case Study of Mathura Beel, West Bengal, India
16	Gender and Empowerment	International Conference December 2016	Bijoy Krishna Girls College ,Howrah ,West Bengal	Wetland could be an Alternative Resources for Economic Empowerment of Women : A Case Study

17	International Conference on Environment and Ecology	International Conference March 27-29, 2017	Department of Botany, St. Xavier's College, Ranchi	Value and importance of a wetland : BhalukaBeel a case study
18	Environmental Changes in South and South-East Asia: Challenges and Prospects	International Conference September 24-26, 2017	School of Studies in Geography Pt. Ravishankar Shukla University, Raipur	Assessment of Man-Wetland Dependency Ratio of Flood Plain Area in Indian Sub- Continent Using PRA Technique: Some Case Studies
19	Population ,Urbanization and Environment: Contemporary Issue and Challenges	International Conference 21-22 march, 2018	Department of Geography, University of Gourbanga	Conservation and management of flood plain wetland through people participation :Suraha Tal UP ,A case Study
20	Population ,Urbanization and Environment: Contemporary Issue and Challenges	International Conference 21-22 march, 2018	Department of Geography, University of Gourbanga	A Critical analysis of the Outcome of an arsenic mitigation project in a rural area in Uttar Pradesh ,India
21	Environmental Issue	National Seminar 6th and 7th April	Vivekananda College for Women, Kolkata ,West Bengal	Land use and land cover reconfiguration: A case study of Mayurakshi River Basin ,West Bengal
22	Environmental Issue	National Seminar 6th and 7th April	Vivekananda College for Women, Kolkata ,West Bengal	Ecotourism A New Paradigm of man and environment relationship :comparison between Murti and Bankadaha Forest ,West Bengal
23	Indian Social Science and Humanities Congress 2018, 4th Annual International Congress	International Conference 14th and 15th july 2018	PaschimbangaAnchalikIt hihas o LoksanskritiCharcha Kendra in collaboration with Asutosh College, Kolkata	Environment Impact Assessment of Riverine Wetlands through PRA Technique
24	Global Water crisis: Agriculture and Food Security in the Era of Climate Change	International Conference 1-3rd december,2018	Department of Geography Aligarh Muslim University, Aligarh (India)	Assessment of Minimal uses in available water resources under the light of agriculture and fishery: A case study of reverine wetland

25	Emerging Technologies in Cartography	International Conference 29-31 October,2018	38th Inca International Congress	Water Quality Assessment through GIS :A Case study of Suraha Tal ,UP,India
26	Society and Sustainability: An Interdisciplinar y Approach	International Conference January 12-13 ,2019	Department of Geography, Vivekananda College ,Kolkata and the Eastern Geographical Society	Assessment of Neo Refugee Problem through river metamorphosis in lower Genetic floodplain
27	Climate change natural disasters and sustainable development	International Conference February 22-24,2019	XII International Geographical Union, Govt. Post Graduate College ,Sector-1 ,Panchkula ,India	Application of water quality index to asses water environment of a flood plain wetland and sustainable management plan thereof.
28	Digital Mapping Innovations in make India Initiative	International Conference ,10 th -12 th February, 2021	40 th INCA International Congress organized by National Atlas and Thematic Mapping Organization, Department of Science and Technology ,Govt. of India ,Hyatt Regency, Kolkata	Assessment of Trending Nature of Water Surface Temperature with Increasing LST in Wetlands

Training courses and workshop

SI. No.	Title of the Course	Nature of the course/work shop	Sponsoring/ Funding Agency	Duration of the Course	Host /Organizing Institute
1	IDRC on Disaster Management : Water and environmental sanitation	Refresher course	UGC,HRDC Academic Staff College, Jadavpur University	07.01.201 9- 30.01.201 9	SWRE, Jadavpur University
2	One week workshop on Research methods in social science using SPSS and AMOS	One week workshop on Research methods	BharatiyaVidya Bhavan Institute of Management Science	12.7.18 to 18.7.18	Bharatiya Vidya Bhavan Institute of Management Science
3	Short Term Course in Remote Sensing and GIS	Short term Course	Govt. of West Bengal Department of Science and Technology ,West Bengal State Council of Science and Technology	10.12.201 5 to 23.12.201 5	Govt. of West Bengal Department of Science and Technology ,West Bengal State Council of Science and Technology
4	UGC Sponsored Refresher course	Refresher course	UGC Academic Staff College,	25th August	Jadavpur University

			Jadavpur University	2014-13th September 2014	
5	UGC Sponsored Orientation Course	Orientation Course	UGC Academic Staff College, Jadavpur University	28 days 11.11.201 3 to 9.12.2013	Jadavpur University
6	One week workshop on Research methods in social science using SPSS and AMOS	One week workshop on Research methods	BharatiyaVidya Bhavan Institute of Management Science	12.7.18 to 18.7.18	BharatiyaVidya Bhavan Institute of Management Science
7	TrainingProgrammeon-AquiferManagementAndLocalGroundUssue.	Five days Training Programme	Ministry of Water Resource, Govt. of India	5 days 20.1.2014 to 24.4.2014	Central Groundwater Board, Eastern region Govt. of India
8	International Workshop on SME Bridging And Entrepreneurship Development	Five days Training Programme	DST, Govt. of India and European Commission	5 days 8.5.2014 to 11.5.2014 and 13.5.2014	Jadavpur University
9	Workshop Programme for – Water safety plan for Rural Area	Two days Workshop Programme	Ministry of Drinking Water & Sanitation	2 days 9.3.2015 and10.3.2 015	Jadavpur University
10	Advances in Water Resources Technology & Management	Refresher course	UGC Academic Staff College, Jadavpur University	21 Days 1.12.2009 to 21.12.200 9	SWRE, Jadavpur University
11	Workshop on B.Ed. Syllabus and Practicum on Two Years B.Ed. Course (2015-17)	One Day Workshop	Organised by West Bengal State University and Adamas Institute of Teacher Education	1 Day 14.10.201 5	Adamas Institute of Teacher Education
12	Orientation Programme on Newly Framed B.Ed Syllabus	Two Days Workshop	Organized by West Bengal State University, Barasat	2 Days 26.03.201 2 and 27.03.201 2	At Govt. College of Education, Banipur
13	National Level Workshop cum Seminar on <i>B.Ed</i> <i>Syllabus Modification</i>	Two Days Workshop	Organized by West Bengal State University, Barasat	Two Days 18.11.201 1 and 19.11.201 1	At Govt. College of Education, Banipur
14	Hands on training cum workshop on	One day Workshop	Department of Geography,	9th June 2018	Department of Geography,

	instrument		Vivekananda		Vivekananda College
	incorporated in UG		College for		for Women, Kolkata
	CBCS Curriculam		Women, Kolkata		
15	IMPLEMENTATION	One day	SHRI	8/5/18	SHRI
	OF CBCS SYSTEM	Workshop	SHIKSHAYATA		SHIKSHAYATAN
	IN UG STUDIES IN	_	N COLLEGE		COLLEGE with
	GEOGRAPHY(SEM-		with		collaboration UG BOS,
	1,SEM-2)		collaboration		University of, Calcutta
			UG BOS,		
			University of,		
			Calcutta		
16	IMPLEMENTATION	Two Days	SHRI	26/4/19-	SHRI
	OF CBCS SYSTEM	Workshop	SHIKSHAYATA	27/4/19	SHIKSHAYATAN
	IN UG STUDIES IN		N COLLEGE		COLLEGE with
	GEOGRAPHY(SEM- 3,SEM-4)		with		collaboration UG BOS,
	5,5111-4)		collaboration		University of, Calcutta
			UG BOS,		
			University of,		
			Calcutta		
17	Geography (Hons)	ONE DAYS	Department of	11/05/201	Department of
	Practical CBCS		geography	9	geography, University
	SYLLABUS		,Raidighi		of Calcutta
	SEMESTER -II		College ,Faculty		
			Council for PG		
			Studies in		
			Geography,		
			University of		
			Calcutta and		
			under graduate		
			BOS IN		
			Geography		
			,University of		
			Calcutta		

Sponsored Research Projects: As a Principal Investigator

- 1. (i)Title of the Project: A holistic approach of participatory management (woman participation) of ecosystem Services: Case of wetland in West Bengal
 - (ii) **Duration**: 18th Months
 - (iii) Own Designation: Principal Investigator
 - (iv) Funding authority: UGC Sponsored
 - (V)Project Type: UGC Minor Research Project
- (i)Title of the Project: Study on Improving Benefits Transfer for Wetland Valuation: Water Environment and Economic Value of Ecosystem Services through People Participation in Bhagirathi-Hooghly Basin (ii)Duration: 36th Months

(iii)Own Designation: Principal Investigator(iv)Funding authority: UGC Sponsored(V)Project Type: UGC Major Research Project

3. i)Title of the Project: Scientific Assessment of Coastal Vulnerability and Sustainable Ecosystem Management under Changed Climate Scenario (ii)Duration: 24 Months (iii)Own Designation: Co-Principal Investigator (iv)Name of other Investigators: Dr. Pankaj Kr. Roy and Dr. Tuhin Ghosh (v) Funding authority: DST funded (VI)Project Type: Central DST

Sponsored Research Projects: As a Research Team Member

- Revival of Mirik Lake, Darjeeling sponsoredby *National Environmental Engineering Research Institute (NEERI)*, mainly for Hydrological aspects only-completed in 2007-Research Team *Member*
- IEE for discharge of Dry Weather Flow (DWF) to East Kolkata Wetlands (EKW) funded by Kolkata Environmental Improvement Project (KEIP)-Research Team Member
- Comprehensive Rejuvenation Plan (CRJP) for Rabindra Sarobar-- Worked as a Research Team Member
- Component Technical Assistance (CTA): Capacity Building for the Protection of East Kolkata Wetlands, Asian Development Bank (ADB)-Research Team Member
- Carbon Sequestration Project in an Urban Area-Kolkata Metro City sponsored by Department of Environment, Govt. of West Bengal-ongoing-*Research Team Member*
- Role of Rural Watershed Development and Management through Rainwater Harvesting and Artificial Recharge of Ground Water and Agroforestry at the Micro Level Concept and Elements in Dhengam Village, Potka Block of East Singbhum Districts, Jharkhand sponsored by the Ministry of Environment & Forests, GoI to the Regional Centre, National Afforestation & Eco-development Board, Jadavpur University- Research *Team Member*
- Understanding and documentation of indigenous watershed/forest management technique practiced by tribes in the Tropical Rain Forest of A & N Island sponsored by the Ministry of Environment & Forests, GoI to the Regional Centre, National Afforestation & Eco-development Board, Jadavpur University- Research *Team Member*.

Conference responsibility/Seminar /Workshop

Nature of participation (Convener/ chaired session/Co- Ordinator/O rganizing Secretary)	Name of the Seminar/Confer ence/ workshop	Organizer	Name of the Session/Theme	Place	Duration/ Date
Convener	State Level Seminar on Fluid Futures: Shaping Tomorrow's Water Landscape	Dept. of Geography, Women's College, Calcutta with collaboration of IQAC	-	Women's College, Calcutta	26 th April, 2024
Convener	International Conference on Sustainable Water Resources Management under Changed Climate	School of Water Resources Engineering, Jadavpur University in joint collaboration with Department of Geography, Women's College, Calcutta and National Institute of Technology, Durgapur	_	Jadavpur University	13 th -15 th March 2020
Co-chair	International Conference on Sustainable Water Resources Management under Changed Climate	School of Water Resources Engineering, Jadavpur University in joint collaboration with Department of Geography, Women's College, Calcutta and National Institute of Technology, Durgapur	Technical Session: VIII A: Theme: Environment, Sustainability and Development	Jadavpur University	13 th -15 th March 2020
Co-chair	Climate Change Natural Disasters and Sustainable Development	XII International Geographical Union (IGU)	Water Resources Management	Govt. Post Graduate College, Panchkula, India	22nd -24th February,2 019
Co-chair	Global Water Crisis: Agriculture and Food Security in the Era of Climate Change	Department of Geography, Aligarh Muslim University, India	Water Stress and Food security - Energy and Ecosystem	Aligarh Muslim University , India	1-3 December ,2018
Organizing Secretary	Post Celebration of "World Water Day-2022" Arranging Special Lecture	Department of Geography with IQAC, Women's College, Calcutta	"Groundwater: making the invisible visible"		11th May 2022
Program Coordinator	World Environment Day Celebration	Department of Geography in collaboration with IQAC, Women's College, Calcutta	Beat Plastic	Women's College, Calcutta	5 th June ,2023

Program Coordinator	Arranging Special Lecture by Prof. Dr. Ratan Mondal, Director, School of Energy Studies, Jadavpur University	Department of Geography in collaboration with IQAC, Women's College, Calcutta	Energy and sustainability in India's Context An Overview of 'Renewable Energy" Challenge and Possibilities	Women' s College, Calcutta	13 th June,2023
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Outreach Activities

- Training Program on rainwater harvesting and conservation technologies to combat land degradation in forest areas specially in plantation areas in Bihar state during 16-17th August, 2009 organized by the Regional Centre, National Afforestation & Eco-development Board, Jadavpur University in collaboration with Department of Forest, Bihar ,India .
- Training Program on rainwater harvesting and conservation technologies to combat land degradation in forest areas specially in plantation areas in South Sikkim during 22-27th January, 2010 organized by the Regional Centre, National Afforeststaion& Eco-development Board, Jadavpur University in collaboration with Department of Forest, Sikkim , India .
- Training Program for Capacity Building on Social Auditing of National Afforestation Project Programme in Bisnupur, Bankura District, West Bengal, India during 17-18th February, 2010 organized by the Regional Centre, National Afforeststaion& Eco-development Board, Jadavpur University in collaboration with Department of Forest, West Bengal, India

Campus Publication (Magazine, ASHONA)

- "Wetland a Major Feature of Landscape in almost all parts of the World" published in the year of 2008-09, pp. 39-44.
- "Rural Watershed Development and Management through Rainwater Harvesting and Artificial Recharge of Groundwater in Dhengam Village, East Singbhum Districts, Jharkhand" published in the year of 2009-10, pp. 46-51.
- Innovative and best practices on combating land desertification and deforestation including water management practices in West Bengal" published in the year of 2010-11, pp. 72-77.
- Indigenous Watershed Management after Post-Tsunami in South Anadaman Island" published in the year of 2011-12, pp. 40-45.
- "People Responses and their Views or revival of river Ichhamoti through Socioeconomic survey" published in the year of 2012-13, pp. 35-41.
- "Rainwater Harvesting, a sustainable solution to mitigate water stress condition under changed climate" published in the year of 2013-14, pp. 57-60.
- "Value and Importance of Sahebbandh Lake in Purulia, West Bengal" published in the year of 2014-15, pp. 98-101.
- 'Hydrogeomorphic classifications of Wetlands' under study of Major Research Project published in the year of 2015-16, pp. 98-101.

Reviewer

Name of the journal	Publisher
Wetland	Springer
Environment, Development and Sustainability	Springer

Spatial Information Research	Springer
The International Journal of River Basin Management	Taylor and Francis

Extra-Curricular Activities

• 3yrs diploma in Rabindra Sangeet

Software Knowledge: MS Office (2010), GIS (ArcGIS, QGIS, Map Info), SPSS, MOS

Declaration:

I hereby declare that all the statements made in this Resume are true, complete and correct to the best of my knowledge and belief

Date: Place: Kolkata

Malabika Biswas Roy

<u>Signature</u>