Dr. Abu Reza Md. Towfiqul Islam

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Associate Professor

& **Ex-Head** of the Department of Disaster Management

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Begum Rokeya University, Rangpur 5400, Bangladesh

Research Professor

Daffodil International University, Dhaka 1216, Bangladesh

Associate Fellow

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My career objective is to be a skilled and passionate researcher who is willing to take the ongoing challenges of the world due to climate change. I am highly interested in post-doctoral opportunities and eager to strengthen the further mutual collaboration with the host university researchers.

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Education

- **Post Doctorial Fellowship (April 1, 2021 to March 31, 2022) from Prince of Songkla University, Thailand**

- ***Project***: *Spatiotemporal distribution of drought and its possible associations with ENSO indices in Bangladesh*
- ***Advisor: Dr. Kuaanan Techato***

- **Post Doctorial Fellowship (2021-2022) from Universiti Teknologi Malaysia, Malaysia**
  - ***Project***: *Ocean-atmospheric Interactions and extreme rainfall in Southeast Asia*
  - ***Advisor: Dr. Zulhilmi Bin Ismail***

- **Post Doctorial Fellowship (January 2022 to August 2022) from Goiano Federal Institute, Brazil**
  - ***Project: Environmental Science***
  - ***Advisor: Dr. Guilherme Malafaia***

- **Ph.D in Climate change and Climate system (2014-2017) Nanjing University of Information Science and Technology, China**
  - ***Thesis***: *Design water requirement, drought hazard and modeling rice yield responses to climate change in Bangladesh*
  - ***Advisor: Dr. Shuanghe Shen***

- **M.Sc. in Geology & Mining (2002-2003)** Rajshahi University, Bangladesh *(Exam held in 2006)*
  - ***Thesis:*** *Interpretation of seismic and well log data: A case study of Greater Bakhrabad structure, Bangladesh.*
  - ***Advisor: Dr. Md Aminul Islam***

- **B.Sc. in Geology & Mining (1999-2002)** Rajshahi University, Bangladesh *(Exam held in 2004)*
  - ***Thesis***: *Electrofacies and petrophysical studies of the Miocene sequence in the well BK-10, Belabo structure, Bangladesh.*
  - ***Advisor: Dr. Md Aminul Islam***

Personal Information

Date of Birth: May 19, 1979

Nationality: Bangladeshi

Blood Group: O+

Marital status: Married

Fellow/Membership

Associate Fellow of Bangladesh Academy of Science (BAS)

Research Interest

Climate change, Data Science, Disaster Management, Natural hazard, Water quality, Water resource management, Environmental pollution, Earth science and environment.

Awards

- President scholarship award (2021-2022) from Prince of Songkla University, Thailand
- Post doctorial fellowship award (2021-2022) from Universiti Teknologi Malaysia, Malaysia
- **Best Researcher award** (2017-2021) for outstanding contribution in research (2017-2021) from Begum Rokeya University, Rangpur, Bangladesh
- **Outstanding international graduate award** (2017) from Nanjing University of Information Science and Technology, China
- **Academic excellence award** (2017) from Nanjing University of Information Science and Technology, China
- Awarded a Chinese government Scholarship (CSC) from August, 2014 to June, 2017 for Ph.D study (Nanjing University of Information Science and Technology, China).

- **Awarded Gold Medal** (2010) by the Rajshahi University, Bangladesh Authority for outstanding performance at the B.Sc. level.

Teaching/mentoring/supervising Experiences

- Working as an Associate Professor from July 2019 to till now in Begum Rokeya University, Rangpur, Bangladesh
- Working as an Assistant Professor from February 2015 to till now in Begum Rokeya University, Rangpur, Bangladesh.
- Worked as a Lecturer (rank) from February 2012 to January 2015 in Begum Rokeya University, Rangpur, Bangladesh.
- 2 years teaching/mentoring experience from October 2015 to June 2017 in Nanjing University of Information Science and Technology, China.

- Teaching/mentoring experience involved planning for learning, organizing material, prioritizing ideas, interacting with students, discuss the topic.
- M.Sc (thesis): 40 students under supervision
- Ph.D (thesis): 7 students

Publications in peer-reviewed journals

List of Publications

Abu Reza Md. Towfiqul Islam is an author or co-author of more than 300 scientific article publications, review, 8 book chapters and 1 book spanning the areas of earth science, environmental chemistry, interactions of toxic elements with the water, sediment chemistry, natural hazard, and disaster management. Some of his important publications are listed below: (Citation of my articles: 7834, h-index: 44 and i10-index: 169, **Source: Google Scholar**)

2023

1. **Islam ARMT**, Varol M, Habib MA, Khan R (2023) Risk assessment and source apportionment for metals in sediments of Kaptai Lake in Bangladesh using individual and synergistic indices and a receptor model, **Marin Pollution Bulletin**, 190:114845, DOI: 10.1016/j.marpolbul.2023.114845
2. **Islam, ARMT**, Awadh, MA, Mallick, J et al. (2023) Estimating ground-level PM2.5 using subset regression model and machine learning algorithms in Asian megacity, Dhaka, Bangladesh, **Air Quality, Atmosphere & Health**, https://doi.org/10.1007/s11869-023-01329-w
3. **Islam ARMT**, Jion MMMF, Jannat JN, Varol M, Islam MA, Khan R, Idris AM, Malafaia, G., Habib MA (2023) Perception and legacy of soil chromium and lead contamination in an operational small-scale coal mining community, **Environ Geochem Health,** https://doi.org/10.1007/s10653-023-01571-2
4. **Islam, ARMT**, Aktar, ML et al., (2023) Attitudes and behaviors toward snakes in the snake charmer community: A case from northern Bangladesh, **Environment, Development and Sustainability**. https://doi.org/10.1007/s10668-023-03050-1
5. **Islam ARMT,** Akter, M.Y., Amanat, S., et al. (2023) Assessing seismicity in Bangladesh: an application of Guttenberg-Richter relationship and spectral analysis, **Geomatics, Natural Hazards and Risk** 14(1):2247138, DOI: 10.1080/19475705.2023.2247138
6. **Islam, ARMT**, Elbeltagi, A., Mallick, J. et al. (2023) Application of optimal subset regression and stacking hybrid models to estimate COVID-19 cases in Dhaka, Bangladesh. **Theor Appl Climatol**. https://doi.org/10.1007/s00704-023-04589-9

7. **Islam, ARMT**, Bappi MMR, Alqadhi, S. et al. (2023) Improvement of flood susceptibility mapping by introducing hybrid ensemble learning algorithms and high-resolution satellite imageries. **Nat Hazards**. https://doi.org/10.1007/s11069-023-06106-7
8. Zihad S.M.A., **Islam, ARMT** et al., (2023) Fuzzy logic, geostatistics, and multiple linear models to evaluate irrigation metrics and their influencing factors in a drought-prone agricultural region, Environmental Research 234:116509, DOI: 10.1016/j.envres.2023.116509
9. Hoque, M., Islam, A, **Islam ARMT** et al. (2023) Spatio-temporal assessment of water quality of a tropical decaying river in India for drinking purposes and human health risk characterization, **Environmental Science and Pollution Research** (Accepted).
10. Khan, R., Anik, A.H., Hossain, S., .. **Islam ARMT** et al. (2023) Receptor model-based source tracing and risk assessment of elements in sediment of a transboundary Himalayan River, **Chemosphere,** 339:139733, DOI: 10.1016/j.chemosphere.2023.139733
11. Siddik, M.A.B., Hasan, M.K., **Islam, ARMT**, Islam, M.S. (2023) Coastal community valorisation through Patuakhali Science and Technology University: Policy support and way forwards, **Journal of Planning Education and Research**, 1-11, doi:10.1177/0739456X231195620
12. Ali, E., Azhar, M.K., Alam, E.,.. **Islam ARMT** et al. (2023) Deforestation perspectives of dry temperate forests: main drivers and possible strategies, **Frontiers in Environmental Science** 11:1151320, DOI: 10.3389/fenvs.2023.1151320
13. Alam, E., Collins, A.E, **Islam, ARMT**, Paul A, Islam, MK (2023) Change in cyclone disaster vulnerability and response in coastal Bangladesh, **Disasters,** DOI: 10.1111/disa.12608
14. Das, S., **Islam, ARMT** (2023) Assessment of temporal changes in frequency characteristics of annual maximum rainfall of daily duration over Bangladesh, **Theoretical and Applied Climatology** 153(1-2):3, DOI: 10.1007/s00704-023-04479-0
15. Kormoker, T., Islam, MS, Siddique, M.A.B… **Islam ARMT** et al. (2023) Layer-wise physicochemical and elemental distribution in an urban river water, Bangladesh: potential pollution, sources and human health risk assessment, **Environmental Science: Advances**, DOI: 10.1039/D3VA00094J
16. Abdoussalami, A., Hu, Z., **Islam, ARMT**, ·Djae, BA (2023) Role of social network on banana farmer's adaptation to climate change and land productivity in Ngazidja island, Comoros archipelago, **Environment Development and Sustainability**. DOI: 10.1007/s10668-023-03626-x
17. Roy, P., Pal, SC, Chakraborty, R., **Islam ARMT** et al. (2023) The role of indigenous plant species in controlling the erosion of top soil in sub-tropical environment: In-situ field

observation and validation, **Journal of Hydrology**, 625(3):129993, DOI: 10.1016/j.jhydrol.2023.129993

18. Hasan, M., **Islam ARMT** et al. (2023) Personal protective equipment-derived pollution during Covid-19 era: A critical review of ecotoxicology impacts, intervention strategies, and future challenges, **Sci Total Environment** 887(18):164164, DOI: 10.1016/j.scitotenv.2023.164164
19. Mubin, A.N., Arefin, S., Mia, M.S., **Islam ARMT** et al. (2023) Managing the invisible threat of microplastics in marine ecosystems: Lessons from coast of the Bay of Bengal, **Sci Total Environment** 889(1):164224, DOI: 10.1016/j.scitotenv.2023.164224
20. Ahmed IA, Talukdar, S., **Islam ARMT** et al. (2023) Contribution and behavioral assessment of physical and anthropogenic factors for soil erosion using integrated deep learning and game theory, **Journal of Cleaner Production** 416(3):137689, DOI: 10.1016/j.jclepro.2023.137689
21. Sarker, A., Al Masud, M.A., Deepo, D.M., Das, K., Nandi, R., Ansary, M.W.R., **Islam, ARMT,** Islam, T., (2023) Biological and green remediation of heavy metal contaminated water and soils: A state-of-the-art review, **Chemosphere,** doi: https://doi.org/10.1016/j.chemosphere.2023.138861.
22. Tokatlı C, Onur, SG, Dindar MB, Malafaia G, **Islam ARMT**, Muhammad S., (2023) Spatialtemporal variability and probabilistic health risk assessment of fluoride from lentic ecosystem, Türkiye, **International Journal of Environmental Analytical Chemistry**, DOI: 10.1080/03067319.2023.2198645
23. Ghose, S, Islam, A., Quesada-Román, A., **Islam, ARMT** et al. (2023) Taxonomic approach and potential anthropic indices to understanding cross-sectional morphology and landscape modification of a tropical river basin, India, **Physical Geography**, https://doi.org/10.1080/02723646.2023.2236839
24. Jannat, JN, Mia MY, Jion MMF, Islam, MS …. **Islam, ARMT** (2023) Pollution trends and ecological risks of heavy metal(loid)s in coastal zones of Bangladesh: A chemometric review, **Marine Pollution Bulletin**, 191, 114960
25. Rahman, MN, Shozib, SH, Akter, MY, **Islam ARMT** et al. (2023) Microplastic as an invisible threat to the coral reefs: Sources, toxicity mechanisms, policy intervention, and the way forward, **Journal of Hazardous Materials**, 454, 131522
26. Rahman MM, Tanni KN, Roy T, Islam MR, ..**Islam ARMT** (2023) Knowledge, Attitude and Practices Towards Dengue Fever Among Slum Dwellers: A Case Study in Dhaka City, Bangladesh. **Int J Public Health** 68: 1605364. doi: 10.3389/ijph.2023.160536
27. Islam, MS, Phoungthong, K., **Islam ARMT** et al. (2023) Present status and mitigation approaches of arsenic in the environment of Bangladesh: A critical review, **International Journal of Environmental Science and Technology**, DOI: 10.1007/s13762-023-04956-z

28. Mia, Y., **Islam ARMT** et al., (2023) Identifying factors affecting irrigation metrics in the Haor basin using integrated Shannon's entropy, fuzzy logic and automatic linear model, **Environmental Research**, 226, 115688, doi: 10.1016/j.envres.2023.115688
29. Jion, MMMF, Mia, Y., Jannat JN, **Islam ARMT** (2023) A critical review and prospect of NO2 and SO2 pollution over Asia: Hotspots, trends, and sources, **Sci Total Environment**, 876 (12), 162851, doi: 10.1016/j.scitotenv.2023.162851
30. Abdullah-Al-Mahbub M, **Islam ARMT**, Alam E, Asha MR (2023) Sustainable solar energy potential on marine passenger ships of Bay of Bengal: A way of reducing carbon dioxide emissions and disaster risk reduction, **Energy Exploration & Exploitation**, DOI: 10.1177/01445987231173097
31. Mahammad S., Islam A, Shit PK, **Islam, ARMT**, Alam, E (2023) Groundwater level dynamics in a subtropical fan delta region and its future prediction using machine learning tools: Sustainable groundwater restoration, **Journal of Hydrology: Regional Studies**, 47, 101385, https://doi.org/10.1016/j.ejrh.2023.101385.
32. Sakib SN, **Islam, ARMT**, Azad MAZ, Mallick J, Ahmed M, Pal SC, Islam MS, Hu, Z, Alam E, Malafaia G., (2023) Seasonality of meteorological factors influencing the COVID-19 era in coastal and inland regions of Bangladesh, **Geocarto International**, 38:1, DOI: 10.1080/10106049.2023.2203115
33. Hoque M, Islam, A., **Islam ARMT** et al., (2023) Assessment of soil heavy metal pollution and associated ecological risk of agriculture dominated mid-channel bars in a subtropical river basin, **Scientific Reports** 13(1), DOI: 10.1038/s41598-023-38058-0
34. Shafahad, Talukdar, S., Ghose B., **Islam ARMT** et al. (2023) Predicting long term regional drought pattern in Northeast India using advanced statistical technique and wavelet-machine learning approach, **Modeling Earth Systems and Environment**, DOI: 10.1007/s40808-023-01818-y
35. Jaydar, AK, Pal, SC, Saha A, **Islam, ARMT** et al. (2023) Hydrogeochemical properties of groundwater and associated human health hazards in coastal multiaquifers of India, **Environmental Science and Pollution Research**, DOI: 10.1007/s11356-023-27765-w
36. Debnath B, Shakur MS, Bari ABMM, SahaJ, Porna WA, Mishu MJ, **Islam, ARMT** et al. (2023) Assessing the critical success factors for implementing industry 4.0 in the pharmaceutical industry: Implications for supply chain sustainability in emerging economies. **PLoS ONE** 18(6): e0287149.
37. Li, M., Chu, R., **Islam ARMT** (2023) A New Drought Fluorescence Monitoring Index Established for Detecting Drought Evolution Characteristics in the Middle and Lower Reaches

of the Yangtze River, China During 2001–2020, **IEEE Transactions on Geoscience and Remote Sensing**, 61,1-13, 4405613, DOI: 10.1109/TGRS.2023.3290239

38. Monir, M.M. Sarker, S.C., Sarkar, S.K., Ahmed, M., Mallick, J., **Islam, ARMT** (2023) Groundwater level fluctuations and associated influencing factorsin Rangpur District, Bangladesh, using modified Mann-Kendalland GIS-based AHP technique, **Theoretical and Applied Climatology,** DOI: 10.1007/s00704-023-04541-x
39. Monir, MM, Rokonuzzaman M, Sarker SC, Alam, E, Islam, MK, **Islam ARMT** (2023) Spatiotemporal analysis and predicting rainfall trends in a tropical monsoon-dominated country using MAKESENS and machine learning techniques, **Sci. Rep**, doi:10.1038/s41598-023-41132-2
40. Costache R., Arabemeri, A., Costache, l., **Islam, ARMT** et al. (2023) Flood hazard potential evaluation using decision tree state-of-the-art models, **Risk Analysis**, DOI: 10.1111/risa.14179
41. Adnan, R.M., Dai, HL., Mostafa, R.R. **Islam ARMT** et al. (2023) Application of novel binary optimized machine learning models for monthly streamflow prediction. **Appl Water Sci** 13, 110. https://doi.org/10.1007/s13201-023-01913-6
42. Mutlu E, Tokatlı C, **Islam ARMT**, Islam MS, Muhammad, S (2023) Water quality assessment of Şehriban stream (Kastamonu, TürkİYe) from a multi-statistical perspective, **International Journal of Environmental Analytical Chemistry**, DOI: 10.1080/03067319.2023.2197114
43. Mohinuddin, S., Sengupta, S., Sarkar, B. **Islam, ARMT** et al. (2023) Assessing Lake water quality during COVID-19 era using geospatial techniques and artificial neural network model. **Environ Sci Pollut Res**. https://doi.org/10.1007/s11356-023-26878-6
44. Marinho da Luz T., Guimarães ATB, .**Islam ARMT** et al. (2023) Exposure of adult zebrafish (Danio rerio) to SARS-CoV-2 at predicted environmentally relevant concentrations: Outspreading warns about ecotoxicological risks to freshwater fish, **Sci. Total Environment**, 163269, doi: 10.1016/j.scitotenv.2023.163269
45. Luz TMD, Guimarães ATB, Matos SGDS, de Souza SS, Gomes AR, Rodrigues ASL, Durigon EL, Charlie-Silva I, Freitas ÍN, **Islam ARMT**, Rahman MM, Silva AM, Malafaia G. (2023) Exposure of adult zebrafish (Danio rerio) to SARS-CoV-2 at predicted environmentally relevant concentrations: Outspreading warns about ecotoxicological risks to freshwater fish. **Sci Total Environ**. 880:163269. doi: 10.1016/j.scitotenv.2023.163269
46. Ferreira RO, Guimarães ATB, Luz TMD, Rodrigues ASL, **Islam ARMT**, Rahman MM, Ragavendran C, Kamaraj C, Charlie-Silva I, Durigon EL, Braz HLB, Arias AH, Santiago OC, Barceló D, Malafaia G (2023) First report on the toxicity of SARS-CoV-2, alone and in combination with polyethylene microplastics in neotropical fish, **Sci Total Environment**, 882:163617

47. Khan, R., Hossain, S, Anik, AH, Phoungthong, K, **Islam, ARMT**, Saha, N, Idris, AM, Alam, M (2023) Indexical and statistical approaches to investigate the integrated origins of elements in the sediment of Teesta River, Bangladesh: Sediment quality and ecological risks assessment, **Environ. Sci.: Processes Impacts**, doi: 10.1039/D2EM00475E
48. Jamal, HMSI, Tarek, YA, Siddique, MAB, Shaikh, MAA, Debnath, SC, Uddin, MR, Ahmed, S., Akbor, MA, Al-Mansur, MA, **Islam, ARMT,** et al., (2023) Development of a fabricated first-flush rainwater harvested technology to meet up the freshwater scarcity in a South Asian megacity, Dhaka, Bangladesh, **Heliyon**, e13027, doi: 10.1016/j.heliyon.2023.e13027
49. de Souza, SS, Gomes AR,…**Islam ARMT** et al. (2023) Cellulose microcrystalline: A promising eco-friendly approach to control Culex quinquefasciatus larvae, **Sci. Total Environment,** 901 (10), 165952, DOI: 10.1016/j.scitotenv.2023.165952
50. Guimarães, ATB, Freitas, IN, Mubarak, NM, Rahman, M.M., Rodrigues, FP, de Lima Rodrigues, A.S., Barceló, D., **Islam, ARMT**, Malafaia, G., (2023) Exposure to polystyrene nanoplastics induces an anxiolytic-like effect, changes in antipredator defensive response, and DNA damage in Swiss mice, **Journal of Hazardous Materials**, 442, 130004; doi: 10.1016/j.jhazmat.2022.130004
51. Gomes AR, de Matos, LP, **Islam, ARMT** et al., (2023) Plant-ZnO Nanoparticles Interaction: An Approach to Improve Guinea Grass (Panicum maximum) Productivity and evaluation of the impacts of its ingestion by freshwater Teleost Fish, **Journal of Hazardous Materials**, 131173; doi: 10.1016/j.jhazmat.2022.131173
52. Gomes, AR, Freitas, In, da Luz, TM, **Islam, ARMT** et al., (2023) Multiple endpoints of polyethylene microplastics toxicity in vascular plants of freshwater ecosystems: A study involving Salvinia auriculata (Salviniaceae), **Journal of Hazardous Materials**, 445, 131069; doi: 10.1016/j.jhazmat.2022.131069
53. Abdoussalami, A., Hu, Z., **Islam, ARMT** and Wu, Z., (2023) Climate change and its impacts on banana production: a systematic analysis, **Environment, Development and Sustainability**. https://doi.org/10.1007/s10668-023-03168-2
54. Jolly, YN, Rakib, MRJ, Kumar, R, **Islam, ARMT** et al., (2023) Deciphering the source of heavy metals in industrially affected river sediment of Shitalakshya river, Bangladesh, and potential ecological and health implications, **Journal of Hazardous Materials Advances**, 10, 100268; doi: 10.1016/j.hazadv.2023.100268
55. Rahman, MN, Saleheen, MM, Shozib, SH, **Islam, ARMT** (2023) Monitoring and Prediction of Spatiotemporal Land-Use/ Land-Cover Change Using Markov Chain Cellular Automata Model in Barisal, Bangladesh, Advancements in Urban Environmental Studies, chapter 8, 113-124. Doi: 10.1007/978-3-031-21587-2

56. Tokatli C, **Islam, ARMT** (2023) Spatial-temporal distributions, probable health risks, and source identification of organic pollutants in surface waters of an extremely hypoxic river basin in Türkiye, **Environmental Monitoring and Assessment**, 195(3):435, DOI: 10.1007/s10661-023-11042-x
57. Mia, M.U.; Chowdhury, T.N.; Chakrabortty, R.; Pal, S.C.; Al-Sadoon, M.K.; Costache, R.; **Islam, ARMT** (2023) Flood Susceptibility Modeling Using an Advanced Deep LearningBased Iterative Classifier Optimizer. **Land,** 12, 810. doi: 10.3390/land12040810
58. Wu, Z., Wang, Y., Liu, C., Yin, N., Hu, Z., Shen, L., **Islam, ARMT**, Wei, Z., Chen, S., (2023) Characteristics of soil N2O emission and N2O-producing microbial communities in paddy fields under elevated CO2 concentrations, **Environmental Pollution**, 318, 120872; doi: 10.1016/j.envpol.2022.120872
59. Das, A.; Peu, S.D.; Akanda, M.A.M.; **Islam, ARMT** (2023) Peer-to-Peer Energy Trading Pricing Mechanisms: Towards a Comprehensive Analysis of Energy and Network Service Pricing (NSP) Mechanisms to Get Sustainable Enviro-Economical Energy Sector. **Energies,** 16, 2198. doi: 10.3390/en16052198
60. Peu, S.D.; Das, A.; Hossain, M.S.; Akanda, M.A.M.; Akanda, M.M.H.; Rahman, M.; Miah, M.N.; Das, B.K.; **Islam, ARMT**, Salah, M.M. (2023) A Comprehensive Review on Recent Advancements in Absorption-Based Post Combustion Carbon Capture Technologies to Obtain a Sustainable Energy Sector with Clean Environment. **Sustainability,** 15, 5827. doi: 10.3390/su15075827
61. Alam, E.; Sufi, F.; **Islam, ARMT** (2023) A Scenario-Based Case Study: Using AI to Analyze Casualties from Landslides in Chittagong Metropolitan Area, Bangladesh. **Sustainability**, 15, 4647. doi: 10.3390/su15054647
62. Adnan, R.M.; Meshram, S.G.; Mostafa, R.R.; **Islam, ARMT**; Abba, S.I.; Andorful, F.; Chen, Z. (2023) Application of Advanced Optimized Soft Computing Models for Atmospheric Variable Forecasting. **Mathematics**, 11, 1213. doi: 10.3390/math11051213
63. Ahmed, IA, Talukdar, S., Naikoo, MW, Parvez, A., Pal, S., Ahmed, S., Rahman, A., **Islam, ARMT,** Mosavi, A., (2023) A new framework to identify most suitable priority areas for soil-water conservation using coupling mechanism in Guwahati urban watershed, India, with future insight, **J Cleaner Production**, 382, 135363, doi: 10.1016/j.jclepro.2022.135363
64. Biswas, T., Pal, S.C., Chowdhuri, I., Ruidas, D., Saha, A., **Islam, ARMT**, shit M., (2023) Effects of elevated arsenic and nitrate concentrations on groundwater resources in deltaic region of Sundarban Ramsar site, Indo-Bangladesh region, **Marine Pollution Bulletin**, 188, 114618, doi: 10.1016/j.marpolbul.2023.114618

65. Biswas, T., Pal, S.C., Ruidas, D., **Islam, ARMT** et al. (2023) Modelling of groundwater potential zone in hard rock-dominated drought-prone region of eastern India using integrated geospatial approach. **Environ Earth Sci** 82, 81. https://doi.org/10.1007/s12665-023-10768-8
66. Biswas, T., Pal, S.C., Saha, A.,Ruidas, D., **Islam, ARMT**, Shit, M., (2023) Hydro-chemical assessment of groundwater pollutant and corresponding health risk in the Ganges delta, IndoBangladesh region, **J Cleaner Production**, 382, 135229, doi: 10.1016/j.jclepro.2022.135229
67. Ruidas, D., Pal, S.C., Chowdhuri, I., Biswas, T., Saha, A.,**Islam, ARMT**, Shit, M., (2023) Hydrogeochemical evaluation for human health risk assessment from contamination of coastal groundwater aquifers of Indo-Bangladesh Ramsar site, **J Cleaner Production**, 399, 136647, doi: 10.1016/j.jclepro.2023.136647
68. Multu, E., Tokatli, C., **Islam, ARMT**, Islam, MS, Muhammad S (2023) Water quality assessment of Şehriban stream Kastamonu Türkiye from a multi statistical perspective, **International Journal of Environmental Analytical Chemistry**, DOI: 10.1080/03067319.2023.2197114
69. Real, MKH, Mia, MY · Mallick, J. Bindajam, AA, **Islam, ARMT** (2023) Trends in climate and influence of climate-driven crop yieldsin southern coastal region, Bangladesh, **Theoretical and Applied Climatology**, https://doi.org/10.1007/s00704-023-04382-8 57.
70. Islam, H.M.T., Kamruzzaman, M., Shahid, S., Mainuddin, M., Alam, E., **Islam, ARMT,** Biswas, J.C., Islam, A.Z. (2023) Spatiotemporal changes in temperature projections over Bangladesh using multi-model ensemble data, **Frontiers in Environmental Science**, 10, 1074974; doi: 10.3389/fenvs.2022.1074974
71. Hossain, S., Khan, R., Anik, A.H., Siddique, M.A.B., Tamim, U., **Islam, ARMT,** Idris, A.M., Khaleque, M.A., (2023) Natural and anthropogenic contribution to the elemental composition and subsequent ecological consequences of a transboundary river's sediments (Punarbhaba, Bangladesh), **Environmental Research**, 216 (1), 114444; doi: 10.1016/j.envres.2022.114444
72. Badhan, M.A., Farukh, M.A., Hossen, M.AM., **Islam, ARMT**, (2023) Synoptic climatology of weather parameters associated with tropical cyclone events in the coastal areas of Bay of Bengal. **Theor Appl Climatol** 151, 407–420. Doi: 10.1007/s00704-022-04284-1
73. Ikram, R.M.A.; Mostafa, R.R.; Chen, Z.; **Islam, ARMT**; Kisi, O.; Kuriqi, A.; Zounemat Kermani, M. (2023) Advanced Hybrid Metaheuristic Machine Learning Models Application for Reference Crop Evapotranspiration Prediction. **Agronomy,** 13, 98. doi: 10.3390/agronomy13010098
74. Kamaraj, C., Ragavendran, C., Manimaran, K., Sarvesh, S., **Islam, A.R.M.T**., Malafaia, G., (2023) Green synthesis of silver nanoparticles from Cassia Auriculata: Targeting antibacterial,

antioxidant activity, and evaluation of their possible effects on saltwater microcrustacean, Artemia Nauplii (non-target organism), **Science of the Total Environment,** 861, 160575, doi: 10.1016/j.scitotenv.2022.160575

75. Jawad-Al-Jahin, Siddique, M.A.B., **Islam, ARMT**, et al., (2023) Effects of COVID-19 era on a subtropical river basin in Bangladesh: heavy metal(loid)s distribution, sources and probable human health risks, **Science of the Total Environment,** 857 (1), 159383, doi: 10.1016/j.scitotenv.2022.159383
76. Freitas, IN, Dourado, AV, da Costa Araújo, AP, de Souza, SS, da Luz, TM, Guimarães, ATB, Gomes, AR, **Islam, ARMT**, et al., (2023) Toxicity assessment of SARS-CoV-2-derived peptides in combination with a mix of pollutants on zebrafish adults: A perspective study of behavioral, biometric, mutagenic, and biochemical toxicity, **Science of the Total Environment,** 858 (2), 159838; doi: 10.1016/j.scitotenv.2022.159838
77. Gomes, AR, Guimarães, ATB, **Islam ARMT**, et al., (2023) Potential ecotoxicity of substrateenriched zinc oxide nanoparticles to Physalaemus cuvieri tadpoles, **Science of the Total Environment,** 873, 162382; doi: 10.1016/j.scitotenv.2023.162382
78. Islam, A, Sardar, N, Mohinuddin, Sk, Hoque, MM, Sengupta, S., Das, BC, Ghosh, S., Zhang, W., Ujwal Deep Saha, **Islam, ARMT,** et al., (2023), Quasi-equilibrium channel metamorphosis in planform of a subtropical river in India in post-dam period, **Catena,** 221 (B), 10.1016/j.catena.2022.106793
79. Musabbir, M., **Islam, ARMT**, Rahman MS, Pal, SC, Alam, E., Mallick, J., (2023) Spatiotemporal variability of rainfall erosivity and its teleconnection with atmospheric circulation in monsoon-driven climate region, **Catena,** 221 (A), 106762, doi: 10.1016/j.catena.2022.106762.
80. Kubra, K, Mondol AH, Ali, MM, **Islam ARMT** et al., (2023) Assessment of As, Cr, Cd, and Pb in urban surface water from a subtropical river: contamination, sources, and human health risk, **International Journal of Environmental Analytical Chemistry**, DOI: 10.1080/03067319.2023.2170232
81. Das, S., **Islam, ARMT**, Kamruzzaman, M., (2023) Assessment of climate change impact on temperature extremes in a tropical region with the climate projections from CMIP6 model, **Clim Dyn** 60, 603–622, DOI: 10.1007/s00382-022-06416-9
82. Nasiruddin, M., Siddique, M.A.B., **Islam, ARMT**, et al., (2023) Distribution, sources and pollution levels of toxic metal(loid)s in an urban river (Ichamati), Bangladesh using SOM, and PMF modeling with GIS tool, **Environmental Science and Pollution Research**, doi: 10.1007/s11356-022-23617-1

83. **Islam ARMT**, Yeasmin, N., Salam, R (2023) Spatial and Temporal Trend Patterns of Drought in Bangladesh, In book**: Integrated Drought Management**, Volume 2 Edition: 1st edition, Chapter: 4, CRC Press, DOI: 10.1201/9781003276548-4
84. **Islam, ARMT**, Rahman M.S., Khatun, R (2023) Climate change projection: precipitation concentration changes over Bangladesh, In book: **The Role of Tropics in Climate Change,** Chapter 4, Elsevier DOI: 10.1016/B978-0-323-99519-1.02004-4

2022

85. Kamruzzaman, M., Almazroui, M., Salam, M.A., Mondol, MAH, Rahman, MM, Deb, L., Kundu, PK, Zaman, MAU, **Islam, A.R.M.T**., (2022) Spatiotemporal drought analysis in Bangladesh using the standardized precipitation index (SPI) and standardized precipitation evapotranspiration index (SPEI). **Sci Rep** 12, 20694, doi:10.1038/s41598-022-24146-0
86. Islam, MS, Mustafa, RA, Phoungthong, K., Idris, AM, **Islam, ARMT** et al., (2022) Arsenic in the foodstuffs: potential health appraisals in a developing country, Bangladesh. **Environ Sci Pollut Res,** doi: 10.1007/s11356-022-24119-w
87. Islam, MS, Phoungthong, K., **Islam, ARMT** et al., (2022) Sources and management of marine litter pollution along the Bay of Bengal coast of Bangladesh, **Marine Pollution Bulletin,** 185 (B), 114362, doi: 10.1016/j.marpolbul.2022.114362
88. Shahfahad, Talukdar, S., Naikoo, MW, Rahman, A., Gagnon, AS, **Islam, ARMT** et al., (2022) Comparative Evaluation of Operational Land Imager sensor on board Landsat 8 and Landsat 9 for Land use Land Cover Mapping over a Heterogeneous Landscape, **Geocarto International,** doi: 10.1080/10106049.2022.2152496
89. Adnan, RM, Dai, HL, Mostafa, RR, **Islam, ARMT** et al., (2022) Modeling groundwater level fluctuations by ELM merged advanced metaheuristic algorithms using hydroclimatic data, **Geocarto International**, doi:10.1080/10106049.2022.2158951
90. Tasnuva, A., Bari, QH, **Islam, ARMT**, Alam, GMM, (2022) Livelihood and climate vulnerability of coastal communities to natural disaster in south-western Bangladesh, The **International Journal of Sustainable Development and World Ecology**, doi: 10.1080/13504509.2022.2142691
91. Al-tabatabaie, K.F., Hossain, M.B., **Islam, ARMT**, et al., (2022) Taking strides towards decarbonization: The viewpoint of Bangladesh, **Energy Strategy Reviews** 44:100948
92. Anik, A.H., Khan, R., Hossain, S., Siddique, M.A.B., Tamim, U., **Islam, ARMT**, Idris, A.M., Tareq, S.M., (2022) Reconciling the geogenic and non-crustal origins of elements in an Indo-Bangla transboundary river, Atrai: Pollution status, sediment quality, and preliminary risk assessment, **Environmental Research** 214(4):114134, DOI: 10.1016/j.envres.2022.114134

93. Varol, M., Kacar, E., Sunbul, M.R., **Islam, ARMT** (2022) Levels of metals and elements in tissues of fish species in the Kızılırmak River (Turkey) and assessment of health risks and nutritional benefits, **Environmental Research** 214:113791, DOI: 10.1016/j.envres.2022.113791
94. Jaydhar, A.K., Pal, S.C., Saha, A., **Islam, ARMT**., Ruidas, D., (2022) Hydrogeochemical evaluation and corresponding health risk from elevated arsenic and fluoride contamination in recurrent coastal multi-aquifers of eastern India, **Journal of Cleaner Production** 369:133150; DOI: 10.1016/j.jclepro.2022.133150
95. Shahfahad, Talukdar, S., **Islam, ARMT**., Das, T., Naikoo, M.W., Mallick, J., Rahman, A., (2022) Application of advanced trend analysis techniques with clustering approach for analysing rainfall trend and identification of homogenous rainfall regions in Delhi metropolitan city, **Environmental Science and Pollution Research** https://doi.org/10.1007/s11356-022-22235-1
96. Tokatlı, C., **Islam, A.R.M.T,** Güner, Ş.O., Ustaoğlu, F., Islam, M.S, Dindar B.M. (2022), A pioneering study on health risk assessment of fluoride in drinking water in Thrace Region of northwest Türkiye, **Groundwater for Sustainable Development,** doi: 10.1016/j.gsd.2022.100836.
97. Sarker, M.N.I. Alam G.M.M., Firdaus, R.B.R., Biswas, J.C. **Islam, A.R.M.T.,** Raihan M.L., Hattori, T. Alam K., Joshi N.P., Shaw R., (2022) Assessment of flood vulnerability of riverine island community using a composite flood vulnerability index, **International Journal of Disaster Risk Reduction,** doi: https://doi.org/10.1016/j.ijdrr.2022.103306
98. Hossain, S., Khan, R., Anik, A.H., Islam, ARMT et al., (2022) Natural and anthropogenic contribution to the elemental composition and subsequent ecological consequences of a transboundary river's sediments (Punarbhaba, Bangladesh), Environmental Research, doi: 10.1016/j.envres.2022.114444
99. Ahmad Bhat, S.; Kuriqi, A.; Dar, M.U.D.; Bhat, O.; Sammen, S.S., **Islam, A.R.M.T**; Elbeltagi, A.; Shah, O.; AI-Ansari, N.; Ali, R.; et al. (2022). Application of Biochar for Improving Physical, Chemical, and Hydrological Soil Properties: A Systematic Review. **Sustainability,** 14, 11104. Doi:10.3390/su141711104
100. Abdullah-Al-Mahbub, M.; **Islam, A.R.M.T.;** Almohamad, H.; AlDughairi, A.A.; Al-Mutiry, M.; Abdo, H.G., (2022) Different Forms of SolarEnergy Progress: The Fast-Growing Eco-Friendly Energy Source in Bangladesh for a Sustainable Future. **Energies** 15, 6790. Doi:10.3390/en15186790

101. Saha, A., Pal, S.C., **Islam, A.R.M.T**., Chowdhuri, I., Chakrabortty, R., Roy, P., (2022) Threats of soil erosion under CMIP6 SSPs scenarios: An integrated data mining techniques and geospatial approaches, Geocarto International, doi: 10.1080/10106049.2022.2127925

102. Guimarães, A.T.B., Nascimento, I., Mujawar, M.N., **Islam, ARMT** et al., (2022) Exposure to Polystyrene Nanoplastics Induces An Anxiolytic-like Effect, Changes in Antipredator Defensive Response, and DNA Damage in Swiss Mice, **Journal of Hazardous Materials**, DOI: 10.1016/j.jhazmat.2022.130004

103. Mamun, A.A., **Islam ARMT** et al., (2022) Livelihood vulnerability of char land communities to climate change and natural hazards in Bangladesh: an application of livelihood vulnerability index, **Natural Hazards**, doi: 10.1007/s11069-022-05599-y

104. Mamun, A.A., **Islam ARMT,** Khosravi, K., Singh, S.K., (2022) Suspended sediment load prediction using hybrid bagging-based Heuristic Search Algorithm, **Geocarto International**, DOI: 10.1080/10106049.2022.2122590

105. Rakib, M.R.J., Rahman, M.A., **Islam, ARMT** et al., (2022) A comprehensive review of heavy metal pollution in the coastal areas of Bangladesh: abundance, bioaccumulation, health implications, and challenges, **Environmental Science and Pollution Research**, https://doi.org/10.1007/s11356-022-22122-9

106. Rahman, M.M.; Asikunnaby; Khan, S.J.; Arony, A.; Mamun, Z.A.; Procheta, N.F.; Sakib, M.S.; Aryal, K.R.; Rahman, F.; **Islam, A.R.M.T**., (2022) Mental Health Condition among University Students of Bangladesh during the Critical COVID-19 Period. **J. Clin. Med**, 11, 4617. https://doi.org/10.3390/ jcm11154617

107. Chowdhuri, I., Pal, S.C., Saha, A., **Islam, A.R.M.T**., Chakrabortty, R., Roy, P., (2022) Field based index of land suitability (ILS): A newapproach for rainfed paddy crop production in groundwater scarce region, **Geocarto International**, DOI: 10.1080/10106049.2022.2117857

108. Rahman MM, **Islam ARMT**, Khan SJ, Tanni KN, Roy T, Islam MR, Rumi MAAR, Sakib MS,Abdul Quader M, Bhuiyan N-U-I,Chisty MA, Rahman F and Alam E (2022) Dengue Fever Responses inDhaka City, Bangladesh: A Cross-Sectional Survey. **Int J Public Health** 67:1604809. doi: 10.3389/ijph.2022.1604809

109. Mia, M.U., Rahman, M.M., Elbeltagi, A., **Islam, ARMT** et al., (2022) Sustainable flood risk assessment using deep learning-based algorithms with a blockchain technology, **Geocarto International**, DOI: 10.1080/10106049.2022.2112982

110. Alaizari, A., Al-Masnay, Y., Jiquan Zhang, J., **Islam, ARMT** et al., (2022) Assessment Analysis of Flood Susceptibility in Tropical Desert Area: A Case Study of Yemen, **Remote Sensing** 14(16), DOI: 10.3390/rs14164050

111. Kubra, K., Mondol, A.H., Ali, M.M., **Islam, ARMT** et al., (2022) Pollution level of trace metals (As, Pb, Cr and Cd) in the sediment of Rupsha River, Bangladesh: Assessment of ecological and human health risks, **Frontiers in Environmental Science**, DOI: 10.3389/fenvs.2022.778544

112. Rashid, A., Alamgir, M., Ahmd, M.T., Salam, R., Islam, A., **Islam, ARMT** (2022) Assessing and forecasting of groundwater level fluctuation in Joypurhat district, northwest Bangladesh, using wavelet analysis and ARIMA modeling, **Theoretical and Applied Climatology**, DOI: 10.1007/s00704-022-04160-y

113. Mukta, A.Y., Haque, M.E., **Islam, A.R.M.T.** et al., (2022) Impact of Canal Encroachment on Flood and Economic Vulnerability in Northern Bangladesh, **Sustainability,** 14,8341. https://doi.org/10.3390/su14148341

114. Islam, M.S., Ismail, Z., Jamal, M.H., Ibrahim, Z., Jumain, M., **Islam, A.R.M.T.,** et al., (2022) Heavy metals from different land use soil in the capital of ancient Pundranagar, Bangladesh: a preliminary study for ecological risk assessment, **Chemistry and Ecology,** DOI: 10.1080/02757540.2022.2100360

115. Varol, M., Kacar, E., Sunbul, M.R., **Islam, ARMT** (2022) Species, tissue and gender-related metal and element accumulation in fish species in a large reservoir (Turkey) and health risks and nutritional benefits for consumers, **Environmental Toxicology and Pharmacology** 94:103929; doi: 10.1016/j.etap.2022.103929

116. Ali, M.M., Ali, M.L., Rakib, M.R.J., Islam, M.S., **Islam, A.R.M.T.,** et al., (2022) Seasonal behavior and accumulation of some toxic metals in commercial fishes from Kirtankhola tidal river of Bangladesh–A health risk taxation, **Chemosphere,** 301(13):134660; DOI: 10.1016/j.chemosphere.2022.134660

117. Khan, R., Islam, H.M.T., Apon, M.A.S., **Islam, A.R.M.T**., et al. (2022) Environmental geochemistry of higher radioactivity in a transboundary Himalayan river sediment (Brahmaputra, Bangladesh): potential radiation exposure and health risks, Environmental Science and Pollution Research, DOI: 10.1007/s11356-022-19735-5

118. Rahman, M.M.; Nabila, I.A.;Sakib, M.S.; Silvia, N.J.; Galib, M.A.;Shobuj, I.A.; Hasan, L.; Chisty, M.A.; Rahman, F.; **Islam, A.R.M.T**; et al. (2022) Status and Individual View toward Lightning among University Students of Bangladesh, **Sustainability**, 14, 9314. https://doi.org/10.3390/su14159314

119. Das, S., **Islam, ARMT**, Kamruzzaman, M., (2022) Assessment of climate change impact on temperature extremes in a tropical region with the climate projections from CMIP6 model, **Climate Dynamics**, DOI: 10.1007/s00382-022-06416-9

120. Pal, S.C., **Islam, ARMT**, Chakraborty,R., Islam, MS, Saha A., Shit M (2022) Application of data-mining technique and hydro-chemical data for evaluating vulnerability of groundwater in Indo-Gangetic Plain, **Journal of Environmental Management**, 318, 115582; DOI: 10.1016/j.jenvman.2022.115582

121. Majlis, A.B.K., Habib, M.A., Khan, R., Phoungthong, K., Techato, K., Islam, MA, Nakashima, S., **Islam ARMT**, Hower J (2022) Intrinsic characteristics of coal combustion residues and their environmental impacts: A case study for Bangladesh, **Fuel,** 324, 124711; DOI:10.1016/j.fuel.2022.124711

122. Costache R., tin TT, Arabameri A., Costache, I., Crăciun, A., **Islam, ARMT** et al. (2022) Flood susceptibility evaluation through deep learning optimizer ensembles and GIS techniques, **Journal of Environmental Management**, 316, 115316; DOI: 10.1016/j.jenvman.2022.115316

123. Costache R., Arabameri A., Costache, I., Crăciun, A.,Ajin, RS, **Islam, ARMT** et al. (2022) Flash-flood hazard using deep learning based on H_2O R package and fuzzy-multicriteria decision-making analysis, **J Hydrology**, 609, 127747, doi: 10.1016/j.jhydrol.2022.127747

124. Costache R., Arabameri A., Costache, I., Crăciun, A.,Ajin, RS, **Islam, ARMT** et al. (2022) Stacking state-of-the-art ensemble for flash-flood potential assessment, **Geocarto International**, 10.1080/10106049.2022.2082558

125. Tokatli, C., Titiz, A.M., Uğurluoğlu, A., **Islam ARMT** *et al.* (2022) Assessment of the effects of COVID-19 lockdown period on groundwater quality of a significant rice land in an urban area of Türkiye. **Environ Sci Pollut Res**. doi:10.1007/s11356-022-20959-8

126. Elbeltagi, A., Zerouali, B., Bailek, N., **Islam ARMT** *et al.* (2022) Optimizing hyperparameters of deep hybrid learning for rainfall prediction: a case study of a Mediterranean basin. ***Arab J Geosci* 15,** 933. https://doi.org/10.1007/s12517-022-10098-2

127. Azad, M.A.K., **Islam ARMT**, Ayen, K. *et al.* (2022) Changes in monsoon precipitation patterns over Bangladesh and its teleconnections with global climate. **Theor Appl Climatol 148,** 1261–1278. doi:10.1007/s00704-022-03996-8

128. Di Nunno, F., Abba, SI, Pham, BQ, **Islam, ARMT**, Talukdar S., Francesco G (2022) Groundwater level forecasting in Northern Bangladesh using nonlinear autoregressive exogenous (NARX) and extreme learning machine (ELM) neural networks, **Arabian Journal of Geosciences,** 15:647, doi: 10.1007/s12517-022-09906-6

129. Liu, C., Wu, Z., Hu, Z., Yin, N., **Islam, ARMT**, Wei, Z., (2022) Characteristics and influencing factors of carbon fluxes in winter wheat fields under elevated CO_2 concentration, **Environmental Pollution**, 307, 119480, doi: 10.1016/j.envpol.2022.119480

130. Ali, MM, Ali, ML, Rakib, MRJ, Islam, MS, Bhuyan, MS, Senapathi, V., Chung, SY, Roy, PD, Sekar, S, **Islam ARMT**, Rahman MZ (2022) Seasonal behavior and accumulation of some toxic metals in commercial fishes from Kirtankhola tidal river of Bangladesh – A health risk taxation, **Chemosphere,** 301, 134660, doi: 10.1016/j.chemosphere.2022.134660

131. Khan, R., Islam, H.M.T., Apon, M.A.S., **Islam, ARMT** et al. (2022) Environmental geochemistry of higher radioactivity in a transboundary Himalayan river sediment (Brahmaputra, Bangladesh): potential radiation exposure and health risks. **Environ Sci Pollut Res.** https://doi.org/10.1007/s11356-022-19735-5

132. Jamei, M, Karbasi, M., Malik, A., Abualigah, L, **Islam ARMT**, Yaseen JM (2022) Computational assessment of groundwater salinity distribution within coastal multi-aquifers of Bangladesh, **Scientific Report,** 12, 11165, doi:10.1038/s41598-022-15104-x

133. Saha, A, Pal, SC, Chowdhuri, I., **Islam, ARMT**, Roy, P., Chakrabortty, R (2022) Land degradation risk dynamics assessment in red and lateritic zones of eastern plateau, India: A combine approach of K-fold CV, data mining and field validation, **Ecological Informatics**, 69, 101653, doi: 10.1016/j.ecoinf.2022.101653

134. Elbeltagi, A, Salam, R., Pal, SC, Zerouali, B., Shahid, S, Mallick, J., Islam, MS, **Islam ARMT** (2022) Groundwater level estimation in northern region of Bangladesh using hybrid locally weighted linear regression and Gaussian process regression modeling, **Theoretical and Applied Climatology, Springer, SCOPUS/ISI Index, IF: 3.40,** 149, 131-151. DOI: 10.1007/s00704-021-03909-1

135. Sakaa, B, Elbeltagi, A., Boudibi, S., Chaffaï H, **Islam ARMT** et al. (2022) Water quality index modeling using random forest and improved SMO algorithm for support vector machine in Saf-Saf river basin, **Environmental Science and Pollution Research**, 29:48491–48508, doi: 10.1007/s11356-022-18644-x

136. Saha, U. D., Saheb, UM, Islam, A., Deb Barman, S., Dutt, S., **Islam, ARMT** (2022) Characterizing the Trend of Channel Braiding of a Tropical Transboundary River using Spatial Growth Component Analysis and ARIMA Model, **Advances in Space Research**, doi: 10.1016/j.asr.2022.06.032

137. Kamaraj, C., Karthi, S., Reegan, AD, **Islam ARMT** et al. (2022) Green synthesis of gold nanoparticles using Gracilaria crassa leaf extract and their ecotoxicological potential: Issues to be considered. **Environmental Research**, 213, 113711, doi: 10.1016/j.envres.2022.113711

138. Varol, M., Kaçar, E., Sünbül, MR, **Islam ARMT** (2022) Levels of metals and elements in tissues of fish species in the Kızılırmak River (Turkey) and assessment of health risks and

nutritional benefits, **Environmental Research,** 213, 113791, doi: 10.1016/j.envres.2022.113791

139. Saha, A, Pal, SC, Chowdhuri, I., **Islam, ARMT**, Chakrabortty, R, Roy, P (2022) Application of neural network model-based framework approach to identify gully erosion potential hotspot zones in sub-tropical environment, **Geocarto International**, doi: 10.1080/10106049.2022.2091042

140. Roy, P., Pal, SC, Chowdhuri, I., **Islam, ARMT**, Chakrabortty, R, Saha, A (2022) Impact of false measures on the increasing land degradation process in a monsoon-dominated region of India: Issues and policy implications, **Land degradation and Development**, doi: 10.1002/ldr.4380

141. Roy, P., Pal, SC, Janizadeh, S., Chowdhuri, I., **Islam, ARMT**, Chakrabortty, R, Saha, A (2022) Evaluation of climate change impacts on future gully erosion using deep learning and soft computational approaches, **Geocarto International**, 10.1080/10106049.2022.2071473

142. Chowdhuri, I., Pal, SC, Janizadeh, S., Ahmadi K., Saha, A, **Islam, ARMT**, Chakrabortty, R, Roy, P., (2022) Application of novel deep boosting framework-based earthquake induced landslide hazards prediction approach in Sikkim Himalaya, **Geocarto International**, doi: 10.1080/10106049.2022.2068675

143. Das, S., Kamruzamman, M, **Islam ARMT** (2022) Assessment of characteristic changes of regional estimation of extreme rainfall under climate change: A case study in a tropical monsoon region with the climate projections from CMIP6 model, **J Hydrology**, 610 96), 128002, doi:10.1016/j.jhydrol.2022.128002

144. Mallick, J., Salam R., Amin R., **Islam ARMT**, Islam, A., Siddik, MNA, Alam GMM (2022)Assessing factors affecting drought, earthquake, and flood risk perception: empirical evidence from Bangladesh, **Natural Hazards**: 112(2),1633-1656.

145. Islam, HMT, **Islam ARMT** et al. (2022) Future precipitation projection in Bangladesh using SimCLIM climate model: A multi-model ensemble approach, International Journal of Climatology, DOI: 10.1002/joc.7605

146. Choudhury TR, Islam T, **Islam ARMT** et al. (2022) Multi-media compartments for assessing ecological and health risks from concurrent exposure to multiple contaminants on Bhola Island, Bangladesh, **Emerging contaminants**, 8, 134-150. 10.1016/j.emcon.2022.03.001

147. Shahfahad, Talukdar S, Ali R, Nguyen KA, Naikoo MW, Liou YA, **Islam ARMT**, Mallick J, Rahman A (2022) Monitoring drought pattern for pre- and post-monsoon seasons in a semi-arid region of western part of India, **Environmental Monitoring and Assessment** 194:396, DOI: 10.1007/s10661-022-10028-5

148. Elbeltagi, A., Pande, CB, Kouadri, S., **Islam, ARMT** (2022) Applications of various data-driven models for the prediction of groundwater quality index in the Akot basin, Maharashtra, India, **Environmental Science and Pollution Research**. https://doi.org/10.1007/s11356-021-17064-7

149. Sarkar, S.K.; Ansar, S.B.; Ekram, K.M.M.; Khan, M.H.; Talukdar, S.; Naikoo, M.W.; **Islam, A.R.M.T.;** Rahman, A.; Mosavi, A. (2022) Developing Robust Flood Susceptibility Model with Small Numbers of Parameters in Highly Fertile Regions of Northwest Bangladesh for Sustainable Flood and Agriculture Management. **Sustainability**, 14, 3982. doi: 10.3390/su14073982

150. Rahman, M.M.; Khan, S.J.; Tanni, K.N.; Roy, T.; Chisty, M.A.; Islam, M.R.; Rumi, M.A.A.R.; Sakib, M.S.; Quader, M.A.; Bhuiyan, M.N.-U.-I.; Rahman, F.; Alam, E.; **Islam, A.R.M.T**. (2022), Knowledge, Attitude, and Practices towards Dengue Fever among University Students of Dhaka City, Bangladesh. **Int. J. Environ. Res. Public Health** 19, 4023. doi: 10.3390/ijerph19074023

151. Abrar, R.; Sarkar, S.K.; Nishtha, K.T.; Talukdar, S.; Shahfahad; Rahman, A.; **Islam, A.R.M.T**.; Mosavi, A. (2022), Assessing the Spatial Mapping of Heat Vulnerability under Urban Heat Island (UHI) Effect in the Dhaka Metropolitan Area. **Sustainability** 14, 4945. doi: 10.3390/su14094945

152. Nur-E-Alam, M.; Salam, M.A.; Dewanjee, S.; Hasan, M.F.; Rahman, H.; Rak, A.E.; **Islam, A.R.M.T.;** Miah, M.Y. (2022) Distribution, Concentration, and Ecological Risk Assessment of Trace Metals in Surface Sediment of a Tropical Bangladeshi Urban River. **Sustainability**, 14, 5033. doi: 10.3390/su14095033

153. **Islam, A.R.M.T**.; Talukdar, S.; Akhter, S.; Eibek, K.U.; Rahman, M.M.; Pal, S.; Naikoo, M.W.; Rahman, A.; Mosavi, A. (2022) Assessing the Impact of the Farakka Barrage on Hydrological Alteration in the Padma River with Future Insight. **Sustainability**, 14, 5233. doi: 10.3390/su14095233

154. Alsubih, M.; Mallick, J.; **Islam, A.R.M.T**.; Almesfer, M.K.; Kahla, N.B.; Talukdar, S.; Ahmed, M. (2022), Assessing Surface Water Quality for Irrigation Purposes in Some Dams of Asir Region, Saudi Arabia Using Multi-Statistical Modeling Approaches. **Water** 14, 1439. doi: 10.3390/w14091439

155. Li, M.; Chu, R.; Sha, X.; **Islam, A.R.M.T**.; Jiang, Y.; Shen, S. (2022) How Has the Recent Climate Change Affected the Spatiotemporal Variation of Reference Evapotranspiration in a Climate Transitional Zone of Eastern China? **ISPRS Int. J. Geo-Inf.,** 11, 300. doi: 10.3390/ijgi11050300

156. Li, M.; Chu, R.; Sha, X.; Xie, P.; Ni, F.; Wang, C.; Jiang, Y.; Shen, S.; *Islam, A.R.M.T* (2022) Monitoring 2019 Drought and Assessing Its Effects on Vegetation Using Solar-Induced Chlorophyll Fluorescence and Vegetation Indexes in the Middle and Lower Reaches of Yangtze River, China. **Remote Sens**. 14, 2569. doi: 10.3390/rs14112569

157. Priya, U.; Iqbal, M.A.; Salam, M.A.; Nur-E-Alam, M.; Uddin, M.F.**; Islam, A.R.M.T**.; Sarkar, S.K.; Imran, S.I.; Rak, A.E. (2022) Sustainable Groundwater Potential Zoning with Integrating GIS, Remote Sensing, and AHP Model: A Case from North-Central Bangladesh. **Sustainability,** 14, 5640. doi: 10.3390/su14095640

158. Das, T.; Shahfahad; Naikoo, M.W.; Talukdar, S.; Parvez, A.; Rahman, A.; Pal, S.; Asgher, M.S.; **Islam, A.R.M.T**.; Mosavi, A. (2022) Analysing Process and Probability of Built-Up Expansion Using Machine Learning and Fuzzy Logic in English Bazar, West Bengal. **Remote Sens.,** 14, 2349. doi: 10.3390/rs14102349

159. Pham, QB, Tran DA, Ha, NT, **Islam ARMT**, Salam R., (2022) Random Forest and nature-inspired algorithms for mapping groundwater nitrate concentration in a coastal multi-layer aquifer system, **Journal of Cleaner Production**, 343, 130900

160. Ruidas, D., Pal, S.C., **Islam, ARMT**, Saha A., (2022) Hydrogeochemical Evaluation of Groundwater Aquifers and Associated Health Hazard Risk Mapping Using Ensemble Data Driven Model in a Water Scares Plateau Region of Eastern India, **Exposure and Health** https://doi.org/10.1007/s12403-022-00480-6

161. Pham QB, Kumar M, Di Nunno F, Elbeltagi A, Granata F, **Islam ARMT**, Talukdar S, Nguyen XC, Ahmed AN, Anh DT, (2022) Groundwater level prediction using machine learning algorithms in a drought-prone area, **Neural Computing and Applications**. https://doi.org/10.1007/s00521-022-07009-7

162. Talukdar S, Mallick J, Sarkar SS, Roy SK, **Islam ARMT**, Praveen B, Naikoo MN, Rahman A, Sobnam M, (2022). Novel hybrid models to enhance the efficiency of groundwater potentiality model, **Applied Water Science**, 12, 62. Doi: 10.1007/s13201-022-01571-0

163. Uddin MJ, Wahiduzzaman M, **Islam ARMT,** Eibek KU, Nasrin ZM (2022) Impacts of climate modes on temperature extremes over Bangladesh using statistical methods, **Meteorology and Atmospheric Physics, Springer, SCOPUS/ISI Index, IF: 2.06,** 34:24 https://doi.org/10.1007/s00703-022-00868-8

164. Elbeltagi A, Kumar N, Chandel A, Arshad A, Pande CB, **Islam ARMT** (2022) Modelling the reference crop evapotranspiration in the Beas-Sutlej basin (India): an artificial neural network approach based on different combinations of meteorological data, **Environmental Monitoring and Assessment, Springer, SCOPUS/ISI Index, IF: 2.51,** 94:141 doi:10.1007/s10661-022-09812-0

165. Kumar S, **Islam ARMT,** Hasanuzzaman M, Roquia S, Khan R, Islam MS, Rahman MS, Pal SC, Ali MM, Gustave W, Idris AM, Ahmed E (2022) Potentially toxic elemental contamination in Wainivesi River, Fiji impacted by gold-mining activities using chemometric tools and SOM analysis, **Environmental Science and Pollution Research** https://doi.org/10.1007/s11356-022-18734-w.

166. Ali MM, Islam MS, **Islam ARMT,** Bhuyan MS, Ahmed ASS, Rahman MZ, Rahman MM (2022) Toxic metal pollution and ecological risk assessment in water and sediment at ship breaking sites in the Bay of Bengal Coast, Bangladesh, **Marine Pollution Bulletin**, 175, 113274.

167. **Islam ARMT,** Pal SC, Chakraborty R, Idris A.M., Salam, R., Islam, M.S., Shahid, S., Zahid A., Ismail Z.B., (2022) A coupled novel framework for assessing vulnerability of water resources using hydrochemical analysis and data-driven models, **Journal of Cleaner Production, Elsevier, SCOPUS/ISI Index,** IF:9.29, 336(6): 130407, DOI: 10.1016/j.jclepro.2022.130407

168. Sarkar M, Pal SC, **Islam ARMT** (2022) Groundwater quality assessment for safe drinking water and irrigation purposes in Malda district, Eastern India, **Environmental Earth Science, Springer, SCOPUS/ISI Index, IF: 2.78,** 81:52 https://doi.org/10.1007/s12665-022-10188-0

169. Mamun AA, **Islam ARMT,** Alam E, Pal SC, Alam GMM (2022) Assessing Riverbank Erosion and Livelihood Resilience Using Traditional Approaches in Northern Bangladesh, **Sustainability,** IF:3.25, 14, 2348. https://doi.org/10.3390/su14042348

170. Rahman MM, Tasnim F, Quader MA and **Islam ARMT** et al. (2022) Perceived Noise Pollution and Self-Reported Health Status among Adult Population of Bangladesh, **Int. J. Environ. Res. Public Health**, IF:3.39, 19, 2394. https://doi.org/10.3390/ijerph19042394.

171. Ruidas D, Chakrabortty R, **Islam ARMT,** Saha A, Pal SC (2022) A novel hybrid of meta-optimization approach for flash flood-susceptibility assessment in a monsoon-dominated watershed, Eastern India, **Environmental Earth Science, Springer, SCOPUS/ISI Index, IF: 2.78,** 81:145. https://doi.org/10.1007/s12665-022-10269-0

172. **Islam ARMT,** Nabila IA et al. (2022) Variability of climate-induced rice yields in northwest Bangladesh using multiple statistical modeling, **Theoretical and Applied Climatology, Springer, SCOPUS/ISI Index, IF: 3.17,** DOI: 10.1007/s00704-021-03909-1

173. Rahmam MM, Nabila IA, **Islam ARMT** et al. (2022) Knowledge, Attitude, and Practices towards Lightning in Bangladesh, Sustainability, **SCOPUS/ISI Index, IF: 3.20,** 14(1):448.

174. Rahman MN, Rakib M, Jannat FA, Pal SC, Islam MS, Alam E, **Islam AMRT** (2022) Impact of Urbanization on Urban Heat Island Intensity in Major Districts of Bangladesh Using Remote Sensing and Geo-Spatial Tools, **Climate,** SCOPUS index, Climate 10(1):1-32, doi: 10.3390/cli10010003

175. Islam MS, **Islam ARMT,** Phoungthong K. et al. (2022) Potentially toxic elements in vegetable and rice species in Bangladesh and their exposure assessment, **Journal of Food Composition and Analysis, Elsevier, SCOPUS/ISI Index**, IF:4.55, 106(5):104350, doi: 10.1016/j.jfca.2021.104350

176. Shahfahad, Naiko MW, **Islam AMRT,** Mallick J, and Rahman A (2022) Land use/land cover change and its impact on surface urban heat island and urban thermal comfort in a metropolitan city, **Urban Climate, Elsevier, SCOPUS/ISI Index**, IF:5.71, 41:101052, doi: 10.1016/j.uclim.2021.101052

177. Rahman MS, Ahmed Z, Sheefat SM, Alam R, **Islam ARMT et al. (2022)** Assessment of Assessment of heavy metal contamination in sediment at the newly established tannery industrial Estate in Bangladesh: A case study, **Environmental Chemistry and Ecotoxicology, Elsevier, non-SCOPUS/ISI Index**, 4, DOI: 10.1016/j.enceco.2021.10.001

178. Rahman MS, Saha N, Kumar S, Khan MDH, **Islam ARMT,** Khan MNI **(2022)** Coupling of redundancy analysis with geochemistry and mineralogy to assess the behavior of dust arsenic as a base of risk estimation in Dhaka, Bangladesh, **Chemosphere, Elsevier, SCOPUS/ISI Index, IF: 7.08, 287, 132048.** doi: https://doi.org/10.1016/ j. chemosphere.2020.132048.

179. Talukdar S, Naikoo, MW, Mallick J, Praveen B, Shahfahad, Sharma P, **Islam ARMT,** Pal S, Rahman A (2022) Coupling geographic information system integrated fuzzy logic-analytical hierarchy process with global and machine learning based sensitivity analysis for agricultural suitability mapping, **Agricultural Systems, Elsevier, SCOPUS/ISI Index, IF: 5.37, 196, 103343;** doi: https://doi.org/10.1016/j.agsy.2021.103343

180. Mallick J, Islam ARMT et al. (2022) Spatiotemporal trends of temperature extremes in Bangladesh under changing climate using multi-statistical techniques, **Theoretical and Applied climatology, Springer,** SCOPUS/ISI Index, IF: 3.17, DOI: 10.1007/s00704-021-03828-1.

181. Siddique ABM, **Islam ARMT** et al. (2022) Multivariate statistics and entropy theory for irrigation water quality and entropy-weighted index development in a subtropical urban river, Bangladesh, **Environment Science and Pollution Res**, 29: 8577–8596. SCOPUS/ISI Index, IF: 5.29, Springer, DOI: 10.1007/s11356-021-16343-7

182. Wahiduzzaman M, Ali MA, Luo JJ, Wang Y, Uddin MJ, Shahid S, Islam ARMT et al. (2022) Effects of convective available potential energy, temperature and humidity on the variability of thunderstorm frequency over Bangladesh, **Theoretical and Applied climatology**, Springer, SCOPUS/ISI Index, IF: 3.17, DOI: 10.1007/s00704-021-03833-4

2021

183. Mallick, J., Talukdar, S., Almesfer, M.K, Alsubih M, Ahmed M, **Islam ARMT** (2021) Identification of rainfall homogenous regions in Saudi Arabia for experimenting and improving trend detection techniques, **Environment Science and Pollution Res**, SCOPUS/ISI Index, IF: 4.22, Springer, DOI: 10.1007/s11356-021-17609-w

184. Islam ARMT, Salam R, Yeasmin N et al. (2021) Spatiotemporal distribution of drought and its possible associations with ENSO indices in Bangladesh, Arabian Journal of Geosciences, 14, 2681, Springer, SCOPUS/ISI Index, IF: 1.82, 10.1007/s12517-021-08849-8

185. Adnan RM, Mostafa RR, Islam ARMT, Gorjid AD, Kuriqi A, Kisi O (2021) Improving Drought Modeling Using Hybrid Random Vector Functional Link Methods, Water 13(23):3379, SCOPUS/ISI Index, IF: 3.10, DOI: 10.3390/w13233379

186. Islam ARMT; Hasanuzzaman M; Jaman M; Alam E; Mallick J; Alam GMM; Sattar MA; Techato K (2021) Assessing Farmer's Typologies of Perception for Adopting Sustainable Adaptation Strategies in Bangladesh. Climate, 9, 167. https://doi.org/10.3390/cli9120167

187. **Islam ARMT,** Shaha A, Ghose B, Pal SC, Chowdhuri I, Mallick J (2021) Landslide susceptibility modeling in a complex mountainous region of Sikkim Himalaya using new hybrid data mining approach, **Geocarto International,** Taylor and Francis, SCOPUS/ISI Index, IF: 4.88, DOI: DOI: 10.1080/10106049.2021.2009920

188. Ruidas D, Pal SC, **Islam ARMT,** Saha, A **(2021)** Characterization of groundwater potential zones in water-scarce hardrock regions using data driven model, **Environmental Earth Science, Springer, SCOPUS/ISI Index, IF: 2.78. 80(24), 809, DOI: 10.1007/s12665-021-10116-8**

189. Uddin ASMS, Khan N, **Islam ARMT,** Kamruzzaman M, Shahid S (2021) Changes in urbanization and urban heat island effect in Dhaka city, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17,** DOI: 10.1007/s00704-021-03872-x

190. Li M, Chu R, Sha X, Ni F, Xie P, Shen S, **Islam ARMT (2021)** Hyperspectral Characteristics and Scale Effects of Leaf and Canopy of Summer Maize under Continuous Water Stresses. Agriculture 11, 1180. https://doi.org/10.3390/ agriculture11121180

191. Elbeltagi A, Pande C, Saber K, Islam ARMT (2021) Applications of various data-driven models for the prediction of groundwater quality index in the Akot basin, Maharashtra,

India, **Environment Science and Pollution Res, SCOPUS/ISI Index, IF: 4.22, Springer,** DOI: 10.1007/s11356-021-17064-7

192. Sarker A, Kim JE, **Islam ARMT** et al. (2021) Heavy metals contamination and associated health risks in food webs-a review focuses on food safety and environmental sustainability in Bangladesh, **Environment Science and Pollution Res, SCOPUS/ISI Index, IF: 4.22, Springer,** DOI: 10.1007/s11356-021-17153-7

193. Rahman MS, Saha N, Ahmed ASS, Faruque Babu SMOF, **Islam, ARMT** et al. (2021) Depth-related dynamics of physicochemical characteristics and heavy metal accumulation in mangrove sediment and plant: Acanthus ilicifolius as a potential phytoextractor, **Marine Pollution Bulletin, Elsevier, SCOPUS/ISI Index, IF: 5.65, 173, 113160,** DOI: 10.1016/j.marpolbul.2021.113160

194. Saber K, Elbeltagi A, Islam ARMT, Kateb S (2021) Performance of machine learning methods in predicting water quality index based on irregular data set: application on Illizi region (Algerian southeast), **Applied Water Science, SCOPUS/ISI Index, IF: 3.78, Springer**, 11(12):1-20, DOI: 10.1007/s13201-021-01528-9

195. Kamruzzaman M, Shahid S, Roy DK, Islam ARMT et al. (2021) Assessment of CMIP6 global climate models in reconstructing rainfall climatology of Bangladesh, **International Journal of Climatology, SCOPUS/ISI Index, IF: 4.06, Willy**, DOI: 10.1002/joc.7452

196. Mamun AA, Roy S, **Islam ARMT,** Alam GMM, Alam E, Pal SC, Sattar MA, Mallick J (2021) Smallholder Farmers' Perceived Climate-Related Risk, Impact, and Their Choices of Sustainable Adaptation Strategies. **Sustainability, SCOPUS/ISI Index, IF: 3.78, MDPI**, 13, 11922. https://doi.org/10.3390/ su132111922

197. Adnan RM, Mostafa RR, **Islam ARMT,** Kisi O, Kuriqi A, Heddam S (2021) Estimating reference evapotranspiration using hybrid adaptive fuzzy inferencing coupled with heuristic algorithms, **Computers and Electronics in Agriculture, Elsevier, SCOPUS/ISI Index, IF: 5.56, 191(c):106541, doi: 10.1016/j.compag.2021.106541**

198. Mallick, J, Naiko MW, Talakdar S, Ahmed IA, Rahman A, Islam ARMT et al. (2021) Developing groundwater potentiality models by coupling ensemble machine learning algorithms and statistical techniques for sustainable groundwater management, Geocarto International, Taylor and Francis, SCOPUS/ISI Index, IF: 4.88, DOI: 10.1080/10106049.2021.1987535

199. Islam MS, Idris AM, Islam AMRT, Phoungthong K, Ali MM, Kabir MH (2021) Geochemical variation and contamination level of potentially toxic elements in land-uses urban soils, **International Journal of Environmental Analytical Chemistry**, Taylor and Francis, SCOPUS/ISI Index, IF: 2.826, DOI: 10.1080/03067319.2021.1977286

200. Bindajam, A.A., Mallick, J., Talukdar, S. I**slam ARMT,** Alqadhi S **(2021)** Integration of artificial intelligence–based LULC mapping and prediction for estimating ecosystem services for urban sustainability: past to future perspective**. Arab J Geosci 14, 1887. Springer, SCOPUS/ISI Index, IF: 1.82. https://doi.org/10.1007/s12517-021-08251-4**

201. Islam HMT, **Islam ARMT,** Abdulllah-al-mahbub M, Shahid S, Tasnuva A, Kamruzzaman M, Hu Z, Elbetagi A, Kabir MM, Salam MA, Ibrahim SM **(2021)** Spatiotemporal changes and modulations of extreme climatic indices in monsoon-dominated climate region linkage with large-scale atmospheric oscillation, **Atmospheric Research, Elsevier, SCOPUS/ISI Index, IF: 5.37, 264, 105840,** doi: 10.1016/j.atmosres.2021.105840

202. **Islam ARMT,** Pal SC, Chowdhuri I, Islam R, Islam MS, Rahman MM, Zahid A, Idris AM, (2021) Application of novel framework approach for prediction of nitrate concentration susceptibility in coastal multi-aquifers, Bangladesh. **Science of the Total Environment, Elsevier, SCOPUS/ISI Index, IF: 7.96,** doi: 10.1016/j.scitotenv.2020.149811

203. Das S, **Islam ARMT** (2021) Assessment of mapping of annual average rainfall in a tropical country like Bangladesh: remotely sensed output vs. kriging estimate, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17,** DOI: 10.1007/s00704-021-03729-3

204. Pal S, **Islam ARMT,** Patwary, MA, Alam GMM (2021) Modeling Household Socio-Economic Vulnerability to Natural Disaster in Teesta Basin, Bangladesh**, Climate Vulnerability and Resilience in the Global South, Chapter 5, Springer Nature, (non-ISI/scopus index), DOI: 10.1007/978-3-030-77259-8_5**

205. Sarker MNI, Alam GMM, **Islam ARMT** et al. (2021) Assessment of Structural Weakness of Government Response to Natural Hazards**, Climate Vulnerability and Resilience in the Global South, Chapter 11, Springer Nature (non-ISI/scopus index), DOI: 10.1007/978-3-030-77259-8_11**

206. Kumar S, **Islam ARMT,** Hasanuzzaman M, Roquia S, Khan R, Islam MS (2021) Preliminary assessment of heavy metals in surface water and sediment in Nakuvadra-Rakiraki River, Fiji using indexical and chemometric approaches, **Journal of Environmental Management, Elsevier, SCOPUS/ISI Index, IF: 6.78,** 298, 113517, doi: 10.1016/j.jenvman.2021.113517

207. Ghose B, **Islam ARMT,** Salam R, Shahid S, Kamruzzaman M, Das S, Elbeltagi A, Salam MA, Mallick J (2021) Rice yield responses in Bangladesh to large-scale atmospheric oscillation using multifactorial model, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17, DOI: 10.1007/s00704-021-03725-7**

208. Rahman MB, Salam R, **Islam ARMT,** Tasnuva A, Haque U, Shahid S, Hu Z, Mallick M (2021) Appraising the historical and projected spatiotemporal changes in the heat index in Bangladesh, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17, DOI: 10.1007/s00704-021-03705-x**

209. **Islam MS,** Idris AM, **Islam ARMT,** Ali MM, Rakib MRJ **(2021)** Hydrological distribution of physicochemical parameters and heavy metals in surface water and their ecotoxicological implications in the Bay of Bengal coast of Bangladesh, **Environment Science and Pollution Res, SCOPUS/ISI Index, IF: 4.22, Springer, doi: 10.1007/s11356-021-15353-9**

210. Kabir MM, Hossain N, **Islam ARMT,** Samia Akter, Fatema KJ, Hilary LN, Hasanuzzaman M, Didar-ul-Alam M, Choudhury TR (2021) Characterization of groundwater hydrogeochemistry, quality and associated health hazards to the residents of southwestern Bangladesh, **Environment Science and Pollution Res, SCOPUS/ISI Index, IF: 4.22, Springer, doi: 10.1007/s11356-021-15152-2**

211. Elbeltagi A, Azad N, Arshad A, Mohammed S, Mokhtar A, Pande C, Etedali HR, Bhat SA, **Islam ARMT,** Deng J **(2021)** Applications of Gaussian process regression for predicting blue water footprint: Case study in Ad Daqahliyah, Egypt, **Agricultural Water Management, Elsevier, SCOPUS/ISI Index, IF: 4.51, 255, 107052, doi: 10.1016/j.agwat.2021.107052**

212. Kumar S, **Islam ARMT**, Islam HMT, Hasanuzzaman M, Ongoma V, Khan R, Mallick J (2021) Water resources pollution associated with risks of heavy metals from Vatukoula Goldmine region, Fiji, **Journal of Environmental Management, Elsevier, SCOPUS/ISI Index, IF: 6.78,** 293, 112868, doi: https://doi.org/10.1016/j.jenvman.2021.112868

213. Siddique MAB, Khan R, **Islam ARMT** et al. (2021) Quality assessment of freshwaters from a coastal city of southern Bangladesh: Irrigation feasibility and preliminary health risks appraisal, **Environmental Nanotechnology, Monitoring & Management, Elsevier, Scopus Index**, 16, 100512, doi: 10.1016/j.enmm.2021.100524

214. Kamruzzaman M, Shahid S, Islam ARMT et al. (2021) Comparison of CMIP6 and CMIP5 model performance in simulating historical precipitation and temperature in Bangladesh: a preliminary study, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17, DOI: 10.1007/s00704-021-03691-0**

215. Mallick J, Alqadhi SD, Talukdar S, Pradhan B, Bindajam A, **Islam ARMT,** Dajam AS **(2021)** A Novel Technique for Modeling Ecosystem Health Condition: A Case Study in Saudi Arabia, **Remote Sensing, MDPI, SCOPUS/ISI Index, IF:4.87, 13(13):6232, doi: 10.3390/rs13132632**

216. Hu Z, Wu Z, Zhang Y, Li Q, **Islam ARMT**, Pan C **(2021)** Risk assessment of drought disaster in summer maize cultivated areas of the Huang-Huai-Hai plain, eastern China**, Environmental Monitoring and Assessment, Springer, SCOPUS/ISI Index, IF: 2.51, 193(7), 411, DOI: 10.1007/s10661-021-09224-6**

217. Salam R, Ghose B, Shill BK, Islam MA, **Islam ARMT,** Sattar MA, Alam GMM, Ahmed B (2021) Perceived and actual risks of drought: Household and expert views from the lower Teesta River Basin of Northern Bangladesh, **Natural Hazards, Springer, SCOPUS/ISI Index, IF: 3.10,** doi: 10.1007/s11069-021-04789-4

218. Rashid MB, Habib MA, Khan R, **Islam ARMT** (2021) Land transform and its consequences due to the route change of the Brahmaputra River in Bangladesh, **International Journal of River Basin Management, Taylor and Francis, Scopus index,** doi: 10.1080/15715124.2021.1938095

219. Sarker S, Akbor MA, Nahar A, Hasan M, Islam ARMT, Siddique MAB (2021) Level of pesticides contamination in the major river systems: A review on South Asian countries perspective, **Heliyon, Elsevier, Scopus Index,** 7 (6), e07270, doi: 10.1016/j.heliyon.2021.e07270

220. Valle Júnior LCG, Vourlitis GL, Curado LFA, da Silva Palácios R, Nogueira JS, de A. Lobo F, **Islam ARMT,** Rodrigues TR (2021) Evaluation of FAO-56 Procedures for Estimating Reference Evapotranspiration Using Missing Climatic Data for a Brazilian Tropical Savanna, **Water,** 13(13), **SCOPUS/ISI Index, IF: 3.10,** MDPI: 1763. doi: 10.3390/w13131763

221. Hasan MF, Nur-E-Alam M, Salam MA, Rahman MH, Paul SC, Rak AE, Ambade B, **Islam ARMT (2021)** Health Risk and Water Quality Assessment of Surface Water in an Urban River of Bangladesh, **Sustainability, MDPI, SCOPUS/ISI Index, IF: 3.25,** 13(12):6832, doi: 10.3390/su 1158077

222. Kabir MM, Akter S, Ahmed FT, Mohinuzzaman M, Didar-ul-Alam M, Mostofa KMG, **Islam ARMT,** Niloy NM (2021**)** Salinity-induced fluorescent dissolved organic matter influence co- contamination, quality and risk to human health of tube well water, southeast coastal Bangladesh, **Chemosphere, Elsevier, SCOPUS/ISI Index, IF: 7.08, 275, 130053.** doi: https://doi.org/10.1016/ j. chemosphere.2020.130053.

223. **Islam ARMT**, Kabir MM, Faruk S. et al. (2021) Sustainable groundwater quality in southeast coastal Bangladesh: co-dispersions, sources, and probabilistic health risk assessment, **Environment, Development and Sustainability, Springer, SCOPUS/ISI Index, IF: 3.21** https://doi.org/10.1007/s10668-021-01447-4

224. Islam MN, **Islam ARMT,** Hossain MS, Prodhan MTR, Chowdhury MS, Mamun MHA **(2021)** Mass Media Influence on Changing Healthy Lifestyle of Community People During COVID-19 Pandemic in Bangladesh: A Cross-Sectional Survey, **Asia-Pacific Journal of Public Health, SAGE, SCOPUS/SSCI, IF: 1.39, 1-4,** DOI: 10.1177/10105395211011030

225. Jerin JN, **Islam ARMT,** Mamun MAA, Mozahid MN, Ibrahim SM **(2021)** Climate change effects on potential evapotranspiration in Bangladesh, **Arabian Journal of Geosciences, 14, 682, Springer, SCOPUS/ISI Index, IF: 1.82, DOI: 10.1007/s12517-021-07010-9**

226. Azad MAK, **Islam ARMT,** Rahman MS, Ayen K **(2021)** Development of novel hybrid machine learning models for monthly thunderstorm frequency prediction over Bangladesh. **Natural Hazards, Springer, SCOPUS/ISI Index, IF: 3.10,** DOI :10.1007/s11069-021-04722-9.

227. **Islam ARMT,** Islam HMT, Shahid S, Khatun MK, Ali MM, Rahman MS, Ibrahim SM, Almoajel AM **(2021)** Spatiotemporal nexus between vegetation change and extreme climatic indices and their possible causes of change, **Journal of Environmental Management, Elsevier, SCOPUS/ISI Index, IF: 6.78,** 289: 112505, doi: https://doi.org/10.1016/j.jenvman.2021.112505

228. Ghose B, **Islam ARMT,** Kamruzzaman M, Moniruzzaman M, Hu Z **(2021)** Climate-induced rice yield anomalies linked to large-scale atmospheric circulation in Bangladesh using multi-statistical modeling, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17, *Theor Appl Climatol* 144, 1077–1099 DOI: 10.1007/s00704-021-03584-2**

229. Talukdar S, Eibek KU, Akhter S, Ziaul SK, **Islam ARMT,** Mallick J **(2021)** Modeling fragmentation probability of land-use and land-cover using the bagging, random forest and random subspace in the Teesta River Basin, Bangladesh, **Ecological Indicators, Elsevier, SCOPUS/ISI Index, IF: 4.95,** 126: 107612, doi: 10.1016/j.ecolind.2021.107612.

230. Elbeltagi A, Kumari N, Dharpure JK, Mokhtar A, Alsafadi K, Kumar M, Mehdinejadiani B, Etedali HR, Brouziyne Y, **Islam ARMT,** Kuriqi A **(2021)** Prediction of Combined Terrestrial Evapotranspiration Index (CTEI) Over Large River Basin Based on Machine Learning Approaches, **Water 13(4):547**, **SCOPUS/ISI Index, IF: 3.10,** DOI: 10.3390/w13040547

231. Jerin JN, Islam HM, **Islam ARMT,** Shahid S, Hu Z, Badhon MA, Chu R, Elbeltagi, A **(2021)** Spatiotemporal trends in reference evapotranspiration and its driving factors in Bangladesh, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17.** 144, 793-808. DOI: 10.1007/s00704-021-03566-4

232. **Islam ARMT,** Talukdar S, Mahato S, Ziaul SK, Eibek KU, Akhter S, Pham QB, Mohammadi B, Karimi F, Linh NTT **(2021)** Machine learning algorithm-based risk assessment of riparian wetlands in Padma River Basin of Northwest Bangladesh, **Environment Science and Pollution Res, SCOPUS/ISI Index, IF: 4.22, Springer, DOI: 10.1007/s11356-021-12806-z.**

233. Rahman MR, **Islam ARMT,** Shammi M (2021) Emerging trends of water quality monitoring and applications of multivariate tools, **Water Engineering Modeling and Mathematic Tools, Book chapter 14, Elsevier, Scopus index,** 271-283, doi: 10.1016/B978-0-12-820644-7.00020-7

234. Wang Y, Hu Z, Sen L, Liu C**, Islam ARMT,** Wu Z, Dang H, Chen S **(2021)** The process of methanogenesis in paddy fields under different elevated CO2 concentrations, **Science of the Total Environment, Elsevier, SCOPUS/ISI Index, IF: 7.96,** 773, 145629, doi: 10.1016/j.scitotenv.2021.145629

235. Ghose B, **Islam ARMT,** Islam HMT, Hasanuzzaman M, Huang J, Hu Z, Moniruzzaman M, Gustave W, Karim M, Ibrahim SI **(2021)** Rain-Fed Rice Yield Fluctuation to Climatic Anomalies in Bangladesh, **International Journal of Plant Production, Springer, SCOPUS/ISI Index, IF: 2.01,** 15, 183-201. doi: 10.1007/s42106-021-00131-x

236. Mallick J, Talukder S, **Islam ARMT, et al. (2021)** Proposing receiver operating characteristic-based sensitivity analysis with introducing swarm optimized ensemble learning algorithms for groundwater potentiality modelling in Asir region, Saudi Arabia, **Geocarto International,** Taylor and Francis, **SCOPUS/ISI Index, IF: 4.88,** DOI: 10.1080/10106049.2021.1878291

237. Hu Z, Wu Z, **Islam ARMT et al. (2021)** Spatiotemporal characteristics and risk assessment of agricultural drought disasters during the winter wheat growing season on the Huang-Huai-Hai Plain, China, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17, DOI: 10.1007/s00704-020-03506-8**

238. Xiao Q, Hu Z, Hu C, **Islam ARMT et al. (2021)** A highly agricultural river network in Jurong Reservoir watershed as significant CO2 and CH4 sources, **Science of the Total Environment Elsevier, SCOPUS/ISI Index, IF: 7.96, 769, 144558, DOI:** 10.1016/j.scitotenv.2020.144558

239. Li M, Chu RH, **Islam ARMT**, Jiang YL, Shen **SH (2021)** Estimating daily actual evapotranspiration of rice-wheat rotation system in typical farmland of Huai River Basin using a two-step and two one-step models, **Journal of Interactive Agriculture, Elsevier, SCOPUS/ISI Index, IF: 2.84, 20(1), 274-288.** DOI: 10.1016/S2095-3119(20)63223-3

240. Salam R, **Islam ARMT,** Shill BK, Alam GMM, Hasanuzzaman M, Hossain MM, Ibrahim SM, Shouse RC **(2021)** Nexus between vulnerability and adaptive capacity of drought-prone rural households in northern Bangladesh, **Natural Hazards, Springer, SCOPUS/ISI Index, IF: 3.10,** 46: 391-413. doi: 10.1007/s11069-020-03900-5

241. Rahman MS, Azad MAK, Hasanuzzaman M, Salam R, **Islam ARMT,** Rahman MM, Hoque MMM **(2021).** How air quality and COVID-19 transmission change under different lockdown scenarios? A case from Dhaka city, Bangladesh, **Science of the Total Environment, Elsevier, SCOPUS/ISI Index, IF: 7.96, 762, 143161**, doi: 10.1016/j.scitotenv.2020.143161

242. Liu C, Hu Z, **Islam AMRT** et al. (2021) Hyperspectral characteristics and inversion model estimation of winter-wheat under different elevated CO2 concentrations, **International Journal of Remote Sensing, Taylor and Francis, SCOPUS/ISI Index, IF: 3.15,** 42(3): 1035-1053, doi: 10.1080/01431161.2020.1823038

243. Rahman MM, Bodrud-doza M, Shammi M, **Islam ARMT,** Khan ASM **(2021).** COVID-19 pandemic, dengue epidemic, and climate change vulnerability in Bangladesh: Scenario assessment for strategic management and policy implications, **Environmental Research, Elsevier, SCOPUS/ISI Index, IF: 6.49, 192, 110303**, doi: 10.1016/j.envres.2020.110303

244. **Islam ARMT,** Karim MR, Mondol MAH **(2021)** Appraising trends and forecasting of hydroclimatic variables in the north and northeast regions of Bangladesh, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17. 143(1-2), 33-50,** DOI: 10.1007/s00704-020-03411-0

245. Khan R, Islam HMT, **Islam ARMT (2021)** Mechanism of elevated radioactivity in Teesta river basin from Bangladesh: Radiochemical characterization, provenance and associated hazards, **Chemosphere, Elsevier, SCOPUS/ISI Index, IF: 7.08, 264, 128459.** doi: https://doi.org/10.1016/ j. chemosphere.2020.128459.

246. Li M, Chu RH, **Islam ARMT,** Shen SH **(2021)** Characteristics of surface evapotranspiration and its response to climate and land use and land cover in the Huai River Basin of eastern China, **Environment Science and Pollution Res, SCOPUS/ISI Index, IF: 4.22, Springer, 28(1), 683-699**, doi: 10.1007/s11356-020-10432-9

247. **Islam ARMT**, Talukdar S, Mahato S et al. **(2021)** Flood susceptibility modelling using advanced ensemble machine learning models, **Geoscience Frontiers, Elsevier, SCOPUS/ISI Index, IF: 6.09**,12, 101075. doi: 10.1016/j.gsf.2020.09.006

248. **Islam ARMT,** Mehra B, Salam R, Siddik NA, Patwary MA (2021) Insight into farmers' agricultural adaptive strategy to climate change in northern Bangladesh,

Environment, Development, Sustainability, Springer, SCOPUS/ISI Index, IF: 3.25, 23, 2439-2464. doi: 10.1007/s10668-020-00681-6

249. **Islam ARMT**, Hasanuzzaman M, Azad MAK, Salam R et al. (2021). Effect of meteorological factors on COVID-19 cases in Bangladesh. **Environment, Development, Sustainability, Springer, SCOPUS/ISI Index, IF: 3.21, 23, 9139–9162, DOI: 10.1007/s10668-020-01016-1**

2020

250. Xu Y, Li T, Shen S, Xu G, **Islam ARMT et al. (2020)** Effects of cyclic variability in Pacific decadal oscillation on winter wheat production in China, **International Journal of Climatology, SCOPUS/ISI Index, IF: 4.06, Willy, 41(4): 2239-2252, doi: 10.1002/joc.6956**

251. Wang Y, Hu Z, Liu C, **Islam ARMT** et al. **(2020)** Responses of CO2 and N2O Emissions from Soil-plant Systems to Simulated Warming and Acid Rain in Cropland**, Journal of Soils and Sediments, Springer, SCOPUS/ISI Index, IF: 3.30, DOI: 10.1007/s11368-020-02818-6**

252. Wahiduzaman M, **Islam ARMT,** Luo J, Shahid S, Uddin MJ, Shimul SM, Sattar MA (2020) Trends and variabilities of thunderstorm days over Bangladesh on the ENSO and IOD timescales**, Atmosphere, SCOPUS/ISI Index, IF: 2.68, MDPI, 11(11), 1176, doi: 10.3390/atmos11111176**

253. Salam R, **Islam ARMT,** Pham QB, Dehghani M, Al Ansari N, Linh NTT (2020) The optimal alternative for quantifying reference evapotranspiration in climatic sub-regions of Bangladesh, **Scientific Reports, Nature, SCOPUS/ISI Index, IF: 4.37, *Sci Rep* 10 (1), 20171, DOI: 10.1038/s41598-020-77183-y**

254. Rahman MN, **Islam ARMT (2020)** Consumer fish consumption preferences and contributing factors: Empirical evidence from Rangpur City Corporation, Bangladesh, **Heliyon, Elsevier, Scopus Index,** 6 (12), e05864, doi: 10.1016/j.heliyon.2020.e05864

255. Saha N, Bodrud-doza M, **Islam ARMT** et al. (2020) Hydrogeochemical evolution of shallow and deeper aquifers in central Bangladesh: arsenic mobilization process and health risk implications from the potable use of groundwater, **Environmental Earth Science, Springer, SCOPUS/ISI Index, IF: 2.78. 79(20), 477, DOI: 10.1007/s12665-020-09228-4**.

256. **Islam ARMT,** Hasanuzzaman M, Shammi M, Salam R. et al. (2020). Are meteorological factors enhancing COVID-19 transmission in Bangladesh? Novel findings from a compound Poisson generalized linear modelling approach, **Environmental Science and Pollution Research, SCOPUS/ISI Index, IF: 4.22, DOI: 10.1007/s11356-020-11273-2.**

257. Tasnuva A, Hossain R, Salam R, **Islam ARMT** et al. (2020). Employing social vulnerability index to assess household social vulnerability of natural hazards: An evidence from southwest coastal Bangladesh, **Environment, Development and Sustainability, Springer, SCOPUS/ISI Index, IF: 3.21, DOI: 10.1007/s10668-020-01054-9.**

258. Shammi M, Bodrud-Doza M, **Islam ARMT** and Rahman MM **(2020)** Strategic assessment of COVID-19 pandemic in Bangladesh: comparative lockdown scenario analysis, public perception, and management for sustainability, **Environment, Development, Sustainability, Springer**, **SCOPUS/ISI Index, IF: 3.21, DOI: 10.1007/s10668-020-00867-y**

259. **Islam ARMT,** Hasanuzzaman M, Islam HMT et al. (2020) Quantifying Source Apportionment, Co-occurrence and Ecotoxicological Risk of Metals from Up-Mid-Downstream River Segments, Bangladesh, **Environmental Toxicology and Chemistry,** Wiley, **SCOPUS/ISI Index, IF: 3.74, 39(10), 2041-2054. https://doi.org/10.1002/etc.4814.**

260. **Islam ARMT,** Shen S, Yang S, Hu Z, Rahman MA **(2020)** Spatiotemporal rice yield variations and potential agro-adaptation strategies in Bangladesh: A biophysical modeling approach, **Sustainable Production and Consumption, Elsevier, SCOPUS/ISI Index, IF: 5.03,** 24, 121-138. Doi: 10.1016/j.spc.2020.07.005

261. Salam R, **Islam ARMT (2020)** Potential of RT, Bagging and RS ensemble learning algorithms for reference evapotranspiration prediction using climatic data-limited humid region in Bangladesh, **Journal of Hydrology, Elsevier, SCOPUS/ISI Index, IF: 5.72,** 590, 125241. https://doi.org/10.1016/j.jhydrol.2020.125241

262. Praveen B, Talukdar S, Shahfahad, Mahato S, Mondal J, Sharma P, **Islam ARMT**, Rahman A **(2020)** Analyzing trend and forecasting of rainfall changes in India using non-parametrical and machine learning approaches, **Scientific Report, nature** 10(1): 10342, **SCOPUS/ISI Index, IF: 4.37,** https://doi.org/10.1038/s41598-020-67228-7

263. Bodrud-Doza M, Shammi M, Bahlman L, **Islam ARMT** and Rahman MM (2020) Psychosocial and Socio-Economic Crisis in Bangladesh Due to COVID-19 Pandemic: A Perception-Based Assessment. **Front. Public Health 8:341. SCOPUS/ISI Index, IF: 3.02,** 8, 341. doi: 10.3389/fpubh.2020.00341

264. Shammi M, Bodrud-Doza M, **Islam ARMT** and Rahman MM (2020) COVID-19 pandemic, socioeconomic crisis and human stress in resource-limited settings: A case from Bangladesh, **Heliyon, Elsevier, Scopus Index,** 6(5), e04063, doi: 10.1016/j.heliyon.2020.e0406.

265. Khan R, Islam MS, Tareq, ARM, Naher K, **Islam ARMT** et al. (2020) Distribution, sources and ecological risk of trace elements and polycyclic aromatic hydrocarbons in sediments from a polluted urban river in central Bangladesh, **Environmental Nanotechnology,**

Monitoring & Management, Elsevier, Scopus Index, 14, 100318, doi: https://doi.org/10.1016/j.enmm.2020.100318.

266. Zinat MRM, Salam R, Badhan MA, **Islam, ARMT (2020)** Appraising drought hazard during Boro rice growing period in western Bangladesh, **International Journal of Biometeorology Springer, SCOPUS/ISI Index, IF: 3.78**. 64(10): 1687-1697, DOI:10.1007/s00484-020-01949-2.

267. **Islam ARMT,** Siddiqua MT, Zahid A, Tasnim SS, Rahman MM **(2020)** Drinking appraisal of coastal groundwater in Bangladesh: An approach of multi-hazards towards water security and health safety, **Chemosphere, Elsevier, SCOPUS/ISI Index, 255, 126933, IF: 7.08,** doi: https://doi.org/10.1016/ j. chemosphere.2020.126933.

268. **Islam ARMT,** Rahman MS, Khatun R, Hu Z (2020) Spatiotemporal trends in the frequency of daily rainfall in Bangladesh during 1975-2017, **Theoretical and Applied climatology, Springer, SCOPUS/ISI Index, IF: 3.17**, 141(3-4), 869-887. DOI: 10.1007/s00704-020-03244-x

269. Rahman MM, Bodrud-Doza M, Siddique T, Zahid A, **Islam ARMT (2020)** Spatiotemporal distribution of fluoride in drinking water and associated probabilistic human health risk appraisal in the coastal region, Bangladesh, **Science of the Total Environment**, **Elsevier, SCOPUS/ISI Index, IF: 7.96**, 724:138316, doi: 10.1016/j.scitotenv.2020.138316

270. Uddin MJ, Hu J, **Islam ARMT,** Eibek KU, Zahan MN (2020) A comprehensive statistical assessment of drought indices to monitor drought status in Bangladesh, **Arabian Journal of Geosciences, Springer, SCOPUS/ISI Index, IF: 1.82, 13(9), 323,** DOI: 10.1007/s12517-020-05302-0.

271. **Islam ARMT,** Ahmed I, Rahman MS **(2020)** Trends in cooling and heating degree-days overtimes in Bangladesh? An investigation of the possible causes of changes, **Natural Hazards, Springer, SCOPUS/ISI Index, IF: 3.10, 101:879-909** doi: 10.1007/s11069-020-03900-5

272. **Islam ARMT,** Mamun AA, Rahman MM, Zahid A (2020) Simultaneous comparison of modified-integrated water quality and entropy weighted indices: Implication for safe drinking water in the coastal region of Bangladesh, **Ecological Indicators, Elsevier, SCOPUS/ISI Index, IF: 4.96,** 113: 106229, doi: 10.1016/j.ecolind.2020.106229

273. Li M, Chu R, **Islam ARMT** et al (2020) Attribution Analysis of Long-Term Trends of Aridity Index in the Huai River Basin, Eastern China, **Sustainability, MDPI, SCOPUS/ISI Index, IF: 3.25,** 12(5),1743, doi: 10.3390/su12051743

274. **Islam ARMT**, Islam HM et al (2020) Co-distribution, possible origins, status and potential health risk of trace elements in surface water sources from six major river basins,

Bangladesh, **Chemosphere, Elsevier, SCOPUS/ISI Index, IF: 7.08, 249, 126180,** Doi: 10.1016/j.chemosphere.2020.126180

275. **Islam ARMT,** Nafiuzzaman M, Rifat J, Rahman MA, Chu R, Li M (2020) Spatiotemporal variations of thunderstorm frequency and its prediction over Bangladesh, **Meteorology and Atmospheric Physics, Springer, SCOPUS/ISI Index, IF: 2.00, 132 (6): 793-808,** Doi: 10.1007/s00703-019-00720-6

276. Wang YY, Hu, Z, Shang, DY, **Islam, ARMT**, Chen, S **(2020)** Effects of warming and elevated O3 concentrations on N2O emission and soil nitrification and denitrification rates in a wheat-soybean rotation cropland, **Environmental Pollution, SCOPUS/ISI Index, IF: 8.07,** Elsevier, 257,113556. doi: 10.1016/j.envpol.2019.113556

277. Habib, MA, **Islam, ARMT**, Bodrud-Doza et al., **(2020)** Simultaneous appraisals of pathway and probable health risk associated with trace metals contamination in groundwater from Barapukuria coal basin, Bangladesh, **Chemosphere, SCOPUS/ISI Index, IF: 7.08, Elsevier**, 242: 125183, Doi: 10.1016/j.chemosphere.2019.125183.

278. Salam, R., **Islam, ARMT,** Islam, S (2020) Spatiotemporal distribution and prediction of groundwater level linked to ENSO teleconnection indices in the northwestern region of Bangladesh, **Environment, Development and Sustainability, Springer, SCOPUS/ISI Index, IF: 3.21, 22 (5), 4509–4535,** DOI 10.1007/s10668-019-00395-4.

2019

279. Rahman, MS, **Islam, ARMT (2019)** Are precipitation concentration and intensity changing in Bangladesh overtimes? Analysis of the possible causes of changes in precipitation systems, **Science of the Total Environment, SCOPUS/ISI Index, IF: 7.96, Elsevier,** 690:370-387, doi: 10.1016/j.scitotenv.2019.06.529

280. Islam, ARMT, Bodrud-doza, M., Rahman, MS., Amin, SB, Chu, R., Mamun, HA (2019) Sources of trace elements identification in drinking water of Rangpur district, Bangladesh and their potential health risk following multivariate techniques and Monte-Carlo simulation, **Groundwater for Sustainable Development, Elsevier, Scopus/ non-ISI index,** 9, 100275, doi:10.1016/j.gsd.2019.100275.

281. Wang, Y., Hu, Z., **Islam, ARMT.,** Chen, S., Shang, D., Xue, Y **(2019)** Effect of Warming and Elevated O3 Concentration on CO2 Emissions in a Wheat-Soybean Rotation Cropland, **International Journal of Environmental Research and Public Health**, **SCOPUS/ISI Index, IF: 3.39.** MDPI, 16(10),1755; doi:10.3390/ijerph16101755.

282. Dubache, G., Ogwang, BA., Ongoma, V., **Islam, ARMT (2019)** The effect of Indian Ocean on Ethiopian seasonal rainfall, **Meteorology and Atmospheric Physics**, **SCOPUS/ISI Index, IF: 2.00, Springer, 131(6), 1753–1761,** doi: 10.1007/s00703-019-00667-8.

283. Chu, R., Li, M., **Islam, ARMT (2019)** Attribution analysis of actual and potential evapotranspiration changes based on the complementary relationship theory in the Huai River Basin of eastern China, **International Journal of Climatology, SCOPUS/ISI Index, IF: 4.06, Willy, 39(10), 4072-4090,** DOI:10.1002/joc.6060.

284. Habib MA, Basuka T., **Islam ARMT** et al. (2019) Distribution of naturally occurring radionuclides in soil around a coal-based power plant and their potential radiological risk assessment, Radiochemica Acta. SCOPUS/ISI Index, IF: 1.44, 107(3), 243-259, Doi:10.1515/ract-2018-3044

285. **Islam ARMT,** Shen S, Yang SB, Hu Z, Chu R **(2019)** Assessing recent impacts of climate change on design water requirement of Boro rice season in Bangladesh, **Theoretical and Applied Climatology, SCOPUS/ISI Index, IF: 3.17, Springer,** 138(1-2):97-113, https://doi.org/10.1007/s00704-019-02818-8

286. Akhter S, Eibek KU, Islam S, **Islam ARMT,** Shen S, Chu, R **(2019)** Predicting spatiotemporal changes of channel morphology in the reach of Teesta River, Bangladesh using GIS and ARIMA modeling, **Quaternary International, SCOPUS/ISI Index, IF: 2.19, Elsevier,** 513, 80-94, https://doi.org/10.1016/j.quaint.2019.01.022.

287. Ahmed N., Bodrud-Doza M., **Islam ARMT,** Hossain S., Moniruzzaman M., Dev N., Bhuiyan MAQ **(2019)** Appraising spatial variations of As, Fe, Mn and NO3 contaminations associated health risks of drinking water from Surma basin, Bangladesh, **Chemosphere, SCOPUS/ISI Index, IF: 7.08,** Elsevier, 218:726-740 Doi: 10.1016/j.chemosphere.2018.11.104

2018

288. Hu Z., **Islam ARMT** et al. **(2018)** Effects of warming and reduced precipitation on soil respiration and N2O fluxes from winter wheat-soybean cropping systems, **Geoderma, SCOPUS/ISI Index, IF: 6.11, Elsevier,** 337, 956-964. Doi: 10.1016/j.geoderma.2018.10.047

289. Li M, Chu R, **Islam ARMT,** Shen S **(2018)** Reference Evapotranspiration Variation Analysis and Its Approaches Evaluation of 13 Empirical Models in Sub-Humid and Humid Regions: A Case Study of the Huai River Basin, Eastern China, Water 10(4), 493, **SCOPUS/ISI Index, IF: 3.10, MDPI,** doi: 10.3390/w10040493

290. Li M, Chu R, Shen S, **Islam ARMT (2018)** Evaluating Structural, Chlorophyll-Based and Photochemical Indices to Detect Summer Maize Responses to Continuous Water Stress, Water 10(4); MDPI, **SCOPUS/ISI Index, IF: 3.10,** 10(4), 500. doi: 10.3390/w10040500

291. Li M, Chu R, Shen S, **Islam ARMT (2018)** Dynamic analysis of pan evaporation variations in the Huai River Basin, a climate transition zone in eastern China, **Science of The**

Total Environment, Elsevier, SCOPUS/ISI Index, IF: 7.96, 625:496–509, doi: 10.1016/j.scitotenv.2017.12.317**.**

292. Li M, Chu R, Shen S, **Islam ARMT (2018)** Quantifying Climatic Impact on Reference Evapotranspiration Trends in the Huai River Basin of Eastern China, **Water,** 10(2):144, MDPI, **SCOPUS/ISI Index, IF: 3.10,** doi:10.3390/w10020144.

293. **Islam ARMT,** Shen S, Haque MA, et al. **(2018)** Assessing groundwater quality and its sustainability in Joypurhat district of Bangladesh using GIS and multivariate statistical approaches, **Environment, Development and Sustainability, SCOPUS/ISI Index, IF: 3.21,** Springer, 20(5): 1935-1959. doi: 10.1007/s10668-017-9971-3

294. **Islam ARMT,** Shen S, Yang SB **(2018)** Predicting design water requirement of winter paddy under climate change condition using frequency analysis in Bangladesh, **Agricultural Water Management,** Elsevier, **SCOPUS/ISI Index, IF: 4.51,** 195(C):58-70, doi:10.1016/j.agwat.2017.10.003.

2017

295. **Islam ARMT,** Shen S, Bodrud-Doza M, Rahman SM **(2017)** Assessing irrigation water quality in Faridpur district of Bangladesh using several indices and statistical approaches, **Arabian Journal of Geoscience, SCOPUS/ISI Index, IF: 1.82,** Springer, 10(19), 418. doi: 10.1007/s12517-017-3199-2.

296. **Islam ARMT,** Ahmed N, Bodrud-Doza M, Chu R **(2017)** Characterizing groundwater quality ranks for drinking purposes in Sylhet district, Bangladesh, using entropy method, spatial autocorrelation index, and geostatistics**, Environment Science and Pollution Res, SCOPUS/ISI Index, IF: 4.22,** Springer, 24(34): 26350–26374. doi: 10.1007/s11356-017-0254-1.

297. **Islam ARMT,** Shen S, Bodrud-Doza M **(2017)** Assessment of arsenic health risk and source apportionment of groundwater pollutants using multivariate statistical techniques in Chapai-Nawabganj district, Bangladesh, **Journal of Geological Society of India, SCOPUS/ISI Index, IF: 1.45,** Springer, 90(2): 239-248. doi: 10.1007/s12594-017-0705-9.

298. **Islam ARMT,** Shen S, Bodrud-Doza M et al. **(2017)** Assessment of trace elements of groundwater and their spatial distribution in Rangpur district, Bangladesh, **Arabian Journal of Geosciences**, **SCOPUS/ISI Index, IF: 1.82**, Springer, 10(4): 95. doi: 10.1007/s12517-017-2886-3.

299. **Islam ARMT,** Shen S, Islam MA, Islam MS **(2017)** Paleoenvironment of deposition of Miocene succession in well BK-10 of Bengal Basin using electrofacies and lithofacies modeling approaches, **Modeling Earth System and Environment**, **Scopus/non-ISI index,** Springer, 3(1),5. doi: 10.1007/s40808-017-0279-y.

300. **Islam ARMT,** Shen S, Hu Z, Rahman MA **(2017)** Drought hazard evaluation in Boro paddy cultivated areas of western Bangladesh at current and future climate change conditions, **Advances in Meteorology, SCOPUS/ISI Index, IF: 1.96,** 2017, 3514381, 12 pages. doi: 10.1155/2017/3514381.

301. Huang Z, **Islam ARMT,** Zhang F et al. **(2017)** Spatiotemporal analysis the precipitation extremes affecting rice yield in Jiangsu province, southeast China, **International Journal of Biometeorology**, **SCOPUS/ISI Index, IF: 3.78,** Springer, 61(10), 1863-1872, doi: 10.1007/s00484-017-1372-7.

302. Chu R, Li M, Shen S, **Islam ARMT et al. (2017)** Changes in Reference Evapotranspiration and Its Contributing Factors in Jiangsu, a Major Economic and Agricultural Province of Eastern China, **Water,** 9(7), **SCOPUS/ISI Index, IF: 3.10,** MDPI: 486. doi: 10.3390/w9070486.

303. Rahman MS, Saha N, **Islam ARMT et al. (2017)** Evaluation of Water Quality for Sustainable Agriculture in Bangladesh, **Water, Air and Soil Pollution, SCOPUS/ISI Index, IF: 2.52,** Springer, 228(10), 385. doi: 10.1007/s11270-017-3543-x.

304. Maw KW, **Islam ARMT,** Sien ZMM et al. **(2017)** Simulation of Storm Surge in Myanmar Coast, **Earth Systems and Environment**, **Scopus/non-ISI index,** Springer, 1 (2),15. doi: 10.1007/s41748-017-0017-7.

2016

305. Bhuiyan MAH, Bodrud-Doza M, **Islam ARMT et al. (2016)** Assessment of groundwater quality of Lakshimpur district of Bangladesh using water quality indices, geostatistical methods, and multivariate analysis, **Environmental Earth Sciences, SCOPUS/ISI Index, IF: 2.78,** Springer, 75(12), 1020. doi: 10.1007/s12665-016-5823-y.

306. Bodrud-Doza M, **Islam ARMT,** Ahmed F et al. **(2016)** Characterization of groundwater quality using water evaluation indices, multivariate statistics and geostatistics in central Bangladesh, **Water Sciences, Elsevier, Scopus/non-ISI index,** 33(1):19-40. doi: 10.1016/j.wsj.2016.05.001.

2015

307. Sein ZMM, **Islam ARMT,** Maw KW et al. **(2015)** Characterization of southwest monsoon onset over Myanmar, **Meteorology and Atmospheric Physics**, **SCOPUS/ISI Index, IF: 2.0,** Springer, 127(5):587-603. doi: 10.1007/s 00703-015-0386-0.

308. **Islam ARMT** and Habib MA **(2015)** Identification of Gas Sand Horizons of the Rashidpur Structure, Surma Basin, Bangladesh, Using 2D Seismic Interpretation, **International Journal of Geophysics**, **Scopus/non-ISI index,** 2015, 840168, 10 pages. doi: 10.1155/2015/840168.

2014

309. Habib MA and **Islam ARMT (2014)** Paleoenvironmental reconstruction of Miocene Surma succession in the well Rashidpur#04, Bengal Basin using log facies interpretation, **Iranian Journal of Earth Science, Scopus/non-ISI index,** 6 (1): 12-23.

310. **Islam ARMT,** Islam MA, Haque MD and Jahan K **(2014)** Interpretation of depositional environment of Miocene sequence using electrofacies analysis in the well Bakhrabad# 09, Bengal Basin, **International journal of Earth Science and Engineering, Scopus/non-ISI index,** 7 (1): 230-238.

Recent conference Paper

1. **Islam, ARMT,** Salam, R, Ghose, B **(2019)** Drought risk perception and risk reduction strategies appraisal for Teesta River basin: Intra-household and expert views, **Poster presentation, Disaster Risk Reduction Strategies, Dept. of Disaster Science and Management, University of Dhaka, 13 October, 2019.**
2. Zannat, F, Rahman, B, **Islam, ARMT (2018)** Spatiotemporal variability of rainfall link to groundwater level under changing climate in northwestern region of Bangladesh, **International Conference Climate Change, Biodiversity and Sustainable Agriculture (Iccbsa-2018), 13-16 December, 2018, Assam Agricultural University, Jorhat, Assam, India.**
3. **Islam, ARMT**, Techato K, Habib MA (2017) Simulating potential agro-adaptative measures of rice yield under climate change using ORYZA2000 model in Bangladesh. 1st International on sustainable energy management for mitigation and adaptation on climate change, 16-23 August, 2017, Hat Yai, **Thailand.**
4. **Islam, ARMT,** Shen, S, Bodrud-Doza, M, Habib, MA, Rahman, MS (2016) Assessment of Irrigation Water Quality using Several Indices and Statistical Approaches in Central Bangladesh. 1st International Conference on Botanical Pesticides and Environmental Sustainability 24-25 September, 2016, Rajshahi, Bangladesh.
5. **Islam, ARMT,** Islam, MA, Islam, MS, Rahman MH. (2004) Electrofacies and petrophysical studies of the Miocene sequence in the well BK-10, Belabo structure, Bangladesh. Bangladesh Geological Society. XI Geological conference, 2-4 December, 2004, Bangladesh.

Research project experience

1. **Research project awarded by BRUR completed in 2017-2018 session**
2. **Research project awarded by BRUR in completed 2018-2019 session**
3. **Research project awarded by BRUR in completed in 2019-2020 session**
4. **Research Project as research consultant on Transboundary Flood Resilience in Kurigram, RDRS, 2019-2020**

5. **Research Project on water resource in King Khalil university, Kingdom of Saudi Arabia, 2020-2023**

Reviewer in Peer-reviewed journal

Science of Total Environment, Journal of Cleaner Production, Chemosphere, Agricultural Water Management, Elsevier; Arabian journal of Geoscience, Environment, Development and Sustainability, Mitigation and Adaptation for Global Changes, International Journal of Biometeorology, Springer

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I hereby, declare that the information provided in this curriculum vitae are true and correct.

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