Last Updated: April 2022

Personal Details

Name: Anisul Haque Date of birth: June 2, 1962 Nationality: Bangladeshi

Present address: Professor, IWFM, BUET, Dhaka-1000, Bangladesh.

Tel: 966 5650 ext. 7651(Off), 7624(Res.), 01712 074488 (Mobile)

Email: anisul@iwfm.buet.ac.bd

Qualifications

Ph.D	February	1994	Department of Civil Engineering, K.U. Leuven, Belgium.
M.Sc	August	1989	Dept. of WRE., BUET, Dhaka, Bangladesh.
B.Sc	June	1986	Department of Civil Engineering, BUET, Dhaka, Bangladesh

Professional career positions

August	2005	-		Present	Professor	IWFM, BUET
February	1999	-	July	2005	Associate Professor	IWFM, BUET
April	1994	-	January	1999	Assistant Professor	IWFM, BUET
February	1987	-	March	1994	Lecturer	IWFM, BUET

Key areas of expertise

- 1. Marine and Estuarine Processes.
- 2. Delta Dynamics.
- 3. Flow and Transport Processes.
- 4. Computational Fluid Dynamics.
- 5. Numerical Techniques and Modeling.
- 6. Basic Hydraulics.
- 7. Risk Analysis

Key active/past research projects

- 1. Research on Sediment Distribution and Management in South-West Region of Bangladesh.
- 2. Research on the Morphological processes under Climatic Changes, Sea Level Rise and Anthropogenic Intervention in the Coastal Zone.
- 3. Up taking Results of Climate Change Adaptations in South Asia.
- 4. Evaluation of adaptation trials for coastal livelihoods in GBM delta.
- 5. Research on water-related disaster mitigation and environment symbiosis technology in rural Bangladesh.
- 6. Road to the Rescue.
- 7. Deltas, vulnerabilities, and climate change: Migration and Adaptation (DECCMA)
- 8. Assessing health, livelihoods, ecosystem services and poverty alleviation in populous deltas.
- 9. Research on Disaster Prevention/Mitigation Measures against Floods and Storm Surges in Bangladesh.
- 10. Numerical Modeling for Non-cohesive and Cohesive Sediment Transport.
- 11. Modeling of density induced flow.
- 12. Effects of coastal phenomena due to extreme hydrologic and hydraulic events.
- 13. Experimental and theoretical study of local scour.
- 14. Impact of Climate and Sea Level Change in part of Indian Sub-Continent (CLASIC)

TEACHING AND ACADEMIC INVOLVEMENT

Level		Courses	Institution	
Undergraduate	1.	Coastal Engineering	Department of Civil Engineering, Islam University of Technology (IUT), Dhaka, Bangladesh.	
	2.	Technology, Environment and Technology	Department of Civil Engineering, Islam University of Technology (IUT), Dhaka, Bangladesh.	
Postgraduate	1.	Alluvial River Processes	IWFM, BUET	
	2.	Water and Ecosystem	IWFM, BUET	
	3.	River and Floodplain Management	IWFM, BUET	
	4.	Survey in water Resources Projects	IWFM, BUET	
	5.	Urban Disaster and Risk Management	Institute of Disaster Management and Vulnerability Studies, University of Dhaka, Dhaka, Bangladesh.	

Thesis Supervised (Ph.D, M.Sc and PG. Dip.)

- 1. Development of an integrated river bank erosion management framework in tidal plain (Ph.D)
- 2. Salinity hazard assessment in coastal area of Bangladesh (M.Sc)
- 3. Determination of critical risk due to storm surges in the coastal zone of Bangladesh (M.Sc)
- 4. Impacts of dynamic interaction between astronomical tides and monsoon wind on coastal flooding in Bangladesh (M.Sc)
- 5. Morphological changes in channels due to cyclone generated hydrodynamic shock (M.Sc)
- 6. Quasi real time prediction of storm surge inundation for the coastal region of Bangladesh (M.Sc)
- 7. Flood damage and risk assessment model in the haor basin of Bangladesh (M.Sc)
- 8. Environmental impact due to change in geometric characteristics of the Kapataksha River (M.Sc)
- 9. Seasonal variation of fish migration in Sariakandi fish pass (M.Sc)
- 10. Changes of environmental parameters due to salinity intrusion in the southwest region of Bangladesh (M.Sc)
- 11. Development of a sustainable livelihood security model for storm surge hazard in coastal area of Bangladesh (M.Sc)
- 12. Analytical simulation of dynamic interdependency between economy and lotic ecology at the meandering river basin (M.Sc)
- 13. Performance evaluation of Sariakandi fish pass (PG. Dip)
- 14. Effect of land use change on geometric characteristics of the Buriganga river (PG.Dip.)

Journal publications (26 in Clarivate Indexed Journal)

- Rahman Md. Munsur, Anisul Haque, Robert J. Nicholls, Stephen E. Darby, Mahmida Tul Urmi, Md. Maruf Dustegir, Frances E. Dunn, Anika Tahsin, Sadmina Razzaque, Kevin Horsburgh, Md. Aminul Haque (2022), Sustainability of the coastal zone of the Ganges-Brahmaputra-Meghna delta under climatic and anthropogenic stresses, Science of the Total Environment 829 (2022) 154547, http://dx.doi.org/10.1016/j.scitotenv.2022.154547
- 2. Rahman Md. Rayhanur, **Anisul Haque**, A.K. Azad, Marin Akter, Hamima Huma, Mehedi Hasan Shuvo, Umme Khadeja Peal, Md. Munsur Rahman (2021), Effectiveness of selected planned adaptations in micro level: Evidence from coastal community in Bangladesh, Progress in Disaster Science 12 (2021) 100208, http://dx.doi.org/10.1016/j.pdisas.2021.100208.
- 3. Marin Akter, **Anisul Haque**, Dewan Sadia Karim, Munsur Rahman, Mashfiqus Salehin, Rubaiya Kabir, Mohammad Abdul Alim, Mohammad Asif ul Haq (2021), Development of an adaptation model by applying non-linear programming to compute adaptation deficiency in climatic hotspots, Progress in Disaster Science 12 (2021) 100201, http://dx.doi.org/10.1016/j.pdisas.2021.100201.
- 4. Shouvik Das, Sugata Hazra, **Anisul Haque**, Munsur Rahman, Robert J. Nicholls, Amit Ghosh, Tuhin Ghosh, Mashfiqus Salehin, Ricardo Safra de Campos (2021), Social vulnerability to environmental hazards in the Ganges-Brahmaputra-Meghna delta, India and Bangladesh, International Journal of Disaster Risk Reduction 53 (2021) 101983, https://doi.org/10.1016/j.ijdrr.2020.101983
- 5. Verschuur, J., E.E. Koks, **A. Haque**, J.W. Hall (2020), Prioritising resilience policies to reduce welfare losses from natural disasters: A case study for coastal Bangladesh, Global Environmental Change 65 (2020) 102179, https://doi.org/10.1016/j.gloenvcha.2020.102179
- 6. Akter, M., Kabir, R., Karim, D.S., **Haque, A.**, Rahman, M., Haq, M.A., Jahan, M. and Asik, T.Z. (2019), Determining the most sensitive socioeconomic parameters for quantitative risk assessment, Climate **2019**, 7, 107; doi:10.3390/cli7090107, https://www.mdpi.com/2225-1154/7/9/107
- 7. Akter, R., Asik, T.Z., Sakib, M., Akter, M., Sakib, M.N., Al Azad, A.S.M., Maruf, M., **Haque, A.** and Rahman, M. (2019), The dominant climate change event for salinity intrusion in the GBM delta, Climate, 2019, 7, 69, doi: 10.3390 / cli7050069, https://www.mdpi.com/2225-1154/7/5/69/pdf
- 8. Adnan, M.S.G, **Haque**, **A.** and Hall, J.W. (2019), Have coastal embankments reduced flooding in Bangladesh?, Science of the Total Environment, https://doi.org/10.1016/j.scitotenv.2019.05.048
- 9. Kabir, R., Akter, M., Karim, D.S., **Haque, A.**, Rahman, M., Sakib, M. (2019), Development of a matrix based statistical framework to compute weight for composite hazards, vulnerability and risk assessments, Climate 2019, 7, 56; doi:10.3390/ cli7040056, https://www.mdpi.com/2225-1154/7/4/56/pdf
- 10. Akter, M., Jahan, M., Kabir, R., Karim, S., **Haque**, **A.**, Rahman, M. and Salehin, M. (2019), Risk assessment based on fuzzy synthetic evaluation method, Science of the Total Environment, 658 (2019), 818-829, https://doi.org/10.1016/j.scitotenv.2018.12.204

- 11. Al Azad, A.S.M.A., Mita, K.S., Zaman, M.W., Akter, M., Asik, T.Z., **Haque, A.**, Hussain, M.A., Rahman, M.M. (2018), Impact of tidal phase on inundation and thrust force due to storm surge, Journal of Marine Science and Engineering, 2018, 6, 110; doi:10.3390/jmse6040110.
- 12. Mondal, S.M., Islam, A.K.M, **Haque, A.**, Islam, M.R., Biswas, S. and Mahmud, K. (2018), Assessing high-end climate change impacts on floods in major rivers of Bangladesh using multi-model simulations, Global Science and Technology Journal, Vol.6, No.2, June 2018, pp. 1-14, http://www.gstjpapers.com/
- 13. Rahman, M., Dustegir, M., Karim, R., **Haque, A.**, Nichols, R.J., Darby, S.E., Nakagawa, H., Hossain, M., Dunn, F.E. and Akter, M. (2018), Recent sediment flux to the Ganges-Brahmaputra-Meghna delta system, Science of the Total Environment 643 (2018) 1054–1064, https://doi.org/10.1016/j.scitotenv.2018.06.147
- 14. Brown, S., Nicholls, R.J., Lazar, A.N., Hornby, D., Hill, C., Hazra, S., Addo, K. A., **Haque, A.**, Caesar, J. and Topkins (2018), What are the implications of sea level rise for a 1.5, 2 and 3°C rise in global mean temperatures in the Ganges-Brahmaputra-Meghna and other vulnerable deltas? Regional Environmental Change, https://doi.org/10.1007/s10113-018-1311-0
- 15. Jahan, M., Kabir, R., Chowdhury, M.A., **Haque, A.**, Rahman, M. (2017), Evaluating the interdependency among different adaptive capacity indicators of cyclonic hazard, Journal of Modern Science and Technology, Vol.5, No.1, September 2017, pp. 102-109.
- 16. Payo, A., A.N. Lazar, D. Clarke, R.J. Nichols, L. Bricheno, S. Mashfiqus and **A. Haque** (2016), Modelling daily soil salinity dynamics in response to agricultural and environmental changes in coastal Bangladesh, Earth's Future, 5, doi 10.1002/2016EF000530.
- 17. Payo, A., Mukhopadhyay, A., Hazra, S., Ghosh, T., Ghosh, S., Brown, S., Nicholls, R., Bricheno, L., Wolf, J., Kay, S., Lazar, A., **Haque, A**. (2016), Projected changes in area of the Sundarban mangrove forest in Bangladesh due to SLR by 2100, Climatic Change, DOI 10.1007/s10584-016-1769-z, August 2016.
- 18. Mutahara, M., **Haque**, A., Khan, M.S.A., Warner, J.F., Wester, P. (2016), Development of a sustainable livelihood security model for storm surge hazard in the coastal areas of Bangladesh, Stochastic Environmental Research and Risk Assessment, DOI 10.1007/s00477-016-1232-8, Springer, Published Online 18 March 2016.
- 19. **Haque, A.**, Sumaiya and Rahman, M.M. (2016), Flow distribution and sediment transport mechanism in the estuarine systems of Ganges-Brahmaputra-Meghna delta, International Journal of Environmental Science and Development, Vol.7, No.1, January 2016.
- 20. S.Kay, J. Caesar, J. Wolf, L. Bricheno, R.J. Nichols, A.K.M. Saiful Islam, **A. Haque** and A. Pardaens (2015), Modelling the increased frequency of extreme sea levels in the Ganges-Brahmaputra-Meghna delta due to sea level rise and other effects of climate change, Environmental Science: Processes and Impacts, 2015, **DOI**: 10.1039/C4EM00683F.

- 21. Islam, A.S., Bala, S.K. and **Haque, A.** (2010), Flood Inundation Map of Bangladesh using MODIS Time Series Images, Journal of Flood Risk Management, Vol.3, Issue 3, pp. 210-222, September 2010.
- 22. Nazimuddin, M., **Haque. A.** and Salequzzaman, M. (2010), A Bio-Physical Relationship: Biodiversity with Salinity, Journal of Subtropical Agricultural Research and Development 8(3): pp.794-799, June 2010.
- 23. Nazimuddin, M. and **Haque**, A. (2010), Salinity Response in Southwest Coastal Region of Bangladesh due to Hydraulic and Hydrologic Parameters, International Journal of Agricultural Sustainability. Tech. 6(3): pp. 1-7, March 2010.
- 24. Islam, A.K.M., **Haque**, **A.** and Bala, S.K. (2010), Hydrologic Characteristics of Floods in Ganges-Brahmaputra-Meghna (GBM) Delta, Nat. Hazards (2010) 54:797-811, March 2010.
- 25. **Haque, A.**, Khan, M.S.A., and Islam, G.M.T., Mitigation of local scour at bridge site using sacrificial piles, Journal of Hydrology and Meteorology, Nepal, 5(1), 2008.
- 26. Sarker, L.K., Hossain, M.M. and **Haque**, **A.** (2007), Incipient motion of different size fractions in non-uniform sediments of smaller grain sizes, ISH Journal of Hydraulics, India, Vol.12, No.1, September 2007.
- 27. Sarker, L.K., Hossain, M.M. and **Haque**, **A.** (2007), Shear Stress for Initiation of Motion of Non-uniform Sediment Mixtures, International Journal of Sediment Research, Vol.22, No.3, September 2007.
- 28. **Haque, A.**, Rahman, M.M., Islam, T and Hussain, A.M. (2007), Scour mitigation at bridge piers using sacrificial piles, International Journal of Sediment Research, Vol.22, No.1, March 2007.
- 29. Salehin, M., **Haque**, **A.**, Rahman, R., Khan, M.S.A. and Bala, S.K. (2007), Hydrological aspects of 2004 floods in Bangladesh, Journal of Hydrology and Meteorology, Vol.4, No.1, March 2007.
- 30. Rahman, M.M, Nakagawa, H, Ito, N, **Haque, A**, Islam, T, Rahman, R and Hoque, M. (2006), Prediction of local scour depth around bundle-like structures, Annual Journal of Hydraulic Engineering, JSCE, Vol.50., February 2006.
- 31. **Haque, A.** (2005), A semi-implicit finite element method for tidal flow modeling, Journal of Indian Water Resources Society, Vol.25, No.1, 2005.
- 32. Rahman, M.M., Nakagawa, H. and **Haque, A**. (2004), Scouring around spur-dikes in alluvial floodplain rivers, Annual Journal of Hydraulic Engineering, JSCE, Vol.48., February 2004.
- 33. Rahman, M.M. and **Haque**, **A.** (2004), Local scour at slopped-wall spur-dike-like structures in alluvial rivers, Technical Note, Journal of Hydraulic Engineering, ASCE, Vol. 130, No.1, pp. 70-74, January 2004.

- 34. Rahman, M.M. and **Haque**, **A.** (2003), Local scour estimation at bridge site: Modification and application of Lacey formula, International Journal of sediment Research, Vol.18, No.4, 2003.
- 35. **Haque, A.** and Kabir, M.R. (2002), Application of a turbulent stress-flux model in the Lower Meghna estuary, Bangladesh Journal of Water Resource Research, Vol.19, pp.1-17, December 2002.
- 36. Rahman, M.M., **Haque, A**. and Hoque, M.M. (2002), Applicability of the bend development theory in natural alluvial river, International Journal of Sediment Research, Vol. 17, No.3, pp. 210-218, September 2002.
- 37. Rahman, M.M. and **Haque**, **A.** (2002), Flow field and the maximum local scour depth around piers and abutments, Journal of Indian Water Resources Society, Vol.22, No.3, pp. 117-124, July 2002.
- 38. **Haque, A.** and Berlamont, J. (1998), Modelling density and turbulence in stratified tidal medium, Journal of Hydraulic Engineering, ASCE, Vol.124, No.2, pp.135-145, February 1998.

Book Chapters

- Shamima Airin Sweety, M. Shah Alam Khan, Anisul Haque, and Mashfiqus Salehin (2022), An Agent Based Model of Mangrove Social-Ecological System for Livelihood Security Assessment, G. M. Tarekul Islam et al. (eds.), Water Management: A View from Multidisciplinary Perspectives, Springer Nature Switzerland AG 2020, https://doi.org/10.1007/978-3-030-95722-3_16
- 2. Shampa, **Haque A.**, Rahman M.A., Hossain D., Azad A.A., Mita S. (2021), Evaluating Future Threats of Climate Change on Riverine and Coastal Chars. In: Zaman M., Alam M. (eds) Living on the Edge. Springer Geography. Springer, Cham. https://doi.org/10.1007/978-3-030-73592-0_11
- 3. Tahsin Anika, Sadmina Razzaque, **Anisul Haque**, Imran Hossain Newton, Abul Fazal M. Saleh, Rowshan Mamtaz, Md Ibnul Hasan, Md. Aminul Islam Khan, Flavia Simona Cosoveanu, and Cecilia Borgia (2020), Impact of Internal Road Network on Water-Logging Inside Polders, A. Haque, A. I. A. Chowdhury (eds.), Water, Flood Management and Water Security Under a Changing Climate, Springer Nature Switzerland AG 2020, https://doi.org/10.1007/978-3-030-47786-8 2
- 4. Hill, C., Dunn, F., **Haque. A.**, Johnson, F.A., Nicholls, R.J., Raju, P.V. and Addo, K.A. (2019), Hotspots of Present and Future Risk Within Deltas: Hazard, Exposure and Vulnerability, Deltas in the Anthropocene, R.J. Nicholls et al. (eds.), Palgrave Macmillan, Springer Nature Switzerland AG, https://doi.org/10.1007/978-3-030-23517-8
- 5. Rahman, M.M., Ghosh, T., Salehin, M., Ghosh, A., **Haque, A.**, Hossain, M.A., Das, S., Hazra, S., Islam, N., Sarkar, M.H., Nicholls, R.J., Hutton, C.W. (2019), Ganges-Brahmaputra-Meghna Delta, Bangladesh and India: A Transnational Mega-Delta, Deltas in the Anthropocene, edited by Nicholls, R.J., Hutton, C.W., Hanson, S.E., Palgrave Macmillan, Springer Nature Switzerland.

- 6. **Haque, A.** and Nichols, R.J. (2018), Floods and the Ganges-Brahmaputra-Meghna delta, Ecosystem Services for Well-Being in Deltas, R. J. Nicholls et al. (eds.), Palgrave Macmillan, UK, London, Springer Nature, https://doi.org/10.1007/978-3-319-71093-8 8
- 7. **Haque, A.**, Kay, S. and Nichols, R.J. (2018), Present and future fluvial, tidal and storm surge flooding in coastal Bangladesh, Ecosystem Services for Well-Being in Deltas, R. J. Nicholls et al. (eds.), Palgrave Macmillan, UK, London, Springer Nature, https://doi.org/10.1007/978-3-319-71093-8_8
- 8. Hussain, M. A., Hossain, M. A. and **Haque**, **A.** (2012), "Hydro-meteorological Impact on Residual Currents and Salinity Distribution at the Meghna Estuary of Bangladesh", Coastal Environments: Focus on Asian Regions, V. Subramanian (Ed.), Jointly published by Springer and Capital Publishing Company, ISBN 978-90-481-3001-6, 2012.
- 9. Hoque, M.M., Bala, S.K., Ahmed, S.M.U., **Haque, A**. and Mamun, S.A. (2002), Impact of the 1998 flood on the morphology of rivers around bridges, Engineering Concerns of Flood, Ed. M. Ashraf Ali et al., pp. 201-212, BUET, Dhaka, August 2002.
- 10. **Haque A.**, Salehin, M. and Chowdhury, J.U. (2002), Effects of coastal phenomena on the 1998 flood, Engineering Concerns of Flood, Ed. M. Ashraf Ali et al., pp. 241-251, BUET, Dhaka, August 2002.
- 11. Hoque, M.M. and **Haque**, **A.** (1994), Finite element computer model for salinity intrusion in estuaries, Proceedings of 9th Congress of the Asian and Pacific Division, IAHR, H. Cheong et al. eds., Vol.3, pp.286-291, August 1994.
- 12. **Haque**, **A**. and Berlamont, J. (1994), A finite element model for density induced flow, Advances in Hydro-Science and Engineering, Sam S.Y. Wang (ed.), Vol.1, pp.690-696, June 1994.
- 13. Choudhury, J.U. and **Haque**, **A**. (1990), Permissible water withdrawal based upon prediction of saltwater intrusion in the Meghna delta, The Hydrological Basis for Water Resources Management, IAHS publication no.197, U.Shamir and C.Jiaqi eds., pp. 111-117, October 1990.

Conference Proceedings

- 1. **Haque, A.**, M. H. Shourov, Al Azad, K. S. Mita, W. Zaman, S. Mazhar, M. Ali, R. Kabir, M. A. Ansary, R. Ahsan, M.M Rahman, B.Rashid, Y. BABA, H. Nakagawa (2019), A Cyclone Classifier Model for Real-time Cyclone Warning in Bangladesh, 4th Global Summit of Research Institutes for Disaster Risk Reduction, Kyoto, Japan, March 13-15, 2019.
- 2. Tahsin, A., Razzaque, S., Newton, I.H., **Haque, A.**, Saleh, A.F.M., Mamtaz, R., Hasan, I., Cosoveanu, F.S. and Borgia, C. (2019), Impact of Internal Road Network on Water-Logging inside Polders, Book of Abstracts, 7th International Conference on Water and Flood Management (ICWFM), 2-4 March 2019, Dhaka, Bangladesh.
- 3. Mita, K.S., Al Azad, A.S.M.A., Zaman, W.M., Sakib, M., Amin, R., Asik, T.Z., **Haque, A.**, Rahman, M. (2018), Effectiveness of adaptive measures against storm surge hazard based on field experience from a real time cyclone in Bangladesh coast, Proceedings of 2nd International Conference on

- Sustainable Development, Institute of Development Studies and Sustainability, United International University, Dhaka, Bangladesh, July, 2018.
- 4. Asik T.Z., Al-Azad A.S.M.A., Akter R., Sakib M., **Haque A.**, and Rahman M., (2018), Generating a Plausible Future of Salinity Intrusion due to Mora-Like Cyclone along the Coast of Bangladesh, 21st Congress of International Association for Hydro-Environment Engineering and Research (IAHR), Asia Pacific Division (APD), 2-5 September, Yogyakarta, Indonesia.
- 5. Kabir, R., Jahan, M., Akter, M., Tasnim, N., **Haque, A.** and Rahman, M. (2018), Spatio-temporal variability of vulnerability in Bangladesh coast by using Fuzzy Synthetic Evaluation Method, Proceedings of the 21st IAHR-APD Congress, 2018, Yogyakarta, Indonesia.
- 6. Mita, K.S., Azad, A.A., Zaman, M.W., Sakib, M., Amin, G.M.R, Asik, T.Z., **Haque, A.**, Rahman, M.M. (2018). Effectiveness of Adaptive Measures against Storm Surge Hazard based on Field Experience from a Real Time Cyclone in Bangladesh Coast. 2nd UIU International Conference on Sustainable Development, Dhaka, Bangladesh, 2018.
- 7. Saddam, H., Ansary, M., Akter, M., **Haque**, **A**., Rahman, M. (2018), Geotechnical stability coastal polder of Bhola district in Bangladesh coast against cyclonic storm surges using PLAXIS, 2nd UIU International Conference on Sustainable Development, Dhaka, Bangladesh, 2018.
- 8. Dustegir, M, Islam, R., Rahman, M., **Haque, A.**, Karim, R., Amin, R., Rahman, L, Hossain, M., Nakagawa, H. and Hasegawa, Y., Historical evolution of channel shifting and its response to traditional bank protection work along a reach of the sand bed braided Jamuna / Brahmaputra, E-proceedings of the 37th IAHR World Congress, August 13 18, 2017, Kuala Lumpur, Malaysia.
- 9. Akter, M., **Haque**, **A.**, Rahman, M., Alim, M.A. (2017), Development of a dynamic force model to compute distributive thrust force due to storm surge, 6th International Conference on Water and Flood Management (ICWFM-2017), March 4-5, 2017, BUET, Dhaka, Bangladesh
- 10. Jahan, M., Kabir, R., **Haque, A.** and Rahman, M. (2017), Comparative analysis of socio-economic vulnerability in two coastal districts of Bangladesh, 6th International Conference on Water and Flood Management (ICWFM-2017), March 4-5, 2017, BUET, Dhaka, Bangladesh
- 11. Jahan, M., Kabir, R., Karim, S., **Haque, A.** and Rahman, M., Comparative analysis of hazards and risk for the Bangladesh coast, 6th International Conference on Water and Flood Management (ICWFM-2017), March 4-5, 2017, BUET, Dhaka, Bangladesh
- 12. Akter, R., Sakib, M., Sakib, M.N., Zaman, S., **Haque**, **A.**, Rahman, M. and Hossain, D. (2017), Assessment of salinity hazard based on residence time of salinity in Bangladesh coast, 6th International Conference on Water and Flood Management (ICWFM-2017), March 4-5, 2017, BUET, Dhaka, Bangladesh
- 13. Kabir, R., Sakib, M., Jahan, M., **Haque, A.** and Rahman, M. (2017), Socio-economic vulnerability assessment due to storm surge hazard in Bangladesh coast, 6th International Conference on Water and Flood Management (ICWFM-2017), March 4-5, 2017, BUET, Dhaka, Bangladesh
- 14. Sakib, M., Nihal, F., Akter, R., Maruf, M., Akter, M., Noor, S., Rimi, R., **Haque, A.**, Rahman, M. (2016), Afforestation as a buffer against storm surge flooding along the Bangladesh coast, 12

- International Conference on Hydroscience & Engineering, Hydro-Science and Engineering for Environmental Resilience, November 6-10, 2016, Taiwan.
- 15. Akter R., Sumaiya S., Rahman M., Ahmed T., Sakib M., **Haque A.**, Rahman M. M., (2016). Prediction of Salinity Intrusion due to Sea Level Rise and Reduced Upstream Flow in the GBM Delta. 20th Congress of the Asia Pacific Division of the International Association for Hydro Environment Engineering & Research, August 28, 29, 30, 31, Colombo, Sri Lanka.
- 16. Akter, R., Sakib,M., Rahman, Mash., Sumaiya, **Haque**, A., Rahman, Md., Islam, R. (2016), Climatic and Cyclone Induced Storm Surge Impact on Salinity Intrusion along the Bangladesh Coast, Proc. of the 6th Int. Conf. on the application of Physical Modeling in Coastal and Port Engineering and Science (Coastlab16), IAHR, Ottowa, Canada, May 10-13, 2016.
- 17. Nihal, F., Sakib, F., Noor, S., **Haque, A**., Rahman, M., Elahi, W. and Halder U. (2016), Climatic Impacts on the Fluvial and Tidal Inundation Patterns in the Ganges-Brahmaputra-Meghna Delta, Proc. of 2016 2nd Int. Conf. on Disaster Management and Civil Engineering (ICDMCE '2016), Kyoto, Japan, April 12-13, 2016, pp. 1-6.
- 18. Elahi, M.W.E., **Haque, A.**, Rahman, M., and Husna, N. (2015), "Impacts of coastal floodplain sedimentation on net subsidence in the Ganges-Brahmaputra-Meghna delta", International Conference on Recent Innovation in Civil Engineering for Sustainable Development (IICSD-2015), December. 2015, pp. 1032-1038 (2015).
- 19. Nihal, F., Sakib, M., Elahi, W., **Haque, A**., Rahman, M., Rimi, R. (2015), Sidr Like Cyclones in Bangladesh Coast, Proc. of 2nd International Conf. on Environment, Technology and Energy, Colombo, Sri Lanka, 22-23 November, 2015.
- 20. Sakib, M., Nihal, F., **Haque, A.**, Rahman, M. and Ali, M. (2015), Sundarban as a buffer against storm surge flooding, World Journal of Engineering and Technology, 2015, 3, 59-64.
- 21. Rahman, M., **Haque, A.**, Nicholls, R., Jisan, M.A., Nihal, F., Ahmed, I. and Lazar, A.N. (2015), Storm surge flooding in the Ganges-Brahmaputra-Meghna delta: Present and Future Scenarios, e-proceedings of 36th IAHR World Congress, 28 June 3 July, 2015, The Hague, the Netherlands.
- 22. Sumaiya, **Haque, A.**, Rahman, M., Elahi, W., Ahmed, I., Rimi, R.A., Alam, S. (2015), Modeling salinity extremes in Bangladesh coast, Proc. of 5th International Conference on Water and Flood Management (ICWFM 2015), Dhaka, Bangladesh, pp. 259-266, 2015.
- 23. Ali, M.R, Sumaiya, Alam, S., Ahmed, I., Ahmed, H., Kadir, M.N., Siddique, K.B., Jisan, M.N., **Haque, A** and Rahman, M. (2014), "Computation of discharge and flow volume for different flooding scenario in the Lower Meghna estuary", *Proceedings* in the 2nd International Conference on Civil Engineering for Sustainable Development (ICCESD-2014), 14-16 February, 2014, KUET, Khulna, Bangladesh.
- 24. **Haque**, **A**, Rahman, M., Alam, S., Sumaiya, Ahmed, I., Sarker, M.H., Nicholls, R.J, Darby, S., Chowdhury, S.M., Siddique, K.B., Ahmed, H., Ali, M.R, Ghosh, T. (2013), "Relationship between the shapes and hydraulic regimes of the estuaries of the Ganges-Brahmaputra-Meghna delta",

- Proceedings in the International Conference on Climate Change Impact and Adaptation, 15-17 November, 2013, DUET, Gazipur, Bangladesh.
- 25. Rahman, M., **Haque**, A., Siddique, K.B., Ali, M.R., Ahmed, H., Nicholls, R.J., Darby, S., Wolf, J., Sarker, M.H., Alam, S., Ahmed, I., Sumaiya, Hossain, M.A.R., Ahmed, M., Bricheno, L.M., Torres, R., Chowdhury, S.M., Ghosh, T. (2013), A preliminary assessment of the impact of fluviotidal regime on Ganges-Brahmaputra-Meghna delta and its impact on the ecosystem resources", International Conference on Climate Change Impact and Adaptation, 15-17 November, 2013, DUET, Gazipur, Bangladesh.
- 26. Mutahara, M., **Haque, A.** and Philippus Wester (2013), "Livelihood System and Challenge of Living in the Coast: A case study in the South-West Coastal Area of Bangladesh", 4th International Conference on Water and Flood Management, ICWFM 2013, 4-5 October 2013, Dhaka, Bangladesh.
- 27. S. Hossain, **Haque**, **A**., B. Bhattacharya , M.F.A, Khan , M. Maswood (2013), "Flood Damage and Risk Assessment Model in the Haor Basin of North- East Region in Bangladesh", 4th International Conference on Water and Flood Management, ICWFM 2013, 4-5 October 2013, Dhaka, Bangladesh.
- 28. S.Paul, Islam, A.K.M.S., Salehin, M. and **Haque**, A. (2013), "Flow Pattern Analysis in Haor Areas Using Delft3D", 4th International Conference on Water and Flood Management, ICWFM 2013, 4-5 October 2013, Dhaka, Bangladesh.
- 29. Mohiuddin, F.A. and **Haque**, **A.** (2013), "An Overview of Socio-Economic Implications of River Bank Erosion Management in the Deltaic Plain of Bangladesh", 4th International Conference on Water and Flood Management, ICWFM 2013, 4-5 October 2013, Dhaka, Bangladesh.
- 30. Bhattacharya, B., Suman, A., **Haque, A**., Khan, M.F.A., Maswood, M. (2013), "Flood Characteristics of the Haor Area in Bangladesh", 4th International Conference on Water and Flood Management, ICWFM 2013, 4-5 October 2013, Dhaka, Bangladesh.
- 31. Hussain, M. A., Khan, M. S. A., **Haque, A.**, Khan, Z.H. and Ahmed, M. M. (2012), Tsunami Hazard Assessment in the Northern Bay of Bengal along the Bangladesh Coast, Proceedings of the International Conference on Civil Engineering for Sustainable Development, 23-24 March, 2012, KUET, Khulna, Bangladesh, ISBN: 978-984-33-4246-1 (Printed Proceedings of Extended Abstract) pp. 133-134, ISBN: 978-984-33-4247-8 (CD-ROM proceedings of Full Paper).
- 32. Mutahara, M. and **Haque, A.** (2011), Development of a Sustainable Livelihood Security Model for Storm Surge Hazard in Coastal Area, Proc. of the 3rd International Conf. on Water and Flood Management, Vol. 1, January 8-10, 2011, pp.591-600.
- 33. Mohiuddin, F.A. and **Haque**, **A.** (2011), Integrated River Bank Erosion Management: A Concept of Paradigm Shift Towards IWRM, Proc. of the 3rd International Conf. on Water and Flood Management, Vol. 1, January 8-10, 2011, pp.381-392.
- 34. Ghosh, B.K. and **Haque. A.** (2011), Hydraulic Impact on Fish Migration in Sariakandi Fish Pass of Bangladesh, Proc. of the 3rd International Conf. on Water and Flood Management, Vol. 1, January 8-10, 2011, pp.55-65.

- 35. Taj, S. and **Haque. A.** (2010), Mathematical Simulation of Dynamic Interdependency between Lotic Ecosystem and Natural River Meandering Evolution Process, Proc. of the 13th Asian Congress of Fluid Mechanics, 13 ACFM, IUT, Dhaka, Bangladesh, 17-21 December 2010, pp. 741-744.
- 36. Hussain, M.A., Hossain .M.A. and **Haque. A.** (2009), Seasonal Variation of Residual Currents in the Meghna Estuary of Bangladesh, Proc. of the Coastal Dynamics 2009, Ed. Masaru Mizuguchi and Shinji Sato, pp. 1-11, September 2009.
- 37. Ghosh, B.K. and **Haque**, **A.** (2007), "Performance evaluation of Sariakandi Fish Pass", Preconference Paper Volume of International Conference on Water and Flood Management, IWFM, BUET, Dhaka, March 12-14, 2007.
- 38. Ghosh, B.K. and **Haque**, **A.** (2007), "Seasonal variation of fish migration in Sariakandi Fish Pass", 16th Annual general Meeting and National Conference 2007, Zoological Society of Bangladesh, Dhaka, March 30, 2007.
- 39. Rahman, M.M., Islam, G.M.T., **Haque, A.**, and Khan, M.S.A. (2007), "Development of a Flood Flow Channel Facility and Study of River Bank Stabilization", IWFM, February 2007.
- 40. Khan, M.S.A, Rahman, R., **Haque, A.**, Rahman, M.M., and Islam G.M.T. (2006), Stormwater Flooding in BUET Campus: A Situation Report, IWFM, March 2006.
- 41. Rahman, R., **Haque, A.**, Khan, M.S.A., Salehin M., and Bala, S.K. (2005), Investigation of hydrological characteristics of Flood 2004 with special emphasis on Dhaka City, IWFM, December 2005.
- 42. Rahman, M.M., Nakagawa, H., **Haque, A.** (2005), Islam, T. and Ishigaki, T., "A sustainable solution for the stabilization of navigational channels in floodplain environment", XXXI IAHR Congress, Seoul, Korea, September 11-16, 2005.
- 43. Rahman, M.M., **Haque**, **A.**, Nakagawa, H. and Muramoto, Y. (2003), Local scour around spur-dikes in a braided river, Proceedings of the XXX IAHR Congress, AUTh, Thessaloniki, Greece, pp. 777-784, December 2003.
- 44. **Haque**, A., Hassan, A. and Chowdhury, J.U. (2003), Water resources system of Bangladesh, Proceedings of the Workshop on Impact of Climate and Sea Level Change in the Indian Sub-Continent, BUET, Dhaka, pp. 1-21, January 2003.
- 45. Rahman, M.M., **Haque**, **A**. and Islam, M.S. (2002), Flow and scouring around piers and abutments, Proceedings of the 13th IAHR-APD Congress, Singapore, pp. 280-283, August 2002.
- 46. Rahman, M.M., Hossain, M.A., Islam, G.M.T., **Haque**, **A**, Hoque, M.M., Faisal, A.S.M., Rana, M.S., Takabayeshi, H. and Hinokidani, O. (2002), Measurement of flow and bed topography in an alluvial meandering river in Bangladesh, Proceedings of the 13th IAHR-APD Congress, Singapore, pp. 299-302, August 2002.

- 47. Islam, G.M.T., Rahman, M.M., Hossain, M.A., **Haque, A.**, Hoque, M.M., Takabayeshi, H., Hinokidani (2002), Effects of sand bar on sediment distribution in an alluvial river, Proceedings of the 13th IAHR-APD Congress, Singapore, pp. 240-242, August 2002.
- 48. Bala, S.K., Hoque, M.M., Ahmed, S.M.U. and **Haque**, **A.** (2002), Hydraulic characteristics of the Upper Meghna river at the vicinity of the Meghna bridge, Proceedings of the 13th IAHR-APD Congress, Singapore, pp. 135-242, August 2002.
- 49. Rahman, M.M., Hussain, M.A., Islam, G.M.T., **Haque, A**. and Hoque, M.M. (2001), Hydromorphological characteristics around the Meghna bridge site in the Meghna river, Proceedings of the 4th International Conference on Mechanical Engineering, BUET, Dhaka, Bangladesh, Vol.2, pp. 75-80, December 2001.
- 50. Bala, S.K., Hoque, M.M., Ahmed, S.M.U. and **Haque**, **A**. (2001), Interaction between groundwater and river water adjacent to the Meghna bridge site, 4th International Conference on Mechanical Engineering, BUET, Dhaka, Bangladesh, Vol.3, pp. 89-94, December 2001.
- 51. Rahman, M.M., **Haque, A.** and Islam, M.S. (2001), Flow around pier and abutment, 4th International Conference on Mechanical Engineering, BUET, Dhaka, Bangladesh, Vol.2, Section IV, pp. 101-106, December 2001.
- 52. Rahman, M.M., **Haque**, **A**., Hoque, M.M. and Sarker, M. (2001), Effect of curvature and bed topography on meandering river flow, Proceedings of the 1st Annual Paper Meet and International Conference on Civil Engineering, Institution of Engineers, Bangladesh (IEB), Chittagong, pp. 309-318, November 2001.
- 53. Rahman, M.M., **Haque**, **A**. and Alam, A.A. (2001), Flow field around piers and abutments at the initiation of scouring, Proceedings of the 1st Annual Paper Meet and International Conference on Civil Engineering, Institution of Engineers, Bangladesh (IEB), Chittagong, pp. 403-410, November 2001.
- 54. Rahman, M.M., **Haque, A.**, Hoque, M.M., Sarker, M. and Mamun, S.A. (2001), Local scouring at bridge site in natural river, Proceedings of the 2nd IAHR Symposium on River, Coastal and Estuarine Morphodynamics (RCEM), Obihiro, Japan, pp. 255-263, September 2001.
- 55. **Haque**, **A.** and Berlamont, J. (1994), Predictive finite element modeling of stratified tidal flow, Proceedings of the International Conference on Computational Methods in Water Resources, Heidelberg, Germany, July 1994.
- 56. **Haque**, **A.** and Berlamont, J. (1994), Experimental verification of the mixing length model in a stratified tidal medium, Proceedings of the International Symposium on Waves-Physical and Numerical Modelling, British Columbia, Canada, August 1994.
- 57. Hoque, M.M. and **Haque, A.** (1991), Finite element modeling of salinity intrusion in the Meghna-Shahbazpur estuary, Proceedings of the 2nd International Conference on Computer Methods and Water Resources, Rabat, Morocco, Vol.4, 1991.

Research Reports

- 1. **Haque, A.**, Rahman, M., Urmi, M.T., Hossain, D., Barua, P.P., Jahan, N., Elahi, W., Salehin, M., Haque, M.A., Haider, M.J., Khan, S.H. (2019), Research on morphological processes under climate changes, sea level rise and anthropogenic intervention in the coastal zone, Final Report, WARPO and BUET, March 2019.
- 2. **Haque, A.**, Hossain, D., Al Azad, Mita, K.S. (2018), Delft3D model documentation for ESPA-Extension project model setup and scenario description, Version-5, IWFM, BUET, June 2018.
- 3. **Haque, A.**, Ansary, M. and Ahsan, R. (2018), Development of Improved Storm Surge Warning and Evacuation Systems for Bangladesh Coast, Training Module, Component-2, SATREP project, IWFM, BUET, February 2018.
- 4. **Haque, A.**, Hossain, D., Azad, A.A., Mita, K.S., Ahmed, T., Zaman, W. and Sakib, M.N. (2017), Delft 3D Model Documentation for ESPA Extension Project: Model Setup and Scenario Description, IWFM, BUET, December 2017.
- 5. **Haque, A.**, Ansary, M. and Ahsan, R. (2017), Development of Improved Storm Surge Warning and Evacuation Systems for Bangladesh Coast, Mid-term Report, Component-2, SATREP project, IWFM, BUET, August 2017.
- 6. **Haque, A.** and Rahman, M.M. (2003), Scour Around Bridge Pier in a Compound Channel, Technical Report 2: Prediction of scour depth, R01/2003, IWFM, BUET, March 2003.
- 7. **Haque, A.**, Islam, T. and Hussain, A. (2003), Scour Mitigation at Bridge Piers and Abutments Using Sacrificial Piles, Technical Report 1: Scour mitigation at bridge piers, R03/2003, IWFM, BUET, September 2003.
- 8. Rahman, M.M. and **Haque**, **A.** (2003), Prediction of Scouring Around Abutment-Like Structures, Technical Report 2: Prediction methods, R02/2003, IWFM, BUET, March 2003.
- 9. **Haque**, A., Rahman, M.M. and Kabir, M.R. (2002), Scour Around Bridge Pier in a Compound Channel, Technical Report 1: Experimental investigation in rectangular channel, R02/2002, IFCDR, BUET, April 2002.
- 10. Rahman, M.M. and **Haque**, **A**. (2002), Prediction of Scouring Around Abutment-Like Structures, Technical Report 1: Mechanism of scour development, R03/2002, IFCDR, BUET, April 2002.
- 11. Hoque, M.M., Ahmed, S.M.U., **Haque, A.** and Bala, S.K. (2000), Morphological Study of the Meghna River Upstream of the Meghna Bridge, Final Report, R04/2000, IFCDR, BUET, October 2000.
- 12. **Haque**, **A.** and Kabir, M.R. (2000), Flow Characteristics and Discharge Estimation in a Compound Channel, Final Report, IFCDR, BUET, February 2000.

- 13. **Haque, A**. and Kabir, M.R. (2000), A Hybrid Model Study on The Erosion Downstream of Deeply Submerged Sluice Gates, Technical Report 2: Hybrid model study, R01/2000, IFCDR, BUET, January 2000.
- 14. **Haque**, **A**. and Kabir, M.R. (1999), A Hybrid Model Study on The Erosion Downstream of Deeply Submerged Sluice Gates, Technical Report 1: Experimental study, R04/99, IFCDR, BUET, July 1999.
- 15. Hoque, M.M., Bala, S.K., Ahmed, S.M.U., **Haque, A.** and Mamun, S. (1999), Erosion and Local Scouring Around Bridges due to 1998 Floods, IFCDR, BUET, January 1999.
- 16. **Haque, A.** and Kabir, M.R. (1998), Coupled Numerical Modelling for the Transport of Estuarine Cohesive Sediments, Technical Report 3: Model application in the Lower Meghna Estuary, R06/98, IFCDR, BUET, December 1998.
- 17. **Haque, A.** and Kabir, M.R. (1998), Coupled Numerical Modelling for the Transport of Estuarine Cohesive Sediments, Technical Report 2: Model application, R03/98, IFCDR, BUET, August 1998.
- 18. Hoque, M.M., Islam, M.Z., **Haque, A.**, Khan, S.A., Saha, B.C., Mollah, M.H., Muramoto, Y., Utami, T., Hsegawa, K., Fujita, Y., Hosoda, T., Kanda, K. and Nagata, N. (1997), Study of the Morphological Behaviours of the River Meghna, Final Report of the Japan-Bangladesh Joint Study Project on Floods, Topic3, IFCDR and JICA, September 1997.
- 19. **Haque, A.** and Kabir, M.R. (1997), Coupled Numerical Modelling for the Transport of Estuarine Cohesive Sediments, Interim Report 1: Model development, R03/97, IFCDR, BUET, January 1997.
- 20. Hoque, M.M., Islam, M.Z., **Haque, A.** and Khan, M.S. (1996), Study of Morphological Behaviour of the River Meghna, Interim Report, IFCDR, BUET, December 1996.
- 21. **Haque, A.**, Keming, H. and Karelse, M. (1992), Tidal Flume Measurements, LIP I Harbour Studies, Part II: Results from inhomogeneous tests, delft hydraulics, November 1992.
- 22. **Haque**, **A.** and Karelse, M. (1992), Tidal Flume Measurements, LIP I Harbour Studies, Part I: Results from homogeneous tests, delft hydraulics, October 1992.
- 23. Chowdhury, J.U. and **Haque**, **A.** (1989), Numerical Simulation of Tides and Saline Water Intrusion in the Meghna Delta, Final Report, R03/89, IFCDR, BUET, October 1989.
- 24. Chowdhury, J.U. and **Haque**, **A**. (1988), Numerical Simulation of Tides and Saline Water Intrusion in the Meghna Delta, Interim Report II: Development of Saline Water Intrusion Model, R02/88, IFCDR, BUET, May 1988.

Advisory services given to different organizations through Bureau of Research, Testing and Consultation (BRTC), BUET.

- 1. BN Submarine Base, Bangladesh Navy, 2020-2021.
- 2. Detail Master Plan of Pyra Port, Pyra Port Authority (PPA), 2020-2021.
- 3. Flood Preparedness Program (FPP), National Resilience Program (UNDP), 2019-2021.
- 4. Community Focused Guideline Development of Bandal Installation, GUK/OXFAM, 2020.
- 5. Feasibility study with ESIA for resuscitation of Ichamoti river at Pabna district, BWDB, 2019.
- 6. Feasibility study and detailed design for development of jetties and infrastructure at Mirsarai & Sandwip at Chittagong, Subrang and Jaliar Dwip at Teknaf, and Sonadia Dwip at Cox's Bazar, BEZA/BIWTA, 2018-2019.
- 7. Hydro morphological study of the Of the Pyra river at Lebukhali Cantonment in Potuakhali, MIST 2016-2017.
- 8. Hydrological and Morphological Study of Several Bridges, LGED, Dhaka, 2019
- 9. Hydrological and Morphological Study of Several Bridges, LGED, Dhaka, 2018
- 10. Hydrological and Morphological Study of Several Bridges, LGED, Dhaka, 2017
- 11. Hydrology and morphology study work under detail feasibility study for Bangabandhu Sheikh Mujib International Airport project, 2018
- 12. Hydro-morphological study for the extension of runway of Cox's Bazar International Airport, 2018
- 13. Hydro-morphological study for Integrated Development of Lebukhali Cantonment, 2016
- 14. Hydrological and Morphological Study of Several Bridges, LGED, Dhaka, 2016
- 15. Hydrological and Morphological Study of 36 Bridges, LGED, Dhaka, 2015
- 16. Hydrological and Morphological Study of 18 Bridges, LGED, Dhaka, 2011-2014
- 17. Hydrological Design of Asian Woman University Complex, Dhaka, 2009.
- 18. Development and application of a mathematical model in relation to Environmental Impact Assessment in Mukhtarpur Bridge, CEGIS, Dhaka, 2007.
- 19. WRS Models of the Computational Framework for Planning for IWRM, Technical Report 1: Model Identification for Impact Assessment of the NWMP, Center for Environmental and Geographical Information Services (CEGIS), Dhaka, 2003.
- 20. WRS Models of the Computational Framework for Planning for IWRM, Technical Report 2: Design of Water Resources Management Tools, Center for Environmental and Geographical Information Services (CEGIS), Dhaka, 2003.
- 21. Development of the Knowledge Portal on the Estuary Development, Center for Environmental and Geographical Information Services (CEGIS), Dhaka, 2002.
- 22. Computational Framework for WARPO's Future Strategic Water Resources Planning, Center for Environmental and Geographical Information Services (CEGIS), Dhaka, 2002.
- 23. Manual on Hydrologic and Hydraulic Design of Bridge and Related Infrastructure, Surface Water Modelling Center (SWMC), Dhaka, 2002.
- 24. Impact of Climate Variability on Storm Flow and Runoff Pattern, IUCN, Dhaka, 2002.
- 25. Updating of Existing Groundwater and Land Subsidence Model Project, Dhaka Water and Sewerage Authority (DWASA), Dhaka, 2000.
- 26. Investigation into the Damage to the Works of Contract B2 at Sirajgonj during Monsoon 1998, River Bank Protection Project (RBPP), Bangladesh Water Development Board (BWDB), Dhaka, 1999.