

Shammi Haque, Ph.D.

Assistant Professor
Institute of Water and Flood Management (IWFM)
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Employment

- *Assistant Professor, IWFM, BUET* (Aug 2018 – present)
- *Lecturer, IWFM, BUET* (Feb 2015 – July 2018)
- *Lecturer,*
University of Information Technology and Sciences (UITS) (Sep 2014 – Feb 2015)

Education

Ph.D. (Civil Engineering), The University of Tokyo, Tokyo, Japan, 2023.

Thesis: Study on detailed survey and analysis of flood damage to rural houses and roads in Bangladesh

Supervisor: Koji Ikeuchi, Former professor of the Department of Civil Engineering, Professor Emeritus, The University of Tokyo, Japan,

M.Sc. Engineering (*Water Resources*), Bangladesh University of Engineering and Technology, Dhaka, Bangladesh, 2018.

Thesis: Effect of climate and land use changes on sediment load for Brahmaputra river basin using HEC-HMS

Supervisor: Md. Mostafa Ali, Professor, Department of Water Resources Engineering, BUET.

B.Sc. Engineering (*Water Resources*), Bangladesh University of Engineering and Technology, Dhaka, Bangladesh, 2014.

Thesis: *Climate Change Scenario of Upper Meghna River Basin using a Hydrological Model in HEC-HMS*

Supervisor: Md. Mostafa Ali, Assistant Professor, Department of Water Resources Engineering, BUET.

Higher Secondary Certificate (H.S.C), Viqarunnisa Noon School & College, 2008

Secondary School Certificate (S.S.C), Viqarunnisa Noon School & College, 2006

Current responsibilities at IWFM, BUET

I have just joined IWFM after finishing my doctoral program in Japan. Therefore, I am currently planning and doing the necessary works to involve as a working member in ongoing projects.

I am providing lectures in the “Vulnerability Assessment” course under the Climate Modeling and Risk Management (CMRM) Program at April 2023 Semester.

I am also appointed as Member Secretary of the Coordination and Development (C&D) committee of Institute of Water and Flood Management (IWFM), BUET from 13 August 2023.

Past responsibilities at IWFM, BUET

- Co-investigator and Member Secretary, "Flash Flood Early Warning System (FFEWS) for the Haor Regions of Bangladesh", collaborative project (2015-2019), funded by LGED under HILIP project of IFAD.
- A researcher in "Disaster Prevention / Mitigation against Floods and Storm Surges in Bangladesh", funded by JST-JICA (SATREPS) from 2015-2019.
- Member Secretary of Coordination and Development (C&D) committee of Institute of Water and Flood Management (IWFM), BUET from February 18, 2018 to 8 September 2019.
- Assistant Organizing Secretary of 6th International Conference on Water and Flood Management (ICWFM 2017)
- Assistant Course Coordinator and resource person in 4th Short Course on Remote Sensing and GIS in Water Management (22-24 May 2015)

Software Skill

- HEC-HMS
- ArcGIS
- HEC-RAS
- SWAT
- RRI
- iRiC
- Programming Language: C++, Matlab

Publications

Journals:

Haque, S., Ikeuchi, K., Shrestha, B. B., Kawasaki, A., & Minamide, M. (2023). Relationship between residential house damage and flood characteristics: A case study in the Teesta River Basin, Bangladesh. International Journal of Disaster Risk Reduction, 103901. <https://doi.org/10.1016/j.ijdrr.2023.103901>

Haque, S., Ikeuchi, K., Shrestha, B. B., Kawasaki, A., & Minamide, M. (2023). Establishment of flood damage function model for rural roads: A case study in the Teesta River basin, Bangladesh. Progress in Disaster Science, 17, 100269. <https://doi.org/10.1016/j.pdisas.2022.100269>

Hashimoto, M., Kawaike, K., Deguchi, T., **Haque, S.**, Paul, A., Salehin, M., & Nakagawa, H. (2023). **Multi-scale flooding hazards evaluation using a nested flood simulation model: case study of Jamuna River, Bangladesh.** International Journal of River Basin Management, 21(2), 167-179. <https://doi.org/10.1080/15715124.2021.1935977>

Haque, S., Ali, M. M., Islam, A. S., & Khan, J. U. (2021). Changes in flow and sediment load of poorly gauged Brahmaputra river basin under an extreme climate scenario. Journal of Water and Climate Change, 12(3), 937-954. <https://doi.org/10.2166/wcc.2020.219>

Ahsan, R., Nakagawa, H., Kawaike, K., Hashimoto, M., RAHMAN, M. M., SALEHIN, M., **Haque, S.** & ISLAM, K. N. (2019). **Informing and Involving the Flood Exposed Community in Fulcharri Upazila at Ghaibandha District Bangladesh on Flood Risks and Mitigation.** 京都大学防災研究所年報. B= Disaster Prevention Research Institute Annuals. B, 62(B), 611-619. <http://hdl.handle.net/2433/244985>

Haque, S., Saha, D., & Mondal, M. S. (2019). Improving practice of flood shelter implementation in alluvial river floodplain with hydro-morphological analysis. International Journal of Disaster Response and Emergency Management (IJDREM), 2(2), 35-50. DOI: 10.4018/IJDREM.2019070103

Uddin, M.N., Islam, A.K.M.S., Bala, S.K., Islam, G.M.T., Adhikary, S., Saha, D., **Haque, S.**, Fahad, M.G.R. and Akter, R., 2019. "Mapping of climate vulnerability of the coastal region of Bangladesh using principal component analysis." Applied Geography, Volume: 102, (DOI: 10.1016/j.apgeog.2018.12.011) pp: 47-57. <https://www.sciencedirect.com/science/article/pii/S0143622818302170>

Ali, M.M., Narzis, A. and **Haque, S.**, 2016. "Impacts of Climate Changes on Peak Flow of Upper Meghna River Basin." Journal of Presidency University, Part B (Science and Engineering), 3 (2), pp. 54 – 63. ISSN: 2224-7610.

Conference Proceedings:

Haque, S., Islam, A. K. M. S., Islam, G. M. T. and Salehin, M., 2017. "Event Based Flash Flood Simulation at Sunamganj using HEC-HMS." Proceedings of 6th International Conference on Water and Flood Management, pp. 29-37, ISBN: 978-984-34-2207-1.

Haque, S., Paul, A., Hossain, M.A., Salehin, M., Rahman, M.M., Hashimoto, M. and Kawaike, K., 2017. "Sensitivity analysis of SMA based continuous hydrologic simulation for Sari-Gowain river basin". 4th International Conference on Engineering, Research, Innovation and Education, January 13–15, 2017, Sylhet, Bangladesh, pp. 751-756.

Islam, M. R., Roy, B., **Haque, S.**, Rahman, M. M., Dustegir, M., Nakagawa, H. and Hasegawa, Y., 2017. "Preliminary Measurement Along an Eroding Bend in a Sand Bed Braided River Using Acoustic Doppler Current Profiler." 4th International Conference on Engineering, Research, Innovation and Education, January 13–15, 2017, Sylhet, Bangladesh, pp. 60-66.

Narzis, A., **Haque, S.** and Ali, M.M., 2015. "Climate change scenario: Impact on Upper Meghna river basin and flow of Sylhet region using a hydrological model in Hec-Hms." Proceedings of International Conference on Climate Change in relation to Water and Environment, April 09-11, 2015, DUET, Gazipur, Bangladesh, pp. 15-22.

Ali, M.M., Narzis, A. and **Haque, S.**, 2014. "Evaluation of climate change scenarios of upper Meghna river basin using hydrologic modeling system (HEC-HMS)." Proceedings of 2nd International Conference on Advances in Civil Engineering December 26 –28, 2014 CUET, Chittagong, Bangladesh, pp. 1025-1030.

Presentations:

Haque, S., Ikeuchi, K., Kawasaki, A., & Minamide, M. (2022, December). Development of flood damage function model for rural roads: A case study in the Teesta River Basin, Bangladesh. In AGU Fall Meeting Abstracts (Vol. 2022, pp. H53D-06). <https://ui.adsabs.harvard.edu/abs/2022AGUFM.H53D..06H/abstract>

Haque, S., Ikeuchi, K., Bhakta Shrestha, B., & Minamide, M. (2022, May). Generalizing flood damage mechanism processes of MC Type houses by developing comprehensive flood damage estimation method for Teesta River Basin, Bangladesh. In EGU General Assembly Conference Abstracts (pp. EGU22-5110). <https://ui.adsabs.harvard.edu/abs/2022EGUGA..24.5110H/abstract>

Haque, S., Kawasaki, A., Khiabani, P. H., Nagano, T., & Inoue, T. (2020, December). Review of Data Platforms for Climate Change and Land Sectors. In AGU Fall Meeting Abstracts (Vol. 2020, pp. SY028-07). <https://ui.adsabs.harvard.edu/abs/2020AGUFMSY028..07H/abstract>

Haque, S., Billah, M., Narzis, A., Islam, A.K.M.S., Islam, G.M.T. and Salehin, M., "***Future Changes of Flash Flood in the North East Region of Bangladesh using HEC-HMS Modeling.***" The 2nd Annual Gobeshona Conference 8-11 January, 2016

Attended Trainings and Workshops:

2018 International Workshop for Young Scientists of the HKH Session of the Second International Science Forum of National Science Organizations on the Belt and Road Initiative, Beijing, China, 4-6 November 2018

HUC Academy on Disaster Risk and Water Management in ICIMIOD, Kathmandu, Nepal, 3-12 July 2017

Training course on River and Delta Morphology: Evolution, Dynamics and Prediction organized by CEGIS on 27-29 December 2016.

Workshop on Teaching-Learning and Curriculum Development arranged by Institutional Quality Assurance Cell (IQAC), BUET on 18 August 2016.

Working sessions on supporting the preparation of the land cover map development and the integration of land cover and forest monitoring arranged by Food and Agriculture Organization of the United Nations and Bangladesh Forest Department, Bangladesh on 6-8th June 2016.

Training on Radar data integration for Land Cover/Land Use mapping in Bangladesh arranged by Food and Agriculture Organization (FAO) with support from SilvaCarbon, USAID and UNREDD held at Bangladesh Forest Department, Bangladesh on 4 -8 April 2016.

Training of Trainers (ToT) Course on Concept and Practice of Integrated Water Resources Management arranged by CEGIS on 20-24 March, 2016

Training on national land cover monitoring using optical satellite data at Dhaka, Bangladesh arranged by Food and Agriculture Organization (FAO) and SilvaCarbon on 7 - 11 February 2016.

Visit to Ujigawa open laboratory, Kyoto University, Japan to perform a joint experiment on wave setup in storm surge on 02 -10 October 2015.

Training on national land cover classification systems Toward the integration of forest Bangladesh at Bangladesh Bureau of Statistics on November 29th – December 3th 2015.

Workshop on Watershed Modeling with SWAT organized by Department of Water Resources Engineering, BUET, Dhaka held on 19 December, 2013.

Completed an Internship Program held from 30 October to 07 November 2013, in the Center for Environmental and Geographic Information Services (CEGIS) under Climate Change Study Division, as a student of Water Resources Engineering Department, BUET, Dhaka.