

MD. SADIUL ALAM CHYON

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RESEARCH INTEREST

- Morphological impact of sand mining
- Fluvial geomorphology

RESEARCH EXPERIENCE

Aug 2020- To Date

PhD Thesis: Study on the quantification and morphological and social impact of sand mining.
Advisor: James Leonard Best, Professor, Geography & Geographic Information Science, University of Illinois at Urbana-Champaign.

Nov 2017-To Date

M.Sc. Thesis: Integrated flood risk assessment in Madaripur Sadar Upazila
Supervisor: Dr. M. Shahjahan Mondal, Professor, IWFM, Bangladesh University of Engineering & Technology.

- A calibrated and validated hydrologic model of the study area's water channels formed for estimating the future flow in HEC-HMS.
- A HEC-RAS 1D/2D coupled model of the river floodplain will be developed to generate flood hazard and vulnerability maps for present and future flood flow scenarios.

Sep 2014-Sep 2015

B.Sc. Thesis: Laboratory study on performance of horizontal slotted submerged Breakwater
Supervisor: Dr. Ataur Rahman

- A 21.3 meter laboratory flume was used to determine and compare the reflection coefficients, transmission coefficients, wave energy loss coefficients of the breakwaters with different porosity for varying unidirectional wave conditions (T=1.6s, 1.7s, 1.8s.)

Oct 2015-Nov 2017

Research Fellow at SAWAs (South Asian Water Studies) funded by IDRC, Canada

- Using Arc-GIS to investigate land cover pattern change due to Khulna-Jessore Drainage Rehabilitation Project (KJDRP) in the South West coastal region of Bangladesh
- Conducted study on proposition of a IWRM strategy for North East Haor Area in Bangladesh using PRA tools in the field and Multi Criteria Analysis on desk.

EDUCATION

Oct 2016- May 2021

Master of Science (Courses completed, Thesis ongoing)
Water Resources Development, Bangladesh University of Engineering & Technology (BUET)
CGPA: 3.83 out of 4.0

Sep 2015

Bachelor of Science
Water Resources Engineering, Bangladesh University of Engineering & Technology (BUET)
CGPA: 3.59 out of 4.0 (CGPA in **last 4 Semesters: 3.87 out of 4.0**)
Class position: 8th out of 32 graduating students.

PROFESSIONAL EXPERIENCE

Aug 2015

Internship at Institute of Water Modeling (IWM)

Jan 2016-Jun 2016

Lecturer at World University Bangladesh (6 Months)

Oct 2016-Feb 2021

Assistant Engineer, Bangladesh Water Development Board

Jan 2018-Jun 2018

Guest Lecturer at BSMRSTU

ACADEMIC PROJECTS

- Temporal analysis and projection of Bangladesh average temperature for 2000-2100 from RCP-8.5 Global Circulation Model
- Sensitivity analysis and sediment modeling of Ganges River using HEC-RAS

ENGINEERING PROJECTS

Dec 2016- Jun 2017

Jan 2018-Feb 2021

- Engineer-in-charge at West Gopalganj Integrated Water Management Project
- Engineer-in-charge at South-West Area Integrated Water Resources Planning & Management Project, Additional Financing [ADB Loan No.3302 & DON Grant No.0441]
- **Key Roles:** Hydrological modeling of the project catchment; Planning, design, cost estimation and construction supervision of hydraulic structures and river bank protection work.

ENGLISH PROFICIENCY TEST SCORE

TOEFL- 113 (L-28, S-28, R-28, W-29)

PUBLICATIONS

Journal Articles

- **Chyon M.S.A**, Rahman A., Rahman D.M.A, 2017, "Comparative Study on Hydrodynamic Performance of Porous and Non-Porous Submerged Breakwater", *Procedia Engineering, Elsevier*, vol.194 pp. 203-210. ([URL](#), [PDF](#))
- **Chyon M.S.A.**, Rahman A. 2017, "Hydrodynamic and Morphological Impact of Hydraulic Structural Interventions: An Investigative Case Study on Feni-Muhuri River System of Bangladesh", *Journal of Water Resources and Pollution Studies*, vol. 2, no. 2, pp.1-15. ([URL](#), [PDF](#))

Conference Proceedings

- Nourin F.T.J., Mahmood S., **Chyon M.S.A**, Siddika A., Khan M.S.A, 2017, "Assessment of different dimensions of irrigation water security in a coastal polder of Bangladesh", *6th International Conference on Water & Flood Management, Dhaka, 17th Nov.*([PDF](#))
- **Chyon M.S.A**, Moshfika M, Mita K.S., Mehzabin S., Sumayia U.H., Rahman A., 2017, "An investigation at Titporol along the Jamuna river in Bangladesh", *6th International Conference on Water & Flood Management, Dhaka, 17th Nov.*([PDF](#))
- **Chyon M.S.A.**, Rahman A., Samarakoon S.M.L.D., 2017, "Gender analysis of irrigation projects: a comparative analysis on Mahaweli irrigation project and Carchi irrigation project", *6th International Conference on Water & Flood Management, Dhaka, 17th Nov.*([PDF](#))
- **Chyon M.S.A.**, Rahman A., 2016, "Laboratory study on performance of horizontal slotted submerged Breakwater", *3rd International Conference on Civil Engineering for Sustainable Development, Khulna, 12-14 Feb.* ([URL](#), [PDF](#))

Book Review

- **Chyon M.S.A.**, *Water Use and Poverty Reduction*, by Md. Fakhru Islam. Reviewed in *SAWAS Journal*, Volume 8, Issue 1, June 2018. ([URL](#), [PDF](#))

TECHNICAL SKILLS

Languages: C++, MATLAB.

Engineering Analytical Tools: HEC-RAS, ArcGIS, River 2D, Delft 3D, AutoCAD.

AWARDS

Oct 2015- Oct 2017
2013-2015

- SAWA Fellowship Award, funded by IDRC, Canada ([URL](#))
- Dean's List at BUET (For CGPA greater than 3.75 for two consecutive terms)

TRAINING, WORKSHOPS & ECA

- Regional Training of South Asia Water Studies (SAWA) Fellows on “Interdisciplinary Research Concepts & Methodologies” held at Kandy, Sri Lanka from 28 Nov to 3rd Dec, 2015 funded by IDRC, Canada. ([PDF](#))
- Engineering Foundation Training held at Kaptai Engineering Academy, BWDB from 7 Dec-29 Dec, 2016. ([PDF](#))
- Training on Public Procurement Rules (e-GP) held at CPC, BWDB, Dhaka from 27 Feb-02 Mar 2017. ([PDF](#))
- Attended the Westlaw Nalsar Inter-Varsity Debating Championship held at Hyderabad, India from 6th Apr- 8th Apr 2012. ([PDF](#))
- Workshop on Innovation in Public Services held at Circuit House, Gopalganj from 4th Apr-7th Apr 2017.