**DR SANZIDA MURSHED**
**Professor**
**Department of Geology, Faculty of Earth and Environmental Sciences**
**Dhaka University, Dhaka-1000, Bangladesh.**
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Being an academician from the Earth and Environmental Sciences discipline, my expertise lies in understanding the complex interactions between climate change and disaster risk, particularly in vulnerable regions prone to cyclones, floods, landslides other climate-induced events. My work focuses on integrating advanced technologies, data-driven methodologies, and community engagement to explore the effects of climate change on various ecosystems and human societies, investigating strategies to enhance resilience in vulnerable communities and advancing the field of disaster management through adaptive measures and nature-based solutions for preparedness, response, and recovery.

## EDUCATION:

► **PhD**
School of Sciences (SSCI), University of New South Wales, Canberra, Australia.

***Thesis Title****: A Systematic Approach towards Assessing Coastal Disaster Risk in Bangladesh.*

► **MSc** (By Research)
School of Sciences (SSCI), University of New South Wales, Canberra, Australia.

***Thesis Title****: Disaster Risk Reduction through Improving Living Standards of At-Risk Coastal Communities in Southwestern Bangladesh*

► **MS in Geology** (Group: Petroleum Geology and Geophysics) (Thesis)
University of Dhaka, Dhaka 1000, Bangladesh.

***Thesis Title:*** *Facies and Facies Sequence Analysis of the BokaBil formation in the Sylhet Trough, Northeastern Bangladesh, with a High-Resolution Sequence Stratigraphic Approach.*

► **BSc (Hons) in Geology**
University of Dhaka, Dhaka 1000, Bangladesh.

## WORK EXPERIENCE:

1. **Research Associate and Contributor**
   Natural Science Division
   Banglapedia, The National Encyclopedia of Bangladesh
   Bangladesh Asiatic Society.
   *Period: August/2008-Feb/2012*

   Duties & Responsibilities: Editing, updating and management of existing and new articles of the Natural Science division. Writing new articles relevant to this particular field.

2. **Lecturer**
   Department of Geology,
   University of Dhaka, Dhaka 1000.
   *Period: Oct/2008-April/2013*

3. **Assistant Professor**
   Department of Geology,
   University of Dhaka, Dhaka 1000.
   *Period: April/2013-June/2020*

4. **Associate Professor**
   Department of Geology,
   University of Dhaka, Dhaka 1000.
   *Period: June2020-June 2024*

5. **Professor**
   Department of Geology,
   University of Dhaka, Dhaka 1000.
   *Period: June 2024-Recent*

   Duties & Responsibilities: Teach various courses at the undergrad and graduate level, conducting relevant laboratory works and supervising the thesis and project works undertaken by MS students and providing them proper guidance.

6. **Student Advisor**
   Department of Geology,
   University of Dhaka, Dhaka 1000.
   *Period: April/2014-June/2017*

   Duties & Responsibilities: Provide students with information on programs of study and degree requirements. Provide timely and accurate information to students on important dates, deadlines and other academic rules and regulations. To refer students to appropriate sources of information and services and to utilize university resources. General advising, problem-solving, support and guide students in managing stress .

7. **Part-Time House Tutor**
   Shamsun Nahar Hall (Residential Girls Hostel)
   University of Dhaka, Dhaka 1000.
   *Period: October/2013- June/2017*

   Duties & Responsibilities: The house-tutors, jointly with the provost, are responsible in all matters related to management of the hostel. Arranging medical aid for the boarders requiring such assistance. Responsible for all other actions necessary for the promotion of harmony and smooth life of the boarders. Dealing with cases of indiscipline and taking appropriate action against defaulting students. Managing cultural events and sports and celebrating several national and religious festivals as per the university regulation. Any other work assigned by the Provost of the residential hall.

**PUBLICATION:**

**(1)** **Murshed, S.,** An Asset-based Approach for Appraising the Risk-Management-Capacity of the Disaster-Prone Coastal Communities of Bangladesh. the Dhaka university journal of earth and environmental sciences (Accepted for publication in Volume 13, No. 1 (2024).

**(2)** **Murshed, S.,** Griffin, A., Islam, M.A., Oliver,T., Wang, X.H. and David, P. 2024 *A Conceptual Framework for Appraising the Baseline Level of Disaster-Resilience Across Coastal Bangladesh.* International journal of Disaster Risk Reduction (Under Review) .

**(3)** **Murshed, S.,** Griffin, A., Islam, M.A., Wang, X.H.and David, P. 2023 *Assessing sensitivity to climate-related disasters in the context of a developing country: Evidence from the coastal region of Bangladesh.* International journal of disaster risk reduction. 97(1):104023 *https://doi.org/10.1016/j.ijdrr.2023.104023*

**(4)** **Murshed, S.,** Griffin, A., Islam, M.A., Wang, X.H. and David, P.2022 *Assessing multi-climate-hazard threat in the coastal region of Bangladesh by combining influential environmental and anthropogenic factors.* Progress in Disaster Science. 16(100261):18 *https://doi.org/10.1016/j.pdisas.2022.100261*

**(5)** Islam, M.A., David, P., Griffin, A. and **Murshed, S.** 2022 *Assessing critical infrastructure resilience in terms of its service-providing capacity in coastal Bangladesh: A synthesis of geospatial techniques and social responses.* International journal of disaster risk reduction. 67:102633 *https://doi.org/10.1016/j.ijdrr.2021.102633*.

**(6)** Islam, M.A., David, P., Griffin, A. and **Murshed, S.** 2021 *Spatio-temporal assessment of social resilience to tropical cyclones in coastal Bangladesh.*Geomatics, Natural Hazards and Risks. 12(01):279-309 *https://doi.org/10.1080/19475705.2020.1870169*

**(7)** **Murshed, S.,** David, P., Griffin, A. and Islam, M.A. 2021 *A parsimonious approach to mapping climate-change-related composite disaster risk at the local scale in coastal Bangladesh* International journal of disaster risk reduction. 55:102049 *https://doi.org/10.1016/j.ijdrr.2021.102049*

**(8)** Islam, M.A., **Murshed, S.,** and Hasan, M.2020 *selecting suitable landfill sites with multi-criteria evaluation and GIS: a case of Savar upazila in Bangladesh.* Arabian Journal of Geosciences.13:952 *https://doi.org/10.1007/s12517-020-05925-3*

**(9)** Islam, M.A., David, P., Griffin, A. and **Murshed, S.** 2020 *Assessing ecosystem resilience against a tropical cyclone using geospatial techniques and social responses in coastal Bangladesh.* International journal of disaster risk reduction. 49:101667 *https://doi.org/10.1016/j.ijdrr.2020.101667*

**(10)** Islam, M.A., **Murshed, S.,** Kabir, S.M., Farazi, A.H., Gazi, M.Y., Jahan, I. and Akhter, S.H. 2017 *Utilization of Open-Source Spatial Data for Landslide Susceptibility Mapping at Chittagong District of Bangladesh—An Appraisal for Disaster Risk Reduction and Mitigation Approach.* International Journal of Geosciences, 8(4), pp.577-598. *http://creativecommons.org/licenses/by/4.0/*

**(11)** Islam, M.A., Hossain, M.S. and **Murshed, S.** 2015 *Assessment of coastal vulnerability due to sea level change at Bhola Island, Bangladesh: using geospatial techniques.* Journal of the Indian Society of Remote Sensing, 43(3), pp.625-637.*https://doi.org/10.1007/s12524-014-0426-0*

**(12)** Quamruzzaman, C., **Murshed, S.,** Ferdous, J.A., Khan, P. and Sharmeen, S.,.2014 *An Expedient Reckoning of Miners Hygiene in Barapukuria Coal Mine and Maddhapara Granite Mine, Dinajpur, Bangladesh.* International Journal of Emerging Technology and Advanced Engineering, 4(3), pp.489-498. *https://ijetae.com/Volume4Issue3.html*

**(13)** Islam, M.A., Hossain, M.S., Hasan, T. and **Murshed, S.**2014 *Shoreline changes along the Kutubdia Island, southeast Bangladesh using digital shoreline analysis system.* Bangladesh Journal of Scientific Research, 27(1), pp.99-108. *https://doi.org/10.3329/bjsr.v27i1.26228*

**(14)** Quamruzzaman, C., Fatema, K., Hasan, R., **Murshed, S.,** Noor, S. and Woobaid Ullah, A.S.M.2013 *Reanalysis of the Stress-Strain Conditions in Maddhapara Granite Mine, Dinajpur,* Bangladesh. Journal of Engineering, Computers & Applied Sciences 2(12), pp. 11-19.

**(15)** Quamruzzaman, C., **Murshed, S.,** Islam, T., Howladar, F. and Kabir, A.M.F.2012 *Open pit mining at Barapukuria coalfield–an option to confront the impending energy crisis in Bangladesh.* Journal of Mines, Metals and Fuels, India,60(5), pp. 91-96. *(ISSN 0022-2755)*

**(16)** **Murshed, S.,**Alam, M.M. and Islam, M.A. 2011*Depositional Environments of the Upper Neogene Clastic Succession Along Hari River Section, Northeastern part of Sylhet Trough, Bangladesh.* Dhaka University Journal of Earth and Environmental Sciences 1(2) pp. 67-73.

**(17)** **Murshed, S.,**Alam, M.M. 2011 *Facies analysis of BokaBil Formation along Hari River Section with a sequence stratigraphic approach,*Bangladesh Journal of Geology, 29-30, pp.17-29.

**(18)** Islam, M.A.,Maitra,M. K., Majlis, A.B.K. **Murshed, S.** and Rahman, S. 2011 *Spatial Changes of Land Use/Land Cover of Moheshkhali Island, Bangladesh: A Fact-Finding Approach by Remote Sensing Analysis.* Dhaka University Journal of Earth and Environmental Sciences Vol 2, pp. 43-54.

**(19)** Islam, M.A., Ahmed, K.M., Hasan, M.A. and **Murshed, S.** 2009 *Hydrogeologyand water quality assessment of Middle Meghna Flood plain: A case study on Daudkandi upazila, Comilla district.* The journal of NOAMI 26(1), pp. 31-55.

**TRAINING:**

1. **CLIMATE CHANGE ADAPTATION AND DISASTER RISK REDUCTION IN SOUTH ASIA**

Training Workshop on "Climate Change Adaptation and Disaster Risk Reduction in South Asia" in collaboration with the SAARC Disaster Management Centre, New Delhi, India. 9-15 July, 2009.

2. **INTRODUCTION TO ArcGIS 9.1**

Training course on Arc GIS 9.1 conducted by *Columbia University*, New York and organized by the *Department of Geology, University of Dhaka*, Dhaka and sponsored by *Fogarty Training Grant.*

3. **GROUNDWATER MODELING USING MODFLOW:**

International training course on groundwater modeling conducted by the *United States Geological Survey* (USGS) and organized by the *Department of Geology, University of Dhaka*.

4. **AUTOMATED GEOTECHNICAL TESTING TRAINING:**

Training course on Cyclic Triaxial organized by the *University of Dhaka* supported by *Geocomp Corporation*. January 20 -27, 2010.

5. **SUSTAINABLE OPERATION OF SEISMOGRAPHIC NETWORKS AND EARTHQUAKE STUDIES IN BANGLADESH:**

Organized at the Seismology and Geodesy Laboratory of *Department of Geology, University of Dhaka* sponsored by *USAID, NSF* and *Columbia University, New York, USA.* 23-27 May 2011.

6. **EARTHQUAKE STUDIES AND EARTHQUAKE MONITORING IN BANGLADESH:**

Organized at the Seismology and Geodesy Laboratory of *Department of Geology, University of Dhaka* sponsored by *USAID, NSF* and *Columbia University, New York ,USA.* 11-15 December 2011.

7. **SEISMIC DATA PROCESSING AND INTERPRETATION:**

Training on Processing of marine multichannel seismic data using the software "Vista Seismic data processing (GEDCO)" and Interpretation of marine multichannel seismic data using the software "The Kingdom (IHS)" at the *Bremen University, Bremen, Germany.* The training program was a part of USAID PEER Science program and also partly supported by NSF BanglaPIRE. 8-25 April 2013.

8. **SPACE TECHNOLOGY FOR FLOOD HAZARD MAPPING, FLOOD FORECAST AND RAPID MAPPING IN BANGLADESH.**

Organized jointly by *the Ministry of Disaster Management and Relief, Comprehensive Disaster Management Programme (CDMP)* and *Space Research and Remote Sensing Organization (SPARSO) of Bangladesh* during 12 – 16 May, 2013 at SPARRSO, Agargaon, Dhaka, Bangladesh.

9. **GEOLOGICAL INVESTIGATIONS AND DATA PROCESSING**

Organized by Asian Disaster Preparedness Center (ADPC) Under Seismic Hazard and Risk Assessment Project

Supported by, *Department of Disaster Science and Management Faculty of Earth and Environmental Science University of Dhaka*, Bangladesh. Date: June 2, 3 and 4, 2013.

10. **SEISMIC INTERPRETATION IN FOLD AND THRUST BELTS**

Held at the Department *of Geology, University of Dhaka,* sponsored by the *Earth Observatory of Singapore (EOS), Nanyang Technological University* and *Partnership for enhanced engagement in research (PEER),*USAID, USA. 20-25July 2013.

11. **NCED 2013 SUMMER INSTITUTE: SUBSURFACE TO SURFACE:** Past as a key to the Future (from cores to stratigraphy, deciphering past environments to Understand current and future variability and change) 14-23 August, 2013, University of Minnesota, Minneapolis, Minnesota, USA.

12. **SEISMIC INTERPRETATION IN FOLD AND THRUST BELTS BELTS**

Held at the Department *of Geology, University of Dhaka,* sponsored by the *Earth Observatory of Singapore (EOS), Nanyang Technological University* and *Partnership for enhanced engagement in research (PEER),* USAID, USA. 7-10 July 2014

13. **FIELD SCHOOLIN BANGLADESH:INTERACTION OF SEDIMENTATION AND TECTONICS IN THE GANGES BRAHMAPUTRA RIVER.**

Organized jointly by the *Lamont-Doherty Earth Observatory, Columbia University*, New York and the *Department of Geology, University of Dhaka,* sponsored by *Banglapire,* funded by *NSF grant*. February 23-March 7 2014

14. **FUNDAMENTALS OF IT AND ADVANCED IT SKILLS WORKSHOP**

Organized by the Centre of Excellence in Teaching and Learning (CoETL), Dhaka University, Dhaka 1000. 5/12/2019.

## AWARD:

UNSW's Tution Fee Scholarship (TFS), Australia, 2020.
Australia Awards Scholarship, Australia, 2017.
Parvez Sharak Scholarship, Dhaka University, Dhaka, Bangladesh, 2005.
Ambassador's Gold Medal for HSC Result, U.A.E, 1999.
Ambassador's Gold Medal for SSC Result, U.A.E, 1997.

## COMPUTER SKILL:

Operating System Environment: Windows XP/Vista, Windows 11.
Microsoft Office: Word, Excel, Access, Power Point.
Geological Packages: Arc GIS 10.1, Modflow, Petrel, Kingdom and Vista.
Statistical Packages: SPSS.

## MEMBERSHIP IN PROFESSIONAL SOCIETIES:

General Member of Bangladesh geological society (BGS) - Membership No. 817
Lifetime member of Dhaka University Geology Alumni association DUGAA
Lifetime member of Australia Awards Alumni Association
General member of Australia Global Alumni

## CURRENT AFFILIATION WITH RESEARCH PROJECTS

**(1) Co-investigator** of a project titled ***Holistic assessment of disaster resilience to coastal hazards by integrating ecosystem, social and built environments in coastal Bangladesh*** funded by the Ministry of Science and Technology, Government of the People's Republic of Bangladesh. (Project ID 233510).

**CERTIFICATION:**

I, the undersigned, certify that to the best of my knowledge and belief, this curriculum vitae correctly describe myself, my qualifications, and my experience, I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

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**Sanzida Murshed**

**REFERENCES**

Dr. Kazi Matin Uddin Ahmed, Dean, Faculty of Earth and Environmental Sciences, Email: kmahmed@du.ac.bd
Mobile (Dept): +8801711846840

Dr. Amy L. Griffin, Senior Lecturer, Geospatial Sciences, Email: amy.griffin@rmit.edu.au,Phone: +61399252338
Campus: City Campus, RMIT University, Melborne, Australia