



Prof. Dr. Engr. Md. Rafizul Islam
Professor

Research Area CRTS (Civil), KUET Research Project Research Project Research Project Research/Study Project Research/Study Project Research/Study Project Geotechnical and Geoenvironmental Engineering

Biography

Welcome to my personal webpage. This is Dr. Engr. Md. Rafizul Islam, Professor, Department of Civil Engineering, KUET. Since 2004, Dr. Rafizul has been involved in research related to organic soil characterization, solid waste management and landfill lysimeter technology. In his research he worked as a Research Associate (June 2008 to December 2009) in the "WasteSafe II" project. The European Commission (EC) under the Asia Pro Eco-II Programme was funding the project. The project was a collaborative research program lead by BUW, Germany; AIT, Thailand; LUT, Poland and BIREC, Germany. Moreover, He also worked as a Research Associate (April 2006 to January 2007) in the project of "SoilTech" funded by the EC Under Asia Pro Eco-II Programme. It was a collaborative program with ACLIMA (Cluster Association of Environment Industry of the Basque Country), Spain as well as VITO (Flemish Institute for Technological Research), Belgium. Dr. Rafizul also worked as a Research Assistant (May 2004 to November 2004) in the "WasteSafe" project co-financed by Asia Pro Eco Programme of the EC which was jointly conducted by the Dept. of Civil Engg., KUET, Tribhuban University (Nepal), AIT (Thailand), Karlsruhe University (Germany) and University of Leeds (UK). In his PhD, he was involved in research on design and construction of landfill lysimeter, leachate characterization and evaluation of landfill contamination potential. He is an author of more than 110 publications in peer-reviewed journals and national/international conferences.

Education

Doctor of Philosophy (Geoenvironmental Engineering)

Khulna University of Engineering & Technology (KUET), Bangladesh (2014)

Thesis Title: [Evaluation of Contamination Potential and Treatment Techniques of Leachate Generated from Landfill Lysimeter](#)

M.Sc. Engineering (Geotechnical Engineering)

Khulna University of Engineering & Technology (KUET), Bangladesh (2006)

Thesis Title: [Geotechnical Properties of Reconstituted Organic Soils](#)

B.Sc. Engineering (Civil Engineering)

Khulna University of Engineering & Technology (KUET), Bangladesh (2003) Group: Civil Engineering,

Higher Secondary Certificate

Satkhira Govt. College, Bangladesh (1997) Group: Science,

Secondary School Certificate

Fulbari High School, Bangladesh (1995) Group: Science,

Service Records

- **Professor**
Department/Section: Civil Engineering
Khulna University of Engineering & Technology (KUET) From to
Responsibility: Teaching and Research in Geotechnical and Geoenvironmental Engineering
- **Associate Professor**
Department/Section: Civil Engineering
Khulna University of Engineering & Technology (KUET) From to
Responsibility: Teaching and research in Geotechnical and Geoenvironmental Engineering
- **Research Assistant**
Department/Section: Civil Engineering (WasteSafe project)
Khulna University of Engineering & Technology (KUET) From to
Working Area: Khulna
- **Research Associate**
Department/Section: Civil Engineering (SoilTech project)
Khulna University of Engineering & Technology (KUET) From to
Working Area: Dhaka
Responsibility: Field Survey and data Collection, Regular Programme setup with city authorities, DWASA, DoE, RAJUK, BAPA, Land owners and Dhaka Citizens, Industries and SMEs, Data Analysis, Report Preparation etc
- **Research Associate**
Department/Section: Civil Engineering (WasteSafe II project)
Khulna University of Engineering & Technology (KUET) From to
Responsibility: Arranged several meetings with foreign delegates and discussed about relevant aspects of WasteSafe II project, Design, construction and evaluation of landfill contamination potential, Drafting and report writing
- **Teaching Assistant**
Department/Section: Civil Engineering
Khulna University of Engineering & Technology (KUET) From to 2000-12-12 00:00:00
Responsibility: Conducting several practical classes in the undergraduate level
- **Contact Lecturer**
Department/Section: Architecture Discipline
Khulna University From to
Responsibility: Teaching several Civil Engineering subjects in the undergraduate level
- **Lecturer**
Department/Section: Civil Engineering
Khulna University of Engineering & Technology (KUET) From to
Responsibility: Teaching and research in Geotechnical and Geoenvironmental Engineering
- **Assistant Professor**
Department/Section: Civil Engineering
Khulna University of Engineering & Technology (KUET) From to
Responsibility: Teaching and research in Geotechnical and Geoenvironmental Engineering

Research Interest

CRTS (Civil), KUET

Worked as a member of the consultancy team as an expert of Geotechnical Engineering field in the following local projects: Directly engaged to field survey and conducting sub-soil exploration program, analysis of soil samples and prepare soil report, preparation of inception report, review report on the supporting design data/parameters regards to code conformation, final checking of the design review, final checking of inspection and progress reports as needed under the contract, collection of related materials for report from different groups, finalized the draft and final report, etc.. Project 1: Feasibility Study for the Construction of Mongla Container Terminal with two new Jetties at Mongla Port, Bagerhat. Project 2: Feasibility Study for the Construction of Container Delivery Yard at Mongla Port, Khulna. Project 3: Design of Several RCC Jetties and Renovation of Existing Jetty at the Bank of Rupsha River for Khulna Shipyard, Khulna. Project 4: Feasibility Study for the Construction of Multi-level Car Parking Yard at Mongla Port, Khulna. Project 5: Feasibility Study for the Construction of 4- layer Container Storage Yard at Mongla Port, Khulna. Project 6: Feasibility Study for the Construction of RCC Road Network at Mongla Port, Khulna. Project 7: Feasibility Study for the Up-gradation of Mongla Port, Mongla Project 8: The Feasibility Study on the Project of Construction of Mongla Custom House with Necessary Facilities at the Proposed Site of Mongla Port Area Project 9: Monitoring the Behavior of Instrumented Embankment for the Construction of Khulna-Mongla Port Rail Line Project 10: Consultancy Services on Development of Jashore Airport, Jashore Project 11: Dredging at the Inner Bar of Mongla Port Channel

Research Project

Worked as Research Associate (June 2008 to December 2009) in a 36 months (2007 to 2009) partnership project entitled as "Safe and Sustainable Management of Municipal Solid Waste in Bangladesh through the Practical Application of WasteSafe Proposal" co-financed by European Union's Asia Pro Eco II Programme with the partners of Thailand, Germany and Poland. As a member of organizing committee arranged a National Seminar on Solid Waste Management in 9-10 February 2008 and Stakeholders' Dialogue on July 2007, November 2007 and July 2008. Also attended a day-long Awareness Campaign on MSW management in Khulna City in 05 January 2008 and 22 November 2008.

Research Project

Worked as Research Associate (April 2006 to January 2007) of a 36 months demonstrate study project entitled as "Application of Innovative Technologies for the Reclamation and Environmental Improvement of Derelict Urban Areas in Dhaka City (Bangladesh)" - Funded by the European Commission Under Asia Pro Eco-II Programme. The project was leading by the Department of Civil Engineering, KUET, Bangladesh in close cooperation with the following European organizations: (i) ACLIMA (Cluster Association of Environment Industry of the Basque Country), Spain (ii) VITO (Flemish Institute for Technological Research), Belgium. Worked successfully in Dhaka City; Dhaka to identify the all-relevant aspects of the Hazaribagh and Tejgaon contaminated sites based on the potential environmental and soils pollution through the industrial wastes and in final report preparation.

Research Project

Served as Research Assistant (May 2004 to November 2004) of a 12 month feasibility study project entitled as "Integrated management and safe disposal of municipal solid wastes in least developed Asian countries" co-financed by European Union's Asia Pro Eco Programme with the partners of Thailand, Nepal, Germany and UK. Visited two city corporation and different pourashava of Bangladesh, different NGOs and Private sectors working on MSW management to get field experiences on MSW management and ultimate disposal situation. Discussed the matter with the concerned stakeholders in Khulna city. Attended a day-long seminar "WasteSafe Stakeholders Dialogue on the MSW management and Safe Disposal" at Dhaka, in the month of March 2005.

Research/Study Project

As a Project Director, a 12 months study project funded by University Grants Commission of Bangladesh is going to complete "Modelling of Desiccation Crack in Composite Clay Liners of Solid Waste Landfill". The project details was meeting No. CASR/19/37(25):51/3, 18.06.2019.

One of the post-graduate students will be completed his M.Sc. in Civil engineering degree based on the outcomes of this project

Research/Study Project

As a Project Director successfully completed of a 12 months study project funded by University Grants Commission of Bangladesh "Prediction of California Bearing Ratio of Stabilized Soils using Soft Computing Systems". The project details was meeting no. 47th, Serial No.08, 14/03/2018

One post-graduate student has been completed his M.Sc. in Civil Engineering degree based on the outcomes of this project.

Research/Study Project

Successfully completed of a 12 months study project as a Project Director funded by University Grants Commission of Bangladesh "Environmental and Health Risk Assessments Related to the Disposal of Municipal Solid Waste in Landfill of Bangladesh" The Project details was Meeting no. 41th, Res. No. 41/05 no.-18, 23/08/2016

One post-graduate student obtained M.Sc. in Civil Engineering degree based on the outcomes of this project.

Geotechnical and Geoenvironmental Engineering

Soil Mechanics Soil Improvement Stochastic System Modelling and Ecological Risk of Contaminated Soil Geostatistical Analysis and Interpolation of GIS Mapping Environmental Geotechnology Solid Waste Management Contamination and Sensitivity Analysis of Landfill Lysimeter Technology Environmental and Health Risk Analysis Multimedia Environmental Models (the Fugacity Approach) Uncertainty and Sensitivity in Risk Analysis Probabilistic Risk Assessment and Simulations

Publication

Books

1(2021) , "**Impact of Drying-Wetting Cycles and Geometrical Parameters on the Cracking and Shrinkage Behaviour of Composite Liners made of Fly Ash**" ,Accepted in the Springer Nature, (Lecture Notes in Civil Engineering as Book series.

Publication

Books

2(2019) , "**Assessment of Heavy Metal Contamination in Soil of Waste Disposal Site in Bangladesh: Implication of Spatial, Seasonal Variation and Indices**" , ISBN:978-981-10-8016-6 (eBook),Springer Nature (Lecture Notes in Civil Engineering as a Book Chapter), Singapore, vol9, pp.957-983

Publication

Books

3Alamgir,M. , Rafizul,I. M. , Islam,S. T. and Datta(Eds),M. H. H. a. P. D. (2019) , "**Proceedings of the 6th International Conference on Solid Waste Management in Developing Countries entitled 'WasteSafe 2019'**" , ISBN:978-984-34-6151-3,KUET, Khulna, Bangladesh

Publication

Books

4Alamgir,M. ,Rafizul,I. R. and (Eds),S. T. I. a. M. H. H.). (2017) , "**Proceedings of the 5th International Conference on Solid Waste Management in Developing Countries entitled 'WasteSafe 2017'**" , ISBN:978-984-34-2306-1 ,KUET, Khulna, Bangladesh

Publication

Books

5Alamgir,M. , Rafizul,I. M. , Islam,S. T. and (Eds),M. I. N. a. S. R. S.). (2013) , "**Proceedings of the 3rd International Conference on Solid Waste Management in Developing Countries entitled 'WasteSafe 2013'**" , ISBN:978-984-33-7045-7,KUET, Khulna, Bangladesh

Publication

Books

6Alamgir,M. , Bari,Q. H. , Rafizul,I. M. , Islam,S. T. and (Eds),G. S. a. M. K. H.). (2011) , "**Proceedings of the 2nd International Conference on Solid Waste Management in Developing Countries entitled 'WasteSafe 2011'**" , ISBN:978-984-33-2705-5,KUET, Khulna, Bangladesh

Publication

Books

7Alamgir,M. , Hossain,Q. S. , Bari,Q. H. , Rafizul,I. M. , Hasan,K. M. and (Eds),G. S. a. M. K. H.). (2009) , "**Proceedings of the International Conference on Solid Waste Management-Technical, Environmental and Socio-economical entitled 'WasteSafe 2009'**" , ISBN:978-984-33-0761-3,KUET, Khulna, Bangladesh

Publication

Books

8Alamgir,M. , Hossain,Q. S. , Rafizul,I. M. and (Eds),K. A. M. a. Q. H. B.). (2008) , "**Proceedings of the National Seminar on Solid Waste Management entitled 'WasteSafe 2008'**" , ISBN:984-300-001500-8,KUET, Khulna, Bangladesh