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ACADEMIC RECORDS:

2014-2019	Master of Science in Civil Engineering, Chittagong University of Engineering and Technology (CUET), Chattogram-4349, Bangladesh CGPA: 3.46 in the scale of 4.00 Thesis: "Traffic Flow Evaluation on a Selected Major Transport Corridor of Chattogram City"
2008-2013	Bachelor of Science in Civil Engineering, Chittagong University of Engineering and Technology (CUET), Chattogram, Bangladesh CGPA: 3.82 in the scale of 4.00 (84.88%) Thesis: "Effects of Deicing Salts on Strength Properties of Concrete" Position: 1st (out of 116 students)

OVERVIEW OF M. SC. THESIS:

For multimodal urban street, the level of service (LOS) can be determined by using the vehicle-capacity ratio based on the concept of saturation flow rate, average travel speed and control delay. This research aimed to test the traffic performance measures (PMs) that were able to properly characterize operational conditions of Chattogram's multimodal urban street. Conventional PMs such as road capacity, travel times and delays typically show operating conditions. Traffic data were used to calibrate and validate VISSIM traffic simulation software on 12 street segments, which is approaching 6 intersections at Chattogram city. Based on the Highway Capacity Manual definition, it is observed that almost all segments approaching the study intersections provided LOS-F quality service during peak periods in the base year 2018. The PMs of the travel demand showed that in the event of "do nothing", during 2030, the entire facility will provide severe mobility at peaks. The solutions for improving the corridor's traffic conditions can be traffic management techniques, such as traffic diversion, road widening and overpass construction. Nevertheless, the horizontal expansion adjacent to the existing roads is limited. The simulation results again show that a short time measure can be used to improve operational conditions to LOS-D by turning left from the BarikBuilding-Agrabad section. The existing facility will, however, provide LOS-C quality service on the currently congested corridor in the opening year of on-going overpass construction work (2023) from Lalkhanbazar to the Shah-Amanat-International-Airport. The findings of the study are expected to improve future results of transport strategies, planning, procedures, and systems.

AWARDS & SCHOLARSHIPS OBTAINED:

2016	"Prime Minister Gold Medal Award-2013"
2013	Engr. Khurshed Anwar Memorial Award (Courtesy: Confidence Cement Ltd.)
2012	Merit Award, CUET Ex-Student Association
2011	Merit Award, CUET Ex-Student Association
2009-2013	Technical Scholarship in CUET

TEACHING & RESEARCH EXPERIENCE:

December 2013-March 2017: Lecturer, Department of Civil Engineering, Chittagong University of Engineering & Technology (CUET), Chattogram-4349, Bangladesh.

March 2017-Present: Assistant Professor, Department of Civil Engineering, Chittagong University of Engineering & Technology (CUET), Chattogram-4349, Bangladesh.

CUET's Department of Civil Engineering provides academic excellence in the multidisciplinary fields of Civil Engineering in undergraduate and postgraduate education and research. After gaining a faculty position in the Civil Engineering Department, I had a few opportunities to work with the research team of Civil Engineering Department and since 2013 co-supervised the following undergraduate research projects;

1. Analyzing Modes of Freight Transportation Used in Clearing Containerized Cargoes from Chittagong Port
2. Evaluation of CBR Value of Subgrade Soil by Using Bituminous Coated Coir Fiber.
3. Improvement of skid resistance in coastal highways using crumb rubber.
4. Low Volume Earthen Road Design by Soil-Cement Mix.
5. Evaluation of bituminous mixes prepared by modified binders.
6. Maneuvering of Road Users during Development & Construction Activities on Existing Roads.
7. Effect of Hydrated Lime on the Fatigue Performance of Bituminous Mixes.

THEORY COURSES CONDUCTED AT UNDERGRADUATE LEVEL:

Introduction to Transportation Engineering, Geometric Design of Streets & Highways, Transportation Systems Planning, Surveying, Engineering Materials, Mechanics of Materials-I, Mechanics of Solids-I, Structural Analysis & Design-I, and Building Plumbing System: Introduction to plumbing design.

SESSIONAL COURSES CONDUCTED AT UNDERGRADUATE LEVEL:

Transportation Engineering-I (Pavement Materials Laboratory Testing), Transportation Engineering-III (Traffic Survey and Transport Planning), Engineering Materials Lab, Surveying Field Work, Engineering Drawing, Details of Estimating & Costing, Fluid Mechanics, Structural Analysis & Design of Industrial Roof Truss, Gable Frame and Plate Girder Bridge, and Fluid Mechanics Lab.

PUBLICATIONS:

- M. A. Hossain & M. O Imam, "Traffic Congestion Monitoring in the Selected Transport Axis of Chittagong City", *Proceedings of 4th International Conference on Advances in Civil Engineering 2018 (ICACE 2018)*, CUET, Chattogram, Bangladesh, 2018.
- M. A. Hossain & M. S. Islam, "Effects of Deicing Salts on Strength Properties of Concrete", *Proceedings of 4th International Conference on Advances in Civil Engineering 2018 (ICACE 2018)*, CUET, Chattogram, Bangladesh, 2018.
- M. A. Hossain & S. K. Palit, "Evaluation of Road Pavement Using Dynamic Cone Penetrometer", *SSRG International Journal of Civil Engineering (SSRG-IJCE) - Volume 4 Issue 9 (pp. 14-22)*, September 2017.
- M. A. Hossain & S. K. Palit, "Overflow of Mirza Khal of Chittagong City and Its Effects on Road", *Proceedings of 3rd International Conference on Advances in Civil Engineering 2016 (ICACE 2016)*, CUET, Chattogram, Bangladesh, 2016.
- M.R. Alam, M.A. Hossain, R. Dey & M.M. Uddin "Flexural Retrofitting of Reinforced Concrete Beam Using Ferrocement", *Proceedings of 2nd International Conference on Advances in Civil Engineering (ICACE-2014)*, CUET, Chattogram, Bangladesh, 2014.

ONGOING RESEARCH WORKS FOR PUBLICATIONS:

- M. A. Hossain & M. O. Imam, “Evaluating Measures of Effectiveness for Quality of Service Estimation on Multi-modal Urban Street of Chattogram City”, Submitted to Transportation Research Part A: Policy and Practice.
- M. A. Hossain & M. O. Imam, “Analysis of Motor-cyclist Safety on the Existing Flyover of Chattogram City”.
- M. A. Hossain & M. O. Imam, “Evaluation of Alternative Planning Options to Alleviate Traffic Congestion in Chattogram City Using VISSIM Computer Model”.

INDUSTRY EXPERIENCES:

Through its research outputs, consultancy services, product standardization & certification, material testing, project research, etc., the Civil Engineering Department also serves the industry, public, and government. After taking a faculty position in the Civil Engineering Department, I received a few chances to work in multiple civil engineering projects around the Chattogram region with the Civil Engineering department research team. Some of the projects listed below are:

1. Detailed Feasibility study of the “Elevated expressway from Lalkhanbazar to Hazrat Shah Amanat International Airport”-an extension of the under-construction “Muradpur, 2 No Gate & GEC intersection flyover” [Organization: Chittagong Development Authority (CDA), Year: 2015].
2. “Detailed Feasibility study of Akteruzzaman (Muradpur, 2 No Gate & GEC intersection flyover) Flyover at Chittagong” [Organization: Chittagong Development Authority (CDA), Year: 2013].
3. “Detailed feasibility study of Chittagong city outer ring road (Coastal road)” [Organization: Chittagong Development Authority (CDA), Year: 2014].
4. “Detailed engineering assessment of Naf Tourism Park at Teknaf in Cox’s Bazar” [Organization: Bangladesh Economic Zone Authority (BEZA), Year: 2019].
5. Supervision of flexible pavement construction works of the internal road of Bangobondhu Satellite Project, Betbunia, Rangamati at the year: 2017.
6. Supervision of construction work of tarmac at Shah Amanat International Airport, Chattogram, at the year: 2019.
7. Supervision of construction works of flexible pavement from Kaptai Rastar Matha to Madhunaghat at Kaptai Road, at the year: 2018.
8. Supervision of improvement works flexible pavement of port connecting road from Alangker more to Nimtola, at the year: 2019.
9. In-charge, Transportation Materials Testing Laboratory of Civil Engineering Department, CUET for testing and qualifying flexible and rigid pavement materials.

ACADEMIC AND ADMINISTRATIVE EXPERIENCES:

2013-Present	Member, Academic Committee of Undergraduate Study (ACUGS), Chittagong University of Engineering & Technology
2015-Present	Member Secretary, Centre for Road Pavement Technology, Chittagong University of Engineering & Technology
2014-Present	Course Coordinator, Civil Engineering 44 th Batch, Chittagong University of Engineering & Technology
2017-Present	Member, Self-Assessment Committee (SAC), Institutional Quality Assurance Cell (IQAC), Department of Civil Engineering, CUET

LANGUAGE:

Fluent in both English and Bengali

IELTS Overall Band Score: 7.0			
Listening	Reading	Writing	Speaking
7.5	6.5	7.0	6.5

TECHNICAL SKILLS:

VISSIM Micro-simulation Model, TransCAD GIS based computer model, AutoCAD, ETABS, STAAD Pro.

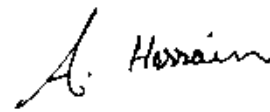
Programming Language: C, C++, MATLAB, FORTAN etc.

MEMBERSHIPS:

2015-Present	Member, The Institute of Engineers, Bangladesh (IEB)
2013-2015	Associate Member, The Institute of Engineers, Bangladesh (IEB)
2016-Present	Life Member, CUET Medical Welfare Association
2011-Present	Member, CHARULATA, a charity organization for underprivileged children and distressed people
2017-Present	Member, SECOVILLA: Self Sustainable Eco-village Concept for Poverty Elimination

PROFESSIONAL TRAINING:

Topic	Period	Venue	Organized by
Institutional Quality Assurance Program for Outcome-Based Education	10-13th April 2017	Auditorium, CUET	Institutional Quality Assurance Cell (IQAC), Department of Civil Engineering, CUET
Disaster Management Techniques for Coastal Area	4th September 2014	Civil Engineering Department, CUET	Department of Civil Engineering, CUET
Challenges of change management for the Engineers from Bangladesh Perspective	5th May 2013	Auditorium, IEB, Chittagong Center	Institute of Engineers, Bangladesh (IEB), Chittagong Center



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