Md. Abul Hasan

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EDUCATION

CHITTAGONG UNIVERSITY OF ENGINEERING & TECHNOLOGYPhD (Pursuing)

CHITTAGONG UNIVERSITY OF ENGINEERING & TECHNOLOGY

Master of Engineering in Civil Engineering

CHITTAGONG UNIVERSITY OF ENGINEERING & TECHNOLOGY

Bachelor of Science in Civil Engineering

• Graduated from Honors Program

PROFESSIONAL EXPERIENCE

Employment Record:

Lecturer (From 04.07.2013 to 29.06.2021)

Department of Civil Engineering Southern University Bangladesh.

Address: New/471, University Road, Arefin Nagar, Baizid Bostami, Chattogram, Bangladesh

Assistant Professor (30.06.2021 to Present)

Department of Civil Engineering

Southern University Bangladesh.

Address: New/471, University Road, Arefin Nagar, Baizid Bostami, Chattogram, Bangladesh

Head of the Department (From 01.05.2022 to Present)

Department of Civil Engineering

Southern University Bangladesh.

Address: New/471, University Road, Arefin Nagar, Baizid Bostami, Chattogram, Bangladesh

Secretary (From 01.06.2021 to Present)

Construction & Maintain ace Committee

Southern University Bangladesh.

Address: New/471, University Road, Arefin Nagar, Baizid Bostami, Chattogram, Bangladesh

Adjunct Faculty (From 01.07.2022 to 31.12.2022)

Department of Civil Engineering

International Islamic University Chattogram.

COORDINATOR

Research & Extension (From 2015-2018) Academic (From 2019-2021)

THESIS (M. Engg.)

A Study on Compressive Strength of Concrete by Using Rice Husk Ash (RHA) As Partial Replacement of Cementin Plain Water, Acidic and Sodium Chloride Environment.



2020

2012

THESIS (Undergraduate) Soil Profile of Chattogram City Corporation Area

MEMBERSHIP OF SCIENTIFIC AND PROFESSIONAL SOCIETIES:

Member (M-35643), Institution of Engineers, Bangladesh (IEB) Chattogram Development Authority (CDA) Enlisted Engineer, Enlistment Number, No-376

PUBLICATION

Journal Paper:

M. I.Mostazid, M. A. Hasan, M. A. Ashraf, M. I. Hassan Mahmud. Study on Concrete Compressive Strength Based on Specimen Size and Material. HSTU journal of science and technology, Volume 15, pages 61-64, June 2017.

Aziz, M.T., Hossain, M.S.S., Hasan, M.A., Mohiuddin, M.A., Utilization of facemasks and ladle furnace slag in concrete: Insights from experimental study, Cleaner Engineering and Technology (2023), doi: https://doi.org/10.1016/j.clet.2023.100653.

Conference Paper:

An investigation on compressive strength of concrete with recycle aggregate. Authors: M. A Hasan, S. Das, M.A. Mohiuddin. The 2nd International Conference on advances in Civil Engineering (ICACE) (December 26-28, 2014; Chittagong University of Engineering & Technology.

A. Barua1*, S. Chakraborty1, R. A. Adnan1, M. A. Islam2 & M. A. Hasan2. Seismic Vulnerability Assessment of Existing Buildings in Chittagong City: A Case Study of 25 Rampura Ward. National Conference at Asian University for Women, April 15-16, 2016, Chittagong, Bangladesh.

Md. Ibrahim Mostazid*1, Mohammad Morshedul Hoque1, Md. Abul Hasan2 and Md. Raihan Mukhlis 3. Microstructural Analysis of Concrete in Marine Environment. 3rd International Conference on Civil Engineering for Sustainable Development (ICCESD 2016), 12-14 February, KUET, Bangladesh.

A. Barua1*, S. Chakraborty1, R. A. Adnan1, M. A. Islam2 & M. A. Hasan2. Seismic Vulnerability Assessment of Existing

RCC Buildings in Chittagong City: A Case Study Of 8 No. Shulakbahar Ward. 3rd International Conference on Advances in Civil Engineering.21-23 December,2016 (ICACE 2016), CUET, Bangladesh.

M. A. Hasan1*, M. A. Islam1, Z. Ahmed1 and I. Ahmed2.Compressive Strength Behavior of Concrete Using Rice Husk Ash as Supplementary to Cement. 3rd International Conference on Advances in Civil Engineering. 21-23 December, 2016 (ICACE 2016), CUET, Bangladesh.

M.A. Hasan, M.A. Sayed, H. Ullah and M.M. Arif. Seismic Vulnerability Assessment of Chittagong: A case Study on Shulokbahar and Rampur Area. 1st International Conference on Research and Innovation in Civil Engineering (ICRICE 2018), SUB Pages: 206-211, January 2018, Bangladesh.

S.Barua M. S. karim M.A. Hasan, S. M.S Rahman and M.S. Uddin. Seismic Vulnerability Assessment of Chittagong: A case Study on Boxirhat Area. 1st International Conference on Research and Innovation in Civil Engineering (ICRICE 2018) SUB Pages: 225-230, January 2018, Bangladesh.

S.F. Nitu, M. Mahsin and M.A. Hasan. A study on the causes of traffic congestion in Chittagong city: Gate No-02, GEC and New Market Intersections in the perspective. 1st International Conference on Research and Innovation in Civil Engineering (ICRICE 2018) SUB Pages: 225-230, January 2018, Bangladesh.

D. Barua, M. M. Rahman, M W R Chowdhury, M. M. Arif and M. A. Hasan Effectiveness of rice husk ash (RHA) as a partial replacement of cement in concrete. 4th International Conference on Civil Engineering for Sustainable Development (ICCESD 2018), KUET, Bangladesh.

M.A.Hasan and A.Naha. Seismic Vulnerability assessment of Existing Building At 25 No Rampur Ward, Chittagong City Corporation. 3rd International Conference on Planning, Architecture & Civil Engineering. (ICPACE 2021), RUET, Bangladesh.

N. M. swarit, S. Boby, A. Rashid and M.A. Hasan. Influence of Admixture along with Sand on Different Properties of Pervious Concrete. 6th International Conference on Civil Engineering for Sustainable Development (ICCESD 2022), KUET, Bangladesh.

Dr. Md. S. Islam¹, Md. A. Hasan^{2*}, Dr. Md. M. Islam³, S.S. Das⁴. Performance of Rice Husk Ash Concrete in Acidic Environment. 6th International Conference on Advances in Civil Engineering (ICACE-2022), 21-23 December 2022, CUET, Chattogram, Bangladesh. Also Accepted for Springer Proceedings.

UNDERGRADUATE THESIS CONDUCTED UNDER MY SUPERVISION SO FAR:

Number of Thesis Supervised Under My Supervision Around 25 List of Them Given Below (Selected)

S.L.No.	Thesis Title	Semester	
1	Effect on Strength Variation of Microbial Concrete for Different	Fall-2022	
	Bacterium Percentages		
2	Effect on Compressive Strength of Mortar by Using Rice Husk Ash	Fall-2022	
	as Partial Replacement of Cement		
3	Seismic Vulnerability Assessment of Existing Building in		
	ChattogramCity: A Case Study on 5 no. Mohra Ward		
4	Seismic Vulnerability Assessment of Existing Building in	Spring-2019	
	ChattogramCity: A Case Study on 7 no Sholosahar Ward		
5	Stabilization of sand by using cement	Spring-2019	
6	Foundation base improvement in Chittagong Bangladesh: State of	Spring-2020	
	the artsolutions		
7	A study on Compressive strength of concrete by using slag as a	Fall-2019	
	partialreplacement of coarse aggregate.		
8	Stabilization of soil with Fly ash & rice husk ash	Fall-2019	
9	Comparative Study on Strength and permeability of Pervious	Spring-2021	
	Concretewith Admixture		
10	Influence of admixture along with sand on different properties of	Fall-2021	
	pervious concrete		
11	Hasan Effectiveness of rice husk ash (RHA) as a partial replacement	Fall-2015	
	of cementin concrete		
12	Seismic Vulnerability assessment of Existing Building At 25 No	Fall-2016	
	Rampur Ward, Chittagong City Corporation.		

List of Courses Conducted so far

S.L	Course Name
No.	
1	Soil Mechanics
2	Geotechnical Engineering Analysis and Design
3	Foundation Engineering
4	Structural Analysis and Design-II
5	Structural Analysis and Design lab-II
6	Surveying
7	Design of Concrete Structure-II
8	Geotechnical Engineering Lab-I
9	Software Application in Structural Engineering Lab

KEY RESPONSIBILITIES:

• Following are the regular job responsibilities I have performed as a faculty member along with my teaching and research responsibility.

Name of the Committee	Job Responsibilities	Designation
Academic Committee	 Preparation of Academic Calendar. Course distribution. Reporting for Conducting theory & sessional class. Submission of marks of class test & attendance. Completion of students' enrollment (including exam enrollment) & instruct the course teacher regarding unregistered students. Preparation of teacher requirement according to totalcredit offered in semester. Formation of different committees 	Jt. Convener
Class Monitoring	Class monitoring Reporting for conducting classes	Jt. Convener
Admission Committee	 Preparation of admission policy & submit to head ofthe department before starting a semester. Arranging admission test & listing selected students for admission. Checking out admission forms & certificates or related documents by the university, of the selectedstudents. Making arrangement for the students to be admitted provisionally. Preparation of students file (admission) & submissionto the admission office after all necessary official procedures. 	Jt. Secretary
Planning & Development Committee 1. Preparation & submit an annual working plan to thehead of the department. 2. Lab equipment and teaching aid, procurement andmaintenance. 3. Preparation lab equipment requirement. 4. Installation of instrument. 5. Stock maintenance. 6. Class room / lab /other room / building development and maintenance of furniture and fixture		Jt. Convener
Disciplinary Committee	 Execution of disciplinary action against accused students. Disciplinary rules up gradation. 	Member

Name of the Committee	Job Responsibilities	Designation
Co-curriculum & Extra- Curriculum Committee	1. Sports [Indoor and Outdoor]	Member
Thesis Committee	Overall work related to thesis (Thesis offer, Proposal defense, final defense, thesis correction etc.)	Jt. Convener
Public Relation Committee	To take necessary steps to publish different news of this Department in local and national media.	Member
International/ National Conference Committee	To take the necessary steps for arranging a national and international conference	Member

SEMINARS ATTENDED:

_As a key note Speaker:

A study on compressive strength of concrete by using RHA as partial replacement of cement. Seminar on Outcome Based Education.

Seminar on Outcome Based Education at Southern University Bangladesh (SUB) organized by IQAC, SUB

As a Participant

No.	Name of the Speaker	Title of the Seminar	Date
1	Fahmida Khanam Ovi	Effect of Multiple Plan Irregularities on Multistoried Steel Building.	20-01-2019
2	Md. Shamim Ahmed	Numerical analysis on restrengthening of reinforced concrete columns with reinforced concrete jacketing.	06-01-2019
3	Ankan Mohajan	Estimation of passenger Car equivalents for easy bike at mid-block in Khulna Metropolitan City.	23-12-2018
4	Md. Minhaz Uddin	Applicability of unsteady RANS for predicting flow field around Cylinders.	25-11-2018
5	Md. Ziauddin Patowary	Seismic Analysis for Multi-Story Building Horizontally Damped Above Basement Level	04-11-2018
6	Omar Sadab Chowdhury	Evaluation of Bacteriological Efficiency of Household WT tech Based on WHO guideline.	12-08-2018
7	Mr. Suprio Das	Numerical analysis of loads transfer mechanism between concrete and	18-02-2018

No.	Name of the Speaker	Title of the Seminar	Date
		steel profile in a composite structural element.	
8	Tasnima Zannat	Assessment of water quality of Karnafully River using for agriculture and fish cultivation purpose.	04-02-2018
9	Amrita Das	Evaluation of pervious concrete performance: A step towards the solution and water logging problem	21-01-2018
10	Sayma Akter	The use of constructed wetlands in wastewater treatment system.	31-12-2017
11	Mr. Apu Dev	A case study of earthquake and seismic Vulnerability assessment of 37 Enayet Bazar ward.	25-11-2017
12	Mr. Abu Obayed Chowdhury	Effect of plan Irregularities on RC Multistoried Building.	29-10-2017
13	Architect Md. Rafiq Azam, One of the leading Architects of Bangladesh	Aesthetics & Mathematics: The Poetry of Architecture.	22-10-2017
14	Mr. Abul Hasan	A study on compressive strength of concrete by using RHA as partial replacement of cement	15-10-2017
15	Rokhsana Hossain	Development of low-cost treatment system of grey water for non-portable purposes	27-08-2017
16	Fahmida Rafiq	Quality of rainwater for drinking purposes.	13-08-2017
17	Ms. Faria Sarreen	Analytical approach to study the optimum shear wall location for flat slab system of ten storied building	30-07-2017
18	Mr. S. M. Shazeebur Rahman	Stabilization of sandy soil with lime.	16-07-2017
19	Mr. Arif Hossain	Vehicular emission inventories in metropolitan Chittagong.	18-06-2017
20	Taslima Yasmin	Effect of concrete compressive strength by using different types of water and sand	14-05-2017
21	Dr. Hasina Iasmin	Effectiveness of Kadamtoly Flyover in Chittagong city	30-04-2017
22	Mohammad Arif Mohiuddin	Effects of global and local soil non- linearity on impedance functions of piles.	16-04-2017

Symposium/Workshop:

International Symposium on Quality Assurance in Engineering Education through Accreditation - III" during May 11-12, 2023, Water Garden, Radisson Blu, Dhaka, Bangladesh. Organized by BAETE.

Successful participation in a workshop on 'Online Academic Management' held at Southern University Bangladesh on 11 October 2018 organized by Institutional Quality Assurance Cell (IQAC), Southern University Bangladesh.

Successful participation in a workshop on 'Research Methodology for Science & Engineering' held at Southern University Bangladesh on 14 August 2018 organized by Self-Assessment Committee, Department of Civil Engineering, Southern University Bangladesh.

Successful participation in a workshop on 'Post Self-Assessment Improvement Plan' held at Southern University Bangladesh on 11 June 2018 organized by Self-Assessment Committee, Department of Civil Engineering, Southern University Bangladesh.

Successful participation in a workshop on 'Assessment Strategy for Students' held at Southern University Bangladesh on May 28, 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in a workshop on 'Modern Teaching Methodology' held at Southern University Bangladesh on May 27, 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in a workshop on 'Guidelines for Post Self-Assessment Improvement Plan' held at Chittagong Veterinary and Animal Sciences University on April 2018 under the initiative of HEQEP, UGC, Bangladesh.

Successful participation in a workshop on 'Review & Modification of University Rules, Regulations and Ordinance for Good Governance' held at Southern University Bangladesh on March 20, 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in a workshop on 'Good Governance in the Higher Education of Bangladesh' held at Southern University Bangladesh on March 19, 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in a workshop on 'Advanced Research Methodology: Tools & Techniques' held at Southern University Bangladesh on February 01, 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in a workshop on 'Role and Responsibility & Ethical Principles of University Teachers' held at Southern University Bangladesh on January 31, 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in a workshop on 'Online Teaching, Examination and Evaluation Techniques' held at Southern University Bangladesh on February 10, 2017 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in a workshop on 'Online Academic Management' held at Southern University Bangladesh on February 09, 2017 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

Successful participation in the workshop on 'Research Methods, Tools & Techniques and Scientific Method of Report Writing' held at Southern University Bangladesh on December 11, 2016 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University.

UGC/WB HEQEP Project.

Successful participation in the 'Self-Assessment Workshop on Sharing the Survey Findings & Analysis', organized by Self-Assessment Committee, Department of Civil Engineering on December 05, 2016 at the Conference Room, Southern University Bangladesh. UGC/WB HEQEP Project.

Successful participation in the 'Self-Assessment Workshop on Teaching Methodology & Governance' organized by Self-Assessment Committee, Department of Civil Engineering on June 25, 2016 at the Conference Room, Southern University Bangladesh. UGC/WB HEQEP Project.

Successful Participation in the 'Outcome based Education (OBE) Curriculum Organized by University Grants Commission of Bangladesh on 01-02 June, 2022.

Successful Participation in the Hands-on Orientation for New Program Evaluators' Organized by Board of Accreditation for Engineering and Technical Education (BAETE) 27-28 May, 2022.

Training & Short Courses:

Successfully completed a training program on 'Salient Elements of Outcome-Based Curriculum' held at Southern University Bangladesh on 18 July 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University. UGC/WB HEQEP Project.

Successfully completed a training program on 'Outcome-Based Education: Emergence, Benefits, Approaches and Structure' held at Southern University Bangladesh on 17 July 2018 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University. UGC/WB HEQEP Project.

Successfully completed a training program on 'Policy of University, Software Information System, Teaching at Higher Education, Research Methodology and Teaching Professional Integrity' held at Southern University Bangladesh on 8 May 2017. Organized by the Authority of Southern University.

Successfully completed a training program on 'Learning Outcome, Assessment System, Curriculum Design and Self-Assessment' held at Southern University Bangladesh from 19 to 21

July 2016 under the initiative of Institutional Quality Assurance Cell (IQAC) of the University. UGC/WB HEQEP Project.

Successfully completed a training program on 'Training of Trainer' held at Department of Civil Engineering, Southern University Bangladesh. Organized by the Authority of Southern University.

Short course on "Flood Risk Assessment and Management" at CUET, Nov 29-Dec 3, 2015.

SKILLS & COMPETENCIES:

- Moderate user of Microsoft Word, Microsoft Excel and Microsoft PowerPoint.
- Moderated user of ETABS 2020 and SAFE 2020.
- Advanced user of Nitro Pro PDF, Adobe Acrobat DC Pro.
- Have technical knowledge about ACI Codes and Specification, ASTM Codes and BNBC-2020.
- Strong administration, organizing and time management skills, can work under pressure and deal with confidential matters
- Always ready to learn new technologies. A good team player, strong analytical reasoning, and problem-solving skills.
- Self-motivated, aggressive and good communication skills. Possess a positive, balanced and pleasing personality.

PROFESSIONAL EXPERIENCE

- Structural and Geotechnical Engineer (2012 to Present)
- STRUCXEL Architects, Engineers & Planners
- Address: Suite No: 203, 1st Floor, Lusai Bhaban, 5 CDA C/A, Cheragi Pahar, Momin Road, Chittagong.

KEY RESPONSIBILITIES:

- Structural Analysis of RCC Buildings.
- Detail Engineering Assessment (DEA) of more than twenty factories for the requirement of Structural Safety of Ready-Made Garments (RMG) sector of Bangladesh.
- Preparation of DEA Report and submission to ACCORD on Fire and Building Safety in Bangladesh and ALLIANCE for Bangladesh worker safety for approval.
- Understanding of Architectural and Structural Drawings.
- Dealing with clients.
- Site investigation and dealing with labors.
- Preparation of presentation for clients and representative.
- Assistance to senior structural engineers in taking decision about retrofitting design, drawing and detailing.
- Preparing EXCEL Sheets as per requirement of the nature of the work and requirement of company.
- Preparing various official documents.

PROFESSIONAL WORK ACCOMPLISHMENTS

Civil Engineering Design Works

- Consultant by Choice of Chattagram Ma O Shishu General Hospital's Cancer Wing Project.
- Structural & Architectural Design of Alpha Development Project at I, J and H plot at KEPZ, Anwara, Chattogram.
- Structural & Architectural Design of Multistoried RCC Structure of YCL Extension at CEPZ Sector-2 for Young One Bangladesh Limited.
- Structural & Architectural Design of Multistoried RCC Structure for Chittagong Veterinary and Animal Sciences University (CVASU) at Cox's Bazar.
- Design and supervision of Seven Storied Residential Building at Santibag Residential Area, Agrabad, Chittagong.
- Design of 'Al-Imarat Complex', a Ten Storied Multipurpose Complex at Lichubagan, Chandraghona, Raozan.
- Detailed Engineering Assessment Preparation and Re-strengthening of Stretch Tone Apparels, Majhirghat, Chittagong.
- Detailed Engineering Assessment Preparation of Maks Fashion, Chowk Bazaar, Chittagong.
- Vulnerability Assessment of Alliance Franchise, Chittagong.
- Detailed Engineering Assessment Preparation of Shams Knitting, Chittagong.
- Flexible Pavement Design of Bhatiyari Industrial Road of S.A. Group, Bhatiyari, Chittagong.
- Ten storied multipurpose commercial complex of Discover Living Ltd.
- Detailed Engineering Assessment Preparation of Young An Int. BD, CEPZ, Chittagong.
- Preparation of Design report of HANA Plastic Ltd, CEPZ, Chittagong.
- Detailed Engineering Assessment Preparation of RSB Industrial Ltd, CEPZ, Chittagong.
- Detailed Engineering Assessment Preparation of SHYMS Fashions Ltd, Textile Gate, Chittagong.
- Preparation of 'As Built Drawing' of 'Avenger textiles Ltd' for FOUR H Group.
- Preparation of Design report of NATURAB Accessories Bangladesh (pvt) Limited, KEPZ, Chittagong.

- Preparation of Design report of two Ware House for Karnafuli Shoes Industries Ltd, KEPZ, Chittagong.
- Preparation of Design report of Titas Shoes Industries Industries Ltd, Plot no 7 to 20, Sector—3, CEPZ, Chittagong.
- Preparation of Design report of twelve nos of Factory Building for Karnafuli Shoes Industries Ltd, Anowara, KEPZ, Chittagong.
- Preparation of Design report of two nos of Canteen Building for Karnafuli Shoes Industries Ltd, Anowara, KEPZ, Chittagong.
- Preparation of Design report of YCL-3 Factory Building for Young One at CEPZ, Sector-2, Chittagong.
- Preparation of Design report of YCL Office Building for Young One at CEPZ, Sector-2, Chittagong.
- Preparation of Design report of YCL-2 Factory Building for Young One at CEPZ, Sector-2, Chittagong.
- Preparation of Design report of YMA Complex for Young One at CEPZ, Sector-3,
- Preparation of Design report of two nos YSS-5 Factory Building for Young One at CEPZ, Sector-2, Chittagong.
- Preparation of Design report of Shurma washing Factory Building for Young One at CEPZ, Sector-2, Chittagong.
- Preparation of Design report of YMA substation Factory Building for Young One at CEPZ, Sector-3, Chittagong.
- Design of Four Storied Star Class Dormatory Building (Dormatory-2) at Anowara, KEPZ, Chittagong.
- Design of Polyester Dying Factory Building at Anowara, KEPZ, Chittagong. Design of Kuruki Factory Building at CEPZ, Sector-2, Chittagong.
- Proposed Consultancy Work of New Construction of Bangladesh National Society for Blind (BNSB) New Wing of Hospital Building Block for Chittagong Eye Infirmary and Training Complex (CEITC) at Pahartali, Chittagong.

Reference: Prof. Dr. Md. Moinul Islam

Professor & Dean, Faculty of Civil Engineering

CUET,

Contact: +8801713-109966

Prof. Dr. Md. Saiful Islam

Ex-Professor, CUET

Contact: +8801713-109920

Signature

