

MD. AKRAM HOSSAIN

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Career Objective: A dedicated and research-oriented civil engineer, desire to secure a position to apply my knowledge of engineering, i.e., structural analysis, design, and construction while contributing towards organizational progress.

Career Summary: Research oriented Structural Engineer passionate about pushing the boundaries of design and engineering. Experienced in the Curtain wall (Façade) sector. Have sound knowledge of Structural analysis and design of Steel and Aluminum structures. Familiar with different international building codes namely ASTM, ASCE, ACI, BNBC. Have excellent knowledge of Microsoft Office suite (Word, Excel, PowerPoint), AutoCAD 2D, Adobe products, and Structural analysis and design software like ETABS, Staad.pro, SAP2000 etc.



ACADEMIC CREDENTIALS

- BSc. in Civil Engineering,** March, 2016 – September, 2021
Chittagong University of Engineering and Technology (CUET)
Chattoram-4349, Bangladesh
Major: Structural Engineering
Minor: Environmental Engineering
CGPA: 3.23/4.00
- Higher Secondary School Certificate (HSC),** 2013 – 2015
Feni Government College
Feni, Bangladesh
GPA: 5.00/5.00
- Secondary School Certificate (SSC),** 2008 – 2013
Nizkunjara High School
Feni, Bangladesh
GPA: 5.00/5.00

PROFESSIONAL EXPERIENCE

Structural Engineer, March, 2022 – Present

Arman Engineering Ltd., Islam Tower 4th floor, DIT road, Rampura, Dhaka, Bangladesh

Responsibilities

- Structural Analysis and Design of Curtain wall Façade system, Steel and Aluminum structure
- Supervision of Façade work
- Document & Reports preparation
- Preparing other technical documents
- Technical meetings with consultants and clients

Projects

- BRAC University New Campus, Dhaka
- Suvastu Skyline Avenue, Dhaka
- World Trade Center, Chittagong
- Concord MBR Skyline, Dhaka
- AristroPharma Limited, Dhaka
- Trade Inter-Continental (TIC), Dhaka
- Simpletree GSR, Dhaka
- Taj & Vivanta Hotel, Dhaka
- Bengal Hotel and Resort, Dhaka
- Prime Bank PLC, Dhaka

Jr. Structural Engineer, July, 2021 – Sept, 2021

Naf Tourism Park Project, Teknaf, Bangladesh (worked from home due to corona pandemic)

Responsibilities.

- Structural modeling and analysis of cable car Station-B
- Reports and document tracking

TRAINING SUMMARY

Industrial Training,

Nov, 2019 – Dec, 2019

34 Engineer Construction Brigade, Dampara, Chattogram, Bangladesh

- Visited the Patenga Container Terminal Project, and observed the Jetty and flyover construction
- Visited the ‘Re-excavation, expansion, renovation & development of canal for mitigating water logging problems in Chattogram city’ project and the ‘Riverbank Protection on Halda River’ project
- Learned cost-of-material estimation, project documentation, tender document preparation, etc.
- Cultivated an excellent relationship throughout the assigned territory

TECHNICAL SKILLS

Engineering

Software:

- **SAP2000** (Excellent proficiency)
Structural modeling and analysis of curtain wall system, aluminum and steel structure. For irregular shape, aluminum profiles are considered as idealized regular section keeping the moment of inertia same, as there is no option to design the irregular section in SAP2000. Therefore, aluminum is needed to be designed by hand calculation as per ADM 2015. For steel structure design, connection and support type, unbraced length, LTB deserves special attention.
- **ETABS** (Intermediate proficiency)
Structural modeling of high-rise building, applying manually calculated and automated loads; wind load, earthquake load. Analyze the structure. Finding internal forces and design all the structural components like beam, column, slab, shear wall either by hand calculation or ETABS automation.
- **STAAD Pro** (Intermediate proficiency)
Most of the time, I use SAP2000 instead of Staad Pro. Although the UI seems not very intuitive, but for steel design, I have found excellent result by using Staad Pro.
- **IdeaStatica** (Excellent proficiency)
Designed most of steel connection using IdeaStatica. Cross verified the design result by hand calculation as per BNBC and ACI guideline of anchor design. As there is no way to design the post-installed anchor in this software, I design post-installed anchor by hand calculation.
- **RFEM** (Basic proficiency)
Mostly used to design the structural glass for curtain wall. Shows very consistent result with ASTM E1300 guideline. For second order large deflection analysis, and to consider temperature effect in Insulated glass, RFEM shows excellent result.
Portfolio Link: <https://akramh.com/portfolio/>

Drafting

Software:

- **Tekla Structure** (Basic proficiency)
For steel connection details and drafting, I have used Tekla Structure. As in façade industry, steel works are not very much, I didn't have the opportunity to use this software frequently.
- **AutoCAD** (Intermediate proficiency)
Prepared small scale steel fabrication drawing, connection details and drafting. Also used to determine section properties of irregular section and various measurement.

Office Software:

- **Microsoft Word** (Excellent proficiency)
Preparing report, technical paper using proper heading style, automatic table of content, references and other automations.
- **Microsoft Excel** (Intermediate proficiency)
Preparing BoQ, advance formula, Pivot table, graph plotting and data analysis, report making in efficient way.
- **Microsoft PowerPoint** (Excellent proficiency)
Business presentation, design presentation, template creation using slide master.

- Programming language:**
- **Python** (Basic proficiency)
Familiar with Pandas, NumPy, Matplotlib library. Determined moment of inertia of irregular section by using python. Made a small software to determine gust effect factor of flexible structure for wind load. Also used to train neural network model to interpret concrete strength for my thesis and publication.
GitHub Repo: <https://github.com/akramhbd/wind-gust-factor>
 - **MATLAB** (Basic proficiency)
Graph plotting, data visualization, Neural network toolbox, curve fitting etc.
- Graphic & Video Editing:**
- **Adobe Photoshop** (Basic proficiency)
Photo manipulation, color correction etc.
 - **Adobe Illustrator** (Basic proficiency)
Poster and logo making
 - **Adobe Premier Pro** (Basic video editing)
 - **Camtasia** (Video editing, annotation, screen recording and tutorial making.)
- Other:**
- **Linux OS** (Debian, Ubuntu, Mint distro.)
 - Windows OS

OTHER SKILLS

- Good time management
- Good interpersonal communication skills
- Ability to take challenges
- Can work under pressure
- Work effectively both individually and teamwork
- Good presentation skills
- Ability to learn quickly

RESEARCH EXPERIENCE

Undergraduate Research Work May, 2021 – August, 2021
Chittagong University of Engineering and Technology (CUET), Chattogram, Bangladesh
Worked on the prediction of concrete strength using artificial neural networks (ANN). Some data is taken from our lab by concrete test which is used for validation while most of the data utilized in this study to train the model was from different authors.
Thesis title: “Compressive Strength Prediction of Self-Compacting Concrete Using Artificial Neural Networks”
Research Supervisor: [Prof. Dr. G. M. Sadiqul Islam](#)

JOURNAL PUBLICATIONS

- **Md Akram Hossain**, Islam, G. M. S., & Amit Mallick. (2022). Compressive Strength Prediction for Industrial Waste-Based SCC Using Artificial Neural Network. *Journal of the Civil Engineering Forum*, 9(1), 11-26.
<https://doi.org/10.22146/jcef.4094>

ACHIEVEMENT

- Participated and achieved **2nd runner-up prize** at the ACI Concrete Project Competition 2022, organized by the American Concrete Institute (ACI).
<https://www.concrete.org/students/studentcompetitions/concreteprojectscompetition/concreteprojectspastwinners.aspx>

AFFILIATIONS

- Associate Member of **Institution of Engineers, Bangladesh (IEB)**, Membership ID: **A-26033**
- Student E-Member of **American Concrete Institute (ACI)**, Member ID: **1609603**

EXTRA-CURRICULAR ACTIVITIES AND OTHER CREDENTIALS

- **Board Scholarship** at JSC, SSC, HSC Exam by Bangladesh Govt.
- **Industrial Training** at 34 Engineer Construction Brigade
- **Honorary Award** from Deputy Commissioner for HSC exam result
- Executive member, CUET Debating Society
- Executive member, CUET Career Club
- ICT Editor, Notun Kuri Songha (Sporting and Social Club)
- Captain, Local cricket team (two times tournament champion)
- **Volunteer works**, CUET Debating Society annual program

LINGUISTIC PROFICIENCY

- **English** (Fluent Working Proficiency)
- **Bengali** (Native Language)

EXTERNAL LINKS

- Personal website: <https://akramh.com/>
- LinkedIn: <https://www.linkedin.com/in/ahshuvro/>
- ResearchGate: <https://www.researchgate.net/profile/Md-Akram-Hossain-9>
- ORCID: <https://orcid.org/0000-0002-7688-1209>

PERSONAL INFORMATION

Father's Name: Md. Hanif (Late)	Gender: Male	Nationality: Bangladeshi
Mother's Name: Rasheda Akter	Marital Status: Unmarried	National ID No. 1954349369
Date of Birth: 30/01/1998	Religion: Islam	Passport No. A12168047
Blood Group: AB+		

ACKNOWLEDGMENT

I hereby declare that the information provided is true and correct. I also understand that any willful dishonesty may render for refusal of this application or immediate termination of employment.

REFERENCES

Dr. G.M. Sadiqul Islam (Project Supervisor)
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Signature