Tabassum Mushtary Meem

MASc Student in Construction Engineering

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Research Interest

- Clash avoidance in BIM based design coordination using machine learning.
- Building Information Modeling using data driven methods.
- Application of virtual reality and machine learning for construction safety.

Education

École de technologie supérieure (ETS)
Montreal, Canada

MASc, Construction Engineering, GPA: 3.93/4.3
2021-Present

- **Research:** Application of data-driven methods for hard clash avoidance in Building Information Modelling (BIM) based multidisciplinary design coordination.
- **Graduate Courses:** Big data analytics AI for smart city infrastructure, Building Information Modelling in Construction, Sustainable Project Management and Construction Planning.

Bangladesh University of Engineering and Technology
Dhaka, Bangladesh

Bachelor of Architecture
2011-2017

- **Thesis:** *Life With the Sea:* Kuakata Marine Fisheries Institute, Kuakata
  Achievement: Formulated a program that addresses sustainability issues in highly natural disaster prone areas in tropical climate. Proposed passive design and landscaping solutions that is mindful of the local fisherman community. The flexible design of the premise acts seamlessly as an emergency shelter for the local community during natural calamities.

Bir Sreshtha Noor Mohammad Rifles Public School and College
Dhaka, Bangladesh

Higher Secondary School Certificate (Science), GPA: 5.00/5.00
2008-2010

Srijanee Bidyaniketan
Barishal, Bangladesh

Secondary School Certificate, GPA: 5.00/5.00
2008

Awards and Scholarships

- Award received from PyCon Japan, to present the work on using machine learning algorithms for determining LEED building efficiency.
- Winner- Three Minute Thesis Competition 2022 (poster) organized by AACE, Montreal section.
- Secured 10th place in national board Secondary School Certification Examination (SSC).
- Recipient of the talent pool scholarship from the national education board.
- Recipient of the talent pool scholarship in primary and junior scholarships examinations.

Publications

- **Tabassum Mushtray Meem**, Ivanka Iordanova "Overcoming obstacles in BIM-based Multidisciplinary Coordination: A Literature Overview", In Proceedings of Canadian Society of Civil Engineers (CSCE) 2022, Whistler, British Columbia.

- **Tabassum Mushtray Meem**, Ivanka Iordanova "Clash Avoidance in BIM-based Multidisciplinary Coordination: A Literature Overview", Creative Construction Conference (CCC 2022).

Work Experience

Insignia Studio   *Dhaka, Bangladesh*

Junior Architect   *May 2017 - 2019*

- Worked on affiliated projects and presentations lead by Oneworks, a global design consultancy firm.
- General study of drawings, designs. Preliminary study of the project's site and features.
- Prepared scoping documents, construction drawings and detailed packages for residential, academic and industrial projects.
- Participated in research discussions pertaining to different projects and prepared presentations for the clients.
- Created detailed 3D visualization and render.
- Prepared drawings for RAJUK (Capital Development Authority) certification and managed on site issues.
- Studied building heat gain and ventilations via building information modeling during design phase for design optimization.

Shajgoj Limited   *Dhaka, Bangladesh*

Senior designer and content producer   *Oct 2015 - 2019*

- Developed a high performing creative team to successfully execute digital campaigns for multinational enterprise including, Loreal, Reckitt Benckiser, Marico and Unilever.
- Lead a graphics design and editing team for the marketing campaign of international brands.
- Planned and produced contents for digital media platforms.
- Worked on projects that included illustration, set design, branding and photography.

Sthanik Architectural Consultant   *Dhaka, Bangladesh*

Designer (Part Time)   *Jan 2017- Mar 2017*

- Preliminary study of the project site.
- Prepared measurement drawings and photographic documents.
- Prepared schematic designs and performed an extensive research on building research codes and proposed different solutions for parking.

Insignia Studio   *Dhaka, Bangladesh*

Intern   *Aug 2015- Dec 2015*

- Performed comprehensive planning, place making and visualization of outdoor urban space.
- Implemented sustainable construction techniques and innovative designs.
- Developed conceptual ideas and 2D illustrations.
- Worked on 3D visualization of multiple government master plans and commercial projects.
- Lead a design team to participate in DESCO Head office design competition.
- Coordinated with clients, consultants and suppliers.

Competition

Unstoppable schooling, continuing education with disaster.   *Khulna, Bangladesh*

Architecture Discipline, Khulna University   *2012*

Conceptualized sustainable floating structures that can work as an educational institution during natural calamities which are common in the coastal regions of Bangladesh.

Designing Resilience in Asia, 2015.   *Singapore*

National University of Singapore   *2015*

Participated in the international design competition arranged by School of Design and Environment, National University of Singapore. The proposed design focused on resilient structure that can support and protect the community during flash flood.

Dezeen X MINI Living Future Urban Home.   *Dhaka, Bangladesh*

                                                                                        2015

Conceptualized urban fishermen community in a futuristic submerged city of Dhaka.

Exhibitions and Workshops

Data-driven approach to analysis the efficacy of LEED certified buildings using python.   *Tokyo, Japan*
PYCON JAPAN   *2022*

DIMIK, final thesis exhibition.   *Dhaka, Bangladesh*
SILPAKALA ACADEMY   *2017*

Level 3, Term 1   *Dhaka, Bangladesh*
BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY   *2015*
> Participated in an interactive workshop on urban design conducted by the Architecture discipline of Kyushu university, Japan. Conceptual master plan that is economically and environmentally friendly and devised sustainable solutions and guidelines for historical Dhaka urban fabric.

Software Skills

Computer Aided Drawing	Autocad
Modeling and Rendering	Autodesk Revit, Rhinoceros 3D, Grasshopper 3D, Podium, Lumion, Vray, Sketch up
BIM Collaboration	BIM Track, Bluebeam
Scheduling and workflow simulation	Autodesk Navisworks
Image post processing	Adobe Photoshop
Video post processing	Adobe Premier Pro, VSDC, Windows movie maker
Animation	Lumion
Vector Graphics Editor	Adobe illustrator, Corel Draw
Writing	Adobe InDesign
Programming Language	Python, R, HTML, CSS
Data analytics	RapidMiner

References

Available upon request.