

Ar. SAIFUL ISLAM, Ph.D.

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Education

- Texas A&M University, College Station, TX** 2011
Doctor of Philosophy (Ph.D.) in Architecture
Dissertation: A Study on Zoning Regulations' Impact on Thermal Comfort
Conditions in Non-Conditioned Apartment Buildings in Dhaka City.
Advisor: Dr. Phillip J. Tabb
- University of Texas at San Antonio, San Antonio, TX** 2005
Masters of Architecture (M.Arch.)
Final project: Sustainable Architecture for Slum Dwellers in Karail Slum,
Dhaka, Bangladesh.
Advisor: Dr. Vincent Canizaro
- Ahsanullah University of Science & Technology, Dhaka, Bangladesh** 2000
Bachelors of Architecture (B.Arch.)

Academic Experience

Teaching Appointments

- North South University, Dhaka, Bangladesh** September 2012 - present
Assistant Professor
Courses Assigned:
Design Studio
Architectural Graphics-II
Climate & Architecture
- Ahsanullah University of Science & Technology, Dhaka, Bangladesh** May 2012 - July 2012
Assistant Professor
Courses Assigned: Design Studio VII (Urban Design Studio)
- Texas A&M University, College Station, TX** Spring 2012
Visiting Lecturer
Courses Assigned: Design Communication Foundation II
- Texas A&M University, College Station, TX** Fall 2006 - Spring 2011
Instructor
Courses Taught: Design Communication Foundation I & II
- Designed the Syllabus
- Taught techniques of observation drawing, architectural drawing, and architectural illustrations
- Arranged guest lectures
- Reviewed students' works, work progress and evaluated their works
- 'Student Evaluation of Teaching'
Improved from Fall 2006 (2.6/5.0) to Spring 2010 (4.7/5.0)
- North South University, Dhaka, Bangladesh** Summer 2009
Visiting Lecturer
Courses Taught: Architecture History II
- Taught architecture history, ranging from Baroque to Modern Architecture

University of Texas at San Antonio, San Antonio, TX <i>Instructor</i> Courses Taught: Visual Communication - Taught techniques of observation drawing, architectural drawing, and architectural illustrations	2004 - 2005
Teaching Assistant Courses Taught: Visual Communication, and Design Studio-II Exterior-Interior (P) Ltd. Dhaka, Bangladesh	2003 - 2004
Lecturer Courses Taught: Architecture Drawing and Spatial Planning	2002 - 2003

Other Academic Activities: External Member for M.Arch. Thesis at BUET

Masters of Architecture Thesis of Samina Mazumder Tuli. Title: <i>Study on the impact of microclimate on energy spatialization in urban areas of Dhaka.</i> - submitted to the Department of Architecture at Bangladesh University of Science & Technology (BUET)	August 2015
Masters of Architecture Thesis of Iftekhar Rahman. Title: <i>Study on the impact of building regulation on street morphology and ensuing microclimate in planned residential area of Dhaka city.</i> - submitted to the Department of Architecture at Bangladesh University of Science & Technology (BUET)	April 2015
Masters of Architecture Thesis of Sajal Chowdhury. Title: <i>Study of Thermal Performance of Building Envelope of Ready Made Garments Factories in Dhaka.</i> - submitted to the Department of Architecture at Bangladesh University of Science & Technology (BUET)	September 2014

Teaching interests

- Design Studio on Sustainable Architecture
 - o Architecture for enhanced natural ventilation
 - o Architecture for enhanced day-light
 - o Building-form and solar energy
 - o Net Zero Buildings
- Seminar: Natural Ventilation and Basics of CFD
- Seminar: Energy Efficient Building Design
- Design Communication Foundation

Academic Presentations

Use Of Energy Simulation & Computational Fluid Dynamics Tools To Analyze Zoning Regulations' Impact On Ventilation Rate In Non-Conditioned Apartment Buildings - Presented as a guest lecturer in the "Tools For Green Design" course at Texas A&M University, College Station, Texas	May 8, 2012
Daylight And Design – Predicting Daylight Availability While Designing - Presented for design studio students at North South University, Dhaka, Bangladesh	Summer 2009

Building-Form And Solar Access. 2009
- Presented at Graduate Research Symposium,
Texas A&M University

A Solar Access Analysis In Three Residential Urban Forms In Dhaka City. 2009
- Presented at the 1st PGR-CIB Annual Research Competition Presentation, Texas A&M University

Academic Awards

PGR-CIB: 1st Annual Postgraduate Research Competition **March 30, 2009**
- Best Architecture Research Paper

Student Research Week, Texas A&M University **March 28, 2008**
- Session Winner (First Position)

Student Research Week, Texas A&M University **March 28, 2008**
- Taxonomy Winner (Second Position)

University of Texas San Antonio **Spring, 2004**
- Graduate Architecture Student Scholarship

Research

Dissertation: A Study On Zoning Regulations' Impact On Thermal Comfort Conditions In No-Conditioned Apartment Buildings In Dhaka City

- The objective of the study was to identify a set of zoning regulations for Dhaka's residential areas that would improve thermal comfort conditions in apartment buildings, without sacrificing existing population density
- Each set was compared to the rest in terms of how much it reduces indoor temperature and how much it increases indoor air velocity, through regulating solar and wind access on the building site
- The study examined the zoning regulations' impact by simulating patterns and magnitude of indoor-wind flow (using Computational Fluid Dynamics tool) and indoor-temperature (using Energy Simulation tool) in different building-forms that suite the studied sets of zoning regulations

- ***Key contributions or findings:***

- o Zoning regulations can be an effective tool to improve thermal comfort conditions in non-conditioned apartment buildings
- o Improved thermal comfort conditions can be achieved in high-density housing context, without sacrificing the existing density
- o Proposed zoning regulations would provide favorable thermal comfort conditions for 50% of the studied units where as existing zoning regulations could not provide favorable thermal comfort conditions to any of the studied units. Moreover, under proposed zoning regulations, 100% dwelling units have an air velocity of 0.7m/s whereas under existing zoning regulations, 66% dwelling units have a zero air velocity
- o Dimensions in setback rules should be governed by its orientation (north/south/east/west) rather than its location (front, back or sides of the lot); setbacks in south or north of a lot should be wider, and setbacks in west or east should be narrower (for better solar protection)

Other Research Interests:

- CFD analysis of buildings' natural and hybrid ventilation potential
- Optimization of building-form and building envelop systems for passive heating, cooling, and day-light enhancement in energy efficient buildings
- Building performance analysis for both conditioned and non-conditioned buildings
- Zoning regulations and their impact on wind and solar access in urban areas

Publications:

Journal Publication

– Saiful Islam, & Shannon Vanzandt, (August 2013) THE IMPACT OF ZONING REGULATIONS ON THERMAL COMFORT IN NON-CONDITIONED HOUSING IN HOT, HUMID CLIMATES: FINDINGS FROM DHAKA, BANGLADESH. Journal of Housing and the Built Environment
DOI: 10.1007/s10901-013-9373-2

Conference Proceedings

– Saiful Islam, A STUDY ON BUILDING CODE'S IMPACT ON DAYLIGHT AVAILABILITY IN DHAKA CITY'S APARTMENT BUILDINGS presented in the 31st International PLEA (Passive and Low Energy Architecture) conference, September 9-11, 2015, Bologna, Italy
– Saiful Islam, IMPACTS OF 'MAXIMUM ALLOWABLE BUILDING FOOTPRINT' ON NATURAL VENTILATION IN APARTMENT BUILDINGS, presented in the 29th International Conference on Passive & Low Energy Architecture 'PLEA 2013', September 10-12, 2013, Munich, Germany.
– Saiful Islam, AN EXTENDED STUDY ON BUILDING REGULATIONS' IMPACT ON NATURAL VENTILATION IN APARTMENT BUILDINGS IN DHAKA CITY, presented in 20th General Assembly and Conference Commonwealth Association of Architects, 22-23 February 2013, Dhaka, Bangladesh.
– Saiful Islam, & Liliana Beltran, A STUDY ON ZONING REGULATIONS' IMPACT ON VENTILATION RATE IN NON-CONDITIONED APARTMENT BUILDINGS IN DHAKA CITY, presented in World Renewable Energy Forum 2012, May 13-17, Colorado, Denver

Professional Experience

Positions Held:

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Adviser, Design Wing, Double A Properties, Dhaka, Bangladesh May, 2012 - present

- Advice the Design Wing in terms of their architectural design and its impact on sustainability issues of the built environment

Independent Consultant for Architectural Designs, Dhaka, Bangladesh 2000 - present

- Designed houses, vacation homes and apartment buildings in several locations in Bangladesh

Shantha D. Gunawardana, AIA, LEED-AP, San Antonio, TX 2007 - 2008

- Worked as the principal designer for the preparation of schematic designs for 10,000 square feet mosque at San Antonio

Professor Thompson's Construction Site, San Antonio, TX January-May 2006

- Worked as a construction laborer to have hands on experience

Killis Almond Associates Inc. San Antonio, TX Summer & Fall 2005

Student Intern

- Assisted in preparation of historic site surveys, historic structures reports, preservation planning studies

The Marion Koogler McNay Art Museum, San Antonio, TX Fall 2005

Independent consultant for Rendering

- Prepared watercolor illustrations for the extension of McNay Art Museum

Professional Renderings, San Antonio, TX 2003 - 2006

Independent consultant for Rendering

- Created watercolor renderings for City of San Antonio, Fisher & Heck Architects, JMS Architects

In Grid Architects, Dhaka, Bangladesh Feb – April 2003

Junior Architect

- Executed design development, presentation, preparation of construction documents, and performed construction supervision

Vitti Sthapati Brinda Ltd, Dhaka, Bangladesh Jan 2001- Jan 2003

Junior Architect

- Executed design development, presentation and preparation of construction documents

Professional Skills

- Energy Simulation Programs: Energyplus, Equest, DOE-2
- Computational Fluid Dynamics (CFD) Programs: FLUENT
- Lighting Simulation Programs: Radiance, Ecotect
- Computer Aided Design Programs: Autocad, Sketchup, 3D Studio Max
- Computer Aided Graphic Programs: Coreldraw, Photoshop
- Free-Hand Rendering Skills: Watercolor, Pen & Ink, Color Pencil, Prisma Color
- Languages: English and Bengali

Professional Development

- Graduate Teaching Academy Certificate** **2006 – 2007**
- Provides professional development opportunities to equip graduate students in the area of college teaching

Affiliations

- Member – Institute of Architects Bangladesh (IAB) **2015 - present**
President, Bangladesh Student Association, Texas A&M University **2008 - 2009**

References

Professor Harun Ur Rashid
Former Department Head
Department of Architecture
North South University, Dhaka, Bangladesh
- Phone: 01715445610
Email: hrashid@northsouth.edu

Professor Julius M. Gribou,
Executive Vice Provost
The University of Texas at San Antonio
- Phone: 210.458.4110
Email: julius.gribou@utsa.edu

Killis P. Almond, FAIA
President
Killis Almond Architects, PC
- Phone: 210.532.3212
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