

MD. SHAHREAR IQBAL

Lecturer

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RESEARCH INTERESTS

Nature Inspired Multi Agent Co-operative Systems, Software Engineering, Computer Security, Computer Networks, Combinatorial Optimization

EDUCATION

M.Sc Engg in Computer Science & Engineering,
Bangladesh University of Engineering and Technology (BUET), February 2011
CGPA : **3.75 / 4.00**
Thesis :Metaheuristic Algorithms for Some Knapsack Variants

B.Sc Engg in Computer Science & Engineering,
Bangladesh University of Engineering and Technology (BUET), January 2008
CGPA : **3.87 / 4.00** Rank: *6th*
Thesis:A Comprehensive Study on Meta-Learning using Modified Bagging

Higher Secondary Certificate (HSC),
Notredame College, Dhaka, 2002
Total Marks : **918** out of 1000 (91.8%).

Secondary School Certificate (SSC),
Ideal School and College, Dhaka, 2000
Total Marks : **928** out of 1000 (92.8%)
Stood **16th position** in Science Group, Dhaka Education Board.

ACADEMIC HONORS AND AWARDS

Dean's Merit List Award, awarded for having CGPA at least 3.75 in each two consecutive semesters in every year at Bangladesh University of Engineering and Technology (BUET).

University Merit Scholarship, awarded to top students in each semester at Bangladesh University of Engineering and Technology (BUET).

Dhaka Education Board Higher Secondary Merit Scholarship, awarded for obtaining 91.8% Marks in Higher Secondary Certificate (HSC) Examination.

Dhaka Education Board Secondary School Merit Scholarship, awarded for obtaining 92.8% Marks and 16th place, Science Group in Secondary School Certificate (SSC) Examination.

**ACADEMIC
EXPERIENCES**

Faculty (Lecturer), Bangladesh University of Engineering and Technology, **August, 2008**
- Present

- **Courses Instructed:** Introduction to Computer Systems, Computer Networks, Computer Graphics, Algorithms, Database, Programming Language, Assembly Language, Digital Electronics and Pulse Tech., Information System Design, Technical Writing and Presentation, Computer Architecture, Compiler
- **Designed laboratory materials for Lab course:** Digital Electronics and Pulse Techniques.

Faculty (Lecturer), Brac University, **January, 2008 - July, 2008**

- **Courses Instructed:** Operating Systems, Database, Programming Language, Assembly Language
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PUBLICATIONS

CONFERENCES

1. **Shahrear Iqbal**, Faizul Bari, and M Sohel Rahman. Solving the Multi-dimensional Multi-choice Knapsack Problem with the Help of Ants. **Seventh International Conference (ANTS 2010)**, Belgium. Swarm Intelligence (Springer LNCS), pages 312-323.
 2. **Shahrear Iqbal**, Faizul Bari, and M Sohel Rahman. A novel ACO technique for Fast and Near Optimal Solutions for the Multi-dimensional Multi-choice Knapsack Problem. **13th International Conference on Computer and Information Technology (ICCIT 2010)**, IEEE, pages 33-38.
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**RESEARCH
EXPERIENCES**

- Metaheuristic Algorithms for Some Knapsack Variants [**M.Sc. Thesis**]
 - Correlation Clustering Problems [**Bio-Informatics**]
 - Polygon Intersection problem [**Computational Geometry**]
 - Nature Inspired Approaches to Software Engineering [**Software Engineering**]
 - A Comprehensive Study on Meta Learning Using Modified Bagging [**B.Sc. Thesis**]
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**PROFESSIONAL
EXPERIENCES**

Bureau of Research, Testing and Consultation (BRTC), BUET, Dhaka, Bangladesh.

Senior Software Engineer

June, 2008 - Present

Carried out several consulting projects, including:

- **Back Office Software Project for Stock Market Brokerage House**, Dhaka Stock Exchange. (Accounting, Stock Update, Trading, Data Migration, Merchant Banking)
- **Development and maintenance of IPO (Initial Public Offering) Lottery Distribution Software**, Dept. of CSE, BUET
- **Software for distribution of Plot** (for RAJUK, Bangladesh) (Data Entry Software, User Management, Activity Log, Accounting, Data Migration, Lottery).
- Tender evaluation and inspection of implementing Automatic Access System in Dhaka and Chittagong Stadium for Bangladesh Cricket Board
- Tender evaluation of Data Center/ Disaster Recovery Center for Mercantile Bank Limited
- Network Design of Bangladesh House Building Finance Corporation, Bangladesh.
- IT and Infrastructure Development, Bangladesh Television (BTV).

CISCO Regional Academy, BUET, Dhaka, Bangladesh.

Instructor

April, 2009 - Present

- Instruction and evaluation of CCNA courses

Bangladesh Korea Information Access Center (IAC), BUET, Dhaka, Bangladesh.

Instructor

April, 2009 - Present

- Course material preparation and Instruction

**SYNERGETIC
&
LEADERSHIP
ACTIVITIES**

- **Research Administrator, Aleda**, Algorithm Engineering and Design Research Group, BUET
 - **Member, Organizing Committee, WALCOM 2010, 2012**
<http://www.buet.ac.bd/cse/walcom2012/>
 - **Organizing Chair**, BUET INTER DEPARTMENT ICT PROJCT SHOW, 2011, Bangladesh.
 - Training underrepresented students (Technology available for all)
Bangladesh Korea Information Access Center, BUET
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TECHNICAL SKILLS

Languages	Python, Ruby, MatLab, C, C++, C#, Java, Assembly, Prolog, ASP.NET, PHP, HTML, CSS, Shell Script, Javascript, XML, SQL, TCL/TK, Lex, Yacc, English
API & F/W	Rails, Open GL, jQuery, JMF, MFC, JFC, MVC, Win API
{E,S}imulators	NS-2, PSpice, Verilog, VMWare, Nacho
Operating Sys.	Various Linux distributions, Solaris, FreeBSD, TinyOS, Cisco IOS, Windows
H/W Tools	AVR Microcontrollers, FPGA Boards, Bluetooth, RFM Radio, Router, HSDPA, Access Points
Database	Oracle, PostgreSQL, MySQL, MS SQL Server, MS Access
Design Tools	UML, ER Diagram, Photoshop, Illustrator, Eclipse, NetBeans, Visual Studio

PROJECTS

A brief list of selected projects completed during **B.Sc. studies**:

- **4-bit micro-processor**: Design and Implementation of a 4-bit micro processor having 28 instructions as part of the Digital System Design Course.
 - **Computer based ECG**: Design and Implementation of a Computer Sensed ECG System.
 - **3D Cricket Game**: 3D implementation of a cricket match. The game starts in a ground with gallery full of visitors. Detailed Models, day and night lighting, shading and material textures are enabled in the models. Open GL is used as API and the development tool is Visual C++.
 - **Management Information System for Schools**: Total Software Solution for running a school with HR and Accounting module. Microsoft Access and C# .NET platform was used to implement the software.
 - **Remote PC Controller Software for Bluetooth enabled Mobile Phone**: A desktop and mobile software bundle to control PC from Mobile device. C# .NET was used for PC end and j2me, jsr 82 was used in mobile end.
 - **Prototype OS Implementation**: Implemented Boot loader, Multithreading, IPC primitives, Multiprogramming, Scheduling, Console and Virtual memory related tasks on top of both real x86 machine and Nachos Instructional Operating System.
 - **Full Featured Online Group**: This is a clone of yahoo groups with full facility of post message, file sharing, user management, photo album management. Oracle was used as a database and ASP .NET was the platform to implement the websites.
 - **Implementation of OSI Layers**: This is an implementation of Physical Layer, Data link Layer and Network layer of OSI based protocol stack. Data link layer and Network layer was developed using Java.
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