



Bangladesh Accreditation Council

Profile of Academic Auditor



1. **Name:** Professor Dr. Md. Fokhray Hossain

2. **Employment Record:**
(starting with the latest)

2.1 Current position in 1st July 2023 till today:

Professor
Department of Computer Science and Engineering (CSE) &
Director, International Affairs
Daffodil International University (DIU)

2.2 10th September 2022 to 30th June 2023:

Professor
Department of Computer Science and Engineering (CSE),
Dean, Faculty of Science and Information Technology (FSIT)
& Director, International Affairs
Daffodil International University (DIU)

2.3 2018 to 10th August 2022:

Employer: Daffodil International University (DIU)
Position held: Associate Dean Faculty of Science and Information Technology (FSIT)
Daffodil International University (DIU)

2.4 1st January 2017 to 31st December 2017:

Employer: Daffodil International University (DIU)
Position held: **Director**
Institutional Quality Assurance Cell (IQAC)

2.5 1st July 2015 to 31st December:

Additional Director
Institutional Quality Assurance Cell (IQAC)
&

Director, International Affairs

2.6 November 2013 to till 31st December 2016

Employer: Daffodil International University,
Position held **Director International Affairs &
Professor & Head, Department of Natural Sciences**

2.7 November 2009 to 31st October 2013

Employer : Daffodil International University (DIU)
Position held : **Registrar, Administration &
Professor, Computer Science and Engineering (CSE)**

2.8 November 2012 to April 2013

Employer : Daffodil International University (DIU)
Position held : **Head (In-charge) & Associate Professor**
Department : **Software Engineering (SWE)**

2.9 May 2008 to November 2009

Employer : Daffodil International University (DIU)
Position held : **Head and Associate Professor**
Department : **Computer Science and Engineering (CSE)**
Description of duties : Look after all academic activities of **B.Sc. CSE, M.Sc. in CSE** and also **MS in MIS** (Management Information System) program.
Teaching areas : Web and e-commerce, e-business, e-education, Management Information System (MIS), Computer Fundamentals, Database, Operating System, Digital Electronics, Computer Architecture and Organization etc.

2.10 March 2002 to April 2008

Employer : Daffodil International University (DIU)
Position held : Assistant Professor (Part Time)
Department : MS in MIS in CIS
Description of duties : Look after all academic activities of MS in MIS (Management Information System) program.
Teaching areas : Web and e-commerce and Management Information System (MIS)

2.11 1999 to April 2008

Employer : Daffodil Institute of IT (DIIT)
Position held : Academic Director (Full Time)
Description of duties : Look after all academic activities of *the* institutions

2.12 2000 – 2002

Employer : *Daffodil Institute of Information Technology (DIIT)*
Position held : Vice Principal & Head of *B.Sc. in Computer Science*

Description of duties : Responsible for following subject area:-

- Assist the top management in every responsibility
- Report to the top management
- Conduct the courses of DIIT
- Monitor and guide the performance of the teachers
- Solving students academic problems
- Taking classes of the students specially in absent of any teacher
- Controlling the examination and tests
- Controlling and managing new admissions
- Admit any potential student at DIIT
- Any special assignment given by the management
- Recruitment of the best faculty in DIIT
- Conduct the final viva for any Institute under National University.

2.13 2000 - 2002

Employer : *Daffodil Institute of Information Technology (DIIT)*

Position held : Faculty member of, *B.Sc. in Computer Science*

Description of duties : Responsible for following subject area:-

- Analogue Electronics
- Principles of Digital Electronics
- Electrical Circuits & Analyses
- Computer Fundamental

2.14 2000 - 2002

Employer : IT institute, Jahangirnagar University (JU)

Position held : Member of Syllabus Committee

Description of duties : Responsible for following subject area:-

- The Jahangirnagar University syndicate decided on the 6th of June 2000 realizing the importance of IT education to involve some IT specialists in the Course Committee of Computer and Information Technology Institute of JU to develop the IT education for postgraduate diploma. I was selected one of the honorable members of that committee for two years (Until 31st May 2002) to given valuable advice how to develop IT education in JU as a global standardization.

2.15 2002

Employer : *University of Puna (UP), India*

Position held : Supervision for M.Sc. thesis in **Computer science**

Description of duties : Responsible for following subject area:-

- Web Based Garment Management System

2.16 2001

Employer : *Jahangirnagar University (JU), Bangladesh*

Position held : Supervision for B.Sc. thesis in **Electronics and Computer Science**
Description of duties : Responsible for following subject area:-

- Automated System for Airline Ticket Booking.

2.17 2002

Employer : *Daffodil International University (DIU)*
Position held : Faculty member, *B.Sc. in Computer Science and Engineering, Computing and Information System & also Department of Business Administrator.*
Description of duties : Responsible for following subject area:-

- Computer Fundamental and E-Commerce

2.18 1993 - 1998

Employer : *University of Glamorgan, UK (Currently, University of South Wales)*
Position held : Research Scholar in the School of Computing & School of Applied Science
Description of duties : Experience on the following area both in School of Computing & School of Applied Science:-

- **Experimental work with Modern computerized FT-IR spectroscopy:** Modern computerized FT-IR spectroscopy may be considered in two stages, Firstly the FT-IR spectrometer and secondly the computer which generates the spectrum and may be used for subsequent manipulation. The Fourier-transform infrared (FT-IR) spectrometer is based on the Michelson interferometer.
- The computer may be incorporated within a FT-IR or may be self-standing and amenable to communication by disk transfer of network connection and is used to display spectra on the computer screen and also gives some of the experimental results such as transmittance versus wavenumber, absorbance versus wavenumber peak height, or area of the spectral bands. The computer permits file transfer using the JCAMP.DX protocol.
- **Experience on Computing: a) Computing language Modula-2:** Modula-2 is a computer program language. It is easy to understand and develop a textual or source program by using Modula-2 language. A textual or source program "CompFok" has been written to convert the JCAMP.DX file into two-column X,Y format which can then be read into a number of packages and particularly into EXCEL which is widely used as one of the suite of packages within "Microsoft Office" and within which the components readily convert into word processing, spreadsheet and slid preparation packages.
- **b) Application of Software's: Chem-X (Molecular Modelling Package):** The Chem-X software package developed by Chemical Design Ltd provides a combination of computation and visualisation facilities for molecular modelling and database applications. This package provides opportunities to build different molecular structure models on a computer screen and to determine a variety of properties of that structure including MM and VDW.

- Chem-X software incorporates molecular mechanics methods. Computations are based on the laws of classical physics.
- **Gaussian 94 (Molecular Optimise Geometry & frequency Calculation Software, Operated by PC system):** This is a particularly powerful package developed over many years by a large team at Pittsburgh led by Pople. It follows the basic assumptions of quantum mechanics that any system is fully described by the Schrodinger wave equation. The inputs are properties of atoms defined by atomic number and properties of electrons defined by atomic and molecular orbital. The calculation can be performed at a number of levels defined by basis sets. For a molecule, Z matrix defining the initial geometry and the output of the calculation defining the more stable optimise geometry of the molecule.
- Gaussian 94 software incorporates *Ab initio* methods and computations are based on the laws of quantum mechanics.
- Calculate optimise geometry of a molecule including bond length, bond angle and dihedral angle etc.
- Calculate frequencies of bonds of the molecules. Frequency calculations also may predict zero point energy, thermal energy, electronic energy, rotational constant etc. We may able to calculate H-bond energy.
- This software also predict the parameters of the transition state structure.
- **Gamess-UK (Molecular Optimise Geometry & frequency Calculation Software, Operated by Unix system):** GAMESS-UK is a general purpose *ab initio* molecular electronic structure program for performing SCF - and MCSCF - gradient calculations, together with a variety of techniques for post Hartree Fock calculation. On - going development of the code is carried out at Daresbury , with the program currently available on a wide range of machines, a variety of UNIX workstations. The molecular modelling optimise structure and geometrical parameters are identical with 94 software.
- **JCAMP.DX:** The advent of modern computing power led to recognition some years ago by McDonald and Wilks that it was highly desirable to have a universal protocol into which data from any instrument could be converted which could then be read by another instrument or free standing computer suitable equipped with appropriate systems. Agreement was sought by international bodies towards standardisation and this has been partly achieved. It was considered desirable that the standard file system was in ASCII text form in order that files were readable and easily edited.
- **CompFok:** "CompFok" is a general program designed for the conversion of a spectrum from any instrument which can be converted into JCAMP.DX. When "CompFok" program is run it should separate JCAMP.DX text file into a two-column format if there is no error in the program. We may also able to manipulate any spectral

graph from two-column format. This two-column format is also applicable to the PeakFit software.

- **Listasc:** "CompFok" is a general program designed for the conversion of a spectrum from any instrument which can be converted into JCAMP.DX. Many instrument manufacturers have developed specific software for their own products. In particular Perkin Elmer have developed a package "Listasc" which converts spectra from a modern Perkin Elmer spectrometer into a form which is readable by EXCEL. The input files are in the Perkin Elmer instrument binary format designated by the file extension *.SP. The package therefore permits export of spectra from modern Perkin Elmer instruments into EXCEL and thence into other related packages.
- **Excel:** The EXCEL spreadsheet has become highly useful for the large variety of manipulations within it and for the ease with which it will convert into other spreadsheets such as Lotus 1, 2, 3 which is a large PC based package or into small palmtop systems such as the Psion 3a. Such spreadsheets are themselves effectively powerful computing packages for better conversion and chart presentation of spectroscopic and other information.
- **PeakFit:** PeakFit is designed to separate and analyse multiple peak or functional form data. PeakFit uses sophisticated non-linear curve fitting techniques to ensure accurate determination of peak parameters such as area, amplitude etc., as well as to distinguish overlapping peaks.
- **Grams/32 or Grams/386:** Grams/32 is a software package developed by Galactic Industries which contains many different kind of applications. It readily interconverts between a large number of file formats and is capable of searching spectral files against spectral libraries providing these are in compatible formats. It also includes a curve fitting application which is comparable but more comprehensive than that is Peakfit . This application can fits a number of ideal peak using a variety of mathematical functions to measured data. The application of the Grams/32 software to the curve fitting problem posed in the spectrum.
- **Standford Graphics:** Standford Graphics is a statistical software package which has different kinds of applications including a linear or polynomial regression which can determine the parameters associated with the best fit of measured information against the appropriate mathematical relationship. This is useful for calculations such as the determination of the limiting extinction coefficient at infinite dilution by suitable extrapolation from finite dilution.
- **Techni-Curve:** This software is almost similar to stand ford graphics. It is convenient to use stand ford graphic than Techni-Curve.

2.19 1996 - 1998

Employer
Position held

: *Interpreter Agencies, Cardiff, UK*
: Bengali Interpreter

Description of duties :

- Work for different police station in UK as a Bengali Interpreter
- Work for Crown Court and also Magistrate Court at different part of UK as a Bengali Interpreter.

2.20 1996 - 1998

Employer : *Bengali Community School, Cardiff, UK*

Position held : Senior Faculty

Description of duties :

- Science teacher

2.21 1991 - 1993

Employer : *Dhaka University ,BIRDEM, Bangladesh*

Position held : Research Fellow

Description of duties : Experience on the Biophysics research work:-

- **Research works in Biophysics:**
- Study of nerve conduction velocity measurements of human body for diabetic and non-diabetic persons, 1991-1992, Dhaka University & BIRDEM, Bangladesh.
- Study on Electro Retina Gram (ERG) on human eye by using computerized equipment. 1991-1992, Dhaka University & BIRDEM, Bangladesh.
- Study on Visual Evoked Potential on human brain by using computerized equipment. 1991-1992, Dhaka University & BIRDEM, Bangladesh.
- Study of Hyperhidrosis disease treatment by iontophoresis, 1992-1993, Dhaka, University & BIRDEM, Bangladesh.

3. Academic Credentials

(starting with the latest)

Degree	Subject	Name & Address of the Institution
PhD	Applied Science & Engineering.	University of Glamorgan, UK
MSc	Physics	Jahngirnagar University (JU), Savar Dhaka
BSc	Physics	Jahngirnagar University (JU), Savar Dhaka

4. Training/workshop on Quality Assurance attended as participant

(starting with the latest)

QA Areas	Organized by	Year & Duration
<i>Quality Assurance in Higher Education</i>	Edu Leads Consulting in Malaysia	2015, Two Week Program

<i>Academic Standards and Quality</i>	NCC Education, UK	2005, One Week Program
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5. Training/workshop on Quality Assurance organized as resource person (starting with the latest)

QA Areas	Organized by	Year & Duration
Quality Assurance, SAR, OBTL etc.	Daffodil International University (DIU) as a Director of IQAC.	2015 to 2017

6. Experience in External quality assessment/External Peer Review of academic program (starting with the latest)

I have experience as an External Peer Review both in Public and Private Universities in Bangladesh as a Director of IQAC between years 2015 to 2017.

7. Other experience that best illustrates your capability as QA professional (starting with the latest)

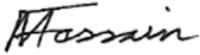
Dr. Hossain has completed different **Overseas Training and Academic Exchange Program** on:

- i) "Academic Staff Exchange" program on *The Impact of e-business in Asia* at Chitkara University, **India**, October 2019.
- ii) Academic Staff exchange for "*Quality Education*" through Erasmus+ in Staffordshire University, **UK** 2018,
- iii) "*International Convention for Student Quality Circles (ICSQC)*" in **Sri Lanka** 2017
- iv) IQAC training on "*Quality Assurance in Higher Education*" through Edu Leads Consulting in **Malaysia** 2015,
- v) "*Asian Summer Program (ASP)*" on *The Impact of e-business in Asia* in University Malaysia Perlis (UniMap) in **Malaysia** 2014,
- vi) "*Time Management and Introduction to HRM*" through PUM, **Netherlands** and DIU 2008
- vii) "*Academic Standards and Quality*" through NCC Education, **UK** 2005
- viii) "*e-business Model and Strategy*" through DGFKTC scholarship in **South Korea** 2004,
- ix) "*English Language Training*" through British Council, **UK** 2003
- x) "*Digital Telecommunication Technology*" through AOTS scholarship in **Japan** 2000.
- xi) **Research Publications:**

<https://faculty.daffodilvarsity.edu.bd/profile/cse/fokhray.html#Publication>

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(Signature)

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