

CURRICULUM VITAE

PERSONAL INFORMATION

Name **Mohammad Sultan Mahmud**
Date of birth 1st March, 1979
Nationality Bangladeshi
Marital status Single
Mailing address 47 Maple House, Sussex Road,
Dublin 04, Ireland.
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WORK EXPERIENCES

- Assistant lecturer and laboratory supervisor of 1st year physics and engineering students at Dublin Institute of Technology, (DIT) in Ireland.
- Computer laboratory supervisor in the Faculty of Business at DIT in Ireland.
- Internship and student job experiences at Siemens AG and OSRAM GmbH in Germany.
- Strong skills in optoelectronics and LC devices, materials preparation and characterization, device fabrication, holographic storage medium and materials, humidity sensor, circuit design, UV/Vis spectroscopy, spectrum analyzer, high power Lasers, interferometry, biomedical optics, optical fiber systems and fiber networking.
- Expert in programming with LabVIEW and good knowledge in MATLAB.
- Teacher assistant and a translator (German to English) at Aalen University in Germany.
- One year job experience as a junior programmer in a company in Bangladesh.

EDUCATIONAL BACKGROUND

Researcher, (PhD student) *(Thesis to be submitted in September 2009)

Institution Dublin Institute of Technology, DIT, Ireland
Department Physics
Current Thesis: **“Using Phase-coded Multiplexing technique for recording and retrieving data from an acrylamide-based photopolymer for secured data storage.”**

Awards: “Full research Scholarship in the Faculty of Science, 2005-2009”

Publications: **Attached at the end.**

Master Of Science in Photonics, 2005

Institution Aalen University of Applied Sciences, Germany
Department Opto-Electronics

Results GPA: **2.20** in a scale of 1.00. (Equivalent to 73%)
Majors: Lasers and Light Sources, Optical networking and systems,
Optical technology, biomedical optics & Digital Signal Processing

Master's Thesis: **“A phototransistor operated in Avalanche mode as a photocurrent amplifier (substitute of APD)”**

Project: “Spectral dispersion of light and diffraction gratings”

Awards: **“Baden-Württemberg state Scholarship in Germany, 2004”**

Bachelor Of Science, 2002

Institution Bangladesh University of Engineering and Technology
Department Electrical and Electronic Engineering
Results 1st Class (GPA: 3.22 out of 4.00)
Majors: Digital techniques, Advanced Electronics, Electrical Circuits & Systems, Electrical Machines, Telecommunication Engineering.

Project & Thesis: “Economical and Financial Impact of Load Shading In Bangladesh”

Higher Secondary Certificate Examination, 1995

Institution Dhaka College
Board Dhaka
Results 1st Division (Marks: **84.6%**)

Secondary School Certificate Examination, 1993

Institution B.A.F Shaheen College, Kurmitola
Board Dhaka
Results 1st Division (Marks: **85.8%**)

LANGUAGES

English-Excellent (IELTS: 6.5); German-Advanced; Bangla-Mother Tongue; Hindi/Urdu –Moderate.

INDUSTRIAL TRAINING

Company: **Siemens AG**, Automation & Drive (A& D), Fürth, **Germany**
Duration: 7 months (30 weeks)
Duties: “Designing and performance testing of high speed data transmission between wired cables and optical fibers”

Company: **OSRAM GmbH**, Automotive Lighting, Herbrechtingen, **Germany**
Duration: 8 Weeks
Duties: “Measure resonance frequencies and other environmental effects (temperature effect, SO₂ test) on different types of lamps”

Company: **A Global Source**, Dhaka, Bangladesh
Duration: 1 year
Duties: “Worked as a junior programmer”

COMPUTER LITERACY

Operating System:	DOS, Windows 98/2000 and NT
Programming:	FORTRAN, C/C++, LabVIEW, Assembler, Pspice, MATLAB
Database Management:	Oracle, SQL
Office Package:	MS Word, MS Excel, MS Power Point, MS Access
Graphical Package:	Adobe Photo Shop and Illustrator, HTML
Computer Design:	Paint Shop pro, Eagle (Circuit Design)
Networking:	Optical fibre networking; LAN & WAN
Hardware:	User-level hardware diagnosis, trouble shooting and maintenance

SPORT'S ACHIEVEMENTS

- Two times Nazrul Islam Hall's Badminton champion
- One time hall chess runner-up

EXTRA ACTIVITIES

- Secretary of sports and computer users club of Nazrul Islam Hall, BUET
- Member of 'BUET' 'Photographic Society
- Was a regular member of the Hall Football and Debating Team
- Led Group Discussion on various topics & made important interventions

PERSONAL ATTRIBUTES

- Self-confident and being positive
- Can work independently or within a minimum supervision
- Open minded in adapting to new and challenging situations
- Ability to work in teams and maintain effective communication

REFEREENCES

- **Professor Dr. Vincent Toal**, Dublin Institute of Technology, Dept of Physics, Dublin-08, Ireland. Email: vincent.toal@dit.ie ; Tel: +353-(0)14024560.
- **Dr. Izabela Naydenova**, Dublin Institute of Technology, Dept of Physics, Dublin-08, Ireland. Email: izabela.naydenova@dit.ie ; Tel: +353-(0)14027925.
- **Dr. Raghavendra Jallapuram**, IEO Group, Focas Institute, DIT, Camden Row, Dublin-08, Ireland. Email: j.raghavendra@dit.ie ; Tel: +353-(0)14027926.

I, hereby assure that the statements mentioned in this CV are true in the best of my knowledge.



Dublin, Ireland.

Mohammad Sultan Mahmud.

List of publications, proceeding and conferences

Journal Publications

1. **Mohammad Sultan Mahmud**, Izabela Naydenova and Vincent Toal, 'Implementation of phase-only modulation utilizing a twisted nematic liquid crystal Spatial light modulator', **J. Opt.A: Pure Appl. Opt.**10, (2008). <http://www.iop.org/EJ/abstract/1464-4258/10/8/085007/>
2. **Mohammad Sultan Mahmud**, Izabela Naydenova, Nitesh Pandey, Tzwetanka Babeva, Raghavendra Jallapuram, Suzanne Martin and Vincent Toal, 'Holographic recording in acrylamide photopolymers–thickness limitations', **Appl. Opt.**, Vol. 48 (14), pp.2642-2648, (2009). <http://www.opticsinfobase.org/ao/abstract.cfm?URI=ao-48-14-2642>
3. **Mohammad Sultan Mahmud**, Izabela Naydenova, Tzwetanka Babeva, and Vincent Toal, 'Determination of threshold intensity for recording holograms in acrylamide based photopolymers', -editorial phase.

Conference poster presentations

4. **Mohammad Sultan Mahmud**, Izabela Naydenova and Vincent Toal, 'Characterization of a commercially available twisted nematic liquid crystal spatial light modulator.' **Institute of Physics in Ireland, (IOP)**, Spring Weekend Meeting, 30th March-1st April, 2007, Ireland.
5. **Mohammad Sultan Mahmud**, Izabela Naydenova and Vincent Toal, 'Characterization of a commercially available twisted nematic liquid crystal spatial light modulator.' **Photonics Ireland 2007**, Galway Bay Hotel 24 –26 September 2007, Ireland.
6. **Mohammad Sultan Mahmud**, Izabela Naydenova and Vincent Toal 'Implementation of 180 degree phase-shift with constant intensity transmission from a commercially available twisted nematic liquid crystal spatial light modulator.' **IOP Spring meeting**, Carrickmacross, Co. Monaghan, Ireland, 7-9, March 2008. **Best poster competition selected for the final round.**
7. **Mohammad Sultan Mahmud**, Izabela Naydenova and Vincent Toal 'Implementation of 180 degree phase-shift with constant intensity transmission from a commercially available twisted nematic liquid crystal spatial light modulator.' **Photonics North-West Conference**, 7-8 May, 2008, Manchester, England.
8. **Mohammad Sultan Mahmud**, Izabela Naydenova, and Vincent Toal, 'Holographic recording in thick photopolymer layers, **Proceeding, International Conference PR '09** Photorefractive Materials, Effects, and Devices. June 11-14, 2009, Bad Honnef, Germany.