S M FIJUL KABIR (MAHIN)

Wilson College of Textiles
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EDUCATION

PhD **Mar 2021**
Fiber and Polymer Science | CGPA: 3.952/4.00
NC State University, Raleigh, NC, USA
Research: Mechanics of 3D printed fiber-reinforced composites

MS **May 2018**
Textiles & Applied Statistics | CGPA 4.00/4.00
Louisiana State University, BTR, LSU, USA
Research: Waste management by waste: removal of acid dyes from wastewaters of textile coloration using fish scales

BS **Jul 2013**
Textile Engineering | CGPA 3.65/4.00
University of Chittagong, Chittagong, Bangladesh
Research: Production optimization through line balancing and layout of sewing machine for a basic T-shirt

ACHIEVEMENTS & SCHOLARSHIPS

Achievements

- First merit position among the apparel major undergrads, University of Chittagong, Bangladesh (BD)
- First merit position in the written test of 'Textile Talent Hunt', 2012 (among 400+ participants from different universities in BD)

Scholarships

- TA/RA, 2018-2019, NC State University
- Sweden-Bangladesh Travel Grant, 2020, BD
- DE Fellowship, 2018-2019, NC State University
- Neva Olsen Nolen Grad Scholarship, 2016, LSU
- UGC Merit Scholarship, 2008-2011, BD
- Ibn-Sina Trust Scholarship, 2010, BD

INTERPERSONAL SKILLS

Leadership, Collaboration, & Volunteering

- Founding president, CTEC English Club, BD
- 3 internal and external research projects
- 2 industrial collaborations, and 4 industrial visits
- Four invited talks in BD and USA Member & Treasurer, BACABANA, NC, USA
- Member of SPE, NC, USA
- Former member & Treasurer of AATCC, LSU
- Volunteer, Anirban (BD), BSA & MGSA (LSU)
- Invited Reviewer for 12 journals

Professional Development (PD)

- Earned 9+ PD certifications & 20+ workshops
- Provided training on 3D printing
- Developed SOPs for 3D Printing Lab, NCSU

EXPERIENCE

Industry

R & D Officer **Jul 2013-Oct 2013**
Amazing Fashion Limited, Gazipur, Bangladesh

- Reduced production bottleneck by balancing sewing line
- Reduced cost per minute via time study
- Implemented workplace management tools such as 5S

Intern **Jan 2013-Mar 2013**
Knit Concern Ltd., Narayangonj, Bangladesh

- Optimized costing and fabric consumption for apparel production
- Developed sewing line plan & line balancing for apparels
- Managing production lead time through time study analysis

Academic

Graduate Assistant and Instructor **May 2019-May 2021**
NC State University, Raleigh, NC, USA
Graduate Teaching Assistant **Aug 2016-May 2018**
Louisiana State University, Baton Rouge, USA
Lecturer **Nov 2013-Jul 2016**
BUFT, Dhaka, Bangladesh
SMUCT, Dhaka, Bangladesh

- Designed a number of courses, including lecturer, lab, quiz & exam
- Evaluation of students' performance
- Advising and mentoring undergraduate and graduate students

Research

Research Assistant **Aug 2018-May 2021**
3D Printing Lab, Wilson College of Textiles, NC State University
Research Assistant **Dec 2013-Aug 2018**
Md Abdul Hannan's Lab, DUET, Gazipur, Bangladesh

- Published peer-reviewed articles in referred journals: 18
- Presentations in national and international conferences & seminars: 8
- Google scholar citations: 225+
- Contributed and supported in invention disclosure: 1
- Contributed and supported in writing external research grants: 3

TECHNICAL SKILLS

Fabrication / Manufacturing

Skill	Rating
Additive manufacturing (FDM)	★★★★★
Textile manufacturing (fiber, yarn, fabric & apparel)	★★★★★
Polymer and/or fiber-reinforced composites	★★★★☆
Performance evaluations of textiles and composites	★★★★★

Metrology / Materials Characterization

Skill	Rating
Surface: SEM-EDS, X-ray nano-CT, Optical Microscopy	★★★☆☆
Spectroscopy: UV-Vis, FTIR & NMR	★★★☆☆
Thermal: DSC & TGA	★★★☆☆
Mechanical: MTS and CEAST	★★★★☆
Textile Testing (Physical and Chemical)	★★★☆☆

Programming / Software

Skill	Rating
3D printing	★★★★★
MS Office	★★★★★
JMP Pro	★★★★☆
Statistical Data Analysis	★★★★☆
ImageJ	★★★☆☆
Learning Management System	★★★★☆
CAD (Solidworks and Tinkercad)	★★☆☆☆
Python and SAS	★★☆☆☆