

IMON KHAN

ikhan3@ncsu.edu | +1 919-561-4004

<http://linkedin.com/in/imonkhan>

Professional Experience

Research Assistant

The Nonwovens Institute, NC State University

Aug. 2017 – Present

- Investigate polymer interactions in blends and their effect on fiber spinning and properties.
- Determine manufacturing process parameters of thermoplastic fibers through compounding and extrusion.
- Develop prediction tools for new materials development for fiber, plastics and recycling industry.
- Conduct materials characterization and analyze performance (i.e. melt, thermal, optical and mechanical).

Research and Innovation Intern

Welspun USA, Inc.

June 2016 – May 2017

- Assessed market landscape for advanced materials and innovative technology in textile and apparel industry.
- Identified innovation trend in manufacturing, product features and wrote 3 proposals to develop new material.
- Collaborated with product development leads and evaluated technical feasibility of their innovation projects.

Component Production Leader

DECATHLON

Feb. 2013 – Aug. 2015

- Led soft material development projects and approval (of performance knit for sportswear) with 20+ suppliers.
- Worked with yarn/fabric mills and chemical suppliers to ensure material quality and cost competitiveness.
- Engaged cross-functional teams to resolve issue in material manufacturing and wrote SOPs.
- Drove sourcing strategies, evaluated supplier capabilities for risk mitigation and delivered briefings.
- Analyzed material costing, led cost negotiation with vendor and trained stakeholders on toxicology.

Technical Business Development Leader

BASF

Dec. 2010 – Feb. 2013

- Served as a technical consultant to 100+ textile mills (i.e. in knitting, weaving, dyeing, printing and finishing).
- Supported plants through frequent visits to scale, develop functionality and achieve required performance.
- Developed and tested improved composition of custom recipes followed by successful realization in production.
- Identified industry trend, aided in new launches, owned budgeting and evaluated commercialization performance.
- Built networks with material suppliers/apparel brands, academia and promoted sustainable solutions.

Dye House Officer

COATS

July 2010 – Dec. 2010

Controlled the dyeing process of polyester, nylon, and cellulose yarns, analyzed failures, revamped a coloration technique, achieved RFT color quality, and participated in planning of large scale production.

Education

Ph.D., Fiber and Polymer Science | North Carolina State University

Nov. 2020 (expected)

Dissertation: Fundamental study on polymer compatibility of polymer blends and their effects on melt-spinning process and fiber/nonwoven properties.

M.S., Textile Engineering | North Carolina State University

Aug. 2017

Thesis: Molecular dynamics simulation of nanoparticle dispersed PEO polymer electrolytes for Li-ion battery.

B.S., Textile Technology | University of Dhaka, Bangladesh

June 2010

Skills and Interests

Computer: JMP, Materials Studio, TRIOS, Spectrophotometer and SedoMaster.

Technical: Polymer Blend, Extrusion, Compounding, Finishing, Instron, DSC, SEM, & Textile Manufacturing Processes.

Languages: English (proficient) and Bengali (native).

Interests and Affiliations: New process/product concept, innovation; member of SPE, SoR and ACS.

Conference Presentations, Trainings and Additional Experiences

- Stage-Gate process experience (i.e. designed and developed a fabric based heater prototype).
- Lean Six Sigma Green Belt trained, presented in 8 conferences and volunteered as Lead at NC State B Corp Clinic.
- Nonwoven Science and Technology certificate (The Nonwovens Institute, NC State University).
- Trained on standard testing and yarn/fabric processing parameters in France, Vietnam, China and India.
- BASF Asia Pacific 'Certificate of Merit' for developing a Resin Finish process leading to 1M euro sales.