

TAHREEM BEG
Department of Textile Engineering
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SUMMARY OF QUALIFICATION

Lecturer and Researcher aiming to earn a Ph.D. in Textiles. Former Product Developer, who was responsive to urgent demands and customer communications and met tight deadlines of new developments and samples of export home-textiles. An excellent researcher with experience in primary and secondary research, experimental and statistical analysis

PROFESSIONAL EXPERIENCE

- Intern at **AL-KARAM Textile Mills (1 month)** in Yarn Spinning Department
- Worked on Final Year Project in Gul Ahmed Textile Mills based on **Six Sigma and Wastages reduction of Stitching line (1 year)**
- Worked at **Yunus Textile Mills** as a **Product Development Merchandiser** of export home-textiles.
- Worked as **Assistant Manager Marketing** at **Gul Ahmed Textiles** of export home-textiles.

TEACHING EXPERIENCE

- Teaching at undergraduate level in **NED University of Engineering and Technology** as a **Lecturer** since 2018:
 1. Textile Product Evaluation
 2. Textile Finishing
 3. Thermodynamics
 4. Material Science
 5. High Performance Fibres
 6. Textile Dyeing
 7. Pre-treatment of Textiles
 8. Garment Manufacturing
 9. Textile Merchandising and Management
- Textile Testing Lab In-charge
- Textile Wet Processing Lab In-charge
- BS Final Year Project Committee member
- Assistant Manager **ORIC (office of Research, Innovation and Commercialization)** **NED University of Engineering and Technology** since 2019

RESEARCH EXPERIENCE

1. Implementation of green supply chain in cotton terry industry by value

stream mapping (VSM) and lean methodology. in collaboration with **International Textiles Pvt Ltd.**

2. Tensile and flexural properties of spinning waste reinforced cement based composites. In collaboration with **Gul Ahmed Textile Mills**
3. Implementation of six sigma and Kaizen in waste reduction of stitching floor of home textile. in collaboration with **Yunus Textile Mills**
4. Development of cost of poor quality framework for a denim-based textile industry. In collaboration with **Soorty Enterprises Pvt Ltd.**
5. Investigation into experimentation of denim-based sludge wasters in structural applications. In collaboration with **Artistic Milliners.**
6. To develop the finishes from lotus plant using seeds and pods and its evaluation on different textile fabrics. In collaboration with **Alkaram Textile Mills.**
7. Ecofriendly dyeing of biodegradable polyester fabric using natural Dyes in collaboration with **Yunus Textile Mills**
8. Re-utilization of surgical masks to be used as geotextile in reinforcement of soil structures
9. To investigate the effect of bagasse and polypropylene fibres on the performance of asphalt mixtures
10. Eco-friendly dyeing of cotton fabric and blends using salt-free multifunctional dyeing approaches in collaboration with **Gul Ahmed Textile Mills**
11. Utilization of textile polyester waste in cement mortar composite
12. To investigate the effects of different denim washes on degradation behavior of pumice stone in collaboration with **Soorty Enterprises.**
13. To develop a measurement system to analyze “Environment Impact” from the home-textile industry’s dyeing department. In collaboration with **Jeanologia**
14. To study and develop a quality management system for the dyeing department. In Collaboration with **J. P. Coats, Pakistan.**
15. Cost-effective bleaching of 100% cotton knitted fabric. In collaboration with **Alkaram Textile Mills**
16. Experimental and numerical analysis of thermal properties of textiles
17. Development and optimization of bio-based scouring process for sustainable pre-treatment of cotton at **Archroma Pakistan**
18. Optimization of enzymatic processes for the removal of indigo dye from denim wastewater with **Soorty Enterprises Pvt Ltd.**

RESEARCH PUBLICATIONS

Author:

1. Utilization of textile denim sludge waste in high load-bearing structural applications. Doi: <https://doi.org/10.14314/polimery.2022.7.2>
2. Class C fly ash as a substitute for mineral fillers in asphalt mixtures. Doi: <https://doi.org/10.14314/polimery.2022.9.5>

3. Sustainable technique of dyeing bio-degradable polyester using henna extract. Doi: <https://doi.org/10.1108/PRT-02-2023-0015>
4. Enhancement of hot mix asphalt (HMA) properties using waste polypropylene.
5. Study on the effects of cellulosic fibre reinforcements on tensile and flexural properties of fibre-reinforced mortar.
6. Salt-free multi-functional dyeing approaches for cotton and CVC fabrics with direct and reactive dyes using Chitosan and Keratin
7. Experimental investigation of different denim washes on stones, denim fabric, and effluent discharge

Reviewer:

1. Pigment and Resin Technology
2. Fibers and Polymers

AFFILIATIONS AND AWARDS

- Overall **8 band in IELTS** Academic- June, 2023 (Speaking: 7.5, Reading 8.5, Listening: 8.5, Writing 6.5)
- Proficient with Microsoft Word, Excel, Access, PowerPoint, Minitab
- Certified **LanguageCert** Level 1 (Listening, Reading, Writing, Speaking) (Communicator B2) with the score of **High Pass**.
- Completed short courses with distinction on the following topics:
 - Advanced Probability and Statistics
 - Advanced Material Analytical Techniques
 - Research methodologies
 - Polymer Degradation and Recycling
 - DOE (Design of Experiment)
 - FEA (Finite Element Analysis)
 - Physical Properties of Fibre-forming Polymers
 - Recycled Polymers for Functional Applications
- Awarded with the trophy of Student of the year at NED University in 2014 by AATCC.
- Team player in volleyball team for 6 years in school and college
- Certified Six Sigma Green Belt.
- Awarded scholarship by university on outstanding academic performance in 2012.
- The project “Tensile and flexural properties of spinning waste reinforced cement based composites” won 3rd prize at 5th DICE Textile 2020.
- 2nd position in the batch of BE Textile Engineering.
- Deputy Marketing Head of textile-based committee **AATCC** (American Association Of Textile Chemists And Colorists) in the

year 2013

- Lifetime member of **PEC** (Pakistan Engineering Council)
- Teacher's Training certification arranged by QEC NEDUET
- Research and Development training arranged by QEC NEDUET

RESEARCH INTEREST

- Polymer recycling
- Nanofabrication
- Experimental and numerical analysis
- Thermal management

EDUCATION

- **PhD Scholar** in textile recycling and thermal management at **NED University of Engineering and Technology** (currently enrolled)
- **Masters in Industrial Management** from **NED University of Engineering and Technology** with a **CGPA of 3.67**
- **Bachelors in Engineering** from **NED University of Engineering and Technology** with TEXTILE MAJORS: **CGPA: 3.802** (2nd position in the Batch)
- Bahria College Karsaz (Federal board of Intermediate and Secondary Education), passed with an **A grade**
- Habib Girls' School (Aga Khan Board of Intermediate and Secondary Education) passed with an **A-1 grade**