

Ateeq ur Rehman

- PhD (Thesis submitted), University of Edinburgh (UoE), UK
- Lecturer (On study leave), National Textile University (NTU), PAK
- Researcher in Engineering, Materials, Textiles, and Bioinspired Design

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Summary

A PhD researcher at the University of Edinburgh (UoE), with the thesis submitted and viva scheduled for 20th January 2026, specialising in the study of fabric architecture in natural structures to design multifunctional bio-inspired materials, predominantly for textile applications. I hold both Master's and Bachelor's degrees in Textile Engineering, with my Master's research focusing on the impact of different fabric dyeing routes on fabric comfort properties. I previously served for seven years as a Lecturer at the National Textile University, during which I published research in textiles and garments, including a book chapter on textile material testing. I am an Associate Fellow of the Higher Education Academy (AFHEA), with experience teaching multidisciplinary engineering subjects at the University of Edinburgh. My research has been published in leading Q1 peer-reviewed journals, and I have developed strong academic writing, communication and mentoring skills. I am passionate about delivering high-quality research, and I seek to advance my academic career through new opportunities and responsibilities.

1 ACADEMIC QUALIFICATION

Qualification	Specialisation	Year	Institute
PhD	Engineering (Materials)	Thesis submitted	University of Edinburgh, UK
MSc	Textile Engineering	2017	National Textile University, PAK
BSc	Textile Engineering	2006	National Textile University, PAK

2 EXPERIENCE

Position	Organisation	Duration	Responsibilities
Assistant Teacher	University of Edinburgh, UK	Jan 2022 – Dec 2024	Teaching, demonstration, and marking
Lecturer	National Textile University, PAK	Oct 2014 – Mar 2021	Teaching, research, and Administration
Consultant	Multiple Organisations, PAK	Jul 2017 – Aug 2020	Process Improvement

Manager / Deputy Manager / Assistant Manager	Leathertex / Musterhaft / Chenab / US Apparels / Nishat Chunian, PAK	Jun 2006 – Oct 2014	Industrial engineering, Process optimisation, and Production planning
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3 TEACHING

Level of Teaching	Course Titles
Teaching Assistant - University of Edinburgh (UoE), UK	<ul style="list-style-type: none"> ▪ Materials ▪ Practical Skills for Mechanical Engineers ▪ Fluid Mechanics ▪ Advanced Composite Materials ▪ Engineering Principles and Design ▪ Mechanical Engineering Group Project ▪ Operations Management
Lecturer - National Textile University (NTU), PAK	<ul style="list-style-type: none"> ▪ Textile Raw Materials ▪ Introduction to Textile Engineering ▪ Introduction to Garment Manufacturing ▪ Product Costing ▪ Operations Management ▪ Apparel Merchandising and Sourcing ▪ Industrial Engineering in Garment Manufacturing ▪ Industrial Cutting and Sewing of Textile Materials

4 RESEARCH

4.1 PhD Research

- Investigated the architecture of natural structures, particularly silk cocoons, to create blueprints for the design and development of bioinspired materials for the future.

4.2 Research Project

- Optimisation of HDPE mats to improve antistatic and UV resistant characteristics while keeping them lightweight.
- Development of a robotic arm from E-waste.

4.3 MSc Research

- Study the effect of different dyeing routes on the comfort properties of fabrics/textiles.

5 SKILLS

5.1 Technical

Manufacturing: Textiles, Textile wet processing, Composite laminates, Hot press and curing, Polymer processing, Apparel and Wearables.

Material Testing: Material Testing System (MTS), Instron Universal Testing Machines (UTM), Micro tensile tester.

Characterisation: Scanning Electron Microscopy (SEM), 3D microscopy, Dynamic Mechanical Thermal Analysis (DMTA), Differential Scanning Calorimetry (DSC).

CAD software: SolidWorks, Solid Edge, Fusion 360 – Proficient in creating detailed 3D models, assemblies, and technical drawings for engineering projects.

Simulation and Analysis: Abaqus CAE – Experience in performing mechanical simulations.

5.2 Data Analysis

OriginPro, Minitab, Fiji (ImageJ), Microsoft Excel

5.3 Research Skills

Literature review, Research methodologies, Data collection and analysis, Project management, Critical thinking, Problem-solving, Presentation of findings, Writing and publishing

5.4 Management

Manufacturing operations, Production management, Capacity planning, Process improvement, Scheduling, Inventory management

6 PROFESSIONAL DEVELOPMENT

6.1 Memberships and Associations

- Associate Fellowship of the Higher Education Academy (AFHEA) (Fellowship reference No. PR268588).
- Board member, Natural Materials Association (NMA), Institute of Materials, Minerals and Mining (IOM3) UK (Membership No. 681282).

6.2 Professional Training/Seminars Conducted

- Short course “Apparel Manufacturing Technology” at NTU, 2018.
- Four weeks of “Industrial Stitching Machine Operator Training” at NTU, 2017.
- Training on “Garment Manufacturing” at NTU, 2016 & 2017.
- Training on “Garment Sizing & Pattern Making” at NTU, 2016.

6.3 Professional Trainings Attended

- “Supervising Projects and Dissertations” at the University of Edinburgh (UoE), 2022.
- “Tutors and Laboratory Demonstrators Induction Course 2021-2022” at UoE, 2021.
- “Development of Robot from E-waste”, four weeks training at UoE, 2021.
- “TRIZ (theory of inventive problem solving)” tools and techniques, NTU, 2018.

- “Developing Instructors’ Competency of Garment Technology Training Institutes”. Eight weeks of training organised by KOICA, South Korea, 2017.
- “Smart Materials: The Materials of Future” held at NTU, 2017.
- “Research and Inferential Statistics – Capacity Building in Inferential Statistics and Analysis”, held at NTU, 2017.
- “Outcome-Based Education”, held at NTU, 2016.
- “WRAP, ISO-14001:2004 & ISO-9001:2000”, held at NTU, 2006.
- “ISO-9000 Quality Management System”, by Skill Development Council, Pak, 2005.

7 LEADERSHIP, MANAGEMENT, AND ADMINISTRATION

7.1 Managerial Positions

- Member Faculty Board of Studies, National Textile University (NTU), 2018 and 2019.
- Convener, Departmental Societies, NTU, 2019.
- Member, Self-Assessment Team, BS Textile & Apparel Merchandising, NTU, 2018.
- Coordinator, BS Textile Engineering and BS Textile & Apparel Merchandising, NTU, 2017.
- Departmental purchase lead, NTU, 2017.

7.2 Scientific Events Organisation

- Organiser of “5th International Conference on Value Addition and Innovation in Textiles (Covitex) 2019” held at NTU, 2019.
- Organiser of “Open Day 2018” held at NTU, 2018.
- Organiser “International Conference on Technical Textiles” NTU, 2017.
- Organiser “Energy Management in Textile and Clothing Industry”, NTU, 2015.

8 PUBLICATIONS

8.1 Selected Publications

- Rehman, Ateeq Ur, Vasileios Koutsos, and Parvez Alam. "The puncture resistance of Bombyx mori silk cocoons." **Composites Part A: Applied Science and Manufacturing** (2025): 109122.
- Rehman, Ateeq Ur, Vasileios Koutsos, and Parvez Alam. "The stab resistance of Bombyx mori silk cocoons." **Macromolecular Materials and Engineering** (2025): 2400418.
- Rehman, Ateeq Ur, Vasileios Koutsos, and Parvez Alam. "Mode III tear resistance of Bombyx mori silk cocoons." **ACS Materials Au** 4, no. 4 (2024): 403-412.

- Rehman, Ateeq Ur, Vasileios Koutsos, and Parvez Alam. Bombyx mori silk cocoons: structure, composition, and mechanical properties (**Under Review at Oxford Open Materials Science**).
- Abher Rasheed & Ateeq ur Rehman. Apparel and Home Textiles. In Advanced Textile Testing Techniques (pp. 209-243) by CRC Press, USA (2018).
- Ateeq ur Rehman, A. Rasheed, T. Hussain, M. Ashraf, S. Ahmad, Babar Ramzan, N. Ali, "Effect of different processing techniques and softener treatments on the surface friction of cotton fabric", Fibre Society Conference, Tokyo, Japan (2018).
- Soekoco, Asril, Ateeq Ur Rehman, Ajisetia Fauzi, Hamdi Tasya, Purnama Diandra, Islami Tasa, and Brian Yuliarto. "Fabrication of Recycled Polycarbonate Fibre for Thermal Signature Reduction in Camouflage Textiles." *Polymers* 14, no. 10 (2022): 1972.

Full list available upon request.

9 REFERENCES

References available upon request