

Engr. Dua Nisar

Email: duanisar@neduet.edu.pk | Phone No: +92-334-2809255 | LinkedIn: www.linkedin.com/in/dua-nisar
ORCID: <https://orcid.org/0009-0009-4056-7144>

EDUCATION

NED UNIVERSITY OF ENGINEERING & TECHNOLOGY

Karachi, Pakistan

MEM Masters of Engineering Management (Textile Management)

Oct 2023 – June 2025

- CGPA: 3.65/4.00
- Thesis: Indigenous Development of High Performance Textile Based Composite Structural Reinforcement System for Civil Infrastructure.
Summary: The research focused on material selection, textile architecture, composite fabrication, and structural performance evaluation to provide a cost-effective, durable, and locally adaptable alternative to conventional reinforcement systems.

BE Textile Engineering

Oct 2019 – 2023

- CGPA: 3.588 /4.00 (Secured 5th Position out of 75).
- Final Year Design Project: High Performance Textile based Composite for Civil Infrastructure.

WORK EXPERIENCE

NED UNIVERSITY OF ENGINEERING & TECHNOLOGY

Karachi, Pakistan

Lecturer (Dept. of Textile Engineering)

Dec 2025 - Present

- **Course:** Pre-treatment of Textiles (TE 205), Textile Testing 1 (TS 243), Textile and Environment (TE 318)
- Delivered lectures and supervised laboratory sessions for undergraduate textile courses.
- Developed course materials, lesson plans, and practical experiments aligned with program objectives.
- Designed and evaluated assessments, assignments, and examinations to measure student learning outcomes.
- Guided and mentored students in theoretical and practical aspects of textile pre-treatment, testing, and environmental impact.
- Ensured proper use of laboratory equipment and adherence to safety protocols.
- Integrated industry practices and sustainable approaches into course content.
- Contributed to departmental academic activities.

Visiting Lecturer (Dept. of Textile Engineering)

Aug 2025 - Dec 2025

- **Course:** IT Fundamentals and Application (MF 101), Mechanics of Materials (MM 205)
- Delivered lectures and conducted practical sessions for IT Fundamentals and Applications (MF 101) and Mechanics of Materials (MM 205).
- Designed and implemented course materials, lab exercises, and assessments to align with curriculum requirements.
- Facilitated student learning through interactive teaching methods and practical demonstrations.
- Evaluated student performance, provided feedback, and maintained academic records.

Research Assistant

Sept 2023 - Dec 2025

- Conduct in-depth analyses of existing literature, patents, and research to provide context and background for research topics addressed in technical reports.
- Design and execute experiments to evaluate the properties of textile-based composite materials, particularly for retrofitting applications.
- Perform statistical analysis using Tableau, Pandas, and MS Excel to interpret research data to support report conclusions and recommendations.
- Collaborate with research team members to gather data, validate findings, and refine report content.
- Maintained detailed documentation of research methodologies, data sources, and analytical techniques employed in report writing.
- Ensure the accuracy and integrity of technical reports through fact-checking and proofreading.
- Present research findings and technical reports to stakeholders, fostering understanding and dialogue on complex topics.

Capacity Development Project:

- Worked as a Research Associate under the collaborative research project with the SM Denim Mills for the “Analytical Characterization and Performance Evaluation of CVC in Denim Yarn”.
- Worked as a Research Assistant under HEC funded project (11 Million) which aims to develop Pakistan’s first commercial grade technical textile based FRP composite system for strengthening of civil infrastructure. It is a 3 year targeted project to offer an economically viable solution for Pakistan’s Construction Industry.

Activities:

- Organized a seminar titled "TexTexh Connect 2026: NED-ITB Research Collobaration", in collaboration with Institut Teknologi Bandung ITB, Indonesia.
- Successfully managed overall operations for the proposal of research grants of National Research Project for Universities – NRP, Pakistan Science Foundation - PSF research grant proposal and Sindh Research Support Programme (SRSP).
- Organized a national seminar titled "Enhancing Academic Excellence – Integrating Strategic Planning and Quality Assurance Framework for Institutional Growth", in collaboration with HEC Pakistan and Universiti Teknologi MARA, Malaysia.
- Represented NED University as part of the Communities of Practice (CoP) at events organized by GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit).
- Participated in the RBH Due Diligence Workshop, organized by GIZ on behalf of the Federal Ministry for Economic Cooperation and Development and RBH Network.
- Contributed as a core research analyst in the project proposal development team for the Export Development Fund, Ministry of Commerce, and Pakistan.

FYDP 2024 onwards:

Served as project technical advisor for the following FYDPs,

- Development of High Performance Technical Textile by Utilizing Dyneema for Retrofitting Application.
- Development of High Performance Technical Textile by Utilizing Tapanan for Retrofitting Application.
- Strengthening of Reinforced Concrete Column under uniaxial Compression loading using Tapanan FRP
- Strengthening of Reinforced Concrete Beam in shear using Tapanan FRP
- Strengthening of Reinforced Concrete Beams in flexural using Tapanan FRP.
- Behavior of structural concrete strengthened with Tapanan FRP
- High Performance Textile Based Composites for Civil Applications.

GULAHMED TEXTILE MILLS LTD.

Karachi, Pakistan
Aug 2022 – Sept 2022

Process Control Intern

- Familiarized with Dye House Management Software (SedoMaster and LEIMS.i).
- Experience in applying FMEA (Failure Mode and Effects Analysis) to identify and mitigate process risks.
- Proficient in utilizing SCADA (Supervisory Control and Data Acquisition) systems and statistical process control (SPC) systems for data acquisition and monitoring.
- Skilled in data analysis using Tableau, Pandas, and MS Excel and control charting techniques for process improvement.

ARCHROMA PAKISTAN LTD.

Karachi, Pakistan
Apr 2022 – May 2022

Production Analyst Intern

- Experience in analyzing production flow and identifying bottlenecks to ensure seamless uninterrupted production process.
- Proficient in utilizing ERP systems for data extortion and analysis.
- Analyze and monitor production quality using SPC software.
- Investigate and identify the underlying causes of production problems mitigate using Lean Six Sigma to eliminate 10% of production waste.

LUCKY TEXTILE MILL LTD.

Karachi, Pakistan
Mar 2022 – Mar 2022

Process Engineering Intern

- Experience in developing Batch Process Flow Diagrams (PFDs), SAM/SMV and Lean manufacturing industry approach for 'Zero Defect'.
- Manage pilot scale project for method study for line capacity improvement which increases the production by 15%.
- Skilled in applying material balances and process troubleshooting techniques.

HONOR AND AWARD

HEC Scholarship 2020 & 2023 – Awarded by Higher Education Commission for academic merit.

Indigenous Scholarship 2024 – Granted by Sindh HEC for MPhil/MS/PhD studies.

Runner-Up, FYDP Exhibition – Namal Tech Expo 2025 – Recognized for outstanding final year design project.

Award of Participation – TexTexh Connect 2026: NED-ITB Research Collaboration – Awarded by Team NRPU-17074.

CERTIFICATIONS

Data Visualization for Data analysis and Analytics - LinkedIn Learning	April 2024
Data Analysis with Python - LinkedIn Learning	Jan 2022
SMARTEX Geo Textile course certificate - SMARTEX	Mar 2022

ADDITIONAL INFORMATION

TECHNICAL SKILLS: MS Office, Google Sheets, Python, Pandas, Adobe Illustrator, MadCap Flare, Tableau, SPC software, Jira.

SOFT SKILLS: Technical writing, Communication, Presentation, Team work, Problem-solving, Critical thinking, Analytical thinking.

LANGUAGES: English and Urdu (Native).

References can be submitted on request.