
SHUMAILA USMAN
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Assistant Professor in NED University
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Professional Summary

A dedicated and highly motivated statistician with MSC in Statistics and MCIT in computer science over Eighteen years of teaching experience. My research focuses on statistical machine learning, reliability engineering, and spatio-temporal modeling with direct applications in engineering and environmental sciences. I am eager to contribute to the academic and research excellence of the Department of Mathematics at NED University by developing and teaching rigorous statistics courses and establishing a collaborative research program.

Education

- **MCIT in Computer science** 2013
 - [NED University of Engineering and Technology]
 - **M.Sc. in Statistics** | 2004]
 - Karachi University
 - **B.Sc. (Hons.) in Statistics** | [2003]
 - Karachi University
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Research Interests

- Applied Statistics for Engineering
- Statistical Quality Control & Process Improvement
- Reliability and Survival Analysis
- Statistical Machine Learning & Predictive Modeling
- Design and Analysis of Experiments (DOE)

- Bayesian Inference
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Academic Appointments

- **Lecturer** [2006] – [2015]
 - Department of Mathematics in NED University of Engineering and Technology
 - Taught undergraduate courses and assisted in curriculum review.
 - **Assistant Professor** 2015
 - Department of Mathematics in NED University of Engineering and Technology
 - Assisted with teaching introductory and advanced statistics courses
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Teaching Experience

Undergraduate Program

- **Probability & Statistics**
- **Applied Probability and statistics**
- **Introduction to Probability Theory**

Post Graduate Programs

- **Design and Analysis of Experiments**
- **Statistical method and data analysis**
- **Applied Statistics**

Teaching Philosophy: My teaching philosophy is centered on bridging the gap between statistical theory and practical engineering applications. I use real-world datasets from engineering disciplines to foster problem-solving skills and demonstrate the power of statistical thinking in improving processes, products, and systems

Technical Skills

- **Statistical Software:** R (Expert), SPSS, Minitab, Stata
- **Programming:** SPSS, MINITAB, MATLAB (Intermediate),
- **Documentation:** LaTeX, Microsoft Office Suite
- **Languages:** English , Urdu

