

Dr. Fareha Asim

Associate Professor
HEC Approved PhD
Supervisor

Contact

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Skills

Design of Experiment



Excellent

Critical Thinker and Problem Solver



Very Good

Strong Leading Skills



Very Good

Process Optimization



Excellent

To retain professional excellence, accept challenges and to make things possible which seems to be impossible.

Passionate Associate Professor with nineteen years of experience administering education and classroom procedures both autonomously and in collaboration with department faculty and leaders. Building foundations for next generation of academics and workforce pioneers.

Work History

2012 -
Current

Associate Professor

NED University of Engineering & Technology, Karachi

- Helped over 160 students per semester to develop and demonstrate broad, integrative and specialized textile engineering knowledge, essential habits of mind, communicative fluency and effective problem-solving skills .
- Encouraged class discussions by building discussions into lessons, actively soliciting input, asking open-ended questions and using techniques to track student participation.
- Shifted between informal and formal methods of teaching to create multi-layered web of learning incorporating experiments, practical activities, discussions and projects into lessons.
- Used variety of learning modalities and support materials to facilitate learning process and accentuate presentations.
- Sustained professional contact with colleagues and engaged in continuing professional activities to upgrade and augment existing skills or develop new ones.
- Kept abreast of advances in pedagogy and work to continuously improve teaching methods and introduce new approaches to instruction.
- Enhanced effectiveness of curriculum and lectures using computer-assisted instruction programs and audio-visual equipment.
- Mentored students and advised on career paths, degree requirements and post-graduate education options.
- Made contributions in curricular development and

Functional Textiles

Excellent

Printing & Finishing

Excellent

Curriculum design

Excellent

Performance assessment

Excellent

Thesis advisement

Excellent

Technology-based
curriculum

Excellent

Differentiated instruction

Excellent

Academic research

Excellent

Grant writing

Very Good

Research & Development

Excellent

Textile Engineering
Education

Excellent

Student Research guidance

Excellent

innovation in teaching strategies.

- Established and maintained inclusive, collegial and collaborative culture within classroom.
- Collaborated with faculty and community stakeholders for program improvement.
- Facilitated mock job interviews for student skill-building and promoted potential networking opportunities.
- Conducted on-going program assessment, enrollment and retention tracking.
- Supported multidisciplinary research teams focused on scholarly publication.
- Developed diversified course curriculum to meet regulatory standards and support learning objectives.
- Identified research opportunities for students, assisting with gathering data and drawing conclusions for projects.
- Demonstrated strong interpersonal and communication skills, resulting in clear subject matter discussion with students.

2008 - 2012

Assistant Professor

NED University Of Engineering And Technology, Karachi

- Provided logical integration and continuity analytical skills training and assessment across 4-year curriculum.
- Applied innovative teaching methods to encourage student learning objectives.
- Collaborated with colleagues on curriculum revision, evaluation of course syllabi and lesson plans for Textile Engineering curriculum.
- Mentored students and communicated internship and employment opportunities.
- Contributed to campus activities to promote positive university image.
- Created materials and exercises to illustrate application of course concepts.
- Built strong rapport with students through class discussions and academic advisement.
- Collaborated with faculty members on undergraduate design projects.

Languages

English

Excellent

Urdu

Excellent

2004 - 2008

- Evaluated and supervised student activities and performance levels to provide reports on academic progress

Lecturer

NED University of Engineering & Technology, Karachi

- Evaluated and revised lesson plans and course content to achieve student-centered learning.
- Participated and led committee meetings to remain aware of developments in subject.
- Mentored over 50 undergraduate students per year in effective next-steps for education and career preparedness.
- Arranged syllabus, developed schedule and determined reading list for varied courses simultaneously, giving students appropriate time to complete assignments and absorb information.
- Delivered lectures at appropriate pace and pronunciation for optimal audience comprehension by non-native English-speaking students.
- Created and designed quizzes, tests and projects to assess student knowledge.
- Implemented instructional technologies in course delivery to engage and educate students.
- Met with students to dispense study and career advice and provide guidance and potential opportunities within chosen field.
- Applied innovative teaching methods to encourage student learning objectives.
- Taught diverse student population by employing various learning styles and abilities.
- Stayed abreast of developments within Textile Engineering to improve curriculum, develop new research and share with colleagues and students
- Created positive and safe learning environment for students by setting and enforcing classroom code of conduct.
- Reviewed program materials and coordinated updates to keep department materials relevant and accurate.
- Selected and designed lesson plans and curriculum to meet academic objectives.

- Designed and distributed lecture handouts to round out material and increase student understanding.

Education

2008 - 2011

Ph.D: Textile

NED University of Engineering And Technology - Karachi-Pakistan

- Awarded PhD scholarship
- Completed PhD Thesis "Development of a combined process for reactive printing and crease, finish for cotton fabric using experimental design technique"

2004 - 2005

M. Engg: Textile

NED University of Engineering And Technology - Karachi-Pakistan

CGPA: 3.75

- Professional development completed in Masters of Engineering (Textile)

1999 - 2003

B.E: Textile

NED University of Engineering And Technology - Karachi-Pakistan

- Professional development completed in Bachelors of Engineering (Textile)
- Awarded [a Gold Medal](#)
- Secured first class first position in in all four years of B.E (Textile)

1998 - 1999

H.S.C: Engineering

Sir Syed Govt. Girls College - Karachi-Pakistan

Secured A Grade

1996 - 1997

S.S.C: Science Education

H. N. Public School - Karachi-Pakistan

Secured A one Grade

Accomplishments

- Recipient of Best Researcher Award in year 2021 & 2020 from NED University of Engineering & Technology.
- Secured first-class first position throughout four years B.E Textile Program also awarded Gold Medal by University administration
- Co-Supervised a PhD research work titled as “Experimental Investigation and Mathematical Modeling of Pilling Performance of Bamboo/Poly Woven Fabrics”
- Acquired a Crescent award in 2nd All Pakistan DICE Textile Innovation Event on project titled as “Modification in condensate recovery system of cylinder dryers”
- Reviewer of the journal "Textile Research Journal" ,“International Journal of Economics, Finance and Management Sciences”, “International Journal of Energy and Power Engineering”, “AATCC Journal of Research” and “Journal of Textile Science & Engineering”.
- Acquired a Ph.D. scholarship of Rs 9.34 Million from NED UET in 2008, and successfully developed a Research Laboratory at Textile Engineering Department.
- Honor of securing highest percentage in B.E (Textile) 90% till now.
- Collaborated with team of industrial collaborators in the development of Self Cleaning Textiles.
- Completed a research project on development of PPE using Bamboo/Cotton knitted fabrics.
- Successfully conducted “Water analysis of Effluent Treatment Plant of Soorty Enterprises installed at Nooriabad” in 2020.
- Presented a paper in 5th NED International Textile Conference 2022.
- Co-Chair the Technical session in 4th NED International Textile Conference held on March 2020.
- Acquired a funding in DICE Shark project presented

in NED DICE Textile Innovation Event 2020 on a project of "Development of Self Cleaning Textile Material using Natural based Nano particles".

- Successfully Supervised a PhD project titled as "Investigation to improve the pilling resistance of bamboo/cotton woven fabrics".
- Completed a consultancy project titled as "Dyneema yarn/liner dyeing using conventional techniques" for Midas Safety Clothing (Pvt.) Ltd.
- Organized and participated as a member technical committee, member printing and publication committee and as a host in Third NED International Textile Conference held in 2018.
- Conducted a seminar on "Energy conservation methodologies in wet processing industries" at Textile Asia conference 2016.
- Organized and participated as a member technical committee, member printing and publication committee and as a host in second NED International Textile Conference held in 2016 .
- Organized and presented a paper in 1st NED International Textiles Conference 2014.
- Conducted a Technical seminar on "Energy Management in Textile" at Textile Commissioner's Organization, Government of Pakistan.
- Presented a paper under a category of "Young Researcher Award" in 5th International Technical Textiles Conference 2012, 11-12 and won second award.

Publications

Journal Publications

1. Naeem, F., Asim, F. and Tufail, M. (2023), "Investigation into the effect of resin finish on the functional characteristics of plain fabrics using different curing methods", Pigment & Resin Technology, 52(2), 192-202, <https://doi.org/10.1108/PRT-09-2021-0110>

2. Asim, F. and Naeem, F. (2022), "Investigation of self-cleaning attributes of denim fabric modified with naturally synthesized ZnO nanoparticles", *Pigment & Resin Technology*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1108/PRT-04-2022-0042>
3. Mohtashim, Q., Asim, F. and Farooq, S. (2022), "Investigation and optimisation of process parameters for the green chemistry colouration using banana bio-resources waste", *Pigment & Resin Technology*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1108/PRT-01-2022-0006>
4. F. Naeem, F. Asim, and M. Tufail (2022); Performance Evaluation of Anti Pilling and easy-Care Finished Rayon and rayon/Cotton Satin Fabric, "Journal of Natural Fibers 19(3), 1033–1047, <https://doi.org/10.1080/15440478.2020.1787912>
5. S. Farooq, S. Faisal and F. Asim (2022), Investigating the Liquid Moisture Transport Behavior of Cotton and polyester Cotton Blended Woven Fabric, "Mehran University Research Journal of Engineering & Technology (Listed in JCR)", 41(1), 129 - 134, Jan 2022, doi: [10.22581/muet1982.2201.13](https://doi.org/10.22581/muet1982.2201.13)
6. F. Naeem, F. Asim, and M. Tufail (2022); Multi response optimization in the development of anti-pilling and easy care finished rayon from bamboo and bamboo/cotton fabrics using desirability function, "Mehran University Research Journal of Engineering & Technology (Listed in JCR)", 41(2), 116-126, Apr 2022, <https://doi.org/10.22581/muet1982.2202.11>
7. Q. Mohtashim, F. Asim and S. Farooq (2021), After treatments of Sulphur Black 1 Dyed Cotton fabric: Optimisation of Process Parameters for developing a protective system to improve the color retention, *AATCC Journal of Research (Listed in JCR)*, 8(1), 33-39, Jan 2021, <https://doi.org/10.14504/ajr.8.1.5>
8. Naeem, F., Asim, F. and Tufail, M. (2021), "Effect of crosslinking agents on the strength characteristics of cellulosic fabrics using 23 32 mixed level factorial", *Pigment & Resin Technology*, Vol. 50 No. 4, pp. 319-330. <https://doi.org/10.1108/PRT-06-2020-0062>
9. S. Farooq, F. Asim, S. Hussain and S. Faisal (2021), Investigation Onto the Effect of Surface Etching Using

- Chemical Etchants on The Dye-Ability of UHMWPE Fibre, "Mehran University Research Journal of Engineering & Technology (Listed in JCR)", 40(4), 842-846, Oct 2021, <http://dx.doi.org/10.22581/muet1982.2104.13>
10. F. Naeem, F. Asim, and M. Tufail (2020); Anti Pilling and Resin Finishing of Rayon and Rayon/Cotton fabrics using 23.32 Mixed Level Factorial Design, AATCC Journal of Research (Listed in JCR), 7(5), 32-37, Sept 2020, <https://doi.org/10.14504/ajr.7.5.5>
11. F. Naeem, F. Asim, and M. Tufail (2018); Pilling Performance Improvements of Fabrics made with Bamboo Rayon and Bamboo Rayon/Cotton Blends, "AATCC Journal of Research (Listed in JCR)", 5(6), 8-16, Nov 2018, <https://doi.org/10.14504/ajr.5.6.2>
12. F. Asim, M. Mahmood (2017); Effects of Process Parameters on Ozone Washing for Denim using 33 Factorial Design, "Mehran University Research Journal of Engineering & Technology (HEC recognized Category X Journal)", 36(4), 909-914, Oct 2017, <https://doi.org/10.22581/muet1982.1704.15>
13. F. Asim, M. Mahmood (2017); Statistical Modeling of Tear Strength for One Step Fixation Process of Reactive Printing and Easy Care Finishing, "Mehran University Research Journal of Engineering & Technology (HEC recognized Category X Journal)", 36(3), 511-518, July 2017, <https://doi.org/10.22581/muet1982.1703.08>
14. F. Asim, M. Mahmood (2013); Mathematical Modeling of Dry Crease Recovery Angle for Single Step Fixation of Reactive Printing and Crease Resistance Finishing of Cotton Fabric using DOE, "International Journal of Textile Science", 2(3), 59-71, June 2013, doi:10.5923/j.textile.20130203.03
15. F. Asim, M. Mahmood (2013); Mathematical Modeling of Colour Yield for Single Step Fixation of MCT Reactive Dye Printing and Crease Resistance Finishing of Cotton Fabric, "International Journal of Statistics and Applications", 3(2), 22-32, Apr 2013, doi: 10.5923/j.statistics.20130302.02
16. F. Asim, N. Kausar, M. Mahmood (2013); Reaction Mechanism of Single Step Fixation Process of Reactive Printing and Crease Resistance Finishing of

- Cotton Fabrics, "International Journal of Textile Science", 2(2), 26-29, Apr 2013, doi:10.5923/j.textile.20130202.02
17. F. Asim, M. Mahmood (2013); Effects of Process Parameters on Single Step Fixation of Reactive Printing and Crease Resistance Finishing of Cotton Fabrics using 23 Factorial Design, "International Journal of Textile Science", 2(1), 7-11, Feb 2013, doi:10.5923/j.textile.20130201.02
18. F. Asim, M. Mahmood (2012); Reactive Printing and Crease Resistance Finishing of Cotton Fabrics- Effects of Fixation Modes by 22.41 Mixed Factorial Design "International Journal of Textile Science", 1(6), 94-100, Dec 2012, doi: 10.5923/j.textile.20120106.06
19. F. Asim, M. Mahmood (2012); Multi response optimization of simultaneous fixation of reactive printing and crease resistant finishing using desirability function "International Journal of Statistics and Applications", 2(6), 126-131, Dec 2012, doi: 10.5923/j.statistics.20120206.06
20. F. Asim, M. Mahmood, M. A. Siddiqui (2012), Optimization of process parameters for simultaneous fixation of reactive printing and crease resistant finishing, "Journal of Textile and apparel Technology Management", 7(3), 1-12, Spring 2012.
21. F. Asim, M. Mahmood, M. A. Siddiqui (2011), Optimization of process parameters for simultaneous fixation of reactive printing and crease resistant finishing using desirability function, "Proceedings of the World Congress on Engineering and Computer Science 2011 Vol. II", San Francisco, USA, 1098-1105, Oct 2011.
22. F. Asim, M. Mahmood (2011), Reactive printing and crease resistance finishing of cotton fabrics, Part-I Study of influential factors by an experimental design approach, "Journal of Textile and apparel Technology Management" 7(1), 1-10, Spring 2011.

Conference Publications:

1. F. Asim, Investigation of self-cleaning properties of denim fabric with Nano formulation, Presented in 5th NED International Textile Conference (ITC) on Nov 16-

17, 2022.

2. F. Naeem, F. Asim and M. Tufail, Investigation to improve the pilling & wrinkle resistance properties of Bamboo and Bamboo/cotton fabrics, Presented in 4th NED International Textile Conference (ITC) on Mar 03-04, 2020.
3. F. Naeem, F. Asim and M. Tufail, Effect of Sanforizing on Pilling Resistance of Bamboo and Bamboo Cotton Fabric, Using 24 Factorial Design, Presented in 5th International Conference on Value Addition and Innovation in Textiles (COVITEX) Mar 20-21, 2019 National Textile University, Faisalabad.
4. F. Naeem, F. Asim and M. Tufail, Bio polishing Of Bamboo and Bamboo/Cotton Woven Fabrics Using Experimental Design Technique, Presented in 2nd International Forum of Textile for graduate students, Tianjin Polytechnic University, China on Sept 08-10, 2018.

Professional Memberships

- Member of International Association of Engineers (IAENG).
- Senior Member of American Association of Textile Chemists & Colorists (AATCC)
- Corporate member of Society of Dyers & Colorists (SDC).
- Professional Engineer of Pakistan Engineering Council (PEC).

Additional Responsibilities

Cluster Development Agent, United Nations Industrial Development Organization (UNIDO)

- Participated in continuous improvement by generating suggestions, engaging in problem-solving activities to support teamwork.
- Conducted research, gathered information from

multiple sources and presented results.

- Developed and implemented performance improvement strategies and plans to promote continuous improvement.
- Collaborated with team members to achieve target results.

Member Duty Society

-To lead money to the indigent and promising students of the University Qarz-e-Hasana without giving any preference to any class of student like Refugees, Agriculturists or minorities but the son's and dependents of the members or those deceased members who paid their subscription regularly in their life-time, will have first preference provided they're promising also.

-To realize money of the society back from the benefited students within a reasonable period of their employment.

-Departmental Focal Person for the MoU signed between Soorty Enterprises Pvt. Ltd. and the NED University;

-Member of curriculum revision committee of BE and BS Textile program;

-Supervision of final year undergraduate projects;

-Examining Independent Study Projects at Master's level;

-Industrial liaison (arrangement of internships, guest lectures and industrial visits);

-Industrial liaison (industrial visits for developing research linkages);

-Class Advisor and Student Counselor to assist and guide students in their day to day matters;

- Was In-charge of Dyeing & Finishing Lab, Green Society, Store and TIPC;

-Area Coordinator;

-Member of Board of Study (Textile);

-Member of Board of Review (DIL) and Duty Society;

-Member Project Committee;

-Faculty Advisor of AATCC-NED Chapter;

- Member of Organizing Committee "NED International Textile Conference";

- Member of BS Textile Program Development Committee;
- Member of departmental OBE Accreditation Committee;
- Senior Faculty Member of Ehsaas Undergraduate Scholarship Programme.
- Member Anti-Drug and Tobacco Abuse.

Engineering Courses Taught

Undergraduate level:

- TE-424: Textile Printing
- TE-307: Utilities for Textiles
- TE-451: Automation and Controls in Textile
- TE-305: Quality Control in Textiles
- ME-205: Elements of Machine Dynamics & Design
- TE-207: Machine Design
- TS-245: Pre-treatment in Textiles
- TE-414: Textile Chemical Processes-II
- TE-304: Textile Mill Utilities-I

Graduate level:

- TE-505: Advance Statistics

Postgraduate level:

- TE-601: Chemistry of Chemical Finishing of Textiles
- CE-603: Probability & Statistics
- TE-610: Design of Experiment
- TE-604: Response Surface Methodology