

DR SAIRA FAISAL

ASSOCIATE PROFESSOR (NED UET)

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EXPERIENCE

JANUARY 2022 – TILL DATE

**ASSOCIATE PROFESSOR, NED UNIVERSITY OF ENGINEERING & TECHNOLOGY
KARACHI**

JULY 2007 – JANUARY 2022

**ASSISTANT PROFESSOR, NED UNIVERSITY OF ENGINEERING & TECHNOLOGY
KARACHI**

APRIL 2002 – JULY 2007

LECTURER, NED UNIVERSITY OF ENGINEERING & TECHNOLOGY KARACHI

MARCH 2001 – APRIL 2002

LAB ENGINEER, NED UNIVERSITY OF ENGINEERING & TECHNOLOGY KARACHI

EDUCATION

MARCH 2014

DOCTOR OF PHILOSOPHY, UNIVERSITY OF LEEDS, UK

Title: Synthesis of Multifunctional Reactive Dyes and Their Application onto Wool Fabric by Inkjet Printing

JULY 2007

MASTER OF ENGINEERING, NED UET, PAKISTAN

MARCH 2001

BACHELOR OF ENGINEERING, NED UET, PAKISTAN

Secured First Class Third Position

GRANTS

- Pakistan Science Foundation (PSF/CRP/TH/4/CFP/523) - 2023
- Grand Challenge Fund (GCF - 63) - 2021

ACADEMIC ACHIEVEMENTS

- HEC Approved Supervisor

- Member from academia/private sector for Pakistan Council Of Scientific & Industrial Research (PCSIR)
- Member NCRC for Textile Engineering Technology (BSc)
- IRCA Registered Lead Auditor
- OBE Program Evaluator (PEV) at Pakistan Engineering Council
- Best Researcher Award for Year 2019 onwards
- Best Publication Award 2019 from NEDAASC
- Best Innovating Paper 2021 in International Conference on Nascent Drifts in Industry 2021
- Received funding for undergraduate projects from NEDAASC
- Received scholarship to pursue PhD at University of Leeds, United Kingdom
- Received bursary of GBP 7500 towards PhD tuition fee from University of Leeds, United Kingdom
- Received Merit Certificate for securing First Class Third Position in Bachelor of Engineering

RESPONSIBILITIES

- Member Board of Studies
- Member Industry Advisory Board
- Member Departmental OBE Committee
- Lesson planning and delivery in line with Curriculum
- Conducting Course Practicals
- Served as Deputy QEC/Deputy MR from May 2014 till April 2016
- Served as Management Representative (MR) in June 2014
- Principal / Co-Principal Investigator for Academia -Industry Collaborative Research Projects
- Reviewer for Peer Reviewed Foreign Journals (JCR)
- Examiner for Graduate and Post Graduate Thesis
- Member Project Committee
- Member Course Revision Committee
- Supervisor for Independent Study Projects at Graduate Level
- Supervisor for Final Year Design Projects at Undergraduate Level
- Class Advisor
- Member Internal Audit Team

JOURNAL PUBLICATIONS

1. Siddiqui, M. O. R., Farooq, S., Husain, M. D., & **Faisal, S.** Prediction of air permeability and effective thermal conductivity of multifilament polyester yarn by finite element analysis. *Polimery*, 2023; 68(1), 6-18.
2. **Faisal S**, Ali M, Naqvi S and Lin L. Statistical optimization and bulk scale validation of the effects of cationic pre-treatment of cotton fabric for digital printing with reactive dyes. *Journal of Natural Fibers*. 2021; Published Online
3. Ali, M; **Faisal, S**; Naqvi, S; Abdul Wahab, K; Afreen, R; Lin, L. Electrically heated wearable textiles produced by conventional pigmented inks containing carbon black. *Pigment & Resin Technology*. 2021; Published Online

4. **Faisal S**, Naqvi S, Ali M and Lin L. Comparative study of multifunctional properties of synthesised ZnO and MgO NPs for Textiles applications. *Pigment & Resin Technology*. 2021; Published Online
5. **Faisal S**, Ali M, Siddique S and Lin L. Inkjet Printing of Silk: Factors Influencing Ink Penetration and Ink Spreading. *Pigment & Resin Technology*. 2021; 50 (4): 285-292.
6. Siddique SH, **Faisal S**, Ali M, Gong RH. Optimization of process variables for tensile properties of bagasse fiber-reinforced composites using response surface methodology. *Polymers and Polymer Composites*. 2020; Published Online.
7. Siddique SH, **Faisal S**, Mohtashim Q-A, Ali M and Gong H. Investigation of fiber orientation and void content in bagasse fiber composites using image analysis technique, *Fibres & Textiles in Eastern Europe*. 2021; 29, 3(147): 26-32.
8. Farooq S, **Faisal S** and Asim F. Investigation onto the Effect of Surface Etching Using Chemical Etchants on the Dye-Ability of UHMWPE Fibre. *Mehran University Research Journal of Engineering and Technology*. 2020, In Press.
9. Farooq S, Asim F, Siddique HS, and **Faisal S**, Investigation onto the Effect of Surface Etching Using Chemical Etchants on The Dye-Ability of UHMWPE Fibre. *Mehran University Research Journal of Engineering and Technology*. 2020, In Press.
10. **Faisal S**, Lin L and Clark M. Synthesis, stability and printing properties of a novel 2-sulphophenoxy-4-chloro-s-triazine reactive dye for ink-jet printing of wool. *Coloration Technology*. 2020; 136:153-166.
11. **Faisal S** and Lin L. Green synthesis of reactive dye for ink-jet printing. *Coloration Technology*. 2020; 136:110-119.
12. Siddique HS, **Faisal S**, Zahid B and Wang C. Tensile Properties of Bagasse Fiber Composites. *Mehran University Research Journal of Engineering and Technology*. 2019, In Press.
13. **Faisal S**, Tronci A, Ali M, Lin L and Mao N. Pretreatment of silk for digital printing: identifying influential factors using fractional factorial experiments. *Pigment & Resin Technology*. 2019; 49:145-153.
14. **Faisal S**, Tronci A, Ali M, Bashir E and Lin L. Right-first-time dyeing: a design of experiments approach for the optimisation of dyeing-processes using hard water. *Pigment & Resin Technology*. 2019; 48:449-455.
15. Ali M, Lin L, **Faisal S**, Ali Syed R and Ali Syed I. Let-down stability and screen printability of inks prepared using non-printing ink grades of carbon black pigment. *Pigment & Resin Technology*. 2019; 48:523-532.
16. Ali M, Lin L, **Faisal S**, Sahito Iftikhar A and Ali Syed I. Optimisation of screen printing process for functional printing. *Pigment & Resin Technology*. 2019; 48:456-463.
17. Azeem F, Mao N and **Faisal S**. Effect of alkali treatment of lower concentrations on the structure and tensile properties of Pakistan's coarse cotton fibre. *The Journal of The Textile Institute*. 2019; 110:1499-1507.

18. **Faisal S**, Farooq S, Hussain G and Bashir E. Influence of Hard Water on Solubility and Colorimetric Properties of Reactive Dyes. AATCC Journal of Research. 2019; 6:1-6.
19. **Faisal S** and Tronci A. Predictive Modelling of Colour Strength and Ink Penetration (%) of Inkjet-Printed Cotton. Fibers and Polymers. 2018; 19:1435-1443.
20. Zahid B, **Faisal S** and Siddique HS. Analysis of Caustic Soda of Different Manufacturers in Pakistan for Mercerization of Cotton Textiles. Mehran University Research Journal of Engineering and Technology. 2017; 36:857-866.

CONFERENCE PUBLICATIONS

1. **Faisal S**; Naqvi S. Farooq S; Naqvi A. Z and Alam A. Durable antibacterial coating for polyester knitted fabric. In 2nd International Conference on Knowledge-based Textiles 2023 (online). February 14-15, 2023
2. **Faisal S**. Effect of electrolyte on printing properties of digitally-printed cotton: process development and optimization. In International Conference on Nascent Drifts in Industry 2021(Online). August 28, 29 ,2021
3. **Faisal S** and Lin L. Microwave-Assisted Green Synthesis of Reactive Dyes for Digital Printing. In 4th NED International Textile Conference. 2020. Karachi, Pakistan, p. 33
4. **Faisal S** and Lin L. Green Synthesis of Reactive Dyes for Inkjet Printing. Proceedings of ICONTEX 2019. Corlu, Turkey, p. 436-443
5. **Faisal S**, Lin L and Clark M. Triazine Based Reactive Dye for Inkjet Printing of Wool. Proceedings of ICONWOOLF 2019. Corlu, Turkey, p. 143-152
6. **Faisal S**. Predictive modeling and optimization of printing properties on inkjet-printing of cotton. In 5th International Conference on Value Addition and Innovations in Textiles 2019. Faisalabad, Pakistan, p. 14
7. **Faisal S**, Lin L, and Clark M. Novel Reactive Dyes and their Application onto Textile Substrates by Inkjet Printing in NIP & Digital Fabrication Conference. 2013: Society for Imaging Science and Technology. 2013, Seattle, United States of America, p. 168-170
8. **Faisal S**, Lin L, and Clark M. “Novel Reactive Colorants and Their Application onto Textile Substrates by Inkjet Printing”. Proceedings of AIC Colour 2013:12th Congress of the International Colour Association. 2013, Newcastle-Upon Tyne, UK, P. 601-604

RESEARCH INTERESTS

- Synthesis and application of reactive dyes for inkjet printing
- Reactive ink formulation
- Pre-treatment formulations for inkjet printing
- Synthesis and formulations of Nano Particles for textile based applications
- Fibers as raw materials for various applications

SKILLS

- Microsoft Office, OriginPro, ChemDraw, Minitab and Statease
- Design of Experiments
- Fluent in Urdu, Punjabi and English

CORE COURSES

- Textile Finishing
- Pre-treatment in Textiles
- Textile Chemical Processes II
- Polymer & Fiber Science
- Textile Product Evaluation I
- Textile Raw Materials I
- Textile Raw Materials II
- Machine Design
- Textile Mill Utilities - I
- Textile Printing

COURSES AND TRAINING

- Provide consultancy to Indus Messco Consortium for project titled “Development of Policy, Planning and Strategies on Cleaner Production (CP) for Sindh Environmental Protection Agency (SEPA)” in 2020.
- Provided Training on “Outcome based Education: Implementation of CQI” at Chemical Engineering Department, Karachi University on 18th September 2019.
- Delivered CPD credit point Course on “Textile Product Evaluation (Fibre to Fabric)” at Army Labs Karachi in 2019
- Attended and passed LRCA Quality Management System Lead Auditor Training Course by based on ISO 9001:2015 in 2017
- Attended International Workshop on “Discovering Statistics using IBM SPSS V.23” organized by Research Center for Training & Development (RCTD) on 21-22 July, 2017
- Attended 2-day International Workshop on “Outcome based Education” (2015)
- Assisted in Salter’s Chemistry Camps for year 2010 and 2011 organized by Royal Society of Chemistry at University of Leeds, UK.
- Attended and passed the IATCA compliant ISO 9000:2000 Series Auditor/Lead Auditor Training Course NO. A18021 by IRCA
- Advance Course on “CAD/CAM Fabric Designing System” conducted by SMA Rizvi Textile Institute
- Attended and passed the ISO 9000:2000 Series Internal Auditor Training Course organized by PIQC

PROFESSIONAL MEMBERSHIP

- Lifetime member of Pakistan Engineering Council since 2001 (Textile/27)
- NEDAN since 2006
- Alumni University of Leeds since 2014
- AATCC Senior Member

PERSONAL INFORMATION

- Father Name: Muhammad Ishaque (Late)
- Marital Status: Married
- CNIC: 42201-0471198-2

REFERENCES

- 1. Prof. Dr Long Lin**
Head of Colour Science Department
University of Leeds, UK
- 2. Mr. Abdul Sattar Ishaqani**
CEO
StyleLight Textiles Pvt. Ltd.