

# DR SAIRA FAISAL

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## EXPERIENCE

**JULY 2007 – TILL DATE**

**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

## ACADEMIC ACHIEVEMENTS

- HEC Approved Supervisor
- IRCA Registered Lead Auditor
- OBE Program Evaluator (PEV) at Pakistan Engineering Council
- Team Member for awarded Grand Challenge Fund (GCF) 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
- 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
- Reviewer for Peer Reviewed Foreign Journals (JCR)
- Examiner for Graduate Thesis

## JOURNAL PUBLICATIONS

1. **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
2. 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; In Press
3. **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; In Press
4. **Faisal S**, Ali M, Siddique S and Lin L. Inkjet Printing of Silk: Factors Influencing Ink Penetration and Ink Spreading. *Pigment & Resin Technology*. 2021; Published Online.
5. 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.
6. 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.
7. 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.
8. 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.
9. **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.

10. **Faisal S** and Lin L. Green synthesis of reactive dye for ink-jet printing. *Coloration Technology*. 2020; 136:110-119.
11. 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.
12. **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.
13. **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.
14. 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.
15. 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.
16. 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.
17. **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.
18. **Faisal S** and Tronci A. Predictive Modelling of Colour Strength and Ink Penetration (%) of Inkjet-Printed Cotton. *Fibers and Polymers*. 2018; 19:1435-1443.
19. 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** and Lin L. Microwave-Assisted Green Synthesis of Reactive Dyes for Digital Printing. In 4<sup>th</sup> NED International Textile Conference. 2020. Karachi, Pakistan, p. 33
2. **Faisal S** and Lin L. Green Synthesis of Reactive Dyes for Inkjet Printing. *Proceedings of ICONTEX 2019*. Corlu, Turkey, p. 436-443
3. **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
4. **Faisal S**. Predictive modeling and optimization of printing properties on inkjet-printing of cotton. In 5<sup>th</sup> International Conference on Value Addition and Innovations in Textiles 2019. Faisalabad, Pakistan, p. 14
5. **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
6. **Faisal S**, Lin L, and Clark M. "Novel Reactive Colorants and Their Application onto

## RESEARCH INTERESTS

- Synthesis and application of reactive dyes for inkjet printing
- Pre-treatment formulations for inkjet printing
- Nano finishing for textile materials
- 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 18<sup>th</sup> 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.