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QUALIFICATION SUMMARY

- PhD. in Organic & Nano System Engineering, focused in the general area of 'Dyeing Properties of Poly(ethylene terephthalate)/Poly(ethylene glycol) Copolymer Fibers'
- 1 years of experience in Coloration Industry as a Dyeing Manager.
- Proficient in advanced & automotive dyeing techniques, i.e., research projects (Cool Bizz, Samsung electromagnetic shielding fabric, easy dye able polyester & Bio polyurethane synthesis) (5 Years)
- Skilled in MATLAB, Sigma plot, ChemDraw, Image J.

KEY SKILLS

Computer Skills	Chemical Synthesis	Instrumental Analysis
Microsoft-Word, Microsoft-Excel, Microsoft-PowerPoint, ChemDraw Software, Sigma-Plot, Origin, Mat-Lab.	Different Chemical Reactions, Crystallization, Re-crystallization, Distillation, Evaporation, Filtration, Purification, Chromatographic Analysis.	FT-IR, NMR, Mass Spectroscopy, SEM, TEM, STEM, AFM, Raman Spectroscopy XPS, XRD, Different Textile Testing Instruments.

EDUCATION

2019 (January to June)	Research Fellow – Recovery and Reuse of Dyes and salts from textile waste water using nanofiltration membranes- Institute for Sanitary Engineering, Water Quality and Solid Waste Management, University of Stuttgart
2013 to 2016	Ph.D. in Organic & Nano System Engineering –Coloration Technology, Disperse dye synthesis, Polyurethane synthesis- Konkuk University, Gwanjin-gu, Seoul, South Korea (GPA 4.45/4.5)
2011 to 2013	Master in Textile Engineering – Coloration Technology, Disperse dye synthesis, Polyurethane synthesis, Polymer Synthesis- Konkuk University, Gwanjin-gu, Seoul, South Korea (GPA 4.43/4.5)
2003 to 2007	B.Sc. in Textile Engineering – Wet Processing Engineering, Polymer Science, Yarn Manufacturing, Fabric Manufacturing, Apparel Manufacturing- University of Dhaka, Dhaka, Bangladesh (1 st Class 1 st Position) (73% Marks).

WORK EXPERIENCE

Assistant Professor (Dept. of Wet Process Eng.)	2016 to 2020
<ul style="list-style-type: none">• Taught Graduate students of Dye Synthesis, Chemistry of Textile Chemicals and Auxiliaries.• Taught undergraduate students of Polymer Science, Environmental Science & Wet Processing Machineries.• Mentored undergrad projects, more than 10 students & graduate projects, more than 2 students.	
Graduate Assistant (M.Sc & Ph.D. Organic & Nano System Eng.)	2011 to 2016
<ul style="list-style-type: none">• Developed dyeing mechanism of novel easy dye able polyester & dope dyeing mechanism of sea-island type of polyester, synthesis of alkali clearable disperse dyes, synthesis of bio-polyurethanes.• Taught Polymer Chemistry, Application of Computer in Wet Process, Manufacturing of Dyes and Pigments class comprising 20-30 students• Mentored Polymer Coloration Research Lab undergrad projects, more than 20 students.	
Lecturer (Primeasia University & Dhaka University of Engineering & Technology)	2009-2011
<ul style="list-style-type: none">• Taught undergraduate students of color physics, special wet process & wet process technology.• Supervise undergraduate students, more than 20 students.	
Production Officer (APS Knit dyeing Industry)	2008-2009
<ul style="list-style-type: none">• Monitoring the production operation in dyeing of cellulosic and synthetic fabric.• Research and development of dyeing industry.	

SELECTED PROJECTS

- Carbon Nano Tube and Graphene synthesis process.
- Created a levelness evaluation by Image **Processing**.
- Application of high functional colorants (Dye sensitized solar cell, Ink jet printing, NLO properties).
- Characterization using probing tools, surface profilers, scanning electron microscopes (SEM), AFM, XPS.

AWARDS

- **Graduate Achievement Scholarship**, Konkuk University, 2013.
- **Outstanding Graduate Teaching Assistant**, College of Engineering, 2012-2014, Konkuk University, South Korea.

PUBLICATIONS

Journal

- **SM Kabir**, M Zakaria, "Effect of Machine Parameters on Knit Fabric Specification," DUET Journal, 1(3), 12-16 (2012).
- **SM Kabir**, J Koh "Alkaline weight reduction and dyeing properties of black dope-dyed poly (ethylene terephthalate) microfibre fabrics", Coloration technology 133(3), 209-217, (2017).
- **SM Kabir**, Tania, Uddin Z, "Effect of Resin Treatments on the Quality of Cotton Fabric Dyed with Reactive Dye", vol.26, 1 (127), 106-111, 2018.
- **SM Kabir**, J Koh "Effect of chelating agent in disperse dye dyeing on polyester fabric", Fibers and Polymers, vol. 18, 12, 2315-2321, 2017.
- **SM Kabir**, J Koh, F Momtaz, " Analyzing the suitable electrolyte for reactive dyeing process in cotton goods" Journal of engineering science, vol.5, issue 1, pp. 75-80, 2014.
- **SM Kabir**, J Koh, Z Uddin, "Synthesis of Mono Azo Disperse Dyes and Analysis of Dyeing Behavior With PET Fabric" BJTSE, Vol 1, Issue 1, 7-12 (2014).
- **SM Kabir**, Kim, J Koh, "Application of Jackfruit Latex Gum as an Eco-friendly Binder to Pigment Printing" Fibers and Polymers, vol. 19, 11, 2365-2371.
- **SM Kabir**, Eom, Lee, Chae Baek, J Koh; "Investigation of alkaline hydrolysis of phthalimide - based azo dye and its application to after - treatment optimization for high - fastness dyeing of polyesters" Coloration technology 134 (3), 206-213, (2018).
- **SM Kabir**, R Karim, K Islam "A Comparative Study on Dyeing Properties of Hemp and Cotton Fiber" European Scientific Journal, vol. 13, 33, (2017).
- **SM Kabir**, Mahabub Hasan, Uddin Z, "Novel Approach to Dye Polyethylene Terephthalate (PET) Fabric in Supercritical Carbon Dioxide with Natural Curcuminoid Dyes ", vol.27, 3 (135), 65-70, 2019.

Conference

- **SM Kabir**, J Koh, 13th Asian Textile Conference, 3-6 November 2015, Geelong, Australia, "Dyeing Properties of Poly (ethylene terephthalate)/ Poly (ethylene glycol) Block Copolymer Fibers".
- **SM Kabir**, J Koh, 14th Asian Textile Conference, 26-28 May 2014, Bursa, Turkey, " A study on Alkaline Dissolution Monitoring And Dyeing Properties of Sea-Island type Dope dyed Poly (Ethylene terephthalate) Microfiber fabrics".

References

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