

## SALMA FAROOQ

E.mail: [salmaahmed123@yahoo.com](mailto:salmaahmed123@yahoo.com)

Date of Birth: 02/09/1975

### **EDUCATION:**

**PhD (Textiles)** Heriot Watt University 2008-2011

**THESIS TITLE:** The Determination of Dyers' Perceived Components of Colour Difference (Depth, Brightness and Hue) between two similar Colours from their Spectral Reflectance Values

**SUPERVISORS:** Prof. R.H.Wardman and Prof. R.M. Christie

**BRIEF SYNOPSIS OF RESEARCH:** The partitioning of colour-differences into  $\Delta L^*$ ,  $\Delta C^*$  and  $\Delta H^*$  is not directly equivalent to the dyer's method of partitioning. The dyer's method involves separation into the components of depth ( $\Delta D$ ), brightness ( $\Delta B$ ) and hue ( $\Delta H$ ), of which only hue difference has a qualitative (and quantitative) equivalent in the CIELAB system. Depth and brightness are important terms to dyers. Depth is related to the amount of dye taken up by a textile material and brightness to that component of colour difference that is neither depth nor hue. Brightness is best defined as the opposite of dullness, dullness being related to the amount of neutral grey present in the colour.

This research has achieved its aim to develop an algorithm which computes the dyers' variables of  $\Delta D$ ,  $\Delta B$  and  $\Delta H$  from the spectral reflectance values of a standard and a batch. It is believed that this algorithm will help the dyer in minimizing the errors to reconcile the output of colour physics software. The algorithm also intends to reduce the percentage disagreement in reporting the colour errors between an experienced and an inexperienced dyer.

**RESEARCH INTERESTS:** Colour Sciences and Dye Chemistry, Process and Surface Modification

**M.ENG G (TEXTILES)** NED University KARACHI, PAKISTAN 2005-2007

**Major Modules:** Textile Printing, Textile Quality Assurance, Processes for Cotton Dyeing, Colour Physics and Measurement, Technical Textiles and Advanced Statistics

**B.SC(TEXTILE Engg)** National College Of Textile Engineering Faisalabad, Pakistan,  
UET Lahore, 1993-1998

**Major Modules:** Polymer And Fibre Science, Polymer Chemistry, Textile Dyeing, Textile Printing, Quality Control, Fibre Physics, Dyestuff Chemistry, Colour Physics

## **EMPLOYMENT:**

**ASSOCIATE PROFESSOR:** Department of Textile Engg. NED University of  
Engg & Tech June 2011 to date

**ASSISTANT PROFESSOR:** Department of Textile Engg. NED University of  
Engg & Tech 2002-2011

**LECTURER:** Department of Textile Engg. NED University of  
Engg & Tech 1999-2002

I am associated with the department of textile engineering as a teaching staff since September 1999. My main responsibilities include; teaching at undergraduate level, carry out practicals related to dyeing and printing, supervising undergraduate projects related to colour and textile chemistry .

**CHEMIST:** NINA textile mills, Karachi 1998-1999

**PROFESSIONAL MEMBERSHIP:** Institute of Engineers Pakistan

## **CONFERENCE PROCEEDING**

- 1) Salma Farooq, Roger H Wardman and K J Smith, "Development of an algorithm to convert Colorimetric variables of  $\Delta L^*$ ,  $\Delta C^*$   $\Delta H^*$  to Dyers' variables of differences in Depth, Brightness and Hue," Proceeding of 22<sup>nd</sup> IFATCC Congress-Stresa (Italy), May 5<sup>th</sup> -7<sup>th</sup>, 2010.

## **JOURNAL ARTICLE**

- 1) Roger H Wardman, Salma Farooq and K J Smith, "The Determination of Dyers' Perceived Components of Colour Difference (Depth, Brightness and Hue) Between Two Similar Colours from their Spectral Reflectance Values," Paper submitted to Coloration Technology, January 2011.
- 2) Salma Farooq, "A look at Defective Dyeing and Counter Measures," P.T.J, 2006, 66.