25-D MALIR CANTT BAZAR • 75070, KARACHI • PAKISTAN
PHONE 0092-21-99261261 EXT: 2365 • E-MAIL: DAWOOD@NEDUET.EDU.PK

MUHAMMAD DAWOOD HUSAIN

EDUCATION

2008 - 2012
University of Manchester, Manchester, United Kingdom.
PhD in Textile Science & Technology

2005 - 2007
Niederrhein University of Applied Sciences, Mönchengladbach, Germany.
Masters in Textile & Clothing Management

1998 - 2002
NED University of Engineering & Technology, Karachi, Pakistan.
Bachelors in Textile Engineering

PROFESSIONAL EXPERIENCE

2018 March – Till Date	**2007 July – 2018 Feb**	**2003 Jan – 2007 July**
Associate Professor	*Assistant Professor*	*Lecturer*

Textile Engineering Department, NED University of Engineering & Technology, Karachi, Pakistan.

Courses Taught (at undergraduate level)

- Textile Production Management
- Transport Phenomena
- Polymer & Fiber Science
- Advance Fabric Manufacturing Mechanism
- High Performance Fibers
- Manufacturing Process
- Machine Design
- Textile Product Evaluation I
- Textile Fabric Manufacturing Process
- Knitting Technology

Courses Taught (at Graduate level)

- Technical Textiles
- Strategic Management & Decision Making
- Weaving
- Organizational Systems
- Apparel & Merchandising Management

Other departmental/university responsibilities (old and current):

- NED Focal Person 1) for the implementation of MoU signed between PSQCA and the NED University;
- Member of HEC National Curriculum Revision Committee (NCRC) for Textile Engineering
- Secretary, IGS Pakistan Chapter;
- Faculty Advisor of AATCC NED Chapter;
- Member of departmental Board of Study;
- Member of Organizing Committee "NED International Textile Conference";
- Member of BS Textile Program Development Committee;
- Member of departmental PEC Accreditation Committee;

- Involved in the development of PC-1 for the Knitting Laboratory/Garment Technology Laboratory/and Technical Textile Laboratory;
- Member of curriculum revision committee of BE and BS Textile program;
- Supervision of final year undergraduate projects;
- Examining of Independent Study Projects;
- Industrial liaison (arrangement of internships, special lectures and industrial visits);
- Industrial liaison (industrial visits for developing research linkages);
- Special lectures to final year students on "Career Building";
- In-charge of Smart Textiles Lab, Weaving lab, Store and TIPC;
- Was involved in the installation and commissioning of machines in Yarn manufacturing and Fabric manufacturing laboratory;
- Class advisory.

2008 Oct- 2010 June

Graduate Teaching Assistant

School of Materials, University of Manchester, UK

- Demonstrated the practicals related to *fabric manufacturing* and *textile calculations* to undergraduate students of Textile Science & Technology, Fashion Design and Textile Management.

2002 Sept - 2002 Dec

Trainee Engineer

Research & Technology Centre, SULTEX AG, Rüti, Switzerland

- The subject of this training was to develop a software code in a MATLAB environment, which helps mechanical engineers to design and to optimize cam mechanisms for weaving machines. It is a *GUI* based software and uses existing toolboxes for mathematical optimization. It is user friendly and relieves engineers from learning programming techniques and mathematics of cam theory.

BRIEF STATEMENT OF RESEARCH INTEREST

My primary research interests sets in the domain of application of Conductive Textiles in the development of Wearable Health Monitoring Systems. It encompass the design, fabrication and testing of textile sensors i.e. ECG, Respiration and Temperature sensors. In general I have a keen interest to develop Technical Textiles products at the Fabric manufacturing level (such as weaving, knitting, braiding and non-woven).

PUBLICATIONS (12 JOURNAL & 06 CONFERENCE)

1. **Husain, M.D.;** Zahid, B.; Mahboob, F., *Development of Puncture Resistance Glove*, International Conference on Emerging Trends in Knitting, National Textile University, Faisalabad 07-08 Feb 2018.
2. Tahir, R.; **Husain, M.D**.; Hamdani, S.T.A.; Nawab, Yasir, *Development of Energy Harvesting Knitted Structures* International Conference on Technical Textiles, National Textile University, Faisalabad 09-10 Nov 2017.
3. Atalay, O.; Atalay, A.; & **Husain, M.D**., *Investigation of The Mechanical Testing Conditions on Sensing Properties of Textile-Based Strain Sensor*. Tekstil Ve Konfeksiyon 2017, Volume 27, Issue 01, pp. 3-9. **(Impact Factor 0.34)**
4. **Husain, M.D**.; Naqvi, S.; Atalay, O. & Kennon, W.R., *Performance Analysis of Temperature Sensing*

Fabric. AATCC Book of Papers, AATCC International **Conference**, Wilmington, North Carolina, USA, 28-30 March 2017 pp. 472-486.

5. **Husain, M.D**.; Atalay, O.; Atalay, A. & Kennon, W.R., *Uncertainty Analysis of Temperature-Resistance relationship of Temperature Sensing Fabric*. MDPI - Fibers 2016, Volume 04, Issue 04, Article # 29. **(ISI Indexed)**
6. **Husain, M.D.;** Naqvi, S., *Development of steady state mathematical model for the validation of experimental Temperature-Resistance relationship of Temperature Sensing Fabric*. NCTT Book of Papers, 1st National **Conference** on Technical Textiles (NCTT-2016), National Textile University, Faisalabad, 26-27 Sept, 2016
7. **Husain, M.D**., Atalay, O., Atalay, A. & Kennon, W.R., *Development of Test Rig System for Calibration of Temperature Sensing Fabric*. AUTEX Research Journal; Accepted in 2015 and currently under proof stage **(Impact Factor 0.72)**
8. Atalay, A., Atalay, O., **Husain, M.D**. & Potluri, P., *Piezofilm Yarn Sensor (PYS) Integrated Knitted Fabric for Healthcare Applications*. Journal of Industrial Textiles 2016, DOI: 10.1177/1528083716652834. **(Impact Factor 1.75)**
9. **Husain, M.D.,** Atalay, O., Naqvi, S., & Kennon, W.R., *Measuring Human body Temperature through Temperature Sensing Fabric*. AATCC Journal of Research 2016, Volume 3(4), pp. 1-12. **(Impact Factor 0.25)**
10. Atalay, O., Atalay, A. & **Husain, M.D**., *Effect of Mechanical Test Conditions on Sensing Properties of Knitted Strain Sensors*. NEDITC Book of Papers, 2nd NED International Textile Conference, Karachi, Pakistan, 17-18 March, 2016, pp. 73-80.
11. Naqvi, S., **Husain, M.D.,** Potluri, P., Mandal, P., & Lewis, P.S., *Pressure distribution under different types of Blood Pressure measurement Cuffs*. Journal of Industrial Textiles; 2016; DOI: 10.1177/1528083716637868 **(Impact Factor 1.75)**
12. Atalay, O., **Husain, M.D.,** & Kennon, W.R., *Comparative study of the weft-knitted strain sensors*. Journal of Industrial Textiles; 2016; DOI: 10.1177/1528083715619948 **(Impact Factor 1.75)**
13. Hamdani, T., **Husain, M.D.** & Fernando, A., *Study of electro-thermal properties of pyrrole polymerised knitted fabrics*. Journal of Industrial Textiles; 2015; DOI: 10.1177/1528083715598653 **(Impact Factor 1.75)**
14. **Husain M.D**., Dias T., & Kennon W.R*., Design and fabrication of Temperature Sensing Fabric*. Journal of Industrial Textiles 2014, 44(3), 398-417 **(Impact Factor 1.75)**
15. Atalay O., **Husain M.D.** & Kennon, W.R., *Textile-Based Weft Knitted Strain Sensors: Effect of Fabric Parameters on Sensor Properties*. Sensors 2013, 13(8), 11114-11127; **(Impact Factor 2.67)**
16. **Husain M.D.,** Atalay O. & Kennon, W.R., *Effect of Strain and Humidity on the Performance of Temperature Sensing Fabric*. International Journal of Textile Science 2013, Volume 2(4), pp. 105-112.
17. **Husain M.D.** & Kennon W.R., *Preliminary Investigations into the Development of Textile Based Temperature Sensor for Healthcare Applications*. MDPI - Fibers 2013, 1(1), 2-10. **(ISI Indexed)**
18. **Husain M.D.** & Kennon W.R., *Temperature Sensing Fabric for Physiological Monitoring*. AATCC Book of Papers, AATCC International **Conference** & Exhibition, Charlotte, North Carolina, USA, 21-23 March, 2012, pp. 193-200.
19. **Husain M.D.** & Dias T., *Temperature sensing fabric for health monitoring*, poster presented at the "Post-Graduate Researchers in Science Medicine **Conference** 2009 (PRISM)", Manchester, UK, 30 October, 2009.
20. **Husain M.D**. & Dias T., *Development of Knitted Temperature Sensor*. Report submitted at Smart Textile Saloon, 25 September 2009, Ghent, Belgium, in connection with the SysTex student award.