

MUHAMMAD DAWOOD HUSAIN

SUMMARY

Textile Engineer from NED UET; Masters from Hochschule Niederrhein, Germany; PhD in Textile Science & Technology with focus on Smart/Medical Textiles from The University of Manchester, UK. 20 years of Teaching including 12+ Years of Research Experience; currently working as Professor at Textile Engineering Department, NEDUET since Jan 2022; Harvard certified Higher Education Teacher; Leading the Smart Manufacturing and Response Textiles Research Group; Teaching undergraduate, MS and PhD level classes; Supervised 35 BE theses and 03 Masters Theses. Active Researcher in the domain of Smart Textiles, Textile Sensors, Soft Robotics and Industry 4.0; have authored 18 Peer-Reviewed Journal articles and 10 Conference communications; Associate Editor of JCR listed Journal AATCC Journal of Research. Secured various projects Funding of over PKR 20 Million as Principal Investigator and PKR 14.5 Million as Part of GCF Project Team Member; Conceptualized, Designed and Developed the SMART Lab (First departmental research Lab) and the Knitting Facility (within Fabric Manufacturing Lab). Fluent in English and Urdu with little knowledge of German; Experienced in developing course curricula as well as executing field trips, laboratory exercises, and other activities beyond traditional lectures.

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 (secured 2.2/5 CGPA according to German Grade Point system)

1998 - 2002

NED University of Engineering & Technology, Karachi, Pakistan.

Bachelors in Textile Engineering (with 78%)

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. My secondary interests include the development of soft robotics (textile based actuators) and application of Industry 4.0 in Textile Industry. 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).

RESEARCH GRANTS/FUNDING

- As **Project Team Member** of Work Package 04 *Transformation to manmade fibers' based textiles*, HEC GCF research grant of **PKR 14.5 Million** (Project No: 63) recieved for a project titled "Enhancement of global competitiveness of Pakistani textile export value-chains by capacity building and product diversification (KnowTex)". The Total funding of the project is **PKR 207 Million** (May 2021-April 2024)

- As **Principal Investigator**, NRPB research Grant of **PKR 10.67 Million** (Project No: 7827) received for a project titled "Development of Smart Shirt for Ambulatory Monitoring of Human Body Vital signs", by HEC Pakistan. (Jan 2020-Oct 2023)
- As **Principal Investigator**, research Grant of **PKR 6.97 Million** (Project No: S-NED-06) received for a project titled "Fabric based soft actuators for wearable applications", by PSF-Tubitak. (Nov 2019-Sept 2022)
- Conceptualized/Designed/Developed the Smart Textiles Lab (First Research Lab of the Department) and received funding **Rs. 2.06 Million** through UDWP, NEDUET Platform in 2019. The Lab is expected to complete in July 2021.
- Conceptualized/Designed/Developed the Knitting Facility at Fabric Manufacturing Lab and received funding **Rs. 1.28 Million** through UDWP, NEDUET Platform in 2021. The Facility is expected to complete in December 2021.
- As **Principal Investigator**, research Grant of **PKR 0.69 Million** received for a project titled "Textile Sensors for Bio-medical Applications", from DICE Shark at the DICE Textile 2017 held at National Textile University, Faisalabad. (July 2017- June 2018)
- As Project Supervisor, received funding of **PKR 85,500** on a student project titled "Development and Characterization of Fabric Actuators for soft robotics applications" from NEDAASC, USA. (2020)
- As Project Supervisor, received funding of **PKR 49,500** on a student project titled "Development and Characterization of Concrete Cloth for Civil Engineering Application" from NEDAASC, USA. (2019)
- As Project Supervisor, received funding **PKR 48,400** on a student project titled "Development of Smart Textile Structures For harvesting Mechanical Energy" from NEDAASC, USA. (2018)
- As Project Supervisor, received funding of **PKR 27,000** on a student project titled "Development of Textile Based Portable Solar Charger" from NEDAASC, USA. (2017)
- As Project Supervisor, received funding of **PKR 135,000** on a student project titled "Textile Sensors for Bio-medical Applications" from NEDAASC, USA. (2016)

HONOURS/AWARDS

- **Secured PKR 21.5 Million Funding as Principal Investigator** through various Research Projects (2016-2021) and PKR 14.5 Million as a Team Member of GCF Project (2021).
- **Highest Citation, h-index and i10-index** among the faculty members of Textile Engineering Department, NEDUET (2021)
- **Organized (as Conference Secretary)** the 4th NED International Textile Conference at NED UET Karachi on 02/03-03-2020.
- **Organized (as Co-Chair Academics)** the 5th All Pakistan DICE Textile at NEDUET Karachi on 02/03-03-2020.
- **Delivered a session keynote speech** on *Engineering Education in Times of Covid* at the International e-conference on Enriching e learning management for Global Education: New Norm Viewpoint (ICELMGE 2020), Global Academics Research Academy (GARA), 19-20 Dec 2020.
- **Nominated** by NED to participate in the 2-month certificate course on Teaching in Higher Education from **Harvard University, USA**. Only Five Faculty Members out of 500 were selected to participate in this training. (2019)
- **Nominated by NED** to provide the **Individual Mentoring assistance to the young faculty members** of Textile Department especially in the context of 1) Improvement in teaching 2) Publications and 3) Supporting in seeking research funding) under the NED Mentorship Initiative (2019-2020)
- **Associate Editor** of SCIE Indexed (**0.6 Impact Factor**) American Association of Textile Chemists and Colorists (AATCC) Journal of Research (2016 To Date)
- **Received 1st Prize** out of 60 Projects in DICE Textile Innovation Event organized by NEDUET, Karachi on 02-03 March 2020. (2020)
- **Chaired a Session** on "Smart Textiles" at the International Conference on Emerging Trends in Knitting, organized by National Textile University, Faisalabad on 07-08 Feb 2018.

- **Received HEC Travel** grant of Rs. 0.188 million to present the research article at the AATCC International Textile Conference, 28-30 Sept 2017, Wilmington, North Carolina, USA. (2017)
- **Awarded** Best Research Publication Award by NED Alumni Association of Southern California. (2017)
- **Received 2nd Prize** out of 100 Projects in DICE Health 2016 organized by DOW University of Health Sciences at the EXPO Centre, Karachi on 23-24 Dec 2016. (2016)
- **Awarded** Best Research Publication Award by NED Alumni Association of Southern California. (2016)
- **Awarded** Best Research Publication Award by NED Alumni Association of Southern California. (2014)
- **Participated** in the "Post Graduate Researcher Symposium" **as a representative of University of Manchester's PhD researcher** , London, UK (2011)
- **Awarded 2nd prize** in Poster presentation in the School of Materials Postgraduate Materials Conference at University of Manchester, UK. (2009)
- **Nominated** by NED to participate in the 3-month residential Faculty Development Programme (FDP) on Teaching & Learning in Higher Education at Higher Education Commission, Islamabad, Pakistan. Only three faculty members from NED have attended this residential training up till now. (2004)
- **Received an honorarium** of one basic salary by NED on account of attending the International Textile Machinery Exhibition, Birmingham, UK on my sole efforts and to bring back some valuable textile samples for the department. (2003)
- **Got selected** by the Sultex AG (former SulzerTextil), on the basis of my final year Engineering Design Project, for the three months "Training Cum Job" at their Research & Technology Centre, Rütli, Switzerland. (2002)

PROFESSIONAL EXPERIENCE

| 2022 Jan – Till Date | 2018 March – Jan 2022 | 2007 July – 2018 Feb | 2003 Jan – 2007 July |
|----------------------|----------------------------|----------------------------|----------------------|
| <i>Professor</i> | <i>Associate Professor</i> | <i>Assistant Professor</i> | <i>Lecturer</i> |

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

Courses Taught (at undergraduate level)

- | | |
|---|--|
| • Textile Production Management | • Knitting Technology |
| • Advance Fabric Manufacturing Mechanism | • Introduction to Textile Engineering |
| • Advance Fabric Manufacturing Technology | • Textile Fabric Manufacturing Process |
| • Weaving Preparatory Process | • High Performance Fibers |
| • Polymer & Fiber Science | • Manufacturing Process |
| • Textile Product Evaluation I | • Machine Design |

Courses Taught (at Graduate level)

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|--|--------------------------------------|
| • Technical Textiles | • Organizational System |
| • Strategic Management & Decision Making | • Apparel & Merchandising Management |
| • Weaving | |

Other departmental/university responsibilities (old and current):

- Member "Senate" NEDUET;
- Member "Academic Council" NEDUET;
- Member "Board of Faculty" MME, NEDUET;
- Lead Investigator, Smart Textiles Research Group, NEDUET.
- NED Focal Person 1) for the implementation of MoU signed between PSQCA and the NED University;
- NED Focal Person for NEDAASC Awards and FYP Funding
- Secretary, IGS Pakistan Chapter;
- Member "Board of Review" of Audit Department/Registrar office, NEDUET.
- 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 BE/BS Final Year Project Committee;
- Member of departmental PEC Accreditation Committee;
- Involved in the development of PC-1 for the SMART Laboratory/ Knitting Laboratory/Garment Technology Laboratory/and Technical Textile Laboratory;
- Member of curriculum revision committee of BE/BS/M Engg./MEM/MS Textile programs;
- Supervision of Undergraduate and Masters Projects;
- Examining of Undergraduate and Masters 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 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, Rütli, 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.

JOURNAL PUBLICATIONS

(Total Impact Factor 33.01) Clarivate Analytics

Google Scholar Citation Report: 410 (h-index 9; i10 index 9)

1. Naqvi, S.; **Husain, M.D.**; Dias, T. & Lewis, P., *Investigating the Inaccuracies of indirect method of blood pressure measurement associated to the cuff constructing fabrics*. Mehran University Research Journal of Engineering & Technology, **Accepted. (ISI Master List; Scopus Indexed; HJRS-Y Category)**
2. Dad, A; Zahid, U & **Husain, M.D.**, *Woven Designs: Concepts and Development for New Entrepreneurs in Textile Businesses of Pakistan*. International Journal of Innovation, Creativity and Change, **Accepted. (HJRS W-Category)**
3. **Husain, M.D.**; Naqvi, S.; Siddiqui, M.O.R.; and Kennon, R.W., *Steady state mathematical model of Test-Rig for the validation of experimental Temperature-Resistance relationship of Temperature Sensing Fabric*. Mehran University Research Journal of Engineering & Technology, **Accepted. (ISI Master List; Scopus Indexed; HJRS-Y Category)**
4. Siddiqui M.O.R.; Imran Noor, I.; **Husain, M.D.**; Noorani, M. U.; Iqbal, W. & Sun, D., *Productivity Improvement in Denim Industry by DMAIC Methodology*. International Journal of Innovation, Creativity and Change 2021, Vol. 15(3): pp. 217-229. **(HJRS W-Category)**
5. Qaseem, S.; Dlamina, D.S.; Zikalalae, S.A.; Teshaa, J.M.; **Husain, M.D.**; Wang, C.; Jiang, Y.; Weif, X.; Vilakatig, G.D. & Li, J., *Electro-catalytic membrane anode for dye removal from wastewater*. Colloids and Surfaces A: Physicochemical and Engineering Aspects 2020, Vol. 603: Article # 125270. **(Impact Factor 3.99)**
6. Nauman, M.M.; Mehdi, M & **Husain, M.D.**, *Stretchable and Flexible Thin Films Based on Expanded Graphite Particles*. MDPI Processes 2020, Vol. 8(8), Article # 961. **(Impact Factor 2.75)**
7. Atalay, A., Atalay, O., **Husain, M.D.** & Potluri, P., *Piezofilm Yarn Sensor (PYS) Integrated Knitted Fabric for Healthcare Applications*. Journal of Industrial Textiles 2017, Vol. 47(4), pp. 505-521. **(Impact Factor 2.01)**
8. **Husain, M.D.**, Atalay, O., Atalay, A. & Kennon, W.R., *Development of Test Rig System for Calibration of Temperature Sensing Fabric*. AUTEX Research Journal 2017, Vol. 17(3), pp. 219-228. **(Impact Factor 1.0)**
9. 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 2017, Vol. 47(1), pp. 89-103. **(Impact Factor 2.01)**
10. 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, Vol. 27(1), pp. 3-9. **(Impact Factor 0.34)**
11. Atalay, O., **Husain, M.D.**, & Kennon, W.R., *Comparative study of the weft-knitted strain sensors*. Journal of Industrial Textiles; 2017, Vol. 46(5), pp. 1212-1240. **(Impact Factor 2.01)**
12. **Husain, M.D.**; Atalay, O.; Atalay, A. & Kennon, W.R., *Uncertainty Analysis of Temperature-Resistance relationship of Temperature Sensing Fabric*. MDPI - Fibers 2016, Vol. 4(4), Article # 29. **(ISI Master List; HJRS-X Category)**
13. Hamdani, T., **Husain, M.D.** & Fernando, A., *Study of electro-thermal properties of pyrrole polymerised knitted fabrics*. Journal of Industrial Textiles; 2016, Vol. 46(3), pp. 771-786. **(Impact Factor 2.01)**
14. **Husain, M.D.**, Atalay, O., Naqvi, S., & Kennon, W.R., *Measuring Human body Temperature through Temperature Sensing Fabric*. AATCC Journal of Research 2016, Vol. 3(4), pp. 1-12. **(Impact Factor 0.6)**
15. **Husain M.D.**, Dias T., & Kennon W.R., *Design and fabrication of Temperature Sensing Fabric*. Journal of Industrial Textiles 2014, Vol. 44(3), pp. 398-417. **(Impact Factor 2.01)**
16. Atalay O., **Husain M.D.** & Kennon, W.R., *Textile-Based Weft Knitted Strain Sensors: Effect of Fabric Parameters on Sensor Properties*. Sensors 2013, Vol. 13(8), pp. 11114-11127. **(Impact Factor 3.28)**
17. **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, Vol. 2(4), pp. 105-112.
18. **Husain M.D.** & Kennon W.R., *Preliminary Investigations into the Development of Textile Based Temperature Sensor for Healthcare Applications*. MDPI - Fibers 2013, Vol. 1(1), pp. 2-10. **(ISI Master List; HJRS-X Category)**

CONFERENCE TALKS/PUBLICATIONS

19. **Husain, M.D.** (As keynote Speaker), *Engineering Education in Times of Covid*. International e-conference on Enriching e learning management for Global Education: New Norm Viewpoint (ICELMGE 2020), Global Academics Research Academy (GARA), 19-20 Dec 2020.
20. **Husain, M.D.**; Naqvi, S., E-TEXTILE Perceived Benefits and Challenges. 5th International Conference on Value Addition & Innovation in Textile, National Textile University, Faisalabad, 20-21 Mar 2019.
21. **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.
22. Tahir, R.; **Husain, M.D.**; Hamdani, S.T.A.; Nawab, Y., *Development of Energy Harvesting Knitted Structures*. International Conference on Technical Textiles, National Textile University, Faisalabad 09-10 Nov 2017.
23. **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 Mar 2017 pp. 472-486.
24. **Husain, M.D.**; Naqvi, S., *Development of steady state mathematical model for the validation of experimental Temperature-Resistance relationship of Temperature Sensing Fabric*. 1st National Conference on Technical Textiles (NCTT-2016), National Textile University, Faisalabad, 26-27 Sept 2016.
25. 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 Mar 2016, pp. 73-80.
26. **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.
27. **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.
28. **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.

PROFESSIONAL TRAININGS CONDUCTED

- Conducted a **2-week Advance training on "Thermal Properties of Textiles"** at the IAS&C-Army Quality Control Labs from 12-10-20 to 23-10-20
- Provided **Individual Mentoring assistance to the young faculty members** of Textile Department especially in the context of 1) Improvement in teaching 2) Publications and 3) Supporting in seeking research funding) under the NED Mentorship Initiative (2019-2020)
- Conducted the **2-month "Higher Education Teaching Certificate"** Course as Master Trainer, held at NEDUET from 01-10-2019 to 13-12-2019.
- Conducted a **short training on "MicroSoft Teams"** for the Final Year Students of Textile Engineering on 28-11-19.
- Conducted a **2-day training on "Knitted Fabric Manufacturing Process and Application"** at the IAS&C-Army Quality Control Labs on 22-04-19 and 23-04-19.

PROFESSIONAL ACTIVITIES

- Member Technical Program Committee at the 9th Spring World Congress on Engineering and Technology (SCET 2020), Kunming, China scheduled to be held on August 14-16, 2020.
- Participated as Technical Expert for Textile research proposals in "HEC TDF Evaluation Committee" meeting on 19-03-19.
- Represented and Managed the Booth of NED UET at the Higher Education Expo, Wuhan Exhibition Centre, Wuhan, China on 25-27 April 2018. NED was one of the other 10 Pak Universities exhibited their booths at Expo.
- Member Standard Committee, RA111 Electronically Integrated Textiles, AATCC USA (2016 to date)

- Member Standard Committee, RA63 Water Resistance, Absorbency & Wetting Agent Eval TM, AATCC USA. (2016 to date)
- Member, Education Advisory Board, AATCC USA (2014 to date).
- Reviewer of various impact factor Journals such Journal of Industrial Textiles; Textile Research Journal; Journal of the Textile Institute; Journal of Engineered Fibers and Fabrics; Mehran University Research Journal of Engineering & Technology; International Journal of Fashion Design, Technology and Education.
- Reviewer of research Proposals received by funding bodies such as Pakistan Science Foundation and Higher Education Commission, Pakistan.

ACADEMIC CONFERENCES/SEMINARS

- **Organized (as Conference Secretary)** the 4th NED International Textile Conference at NED UET Karachi on 02/03-03-2020.
- **Organized (as Co-Chair Academics)** the 5th All Pakistan DICE Textile at NEDUET Karachi on 02/03-03-2020.
- **Organized** Seven successful *Career Seminars* under the platform of AATCC NED Chapter, for the students of Textile Engineering on 03-10-2013, 23-09-2014, 17-09-2015, 22-09-2016, 23-08-2017, 02-08-2018 and 18-04-2019.
- **Organized** (as part of the organizing committee) and **compered** the *1st, 2nd and 3rd NED International Textile Conferences* at NED UET Karachi on 13-03-2014, 17/18-02-16 and 10/11-01-18 respectively
- **Organized** workshop on NRPU Funding Process for the faculty of NEDUET on 04-10-2017.
- **Organized** a Seminar on *Geo-Membranes: Applications, Welding & Testing Procedures* as General Secretary, IGS Pakistan Chapter in Collaboration with Dynamic Solutions (Official Partner of Leister Technologies) on 07-03-2016 at Avari Towers, Karachi, Pakistan.
- **Organized** a Seminar on *Geotextiles: Manufacturing & Applications* as General Secretary, IGS Pakistan Chapter in Collaboration of NEDUET Karachi on 17-12-2015
- **Presented** my PhD research work at the "*Doctoral Consortium of International Symposium of Wearable Computers (ISWC)*" at Newcastle University, UK on 18-06-2012. The doctoral students from all over the world researching in the area of "Wearable Computing" presented their research work.
- **Participated** in the "*Post Graduate Researcher Symposium-A conversation about doctoral experience*" at British Library, London, UK on 01-11-2011. The theme of the symposium was, how the doctoral experience could be improved for all the stakeholders involved i.e. PhD researchers, supervisors, academic staff, and staff supporting researchers & librarians. I was selected as a Post-Graduate student representative from University of Manchester to participate in this event. The symposium was jointly organized by the UK Council for Graduate Education (UKCGE), the British Library, Vitae and the National Union of Students (NUS).
- **Presented** my PhD work in *Annual Postgraduate Materials Conference*, organized by School of Materials, University of Manchester, UK. (2008, 2009 and 2010)
- Attended a workshop on "NRPU Proposal writing" organized by ORIC, NEDUET on 31-12-19
- Attended a "*Mentorship Workshop*" organized by Dean AMS, NEDUET on 15-02-19
- Attended a workshop on "*Procurement Process for Researchers*" organized by DP, NEDUET on 08-02-19.
- Attended a workshop on "*How to develop SAR as per OBE guidelines for PEC accredited Programmes*" organized by QEC, NEDUET on 31-01-19 and 01-02-19
- Attended *National Awareness Seminar on Intellectual Property Rights in Pakistan* organized by IPO-Pakistan at PCSIR Laboratories Karachi on 28-12-2015.

- Attended a seminar on "*Textile Industry Energy Management*" organized by Ministry of Textiles at Textile Commissioner Office on 28-05-2015.
- Attended workshop on "*Developing Industry Driven Technologies*" at NEDUET, organized by Institute of Research Promotion on 05-01-2015.
- Attended "*BFZ Resource Efficiency Conference*" at Marriot Hotel Karachi organized by ESPIRE Pakistan on 06-11-2014.
- Attended seminar on "*Scenario of Technical Textiles in Pakistan*" at NEDUET, organized by the Ministry of Commerce and Textile Industry, on 16-09-2014.
- Attended seminar on "*Recent developments in wet processing sector, restricted chemicals, REACH and CPSIA regulations*" at NEDUET, organized by the Ministry of Textile Industry, on 07-11-2013.
- Attended a workshop on "*Fundamentals of Intellectual Property*" organized by USAID, CLDP, HEC Pakistan and NED UET Karachi on 23-09-2013.
- Attended a Video Conferencing Session on "*Kirk Patrick Model for Evaluating Trainings in Higher Education*" on 06-09-2013 delivered by Prof. Dr. Abdul Wahid Usmani, Dean Quality Assurance, King Saud University.
- Attended a workshop on "*Ingredients of Successful Academic Career in Higher Education*" in 2013, conducted by Prof. Dr. Muhammad Tufail, Dean MEM, NED UET Karachi.
- Attended "*CEAS-Research Impact ShowCase*" organized by the Chemical Engineering and Analytical Science Department, at University of Manchester, UK on 06-07-2011.
- Attended series of RTDology Webinars on various topics related to "*Temperature measurement methods, accuracy analysis and calibration of Resistance Temperature Detectors (RTDs)*" organized by Burns Engineering, Minnesota, USA. (2010, 2011).
- Attended "*Innovation in Textile*" conference at Manchester Conference Centre, Manchester on 10-06-2010.
- Attended "*NWIN Biomedical Pitch Event*" at The University of Manchester Innovation Centre (UMIC), Manchester, UK. on 26-10-2010.
- Attended various workshops and training sessions in "*Pathways: Annual Career Fair*" organized by Careers & Employability Division of The University of Manchester, UK. (2008, 2009, 2010).
- Attended "*Research to Enterprise Summit*", organized by Manchester Business School, UK on 27-06-2008.
- Attended "*1st World Conference on Textile and Clothing Software*" at Manchester Conference Centre, Manchester, UK on 22-05-2009.
- Attended "*1st World Conference on Three Dimensional (3D) Fabrics*" at Manchester Conference Centre, Manchester, UK on 10-04-2008.
- Attended "*32nd Aachen Textile Conference*" on 23-11-2005 at RWTH Aachen, Germany.
- Attended Seminar on "*ISO – 9000 and ISO–14000 systems*", on 12-05-2002 at Sheraton hotel, Karachi, Pakistan, organized by Pakistan Institute of Quality Control.
- Attended "*International Symposium on Vibration Monitoring & Diagnostic*", on 16-02-2002, at Sheraton hotel, Karachi, organized by NED University of Engineering & Technology.

| TECHNICAL TRAININGS/WORKSHOPS ATTENDED | PROFESSIONAL VISITS |
|---|--|
| <ul style="list-style-type: none"> • Participated in the “Paris Climate Agreement and Green, Sustainable development of Textile Industry Forum” held in Urumqi, China on 18-19 Sept 2016. The event was organized by the Jinsheng Group and was sponsored by the International Textile Manufacturer Federation, China National Textile and Apparel Council and Urumqi Government, China. • Participated in One month Seminar/Training on "<i>Textile Industry Management for Pakistan -I</i>" organized by Ministry of Commerce, People Republic of China at Fuzhou, China from 18-09-2015 to 14-10-2015. • Participated in One week Training on "<i>Introduction to SAP ERP</i>" organized by SAP Training & Development Institute, MENA Region at University of Lahore, Lahore from 27-07-2015 to 31-07-2015. • Attended following trainings in connection with the PhD process, organized by Graduate & Researcher Development Department of University of Manchester, UK. (2008-2012) <ul style="list-style-type: none"> ○ 2 hours session on <i>Publishing at Emerald</i>. (2012) ○ 3 hours <i>Viva Survivor</i> workshop. (2012) ○ 1 day <i>Publishing at Springer</i> workshop. (2011) ○ 2 hours talk on <i>Scientific Visualizations</i>. (2011) ○ 6 hours training on <i>MicroSoft Project</i>. (2011) ○ 4 hours workshop on <i>Social Media for Researcher</i>. (2010) ○ 3 hours workshop on <i>Creating a Map for Research Success</i>. (2010) ○ 4 hours session on <i>communicating research to Non-Specialist Audiences</i>. (2009) ○ 1 day training on <i>Graduate Teaching Assistant</i>. (2009) ○ 2 days training on <i>Introduction to Research (Speed PhD)</i>. (2008) • 3 days interactive training on <i>YXENDIS Jacquard Weaving Software</i> at NED UET, Karachi. (2007) • 1 week workshop on <i>Matlab & Simulink</i> organized by CCEE, NEDUET, Karachi. (2003) • 1 week interactive workshop on <i>Fabric weave designing through EAT Jacquard software</i> at SMA Rizvi Textile Institute, Karachi. (2003) • 1 week hands-on training on <i>Optimum machine settings of Projectile weaving machine</i> at Training Centre, SULTEX AG, Rueti, Switzerland. (2002) • 6 weeks hands-on training at Clariant Dyes and Chemicals, Karachi; which includes <i>Pretreatment, Dyeing, Printing & Finishing processes at laboratory scale</i>. (2001) | <p><u>International Textile Machinery Manufacturers</u></p> <p>Visited the manufacturing units of the following textile machinery manufactures.</p> <ul style="list-style-type: none"> • SulzerTextil (Manufacturer of Weaving Machines), Switzerland. (2002) • Karl Mayer (Manufacturer of Warp Knitting Machines), Germany. (2005) • Picanol (Manufacturer of Weaving Machines), Belgium. (2006) • TexTechno (Manufacturer of Textile Testing Instruments), Germany. (2007) • Sanda (Manufacturer of Circular Knitting Machine), China 2015 • Zwick (Manufacturer of Testing Machine), Germany. (2018) • Stoll (Manufacturer of Flat Bed Knitting Machines), Germany. (2018) • Merz (Manufacturer of Compression Stockings Knitting Machine), Germany. (2018) <p><u>International Textile Exhibitions</u></p> <p>Visited the following international textile exhibitions.</p> <ul style="list-style-type: none"> • testXpo, 2018, Zwick Headquarters, ULM, Germany. • Medica 2007, Messe Düsseldorf, Germany. • IMB 2006, World of Textile Processing , Messe Cologne, Germany. • TechTex 2005, Messe Frankfurt, Germany. • CPD show, 2005, Messe Düsseldorf, Germany. • HeimTextil 2005, Messe Frankfurt, Germany. • ITME 2003, NEC Exhibition Centre, Birmingham, UK. |
| <p>SOFT SKILLS TRAININGS/WORKSHOPS ATTENDED</p> <ul style="list-style-type: none"> • 2-month <u><i>Higher Education Teaching Certificate</i></u> course by The Derek Bok Center for Teaching & Learning, Harvard University from 13-03-19 to 14-05-19. • 2 days certificate course on <u><i>Personal Coaching</i></u> organized by The Coaching Academy at Crown Plaza, Manchester. (2012) | <p><u>International Textile Academia</u></p> <p>Visited the textile departments/ schools of the following universities around the world.</p> <ul style="list-style-type: none"> • Harvard University, US. • North Carolina State University, US. • Drexel University, USA • Philadelphia University, US. |

- 2 hours training session on *Personal Branding and Mind-Gym*, organized by the Training Resource Group at Sheraton Hotel, Karachi (2012)
- 4 days residential training on *Leadership in Action*, organized by VITAE at Hydro hotel, Windermere, UK. (2011)
- 2 days Level 1 training on *Neuro Linguistic Programming (NLP)*, organized by the Training Excellence Limited at Eccles Masonic Hall, Machester, UK. (2011)
- 2 days residential training on *Development of Grad-School Manager*, organized by VITAE at Macdonald Manchester Hotel, Manchester, UK. (2010)
- Attended following soft skills Trainings/Workshops, organized by Graduate & Researcher Development Department of University of Manchester, UK. (2008-2012)
 - 3 hours session on *7 Secrets of Highly Successful research Students*. (2012)
 - 3 hours session on *The Balanced Researcher*. (2011)
 - 1 day workshop on *Leadership and Influence*. (2011)
 - 2 hours session on *Networking Workshop*. (2010)
 - 3 days workshop on *Developing the Effective Research Communicator*. (2009)
 - 2 hours session on *Managing Procrastination*. (2008)
 - 3 hours session on *Boosting Self Esteem*. (2008)
 - 4 hours session on *Presentation Skills*. (2008)
 - 2 hours session on *Creating Ideas*. (2008)
 - 3 hours session on *Assertiveness*. (2008)
 - 2 hours session on *Critical Thinking*. (2008)
 - 1 day workshop on *Managing Relationship with Supervisor*. (2008)
- 3 months residential Faculty Development Programme (FDP) on **Teaching & Learning in Higher Education**_at Higher Education Commission, Islamabad, Pakistan. (2004)
- 3 months extensive course on *German language* from GOETHE Institute, Karachi. (2002)

- Manchester Metropolitan University, UK.
- University of Bolton, UK.
- University of Manchester, UK.
- Niederrhein University of Applied Sciences, Germany.
- RWTH Aachen, Germany.
- Ghent University, Belgium.
- Istanbul Technical University, Istanbul
- Marmara University, Istanbul
- ETH Zurich, Switzerland.
- NTU, Faisalabad, Pakistan.
- UET Mehran, Pakistan.
- UET Lahore, Pakistan.
- University of Lahore, Pakistan.
- Textile Institute of Pakistan.

Pakistan Textile Industry

Visited more than 50 textile mills located in various cities of Pakistan i.e. Karachi, Nooriabad, Hyderabad, Lahore, Faisalabad, Sialkot, Sheikhupura, Gujrat, Pindi Bhattian, Bhaipheru, Chunniah.

International Travelling Experience

- Switzerland
- United Kingdom
- Germany
- France
- Spain
- Holland
- Belgium
- Luxemburg
- United Arab Emirates
- Qatar
- China
- USA
- Turkey

INTERNSHIPS/INDUSTRIAL TRAINING

- Two weeks Industrial training at *weaving department of Naqshbandi Textile Mills*, Karachi. (2003)
- Two weeks Internship at *Crescent Greenwood Limited*, Pindi Bhattian, Punjab. (2001)
- Four weeks of working experience of *erecting machinery in spinning & weaving laboratories at NED UET* during final year of Textile Engineering. (2001)
- One month Internship at *Weaving department of Al-Karam Textile mills*, Karachi. (2000)

Memberships

- Senior Member AATCC, USA
- Member Textile Institute, UK.
- Member International Geosynthetic Society, USA
- Lifetime Member PEC, Pakistan.
- Member NEDAN, Pakistan
- Microsoft Certified Professional (M.C.S.E. Track 4.0).

| UNDERGRADUATE/GRADUATE PROJECT/REPORTS | Computer Skills |
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| <ul style="list-style-type: none"> • Graduate thesis is related with wearable health monitoring systems and entitled Development of Intelligent baby clothing. In this thesis the concept of intelligent baby clothing was presented while strain sensing fabric for respiration monitoring was discussed which was developed on Stoll knitting machine. (2007) • Undergraduate thesis on Design and Analysis of Projectile loom’s picking mechanism by using CAD/FEA. Pro-E was used to model some important components of picking mechanism of Projective loom & analysis was done in Ansys. Optimum machine settings of Projectile Machine were also discussed in the thesis. (2001) • Have done a project on <i>Development of Jeans</i> during MSc studies. Core objective was to get acquainted with the Denim dyeing & finishing techniques & to develop Jeans as a final product. (2006) • Was part of the team, who was involved in the <i>European Union co-financed project “e-Tex”</i>. Main objective was to develop a portal for knitting technology by incorporating images & animations in context of E-learning. I captured microscopic images of knitted articles and reproduced their needle notation graphically. (2006) • Have prepared a report regarding <i>“Creation of imaginary company in china with feasibility studies, mentioning possible oppositions, problems and concerns in terms of Cross Cultural Context”</i> during MSc studies. (2005) • Was part of the team who prepared a report titled <i>“Purchasing Strategy for a Traditional German Fashion Retailing Chain under Special Consideration of E-Procurement”</i> during MSc studies. My part was related with the <i>market analysis and positioning</i>. (2005) • Have prepared a feasibility report of a <i>“knit dyeing unit”</i> during BE Textile. Both the technical and financial aspects of the project were presented in the report. (2000) | <ul style="list-style-type: none"> • MS Office • LabVIEW • MATLAB • SimScape • AutoCad • YXENDIS • EAT Jacquard • G-SUITE • EDMODO • EndNote • Mendley • Grafis |
| | <u>Hobbies</u> |
| | <ul style="list-style-type: none"> • Travelling • Cricket • Social Networking • Personal Coaching & Mentoring |
| | <u>Languages</u> |
| | <ul style="list-style-type: none"> • Fluent in English and Urdu • Little knowledge of German |
| | <u>Personal Information</u> |
| | <ul style="list-style-type: none"> • Nationality: Pakistani • Family status: Married with three kids |