Curriculum Vitae: Dr. Abu Sadat Muhammad Sayem

Fellow, Higher Education Academy, England (UK),
Fellow, Textile Institute (UK),
Leadership & Management Award (Level 3), The Institute of Leadership & Management (UK).

Education

2016-19	**PGCert**. in Learning and Teaching in Higher Education (PGCLTHE), Manchester Metropolitan University, UK
2008-12	**Ph.D.** in Fashion Technology, The University of Manchester, UK
2002-04	**MSc.** in Textile and Clothing, Dresden University of Technology, Germany
1994-99	**BSc.** in Textiles, University of Dhaka, Bangladesh

Employment History

- 2015-present ***Research Associate, Research Ethics Officer & Safety Coordinator***, Manchester Fashion Institute (MFI), Manchester Metropolitan University;
- 2014-2015 ***Associate Professor (Fashion) and Head*** of the Centre for Scientific Research & Innovation (CSRI), Southeast University, Bangladesh;
- 2012-2014 ***Associate Professor and Head***, Textile Department, World University of Bangladesh;
- 2006-2012 ***Assistant Professor***, Textile Department, Ahsanullah University of Science & Technology, Bangladesh (Includes Study Leave for PhD in the UK);
- 2005-2006 Sr. Merchandiser, Texline Associate Ltd. Bangladesh;
- *(2002-2004 Master study in Germany)*
- 2001-2002 Merchandiser, Texline Associate Ltd. Bangladesh;
- 2000-2001 Fabric Technologist, Capital Mercury Apparel Ltd., Bangladesh;
- 1999-2000 Executive, Sinha Textile Group, Bangladesh;
- 1998-1998 Scientific Officer (part-time), Textile and Environment Research Project,
  - Bangladesh Environmental Lawyers' Association [BELA].

Awards, Scholarships and Achievements

- Winner of MMU Knowledge Exchange Award 2015 for research & knowledge exchange (RKE) project "Body Scanning for Canterbury Sportswear"
- Winner - IMB Innovation Award 2009 in "Students & Young Professionals" category, awarded at "IMB – World of Textile Processing ", by Koelnmesse GmbH, Cologne, Germany.
- **Commonwealth Scholarship** (2008-2011), by Commonwealth Scholarship Commission

(CSC), UK for PhD study at the University of Manchester
- DAAD (German Academic Exchange Programme) Scholarship (2002 – 2004) for Master study.

Teaching, Supervision, Examination

- **Unit Tutor** for Fashion Cultures 3 (Level 6 Research Project), BA Fashion Design Technology
- Teaching virtual fashion technology in the MA Fashion course since 2016
- Scrutineer and Reviewer for Research Degree Progression (RD1 & RD2)
- Co-Supervising two MMU PhD projects and one Leeds University PhD project.
- **External Examiner for PhD**, Cranfield University, UK since March 2020.
- **External supervisor and examiner** of the *MSc. thesis "ECG-garments with textile-based sensors" at the* ***University of applied Sciences Albstadt-Sigmaringen,*** *Germany (2019)*
- Supervising and marking MA dissertation at MMU (avg. 2 per year) since 2017
- Supervising and marking L6 UG research projects (avg. 12 per year) since 2016

Selected Knowledge Exchange and Public Engagement

- Key team member of delivering the RKE project "Canterbury Rugby – Body Scanning, Data Collection and Analysis" (£15,000), 2015/16
- Key team member of delivering the RKE project "Gym Shark – Body Scanning and Fit Mannequin" (£1200), 2016/17

Other Selected Roles

- Since 2017: Member of the Faculty Research Ethics and Governance Committee, Arts & Humanities, MMU
- Since 2018: Member of Faculty Health & Safety Panel for Arts & Humanities, MMU.
- Since 2018: Elected Council Member and Trustee, The Textile Institute, UK
- Since 2016: Peer Reviewer for International Journal of Fashion Design, Technology and Education (Taylor & Francis), Journal of Industrial Textiles (Sage Publication) and Autex Research Journal (Association of Universities for Textiles in EU).
- 2009/10: President, Students' Society, Manchester University Students Union
- 2014-2015: Member of Internal Quality Assurance Cell (IQAC), Southeast University
- 2014: Guest lecturer for MSc programme at Bangladesh University of Textile (BUTEX)
- 2007-2008: Research Adviser for Institute of Apparel Research & Technology (iART), Bangladesh Knitwear Manufacturers & Exporters Association (BKMEA)
- Aug/Sep 2006: Consultant for the United Nations Industrial Development Organisation (UNIDO) in Bangladesh Quality Support Programme (BQSP)

Selected Research Leadership

- Research Mentor of three early career researchers and academics (1 lecturer and 2 Sr. lecturers) at School of Fashion, MMU since 2017
- Head of the Centre for Scientific Research & Innovation (CSRI), Southeast University, Bangladesh (2014-2015)

Conference organization

- Organiser, Digital Fashion Innovation (DFI) e-Symposium, 28 – 30 September 2020, https://fashioninstitute.mmu.ac.uk/dfi2020/
- Co-chair of the organising committee of the Textile Research Conference TRC) [http://trc.clothinginstitute.org/] organised in Bangladesh and editor of the conference proceedings "TRC Book of Papers" between 2014-2017.

Grants

1) Research Accelerator Grant, £5000, MMU RKE Internal Funding 2017/18 - Project 113394: Smart Clothing for Health and Performance Monitoring
2) Faculty grant for hosting a Faculty Research Scholarship Awardee in 2019
3) MFI research cluster grants in 2017, 2018, 2019 of between £600 and £1000 each.

Publications

Book Chapters

- Sayem, Abu S.M. and Haider, Julfikar (2020). An Overview on the Development of Natural Renewable Materials for Textile Applications. In: Hashmi, Saleem and Choudhury, Imtiaz Ahmed (eds.). Encyclopedia of Renewable and Sustainable Materials, vol. 2, pp. 822–838. Oxford: Elsevier. http://dx.doi.org/10.1016/B978-0-12-803581-8.10983-X
- Sayem, Abu S.M., Shahariar, Hasan and Haider, Julfikar (2020). An Overview on the Opportunities for 3D Printing with Biobased Materials. In: Hashmi, Saleem and Choudhury, Imtiaz Ahmed (eds.). Encyclopedia of Renewable and Sustainable Materials, vol. 2, pp. 839–847. Oxford: Elsevier. http://dx.doi.org/10.1016/B978-0-12-803581-8.10942-7
- Uddin, MA., Sayem, ASM., **2020**. 'Natural Indigo for Textiles: Past, Present, and Future' In: Hashmi, Saleem and Choudhury, Imtiaz Ahmed (eds.). Encyclopedia of Renewable and Sustainable Materials, vol. 2, pp. 803-809, Oxford: Elsevier. https://www.sciencedirect.com/science/article/pii/B9780128035818116698?via%3Dihub
- Zerin, I., Farzana, N., Sayem, ASM., Anang, DM., Haider, J., S**2020**. 'Potentials of Natural Dyes for Textile Applications'. In Hashmi, S. (eds.) Encyclopedia of Renewable and Sustainable Materials, vol. 2 pp. 873-883, Elsevier. https://www.sciencedirect.com/science/article/pii/B9780128035818116686#
- Sayeed, MMA., Sayem, ASM., Haider, J., **2020**. 'Opportunities with Renewable Jute Fiber Composites to Reduce Eco-Impact of Non-renewable Polymers'. In: Hashmi, Saleem and Choudhury, Imtiaz Ahmed (eds.). Encyclopedia of Renewable and Sustainable Materials, vol 2. pp. 810-821, Elsevier. https://www.sciencedirect.com/science/article/pii/B9780128035818115838

Journal Articles

- Ramkalaon, S., Muhammad Sayem, AS., **2020**. 'Zero-Waste Pattern Cutting (ZWPC) to tackle over Sixty billion square metres of Fabric Wastage during Mass Production of Apparel', ***Journal of the Textile Institute*** https://www.tandfonline.com/doi/full/10.1080/00405000.2020.1779636
- Sayem, ASM et al., **2020**. 'Review on Smart Electro-Clothing Systems (SeCSs)', ***Sensors***, 20(3), 587; https://doi.org/10.3390/s20030587
- Sayem, ASM., Haider, J. Naveed, B., Sayeed, MMA., & Sashikumar, S. **2020**. 'Thermoplastic Composites reinforced with Multi-layer Woven Jute Fabric: A Comparative Analysis', ***Advances in Materials and Processing Technologies***, https://doi.org/10.1080/2374068X.2020.1809235
- Sayem, ASM., Haider, J., Sayeed, MMA., **2019**. 'Development and characterisation of multi-layered jute fabric-reinforced HDPE composites', ***Journal of Composite Materials***, 54 (14), pp. 1831-1845; https://journals.sagepub.com/doi/10.1177/0021998319885440
- Sayem, ASM., **2017**. 'Objective analysis of the drape behaviour of virtual shirt, part 2: technical parameters and findings', I***nternational Journal of Fashion Design, Technology and Education***, 10 (2), pp. 180-189. http://dx.doi.org/10.1080/17543266.2016.1223810
- Sayem, ASM., **2017**. 'Objective analysis of the drape behaviour of virtual shirt, part 1: avatar morphing and virtual stitching', ***International Journal of Fashion Design, Technology and Education***, 10 (2), pp. 158-169. http://dx.doi.org/10.1080/17543266.2016.1223354
- Sayem, ASM., Kennon, R., Clarke, N., Hayes, SG., **2016**. 'The effect of link-length and vertex angle on mesh generation and pattern flattening for virtual clothing', ***International Journal of Clothing Science and Technology***, 28 (4), pp. 503-515. http://dx.doi.org/10.1108/IJCST-04-2015-0046
- Sayem, ASM., Kennon, R., Clarke, N., **2014**. '3D grading and pattern unwrapping technique for loose-fitting shirt part 2: Functionality', ***Journal of Textile and Apparel, Technology and Management***, 8 (4). http://ojs.cnr.ncsu.edu/index.php/JTATM/article/view/5147
- Sayem, ASM., Kennon, R., Clarke, N., **2014**. '3D grading and pattern unwrapping technique for loose-fitting shirt part 1: Resizable design template', ***Journal of Textile and Apparel, Technology and Management***, 8 (4). http://ojs.cnr.ncsu.edu/index.php/JTATM/article/view/5147
- Sayem, ASM., Kennon, R., Clarke, N., **2012**. 'Resizable trouser template for virtual design and pattern flattening', ***International Journal of Fashion Design, Technology and Education***, 5 (1), pp. 55-65. http://dx.doi.org/10.1080/17543266.2011.614963
- Sayem, ASM., Kennon, R., Clarke, N., **2010**. '3D CAD systems for the clothing industry', ***International Journal of Fashion Design, Technology and Education***, 3 (2), pp. 45-53. http://dx.doi.org/10.1080/17543261003689888
- Sayem, ASM., Rossbach, V., **2004**. 'Progress in Supercritical Fluid Dyeing (SFD)', **Taiwan Textile Research *Journal***, 14 (4), pp. 259-267.
- Sayem, ASM., Rossbach, V., **2004**. 'Supercritical fluid dyeing (SFD): A green technology', ***Textile Journal***, 121 (5), pp. 22-25.

Conference Papers

- Muhammad Sayem, A., **2019**. 'Virtual Prototyping for Fashion 4.0', 2nd International Conference on Sustainable Smart Manufacturing (S2M 2019), part of the Industry 4.0 Academia Summit, 9-11 April 2019, University of Manchester and Manchester Central Convention Complex, UK, 9/4/2019 - 12/4/2019.
- Muhammad Sayem, A., **2019**. 'Virtual Fashion ID: A reality check', IFFTI Conference, 8 -11 April 2019, Manchester Fashion Institute, Manchester UK, 8/4/2019 - 12/4/2019, in Proceedings of the Proceedings of the IFFTI Conference 2019.
- SCOTT, E., SAYEM, ASM., **2018**. 'Landmarking and Measuring for Critical Body Shape Analysis Targeting Garment Fit', 3DBODY.TECH 2018 - 9th International Conference and Exhibition on 3D Body Scanning and Processing Technologies, Lugano, Switzerland, 16-17 Oct. 2018, Lugano, Switzerland, 16/10/2018 - 17/10/2018, in Proceedings of 3DBODY.TECH 2018 - 9th International Conference and Exhibition on 3D Body Scanning and Processing Technologies, Lugano, Switzerland, 16-17 Oct. 2018, pp. 222-235.
- Muhammad Sayem, AS., Haider, J., Sayeed, MMA., **2018**. 'Engineered Material from Natural Fibre for Interior Design Applications', The 91st Textile Institute World Conference: Integrating Design with Sustainable Technology, University of Leeds, UK, 23/7/2018 - 26/6/2018.
- Muhammad Sayem, AS., Sebastian, J., **2018**. 'Avatar Morphing for Virtual Fashion Prototyping', Transitions 2: Material Revolution Conference, University of Huddersfield, UK, 11/4/2018 - 12/4/2018.
- Muhammad Sayem, AS., Bednall, A., **2017**. 'A Novel Approach to Fit Analysis of Virtual Fashion Clothing', 19th edition of the International Foundation of Fashion Technology Institutes conference (iffti 2017), IFFTI **2017**, The Amsterdam Fashion Institute (AMFI), Amsterdam, 29/3/2017 - 30/3/2017, in Proceedings of the IFFTI Conference 2017: Breaking The Fashion Rules.
- Muhammad Sayem, AS., **2016**. 'A Reverse Approach to Virtual Shirt Prototyping and Pattern Cutting', The 90th Textile Institute World Conference, Poznan, Poland, 25/4/2016 - 28/4/2016, in PROCEEDINGS OF THE 90th TEXTILE INSTITUTE WORLD CONFERENCE, pp. 523-533.
- Muhammad Sayem, AS., **2015**. 'Advances in Virtual Prototyping: Opportunities for Clothing Manufacturers', 2nd Textile Research Conference (TRC), Dhaka, Bangladesh, 26/12/2015 - 26/12/2015, in TRC Book of Papers 2015, 1, pp. 15-18.
- Muhammad Sayem, AS., **1999**. 'Desizing with H2O2 and NaOH to develop a continuous desizing- scouring-bleaching process', National Technical Conference of AATCC, Charlotte, N.C., USA, 12/10/1999 - 15/10/1999, in AATCC Book of Papers 1999, pp. 35-42.