Curriculum Vitae

Shahid ul Islam; Ph.D. (Fulbright Fellow)
Department of Applied Sciences and Humanities,
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India's International Fellows:
https://www.indiascienceandtechnology.gov.in/india-international-fellows/shahid-ul-islam
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Scopus ID: *55354154600*
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Google Scholar: *https://scholar.google.com/citations?user=8pOHWPgAAAAJ&hl=en*

Employment and Education

2023-present	**Assistant Professor**, Department of Applied Sciences and Humanities, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi, India
2020-2022	**Fulbright-Nehru Postdoctoral Fellowship,** University of California (Davis), United States
2019–2020	**CSIR Post-Doctoral Fellow,** Indian Institute of Technology Delhi, (IIT Delhi), India**.**
2017–2019	**DST SERB National Post-Doctoral Fellow,** Indian Institute of Technology Delhi, (IIT Delhi), India**.**
2011 – 2016	**Ph.D., Jamia Millia Islamia (A Central University), New Delhi, India** in Chemistry.
2009 – 2011	**M.Sc., Jamia Hamdard University, New Delhi, India** in Chemistry.

Research Interests

- Daylight-activated, reusable antibacterial and antiviral polymers and fibers
- Green chemistry approaches in textile processing and polymer modification
- Nano functionalization of textiles and polymers for diverse applications
- Development of eco-friendly and biodegradable materials for sustainable packaging

Grants as PI

- Project entitled **"**Development and Investigation of Bionanocomposites as a new Generation of Environmentally Friendly Finishing agents for Textile Materials" (Rs: **50 Lakh**) funded by Fulbright Program, United States Department of State and USIEF (completed).

- Project entitled **"**Synthesis and Applications of Nanoparticles/Composites using Sustainable Chemistry Approaches" (**Rs: 22 Lakh**) funded by the Council of Scientific and Industrial Research (CSIR), Govt of India (2019-2021).

- Project entitled **"**Multifunctional Finishing of Textile Materials Pre-modified with Ultraviolet Irradiation" (**Rs: 19.50** Lakh) funded by the Science, and Engineering Research Board (DST SERB), Govt of India (2017-19).

Collaborative Funded Project

- Project entitled "Hydrogen production in artificial photosynthesis cells developed with ABO4 electro ceramics (A = rare-earth; B = Mo or W) by Brazilian Agency (FUNCAP - Cearense Foundation for Scientific and Technological Development Support), (2023-ongoing).

Awards and Achievements

2022
- **University of California, Postdoctoral Fellowship award**, University of California, Davis, USA

2020
- **Featured in the top 2 % of researchers in the world in the year 2020-23**, the list published by Stanford University, USA.
- **Prestigious Fulbright Nehru Fellowship Award**, J William Fulbright Foreign Scholarship Board and USIEF.
- **Indo-Canadian Postdoctoral Shastri Research Fellowship award**, McGill University, Canada (declined)
- **South-West Postdoctoral Research Fellowship award**, Southwest University, China (declined)

2019
- **CSIR Research Associate Award**, Council of Scientific & Industrial Research, Government of India.

2018
- **Young Researcher Award,** National Conference & Workshop on "Advances in Biopolymers (30-31 October 2018)", held at University of Kashmir, Srinagar, J&K, India
- **International Travel Grant for Young Scientists,** by DST-SERB, Govt. of

India for presenting work on advanced materials in "91st International Textile Institute meeting at the University of Leeds, United Kingdom, July 2018.

- **Best Paper Presentation Award** in 3rd International Conference on Nanomaterial's: Synthesis, Characterization and Applications, 11-13th May, held at Mahatma Gandhi University, Kerala, India.

2016
- **SERB National Postdoctoral Fellowship award**, by DST-Science and Engineering Research Board, Government of India.

2015
- **Science Direct Top 25 Hottest Articles** (Journal of Cleaner Production), Elsevier.

2014
- **Junior Research Fellowship**, University Grants Commission (UGC) JRF for meritorious students

2012
- **First Best Paper Presentation award** in national seminar on "Recent Advances in Chemistry" Organized by Department of Chemistry, Jamia Millia Islamia, India.

Professional Involvement

Editor/ Editorial board member

- Associate Editor for **AATCC Journal of Research**
  https://journals.sagepub.com/editorial-board/AAT
- Editorial board member for **Journal of Natural Fibers**
  https://www.tandfonline.com/journals/wjnf20/about-this-journal#editorial-board
- Editorial board member for **Advance Research in Textile Engineering**
  https://austinpublishinggroup.com/textile-engineering/editorialBoard.php
- Editorial board member for **Progress in Color Colorants and Coatings**
  https://pccc.icrc.ac.ir/journal/editorial.board
- Associate Editor for **Frontiers in Chemistry**
  https://www.frontiersin.org/journals/chemistry/editors
- Guest Editor: **Bioengineering**
  https://www.mdpi.com/journal/bioengineering/special_issues/95544H8Y34

Fellow/Member

- **Fellow** of International Society for Development and Sustainability (ISDS), Japan
- **Member** of American Chemical Society, Washington DC, USA
- **Life Member** of Asian Polymer Association

Reviewer

- Reviewer of **Materials Science &Engineering R: Reports**, impact factor (31.6)
- Reviewer of **Nano Energy**, impact factor (21)
- Reviewer of **Chemical Engineering Journal**, impact factor (13.4)
- Reviewer of **Scientific Reports**, impact factor (5.4)
- Reviewer of **Journal of Advanced Research**, impact factor (11.4)
- Reviewer of **Carbohydrate Polymers**, impact factor (10.7)
- Reviewer of **Journal of Cleaner Production**, impact factor (9.8)
- Reviewer of **ACS Sustainable Chemistry & Engineering**, impact factor (8.3)
- Reviewer of **ACS Applied Biomaterials**, impact factor (4.5)
- Reviewer of **Journal of Natural Fibres**, impact factor (5.3)
- Reviewer of **Fibers & Polymers**, impact factor (2.3)
- Reviewer of **Sustainable Chemistry and Pharmacy**, impact factor (7.5)
- Reviewer of **Industrial & Engineering Chemistry Research**, impact factor (4.8)
- Reviewer of **Coloration Technology,** impact factor (1.7)
- Reviewer of **Cellulose,** impact factor (5.9)
- Reviewer of **Environmental Progress and Sustainable Energy,** impact factor (3.8)
- Reviewer of **Plasma Processes and Polymers,** impact factor (1.3)
- Reviewer of **BioMed Research International**, impact factor (2.5)
- Reviewer of **Reviews on Environmental Health**, impact factor (3.4)

Teaching Experience

- Taught B.Tech. (Semester I and II): Engineering Chemistry (Theory and Lab) in Dept. of Applied Science & Humm., Faculty of Engineering & Technology, **Jamia Millia Islamia (A Central University),** New Delhi (2024-present)
- Taught ITBS to B.Tech. (Semester II), **Jamia Millia Islamia (2024)**
- Taught chemistry to UG and M.Sc. students at the **Islamic University of Science and Technology (IUST), Awantipora J&K** (Jan-June2021).
- Supervision of undergraduate and MS students at **University of California, Davis, USA** (2021-22)

- Supervised and trained Undergraduate (Final) and Postgraduate students at the **Indian Institute of Technology Delhi (**2017-2019**).**

Selected Publications

Total Publications= 60; Google Scholar Citations: 5554, h-index: 38, i10-index: 67

Journal Articles (Q1 Journals)

o**. Shahid. Islam**, Jaiswal, V., Butola, B. S., and Majumdar, A. (2023). Production of PVA-chitosan films using green synthesized ZnO NPs enriched with dragon fruit extract envisaging food packaging applications. *International Journal of Biological Macromolecules*, *252*, 126457.**IF: 8.25**

o. Satyaranjan, **Shahid Islam*,** C. Kumar, A Babu, Akshaya Kumar Aliyana, George Stylios, Suresh C. Pillai, and Daniel M. Mulvihill. "Wearable Nanocomposite Textile-Based Piezoelectric and Triboelectric Nanogenerators: Progress and Perspectives." *Nano Energy* (2023): 108962. **IF: 19.6** * corresponding author).

o. **Shahid Islam**, Z Zhang, C Zhao, N Wisuthiphaet, N Nitin, G Sun, Design and Development of Robust, Daylight-Activated, and Rechargeable Biocidal Polymeric Films as Promising Active Food Packaging Materials. *ACS Applied Bio Materials.* 2023, 2023, 6, 6, 2459–2467 (**IF: 4.6)**

o.SBairagi, **Shahid-ul-Islam***, M Shahadat, Daniel M. Mulvihill, Wazed Ali. (2023). Mechanical Energy Harvesting and Self-Powered Electronic Applications of Textile-Based Piezoelectric Nanogenerators: A Systematic Review. *Nano Energy* (2023): 111, 108414. **IF: 19.6*** corresponding author).

o. Farooq, U., Ahmad, T., Naaz, F., &**Islam, S***., (2023). Review on Metals and Metal Oxides in Sustainable Energy Production: Progress and Perspectives. *Energy & Fuels*; 2023, 37, 3, 1577–1632; IF**: 5.6**

o. Özen, İ., Bahtiyari, M. İ., Haji, A., **Islam, S.,** & Wang, X. (2023). Properties of galactomannans and their textile-related applications—A concise review. *International Journal of Biological Macromolecules*. 227, 31, 1001–10014. **IF:8.02**

○ **. Shahid-ul-Islam**, and G. Sun, (2022). Biological Chemicals as Sustainable Materials to Synthesize Metal and Metal Oxide Nanoparticles for Textile Surface Functionalization, *ACS Sustainable Chem. Eng.* 10, 31, 10084–10104**IF: 9.72**

○ Shahadat, M., Jha, A., **Islam, S**.., Ali, S. W., Ahamad, S. Z., Adnan, R., & Ismail, I. (2022). Recent advances in chitosan-polyaniline based nanocomposites for environmental applications: A review. *Polymer*, 124975.**IF:4.43**

○Yanyun Zhang*, **Islam, S**.* L J Rather, Qing Li. (2021). Recent advances in the surface modification strategies to improve functional finishing of cotton with natural colorants - A review. *Journal of Cleaner Production,* 335, 10, 130313. **IF:11.09** (*equal contribution)

○**Shahid-ul-Islam***, Butola, B. S. (2020)"A synergistic combination of shrimp shell derived chitosan polysaccharide with Citrus sinensis peel extract for the development of colourful and bioactive cellulosic textile." *International Journal of Biological Macromolecules* 158 (2020): 94-103.**IF:8.02**

○ **Shahid-ul-Islam***, B.S. Butola, A. Kumar (2020). Green chemistry based *in-situ* synthesis of silver nanoparticles for multifunctional finishing of chitosan polysaccharide modified cellulosic textile substrate. *International Journal of Biological Macromolecules***,** 152, 1135-45. **IF: 8.025**

oSatish Kadam, Ankit Sharma, **Shahid-ul-Islam**, Indrajit Bramhecha, Javed Sheikh, (2020). Utilization of Rice Straw as a Source of Biomolecules for Sustainable Multifunctional Finishing Vis a Vis Dyeing of Wool. *Journal of Natural Fibers***, 17**, 1508-1517.**IF 5.35**

○ **Shahid-ul-Islam***, B.S. Butola, Deepali Verma, (2019). Facile synthesis of chitosan-silver nanoparticles onto linen for antibacterial activity and free-radical scavenging textiles. *International Journal of Biological Macromolecules***,** 133, 1134-1141.**IF: 8.25**

○Bukhari, M.N., Rather, L.J., Shabbir, M., **Shahid-ul-Islam**, Singh, U., Khan, M.A., Mohammad, F., (2019). Dyeing of Wool with Anthraquinone based Natural Colourants from Cassia fistula fruit. Journal of Natural Fibers, 16, 855-865. **IF: 5.35**

○ **Shahid-ul-Islam***, B.S Butola (2019). Effect of chitosan biological macromolecule on colorimetric analysis and radical scavenging activity of linen using pineapple peel extract biomolecules, *International Journal of Biological Macromolecules***,** 124, 718-724. **IF: 8.25**

○ **Shahid-ul-Islam***, B.S Butola, Abhishek Gupta, and Anasuya Roy (2019). Multifunctional finishing of cellulosic fabric via facile, rapid *in-situ* green synthesis of AgNPs using pomegranate peel extract biomolecules. *Sustainable Chemistry & Pharmacy*, 12, 100135. **IF: 5.50**

○**Shahid-ul-Islam**, L. J. Rather**,** M. Shabbir**,** M. N. Bukhari, M. A. Khan, F. Mohammad (2019). Exploiting the potential of polyphenolic bio-mordants in environmentally friendly coloration of wool with natural dye from Butea monosperma flower extract. *Journal of Natural Fibers*. 16, 4, 512-523. **IF: 5.32**

○ **Shahid-ul-Islam***, B.S Butola and Anasuya Roy (2018). Chitosan polysaccharide as a renewable functional agent to develop antibacterial, antioxidant activity and colourful shades on wool dyed with tea extract polyphenols. *International Journal of Biological Macromolecules*.129, 1999-2006. **IF: 8.25**

○ **Shahid-ul-Islam**, S.A. Rather and F. Mohammad (2018). Imparting functionality *viz* color, antioxidant and antibacterial properties to develop multifunctional wool with *Tectona grandis* leaves extract using reflectance spectroscopy. *International Journal of Biological Macromolecules*.109, 917-913. **IF: 8.25**

- **Shahid-ul-Islam,** L. J. Rather, M. Shabbir, M. N. Bukhari, M. Shahid, M. A. Khan, F. Mohammad. First Application of Mix Metallic Salt Mordant Combinations to Develop Newer Shades on Wool with *Bixa Orellana* Natural Dye using Reflectance Spectroscopy. *Journal of Natural Fibers*, 14, (2017), 1-10. **IF: 5.35**

- **Shahid-ul-Islam***, Gang Sun (2017), Thermodynamics, Kinetics and Multifunctional Finishing of Textile Materials with Colorants Extracted from Natural Renewable Sources, *ACS Sustainable Chemistry & Engineering 5*, 7451–7466. **IF: 9.29**

- **Shahid-ul-Islam**, L.J. Rather, and F. Mohammad (2016), Phytochemistry, Biological Activities and Potential of Annatto in Natural Colorant Production for Industrial Applications-A Review. *Journal of Advanced Research,* 7, 499-514. **IF: 12.47**

- M.A. Khan, **Shahid-ul-Islam**, and F. Mohammad, Extraction of Natural Dye from Walnut Bark and its Dyeing properties on Wool Yarns. ***Journal of Natural Fibers***, 13, (2016) 458-469. **IF: 5.35**

- M. Shabbir, L. J. Rather, **Shahid-ul-Islam**, M. N. Bukhari, M. Shahid, M. A. Khan, F. Mohammad (2016). An eco-friendly dyeing of woolen yarn by *Terminalia chebula* extract with evaluations of kinetic and adsorption characteristics. *Journal of Advanced Research*. 7 (2016) 473-482. **IF: 12.47**

- L.J. Rather, **Shahid-ul-Islam**, M. Ali Khan, and F. Mohammad. Adsorption and Kinetic studies of *Adhatoda vasica* natural dye onto woolen yarn with evaluations of Colorimetric and Fluorescence Characteristics. *Journal of Environmental Chemical Engineering* 4 (2016) 1780-1796. **IF: 7.90**

- **Shahid-ul-Islam**, F. Mohammad (2015), Natural Colorants in the Presence of Anchors So-Called Mordants as Promising Coloring and Antimicrobial Agents for Textile Materials. *ACS Sustainable Chemistry & Engineering,* 3, 2361–2375. **IF: 9.19**

- M.A. Khan, **Shahid-ul-Islam**, M. Shahid, M. I. Khan, M. Yusuf**,** L.J. Rather, M.A. Khan, F. Mohammad (2015), Mixed mordant dyeing of wool using root extract of Rheum emodi**:** *Journal of Natural Fibers***,**12, 243-255. **IF: 5.35**

- **Shahid-ul-Islam,** F. Mohammad, High-Energy Radiation Induced Sustainable Coloration and Functional Finishing of Textile Materials. *Industrial Engineering & Chemistry Research,* 54 (2015) 5445-5457. **IF: 3.87**

- **Shahid-ul-Islam**, L.J. Rather, M. Shahid, M. A. Khan, F. Mohammad (2014), Study the effect of ammonia post-treatment on color characteristics of annatto-dyed textile substrate using reflectance spectrophotometry. *Industrial Crops and Products*, 59, 337-342**.IF: 5.64**

- **Shahid-ul-Islam**, M. Shahid, F. Mohammad (2013), Perspectives for natural product based
agents derived from industrial plants in textile applications- A review, *Journal of Cleaner Production* 57, 2-18. **IF:11.29**

- M. Shahid, **Shahid-ul-Islam**, F. Mohammad (2013), Recent advancements in natural dye Applications: A review, *Journal of Cleaner Production***,** 53, 310-331. **IF:11.29**

- **Shahid-ul-Islam**, M. Shahid, F. Mohammad (2013), Green Chemistry Approaches to Develop Antimicrobial Textiles Based on Sustainable Biopolymers-A Review, *Industrial & Engineering Chemistry Research*, 52, 5245-5260.**IF: 3.85**

Patents

❖ B. S. Butola and **Shahid-ul-Islam**, A Chemically Modified Dye, Its Process of Preparation and Application (Patent number: 201911028166).

❖ B. S. Butola and **Shahid-ul-Islam**, Chitosan-Onion shell Composite and Preparation Thereof (granted: Patent number: 201911053885).

Books

❖ **Shahid-ul-Islam** (Dr.), Chaudhry M Hussain (Prof.) 2023, Green Carbon Materials for Environmental Analysis: Emerging Research and Future Opportunities, **ACS**, eISBN: 9780841297142

❖ **Shahid-ul-Islam** (Dr.), A. Majumdar (Prof.)**,** and B.S. Butola (Prof.) (2022), Advances in Healthcare and Protective Textiles, **Elsevier**, ISBN**:** in press.

❖ M. Kamali, Tejraj M. Aminabhavi, Maria Elisabete V. Costa, **Shahid Islam**, Lise Appels, Advanced Wastewater Treatment Technologies for the Removal of Pharmaceutically Active Compounds, **Springer**, ISBN no. 9783031208058 (Authored)

❖ **Shahid-ul-Islam** (Dr.)**,** and B.S. Butola (Prof.) (2020), Advances in Functional and Protective Textiles, **Elsevier**, ISBN**:** 9780128202579

❖ **Shahid-ul-Islam** (Dr.), and B.S. Butola (Prof.), The Impact and Prospects of Green Chemistry for Textile Technology, **Elsevier**, ISBN: 978-0-08-102491-1.

Chapters

❖ **Shahid-ul-Islam,** and F. Mohammad, Ecological dyeing of wool with bio-mordants in *Sustainable Fibres & Textiles*, **Elsevier** (2017) 117-133. (ISBN: 978-0-08-102041-8).

❖ **Shahid-ul-Islam**, M. Shabbir, and F. Mohammad, Insights into the functional finishing of textile materials using nanotechnology, *Nanotextiles and Sustainability*, **Springer**, (2016) (ISBN 978-981-10-2184-9).

❖ **Shahid-ul-Islam,** M. Shahid, F. Mohammad, Prospects of Phyto-synthesized

Transition Metal Nanoparticles as Novel Agents for Textile Materials in *Advanced Materials for Agriculture, Food, and Environmental Safety*, **Wiley** (2014). (ISBN: 978-1-118-77343-7).

❖ **Shahid-ul-Islam,** and F. Mohammad**,** Emerging Green Technologies and Eco-friendly Products for Sustainable Textiles, in *Road map to Sustainable Textiles* **Springer**, (2014) (ISBN 978-981-287-110-7).

Invited Talks/Presentations/Conferences

- Attended the "*6th International Conference on Emerging Technologies: Micro to Nano (ETMN-2024)*; Department of Electrical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia University (November 22-23, 2024)
- Chaired Technical Session in the "*International Conference on Renewable Energy and Sustainable Technologies (ICREST 2024)"* organised by Department of Applied Sciences & Humanities, Jamia Millia Islamia (July 04-06, 2024)
- Presented my work at the *91th International Textile Institute meeting at the University of Leeds*, United Kingdom, 23-26th July 2018 (oral talk).
- Presented my work at the *3rd International Conference on Nanomaterials: Synthesis, Characterization and Applications*, 11-13th May 2018, Kerala India (oral and poster)
- Presented my work at the *1st International Conference on Recent Developments in Science, Humanities &Management-2018* (ICRDSHM-18), 17-18th April 2018 (oral talk)
- Presented my work at the *International Conference on Nanobiotechnology*, February 5-6, 2018, Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, Jamia Nagar, New Delhi 110025.
- Presented my work at the *International Conference on Advancing Green Chemistry: Building a Sustainable Tomorrow*, Delhi University, 5-6 October 2017.
- Delivered an invited talk at the National Seminar on "*Eco-Socio Trends in Science and Technology (ETST-2016)*", YMD College, Nuh, Haryana, October 5th, 2016.
- Presented my work *at International Conference on Interface between Chemistry and Environment (ICE)*, Delhi University, 13-14 December 2012.
- Presented my work *at International Conference on Chemistry Frontiers and Challenges*, Aligarh Muslim University, 2-3 March 2013.
- Presented my work *at National Symposium on Chemistry*, Department of Chemistry, Aligarh Muslim University, 22 March 2014

- **Others**

Mentoring

- **Vivek Jaiswal (**M.Tch, IIT Delhi, 2023)
- **Sakshi Tyagi (**JRF, IIT Delhi, 2023)
- **Surbi Chadda** (M.Sc. Project student, 2023)
- **Diya Chaudhary** (M.Sc. Project student, 2023)
- **Amar Zagdragchaa** (Undergraduate student, University of California, Davis USA- 2021)
- **Sasha Eckstein** (MS student, University of California, Davis USA- 2022).
- **Rishab Mishra (**MS student, IIT Delhi)- 2019
- **Deepali Verma** (Undergraduate student, IIT Delhi)-2019
- **Sheetal Shraisth** (Undergraduate student, IIT Delhi)-2019
- **Arun Kumar** (Undergraduate student, IIT Delhi)-2018
- **Abhishek Gupta** (Undergraduate student IIT Delhi)-2019

References

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2. **Prof. B S Butola**
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Indian Institute of Technology Delhi
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bsbutola@textile.iitd.ac.in

3. **Prof. C M Hussain**
Director-Chemistry & Environmental Sci. Labs
Chemistry and Environmental Science
New Jersey Institute of Technology, United States
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4. **Prof. Abhijeet Majmudhar**
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Department of Textile and Fiber Eng.
Indian Institute of Technology Delhi
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