

Dr. Mohd Shoeb Khan, Ph.D.
Faculty of Engineering & Technology
Jamia Millia Islamia, New Delhi, India
Teaching & Research
8115128684 (Cell)
shoebkhanalig@gmail.com

Professional Summary

I am a trained polymer based inorganic-organic nanochemist with a strong synthetic polymer background. I have hands-on experience, knowledge, and training to synthesize polymer based nanocomposites and their successive characterization using a variety of instrumental techniques. I have research collaborations with many leading researchers and is in receipt of various joint research projects/articles. I have published more than 50 peer-reviewed publications with good impact factors and received a warm response as evident by more than 2200 citations. I have thorough understanding of regulatory aspects of chemistry, polymer synthesis, nanomaterials and nanocomposites.

Polymer Nanostructures and their Characterization and Experience

- Synthesis of nanomaterials.
- Fabrication of polymer-based nanocomposites *via* a synergistic combination of organic and inorganic materials that possess suitable morphological properties by *in-situ* chemical oxidative polymerization, etc.
- Synthesis of polymeric nanoparticles.
- The physicochemical characterization of nanocomposites such as FTIR, XRD, TGA/DTA, SEM/EDS, TEM, XPS, AFM, and VSM, etc. will be performed to investigate the morphology of the prepared systems Experience in handling Bruker AmaZon X Ion Trap and Advion mass spectrometer
- Selection of appropriate polymeric materials, which can provide tunability of properties to fulfill the prerequisites of ideal nanocomposites.
- DNA binding studies of nanocomposites.
- Enzyme immobilization of nanocomposites.
- Well-versed with cleanroom standard operating procedure and good laboratory practices
- Well versed with microwave, inert, and dry reactions.

Education

Ph.D. Chemistry: Aligarh Muslim University, India. **2017**

M.Phil. (Chemistry): Aligarh Muslim University, India. **2014**

M.Sc Chemistry: (Chemistry), Aligarh Muslim University, India. **2008**

Research Guidance

M.Tech. Dissertation Supervised: **03**

Employment History:

Guest Faculty: Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi, India.

Assistant Professor: Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi, India.

Assistant Professor: Public Mahila Sahar Degree College, Mau, India.

Assistant Professor: Faculty of Engineering & Technology, Aligarh Muslim University, India.

Guest Faculty: Faculty of Engineering & Technology, Aligarh Muslim University, India.

Research Associate (RA):

- Awarded Post-Doc position at Najran University, 11001, Saudi Arabia.

Research Assistant (R&D) Naval Research Board (NRB-DRDO) (Polymer Chemistry Research Lab),
Jamia Millia Islamia, New Delhi, India. **Apr 2009-Mar 2012**

- Performed Research
- Research Focus: Synthesis of novel polymeric materials
- Preparation of Polymer based nanocomposites materials for various biological applications (Enzyme Immobilization, DNA binding & antimicrobial activities etc.).
- Nano-Sensors
- Synthesis of nanomaterials.
- Study of metal oxide nano-structures (Nanoparticles, Nanorods and Nanotubes etc.) based nanocomposites for technological applications.

Recently, I also started a project on “incorporate magnetic materials in the nanocomposite owing to their cost-effective and non-toxic magnetic refrigerants with the second-order of magnetic transition to achieve the high cooling efficiency”.

COURSES TAUGHT (LECTURE+PRACTICAL)

B.Tech, M.Tech, B.Sc & M.Sc students:

- General Chemistry for Engineering Students
- Organic Chemistry for Engineering Students
- Analytical Chemistry for Engineering Students
- Physical Chemistry for Engineering Students
- Engineering Chemistry -I (ASL-103)
- Engineering Chemistry -II (ASB-102)
- Environmental Chemistry-ASB-105
- General Organic, Inorganic & Physical Chemistry
- Physical methods for the analysis of materials
- Chemistry lab-I
- Chemistry lab-II

- NTC-6900 Lab I
- NTC-6910 Lab II
- Introduction to Nanotechnology- EL-101
- Properties of Nanomaterials- INC-616
- Nanocomposites- INC-617

Awards /Honours

- **Young Researcher Award** 2023 – Venus International Foundation, Chennai.
- **Young Scientist Award** 2023 – National Foundation for Enterpreunership Development (NFED), Coimbatoor.
- **Research Excellence Award** 2019 by Association of Scientific & Educational Research, New Delhi.
- **Guest Editor** of Frontiers in Molecular Bio-Sciences (ISSN:2296-889X).
- **Editorial board member** of International Journal of Applied Agricultural Sciences (ISSN: 2582-8053).
- Editorial board member of BZM Journal of Science (ISSN: 2349-2821).
- Reviewer of reputed Journals

Fellowships

- 2015-2017 UGC Research Fellowship Award (Government of India)
- 2012-2014 UGC Research Fellowship Award (Government of India)
- 2006-2008 U.P. Govt. Minority merit scholarship for M. Sc. Chemistry
- 2003-2006 U.P. Govt. Minority merit scholarship for B.Sc. (Honors) Chemistry

Leadership Role

- **Assistant Superintendent of Examination**, Faculty of Engineering & Technology A.M.U., Aligarh for the session 2018-2019.
- **Worked as Scrutinizer**, SSSC Part-II (Class-XII) Examination A.M.U., Aligarh, 2018-2019.
- Worked as Verifying Officer for B.Tech examination A.M.U., Aligarh, 2018-2019.
- Coordinator, A.M.U ALUMNI MEET 2018.
- **Pro-Proctor**, To manage the law and order situation in the A.M.U., Aligarh, campus.
- **Warden In-charge**, worked for the corporate life of A.M.U., university to facilitate the library, food and sports amenities to the students for more than a year.

Membership in Professional Societies

- | | |
|---|-------------------|
| • Member of the Biophysical Society (BPS). | 2014-2016 |
| • Member of the Korean Physical Society. | 2013-2015 |
| • Member of Board of Studies, Aligarh Muslim University, India. | 2018-2019. |

Professional Development

- Reviewed 20 research articles from the prestigious scientific journal.
- Science Judge at high school.

- Volunteer in ISCAS 7th National Symposium and Conference on Solid State Chemistry and Allied Areas in Jamia Millia Islamia, New Delhi, 2011.
- Invited talk at various university level functions.
- “Article published in Chem Perspectives Student’s Magazine 2011, International year of Chemistry” *POLYMERS IN EVERYDAY LIFE*”, Jamia Millia Islamia, New Delhi, 110025.

Accomplishments

- According to Google Scholar:
<https://scholar.google.com/citations?user=jewQ9MgAAAAJ&hl=en>
- Publications: 55
- Citations: **2200**
- h-Index: 21
- i10-Index: 34