

**SAIQA IKRAM, Ph.D.**  
Professor-in-Chemistry

- <https://scholar.google.co.in/citations?user=gCO5YZoAAAAJ&hl=en>
- <https://jmi.irins.org/profile/210402>
- [https://www.jmi.ac.in/upload/employeeresume/sikram\\_ppt.pdf](https://www.jmi.ac.in/upload/employeeresume/sikram_ppt.pdf)
- [https://www.jmi.ac.in/Faculty-Dashboard/All-Faculty/1914/Saiqa\\_Ikram](https://www.jmi.ac.in/Faculty-Dashboard/All-Faculty/1914/Saiqa_Ikram)

### **Positions (Service in Jamia):**

1. Professor, Feb 22, 2021 to till date
2. Associate Professor, Feb 22, 2018 – Feb 21, 2021
3. Assistant Professor-February 2006-Feb 21, 2018

### **Subject Specialization**

- Inorganic Chemistry
- Polymer Science & Technology
- Biomedical Engineering

Teaching experience UG & PG

~19 years (Inorganic Chemistry)

Research Experience (excluding Ph.D. tenure)

~17 years (Polymer Technology)

### **Research Expertise & Contribution**

|           |                    |
|-----------|--------------------|
| H index   | 34 till date       |
| i10 index | 67 till date       |
| Citations | ≥ 10,251 till date |

- **Established Research Infrastructure:** Biomedical-Antimicrobial Research Lab funded by Department of Biotechnology, Ministry of Science & Technology, India (INR~55,00,000)
- **Mentoring/ as Guide/ Supervision of thesis (Minor/Major/Ph.D.)**

|       |         |    |
|-------|---------|----|
| Ph.D. | Awarded | 15 |
|-------|---------|----|

|                                 |   |            |
|---------------------------------|---|------------|
| <b>Ph.D.</b>                    | <b>Submitted</b>                        | <b>NIL</b> |
| <b>Ph.D.</b>                    | <b>Enrolled</b>                         | <b>03</b>  |
| <b>Post-Docs</b>                | <b>Mentored</b>                         | <b>03</b>  |
| <b>Postgraduate<br/>(M.Sc.)</b> | <b>Major Project/<br/>Dissertations</b> | <b>35</b>  |

- **Sanctioned/ Funded Research Projects** (Grant mobilized ~INR 3.55 Crores)

1. **In-situ Design & Catalytic Dynamics of Nanomaterials for Water & Air Quality Monitoring & Mitigation**

*Global Initiative on Academic Network (GIAN), IIT-Hyderabad,*

**GIAN/S-24-25/178 dated NOVEMBER 08, 2024**

**INR 664000 November 2024 (ONGOING)**

2. **Bio-Mimicked Polymer Surfaces for Carbonic Anhydrase Immobilization for CO<sub>2</sub> Mineralization towards Renewable Technologies**

*Scheme for Promotion for Academic & Research Collaboration (SPARC) Phase-II, Ministry of Human Resources & Development (MHRD), Government of India;*

**SPARC/2023/P2992/SL Dated June 10, 2023**

In collaboration with **RMIT University, Australia**

**INR 48,12,000 July 2023-2026 (ONGOING)**

3. **Bioengineered Nanopatterned Renewable Carriers as Scaffolds for Enzyme Immobilization for Enhanced Stability & Catalytic Activities**

*Haryana State Council for Science, Innovation & Technology, Department of Science & Technology, Govt. of India, HSCSIT/R&D/2023/4285 Dated March 02, 2023*

In collaboration with **J.C. Bose University of Science & Technology, YMCA, Faridabad, Haryana**

**INR 36,74,600 March 29, 2023- March 28, 2026 (ONGOING)**

4. **Single/ Binary Metal Nanoparticles Loaded Nano-Carriers Using Medicinal Plants Extract and Their Application in Tissue Culture Medium as Media Additive for Optimizing Laboratory Production of Bovine Embryos:**

*India-Egypt S & T Cooperation: Department of Science & Technology, Govt. of India and Academy of Scientific Research and Technology (ASRT), Egypt DST/INT/Egypt/P-05/2019*

In collaboration with **Department of Theriogenology, Faculty of Veterinary Medicines, Beni-Suef University, Egypt**

**INR 13,50,000+ Egyptian Dimes 4,50,000 Nov 2020 -March 2024**

5. **Preparation of Nanocellulose as Multifunctional Materials derived from Biomass towards Sustainable Development:**  
*Scheme for Promotion for Academic & Research Collaboration (SPARC) Phase-I, Ministry of Human Resources & Development (MHRD), Government of India; SPARC/2018- 2019/P672/SL Dated 15.03.2019*  
 In collaboration with **Australian Institute of Bioengineering & Nanotechnology (AIBN) The University of Queensland, Brisbane, Australia**  
**INR 81,33,998 Feb, 19, 2019-September 30, 2023**
  6. **Development of Green Adsorbents for Removal of Copper/Lead/Mercury Metal Ions from Groundwater for Potability:**  
*USAID-TERI under SWASH Scheme, NIL/2016-2017 Dated June 2016-2018*  
**Best Innovation Award- October 2017 (felicitated by USAID & TERI)**
  7. **In-situ Nano-silver Formation based on Biopolymer Hydrogel Membranes for Antimicrobial Activity:**  
*Jamia Millia Islamia–Innovative Funding, AC-6(15)/RO/2014 Dated: Apr 2014-2015*
  8. **Phytochemical Analysis of Bioactive Constituents of Commonly Used Plants & Development of Antimicrobial Activities Thereof:**  
*University Grants Commission, 42-269/2013(S.R): Dated April 2013-2016*
  9. **Studies for the Sulphonation of Co-polymer Grafted PEEK Films:**  
*University Grants Commission, 41-1321/2012(SR): Dated: July 2012-2014*
  10. **Development of Hydrogels based Smart Wound Dressings:**  
*Department of Biotechnology, Ministry of Sci & Tech, India*  
**BT/PR10215/MED/32/24/2007 (LETTER-II): INR 63,33,400 Dated: July 2008-2012**
- **INTERNATIONAL VISITS (ACADEMIC/ RESEARCH)**
    1. Department of Theriogenology, Faculty of Veterinary Medicines, Beni-Suef University, Egypt Nov 21-December 05, 2022
    2. Veterinary Research Institute, National Research Centre, Cairo, Egypt, November 29, 2022
    3. Faculty of Veterinary Medicines, Department of Theriogenology University of Cairo, Cairo, Egypt, December 04, 2022

**Research Papers in Journals (2012 Onwards)**

**Patent:** *Polyvinyl alcohol Supported Resins for Arsenic Separation and the Product there of (with IIT Delhi)*

## Research Articles:

| Publisher                                | No. of Paper published | Highest Impact | Prominent Journals  |
|--|------------------------|----------------|---|
| American Chemical Society (ACS)          | 2                      | 4.51           | ACS Omega   |
| Royal Society of Chemistry (RSC)         | 4                      | 3.52           | RSC Advances, Toxicology Research   |
| Elsevier                                 | 54                     | 25.4           | Coordination Chemistry Reviews, Carbohydrate Polymers, Journal of Photochemistry and Photobiology B, International Journal of Biological Macromolecules, J of Hazardous Materials |
| Wiley                                    | 6                      | 3.56           | Polymer Bulletin, Journal of Applied Polymer Science etc  |
| Springer                                 | 10                     | 4.32           | Journal of Materials Science: Materials in Electronics  |
| Others (Taylor & Francis ASP, IMED, WST) | 28                     | 8.44           | Sensors Letters, Water Science & Technology etc   |

## Books Authored/ Edited:

- 1) Natural Polymers: Derivatives, Blends and Composites Volume I**  
Nova Science Publishers, Inc. New York, USA; [ISBN:978-1-63485-831-1](#)
- 2) Natural Polymers: Derivatives, Blends and Composites Volume II**  
Nova Science Publishers, Inc. New York, USA; [ISBN: 978-1-53610-426-4](#)
- 3) Chitosan: Derivatives & Composites for Their Applications**  
Scrivener Publishing + Wiley, USA; [ISBN: 978-1-119-6350-7](#)
- 4) Green Polymeric Materials: Advances and Sustainable Developments**  
Nova Science Publishers Inc. New York, USA; [ISBN: 978-1-53612-240-4](#)

- 5) **Biocomposites: Biomedical & Environmental Applications**  
PanStanford Publishers- CRC Press, Singapore; ISBN 9789814774383 - CAT# N11974
- 6) **Photocatalysis: Perspective, Mechanism & Applications**  
Nova Science Publishers, Inc. New York, USA ISBN: 978-1-53616-044-4
- 7) **Bionanocomposites: Green Synthesis and Applications; 1<sup>st</sup> Edition,**  
Elsevier, Paperback ISBN: 9780128167519 eBook ISBN: 9780128168905
- 8) **Innovation in Nano-polysaccharides for Eco-sustainability; From Science to Industrial Applications, 1st Edition**  
Elsevier, eBook ISBN: 9780128234457; Paperback ISBN: 9780128234396, Published Date: 8th October 2021

### Chapters in other Books

35

### Awards & Recognition

1. *Oct, 2017-Best Innovative Project Award*  
USAID & TERI, India
2. *Aug, 2018-Nobel Scientist Award –RULA International Award-‘08’*  
*IJRULA-International Journal for Research Under Literal Access*
3. *March 08, 2019- Life Time Achievement Award*  
IconPAC 2019 Recent Advances in Chemical Science,  
K L University, Green Fields Vaddeswaram, Guntur District, Andhra Pradesh, India

### Invited Talks

70

### Conference Attended

90

### Administration & Corporate Contribution

1. **Warden**, Hall of Girls Residence, Jamia Millia Islamia 2014-2016
2. **Assistant Proctor**, Jamia Millia Islamia (2008-2009)
3. **Moderator-PLASTINDIA**- Exhibition & International Conference-2012
4. **Secretary**-Asian Polymer Association (2 terms) 2009-2013
5. **Member (Elected)**, Executive Council, Jamia Teachers Association 2012-2014
6. **Member (Elected)**, Academic Council, Jamia Millia Islamia 2019-2021
7. **Joint Secretary (Elected)**, Jamia Teachers Association 2020-2022

## Educational Qualifications

### **\*Degrees (in Chronological Order)**

|                  |   |                                       |
|------------------|---|---------------------------------------|
| <b>M.Sc.</b>     | <b>Dev Nagri Degree College,<br/>CCS University, Meerut (UP)</b>  | <b>Ist Rank</b>                       |
| <b>Ph.D.</b>     | <b>Faculty of Technology,<br/>Delhi College of Engineering,<br/>University of Delhi, Delhi, India<br/>Year 2000</b> | <b>JRF (UGC) &amp;<br/>SRF (CSIR)</b> |
| <b>Post-Doc-</b> | <b>Centre for Biomedical Engineering,<br/>Indian Institute of Technology, Delhi, India<br/>Year 2001</b>            | <b>RA (CSIR)</b>                      |

| <b>S. No.</b> | <b>Degree</b>     | <b>University/ Institution</b>         | <b>Subject</b>     | <b>Division</b> |
|---------------|-------------------|--|--------------------|-----------------|
| a.            | X <sup>th</sup>   | U. P. Board, Allahabad<br>(UP) India   | Science Discipline | 1 <sup>st</sup> |
| b.            | XII <sup>th</sup> | ----do-----                            | Science Discipline | 1 <sup>st</sup> |
| c.            | B.Sc.             | C C S University,<br>Meerut (UP) India | Life Sciences      | 1 <sup>st</sup> |

## Fellowships Conferred

- **Junior Research Fellowship** sponsored by University Grants Commission, India 1995
- **Senior Research Fellowship** sponsored by Council for Scientific & Industrial Research India; 2000
- **Research Associate** sponsored by Council for Scientific & Industrial Research, India; 2001

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