



# ZEESHAN AHAMAD

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## CONTACT

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## Professional Profiles

**ORCID:** 0000-0002-8077-8327

**Scopus:** 58183026300

**Google Scholar:**

<https://scholar.google.com/citations?hl=en&user=fWpbF4oAAAAJ>

**LinkedIn:**

[www.linkedin.com/in/dr-zeeshan-ahamad](http://www.linkedin.com/in/dr-zeeshan-ahamad)

**ResearchGate:**

<https://www.researchgate.net/profile/Zeeshan-Ahamad>

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## OBJECTIVE

Newly appointed Assistant Professor with a strong research background, including 5 years of doctoral research experience. Skilled in utilizing cutting-edge technology to generate and disseminate critical information within the academic community. Committed to conducting intricate research projects with unwavering integrity and meticulous attention to detail. Eager to foster student growth and academic excellence in my new role as Assistant Professor at MMANTC, Malegaon, while continuing to contribute to the field through research and publication.

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## EDUCATION

Ph.D., (June, 2024), Department of Applied Chemistry, Aligarh Muslim University, Aligarh, UP, India

M.Sc. (Chemistry), (with 82.30% marks), Department of Chemistry, Aligarh Muslim University, Aligarh, UP, India

B.Sc. (Chemistry), (with 79.5% marks), Department of Chemistry, Aligarh Muslim University, Aligarh, UP, India

Intermediate, (with 79.3% marks), St. Xaviers Higher Secondary School, Gonda (UP), India

High school, (with 70 % marks), Fatima Senior Secondary School, Gonda (UP), India,

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## WORK HISTORY

July 2024 - Present: Assistant Professor, Department of Applied Sciences, MMANTC, Malegaon, Maharashtra, India

- Published research papers in SCI, Q1, W category, Close Access journals.
  - Designed novel adsorbents (biomass, clay, nanocomposite, hydrogels, etc.) for confiscation of toxic pollutants from aqueous solution
  - Conducted and evaluated research using cutting-edge technology like SEM/EDS, TEM/SAED, BET, TGA-DTG/DTA, VSM, FTIR, PXRD, UV-Vis. spectroscopy, etc.
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## ACCOMPLISHMENTS

- "Young Scientist Award" (MAANU, Hyderabad), February 2024.
- Awarded Research Assistantship under "Technical Education Quality Improvement Programme Phase-III," TEQIP-III (A Government of India Project assisted by the World Bank) received since August 2019.
- Merit cum Post Matric Scholarship (2016) by Ministry Development and Finance Corporation.

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## THRUST AREA

Wastewater treatment (by low-cost adsorbents like biomass, clay, nanocomposites, nanomaterials, hydrogels, MOFs, etc.) through Adsorption (experimental) and Computational (theoretical) investigations.

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## INSTRUMENTAL SKILLS

- UV-Vis spectroscopy
- SEM/EDXS
- TEM/SAED
- BET
- TGA-DTG/DTA
- FTIR
- PXRD
- VSM
- RAMAN

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## SOFT SKILLS

- Softwares:
  - ✓ DFT (Computational chemistry)
  - ✓ MS Office
  - ✓ Chemdraw
  - ✓ Origin pro (Data Analysis and Graphing software)
- Academic research and Publications
- Scientific writing

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## EXPERIMENTAL SKILLS

- Batch adsorption studies
  - Kinetic modeling
  - Isothermal modeling
  - Thermodynamic studies
  - Desorption or regeneration studies
  - Column adsorption studies
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- A Merit-based "Aid to student scholarship" (2015) by Aligarh Muslim University.
  - Department Highest scorer in B.Sc. Honours (2016).
  - AMU Alumni Association of Michigan USA, Merit cum Scholarship for undergraduate Study (2014).
  - "State Child Scientist Award", Qualified state level & participated in the National level Science Project competition in the National Children's Science Congress (NCSC), Uttar Pradesh - a program of NCSTC funded by Govt. of India (2010).
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## PUBLICATIONS

- Utilization of *Azadirachta indica* sawdust as a potential adsorbent for the removal of crystal violet dye, Sustainable Chemistry, 4, 1, 110-126, <https://doi.org/10.3390/suschem4010009>,
  - Chemically modified *Azadirachta indica* sawdust for adsorption of methylene blue from aqueous solutions, Biomass conversion and Biorefinery, <https://doi.org/10.1007/s13399-023-04161-5>, **(Impact Factor: 4.0)**.
  - Polypyrrole-decorated bentonite magnetic nanocomposite: A green approach for adsorption of anionic methyl orange and cationic crystal violet dyes from contaminated water, Environmental Research, <https://doi.org/10.1016/j.envres.2024.118193>, **(Impact Factor: 8.3)**.
  - Development and utilization of raw and NaOH-modified peanut hull as potential adsorbents for crystal violet dye removal from wastewater, Biomass conversion and Biorefinery, <https://doi.org/10.1007/s13399-023-05232-3>, **(Impact Factor: 4.0)**.
  - Synthesis, characterization, and applications of magnetized *Azadirachta indica* sawdust as a novel adsorbent: kinetic, and isotherm studies in removing methylene blue as a model dye, Cellulose, <https://doi.org/10.1007/s10570-024-05813-z>, **(Impact Factor: 5.7)**.
  - Conjugated polymers decorated lignocellulosic nanocomposites for malachite green contaminated water remediation, Separation and Purification Technology, <https://doi.org/10.1016/j.seppur.2024.128688> **(Impact Factor: 8.6)**.
  - Design and evaluation of a polyaniline-*Azadirachta indica* composite for efficient dye removal: insights from experimental and theoretical simulations, Materials today sustainability, Under Minor Revision, **(Impact Factor: 7.8)**.
  - Novel MGO/A-DNH hydrogel for efficient malachite green removal: Development, characterization, and superparamagnetic separation in wastewater treatment, Journal of Environmental Chemical Engineering, Communicated, **(Impact Factor: 7.7)**.
  - One step preparation and characterization of novel magnochars for efficient adsorption of crystal violet dye from aqueous solution, (Under Preparation).
  - Enhanced Removal of Malachite green Dye Using (MWCNTs/TiO<sub>2</sub>/CS) nanocomposite: Synthesis, Characterization, and Adsorption Studies through linear and non-linear modeling, (Under Preparation).
  - Towards sustainable water treatment: a review of low-cost adsorbents from waste materials for dye removal, (Under Preparation).
  - Magnetically modified *Juglans regia* shell for effective confiscation of malachite green dye from synthetic waste water: kinetic, isotherm, and thermodynamics studies, (Under Preparation).
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## ADDITIONAL QUALIFICATIONS

- Attended an online course on “The Science of Well-Being” authorized by Yale University and offered through Coursera (30/09/2020).
- Attended an online course on “Weight Management: Beyond Balancing Calories” authorized by Emory University and offered through Coursera (04/10/2020).
- Attended an online course on “Introduction to Molecular Spectroscopy” authorized by University of Manchester and offered through Coursera (06/10/2020).
- Attended an online course on “Foundations of Mindfulness” authorized by Rice University and offered through Coursera (07/10/2020)
- Attended an online course on “Programming for Everybody (Getting Started with Python)” authorized by University of Michigan and offered through Coursera (13/10/2020).

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## LANGUAGES

- English
- Hindi
- Urdu

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## PERSONAL DETAILS

- Marital Status: Single
- Nationality: Indian
- Religion: Islam
- Passport: Yes

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## EXTRA CURRICULAR ACTIVITIES

- Volunteer, Blood Donation Camp, JNMC Hospital, Aligarh Muslim University - Assisted in organizing and running a successful blood donation drive.

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## CONFERENCES, SEMINARS AND WORKSHOPS ATTENDED

- Oral Presentation On Novel MGO/A-DNH Hydrogel For Efficient Malachite Green Removal: Development, Characterization, And Superparamagnetic Separation In Wastewater Treatment, International Conference In Chemistry -2024 On Recent Advances In Applied Chemical Sciences, Maulana Azad National Urdu University, Hyderabad, 23-24/02/2024.
- Oral Presentation on Facile synthesis of polypyrrole decorated bentonite-based magsorbent: characterizations, performance, and applications in removing cationic and anionic dyes from an aqueous medium, National Conference on Interdisciplinary Approaches in Chemical Sciences (NCIACS-2023), Centre for interdisciplinary research in basic sciences, Jamia Millia Islamia, New Delhi, India, 16/03/2023.
- Oral Presentation on Magnetized *Azadirachta indica* sawdust as a novel adsorbent: synthesis, characterization, theoretical investigation using DFT and methylene blue dye adsorption applications from aqueous solution: disposing of waste with waste, International conference on Recent Advancements in Materials, Design and Manufacturing (ICRAMDM-22), Mechanical Engineering Section of the University Polytechnic, Aligarh Muslim University, Aligarh, UP, India, 10/12/2022.
- Oral Presentation on Synthesis, characterization, and utilization of organic conjugated polymer-based nanocomposite as a novel low-cost adsorbent in wastewater remediation of synthetic wastewater containing crystal violet and methylene blue dyes, International Conference on Green Technology, Issues and challenges (ICGT-2022), Centre for international cooperation, CCSU, Meerut, UP, India, 22-24/09/2022.
- Participated in One Week Training Program on DST Supported Advanced Research Instruments under STUTI (synergistic training program utilizing the scientific and technological infrastructure) program, 18-24/07/2022.
- Participated in International conference on recent advances in materials, design and manufacturing, mechanical engineering section, University polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University, Aligarh, UP, India, 12/10/22.
- Participated in National Webinar on use of Web of Science in Research and Publications Organized by Maulana Azad Library, Aligarh Muslim University, Aligarh, in collaboration with Clarivate from 12-14/9/2022.
- Oral Presentation on Adsorption of methylene blue dye by chemically modified *Azadirachta indica* sawdust, International Conference on Advances in Chemical And Petrochemical Engineering (ACAPE 2020), Department of Chemical Engineering And Petroleum Studies, Aligarh Muslim University, Aligarh, UP, India, 22-24/02/2020.
- Oral Presentation on Adsorption of methylene blue dye by *Azadirachta indica* sawdust, International Conference on Recent Advances in Engineering and Science (ICRAES-2020), University Polytechnic, Aligarh Muslim University, Aligarh, UP, India, 11-12/01/2020.
- Participated in AWSAR (Augmenting Writing Skills for Articulating Research) workshop on popular science writing, National Botanical Research Institute (NBRI), Lucknow, Uttar Pradesh, India, 30/09/2019.
- Attended an ACS science talk on groundwater pollution, remediation and management, 10/16/20.
- Presented a Poster during M.Sc. at the National Conference on "Emerging Trends in Chemical Sciences", Department of Chemistry, Aligarh Muslim University, Aligarh, U.P., India, 24-25/02/2018.

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## PEER REVIEW CONTRIBUTIONS

- Chemical Engineering Journal: 2 reviews
- International Journal of Biological Macromolecules: 7 reviews

- Co-organizer, Drone Workshop, In collaboration with Training and Placement Office, Aligarh Muslim University - Planned and executed a hands-on workshop on drone technology for students.
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- Separation and Purification Technology: 3 reviews

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## COURSES STUDIED

- M.Sc. (I Semester): Organic, Physical, Inorganic, Analytical, Spectroscopy, Inorganic Pharmaceuticals, Metalloenzymes, and Material Chemistry.
  - M.Sc. (II Semester): Analytical, Inorganic, Organic, Physical, Polymers, Group Theory and Spectroscopy.
  - M.Sc. (III Semester): Bioinorganic and Biophysical Chemistry, Applications of Spectroscopy to Inorganic System, Organic Photochemistry, Organo-transition Metal Chemistry, Supramolecular Chemistry, and its application.
  - M.Sc. (IV Semester): Analytical Techniques, Structural Elucidation of Organic Systems by Spectroscopic Methods, Theoretical aspects of bonding in Transition Metal Complexes and Dissertation on "Design and structural investigation on organotin complexes."
  - B. Sc. (Honours): Organic, Physical, Inorganic, and Analytical chemistry.
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## REFERENCES

- Prof. Abu Nasar, Professor and Former Chairperson, Dept. of Applied Chemistry, AMU, Aligarh, India, [abunasaramu@gmail.com](mailto:abunasaramu@gmail.com)
  - Prof. Rais Ahmad Professor and Chairperson, Dept. of Applied Chemistry, AMU, Aligarh, India, [rais45@rediffmail.com](mailto:rais45@rediffmail.com)
  - Dr. Fouzia Mashkooor, Research Professor (Assistant Professor), Yeungnam University, South Korea, [fouzi.april09@gmail.com](mailto:fouzi.april09@gmail.com)
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