




**ZAKIR HUSAIN DELHI COLLEGE**  
**(University of Delhi)**

**Faculty Details**

(Please Fill the form and Email it to [website@zh.du.ac.in](mailto:website@zh.du.ac.in))

<b>Title</b>	Dr.	<b>First Name</b>	Zeeshan ur	<b>Last Name</b>	Rahman	<b>Photograph</b>
<b>Designation</b>	Assistant Professor					
<b>Address</b>	Department of Botany, Zakir Husain Delhi College, University of Delhi					
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	Residence		-			
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<b>Educational Qualification</b>						
<b>Degree</b>	<b>Institution</b>			<b>Year</b>		
B.Sc.	University of Allahabad			2008		
M.Sc.	University of Allahabad			2010		
M.Phil.	University of Delhi			2012		
Ph.D.	University of Delhi			2018		
<b>Career Profile</b>						
Assistant Professor in Zakir Husain Delhi College, University of Delhi, India (January 2017 to till date)						
<b>Administrative Assignments</b>						
<ul style="list-style-type: none"><li>● <b>Vice-President</b> of Botanical Society, “Nargis”, Department of Botany, Zakir Husain Delhi College, University of Delhi for the academic session 2022-23</li><li>● <b>Organising Secretary</b> at “International Conference cum Workshop on Proteomics, Transcriptomics, and Molecular Drug Design: An Integrated Omics Approach”, organised by Zakir Husain Delhi College, University of Delhi, May 2-27, 2022</li><li>● <b>Organising Committee Member</b> at “International Conference on Advance in Chemical Sciences and Nanocomposites” organised by Zakir Husain Delhi College, University of Delhi, dated: April 1-2, 2022</li><li>● <b>Organising Committee Member</b> at “Digital Upskilling Workshop for Laboratory Staff” organised by Zakir Husain Delhi College, University of Delhi, February 15-17, 2022</li><li>● <b>Organising Committee Member</b> at “Refresher Course on Laboratory Techniques for laboratory staff” organised by Zakir Husain Delhi College, University of Delhi, February 7-11, 2022</li><li>● <b>Coordinator</b> at “National Workshop on Statistical Analysis of Biological Data”, organised by Zakir Husain Delhi College, University of Delhi, January 17- February 21, 2022</li><li>● <b>Coordinator</b> at “A Webinar on “From Analog Environments to Careers in Astrobiology”, organised by Zakir Husain Delhi College, University of Delhi, November 16, 2021</li></ul>						

- **Organising Committee Member** at Webinar on “Let’s Learn Hydroponics- The Future of Smart Farming” organised by Zakir Husain Delhi College, University of Delhi in association with Eezeegrwo Hydroponics, October 05, 2021
- **Organising Committee Member** at Webinar on “Intellectual Property Right: An Overview” organised by Zakir Husain Delhi College, University of Delhi, October 01, 2021
- **Organising Secretary** at “National Workshop of National Workshop on “Bioinformatics: Resources, Tools, and its Applications”, organised by Zakir Husain Delhi College, University of Delhi, July 19-27, 2021.
- **Organising Committee Member** at “National Conference on Pharmacognosy: Scope of Phytochemically Unexplored Medicinal Plants” organised by Zakir Husain Delhi College, University of Delhi, January 12, 2017
- **Organising Committee Member** at “National Workshop on the Biostatistics” organised by Department of Botany in association with Department of Mathematics, Zakir Husain Delhi College, University of Delhi, March 9-10, 2017

#### Areas of Interest / Specialization

Environmental Microbiology; Heavy Metal-Microbe Interaction; Bioremediation; Microbial Ecology; Microbial Community Analysis; Soil Microbiology; Geomicrobiology; Aquatic Microbiology

#### Subjects Taught

Industrial and Environmental Microbiology, Microbiology and Plant-Microbe Interaction, Biostatistics, Bioinformatics, Biodiversity, and Swachh Bharat

#### Research Guidance

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#### Publications Profile

**Google Scholar Link:** <https://scholar.google.com/citations?user=lyFlif8AAAAJ&hl=en>

**Citations:** 1320, **h-index:** 8, **i10-index:** 8 **Cumulative Impact Factor:** ~56

#### Publications in Journals

- **Rahman, Z.\***, Thomas, L., Chetri, S. P., Bodhankar, S., Kumar, V., & Naidu, R. (2023) A comprehensive review on chromium (Cr) contamination and Cr (VI)-resistant extremophiles in diverse extreme environments. *Environmental Science and Pollution Research*. 13:1-31. (**IF: 5.8**)
- Laisram, N., **Rahman, Z.\***, & Singh, V. P. (2023) Antagonistic activity of *Pseudomonas fluorescens* strain X1 against different fusaria and it’s *in vivo* analysis against *Fusarium udum* infected pigeon pea. *Current Microbiology* (**IF: 2.6**)
- Chetri, S. P. K., **Rahman, Z.**, Thomas, L., Lal, R., Gour, T., & Agarwal, L. K. (2022) Paradigms of actinorhizal symbiosis under the regime of global climatic changes: New insights and perspectives. *Journal of Basic Microbiology* 62 (7), 764-778 (**IF: 3.1**)
- **Rahman, Z.\***, & Thomas, L. (2021) Chemical-assisted microbially mediated chromium (Cr)(VI) reduction under the influence of various electron donors, redox mediators, and other additives: an outlook on enhanced Cr(VI) removal. *Frontiers in Microbiology*, doi: 10.3389/fmicb.2020.619766 (**IF: 5.2**)
- **Rahman, Z.\*** (2020). An overview on heavy metal resistant microorganisms for simultaneous treatment of multiple chemical pollutants at co-contaminated sites, and their multipurpose application. *Journal of Hazardous Materials*, 122682. (**IF: 13.6**)
- **Rahman, Z.\***, Thomas, L., & Singh, V. P. (2020). Study of As-resistant bacteria from Nadia, India and a survey of two As-resistance-related proteins. *Journal of Basic Microbiology*, 60(1), 47-57. (**IF: 3.1**)
- **Rahman, Z.\***, & Singh, V. P. (2020). Bioremediation of toxic heavy metals (THMs) contaminated sites: concepts, applications and challenges. *Environmental Science and Pollution Research* 27, 27563–27581. (**IF: 5.8**) (#Corresponding author)

- **Rahman, Z.\***, Thomas, L., & Singh, V. P. (2019). Biosorption of heavy metals by a lead (Pb) resistant bacterium, *Staphylococcus hominis* strain AMB-2. *Journal of Basic Microbiology*, 59(5), 477-486. (IF: 3.1)
- **Rahman, Z.\***, & Singh, V. P. (2019). The relative impact of toxic heavy metals (THMs) (arsenic (As), cadmium (Cd), chromium (Cr)(VI), mercury (Hg), and lead (Pb)) on the total environment: an overview. *Environmental Monitoring and Assessment*, 191(7), 419. (IF: 3.0) (#Corresponding author)
- **Rahman, Z.**, Singh, V. P. (2018). Assessment of heavy metal contamination and Hg-resistant bacteria in surface water from different regions of Delhi, India. *Saudi Journal of Biological Sciences*. 25, 1687-1695. (IF: 4.4)
- Andersson, M. G. I., Catalán, N., **Rahman, Z.**, Tranvik, L. J., Lindström, E. S. (2018). Effects of sterilization on dissolved organic carbon (DOC) composition and bacterial utilization of DOC from lakes. *Aquatic Microbial Ecology* 82, 199-208. (IF: 1.4)
- Andersson, M. G. I., **Rahman, Z.**, Catalán, N., Tranvik, L., Langenheder, S., & Lindström, E. S. (2017) Response and effect interactions between bacterial communities and organic matter. (<https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1149752&dswid=-6779>) Preprint
- Andersson, M. G. I., **Rahman, Z.**, Catalán, N., & Lindström, E. S. (2017). The relative importance of richness and BCC for DOC degradation. (<https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1149750&dswid=2429>) Preprint
- **Rahman, Z.**, Singh, V. P. (2014). Cr(VI) reduction by *Enterobacter* sp. DU17 isolated from the tannery waste dump site and characterization of the bacterium and the Cr(VI) reductase. *International Biodeterioration & Biodegradation*. 91, 97-103. (IF: 4.8)

#### Book Chapters

- **Rahman, Z.\***, Sanderson, P., Naidu R., (2024). Chromium: A pervasive environmental contaminant and its removal through different remediation techniques. In: Inorganic Contaminants and Radionuclides, ed. Raidu, R.. Elsevier. <https://doi.org/10.1016/B978-0-323-90400-1.00015-X>
- Thomas, L., **Rahman, Z.** Sharma, K., Nagar, D., Vashishtha, A., Kumar, G., & Chetri, S. P. (2021). *In Vitro* Biosynthesis of Natural Products in Plant Roots. In Rhizobiology: Molecular Physiology of Plant Roots (pp. 475-495). Springer, Cham
- Thomas, L., & **Rahman, Z.\***. (2020). A Genome-Wide Investigation on Symbiotic Nitrogen-Fixing Bacteria in Leguminous Plants. In Plant Microbe Symbiosis (pp. 55-73). Springer, Cham.
- **Rahman, Z.**, Thomas, L., & Singh, V. P. (2017). Mercury (Hg)-microbe interactions and role of biogeochemical processes in Hg contamination. In: Advances in Life Sciences, ed. S., Dutt, A., Tyagi, H. P., Bhati, H., Singh. S.R. (pp. 186-193). Scientific Publication
- **Rahman, Z.**, & Singh, V. P. (2013). Cr(VI) toxicity and its detoxification by bacteria: a minireview. *Perspectives in Cytology and Genetics* 16, pp. 107-114.

(\* Corresponding Author)

#### Conference Organization/ Presentations (in the last five years)

- **Participation** at Seminar on “सामाजिक समरसता और सिंधी समाज” organized by National Council for Promotion of Sindhi Language, Ministry of Education, Government of India, held at Zakir Husain Delhi College, University of Delhi, India (20<sup>th</sup> October 2023)
- **Participation** at National e-Conference on “Plant Science Research: Relevance, Funding, Challenges and Opportunities” organised by Department of Botany, Hansraj College in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi (January 16-17, 2021)
- **Participation** in One week (Online) Faculty Development Programme on “Exploratory Data Analysis using Statistical Software R and SPSS” organised by Department of Statistics and Internal Quality Assurance Cell (IQAC) Mata Sundri College for Women, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi (07<sup>th</sup> January - 13<sup>th</sup> January, 2021)
- **Participation** at National Conference on “Water Sustainability: Conservation, Policy, Ethics and Science” organised by Department of Environmental Studies in collaboration with Nature and Environment Society, Zakir Husain Delhi College, University of Delhi (January 21-22, 2020)

<b>Research Projects (Major Grants/Research Collaboration)</b>
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<b>Awards and Distinctions</b>
<ul style="list-style-type: none"> <li>● Research Fellow of INTI International University, Malaysia for 2023-2025</li> <li>● Erasmus Mundus Scholarship for Ph.D. Exchange Program at Uppsala University, Sweden in 2014</li> <li>● Council of Scientific and Industrial Research- Senior Research Fellowship in 2014</li> <li>● Council of Scientific and Industrial Research- Junior Research Fellowship in 2011</li> <li>● Graduate Aptitude Test in Engineering in 2011 and 2010</li> <li>● Council of Scientific and Industrial Research- Lectureship in 2010</li> </ul>
<b>Association With Professional Bodies</b>
-
<b>Other Activities</b>
<ul style="list-style-type: none"> <li>● Preparation of Guidelines for the practical examination of the course “SEC- Statistics with R” for B.Sc.(H) Botany/ B.Sc. (Prog) Life Sciences</li> <li>● Invited speaker, Refresher Course on Laboratory Techniques for laboratory staff organised by Zakir Husain Delhi College, University of Delhi, February 7-11, 2022</li> <li>● Reviewed Articles in different Journals: Journal of Hazardous Materials; Science of the Total Environment; Scientific Africa; PlosOne; Environmental Science and Pollution Research; Chemistry and Ecology</li> <li>● Reviewed a book proposal for Elsevier</li> </ul>