Dr. Vivek Kumar Jaiswal

Department of Chemical Engg. Harcourt Butler Technical University, Nawabganj, Kanpur (U.P.) – 208 002
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1994vkj23@gmail.com +91 9458051791, 7042462798 Hometown: Deoria

Career goal

My great goal is to have a stronghold in the field of wastewater and to be a leading expert in the field, where I can apply my knowledge and experience to help treatment plants and the public as well. I aspire to work on effective wastewater treatment systems, collaborating with industries, governments, and research institutions. Ultimately, I want to make a lasting positive impact on the environment and public health, safeguarding precious water resources for future generations.

Academic records

Ph.D.	**Chemical Engineering & Technology** | **Indian Institute of Technology (BHU) Varanasi, India** 2024 (9.4/10)
M.Tech	**Chemical Engineering** | **Motilal Neharu National Institute of Technology Allahabad, Prayagraj, India** July, 2019 (9.05/10)
B.Tech	**Chemical Engineering** | **Meerut Institute of Engineering & Technology, Meerut, India** July, 2015 (73.56%)
12th class	**Science** | **Mahatma Gandhi Inter College, Gorakhpur, Uttar Pradesh, India** June, 2010 (71.80%)
10th class	**Science** | **D. B. Ragh HSS Pakari Bazar, Deoria, Uttar Pradesh, India** June, 2008 (61.83%)

Experiences

Jan 31, 2026 ..... July 29, 2024 - Jan 28, 2026	Assistant Professor at HBTU, in Chemical Engineering Department, Kanpur (208002) Assistant Professor (Guest Lecturer) at MMMUT, in Chemical Engineering Department, Gorakhpur (273010)

Achievements

1. Best oral presentation award in International Sustainability Conference On Health, Safety, Fire And Environmental Advances (HSFEA-2023)
2. Best poster presentation award in Advance and Innovation in Biotechnology for Sustainable Bioresource and Bioeconomy (AI-BSBB -2023)
3. Won second price in Cheamyantriki (MIET, (Meerut))

Articles

2026

1. Kushwaha, R. ,**Jaiswal, V. K.**, Singh, R.S. & Mohan, D. (2026). Simultaneous Bioremediation of Arsenic and Chromium from Soil Using Bacteria: Assessment of Plant Growth, Chlorophyll, and Effects of Extraction Medium. J. Hazard. Toxic Radioact. Waste 30, 3 **J. Hazard. Toxic Radioact. Waste 30, 3 (I. F. 2.2)**,

2025

1. **Jaiswal, V. K.**, Gupta, A.D., Kushwaha, R., Kumar, R., Singh, K., Singh, H., Mohan, D., & Singh, R.S., (2025). Arsenic removal from water using an acid-modified biochar. J Mol Struct 1324, 140904. **J Mol Struct 1324, 140904, (I.F.4.0)**
2. Gupta, A.D., **Jaiswal, V.K.,** Chabhadiya, K., Singh, R.S., Gupta, M.K., & Singh, H., (2025) A critical review on the properties and applications of bulk micro and nanobubbles for the degradation of organic pollutants in wastewater treatment. *Sci. Total Environ.976, 179310*, **(I.F. 9.8)**

2024

1. **Jaiswal, V.K.**, Sonwani, R.K., & Singh, R.S., (2024). Simultaneous removal of *p*-cresol and methylene blue dye through upward-flow packed bed biofilm reactor (UFPBBR): Kinetics, phytotoxicity and bacterial toxicity assessment. *Journal of Water Process Engineering 58, 104868*, **(I.F. 7.0)**
2. **Jaiswal, V.K.** , Gupta, A.D., Sonwani, R.K., Giri, B.S., & Singh, R.S., (2024). Enhanced biodegradation of 2, 4-dichlorophenol in packed bed biofilm reactor by impregnation of polyurethane foam with Fe_3O_4 nanoparticles: Biokinetics, process optimization, performance evaluation and toxicity assessmentr. *Bioresour. Technol. 406, 131085*, **(I.F. 9.0)**
3. Verma, V., Saroj, S., **Jaiswal, V.K.,**, & Singh, S.V., (2024). Remediation of methylene blue water solution with iodine doped TiO_2 nanoparticles and their regeneration: For reuse and check phytotoxicity level of treated water. *Opt. Mater. (Amst). 152, 115521*, **(I.F. 3.9)**

2023

1. **Jaiswal, V.K.** , Sonwani, R.K., & Singh, R.S., (2023). Construction and performance assessment of Recirculating packed bed biofilm reactor (RPBBR) for effective biodegradation of p-cresol from wastewater. *Bioresour. Technol. 384, 129372*, **(I.F. 9.0)**
2. **Jaiswal, V.K.**, Dutta, A., Verma, V., & Singh, R.S., (2023). Degradation of *p*-cresol in the presence of UV light driven in an integrated system containing photocatalytic and packed bed biofilm reactor. *Bioresour. Technol. 387, 129706*, **(I.F. 9.7)**
3. **Jaiswal, V.K.**, Maurya, K.L., Sonwani, R.K., & Singh, R.S., (2023). Biodegradation of *p*-cresol by Serratia marcescens strain HL 1 in batch system: Process optimization, growth kinetic study, phytotoxicity and chlorophyll assessment. *Bioresour. Technol. Reports 22, 101426.* **(I.F. 4.0)**
4. **Jaiswal, V.K.**, Sonwani, R.K., & Singh, R.S., (2023). Assessment of enhanced *p*-cresol biodegradation by encapsulating pre-immobilised Serratia marcescens strain HL 1 on tea waste biochar into polyvinyl alcohol / sodium alginate matrix.. *Biochem. Eng. J. 199, 109046*, **(I.F. 3.9)**
5. Maurya, K.L., Kumar, M., Sonwani, R.K., **Jaiswal, V.K.**, & Singh, R.S., (2023). Enhancement of azo dye bioremediation using chemically modified polypropylene biocarrier: Comparative analysis and kinetic modeling.. *Bioresour. Technol. Reports 21, 101375*, **(I.F. 4.0)**

2021

1. **Jaiswal, V. K.**, Singh, K.P. Rawat, Gupta, A.D., Bhadauria,V., Chavan, U., Kalita, D., and Sing, H.,(2021). Comparison of Starch Characteristics from Pigmented and Non-Pigmented Sorghum Cultivars before and after Electron Beam Irradiation. *Starch 73, 2000143*, **(I.F. 2.741)**
2. Gupta, A.D., Singh, H., **Jaiswal, V.K.**, & Goswami, M., Bhadauria, V., (2021). Improved arsenite adsorption using iron-impregnated marble dust with surface functionalized by quaternary ammonium ions. *Int. J. Environ. Sci. Technol.18, 2955–2974*, **(I.F. 3.2)**

2019

1. Gupta, A.D., Pandey, S., **Jaiswal, V.K.,** Bhadauria, V., & Singh, H., (2019). Simultaneous oxidation and esterification of cellulose for use in treatment of water containing Cu(II) ions. *Carbohydr. Polym. 222, 114964*, **(I.F. 11.2)**

Conferences & Workshop

1. International Conference on Biotechnology for Sustainable Bioresources and Bioeconomy (BSBB-2022)
2. National Conference on Environmental and Industrial Biotechnology (NCEIB-2022)
3. Training Programme on Wastewater Characterization, Treatment and Reuse (WCTR - 2023)
4. International Conference on Technologies and Innovations for Sustainable Development (TISD-2023)
5. International Sustainability Conference On Health, Safety, Fire And Environmental Advances (HSFEA-2023)
6. International conference on Advance and Innovation in Biotechnology for Sustainable Bioresource and Bioeconomy (AI-BSBB -2023)
7. An International Conference on Energy Transition: Challenges and Opportunity (IICHE-CHEMCON-2023)
8. An International Conference on Frontiers in Energy, Environment and Material Sciences for Sustainable Development (FEEMSSD-2025)

Research interests

- Environmental biotechnology
- Biological wastewater treatment
- Emerging pollutant removal
- Domestic & industrial wastewater treatment
- Environmental microbiology

Responsibilities

- Volunteered at MNNIT, Allahabad, Prayagraj
- Registrations duties
- Convocations duties
- Conferences & workshops duties

Proficiency

Technical Expertise

- UV-Visible Spectrophotometer
- Atomic Absorption Spectroscopy
- HPLC and Ion Chromatography
- Fluorescence Microscope

Analytical Techniques

- Basic water quality analysis
- Emerging pollutant analysis
- Metals and antibiotics Analysis
- Molecular tools & techniques

Software Packages

- Adobe Illustrator, Photoshop
- Microsoft Office 2003-2019
- ImageJ, Visilog, GelJ

Languages

- Hindi ★★★★★
- English ★★★★★

Hobbies

- Photography
- Learning new software & Language

Memberships

1. Lifetime membership of Biotech Research Society, India (BRSI) membership number is LM 2893.
2. Associate Member of The institute of engineers (India) Membership Number is: AM 3129104

Projects

Ph.D.

Development and Performance Assessment of Biological Systems for Effective Biodegradation of p-Cresol from Synthetic Wastewater

- p-Cresol, a toxic aromatic compound found in industrial wastewater, poses significant environmental and health risks. Effective biodegradation methods are essential for mitigating these hazards. This study aims to develop and assess the performance of biological systems for the biodegradation of p-Cresol from synthetic wastewater. Various microbial strains and consortia were evaluated for their efficiency in degrading p-Cresol under controlled laboratory conditions.The performance of these biological systems was analyzed based on degradation rates, environmental conditions, and optimization parameters.

References*

Dr. Ram Sharan (R.S.) Singh
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Dr. Balendu Shekher Giri
Professor, school-of-advanced-engineering/sustainability
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*References are available on request.

Hereby, I declare that all the information furnished above is true.

Date : March 30, 2026
Place : HBTU, Kanpurpur (208002)

Vivek Kumar Jaiswal