



**Centre/School/Special Centre: I.E.R**

**Department: Biotechnology**

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**Personal Webpage Link:**

### **Qualifications:**

<b>Ph. D.</b>	<b>Environmental Sci. and BioTech.</b>	<b>Indian Institute of Technology Roorkee, 2020</b>
M. Tech.	Biotechnology	S.V.P. Agriculture University and Technology, Meerut, 2013
B. E.	Biotechnology	Dr. B. R. Ambedkar University, Agra, 2010
Intermediate	Science (Bio)	CBSE, JNV Mirzapur
High School	Hindi, English, Science, Maths, Social Science	CBSE, JNV Sul CBSE, JNV Sultanpur

**Area of Interest/Specialization:** Environmental biotechnology, Biological treatment of wastewater, Analysis of hazardous compounds and their removal, Phytoremediation, Anaerobic digestion, biogas production and recycling of waste.

**Experience:** 01 Month Industrial and 06 Month Teaching

- Assistant Professor (Ad-hoc), Department of Biotechnology, **Guru Ghasidas Central University**, Bilaspur, C.G., from January 05, 2022 to till date.
- Assistant Professor (L1), **Research for Resurgence Foundation**, Tulsibag Road, Mahal, Nagpur from January 3-4, 2022.
- **Subject Taught:** Bioprocess Technology, Bioinformatics, Emerging Technologies, Biomanagment of Envnt.

**Awards and Honors:** GATE-2012, TEQIP-II AKTU-2014

**Research Projects:** NA

**International Collaboration/Consultancy:** NA

**Best Peer Reviewed Publication (up-to 10):**

1. **Sonkar, M.**, Kumar, V., Kumar, P., Shah, M. P., Majumdar, C. B., Dutt, D., Biswas, J.K., Mishra, P.K., 2021. Bioaugmentation of existing potent microbes to accelerate the treatment efficacy of paper industry wastewater pollutants. *J. Environ. Chem. Eng.*, 105913. doi.org/10.1016/j.jece.2021.105913. **(IF5.909)**
2. Kumar, V., Ferreira, L.F.R., **Sonkar, M.**, Singh, J., 2021. Phytoextraction of heavy metals and ultrastructural changes of *Ricinus communis L.* grown on complex organometallic sludge discharged from alcohol distillery. *Environ. Technol. Inno.*, 22, 101382. doi.org/10.1016/j.eti.2021.101382. **(IF5.263)**
3. **Sonkar, M.**, Kumar, V., Dutt, D., 2021. A novel sequence batch treatment of wastewater using *Bacillus* sp. IITRDVM-5 mixing with paper mill and sewage sludge powders. *Environ. Technol. Inno.*, 21, 101288. doi.org/10.1016/j.eti.2020.101288. **(IF- 5.263)**
4. **Sonkar, M.**, Kumar, V., Dutt, D., 2020. Use of paper mill sludge and sewage sludge powder as nitrogen and phosphorus sources with bacterial consortium for the treatment of paper industry wastewater. *Biocatal. Agric. Biotechnol.*, 30, 101843. doi.org/10.1016/j.bcab.2020.101843. **(CS: 6.2)**
5. **Sonkar, M.**, Kumar, M., Dutt, D., Kumar, V., 2019. Treatment of pulp and paper mill effluent by a novel bacterium *Bacillus* sp. IITRDVM-5 through a sequential batch process. *Biocatal. Agric. Biotechnol.*, 20, 101232. doi.org/10.1016/j.bcab.2019.101232. **(CS: 6.2)**

**Recent Books/Book Chapters/Monographs etc.**

1. Kumar, V., **Sonkar, M.**, Pooja, Shukla, S.K., 2018. Recent Advancement on Bioaugmentation Strategies for Process Industry Wastewater (PIWW) Treatment. *Water Remed.*, 189-209 Springer, Singapore. doi.org/10.1007/978-981-10-7551-3\_11.
2. Sachan, R., Singh A.K., **Sonkar, M.**, Bharadwaj, S., 2022. Microbial Corrosion and It's Current Mitigation Strategies. (Accepted)

**Research Supervision:** B.Sc.- 12 Students; M.Sc.- 06 Students pursuing

**Administrative Responsibilities:** NA

**Additional Information:**

- Conferences/Workshop/Training/Seminars: 15 (Including two poster presentations)
- Invited Talk Organized
  - a. “Emerging Technologies in Biotechnology” since 20/02/2022 and 23/02/2022.
  - b. “Practical Approaches of Bioinformatics” since 23/01/2022 and 05/02/2022.
  - c. “Industrial Bioproducts and Wastewater Treatment” since 06/02/2022
- Participated in Projects:
  - a. “[vWa]” BT/IN/Indo-UK/SVP/08/2018-19 project at IIT Delhi, New Delhi (PI: Prof. Vivek Kumar).
  - b. Adequacy report of Paper Mills, DPT-6006/17-18 at IIT Roorkee SRE campus, Saharanpur (PI: Prof. Dharm Dutt).
  - c. “Bioenergy from waste: Hydrogen and methane production” DBT project at IGIB, Delhi (PI: Prof. V.C. Kalia).
- Assisted in guiding M. Tech./M.Sc. students (06) for their dissertation work.
- Appointed as a research team member in Society for Green Environment.
- Worked as Guest Editor in American Journal of Environmental Sciences.
- TOC operator in IITR SRE Campus from 2017 to 2020.
- Reviewer of the Reputed Journals: Journal of Hazardous Materials, Critical review in environmental science and technology, Journal of Applied Microbiology, American Journal of Applied Sciences, Journal of Basic Microbiology etc.
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*Dr. Madan Sonkar, Ph.D. (IIT Roorkee)  
Assistant Professor (Ad-hoc)*