

Curriculum Vitae

- 1. Name:** Dr. Vineet Kumar, *M.Phil., Ph.D.*
- 2. Designation:** Senior Researcher
- 3. Affiliation:** Waste Re-processing Division
CSIR-National Environmental Engineering Research Institute (NEERI), Nagpur-440020, Maharashtra, India
- 4. Permanent Address:** 576, Village and Post Jahidpur, Hapur Road, Meerut, Uttar Pradesh-250002, India
- 5. Contact No & E-mail:** Mob: +91-9997478949; +91-9354778229
E-mail: drvineet.micro@gmail.com; vineet.way18@gmail.com
Founder, Society for Green Environment, India (<http://sgeindia.org/>)
- 6. Specialization:** Environmental Microbiology and Biotechnology
- 7. Research Interest:** Bioremediation, Phytoremediation, Metagenomics, Wastewater Treatment, Environmental Monitoring, Biofuel, Waste Valorization, Bioplastic Production, Solid Waste Management



8. Web IDs

- Researchgate https://www.researchgate.net/profile/Vineet_Kumar55
- Google Scholar <https://scholar.google.co.in/citations?user=4J7kizUAAAAJ&hl=en>
- ResearcherID (Publons) <https://publons.com/researcher/3548351/dr-vineet-kumar/>
- Loop (Frontier) <https://loop.frontiersin.org/people/984441/overview>
- ORCID <https://orcid.org/0000-0001-9536-7355>
- Scopus ID <https://www.scopus.com/authid/detail.uri?authorId=57220202594>

9. Publication Record

Research/Review Articles/Editorial	Books	Book Chapters	Book series	Conference Proceeding Papers	Magazine articles	Impact Factor	Citations	<i>h</i> -index
25+	12+	42+	2+	4+	4+	108.411	817	17

10. Academic Qualification:

Degree/Certificate	University/Institute	Year of Passing	Subject
Ph.D.	Babasaheb Bhimrao Ambedkar (A Central) University, Lucknow, Uttar Pradesh	2018	Environmental Microbiology
M.Phil.	Ch. Charan Singh University, Meerut, Uttar Pradesh	2012	Microbiology
M.Sc.	Ch. Charan Singh University, Meerut, Uttar Pradesh	2010	Microbiology
B.Sc.	Meerut College, Meerut, Uttar Pradesh	2008	Chemistry, Zoology, Botany
Intermediate (10+2)	UP Senior Secondary Board Allahabad, Uttar Pradesh	2005	Hindi, English, Physics, Chemistry, Biology

Ph.D. Thesis “*Study of Bacterial Communities In Two Step Treatment Of Post Methanated Distillery Effluent By Bacteria And Constructed Wetland Plant Treatment System*”

M.Phil. Thesis “*Isolation and Biochemical Characterization of MDR and ESBL Producing Pseudomonas aeruginosa from Clinical Samples and Its Sensitivity to Medicinal Plant Extracts*”

11. Research and Teaching Experience: [9 Years]

- Works as **Senior Researcher** in the Waste Re-processing Division at **CSIR-National Environmental Engineering Research Institute, Nagpur (CSIR-NEERI)**, Nagpur, Maharashtra, India (*12 November 2021 to date*)
- Works as **Assistant Professor** (Ad-hoc) in the Department of Botany at **Guru Ghasidas Vishwavidyalaya (A Central University)**, Bilaspur-495009, Chhattisgarh (*January 27, 2021 to November 11, 2021*)
- Worked as **Assistant Professor** in the Department of Microbiology and Biotechnology at **Vinayak Vidyapeeth**, Meerut, Affiliated to Ch. Charan Singh University, Meerut, Uttar Pradesh (*18 August 2020 to January 22, 2021*)
- Worked as **Senior Research Fellow** at School of Environmental Sciences, **Jawaharlal Nehru University (JNU)**, New Delhi (*April 02, 2019, to August 01, 2019*)
- Worked as **Guest Faculty** in the Department of Microbiology at **Dr. Shakuntala Misra National Rehabilitation University**, Lucknow, Uttar Pradesh (*September 01, 2018, to December 31, 2018*)
- Worked as **UGC-Senior Research Fellow (SRF)** at Department of Environmental Microbiology, **Babasaheb Bhimrao Ambedkar University**, Lucknow (*November 2014 to October 2018*)
- Worked as **UGC-Junior Research Fellow (JRF)** at Department of Environmental Microbiology, **Babasaheb Bhimrao Ambedkar University**, Lucknow (*October 2012 to October 2014*)

12. Scholarship/Fellowship

Awarded **Rajiv Gandhi National Fellowship (RGNF)** by “**University Grants Commission**”, Government of India (GOI), New Delhi for his **Doctoral Research Work** for the period October 08, 2012, to October 07, 2017, in the **Department of Environmental Microbiology** at **Babasaheb Bhimrao Ambedkar (Central) University**, Lucknow, India.

13. Competitive Exams Qualified at National Level

Qualified “**National Eligibility Test (NET: 2014)**” conducted by “**Agricultural Scientists Recruitment Board (ASRB)**” of “**Indian Council of Agricultural Research (ICAR)**”, New Delhi, India.

14. Awards/Honors [4]

- Awarded **Young Scientist Award-2018** in International Conference Organized by Agro-Environmental Development Society UP held at Sam Higginbottom University of Agriculture, Technology and Sciences, Allahabad, Uttar Pradesh, India (**2018**)
- Awarded **3rd Prize for Best Poster Presentation** in 4th Lucknow Science Congress (LUSCON-2017) organized by B.B. AU, Lucknow, Uttar Pradesh, India (**2017**)
- Awarded **Merit Certificate** for Best Academic Contribution by B.B. Ambedkar University, Lucknow, Uttar Pradesh, India (**2013**)

15. Membership of Professional Bodies [5]

- Member of **Microbiology Society**, United Kingdom (*Membership No: C038680*)
- Life Member of **Association of Microbiologists of India (AMI)**, Lucknow, India (*Membership No: 3317-2013*)
- Life Member of **The Biotech Research Society (BRSI)**, India (*Membership No: LM1792*)
- Life Member of **Indian Science Congress Association (ISCA)**, Kolkata, India (*Membership No: L23148*)
- Life Member of **Society for Green Environment**, New Delhi, India

25. Agrawal, S., Kumar, V., Kumar, S., Shahi, S.K., 2022. Plant development and crop protection using phytonanotechnology: a new window for sustainable agriculture. **Chemosphere (IF 7.086)**, *Accepted*
24. Kumar, V.*, Bilal, M., Ferreira, L. F. R., 2022. Editorial: Recent Trends in Integrated Wastewater Treatment for Sustainable Development. **Frontiers in Microbiology** 13, 846503. <https://doi.org/10.3389/fmicb.2022.846503> (IF 5.640)
23. Singh, S., Anil, A.G., Sunil K. Naik, T.S., Basavaraju, U., Khasnabis, S., Nath, B., Kumar, V., Singh, J., Subramanian, S., Ramamurthy, P.C., 2022. Mechanisms and kinetics of Cr(VI) adsorption on carbon derived from *Citrobacter freundii* under different pyrolysis temperatures. **Journal of Water Process Engineering** 47, 102723. <https://doi.org/10.1016/j.jwpe.2022.102723> (IF 5.485)
22. Dhanker, R., Kumar, R., Tiwari, A., Kumar, V., 2022. Diatoms as a Biotechnological Resource for the Sustainable Biofuel Production: A State-of-the-Art Review. **Biotechnology and Genetic Engineering Reviews**. <https://doi.org/10.1080/02648725.2022.2053319> (CiteScore 8.1)
21. Hitkari, G., Chowdhary, P., Kumar, V., Singh, S., Motghare, A. 2022. Potential of Copper-Zinc Oxide Nanocomposite for Photocatalytic Degradation of Congo Red Dye. **Cleaner Chemical Engineering** 1, 100003. <https://doi.org/10.1016/j.clce.2022.100003>
20. Kumar, V.*, Ameen, F., Islam, M.A., Agrawal, S., Motghare, A., Dey, A., Shah, M.P., Américo-Pinheiro, J.H.P., Singh, S., Ramamurthy, P.C., 2022. Evaluation of cytotoxicity and genotoxicity effects of refractory pollutants of untreated and biomethanated distillery effluent using *Allium cepa*. **Environmental Pollution** 300, 118975. <https://doi.org/10.1016/j.envpol.2022.118975> (IF 8.071)
19. Kumar, V.*, Agrawal, S., Shahi, S.K., Motghare, A., Singh, S., Ramamurthy, P.C., 2022. Bioremediation potential of newly isolated *Bacillus albus* strain VKDS9 for decolourization and detoxification of biomethanated distillery effluent and its metabolites characterization for environmental sustainability. **Environmental Technology & Innovation** 26, 102260. <https://doi.org/10.1016/j.eti.2021.102260> (IF 5.263)
18. Aguiar, M.M., Wadt, L.C., Vilar, D.S., Hernández-Macedo, M.L., Kumar, V., Monteiro, R.T.R., Mulla, S.I., Bharagava, R.N., Iqbal H.M.N., Bilal, M., Ferreira, L.F.R., 2022. Vinasse Bio-Valorization for enhanced production of protein-rich biomass and exopolysaccharides from *Pleurotus* Strains. **Biomass Conversion and Biorefinery**. <https://doi.org/10.1007/s13399-021-02198-y> (IF 4.987)
17. Américo-Pinheiro, J.H.P., Paschoa, C.V.M., Salomão, G.R., Cruz, I.A., Isique, W.D., Ferreira, L.F.R., Sher, F., Torres, N.H., Kumar, V., Pinheiro, R.S.B., 2022. Adsorptive remediation of naproxen from water using in-house developed hybrid material functionalized with iron oxide. **Chemosphere** 289, 133222. <https://doi.org/10.1016/j.chemosphere.2021.133222> (IF 7.086)
16. Amith, A., Sukanya, R., Subramanian, S., Kumar, V., Ramamurthy, P., 2021. Chromium (VI) detection by microbial carbon dots: Microwave synthesis and mechanistic study. **Journal of Basic Microbiology** 1-10 <https://doi.org/10.1002/jobm.202100394> (IF 2.281)
15. Singh, S., Anil, A.G., Khasnabis, S., Kumar, V., Nath, B., Sunil Kumar Naik, T.S., Subramanian, S., Kumar, V., Singh, J., Ramamurthy, P.C., 2021. Sustainable removal of Cr(VI) using graphene oxide-zinc oxide nanohybrid: Adsorption kinetics, isotherms, and thermodynamics. **Environmental Research** 203, 111891. <https://doi.org/10.1016/j.envres.2021.111891> (IF 6.793)

14. **Kumar, V.,** Srivastava, S., Thakur, I.S., **2021.** Enhanced recovery of polyhydroxyalkanoates from secondary wastewater sludge of sewage treatment plant: Analysis and process parameters optimization. **Bioresource Technology Reports** 15, 100783. <https://doi.org/10.1016/j.biteb.2021.100783> (CiteScore 3.8)
13. **Kumar, V.*,** Shahi, S.K., Ferreira, L.F.R., Bilal, M., Biswas, J.K., Bulgariu, L., **2021.** Detection and characterization of refractory organic and inorganic pollutants discharged in biomethanated distillery effluent and their phytotoxicity, cytotoxicity, and genotoxicity assessment using *Phaseolus aureus* L. and *Allium cepa* L. **Environmental Research** 201, 111551. <https://doi.org/10.1016/j.envres.2021.111551> (IF 6.793).
12. Agrawal, N., **Kumar, V.,** Shahi, S.K., **2021.** Biodegradation and detoxification of phenanthrene in in vitro and in vivo conditions by a newly isolated ligninolytic fungus *Corioloopsis byrsina* strain APC5 and characterization of their metabolites for environmental safety. **Environmental Science and Pollution Research**. <https://doi.org/10.1007/s11356-021-15271-w> (IF 4.223)
11. **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. **Environmental Technology & Innovation** 22, 101382. <https://doi.org/10.1016/j.eti.2021.101382> (IF 5.263)
10. Singh, S., Dhanjal, D.S., Bhardwaj, S., Sharma, S.G., Kumar, V., Datta, S., **Kumar, V.,** Kumar, M., Singh, J., **2020.** An insight in bacteriophage-based biosensors with focus on their detection methods and recent advancements. **Environmental Technology & Innovation** 20, 101081. <https://doi.org/10.1016/j.eti.2020.101081> (IF 5.263)
9. **Kumar, V.,** Chandra R., **2020.** Metagenomics analysis of rhizospheric bacterial communities of *Saccharum arundinaceum* growing on organometallic sludge of sugarcane molasses-based distillery. **3 Biotech** 10, 316. <https://doi.org/10.1007/s13205-020-02310-5> (IF 2.406)
8. **Kumar, V.,** Thakur, I.S., **2020.** Extraction of lipids and production of biodiesel from secondary tannery sludge by in situ transesterification. **Bioresource Technology Reports** 11, 100446. <https://doi.org/10.1016/j.biteb.2020.100446> (CiteScore 3.8)
7. **Kumar, V.,** Thakur, I.S., **2020.** Biodiesel production from transesterification of *Serratia* sp. ISTD04 lipids using immobilised lipase on biocomposite materials of biomineralized products of carbon dioxide sequestering bacterium. **Bioresource Technology** 307, 123193. <https://doi.org/10.1016/j.biortech.2020.123193> (IF 9.642)
6. **Kumar, V.,** Chandra, R., **2018.** Characterization of manganese peroxidase and laccase producing bacteria capable for degradation of sucrose glutamic acid-maillard products at different nutritional and environmental conditions. **World Journal of Microbiology & Biotechnology** 34, 32. <https://doi.org/10.1007/s11274-018-2416-9> (IF 3.312)
5. Chandra, R., **Kumar, V.,** Tripathi, S., **2018.** Evaluation of molasses-melanoidins decolorisation by potential bacterial consortium discharged in distillery effluent. **3 Biotech** 8,187. <https://doi.org/10.1007/s13205-018-1205-3> (IF 2.406)
4. Chandra, R., **Kumar, V.,** Tripathi, S., Sharma, P., **2018.** Heavy metal phytoextraction potential of native weeds and grasses from endocrine-disrupting chemicals rich complex distillery sludge and their histological observations during in-situ phytoremediation. **Ecological Engineering** 111, 143-156. <https://doi.org/10.1016/j.ecoleng.2017.12.007> (IF 4.035)

3. Chandra, R., Kumar, V., 2017. Detection of androgenic-mutagenic compounds and potential autochthonous bacterial communities during in-situ bioremediation of post methanated distillery sludge. **Frontiers in Microbiology** 8, 87. <https://doi.org/10.3389/fmicb.2017.00887> (IF 5.640)
2. Chandra, R., Kumar, V., 2017. Detection of *Bacillus* and *Stenotrophomonas* species growing in an organic acid and endocrine-disrupting chemicals rich environment of distillery spent wash and its phytotoxicity. **Environmental Monitoring and Assessment** 189, 26. <https://doi.org/10.1007/s10661-016-5746-9> (IF 2.513)
1. Chandra, R., Kumar, V., 2017. Phytoextraction of heavy metals by potential native plants and their microscopic observation of root growing on stabilised distillery sludge as a prospective tool for *In-situ* phytoremediation of industrial waste. **Environmental Science and Pollution Research** 24, 2605-2619. <https://doi.org/10.1007/s11356-016-8022-1> (IF 4.223)

17. Books Published (Authored/Edited) [8]

Book	Book Details
	<p>Title: Integrated Environmental Technologies for Wastewater Treatment and Sustainable Development Editors: V. Kumar, M. Kumar Year of Publication: 2022 ISBN: 9780323984850; Publisher: Academic Press, Elsevier; Pages: In Press https://www.elsevier.com/books/integrated-environmental-technologies-for-wastewater-treatment-and-sustainable-development/kumar/978-0-323-91180-1</p>
	<p>Title: Phytoremediation Technology for the Removal of Heavy Metals and Other Contaminants from Soil and Water Editors: V. Kumar, M.P. Shah, Sushil Kr. Shahi Year of Publication: 2022 ISBN: 9780323857635; Publisher: Elsevier Pages: 664 https://www.elsevier.com/books/phytoremediation-technology-for-the-removal-of-heavy-metals-and-other-contaminants-from-soil-and-water/kumar/978-0-323-85763-5</p>
	<p>Title: New Trends in Removal of Heavy Metals from Industrial Wastewater Editors: M.P. Shah, S Rodriguez-Couto, V. Kumar Year of Publication: 2021; ISBN: 9780128229651 Publisher: Elsevier; Pages: 748 https://www.elsevier.com/books/new-trends-in-removal-of-heavy-metals-from-industrial-wastewater/shah/978-0-12-822965-1</p>
	<p>Title: Microbe-Assisted Phytoremediation of Environmental Pollutants: Recent Advances and Challenges Authors: V. Kumar and G. Saxena Year of Publication: 2020; ISBN: 9780367330576 Publisher: A K Peters/CRC Press, New York, UK; Pages: 216 https://www.routledge.com/Microbe-Assisted-Phytoremediation-of-Environmental-Pollutants-Recent-Advances/Kumar-Saxena/p/book/9780367330576</p>
	<p>Title: Bioremediation for Environmental Sustainability: Toxicity, Mechanisms of contaminants Degradation and Detoxification and Challenges. Editors: G. Saxena, V. Kumar, and M.P. Shah Year of Publication: 2020; ISBN: 9780128205259; Publisher: Elsevier; Pages: 692</p>

	https://www.sciencedirect.com/book/9780128205242/bioremediation-for-environmental-sustainability
	<p>Title: Bioremediation for Environmental Sustainability: Approaches to Tackle Pollution for Cleaner and Greener Society Editors: V. Kumar, G. Saxena, and M.P. Shah Year of Publication: 2020; ISBN: 9780128203170; Publisher: Elsevier; Pages: 538 https://www.elsevier.com/books/bioremediation-for-environmental-sustainability/kumar/978-0-12-820318-7</p>
	<p>Title: Phytoremediation of Environmental Pollutants Editors: R. Chandra, N.K. Dubey, V. Kumar Year of Publication: 2017; ISBN: 9781138062603 Publisher: CRC Press (Taylor & Francis Group), UK Pages: 510 https://www.routledge.com/Phytoremediation-of-Environmental-Pollutants/Chandra-Dubey-Kumar/p/book/9780367572532</p>
	<p>Title: Recent Advances in Distillery Waste Management for Environmental Safety Authors: V. Kumar, P. Chowdhary, and M.P. Shah Year of Publication: 2021 Publisher: CRC Press (Taylor and Francis Group); ISBN: 9780367466015; Pages: 202 https://www.routledge.com/Recent-Advances-in-Distillery-Waste-Management-for-Environmental-Safety/Kumar-Chowdhary-Shah/p/book/9780367466015</p>

18. Books (Under Publication)

[4]

Book	Book Detail
Image not Available	<p>Title: Metagenomics to Bioremediation: Applications, Cutting Edge Tools, and Future Outlook Editors: V. Kumar, M. Bilal, S.K. Shahi, V.K. Garg Year of Publication: to be published in 2022 Publisher: Elsevier Pages: In Press https://www.elsevier.com/books/metagenomics-to-bioremediation/kumar/978-0-323-96113-4</p>
Image not Available	<p>Title: Microbial Technologies for Wastewater Recycling and Management: Recent Trends, Challenges and Perspectives Editors: V. Kumar, J. Singh Year of Publication: to be published in 2022 ISBN: 9781032137582 Publisher: CRC Press (Taylor and Francis Group) Pages: In press</p>

Image not Available	<p>Title: Omics for Environmental Engineering and Microbiology Systems Editors: V. Kumar, V.K. Garg, S. Kumar, J.K. Biswas Year of Publication: to be published in 2022 ISBN: 9781032162836 Publisher: CRC Press (Taylor and Francis Group) Pages: In press</p>
Image not Available	<p>Title: Environmental Management Technologies: Challenges and Opportunities Editors: P. Chowdhary, V. Kumar, S. Kumar, V. Hare Year of Publication: to be published in 2022 ISBN: 9781032145617 Publisher: CRC Press (Taylor and Francis Group) Pages: In Press</p>

19. Book Series Editor

[2]

Image not Available	<p>Series Name: Environmental Nexus in Waste Management Series Editors: V. Kumar, Sunil Kumar Total Books in Series: Eight Publisher: CRC Press (Taylor and Francis Group) https://www.routledge.com/Environmental-Nexus-in-Waste-Management/book-series/CRCENWM?fbclid=IwAR0p2f5VSEwdTUEm2kvXYId5Y-E4RhTm1qUFFTD3G195iN9d3VF96sAWra4</p>
Image not Available	<p>Series Name: Sustainable Environment and Waste Management Series Editors: V. Kumar, Sunil Kumar Total Books in Series: Twelve Publisher: International Water Association, UK Pages: Agreement Completed</p>

20. Books Chapters

[42]

S. No.	Authors	Title	Published In Book having ISBN	Publisher, DOI, Page Number	Year
42.	S.Dey, M.S. Shekhawat, D.K. Pandey, M.Ghori, U.Anand, M.Hoda, S. Bhattacharya, R. Bhattacharjee, A. Ghosh, Potshangbam Nongdam, V. Kumar*, A. Dey*	Microbial community and their role in bioremediation of polluted e-waste sites	Metagenomics to Bioremediation: Applications, Cutting Edge Tools, and Future Outlook	Elsevier	In Press
41	Arunraja.D, S. Ivo Romauld, P. Brindha Devi, S. Thiruvengadam, V. Kumar	Genetically Engineered Microbes for Bioremediation and Phytoremediation	Metagenomics to Bioremediation: Applications, Cutting Edge Tools, and Future Outlook	Elsevier	In Press
40	Bhuvaneswari S, Illakiya Bharathi K, Mrs.	Recent Advances In Bioremediation By Metagenomics-Based Approach For Pharmaceutical Derived Pollutants	Metagenomics to Bioremediation: Applications, Cutting Edge Tools, and Future Outlook	Elsevier	In Press

	Rajakumari, V.Kumar				
39.	A. Khan, S. Malik, N. Ali, M.Bilal, Y. Yang, M.S. Akhter, V.Kumar , H.M.N. Iqbal	Polymer nanocomposites for wastewater treatment	Environmental Management Technologies: Challenges and Opportunities	CRC Press	In Press
38.	S.A.Bomfim, D. da Silva Vilar, G.P. Barros, R. N.Bharagava, M. Bilal, V. Kumar , K.I.B. Eguiluz, L.F. R.Ferreira	Oxidative catalytic potential of lignin-modifying enzymes in the treatment of emerging contaminants	Genomics to Bioremediation: Applications, Tools, and Emerging Technologies	Wiley	In Press
37.	A.S. Chauhan, A. Thakurr, K. Parmar, V. Kumar	Microbial Ecology of Wastewater Treatment Processes	Microbial Technologies for Wastewater Recycling and Management: Recent Trends, Challenges and Perspectives	CRC Press	In Press
36.	J.K.Biswas,M. Mondal, V. Kumar , M.Vithanage, R.Selvasembian, B. Ambade, M. Kumar, L. Singh	Omics reflection on the bacterial escape from the toxic trap of metal(loid)s: Cracking the code of contaminants stress, resistance repertoire, and remediation	Omics for Environmental Engineering and Microbiology Systems	CRC Press	In Press
35.	N. Sharma, S. Shukla, K. Shukla, A. Varma, V. Kumar , Menaka D. Salam, A. Mishra	Recent advancements in microbial degradation of Xenobiotic by using proteomics approaches	Omics for Environmental Engineering and Microbiology Systems	CRC Press	In Press
34.	J.K. Biswas, M.Mondal, V.Kumar , A. Bhatnagar, S. Biswas, M. Vithanage	Nature-inspired ecotechnological approaches towards recycling and recovery of resources from wastewater	Integrated Environmental Technologies for Wastewater Treatment and Sustainable Development	Elsevier https://doi.org/10.1016/B978-0-323-91180-9.1.00025-9	2022
33.	A.Khan, S.Malik, N.Ali, M. Bilal, F.Sher, V.Kumar , L.F.R. Ferreira, H.M.N. Iqbal	Treatment of pulp and paper industry waste effluents and contaminants	Nanotechnology in Paper and Wood Engineering	Elsevier https://doi.org/10.1016/B978-0-323-85835-9.00018-0	2022
32.	S. Agarwal, V. Kumar , S. Singh, S.K. Shahi	Gene mediated phytodetoxification of environmental contaminants	Phytoremediation Technology for the Removal of Heavy Metals and Other Contaminants from Soil and Water	Elsevier https://doi.org/10.1016/B978-0-323-85763-5.00033-7	2022
31.	A. Hussain, M. Bilal, H. Rafeeq, Z. Jabeen, N. Afsheen, F. Sher, V. Kumar et al.	Role of laccase in the pulp and paper industry	Nanotechnology in the Pulp and Paper Industry	Elsevier https://doi.org/10.1016/B978-0-323-85835-9.00006-4	2022
30.	A. R. Bagheri, M. Zubair, V. Kumar , M. Bilal	Metal organic frameworks for pesticides removal	Pesticides in Natural Environment: Sources, Health Risks, and Remediation	---	In Press

29.	V. Kumar	Phytoremediation of Distillery Waste: Current Scenario and Future Prospects	Bioremediation for Environmental Sustainability: Toxicity, Mechanisms of contaminants Degradation and Detoxification and Challenges	Elsevier https://doi.org/10.1016/B978-0-12-820524-2.00014-6	2021
28.	A. Kumar, G. Saxena, V. Kumar	Environmental Contamination, Toxicity Profile and Bioremediation Approaches for Treatment and Detoxification of Pulp Paper Industry Effluent	Bioremediation for Environmental Sustainability: Toxicity, Mechanisms of contaminants Degradation and Detoxification and Challenges	Elsevier	2021
27.	V. Kumar, M.P. Shah	Role of fungi and their enzymes in degradation and decolorization of distillery effluent for environmental safety	Fungi Bio-prospects in Sustainable Agriculture, Environment and Nanotechnology- Volume II: Extremophilic Fungi and Myco-mediated Environmental Management	Elsevier https://doi.org/10.1016/B978-0-12-821925-6.00013-7	2021
26.	V. Kumar, K. Singh, MP. Shah, A.K Singh, A. Kumar, Y. Kumar	Application of omics technologies for microbial community structure and function analysis in contaminated environment	Cutting Edge Molecular Tools, Techniques & Applied Aspects in Waste Water Treatment	Elsevier https://doi.org/10.1016/B978-0-12-821881-5.00001-5	2021
25.	V. Kumar, K. Singh, M.P. Shah	Advanced Oxidation Processes for Complex Wastewater Treatment	Advance Oxidation Process for Industrial Effluent Treatment	Elsevier https://doi.org/10.1016/B978-0-12-821011-6.00001-3 pp1-31	2021
24.	V. Kumar, K. Singh, M.P. Shah, M. Kumar	Phytocapping: An Eco-sustainable Green Technology for Pollution Control	Bioremediation for Environmental Sustainability: Approaches to Tackle Pollution for Cleaner and Greener Society	Elsevier https://doi.org/10.1016/B978-0-12-820318-7.00022-8 pp481-491	2021
23.	V. Kumar, A. Kaushal, K. Singh, M.P. Shah	Phytoaugmentation Technology for Phytoremediation of Environmental Pollutants: Opportunities, Challenges and Future Prospects	Bioremediation for Environmental Sustainability: Approaches to Tackle Pollution for Cleaner and Greener Society	Elsevier https://doi.org/10.1016/B978-0-12-820318-7.00016-2 pp329-381	2021
22.	S.S. Kumar, A. Rai, R. Singh, V. Kumar, D.Kumar, J.Kumar, A.Kumar, S.K. Malyan	Bioelectroremediation Technologies in Remediation of Environmental Pollutants: Challenges and Future Prospects	Bioremediation for Environmental Sustainability: Approaches to Tackle Pollution for Cleaner and Greener Society	Elsevier https://dx.doi.org/10.1016/B978-0-12-820318-7.00007-1 pp147-165	2020
21.	V. Kumar, I.S.Thakur, A.K. Singh, M.P. Shah	Application of Metagenomics in Remediation of Contaminated Sites and Environmental Restoration	Emerging Technologies in Environmental Bioremediation	Elsevier https://doi.org/10.1016/B978-0-12-819860-5.00008-0 pp197-232	2020
20.	V. Kumar, I.S.Thakur, M.P. Shah	Bioremediation Approaches for Pulp and Paper Industry Wastewater Treatment: Recent Advances and	Microbial Bioremediation & Biodegradation	Springer Nature https://doi.org	2020

		Challenges		/10.1007/978-981-15-1812-6_1 pp1-48	
19.	G. Saxena, I. S. Thakur, V Kumar, M.P. Shah	Electrobioremediation of Contaminants: Concepts, Mechanisms, Applications, and Challenges	Combined Application of Physico-Chemical & Microbiological Processes for Industrial Effluent Treatment Plant	Springer Nature https://doi.org/10.1007/978-981-15-0497-6_14 pp291-313	2020
18.	V. Kumar, R. Chandra	Bacterial-assisted phytoextraction mechanism of heavy metals by native hyperaccumulator plants from distillery waste contaminated site for eco-restoration.	Microbes for Sustainable Development and Bioremediation	CRC Press, USA pp.1-41 https://doi.org/10.1201/9780429275876-1	2020
17.	V. Kumar, R. Chandra, I.S.Thakur, G. Saxena, M.P. Shah	Recent Advances in Physicochemical and Biological Treatment Approached for Distillery Wastewater	Combine Application of Physico-chemical and Microbiological Process for Industrial Effluent	Springer Nature https://doi.org/10.1007/978-981-15-0497-6_6 pp79-118	2020
16.	V. Kumar, R. Chandra	Bioremediation of melanoidins containing distillery waste for environmental safety.	Bioremediation of Industrial Waste for Environmental Safety: Volume II Microbes and Methods for Industrial Waste Management.	Springer Nature https://doi.org/10.1007/978-981-13-3426-9_20 pp_495-529	2020
15.	V. Kumar, D.C. Sharma	Distillery effluent: Pollution profile, eco-friendly treatment strategies, challenges, and future prospects	Microbial metabolism of xenobiotic compounds	Springer Nature https://doi.org/10.1007/978-981-13-7462-3_17 pp-337-357	2019
14.	V. Kumar, S.K. Shahi, S. Singh	Bioremediation: An eco-sustainable approach for restoration of contaminated sites.	Microbial Bioprospecting for Sustainable Development	Springer Nature https://doi.org/10.1007/978-981-13-0053-0_6 PP 115-136	2018
13.	V. Kumar	Mechanism of microbial heavy metal accumulation from polluted environment and bioremediation	Microbial Fuel factories	CRC Press, pp.149-174 https://doi.org/10.1201/b22219-8	2018
12.	R. Chandra, V. Kumar, S. Tripathi, P. Sharma	Phytoremediation of industrial pollutants and life cycle assessment	Phytoremediation of Environmental Pollutants	CRC Press, pp.441-470	2018
11.	R. Chandra, V. Kumar, K. Singh	Hyperaccumulator versus nonhyperaccumulator plants for environmental waste management.	Phytoremediation of Environmental Pollutants	CRC Press, USA pp. 43-80	2018
10.	R. Chandra, V. Kumar	Phytoremediation: A green sustainable technology for industrial waste management.	Phytoremediation of Environmental Pollutants	CRC Press, pp.1-42	2018

9.	V. Kumar and R. Chandra	Bacterial assisted phytoremediation of industrial waste pollutants and eco-restoration.	Phytoremediation of Environmental Pollutants	CRC Press, pp.159-200	2018
8.	V. Kumar and K. Singh	Bacterial assisted phytoremediation: The Role of Plants and rhizosphere bacteria for remediation of Industrial Pollutants	Microbiology and Biotechnology for a Sustainable Environment	Nova Science Publisher, New York, pp.20-31	2017
7.	R. Chandra, V. Kumar, S. Yadav	Extremophilic ligninolytic enzymes.	Extremophilic Enzymatic Processing of Lignocellulosic Feedstocks to Bioenergy	Springer DOI:10.1007/978-3-319-54684-1_8 PP 115-154	2017
6.	R. Chandra, V. Kumar	Persistent Organic Pollutants (POPs): Health Hazards and Challenges for their Bioremediation in Environment	Bioremediation of Industrial Pollutants	Write and Print Publications, New Delhi, pp.1-51	2016
5.	R. Chandra, V. Kumar	Biotransformation and biodegradation of organophosphates and organohalides	Environmental Waste Management	CRC Press pp.475-524 DOI:10.1201/b19243-17.	2015
4.	R. Chandra, V. Kumar S. Yadav,	Microbial Degradation of Lignocellulosic Waste and Its Metabolic Products	Environmental Waste Management	CRC Press, pp.249-298 DOI: 10.1201/b19243-11.	2015
3.	R. Chandra, V. Kumar	Mechanism of wetland plant rhizosphere bacteria for bioremediation of pollutants in an aquatic ecosystem	Advances in Biodegradation and Bioremediation of Industrial Waste	CRC Press, pp. 329-379 https://dx.doi.org/10.1201/b18218-16	2015
2.	R. Chandra, G. Saxena, V. Kumar	Phytoremediation of Environmental Pollutants: An Eco-Sustainable Green Technology to Environmental Management	Advances in Biodegradation and Bioremediation of Industrial Waste	CRC Press, pp. 1-29 https://dx.doi.org/10.1201/b18218-5	2015
1.	R. Chandra, S. Yadav, V. Kumar	Two step treatment by bacteria and rhizofiltration for bioremediation of complex industrial wastewater: A Novel Approach for Safe Disposal.	Plant-Microbe Interactions	New India Publishing Agency, New Delhi	2015

21. Research Articles Published in Conference Proceeding [4]

S. No.	Author(s)	Title	Name of Proceeding	ISBN	Page	Year
4.	R. Chandra and V. Kumar	Heavy metal phytoextraction potential of native plants and their histological observation growing on stabilized distillery sludge: A prospective tool for in-situ phytoremediation of hazardous industrial waste.	Proceeding of 106 th Indian Science Congress	---	pp. 68	2019
3.	V. Kumar, G. Saxena, R. Chandra, C. Singh	Degradation and Decolourisation of anaerobically Treated Distillery Effluent in Two-Stage Sequential Treatment By Bacteria and Constructed Wetland.	Proceeding of International Conference of Agro Environmental Developmental Society UP	978-93-88237-24-6	pp. 241-249	2018

2.	G. Saxena, C.P. Singh, V. Kumar, R.N. Bharagava	Isolation and characterization of bacteria capable for COD removal from tannery wastewater: A bioremediation study	Proceeding of International Conference of Agro Environmental Developmental Society UP	978-93-88237-24-6	pp. 278-282	2018
1.	R. Chandra, V. Kumar, Sonam Tripathi	Environmental Health Hazards of Post Methanated Distillery Waste and its Detoxification	In: Proceeding of 74th Annual Convention of STAI	81-85871-83-3	pp. 684-699	2016

22. Popular Science Articles in Hindi

[4]

Authors	Title	Science Magazine Publisher		Year
राम चन्द्रा एवम् विनीत कुमार	आसवनी अपशिष्ट एवं कागज उद्योग उत्स्राव के कारण पयाावरण प्रदूषण तथा भारी धातुओं से खाद्य श्रंखला एवं औषधीय पौधो से मानव स्वास््य पर खतरा	ववषववज्ञान संदेि] आई0एस0एस0न0 0972&1746	पेज: 5361	2017
विनीत कुमार एवम् राम चन्द्रा	आसवनी अपशिष्ट को अनाँ क्सीकरत प्रक्रिया द्वारा िोधनोपरान्दत पयाावरण मे सुरक्षात्मक ननस्तारण की चुनौनतयाँ	ववषववज्ञान संदेि] आई0एस0एस0न0 0972&1746	पेज: 34&49]	2016
राम चन्द्रा विनीत कुमार सोनम त्रिपाठी एिम् पूजा शमाा	कागज कारखानों से उत्स्रजात ववषैले अपशिष्टों का पयाावरण पर दुष्प्रभाव तथा सुरक्षात्मक ननस्तारण की चुनौनतयाँ	ववषववज्ञान संदेि] आई0एस0एस0न0 0972&1746	पेज: 19&33]	2016
राम चन्द्रा एवम् विनीत कुमार	आसवनी अपशिष्ट एवं कागज उद्योग उत्स्राव के कारण पयाावरण प्रदूषण तथा भारी धातुओं से खाद्य श्रंखला एवं मानव स्वास््य पर खतरा	ववषववज्ञान संदेि] आई0एस0एस0न0 0972&1746	पेज: 4&14]	2016

23. Conferences/Seminars/Symposia Attended

[9]

S. No.	Seminars/Symp./Workshops	National/ International	Organizer	Year
9.	106 th The Indian Science Congress	International	The 106th The Indian Science Congress, Kolkata	Jan 3-7, 2019
8.	Workshop on High Performance Liquid Chromatography(HPLC), Polymerase chain reaction (PCR), Gel Doc and Spectrometry organized by	National	CytoGene Research and Development, Lucknow, Uttar Pradesh, India	May 14-20 2018
7.	National Symposium on IPRs in Agricultural Research	National	Babasaheb Bhimrao Ambedkar University, and UPCAR Lucknow	August 31-31, 2017
6.	Workshop on “Placement and Employment Prospects in Indian Patent Offices and Hands on Training for Patenting the Research Work”	National	Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh, India	March 18, 2013
5.	Symposium on “Building an Ecologically Sustainable Society”	National	Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh, India	August 16, 2013

4.	Workshop on “Placement and Employment Prospects in Indian Patent Offices and Hands on Training for Patenting the Research Work”	National	Babasaheb Ambedkar University, Lucknow, Uttar Pradesh, India	March, 18, 2013
3.	International Conference on Environmental Technology and Sustainable Development: Challenges and Remedies	International	Babasaheb Ambedkar University, Lucknow, Uttar Pradesh, India	Feb 21-23, 2014
2.	Ist Lucknow Science Congress on Innovations in Science for Better Tomorrow	National	Babasaheb Ambedkar University, Lucknow	March 20-21, 2013
1.	National Conference on Traditional Conservation of Plant Diversity and Energy Resources vis-à-vis Biotechnological Tools for Sustainability	National	Ch. Charan Singh University, Uttar Pradesh, India	Dec 25-26, 2010

24. Papers Presented (Oral/Poster) in Conferences/Workshop [8]

S. No.	Authors	Title of Presentation	Conference	Presentation	Organizer	Year
1.	V. Kumar, G. Saxena, R. Chandra	Degradation and Decolourisation of anaerobically Treated Distillery Effluent in Two-Stage Sequential Treatment By Bacteria and Constructed Wetland.	International Conference on Emerging Issues in Agricultural, Environmental, and Applied Sciences for Sustainable Development	Oral	Agro Environmental Developmental Society, UP	Nov 27-29, 2018
2.	R. Chandra, V. Kumar	Heavy metal Phytoextraction potential of native weeds and grasses from endocrine-disrupting chemical rich complex distillery sludge and their histological observations during in-situ phytoremediation	International Conference on Science and Technology for Sustainable Future	Poster	Babasaheb Ambedkar University Lucknow Uttar Pradesh, India	Jan 10-11, 2018
3.	V. Kumar and R. Chandra	Degradation and decolourisation of molasses-melanoidins by potential bacterial consortium extracted from anaerobic digested distillery effluent at different nutritional and environmental conditions.	International conference of AMI & International Symposium on Microbes for Sustainable Development: Scope & Applications	Oral	Babasaheb Ambedkar University Lucknow Uttar Pradesh, India	Nov 16-19, 2017
4.	V. Kumar, R. Chandra	Isolation and characterization of manganese peroxidase and laccase producing bacteria capable for degradation and decolourisation of sucrose-glutamic acid	4 th Lucknow Science Congress on Science Technology & Innovation for Sustainable Development	Poster	Babasaheb Ambedkar University Lucknow Uttar Pradesh, India	March 2-3, 2017

		maillard products				
5.	V.Kumar, R.Chandra	Isolation, screening and characterization of MnP and laccase producing bacteria capable for degradation and decolourisation of sucrose-glutamic acid maillard products.	International conference of AMI & International Symposium on Microbes and Biosphere What's Next What's Next	Poster	University of Gauhati, Assam	Nov 24-27, 2016
6.	R.Chandra V.Kumar	Phytoextraction and bioremediation of heavy metals by potential native plants growing on post methanated distillery effluent sludge dumping sites.	International Conference on Emerging Trends in Biotechnology (ICETB 2014) & 11 th convention of The Biotech Research Society, India (BRSI)	Poster	Jawaharlal Nehru University, New Delhi	Nov 8-10, 2014
7.	R.Chandra V.Kumar	Characterization of antibiotic and heavy metal resistant bacteria isolated from the rhizosphere of native plant growing on distillery effluent methane reactor sludge dumping site	International Conference organized by Association of Microbiologist of India (AMI)	Poster	Tamil Nadu Agricultural University, Coimbatore	Nov 12-14, 2014
8.	R.Chandra V.Kumar	Environmental Health Hazards of Distillery Waste Water and Its Biodegradation of Environmental Safety	National Workshop on Innovation and Technology Transfer to Industries Role of Universities	Poster	Babasaheb Bhimrao Ambedkar University Lucknow Uttar Pradesh, India	March 10-11, 2014

25. Technical Reports:

Prepared a **Technical Recommendation Report** for the **International Conference** organized by **Association of Microbiologist of India (AMI)** held from Nov 16-19, 2017 at B. B. Ambedkar University, Lucknow, India

26. Professional Trainings Received

GIAN Course on “**Bioremediation for Environmental Sustainability**” organized by National Institute of Technology Karnataka and Ministry of Human Resource Development (MHRD), Govt on India held at National Institute of Technology Karnataka, Suratkal, Mangalore from 11-15 August 2018

27. Academic and Professional Skills

- Academic writing, editing and content organizational and drafting skill
- Basic knowledge of computer, MS office, Photoshop CS, Corel Draw, MEGA 7.0, Clustal W, and Internet
- Detail-oriented, self motivated and ability to prioritized varied workload
- Ability to work in team, positive attitude, and leadership quality

28. Research Activity and Key Skills

- Recovery of metagenomics DNA from contaminated environment
- Synthesis of Biodiesel from Industrial Sludge/Microbial Biomass
- Recovery of bioplastic from wastewater

- Enzyme purification and immobilization on solid support

29. Key Characterization Tools

- Internal, Surface Property, and Morphology-TEM, SEM, SEM-EDX
- Functional and Optical Property-FT-IR, ¹H & ¹³C NMR, UV-Vis Spectroscopy
- Chemical Characterization- GC-MS/MS, LC-MS/MS, HPLC
- Molecular and Phylogenetic Identification of Microbes:- BLAST (Blast N), MEGA 8.0, ClustalW

31. Expert Reviewer in Journals

[24]

Journal of Basic Microbiology (Wiley);
Environmental Research (Elsevier);
Environmental Science and Pollution Research (Springer)
Catalysis Letters (Springer);
Current Microbiology (Current Microbiology);
Frontiers in Microbiology (Frontier);
Chemosphere (Elsevier);
Journal of Applied Microbiology (Wiley);
Environmental Nanotechnology, Monitoring and Management (Elsevier);
Clean-Soil, Air, Water (Wiley);
Process Biochemistry (Elsevier);
Frontiers in Environmental Science (Frontier);
International Journal of Environmental Science and Technology (Springer);
Journal of Microbiology (Springer), Biotechnology, and Food Sciences;
Vegetos (Springer);
Water, Air, & Soil Pollution (Springer);
Cleaner Chemical Engineering (Elsevier);
Journal of Air & Waste Management Association (T&F);
Applied Biochemistry and Biotechnology (Springer);
Environmental and Experimental Botany (Elsevier);
Biotechnology and Genetic Engineering Review (Wiley)
Plos One (Plos);
Environmental Engineering and Management Journal;
Journal of Hazardous Material Advances (Elsevier);

32. Editorial Board Member

[8]

Review Editor; Frontiers in Microbiology (Section: Microbiotechnology)
Review Editor; Frontiers in Environmental Sciences (Section: Toxicology, Pollution and the Environment)
Review Editor; Frontiers in Water (Section: Environmental Water Quality)
Review Editor; Frontiers in Energy Research (Section: Bioenergy and Biofuels)
Board Member; Current Research in Wastewater Management
Associate Editor; American Journal of Environmental Sciences
Board Member; Biotechnology and Genetic Engineering Reviews
Board Member; SN Applied Sciences

33. Guest Edited Special Issues (SI)

[3]

Journal Name: Frontiers in Microbiology, SI entitled: **Recent Trends in Integrated Wastewater Treatment for Sustainable Development**, Publisher: Frontiers Media (2021).

<https://www.frontiersin.org/research-topics/20892/recent-trends-in-integrated-wastewater-treatment-for-sustainable-development>

Journal Name: Frontiers in Environmental Science, SI entitled: **Emerging Approaches for Sustainable Management for Wastewater**, Publisher: Frontiers Media (2022-Onward)

<https://www.frontiersin.org/research-topics/31386/emerging-approaches-for-sustainable-management-for-wastewater>

Journal Name: Research in Microbiology, SI entitled: Microbial Degradation and Detoxification of Environmental Pollutants present in Industrial Wastewater, Publisher: Elsevier

34. Student Guided

Undergraduate: 05

Post Graduate: 03

35. Personnel Profile

Father Name	: Mr. Niranjana Singh
Mother Name	: Smt. Pawan Devi
Gender	: Male
Marital Status	: Unmarried
Nationality	: Indian
Language	: English and Hindi

Biography of Dr. Vineet Kumar

Dr. Vineet Kumar is presently working as Senior Researcher in the Waste Re-processing Division at CSIR-National Environmental Engineering Research Institute (NEERI), Nagpur, Maharashtra, India. He received his M.Sc. and M.Phil. in Microbiology from Department of Microbiology at Ch. Charan Singh University, Meerut, India. Subsequently, he earned his Ph.D. (2018) in Environmental Microbiology from Babasaheb Bhimrao Ambedkar (A Central) University, Lucknow, India. Dr. Kumar's research work mainly focuses on the development of integrated and sustainable treatment techniques that can help in minimizing or eliminating hazardous waste in the environment. He has published 25 research and review articles in reputed international peer reviewed Journals. In addition, he is the author/co-author of 4 Proceeding Articles, 42 Book Chapters, and 4 Scientific Magazine articles. Moreover, he has published 2 authored and 12 edited books on different aspects of Phytoremediation, Bioremediation, Wastewater Treatment, Waste Management, Omics, Genomics, and Metagenomics from CRC Press (Taylor & Francis Group), Elsevier, USA, Springer Nature, IWA, and Wiley. Recently, his two series have been approved for publication by CRC Press (Taylor & Francis Group) and International Waster Association (IWA Publishing). Dr. Kumar has been serving as a guest editor and reviewer in many prestigious International Journals, including Frontiers in Microbiology, Frontiers in Environmental Sciences, Environmental Research, Chemosphere, Journal of Basic Microbiology; Journal of Applied Microbiology; Current Microbiology; International Journal of Environmental Science and Technology; CLEAN-Soil, Air, Water; Process Biochemistry. He has served the editorial board of various reputed journals including SN Applied Sciences and Biotechnology and Genetic Engineering Reviews He has presented several papers relevant to his research areas at national and international conferences. He is an active member of numerous scientific societies including Microbiology Society (UK), the Indian Science Congress Association (India), Association of Microbiologist of India (India) etc.

Declaration

I hereby declare that the above information furnished is true and correct to the best of my knowledge and belief.

Place: CSIR-NEERI, INDIA

Date: **March, 2022**

(Dr. VINEET KUMAR)