

## Publications of Dr. Vipin Kumar

### Dr. Vipin Kumar

Assistant Professor

Department of Environmental Science and Engineering

Indian Institute of Technology (ISM) Dhanbad

Dhanbad – 826 004, Jharkhand, India

### List of Research Publications in Refereed International and National Journals

#### SCI/SCIE

1. Rani R., Kumar V\*, Gupta P., and Chandra A. 2018. Effect of endosulfan tolerant bacterial isolates (*Delftia lacustris* IITISM30 and *Klebsiella aerogenes* IITISM42) with *Helianthus annuus* on remediation of endosulfan from contaminated soil. *Ecotoxicology and Environmental Safety*. In press. (IF = 3.98).
2. Kushwaha B. K., Singh S., Tripathi D. K., Sharma S., Prasad S. M., Chauhan D K., Kumar V. and Singh V. P. 2018. New adventitious root formation and primary root biomass accumulation are regulated by nitric oxide and reactive oxygen species in rice seedlings under arsenate stress. Doi: 10.1016/j.jhazmat.2018.08.035. *Journal of Hazardous Materials*. (IF = 6.434). ISSN: 0304-3894.
3. Gupta P., Kumar V\*, Rani R. and Chandra A. 2018. Potential applications of *Pseudomonas* sp. (strain CPSB21) to ameliorate Cr6+ stress and phytoremediation of tannery effluent contaminated agricultural soils. Doi: 10.1038/s41598-018-23322-5. *Nature Scientific Reports*. 8(1): 4860. (IF = 4.259). ISSN: 2045-2322.
4. Gupta P., Kumar V\*, Usmani Z., Rani R. and Chandra A. 2018. Phosphate solubilization and chromium (VI) remediation potential of *Klebsiella* sp. strain CPSB4 isolated from the chromium contaminated agricultural soil. *Chemosphere*. 192: 318-327. DOI: 10.1016/j.chemosphere. 2017.10.164. (IF = 4.208). ISSN: 0045-6535.
5. Chaturvedi A., Bhattacharjee S., Singh A K. and Kumar V. 2018. A new approach for indexing groundwater heavy metal pollution. *Ecological Indicators*. 87: 323-331. DOI: 0.1016/j.ecolind.2017.12.052. (IF = 3.898). ISSN: 1470-160X.
6. Besra M. and Kumar V\*. 2018. In vitro investigation of antimicrobial activities of ethnomedicinal plants against dental caries pathogens. *3Biotech*. DOI: 10.1007/s13205-018-1283-. 8: 257. (IF = 1.361).
7. Usmani Z., Kumar V\*, Rani R., Gupta P. and Chandra A. 2018. Changes in physico-chemical, microbiological and biochemical parameters during composting and vermicomposting of coal flyash: A comparative study. *International Journal of Environmental Science and Technology*. DOI: 10.1007/s13762-018-1893-6. Accepted. (IF = 1.915).
8. Rani R., Usmani Z., Gupta P., Kumar V\*, Chandra A. and Das A. 2017. Effects of organochlorine pesticides on plant growth-promoting traits of phosphate solubilizing rhizobacterium, *Paenibacillus* sp. IITISM08. *Environmental Science and Pollution Research*. 25(6), 5668-5680. DOI 10.1007/s11356-017-0940-z. (IF = 2.74).
9. Ray M., Usmani Z., Chandra A., Kumar V\* and Jain M. K. 2017. Bacterial diversity in mining and non-mining regions with emphasis on plant growth promoting traits. *Chemistry and Ecology*. 33(9): 826-842. DOI: 10.1080/02757540.2017.1389909. (IF = 1.463). ISSN: 0275-7540.
10. Pandey V., Usmani Z., Chandra A., Mishra R. K. and Kumar V\*. 2017. Environmental impact of leaching of trace elements from fly ash dumps on aquatic ecosystems. *Chemistry and Ecology*. 33(8): 777-794. DOI: 10.1080/02757540.2017.1376663. (IF = 1.463). ISSN: 0275-7540.

11. Gupta G., **Kumar V\***. and Pal A.K. 2017. Microbial degradation of high molecular weight polycyclic aromatic hydrocarbons with emphasis on Pyrene. *Polycyclic Aromatic Compounds*. DOI: 10.1080/10406638.2017.1293696. (IF = 1.569). ISSN: 1040-6638.
12. Usmani Z. and **Kumar V\***. 2017. Characterization, partitioning and potential ecological risk quantification of trace elements in coal fly ash. *Environmental Science and Pollution Research*. 24(18): 15547-15566. DOI: 10.1007/s11356-017-9171-6 (IF =2.76). ISSN: 0944-1344.
13. Kumar S., Hansd A., Chandra A., Kumar A., Kumar M., Sithambaresan A., Faizi S.H., **Kumar V.** and John R. P. 2017. Co(II), Ni(II), Cu(II) and Zn(II) complexes of acenaphthoquinone 3-(4-benzylpiperidyl)thiosemicarbazone: Synthesis, structural, electrochemical and antibacterial studies. DOI: 10.1016/j.poly.2017.05.055. *Polyhedron*. 134: 11-21. (IF =2.108). ISSN: 0277-5387.
14. Usmani Z. and **Kumar V\***. 2017. Metal bioaccumulation in tissues of *Puntius sarana* and *Labeo rohita* and its associated risk status: A case study of Damodar River, India. DOI: 10.5004/dwt.2017.20719. *Desalination and Water Treatment*. 76: 196-211. (IF =1.272). ISSN: 1944-3994.
15. Hansda A., **Kumar V\***. and Anshumali. 2017. Cu-resistant *Kocuria* sp. CRB15: a potential PGPR isolated from the dry tailing of Rakha copper mine. DOI: 10.1007/s13205-017-0629-5. *3Biotech*. 7: 132. (IF = 1.361). ISSN: 2190-5738.
16. Rani R. and **Kumar V\***. 2017. Endosulfan Degradation by Selected Strains of Plant Growth Promoting Rhizobacteria. *Bulletin of Environmental Contamination and Toxicology*. 99:138-145. DOI: 10.1007/s00128-017-2102-x. (IF =1.412). ISSN: 0007-4861.
17. Mritunjay S. K. and **Kumar V\***. 2017. A study on prevalence of microbial contamination on the surface of raw salad vegetables. DOI: 10.1007/s13205-016-0585-5. *3Biotech*. 7: 13. (IF = 1.361). ISSN: 2190-5738.
18. Singh M. K., Roy S., Hansda A., Kumar S., Kumar M., **Kumar V.**, Peter S. C., and John R. P. 2017. Synthesis, characterisation and antibacterial activity evaluation of trinuclear Ni(II) complexes with N-substituted salicylhydrazide ligands. DOI: 10.1016/j.poly.2017.01.019. *Polyhedron*. 126(2017): 100-110. (IF =2.108). ISSN: 0277-5387.
19. Usmani Z. and **Kumar V\***. 2017. Vermicomposting of Coal Fly ash using Epigeic and Epi-endogeic Earthworm Species: Nutrient Dynamics and Metal Remediation. DOI: 10.1039/c6ra329g. *RSC Advances*. 2017(7): 4876-4890. (IF =3.289).
20. Singh M., Kushwaha B. K., Singh S., **Kumar V.**, Singh V. P. and Prasad S. M. 2017. Sulphur alters chromium (VI) toxicity in *Solanum melongena* seedlings: Role of sulphur assimilation and sulphur-containing antioxidants. DOI: 10.1016/j.plaphy.2016.12.024. *Plant Physiology and Biochemistry*. 112(2017): 183-192. (IF = 2.928). ISSN: 0981-9428.
21. Mritunjay S. K. and **Kumar V\***. 2017. Microbial quality, safety and pathogen detection using qPCR of raw salad vegetables sold in Dhanbad City, India. DOI:10.4315/0362-028X.JFP-16-223. *Journal of Food Protection*. 180(1): 121-126. (IF =1.849). ISSN: 0362-028X.
22. Hansda A., **Kumar V\***. and Anshumali. 2017. Influence of Cu fractions on soil microbial activities and risk assessment along Cu contamination gradient. DOI: 10.1016/j.catena.2016.12.003. *Catena*. 151 (2017): 26-33. (IF = 3.191).
23. Tripti, Kumar A., Usmani Z., **Kumar V.** and Anshumali. 2017. Biochar and fly ash inoculated with plant growth promoting rhizobacteria act as potential biofertilizer for luxuriant growth and yield of tomato plant. DOI: org/10.1016/j.jenvman.2016.11.060. *Journal of Environmental Management*. 190 (2017): 20-27. (IF = 4.010).
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26. Gupta G, **Kumar V\***. and Pal A.K. 2016. Biodegradation of Polycyclic Aromatic Hydrocarbons by Microbial Consortium: A distinctive approach for decontamination of Soil. *Soil and Sediment Contamination: An International Journal*. 25(6): 597-623. DOI:10.1080/15320383.2016.1190311. **(IF = 1.207)**.
27. Hansda A., **Kumar V.** and Anshumali. 2016. A comparative review towards potential of microbial cells for heavy metal removal with emphasis on Biosorption and Bioaccumulation. *World Journal of Microbiology and Biotechnology*. 32:170. DOI: 10.1007/s11274-016-2117-1. **(IF =1.658)**.
28. Sen S. and **Kumar V\***. 2016. Evaluating soil quality and bio-efficacy study of *Cajanus cajan* L. in coal-mine degraded land. *Turkish Journal of Agriculture and Forestry*. 40: 499-511. DOI: 10.3906/tar-1406-21. **(IF = 1.311)**.
29. Tripti, Kumar A., **Kumar V.** and Anshumali. 2015. Effect of commercial pesticides on plant growth promoting activities of *Burkholderia* sp. Strain L<sub>2</sub> isolated from rhizosphere of *Lycopersicon esculentum* cultivated in agricultural soil. *Toxicological & Environmental Chemistry*. DOI: 10.1080/02772248.2015.1093632. 97(9): 1180-1189. **(IF = 0.825)**.
30. Chandra A., **Kumar V\***. and Jain M. K. 2015. The seasonal changes in soil properties due to coal mine impacts. *Carpathian Journal of Earth and Environmental Sciences*. 10(1): 241-248. **(IF = 0.730)**.
31. Mukherjee, R., Sinha A., Lama Y. and **Kumar V.** 2015. Utilization of Zero Valent Iron (ZVI) Particles Produced from Steel Industry Waste for In-Situ Remediation of Ground Water Contaminated with Organo-Chlorine Pesticide Heptachlor. *International Journal of Environmental Research*. 9(1): 19-26. **(IF = 1.8)**.

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32. Usmani Z. and **Kumar V.** 2017. The Implications of Fly Ash Remediation Through Vermicomposting: A Review. *Nature Environment and Pollution Technology*. 16(2): 363-374. **(H Index =5)**. ISSN: 0972-6268.
33. **Kumar V.**, Chandra A. and Usmani Z. 2017. Impact of coal mining on soil properties and their efficient eco-restoration. *International Journal of Energy Technology and Policy*. DOI: 10.1504/IJETP.2017.10000607. 13(1-2): 158-165. **(H Index =11)**.
34. Usmani Z. and **Kumar V.** 2016. Management of Fly Ash through Vermicomposting: A Rational Approach. *Environmental Quality Management*. DOI: 10.1002/tqem.21461. 25(3): 53-66. **(H Index =9)**.
35. Lothe A.G. Hansda A. and **Kumar V** (2016): Phytoremediation of Copper Contaminated Soil using *Helianthus annuus*, *Brassica nigra* and *Lycopersicon esculentum* Mill. : A Pot Scale Study. *Environmental Quality Management*. DOI: 10.1002/tqem.21463. 25(4): 63-70. **(H Index = 9)**.
36. Chandra A., **Kumar V.** and Jain M. K. 2016. Impact of open cast coal mining on groundwater quality around Jharia coal field area, India. *Journal of Environmental Science and Engineering*. 58(1): 65-76. **(H Index =22)**.
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43. Sen S., **Kumar V.** and Sen P. 2014. Feasibility of *Cymbopogon citrates* (DC) Ex nees in revegetation of coal mine overburden dumps – A study. *Journal of Mines, Metals and Fuels*. 62(4): 96-104. **(H Index =7)**.

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44. Usmani Z. and **Kumar V.** 2015. Role of earthworms against metal contamination: A Review. *Journal of Biodiversity and Environmental Sciences*. 6(1): 414-427.
45. Hansda A., **Kumar V.** Anshumali and Usmani Z. 2014. Phytoremediation of heavy metals contaminated soil using plant growth promoting rhizobacteria (PGPR): A current perspective. *Recent Research in Science and Technology*. 6(1): 131-134.
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49. Sen S. and **Kumar V.** 2014. Reclamation of coal mine degraded land by revegetation of *Vigna unguiculata* L. with application of various soil amendments. *The Indian Mining and Engineering Journal*. 53(3): 27-31.
50. **Kumar V.** and Chandra A. 2013. Microbiological quality monitoring of raw eaten salad vegetables. *Int. J. Multidisciplinary Research*. 2(7): 25-28.
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