Curriculum-Vitae

Dr. Virendra Kumar Mishra

Professor

Institute at Environment and Sustainable Development (IESD),

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Educational Qualifications:

Ph. D. From Banaras Hindu University (2006)

M. Sc. (Environmental Science) from Lucknow University (**1999)**

B. Sc. From Purvnachal University, (**1997)**

Teaching/Administrative Experience:

- **Professor** at Environment and Sustainable Development (IESD), Banaras Hindu University, (BHU) Varanasi from **Oct. 2020**
- **Associate Professor**, Institute of Environment and Sustentable Development (IESD), Banaras Hindu University, (BHU) Varanasi (**2017-2020)**
- **Associate Professor & Head ,** Department of Environmental Science, Indira Gandhi National Tribal University, Amarkantak, MP, **India** (**2016-2017).**
- **Assistant Professor ,** Department of Environmental Science Indira Gandhi National Tribal University Amarkantak (**2011- 2016**)

Research Experience:

- **DST Fast Track Young Scientist** at Department of Chemical Engineering, IIT-BHU Varanasi (2010-2011)
- ***Post-Doctoral Fellow under Juan de la Cierva contract o****f ministry of Science and Innovation, Spain at* IDEA-CSIC, **at Barcelona, Spain** (**2010**)
- ***Post-Doctoral Research Associate (CSIR-RA) in*** the CAS in Botany, Banaras Hindu University, Varanasi, 221005, India (**2007-2010)**
- ***Post-Doctoral Fellow in*** the Department of Earth and Environmental Sciences, **Sejong University, Seoul, South Korea (2008-2009)**
- ***Junior Research Fellow in*** **MOEF & CC sponsored project at** CAS in Botany, Banaras Hindu University, Varanasi, 221005, India **(2005-2007)**

Research Projects:

S. No.	Title	Role/Funding agency	Year	Amount
1	Extension of the Indo-German Competence Centre for Riverbank Filtration (CCRBF)	**PI/ German Ministry of education**	2021	13.74 Lacs
2	Application of constructed wetland for treatment of sewage and its disinfection through Inline chlorine production and its reuse for irrigation purpose	Mentor/DST	2020	24.Lacs
3	Identification of potential risk from ecologically relevant toxicants on Narmada River and evaluation of its health using aquatic macro invertebrates	PI/MOEF & CC	2016	54.22 Lacs
4.	Safeguarding Water resources in India with Green and Sustainable Technologies (SWINGS)	**PI/DST-European Union**	2012	42.85 Lacs
5.	Water Quality assessment and bio monitoring of aquatic ecosystem in Achanakamar-Amarkantak area.	PI/UGC	2012	6.0 Lacs
6.	Identification of potential risk from toxicant on lotic aquatic ecosystem and development of an indicator system.	PI/DST-SERB	2010	16.32 Lacs

Paper published:

1. Gupta, D., Kaushik, S., Shukla, R., & **Mishra, V. K. (2022).** Mechanisms controlling major ion chemistry and its suitability for irrigation of Narmada River, India. *Water Supply*, *22*(3), 3224-3241.
2. Shukla, P. N., & **Mishra, V. K. (2022).** Socio-economic and mental status of the surrendered timber smugglers and suggesting measures to halt their recidivism. *Indian Forester , 148 (2)- 1-7, 2022.*
3. **Mishra, V. K.,** Shukla, P. N., Singh, G., Gupta, D., & Durge, G. B. **(2021).** Ethnomedicinal applications of forest plants for the treatment of common ailments by Gond and Madia tribes of Maharashtra, India. *Environmental Sustainability*, *4*(1), 123-142.
4. Shukla, R., Gupta, D., Singh, G., & **Mishra, V. K. (2021).** Performance of horizontal flow constructed wetland for secondary treatment of domestic wastewater in a remote tribal area of Central India. *Sustainable Environment Research*, *31*(1), 1.
5. Barya M.P, Gupta D, Shukla R, Thakur T.K, **Mishra V.K. (2020)**. Phytoremediation of heavy metals from mixed domestic sewage through vertical- flow constructed wetland planted with *Canna indica* and *Acorus calamus Curr. World Environ 15(3).*
6. Gupta, D., Shukla, R., Barya, M. P., Singh, G., & **Mishra, V. K. (2020).** Water quality assessment of Narmada River along the different topographical regions of the central India. *Water Science*, *34*(1), 202-212.

7. Gupta, D., Shukla, R., Barya, M. P., Singh, G., & **Mishra, V. K. (2020).** Appraisal of river water quality based on field observations: A Case study on Narmada river. *Indian Journal of Ecology*, *47*(4), 897-901.
8. Barya, M. P., Gupta, D., Thakur, T. K., Shukla, R., Singh, G., & **Mishra, V. K. (2020).** Phytoremediation performance of *Acorus calamus* and Canna indica for the treatment of primary treated domestic sewage through vertical subsurface flow constructed wetlands: a field-scale study. *Water Practice and Technology*, *15*(2), 528-539.
9. Shukla, P. N., & **Mishra, V. K. (2019).** Controlling Illicit Teak Smuggling Across the State Border through Multipronged Strategy-A Case Study of Sironcha Forest Division, Maharashtra, India. *Indian Forester*, *145*(6), 513-520.
10. Gupta, L. N., Gupta, G. S., & **Mishra, V. K. (2015)**. Water quality monitoring of selected dug wells of central India with special. *Water Practice and Technology*, *10*(4), 652-659.
11. Álvarez, J. A., Ávila, C., Otter, P., Kilian, R., Istenič, D., Rolletschek, M., **Mishra, V.K.,** & Arias, C. A. (2017). Constructed wetlands and solar-driven disinfection technologies for sustainable wastewater treatment and reclamation in rural India: SWINGS project. *Water Science and Technology*, *76*(6), 1474-1489.
12. Shukla, P. N., **& Mishra, V. K. (2017**). Population Distribution of Indian Giant Squirrel Ratufaindica in Dry and Moist Deciduous Forest of Sironcha forest Division, Central India. *Indian Forester*, *143*(10), 1021-1026.
13. **Mishra, V. K.,** Shukla, R., & Shukla, P. N. (2018). Inhibition of soil methane oxidation by fertilizer application: an intriguing but persistent paradigm. *EPP*, *3*(2), 57-69.
14. **Mishra, V. K.,** & Shukla, R. (2018). Metal uptake potential of four methylotrophic bacterial strains from coal mine spoil, exploring a new possible agent for bioremediation. *Environmental Technology & Innovation*, *11*, 174-186.
15. **Mishra, V. K.,** Otter, P., Shukla, R., Goldmaier, A., Alvarez, J. A., Khalil, N., ... &Ameršek, I. (2018). Application of horizontal flow constructed wetland and solar driven disinfection technologies for wastewater treatment in India. *Water Practice & Technology*, *13*(3), 469-480.
16. Gupta, L.N**.** Gupta, G.S**., Mishra, V.K., 2015.** Water Quality Monitoring of Selected Dug Wells of Central India with Special Reference to Irrigation Purpose**.**Water Practice and Technology 10 (4): 652–659.
17. Gupta, K. K Singh, N.L., Pandey, A., Shukla, S. K. Upadhyay, S.N. **Mishra V**., Mishra P. K. **2013.** Effect of Anatase/Rutile TiO2 Phase Composition on Arsenic Adsorption Journal of Dispersion Science and Technology 34, 1043–1052.
18. Shukla, P.N., Pandey, K.D., **Mishra, V.K., 2013**. Methane oxidation and methanotrophs in terrestrial ecosystems and factors influencing them. ***Critical reviews in Environmental Science and Technology*, 43,1945–2011.**
19. Pathak, V**.**, Tripathi, B**.**D**.**, **Mishra, V.K., 2011.** Evaluation of Anticipated Performance Index of some tree species for green belt development to mitigate traffic generated noise**. *Urban Forestry Urban Greening,* 10 (1), 61-66.**

20. **Mishra, V.K.,** Tripathi B.D., Kim, K.H. **2009**. Removal and accumulation of Mercury by aquatic macrophytes from a tropical open cast coal mine, ***Journal of hazardous material***, 172 (2-3), 749-754.
21. **Mishra**, **V.K.,** Upadhyay, A.R., Tripathi, B.D., **2009**. Bioaccumulation of heavy metals and pesticides in crops irrigated with secondary treated waste water, ***Environmental monitoring and assessment,***156, 99–107.
22. **Mishra, V.K.,** Tripathi, B.D., Upadhyay, A.R., Pandey S.K., **2009**. Accumulation of Cadmium and Copper from aqueous solutions using Indian Lotus (*Nelumbonucifera*), **Ambio** 38 (2), 110-112.
23. **Mishra, V.K.,** Tripathi, B.D. **2009**. Accumulation of Chromium and Zinc from aqueous solutions using water hyacinth (*EichhorniaCrassipes*), ***Journal of hazardous material***, 164, 1059–1063.
24. Mukharji, A., **Mishra, V.K., 2008**. Bioaccumulation of heavy metal in crops irrigated with secondary treated sewage waste water in surrounding villages of Varanasi city. **Researches in Environment and Life Science**, 1(3), 103-108.
25. Singh, V.K., Singh, M.B., Mishra, V.K., 2009. Aquatic pollution and physic chemical characteristics of effluent in coal mining area, Sonebhadra (U. P**.). Uttar Pradesh geography journa**l, 14, 1-6.
26. **Mishra, V.K.,** Tripathi, B.D., **2008**. Concurrent removal and accumulation of heavy metals by the three aquatic macrophytes, ***Bioresource Technology***, 99, 7091-7097.
27. **Mishra, V.K.,** Tripathi, B.D., Upadhyay, A.R., Pandey S.K., **2008**. Concentrations of heavy metals and nutrients in water, sediments and aquatic macrophytes of GBP Sagar an anthropogenic lake affected by coal mining effluent., ***Environmental monitoring and assessment,*** 141, 49-58.
28. **Mishra, V.K.,** Upadhyay, A.R., Pandey, S.K. Tripathi, B.D, **2008**.Heavy metal pollution induced due to coal mining effluent on surrounding aquatic eco**-**system and its management through naturally occurring aquatic macrophytes**.*Bioresource technology,***99, 930–936.
29. **Mishra**, V.K. Upadhyay, A.R., Pathak, V., Tripathi, B.D. **2008**. Phytoremediation of Hg and As from tropical opencast coalmine effluents through naturally occurring aquatic macrophytes, ***Water, Air & Soil pollution***, 192, *(*1-4*)*, 303-314.
30. Pandey, S**.K.,**Tripathi, B.D., **Mishra, V.K., 2008.**Dustfall deposition in a subtropical open cast coal mine area, Bina, India. ***Journal of Environmental Management,****86 (1), 132-138.*
31. Pathak, V., Tripathi, B.D., **Mishra**, **V.K., 2008**. Dynamics of traffic noise in a tropical city Varanasi and its abatement through vegetation**. *Environmental monitoring and assessment,*** 146 (1-3), 67-75.
32. Pathak, V., Tripathi, B.D., **Mishra**, **V.K., 2008**. Evaluation of traffic noise pollution and attitudes of exposed individuals in working place. ***Atmospheric Environment,***42 *(*16*)*, 3892-3898.
33. Upadhyay, A.R., **Mishra, V.K.,** Pandey S.K., Tripathi, B.D., **2007**. Biofilteration of secondary treated waste water in a tropical city. ***Ecological Engineering,*** 30 *(*1*)*, 9-15.

34. Pandey, S.K., Tripathi B**.**D**.**, **Mishra, V.K**.**, Prajapati, S.K., ***2006.*** Size fractionated speciation of nitrate and sulfate aerosols in a sub-tropical industrial environment. ***Chemosphere****63 (1), 49-56.*
35. Pandey S.K., Tripathi B**.**D**.**, Prajapati, Pandey S.K., Upadhyay, A**.**R**.**, **Mishra, V.K**.**, Rai, P**.**K**.**, Sharma A**.**P**.**, **2005.** Magnetic Properties of Vehicles Derived Particulates and amelioration By *Ficusinfectoria:*a Keystone species**. *Ambio,***34 **(**8**)**, 645-646**.**

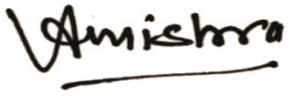
Book:

36. Mishra, V. K., & Kumar, A. (Eds.). (2021). *Sustainable Environmental Clean-up: Green Remediation*. Elsevier.
37. Kumar, A., Singh, V. K., Singh, P., & Mishra, V. K. (Eds.). (2020). *Microbe Mediated Remediation of Environmental Contaminants*. Woodhead Publishing.
38. **Mishra V.K., 2009.** Water pollution management in an open cast coal mine area, VDM publishing house (ISBN 978-3-639-21899-2), date of publication 18th Nov 2009.
39. **Mishra V.K.,,** Pathak V**.**, 2009. Phytoremediation of of noise pollution. VDM publishing house. (ISBN 978-3-639-25439-6). VDM Verlage Dr. Muller Aktiengesellschaft & Co.KG Dudweiler Landstr .99,66123 ,Sarabrucken,Germany

Book chapters:

40. Singh, A., Singh, G., Singh, P., & Mishra, V. K. (2022). Biobased Technologies for Remediation: Green Technology for Environmental Cleanup. In *Innovative Bio-Based Technologies for Environmental Remediation* (pp. 89-108). CRC Press.
41. Singh, G., Singh, A., Singh, P., Gupta, A., Shukla, R., & Mishra, V. K. (2021). Sources, fate, and impact of pharmaceutical and personal care products in the environment and their different treatment technologies. In *Microbe Mediated Remediation of Environmental Contaminants* (pp. 391-407). Woodhead Publishing.
42. Gupta, A., Singh, A., & Mishra, V. K. (2021). Sources, fate, and treatment of polycyclic aromatic hydrocarbons from the polluted environment. In *Microbe Mediated Remediation of Environmental Contaminants* (pp. 369-379). Woodhead Publishing.
43. Singh, G., Singh, A., Singh, P., & Mishra, V. K. (2021). Impact of climate change on freshwater ecosystem. In *Water Conservation in the Era of Global Climate Change* (pp. 73-98). Elsevier.
44. Singh, G., Gupta, D., Shukla, R., & Mishra, V. K. (2021). Application of constructed wetlands for the safe and sustainable treatment of emerging contaminants. In *Sustainable Environmental Clean-up* (pp. 85-104). Elsevier.
45. Singh, A., & Mishra, V. K. (2021). Biodegradation of organic pollutants for its effective remediation from the environment and the role of various factors affecting the biodegradation process. In *Sustainable Environmental Clean-up* (pp. 1-27). Elsevier.
46. Mishra, V. K., Shukla, R., & Sharma, N. K. (2021). Application of constructed wetland; a natural treatment system for environmentally sustainable domestic sewage treatment. In *Sustainable Environmental Clean-up* (pp. 105-129). Elsevier.
47. Patel, A. K., Gupta, D., Singh, A., Mishra, V. K., & Sharma, N. K. (2021). Green-synthesized nanoparticles for treatment of wastewater: an environmentally sustainable pollution remediation technology. In *Sustainable Environmental Clean-up* (pp. 29-70). Elsevier.
48. Singh, G., Singh, A., Singh, P., Shukla, R., Tripathi, S., & Mishra, V. K. (2021). The Fate of Organic Pollutants and Their Microbial Degradation in Water Bodies. *Pollutants and Water Management: Resources, Strategies and Scarcity*, 210-240.

49. Singh, G., Singh, A., Shukla, R., Karwadiya, J., Gupta, A., Naheed, A., & Mishra, V. K. (2021). Occurrence, Fate, and Remediation of Arsenic. *Pollutants and Water Management: Resources, Strategies and Scarcity*, 349-376.
50. Singh, G., Singh, A., Singh, P., & Mishra, V. K. (2021). Organic Pollutants in Groundwater Resource. *Groundwater Geochemistry: Pollution and Remediation Methods*, 139-163.
51. Gupta, A., Patel, A. K., Gupta, D., Singh, G., & **Mishra, V. K. (2020**). Rhizospheric remediation of organic pollutants from the soil; a green and sustainable technology for soil clean up. In *Abatement of Environmental Pollutants* (pp. 263-286). Elsevier.
52. Gupta, A., Verma, H., Singh, P. P., Singh, P., Singh, M., **Mishra, V.,** & Kumar, A. (2019). Rhizome endophytes: Roles and applications in sustainable agriculture. In *Seed Endophytes* (pp. 405-421). Springer, Cham.
53. **Mishra, V. K.**, Verma, H., & Singh, G. (2019). Recent development of patent in Indian scenario with special reference to microbial patents. In *PGPR Amelioration in Sustainable Agriculture* (pp. 159-166). Woodhead Publishing.
54. Singh, G., Patel, A. K., Gupta, A., Gupta, D., & **Mishra, V. K.** (2019). Current Advancements in Recombinant Technology for Industrial Production of Cellulases: Part-II. In *Approaches to Enhance Industrial Production of Fungal Cellulases* (pp. 177-201). Springer, Cham.
55. **Mishra, V. K.,** Singh, G., & Shukla, R. (2019). Impact of xenobiotics under a changing climate scenario. In *Climate Change and Agricultural Ecosystems* (pp. 133-151). Woodhead Publishing.
56. **Mishra, V.K.,** Verma, H., Singh, G., 2018. Recent Development of Patent in Indian Scenario With Special Reference to Microbial Patent, In. PGPR amelioration in sustainable agriculture food security and environmental management., eds. Singh, A.K., Kumar, A., Singh, P.K. Elsevier,159-166.
57. Singh, G., **Mishra, V.K.,** 2018 Impact of Xenobiotics under changing climate scenario. In "Climate Change and Agricultural Ecosystems" Woodhead imprint of Elsevier**.**
58. **Mishra, V.K.,** Shukla, R., 2017. Aquatic macrophytes for the removal heavy metals from the coal mining effluent. In Phytoremediation, eds. Ali, A., Sigh, S., Gill, R., Gill, Lanza, G., Newman, L., Springer, pp.
59. Mukherji, A., & **Mishra, V.K**., 2010. Heavy metal contamination induced due to secondary treated sewage waste water irrigation in Varanasi. In. Biodiversity and Sustainable development, eds. Tiwari, K.N., Lata, S., Prasanna Publication, Bhopal.
60. Singh, V., Sigh, M.B. & **Mishra, V.K.**, 2010. Sources of pollution in coal mine area and physico-chemical characterization coal mining effluent from Indian open cast coal mine area. In. Biodiversity and Sustainable development, eds. Tiwari, K.N., Lata, S., Prasanna Publication, Bhopal.



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