

## LIST OF PUBLICATIONS

**Faculty: Dr Deep Raj**

**Department of Environmental Sciences**

### JOURNAL PUBLICATIONS

Dayal, L., Yadav, K., Dey, U., Das, K., Kumari, P., **Raj, D.** and Mandal, R.R., 2024. Recent advancement in microplastic removal process from wastewater-a critical review. *Journal of Hazardous Materials Advances*, p.100460.

Dayal, L., **Raj, D.**, Kumari, P. and Sinha, S., 2024. Abundance of Microplastics in Marine and Freshwater Ecosystem and it's Impact on Biotic and Abiotic Components. *Water, Air, & Soil Pollution*, 235(6), pp.1-18.

Bashir, Z., **Raj, D.** and Selvasembian, R., 2024. A combined bibliometric and sustainable approach of phytostabilization towards eco-restoration of coal mine overburden dumps. *Chemosphere*, p.142774.

**Dr Deep Raj** - "Microplastics in Indian aquatic systems and its effects on plants, aquatic organisms and humans, and its methods of remediation" in *Chemistry and Ecology* (Q2 Journal, IF 2.5)

Singh, S., Maiti, S.K. and **Raj, D.**, 2023. An approach to quantify heavy metals and their source apportionment in coal mine soil: a study through PMF model. *Environmental Monitoring and Assessment*, 195(2), 306.

Kumar, A., **Raj, D.**, Maiti, S.K., Maleva, M. and Borisova, G., 2022. Soil Pollution and Plant Efficiency Indices for Phytoremediation of Heavy Metal (loid) s: *Two-Decade Study* (2002–2021). *Metals*, 12(8), 1330.

**Raj, D.**, Kumar, A. and Maiti, S.K., 2022. Health Risk Assessment of Children Exposed to the Soil Containing Potentially Toxic Elements: A Case Study from Coal Mining Areas. *Metals*, 12(11), 1795.

**Raj, D.** and Maiti, S.K., 2020. Risk assessment of potentially toxic elements in soils and vegetables around coal-fired thermal power plant: a case study of Dhanbad, India. *Environmental Monitoring and Assessment*, 192(11), pp.1-18.

**Raj, D.**, Kumar, A. and Maiti, S.K., 2020. Mercury remediation potential of Brassica juncea (L.) Czern. for clean-up of flyash contaminated sites. *Chemosphere*, 248, p.125857.

**Raj, D.** and Maiti, S.K., 2020. Sources, bioaccumulation, health risks and remediation of potentially toxic metal (loid) s (As, Cd, Cr, Pb and Hg): an epitomised review. *Environmental monitoring and assessment*, 192(2), pp.1-20.

**Raj, D.**, Kumar, A. and Maiti, S.K., 2020. Brassica juncea (L.) Czern.(Indian mustard): a putative plant species to facilitate the phytoremediation of mercury contaminated soils. *International Journal of Phytoremediation*, 22(7), pp.733-744.

Ghosh, S.P., **Raj, D.** and Maiti, S.K., 2020. Risks assessment of heavy metal pollution in roadside soil and vegetation of national highway crossing through industrial area. *Environmental Processes*, 7(4), pp.1197-1220.

**Raj, D.**, Kumar, A. and Maiti, S.K., 2019. Evaluation of toxic metal (loid) s concentration in soils around an open-cast coal mine (Eastern India). *Environmental Earth Sciences*, 78(22), pp.1-19.

**Raj, D.** and Maiti, S.K., 2019. Sources, toxicity, and remediation of mercury: an essence review. *Environmental monitoring and assessment*, 191(9), pp.1-22.

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**Raj, D.** and Maiti, S.K., 2019. Bioaccumulation of potentially toxic elements in tree and vegetable species with associated health and ecological risks: a case study from a thermal power plant, Chandrapura, India. *Rendiconti Lincei. Scienze Fisiche e Naturali*, 30(3), pp.649-665.

**Raj, D.**, 2019. Bioaccumulation of mercury, arsenic, cadmium, and lead in plants grown on coal mine soil. *Human and Ecological Risk Assessment: An International Journal*, 25(3), pp.659-671.

**Raj, D.**, Chowdhury, A. and Maiti, S.K., 2017. Ecological risk assessment of mercury and other heavy metals in soils of coal mining area: A case study from the eastern part of a Jharia coal field, India. *Human and Ecological Risk Assessment: An International Journal*, 23(4), pp.767-787.

### **BOOK CHAPTERS**

**Deep Raj**, PS Paul and SK Maiti (2017). Chapter: Improvements in Fertility of Reclaimed Coalmine Dumps Due to Afforestation –A Case Study from North Karanpura Area, CCL, India. *Sustainable Mining Practices*. Page: 45-54, Narosa Publishing House, New Delhi. (Editors: AK Gorai and DS Nimaje).

**Deep Raj** and SK Maiti (2020). Chapter: Brassica juncea (L.) Czern. (Indian mustard): A potential candidate for the phytoremediation of mercury from soil. *Sustainability in Environmental Engineering and Science, Lecture Notes in Civil Engineering 93*, Page: 67-72, Springer Nature, Singapore. (Editors: S Kumar, A Kalamdhad, and MM Ghangrekar). [https://doi.org/10.1007/978-981-15-6887-9\\_7](https://doi.org/10.1007/978-981-15-6887-9_7).

SK Maiti, D Ghosh and **Deep Raj** (2021). Chapter: Phytoremediation of flyash: bioaccumulation and translocation of metals in natural colonizing vegetation on flyash lagoons. *Handbook of Flyash*. Page: 501-523, Elsevier (Editor: Kamal K Kar). <https://doi.org/10.1016/B978-0-12-817686-3.00011-6>.