

Curriculum vitae



1. **Name:** Dr. Pankaj Kumar Srivastava
2. **Designation:** Senior Scientist, CSIR–National Botanical Research Institute,
Coordinator, ENVIS – NBRI,
Assistant Professor (Biological Sciences),
Academy of Scientific Innovation Research (AcSIR)–NBRI
3. **Date of Birth:** March 24, 1975
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5. Educational Qualifications:

Degree	Institutions Conferring	Field(s)	Year	%
B. Sc.	Dr RML Avadh Univ.	Zoology, Botany, Chemistry	1994	64.3
M.Sc.	Dr RML Avadh Univ.	Environmental Sciences	1996	69.1
Ph. D.	Dr RML Avadh Univ.	Environmental Sciences	2000	Degree Awarded
ISO 14000 Lead Assessor	FICCI & Institute of Environmental Management & Assessment (IEMA), UK	Environmental Management System Auditing	2004	79

6. Research/ Training/Work Experience

- Internal Auditor for ISO/IEC – 17025:2005 certified by TUV-SUD, South Asia, since 2008.
- Research Associate Fellowship (Dec, 2002 to July 2005) awarded by CSIR-HRDG at National Botanical Research Institute, Lucknow.
- DST Young Scientist Fellowship during 2006-2009 under SERC Fast Track Scheme of DST, Govt. of India.
- Recognized “Government Analyst” by Central Pollution Control Board, since 2007.
- Assistant Professor (Biological Sciences) in Academy of Scientific & Innovative Research (AcSIR), Govt. of India, since 2011.
- Working as Scientist in the Division of Environmental Sciences, CSIR – NBRI since 2005.

7. Specialized Interest

- Pollution Remediation Techniques
- Soil Science
- Waste Management and Utilization
- Environmental Auditing and Environmental Impact Assessment

8. Publications

- i. **Srivastava, P. K.** 2016. Fungal bioaugmentation of the rice root-zone to reduce arsenic uptake by rice from soils." In: *Arsenic Research and Global Sustainability: Proceedings of the Sixth International Congress on Arsenic in the Environment (As2016), June 19-23, 2016, Stockholm, Sweden*, p. 329. CRC Press.
- ii. Gupta, M., **Srivastava, P.K.**, Shikha, Niranjana, A., Tewari, SK. 2016. Use of a bioaugmented organic soil amendment in combination with gypsum for *Withania somnifera* growth on sodic soil. *Pedosphere*, 26:299-309.
- iii. Verma, S., Verma, P.K., Meher, A.K., Dwivedi, S., Bansiwala, A.K., Pande, V., **Srivastava, P.K.**, Verma, P.C., Tripathi, R.D., Chakraborty, D. 2016. A novel arsenic methyltransferase gene of *Westerdykella aurantiaca* isolated from arsenic contaminated soil: phylogenetic, physiological, biochemical studies and its role in arsenic bioremediation. *Metallomics*, DOI: 10.1039/C5MT00277J.
- iv. Misra, A., Srivastava, S., **Srivastava, P.K.**, Shukla, P., Agrawal, P.K., Rawat, A.K.S. 2016. Chemotaxonomic variation in forskolin content and its correlation with ecogeographical factors in natural habitat of *Coleus forskohlii* Briq. collected from Vidarbha (Maharashtra, India). *Industrial Crops and Products*, 84:50-58.
- v. Singh, M., **Srivastava P.K.**, Verma, P.C., Kharwar, R. N., Singh, N., Tripathi, R.D. 2015. Soil fungi for mycoremediation of arsenic pollution in agriculture soils. *Journal of Applied Microbiology*, DOI: 10.1111/jam.12948.
- vi. Gupta, M., **Srivastava, P.K.**, Singh, S.B., Singh, N., Tewari, S.K. 2015. Organic Amendments with Plant Growth Promoting Fungi Support Paddy Cultivation in Sodic Soil. *Communications in Soil Science and Plant Analysis*, Doi: 10.1080/00103624.2015.1081698.
- vii. **Srivastava, P. K.**, M. Singh, M. Gupta, N. Singh, R.N. Kharwar, R. D. Tripathi, C.S. Nautiyal. 2015. Mapping of arsenic pollution with reference to paddy cultivation in the middle Indo-Gangetic Plains. *Environmental Monitoring and Assessment*, Doi: 10.1007/s10661-015-4418-5.
- viii. Raj, A., Jamil, S., **Srivastava, P.K.**, Tripathi, R.D., Sharma, Y.K., Singh N., 2014. Feasibility study of *Phragmites karka* and *Christella dentata* grown in West Bengal as As accumulator. *International Journal of Phytoremediation*, DOI:10.1080/15226514.2014.964845.
- ix. Singh, N., **Srivastava, P.K.**, Tripathi, R.D., Srivastava, S., Vaish, A., 2014. Microbial *in-situ* mitigation of arsenic contamination in plants and soils. *In: J.*

- Bundschuh, H. Holländer, LQ Ma (eds.) In-Situ Remediation of Arsenic-Contaminated Sites, CRC Press, pp. 115-143.
- x. **Srivastava, P.K.**, Gupta, M., Shikha, Singh, N., Tewari, S.K., 2014. Amelioration of sodic soil for wheat cultivation using bioaugmented organic soil amendment. *Land Degradation & Development*, DOI: 10.1002/ldr.2292.
 - xi. **Srivastava, P.K.**, Gupta, M., Pandey, A., Pandey, V., Singh, N., Tewari, S.K., 2014. Effects of sodicity induced changes in soil physical properties on paddy root growth. *Plant, Soil and Environment*, 60:165–169.
 - xii. **Srivastava, P. K.**, Singh, M., Singh, N., Tripathi, R. D., 2013. Soil Arsenic Pollution: A Threat to Crops. *Journal of Bioremediation and Biodegradation*; 4: e137.
 - xiii. **Srivastava, P. K.**, Shenoy, B.D., Gupta, M., Vaish, A., Mannan, S., Singh, N., Tewari, S.K., Tripathi, R. D., 2012. Stimulatory effects of arsenic-tolerant soil fungi on plant growth promotion and soil properties. *Microbes and Environments*, 27: 477–482.
 - xiv. **Srivastava, P. K.**, Gupta, M., Upadhyay, RK, Sharma, S., Shikha, Singh, N., Tewari, S. K., Singh, B., 2012. Effects of combined application of vermicompost and mineral fertilizer on the growth of *Allium cepa* L. and soil fertility. *Journal of Plant Nutrition and Soil Science*, 175: 101–107.
 - xv. Tripathi, P., Dwivedi, S., Mishra, A., Kumar, A., Dave, R., Srivastava, S., Shukla, M. K., **Srivastava, P. K.**, Chakrabarty, D., Trivedi, P. K., Tripathi, R. D., 2012. Arsenic Accumulation in Native Plants of West Bengal, India: Prospects for Phytoremediation but Concerns with the use of Medicinal Plants. *Environmental Monitoring and Assessment*, 184: 2617-2631.
 - xvi. Raj, A., Pandey, A. K., Sharma, Y. K., Khare, P. B., **Srivastava, P. K.**, Singh, N., 2011. Metabolic adaptation of *Pteris vittata* L. gametophyte to arsenic induced oxidative stress. *Bioresource Technology*, 102: 9827–9832.
 - xvii. **Srivastava, P.K.**, Vaish, A., Dwivedi, S., Chakrabarty, D., Singh, N., Tripathi, R.D. 2011. Biological removal of arsenic pollution by soil fungi. *Science of the Total Environment*, 409: 2430-2442.
 - xviii. **Srivastava, P. K.**, Singh, P. C., Gupta, M., Sinha, A., Vaish, A., Shukla, A., Singh, N., Tewari, S. K., 2011. Influence of earthworm culture on fertilization potential and biological activities of vermicomposts prepared from different plant wastes. *Journal of Plant Nutrition and Soil Science*, 174: 420–429.
 - xix. **Srivastava, P. K.**, Baleshwar, Behera, S. K., Singh, N., Tripathi, R. S., 2011. Long-term changes in the floristic composition and soil characteristics of reclaimed sodic land during eco-restoration. *Journal of Plant Nutrition and Soil Science*, 174: 93-102.
 - xx. Sinha, A., **Srivastava, P. K.**, Singh, N., Sharma, P.N., Behl, H.M. 2011. Optimizing organic and mineral amendments to jatropha seed cake to increase its agronomic utility as organic fertilizer. *Archives of Agronomy and Soil Science*, 57: 193-222.

- xxi. Rai, A., Kulshreshtha, K., **Srivastava, P. K.**, Mohanty, C. S., 2010. Leaf surface structure alterations due to particulate pollution in some common plants. *Environmentalist* 30:18–23.
- xxii. **Srivastava, P.K.**, Kulshreshtha, K., Mohanty, C.S., Pushpangadan, P., Singh, A. 2005. Stakeholder-based SWOT analysis for successful municipal solid waste management in Lucknow, India. *Waste Management*, 25: 531-537.
- xxiii. **Srivastava, P.K.**, Neraliya, S., Pandey, G.C. 2000. Bioaccumulation of metals from distillery effluent by some aquatic macrophytes. *Proc. Nat. Acad. Sci. India, Sec. B (Biological Sciences)*, 70 (III & IV): 311-317.
- xxiv. **Srivastava, P.K.**, Pandey, G.C. 1999. Paper mill effluent induced toxicity in *Eichhornia crassipes* and *Spirodela polyrrhiza*. *Journal of Environmental Biology*, 20: 317-320.
- xxv. **Srivastava, P.K.**, Pandey, G.C. 1999. Effect of fertilizer effluent on total chlorophyll content and biomass of some aquatic macrophytes. *Journal of Ecotoxicology and Environmental Monitoring*, 11: 123-127.
- xxvi. **Srivastava, P.K.**, Pandey, G.C. 1998. Bioremediation of distillery effluent using selected aquatic plants. *Research Journal of Chemistry and Environment*, 2: 43-45.

9. Participation in Professional Trainings/Courses:

- Received training on **Solid Waste Management** sponsored by DANIDA & ISWA and organized by Institute of Environmental Management (IEM) at Kathmandu (Nepal) held during May 28th – June 05th, 2003.
- Received one – month training programme on **Technology Entrepreneurship** organized by CSIR – HRDG & National Chemical Laboratory, Pune during January 30th – February 25th, 2005 at NCL, Pune. The programme was conducted by faculty from Indian Institute of Management, Bangalore (IIM – B).
- Received training on **Environment Audit through Waste Minimization Techniques for Hazardous Chemical and Waste Management: Safe Handling and Disposal Options** organized by Engineering Staff College of India at Hyderabad held during May 10th – 12th, 2005.
- Received training on **statistical computing using SPSS** at Indian Agricultural Statistics Research Institute (ICAR), New Delhi during June 13th -17th, 2005.
- Received training on **Internal Audit Course as Per ISO/IEC 17025** organized by TÜV SÜD South Asia at New Delhi during 29th to 31st March 2010.
- Participated in a short course on **Carbon Stabilization, Saturation and Sequestration: Evolving Concepts, Mechanisms and Approaches** at Indian Institute of Soil Science, Bhopal during Nov. 23rd to Dec. 02nd, 2010.
- Participated in a short course on **Application of nanotechnology in soil science and plant nutrition research** at Indian Institute of Soil Science, Bhopal during 18th to 27th, Sep. 2012.

- Participated and completed with merit in all four modules of **5th CSIR Leadership Development Programme** in two months covering leadership roles, competencies, applications and personal mastery at CSIR Human Resource Development Centre, Ghaziabad during December 2015 to February 2016.

10. List of Research Schemes/Project executed and being carried out as Principal Investigator

Name of Funding Agency	Title of Project	Fund	Period
SERC Division of the Department of Science & Technology, Govt. of India	Optimization of waste utilization for viable product development	₹ 4.08 Lakh	2006-2009
Department of Biotechnology, Govt. of India	Assessment of arsenic pollution & bioremediation of arsenic contamination from agricultural soils	₹ 57.65 Lakh	2011-2014
Scicen and Enginnering Research Board (SERB), Govt. of India	Identification and characterization of arsenite oxidase genes in fungi isolated from arsenic contaminated soils	₹ 23.50 Lakh	2014-2017
Department of Biotechnology, Govt. of India	Development of bioaugmentation based safe cultivation practice for remediating arsenic contamination to paddy crop	₹ 43.68 Lakh	2016-2019
Ministry of Environment, Forests & Climate Change	ENVIS – NBRI Centre on “Plants & Pollution” under Environmental Management Capacity Building Technical Assistance (EMCBTA) project.	₹ 13.98 Lakh	2016-17 As Plan Project

(Pankaj Kumar Srivastava)

Place: Lucknow
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