

CURRICULUM VITAE

Name: Dr. (Mrs.) Asha Lata Singh

Designation : Professor

Address: Department of Botany, Banaras Hindu University, Varanasi-221005

Education (Post-Graduation onwards):

S.N.	Institution/University	Degree	Year	Subject
1.	B.H.U.	M.Sc.	1988	Botany
2.	B.H.U.	Ph.D.	1992	Botany

Position held (Starting with the most recent employment):

S.N.	Position and Institution	From	To
1.	Professor , Environmental Scienec, Deptt. of Botany,B.H.U.	1 st July 2025	Till date
2.	Associate Professor , Environmental Scienec, Deptt. of Botany,B.H.U.	2 nd June, 2019	1 st July 2025
3.	Assistant Professor (Stage-3) , Environmental Scienec, Deptt. of Botany,B.H.U.	2 nd June, 2016	2 nd June, 2019
4.	Assistant Professor (Stage-2) , Environmental Scienec, Deptt. of Botany,B.H.U.	2 nd June, 2011	2 nd June, 2016
5.	Assistant Professor , Environmental Scienec, Deptt. of Botany,B.H.U.	2 nd June, 2007	2 nd June, 2011
6.	Pool Scientist (CSIR), IICT, Hyderabad,	Jan, 2003	Jan, 2006
7.	Research Associate, (CSIR), in Biochemical Engineering B.H.U. and Oosmania University	Oct., 1997	Sept., 2002
8	HT Degree college, Jaunpur, U.P.	Nov., 1992	March, 1997

Research Interest:

- Textile effluent treatment with the help of microbes.
- Bio-methanization of coal
- Removal of metals from industrial effluents and waste water using microbes.
- Detoxification of toxic compounds from soil using microbes.
- Demineralization and desulfurization of coal using bacteria to obtain clean fuel.

Teaching/Research Experience: Over 31.2 years

List of Ph.D. Students Mentored

1. Removal of dye from textile effluent with the help of bacteria (Dr.Sneha Chaudhary, 2015)
2. Coal beneficiation with the help of bacteria (Dr. Aniruddha Kumar)
3. Detoxification of arsenic contaminated water by ecofriendly bacteria (Dr. Vipin Kumar Singh,2015)
4. Identification and functional characterization of *Mesorhizobium ciceri* Ca 181 for phosphate solubilisation. (Dr. Akhilesh Yadav)
5. Demineralization and desulfurization of Johila coals of Umaria (Madhya Pradesh) using bacteria and optimization of extrinsic factors. (Dr. Shweta Rai,2024)
6. Degradation of Carpet Dyes with Biological Methods (Monika Yadav, 2025)
7. Detoxification of Cr (VI) from contaminated soil using bacteria. (Anjali Srivastava, 2025)
8. Chemotaxonomic studies on *Tribulusterrestis* from different phytogeographical zones of India (Amrita Limboo). She has delivered her pre Ph.D seminar on 18.04.2026.

Ph.D under progress

9. A study of stubble biodegradation and its potential for biofuel production (S. Srivastava)
10. Study of chromium hexavalent stress in *Catharanthus roseus*: Exploring anticancer potential and bioremediation strategies. (Sourabh Roy Chowdhury)
11. Desulfurization of coal using biological and chemical methods. (S. Agrahari)
12. Assessment of heavy metal stress caused by contaminated soil on selected medicinal plants and its bioremediation (Supriya Singh)

Mentored Post-Doctoral Fellow:

1. On “Designing of methanogenic microbial consortia for enhanced coal Biogasification” (Shailendra Yadav: (2024-2025) worked under CSIR Post Doctoral Fellowship)

Mentored Jawala Prasad Fellow:

1. Anniruddha Kumar: (2024-2025) worked as Jawala Prasad Fellow of IoE, B.H.U. under DST SERB Project.

Dissertation Supervised: 106 {M.Tech, MSc (Tech), B.Tech, MSc (Microbiology), MSc (Environmental Science), M.Sc. (Botany)}

Number of Ph.D evaluated: 12

Ongoing project:

1. Desulfurization of coal using biological and chemical methods	10 th Jan 2023	SERB, DST	Rs. 45.10,240/- Lakhs	PI
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Completed projects:

1.	Detoxification of arsenic contaminated ground water by eco-friendly microbes	2009-2012	UGC, New Delhi	Rs.8.75,800 Lakhs	PI
2.	Biomethanization of Coal	2023-2024	CMPDI, Ministry of Coal	Rs.69.94 Lakhs	PI
3.	Dye decolourization	2023	IOE	Rs. 8-Lakhs	PI

Administrative Experience:

1. Administrative Warden of Dr J.C.Bose girls' hostel (2012 to till date)
2. Worked as warden of SNPG girls' hostel (2009- 2012)
3. Coordinator, VAC (Environmental Science), Institute of Science, Banaras Hindu University

Foreign Experience

1. Attended an International Conference on International Conference on Solid Waste - 2015: Knowledge Transfer for Sustainable Resource Management, Wanchai, Hong Kong SAR, China, during 19-23 May, 2015.

2. Attended an International Conference on Energy, Environment and Sustainable Development Bangkok (**Thailand**) during March, 29-31, 2011.

3. Attended an International Conference on Environmental Science and Technology at Penang, **Malaysia** (2010) and presented a full-length paper.

Orientation/Refresher course attended

1. Participated in the short-term course for academic administrators, UGC-Academic staff college B.H.U., Varanasi, INDIA, March 25 to 30, 2019.

2. Short Term Course on “MOOCs, E-content Development and Open Educational Resources”, UGC-Academic staff college B.H.U., Varanasi, INDIA, 19th Aug-25th Aug 2018.

3. **Refresher course** attended on Mahamana Malaviya and his Mission, UGC-Academic staff college B.H.U., Varanasi, INDIA, 14th July 2016 to 3rd Aug 2016

4. **Refresher course attended** on Environmental Studies, INDIA, UGC-Academic staff college B.H.U., Varanasi, INDIA, 3rd July 2010 to 23rd March, 2010.

5. **48th Orientation course attended.** UGC-Academic staff college B.H.U., Varanasi, INDIA, 4th March to 31st March 2008.

6. Refresher course attended on Plant Bio-technology in Department of –Centre for Plant Molecular Biology, Osmania University, Hyderabad, INDIA, 20th Feb, 2006 to 12th March, 2006

As Reviewer: Reviewed papers in various journals viz. (i) International J. of Ecotoxicology and Environmental Safety, (ii) Academic journal of South Africa (iii) Energy Sources- Part A: Recovery, Utilization, and Environmental Effects (iv) Indian Journal of Chemical Technology (v) Environmental pollution (vi) Pollution research

Membership of professional bodies:

- Life Member of International Society of Environmental Botanists -2023
- Life Member of Indian Botanical Society-2023
- Expert member in Research Development Committee of M.G. KashiVidyapith University, Varanasi.
- Member of Scientific Committee and Editorial Review Board on Biological Life Science of WASET (World Academy of Science Engineering and Technology)
- Member of Prakriti Mitra Society for Science and Technology, Lucknow, India-2024
- Precipitated in Group Monitoring Workshop of SERB Early Career Research Awardees - Life Sciences at KIIT University, Bhubaneswar during 9-10 May, 2022 as Special Invitees

List of Publications

1. Limboo A., Pradhan D., **Asha Lata Singh**, Srivastava S. **(2026)** Pharmacopoeial standardisation and bioactive metabolite- based identification of elite sources of *Tribulus terrestris* L. from Rajasthan and adjoining regions, India. Natural Product Research. DOI: 10.1080/14786419.2026.2653209
2. Kumar A., Chowdhury S.R., Srivastava S. Agrahari S., Kumari K., Yadav A., Singh Asha Lata, Karmakar A. **(2026)** Impact of coal mining activities on the water quality: A case study of Jharia coalfield, Dhanbad, India. Environmental Research. Elsevier DOI: <https://doi.org/10.1016/j.envres.2026.123951>
3. Limboo A., Pradhan D., **Asha Lata Singh**, Srivastava S. **(2025)** Chemotaxonomic studies on natural populations of *Tribulus terrestris* L. collected from the Gangetic Plain (India) for the identification of elite chemotypes. Journal of Planar Chromatography – Modern TLC. DOI: <https://doi.org/10.1007/s00764-025-00369-5>
4. Srivastava A., **Singh Asha Lata**, Yadav M. **(2025)** Bioremediation of chromium contaminated agricultural soil using alginate encapsulated bacterial beads. Water Air Soil Pollution. DOI: [10.1007/s10653-025-02448-2](https://doi.org/10.1007/s10653-025-02448-2)
5. Yadav M., Singh Asha Lata, Srivastava A. **(2025)** Decolorization and biodegradation of RR-195 dye using papaya peels: a green technology. Bioremediation Journal. DOI:<https://doi.org/10.1080/10889868.2025.2505783>
6. Srivastava A., **Singh Asha Lata**, Kumar A., Kumar A. **(2025)** Bioremediation of chromium (VI) from mining- contaminated soil using *Klebsiella* Sp. (BH-A1): environmental implications. Environ Geochem Health. DOI: [10.1007/s10653-025-02448-2](https://doi.org/10.1007/s10653-025-02448-2)

7. Kumar A., **Singh Asha Lata**, Kumar, A. and Singh Prakash K. (2025) Bio-desulphurization of High Sulfur Tertiary Coal of Assam: An Eco-Friendly Approach Towards Clean Coal Production. Conference: Innovations in Coal & Mineral Characterization for Sustainable Resource Utilization At: Fairfield by Marriott, Newtown, Kolkata, India.
8. Kumar A., **Singh Asha Lata**, Rajak, P. K., Kumar, A. and Singh Prakash K. (2024) Beneficiation of high sulfur tertiary coal of Assam with *Burkholderi* sp. GR 8-02 An ecofriendly Approach Towards Clean Coal Production. Geomicrobiology. 41 (1).
9. Monica Yadav, **Singh Asha Lata** (2024) Decolourization and detoxification of Reactive Red 195 Azo dye by *Staphylococcus caprae* isolated from textile effluent. J. Folia Microbiologica. <https://doi.org/10.1007/s12223-024-01175-y>
10. Rai S, **Singh Asha Lata**, Singh P.K. (2024) Demineralization of coal from Johilla coalfield using neutrophilic native bacteria: A novel technique to obtain REE from coal": J. of the Geological Society of India. 100(4):486-494.
11. Rai S, **Singh Asha Lata**, P.K., Singh, Kumar S, and H, Donald (2023) Optimizaiton of extrinsic parameters for demineralization of coal with the help of *Cronobacter* sp. using the Taguchi method. International J of coal preparation and utilization, doi: [10.1080/19392699.2023.2297195](https://doi.org/10.1080/19392699.2023.2297195).
12. **Singh Asha Lata**, Chaudhary, S., Kumar, S., Singh, A., and Yadav, A. (2022). Biodegradation of Reactive Yellow-145 azo dye using bacterial consortium: A deterministic analysis based on degradable metabolite, phytotoxicity and Genotoxicity study. Chemosphere. doi: [10.1016/j.134504](https://doi.org/10.1016/j.134504).
13. **Singh Asha Lata** (2025) Emission and mitigation of greenhouse gases from paddy field: Environmental implications. In: Traditional farming and climate.
14. Kumar A., **Singh Asha Lata**, Kumar, R., Rajak, P. K., and Singh Prakash K. (2022) Desulfurization of dibenzothiophene by different bacterial strains: An eco-friendly approach to obtain clean fuel from coal, Geomicrobiology J. <https://doi.org/10.1080/01490451.2022.2035020>
15. Singh, V. Kumar, Rajak, P. K., Kumar, A., **Singh, Asha Lata**, Singh, K. N., Naik, A.S., and Singh, P. K. (2021) Selected Major, Minor and Trace Elements in Lignite Deposits of Saurashtra Basin, Gujarat: Their Association, Distribution and Environmental Implications. Journal of Scientific Research 65 (1):65-72.
16. Rajak, P. K., Singh, V. K., **Singh, Asha Lata**, Kumar, N., Kumar, O. P., Singh, V. and Kumar, A., Rai, Ankita, Rai Shweta, Naik, A.S., Singh, P. K. (2020) Study of minerals and selected environmentally sensitive elements in Kapurdi lignites of Barmer Basin, Rajasthan, Western India: Implications to environment. Geosciences Journal 24(4):441–458.
17. Yadav A., Singh R. P., **Singh, Asha Lata**, Singh, M. (2020) Identifcation of genes involved in phosphate solubilization and drought stress tolerance in chickpea symbiont *Mesorhizobium ciceri* Ca181. Archives of Microbiology.
18. Kumar, A., Rajak, P. K., **Singh, Asha Lata**, Kumar, R., Singh, K. N. and Singh, Prakash K. (2020) Comparative investigation of bio-beneficiation of Kasnau-Matasukh lignite using native microorganisms. International Journal of Coal Preparation and Utilization. [10.1080/19392699.2020.1822824](https://doi.org/10.1080/19392699.2020.1822824)
19. Yadav A., Verma, H, Anasari WA, **Singh, Asha Lata**, Singh, M. 2020. Insight in the transcriptome data of hairy root disease causing bacterium-Agrobacterium rhizo genes. Data in Brief. 31:105910.
20. Kumar A., Singh AK, Singh PK, **Singh Asha Lata**, Saikia BK and Kumar A. (2019) Desulfurization of Giral lignite of Rajasthan (Western India) using *Burkholderia* sp. GR 8– 02, International Journal of Coal Preparation and Utilization, DOI: [10.1080/19392699.2019.1651721](https://doi.org/10.1080/19392699.2019.1651721).
21. Yadav, A., Anasari, W.A., **Singh, Asha Lata**, Singh, M. (2019) Transcriptional response of ots A., P5CR, glgX, nodC, and molecular chaperone genes under the PEG

- induced drought stress in *Mesorhizobium ciceri* Ca181. Biocatalyst and Agricultural Biotechnology.23:101459.
22. Medunic,G, Singh, P. K., **Singh, Asha Lata**, Rai, A., Jaiswal, M.K., Obrenovic,Z., Petkovic, Z., Rai, S., Janeš, M., (2019) Use of Bacteria and Synthetic Zeolites in Remediation of Soil and Water Polluted with Superhigh-Organic-Sulfur Raša Coal (Raša Bay, North Adriatic, Croatia), Water 2019, **11**, 1419; doi:10.3390/w11071419.
 23. Rajak, P.K., Singh,V.K., Singh, P.K., **Singh, Asha Lata.**, Kumar, N., Kumar, O.P., Singh, V., and Kumar A. (2018) Geochemical implications of minerals and environmentally sensitive elements of Giral lignite, Barmer Basin, Rajasthan (India). Environmental Earth Science. 77, (698)1-20.
 24. Singh, V. K., **Singh, Asha Lata.**, Singh, R. and Kumar A. (2018) Iron oxidizing bacteria: insights on diversity, mechanism of iron oxidation and role in management of metal pollution. Environmental Sustainability, <https://doi.org/10.1007/s42398-018-0024-0>.
 25. **Singh, Asha Lata** and Singh, V. K. (2018) Assessment of groundwater quality of Ballia district, Uttar Pradesh, India, with reference to arsenic contamination using multivariate statistical analysis. Applied Water Science, 8:95.
 26. Singh, A.K., Kumar, A., Singh, P.K., **Singh, Asha Lata** and Kumar, A., (2018) Bacterial desulphurization of low rank coal: A case study of Eocene lignite of Western Rajasthan, India. Energy Sources Part A: Recovery, Utilization, and Environmental Effects, Taylor & Francis.40 (10)1199-1208.
 27. Kumar, A., Singh, A.K., Singh, P.K., **Singh Asha Lata** and Jha, M.K. (2018) Demineralization study of high ash Permian coal with *Pseudomonas mendocina* strain B6-1: A case study of the South Karanpura coalfield, Jharkhand, India. Energy &Fuel, 32, 1080-1086.
 28. Gordana,M.,Zeljka, K., Zeljka,F., Mladen,B., **Singh Asha Lata**, Adela, K., Goran, K. and Lucija, D. (2018) Selenium and other potentially toxic elements in vegetables and tissues of three non –migratory birds exposed to soil, water and aquatic sediment contaminated with seleniferous Rasa coal. The Minning Geology Petroleum Engineering Bulletin UDC: 504:553.4, DOI: 10.17794/RGN.2018.3.7
 29. **Singh Asha Lata** and Singh, V.K. (2017) A study on phosphate uptake by *Acinetobacter* in presence of arsenate under aerobic condition. Indian Journal of Biotechnology.16, 106-109.
 30. **Singh Asha Lata**, Chaudhary, S., Kayastha, A. M. and Yadav, A. (2017) Decolourization, degradation and removal of heavy metals of textile effluent with the help of mixed bacterial consortium. Indian Journal of Biotechnology.16, 258-264.
 31. Singh, P. K., Singh, **Asha Lata**, Kumar, A. and Singh M.P.(2017) Petrological considerations for the demineralization of Rajmahal coals with *Pseudomonas mendocina* B6-1. Journal of the Geological Society of India.89, 643-652.
 32. Singh, **Asha Lata**, Singh, V. K. and Yadav, A. (2016) Arsenic sequestration by manganese-oxidizing *Acinetobacter* sp. Indian Journal of Biotechnology.15,525-530.
 33. Yadav, A., Singh, **Asha Lata** and Singh, M. (2016) Efficient transposon transformation of *Mesorhizobium ciceri* Ca181 through electroporation. Indian Research Journal of Genetics and Biotechnology. 8(4), 270-280.
 34. Singh, P.K., Singh, **Asha Lata**, Singh, M. P., Naik, A. S., Singh, D., Rai, S. and Kumar, A. (2016) Demineralization of Gondwana coal with *Pseudomonas mendocina* strain B6-1: A case study of coal from Gopinathpur Top and Bottom seams of Mugma mine, Dhanbad, Jharkhand (India). International Journal of Coal Science & Technology. 3(2), 235-245.
 35. **Singh Asha Lata**, Singh, P.K. and Singh, M.P. (2015) Sequestration of metals from coal using bacteria: Environmental implications on Clean Coal Energy. Energy Sources Part A: Recovery, Utilization, and Environmental Effects, Taylor & Francis. 37 (13), 1432-1439.
 36. **Singh Asha Lata**, Singh, P.K., Singh M.P. and Kumar, A. (2015) Environmentally sensitive major and trace elements in Indonesian coal and their geochemical

- significance. *Energy Sources Part A: Recovery, Utilization, and Environmental Effects*, Taylor & Francis. 37(17), 1836-1845.
37. **Singh Asha Lata** and Chaudhary, S. (2015) Decolorization and degradation of reactive red-120 dye using mixed consortium of *Enterobacter asburiae* and *Enterobacter cloacae*. *Proceedings of the International Conference on Solid Waste - 2015: Knowledge Transfer for Sustainable Resource Management*, Wanchai, Hong Kong SAR, China, 19-23 May, 760-764.
 38. **Singh Asha Lata**, Singh, P. K., Kumar, A. and Singh, M. P. (2015) Demineralization of Rajmahal Gondwana coals by bacteria: Revelations from X-ray diffraction (XRD) and Fourier Transform Infra Red (FTIR) studies. *Energy, Exploration and Exploitation*. 33(5), 755-767.
 39. **Singh Asha Lata** and Singh, V.K. (2015) Arsenic contaminated in ground water of Ballia, U.P. state, India. *Journal of Applied Geochemistry*. 17, 78-85
 40. **Singh Asha Lata**, Chaudhary, S., Kayastha, A. M. and Yadav, A. (2014) Decolorization and degradation of textile effluent with the help of *Enterobacter asburiae*. *Indian Journal of Biotechnology*. 14, 101-106.
 41. Yadav, A., **Singh Asha Lata**, Kumar, A., Singh, A. K., Pandey, K. D. and Singh, M. (2014) *Rhizobium*-legumes symbiosis and effects of environmental stresses in the symbiosis: Edited by K.K.Choudhary, "Microbes in soil and their agriculture prospects" NOVA SCIENCE PUBLISHERS, INC. 400 Osier Avenue, Suite 1600, Hauppauge, NY 11788-3619, USA .
 42. Singh, P. K., **Singh Asha Lata**, Kumar, A. and Singh, M. P. (2014) Petrographic considerations in demineralization of coal with bacteria: A new dimension in understanding the Clean Coal Technology. *Energy, Exploration and Exploitation*. 32 (4), 709-718.
 43. Singh, P. K., **Singh Asha Lata**, Kumar, A., Yadav, A. and Singh, M. P. (2014) Experimental study on demineralization of coal with *Pseudomonas mandocina* strain B6-1 to obtain clean fuel. *Energy, Exploration and Exploitation*. 32 (5), 831-846.
 44. **Singh Asha Lata**, Singh, V.K. and Shrivastava, A. (2013) Effect of arsenic contaminated drinking water on human chromosome: A case study. *Indian Journal of Clinical Biochemistry*. 28, 422-425.
 45. **Singh Asha Lata** (2013) Nitrate and phosphate contamination in water and possible remedial measures. Edited by N. Dwivedi "Environmental Problems and Plant" in Springer Verlag GmbH Heidelberg, Germany, 47-61.
 46. Yadav, A., **Singh Asha Lata**, Rai, G.K. and Singh, M. (2013) Assessment of molecular diversity chickpea (*Cicer arietinum* L.) *Rhizobia* and structural analysis of 16S rDNA sequences from *Mesorhizobium ciceristrains*. *Polish Journal of Microbiology*. 62 (3), 253-262.
 47. Singh, P. K., **Singh Asha Lata**, Kumar, A. and Singh, M. P. (2013) Control of different pyrite forms on desulfurization of coal with bacteria. *Fuel*. 106, 876-879.
 48. **Singh Asha Lata**, Singh, A. K., Singh, V.K. and Kumar, A. (2013) Methylene blue decolourization from waste water using bacteria under aerobic environment. *Proceedings of the National workshop on Landslides and Environmental Degradation in Hilly Terrains* (323-329).
 49. Singh, P. K., **Singh Asha Lata**, Kumar, A. and Singh, M. P. (2012) Mixed bacterial consortium as an emerging tool to remove hazardous trace metals from coal. *Fuel*. 102, 227-230.
 50. **Singh Asha Lata**, Singh, P.K. and Singh, M.P. (2012) Biomethanization of coal to obtain clean coal energy: A Review, *Energy, Exploration and Exploitation*. 30 (5), 837-852.
 51. **Singh Asha Lata**, Singh, P. K., Kumar, A. and Singh, M. P. (2012) Desulfurization of selected hard and brown coal samples from India and Indonesia with *Ralstonia* sp and *Pseudoxanthomonas* sp. *Energy, Exploration and Exploitation*. 30 (6), 985-998.

52. **Singh Asha Lata**, Tripathi, A.K., Singh, V.K. and Kumar, A. (2012) Nitrate and phosphate contamination in ground water of Varanasi, Uttar Pradesh, India. *Journal of Industrial Research & Technology*. 2 (1), 26-32.
53. **Singh Asha Lata** (2012) Study of Ni uptake and its compartmentalization in Ni²⁺ and Pd²⁺ strain of *Nostoc muscorum*. *Indian J. of Environment Science & Engineering*, NEERI Nagpur. 54 (1), 104-106.
54. **Asha Lata Singh**, Patel, J. and Mishra, S. (2012) Study of Water Quality of Ponds of Varanasi: Environmental Implications. *Proceeding of the National Seminar on'Geology, Biodiversity & Natural Resources of Himalaya and their Intellectual Property Law'*during 14-15 October at Department of Geology, L.S.M. Govt. Post-Graduate College, Pithoragarh, Uttarakhand, 542-552.
55. **Singh Asha Lata** (2012) *Pseudomonas putida* द्वारा तैयार किया गया सेविका का निष्कासन (in Hindi). *Proceedings of the National workshop on Landslides and Environmental Degradation in Hilly Terrains* (225-228).
56. **Singh Asha Lata**, Singh, V. K., Singh, S. K. and Tiwari, S. P. (2011) Arsenic contamination of ground water and its possible remedial measures. In: S.P. Tiwari and P. Sharma, (Eds)- *Recent Advances in Microbiology*, Nova Publishing, pp. 1-10.
57. Singh, P. K., **Singh Asha Lata**, Kumar, A. and Singh, M. P. (2011) A study on removal of selected major elements from Indonesian coal through bacteria: Environmental implications. *Proceedings, International conference on Energy, Environment, Sustainable Development*, Bangkok, Thailand, March 29-31st, 2011, WASET, No. 75, pp 925-935.
58. **Singh Asha Lata and** Singh, P.K. (2011) Metal recovery from lean grade ores through bacteria. In: P. Sharma, V. Vajpai and P.K. Jain (Eds)- *Microbial Ecology*, Lambert Academic Publishing, Germany, pp. 117-148.
59. Singh, P. K. and **Singh Asha Lata** (2010) Desulfurization and demineralization of coal with bacteria: An ecofriendly concept for clean coal energy. In V. Vajpai, P. Sharma & V.K. Gupta (Eds). *Recent Trends in Microbial Biotechnology*, p 215-231; Lambert Academic Publishing, Germany ISBN No-987-3-8433-9002-6.
60. **Singh Asha Lata** and Sarma, P.N. (2010) Removal of Arsenic (III) from waste water using *Lactobacillus acidophilus*. *Bioremediation Journal*. 14 (2), 92-97.
61. **Singh Asha Lata** (2010) Toxic levels of heavy metals in the Ganga River at Varanasi (U.P., India): Environmental implication. *Pollution Research*. 30, 217-220.
62. **Singh Asha Lata** (2010) Study of physico chemical characteristics of water samples of Assinulla, Varanasi, U.P. India. *Pollution Research*. 30, 209-212.
63. **Singh Asha Lata** (2010) Uptake of Zinc and its localization in different cell sectors of *Pseudomonas japonica*. *World Academy of Science, Engineering and Technology*, Penang, Malaysia, 62, 1633-1648.
64. **Singh Asha Lata** (2010) Polyphosphate body of *Nostoc calcicola* as an eco-friendly sink of nickel. *World Academy on Energy, Environment and Sustainable development*, Bangkok, Thailand, 75, 866-879.
65. **Singh Asha Lata**, Krishna, P. M., Rao, T.N. and Sarma, P.N. (2008) Biosorption of zinc by *Staphylococcus aureus* from waste water: Effect of modifying factors. *Pollution Research*. 27(2), 219-222.
66. **Singh Asha Lata** (2008) Removal of chromium from waste water with the help of microbes: a review. *e-Journal of Science and Technology*. 3(3), 1-16.
67. **Singh Asha Lata**, Krishna, P. M., Rao, T.N. and Sarma, P.N. (2006) Uptake of Cr (VI) in the presence of sulphate by *Bacillus mycoides* in aerobic culture. *Indian Journal of Biotechnology*. 5, 506-509.
68. **Singh Asha Lata** and Sarma, P.N. (2005) Removal and reuse of iron from industrial waste water using microorganisms. A chapter in *Bio-technological applications in environmental management*, Editor-R.K. Trivedi, pp 311-320.
69. **Asha Lata Singh**, V.C. Kulshreshtha, S. Venkatamohan and P.N.Sarma (2004) Iron speciation and its uptake by *Pseudomonas fluorescens*: A case study on an industrial

- effluent from Hyderabad. Indian J. of Environment & health, NEERI Nagpur, 46:277-281.
70. **Singh Asha Lata** and Sarma, P. N. (2004) *Bacillus mycoides* द्वारा प्रदूषित जल से hexavalent chromium का निष्काशन. Spandan, IICT.7, 36-41.
 71. **Singh Asha Lata**, Singh, S.K. and Rajkumar, B. (2000) Removal of Cu by *Pseudomonas aeruginosa* from polluted water of Barakar River, Dhanbad, Bihar, India. Indian Journal of Environmental Geochemistry. 3, 7-9.
 72. **Singh Asha Lata** and Singh, S.K. (2001) Pd detoxification and its localization in blue-green alga *Nostoc muscorum*. Indian Journal of Environmental Geochemistry. 4,11-13.
 73. **Singh Asha Lata** and Singh, S.K. (1998) *Nostoc muscorum* (cyanobacterium) द्वारा निकेल विषाक्तता का निराकरण. एक प्रायोगिक अध्ययन (in Hindi). Vigyan Garima Sindhu. 26, 104-109.
 74. **Singh, Asha Lata**, Asthana, R.K., Srivastava, S.C. and Singh, S.P. (1992) Nickel uptake and its localization in a cyanobacterium. FEMS Microbiology Letters. 99, 165-168.
 75. Asthana, R.K., **Singh Asha Lata** and Singh, S.P. (1993) Comparison of Ni – sensitive and Ni-resistant strains of *Nostoc muscorum*. World Journal of Microbiology and Biotechnology.9,323-327.
 76. Singh, R.K., Singh, S.P. and **Singh Asha Lata** (1989) Factors regulating Cu uptake in a cyanobacterium. Plant Science Research in India. 557-563.
 77. **Singh Asha Lata** and Singh P. K. (2012). Moksha dayini nirmal Ganga: ek avalokan. In: Bhushkalan evam Paryavaran Hraas. (Ed) R. A. Singh, pp 161-165.
 78. **Asha Lata Singh** (2011) Kitna upayogi hai shaiwal hamare liye. Vigyan Ganga. 87-89.
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 81. **Singh Asha Lata**, Singh, V. K. (2016) Study of arsenic removal using Fe II oxidizing *Ralstonia* sp. Enrgy and Environment: Challenges and Opportunities. Volume II Edited by Pradeep K Singh, Ashok K. Singh, Dilip kumbhakar, Siddarth Singh, Manish Kumar
 82. Mishra S, **Singh Asha Lata**, and Tiwary D, (2014) Studies of Physico-chemical Status of the Ponds at Varanasi Holy City under Anthropogenic Influences. International Journal of Environmental Research and Development. 4, 3: 261-268.

SEMINAR /CONFERENCE ATTENDED

Singh Asha Lata (2021) Role of bacterial consortium in decolourization and degradation of Reactive Red-120 dye in the 43rd Indian Geography Congress, held in the Department of Geography, Institute of Science, BHU, Varanasi.

Singh Asha Lata (2015) Paryawaran sanrakshan me jagarukta evam jan sahbhagita tatha mahamana ki drishti. National conference on Feb 27 in BHU, Varanasi.

Singh Asha Lata (2015) Interaction of arsenate on phosphate transport system in *Acinetobacter*. In national symposium on emerging trends and challenges in plant science research on Feb 19-20, 2015, in Department of Botany, B.H.U.

Singh Asha Lata (2015) International BHU Alimni Meet (IBAM-2015) and Seminar on Science and Religion:Mahamana's Vision. 23-24 Nov.2015. Participated.

Singh, Asha Lata, (2013) Removal of selective hazardous elements with the help of biological tools.In: Nat. symp. On Current Status and new horizons of ecological sciences and environmental biotechnology, BHU, 3rd March, 2013.

Singh Asha Lata (2012) Vigyan avam Prodyogiki ki siksha me hindi ke upyog ke paripeksh me mahamana ki dristi. National conference, Department of Physics.

Asha Lata Singh (2011) Heavy metal contamination in Ganga River water at Varanasi, U.P.India . In International seminar on Technology, Energy and Sustainable rural environment, held on Feb 23-25 in Department of Geography, BHU, Varanasi.

Asha Lata Singh (2011) Removal of iron from waste water with the help of *Pseudomonas putida*. In International seminar on Technology, Energy and Sustainable rural environment, held on Feb 23-25, In Department of Geography, BHU, Varanasi.

Asha Lata Singh (2011) Polyphosphate body of *N.Callicola* as an ecofriendly sink of nickel. International conference on Energy, Environment and Sustainable development, held on March 29-31, Bankok, Thailand in World Academy of Science and Technology.

Singh Asha Lata (2011) Iron remediation by *Pseudomonas aeruginosa* from industrial effluents. In National conference on Environmental Problems in India and challenges to plant Biologist. Feb 4-5. Department of Botany, U.P. College, Varanasi.

Singh Asha Lata (2011) Copper remediation by *Pseudomonas aeruginosa* from pollutedwater of Barakar river, Dhanbad, Jharkhand. National conference on ground water for drinking: issues and options held on feb 11-13, in Department of Civil Eng. Institute of Technology, BHU.

Singh Asha Lata (2011) Removal of phosphate from waste water the help of bacteria. National conference on ground water for drinking: issues and options held on feb 11-13, in Department of Civil Eng. Institute of Technology, BHU.

Singh Asha Lata (2011) Hindi me vigyan lekhan.vaiganic tatha takinik shabadavali ayog, Manav Sansadhan vikash mantralaya (Ucchatar shikha vibhag) Ram Krishna puram , New Delhi-110066. 16.02.11-17.02.11 in Hindi Prakashan Samiti, Vigyan Sankaya, Kashi Hindu Vishwavidyalaya, Varanasi.

Singh Asha Lata (2011) Uptake of Copper by *Nostoc muscorum* The regulatory factors.National Seminar on Mahamana vision and the challenges of the Millenium development goals in Mahila Maha Vidyalaya,BHU.March 1-2.

Singh Asha Lata (2011) Phosphate pollution of ground water in Varanasi city. November 3-4, in National Seminar on Recent Advances in the Development of Geographical Knowledge and its Interdisciplinary Association with Sciences in Department of Geography, Faculty of Science, Banaras Hindu University, Varanasi, India.

Singh Asha Lata (2011) Dye removal from textile effluent with the help of bacterial consortium: A case study of Varanasi city. November 3-4, in National Seminar on Recent Advances in the Development of Geographical Knowledge and its Interdisciplinary Association with Sciences in Department of Geography, Faculty of Science, Banaras Hindu University, Varanasi, India.

Asha Lata Singh, (2010) Uptake of Zn and its localization in different cell sectors of *Pseudomonas japonica*. In International Conference on Environmental Science and Engineering, Penang, Malaysia. Feb. 24-26, 2010, World Academy of Science and Engineering.

Singh, Asha Lata & P.N. Sarma, (2005). Zinc bioremediation by *Staphylococcus aureus*. In International Conference on Environmental Management, JNTU, Kukatpally, Hyderabad.

Singh, Asha Lata & P.N. Sarma, (2004) Pradusit jal se hexavalent chromium ka bacteria dwara niskasan. Ek prayogic adhyayan (in Hindi) In Vaiyanic sangoshthi on Bhuvigyan aur usase sambandhit vaigyanic prayog, 18th June, NGRI, Hyderabad.

Singh, Asha Lata, B.Raj Kumar & S.K. Singh, (2001) Cu uptake in *Nostoc muscorum*: Effect of modifying factors: In Nat. Sym. On Botany, O.U., Hyderabad, pp 24, 19-21 Nov.

Singh, Asha Lata & S.K. Singh, (2001). Pd uptake and its localization in *Nostoc muscorum*: A case study, In: Nat. Sem. On EPIRAM, NGRI, Hyderabad, pp 68, 6-7 July.

Singh, Asha Lata, S.K. Singh and B. Rajkumar (2001) Effect of modifying factors on Ni uptake in a cyanobacterium. In: Nat. sym. On frontiers in Plant Sci., O.Univ., Hyderabad, pp 33, 10-11 March.

Singh, Asha Lata (1998) Effect of nickel on enzymatic activities of Nostoc muscorum. In Nat. Sym. On Chemical Engg. Education & research strategy for future, B.H.U., Varanasi, pp .87, 6-8 Aug., 1998.

Singh, Asha Lata, S.K. Srivastava, (1998) Removal of lead by Pseudomonas aeruginosa from waste water. In: Nat. symp. On Chemical Engg. Education & research strategy for future, B.H.U., Varanasi, pp .68, 6-8 Aug., 1998.

Singh, Asha Lata & S.K. Singh, (1996). Toxicity of Ni in a blue green Alga. A case Study. In Intern. Acad. Phy. Sci., MGKV, Varanasi, pp 19-20, 14-15th Oct.

Singh Asha Lata (1992) Sequestering of heavy metals by cyanobacteria. In 4th annual conference of Purvanchal Academy of Sciences. Himtaj Mahavidyalaya, Jaunpur, U.P. pp 64, 19-20 Dec.

Invited Lectures in National and International Conference

Singh Asha Lata, delivered a lecture in faculty development program conducted by UGC-Malviya Mission Teachers Training Program of University of Madras on “heavy metal contamination and remediation” on 16.10.2025.

Singh Asha Lata, Co-chaired a technical session in International Conference on Ecosystem functioning and sustainability in changing environment 2025, Feb 6-8, Centre of Advanced Study in Botany, B.H.U.

Singh Asha Lata, Delivered a invited lecture on “Heavy metal toxicity in Ganga River at Varanasi, Uttar Pradesh, India: Environmental Implication” in International Webinar on ‘Natural Hazards and Management’. Nov. 22-23, 2021, organized by G.D.C., Gururabanj, Almora, Uttarakhand, India.

Singh Asha Lata, Delivered a invited lecture on “Arsenic poisoning in ground water: A natural threat to human health” in International Webinar on ‘Natural Hazards and Management’. Nov. 19-20, 2020, organized by G.D.C., Gururabanj, Almora, Uttarakhand, India.

Singh Asha Lata, Delivered a lecture on “Water Pollution in Varanasi and its Possible Remedial Measures” in National conference on ‘Puraneshu Paryavaransanrakshnam’. Feb 4-5, 2015, Sampurnanand Sanskrit University, Varanasi.

Singh Asha Lata, Delivered a lecture on “Remediation of arsenic contaminated water by human friendly bacteria” in National conference on Environmental Problems in India and challenges to plant Biologist. Feb 4-5, 2011, Department of Botany, U.P.College, Varanasi

Singh Asha Lata, Delivered a lecture on “problem of water pollution in Varanasi and its possible remedial measures” In National conference on Controlling Environmental Pollution through Water Conservation for Sustainable Development. Nov. 26-27, 2011. Department of Philosophy & Religion, Faculty of Arts, Banaras Hindu University, Varanasi.

Singh Asha Lata, Delivered a lecture on “Bioremediation as a tool to obtain clean water”, in the training programme on “Allele mining for abiotic stresses in vegetable crops. at Indian Institute of Vegetable Research (IIVR), Varanasi on 6/3/2012.

Singh Asha Lata, Delivered an invited talk on ‘Decolorization and Degradation of Reactive Yellow-145 azo dye with bacteria: Implication on environment and health hazard” in the two day International Webinar on “NATURAL HAZARDS AND MANAGEMENT” held on 22nd - 23rd November 2022 in Bundelkhand University, Jhansi, GDC, Almora.

Singh Asha Lata, Chaired a technical session on Environmental Pollution in ISEFA-2022, Feb 23-25, Centre of Advanced Study in Botany, B.H.U.