

Dr Mani Singh

Designation**Assistant Professor****Office Address**

Department of Environmental Science

Faculty of Engineering and Technology, Jamia
Millia Islamia, New Delhi**Mobile No:**

+91-8851223558

E-mail:*msingh2@jmi.ac.in;*
drmanisingh.india@gmail.com**Google Scholar ID**[https://scholar.google.com/citations?user=g
pSuepoAAAAJ&hl=en](https://scholar.google.com/citations?user=gpSuepoAAAAJ&hl=en)**Scopus ID**

57225859463

Orcid ID<http://orcid.org/0000-0003-4179-8955>

Teaching and Research Experience ~ 12 years (11yrs 9 months)

PhD	Student	01
registered		
Research		16
Publications		
Citations		99
h- index		4
i10- index		2
Books		01

Academic Interests:

sEcology and Environment, Environmental Pollution and Health, Ecotoxicology, Atmospheric Science, Air pollution and Toxicology, Air quality modeling, Biodiversity and Conservation, Plant Systematics.

Research Interest:

Air pollution and impacts on plants and human health, Heavy metal toxicity in plants and humans, Air quality management – Mitigation, Phytoremediation & landscaping.

Work experience:

11 years and 9 months of academic and research experience. In 9 years 4 months of teaching experience I have taught at UG and PG levels at APSU University, Rewa, M.P; Dyal Singh College, DU, New Delhi; Lakshmibai College, DU, New Delhi and worked as Research Associate at premier Institute at CPCB, New Delhi gaining 2.5 years of postdoctoral research experience. At

present, work as Assistant Professor at the Department of Environmental Science, Jamia Millia Islamia, A central University, New Delhi.

Teaching Experience

Designation	Name of Employer	Period
Asst. Professor	Department of Environmental Science, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi.	November 2023- Till date
Asst. Professor	Lakshmibai College, University of Delhi, New Delhi	August 2019- November 2023
Asst. Professor	<i>Dyal Singh College, University of Delhi, New Delhi</i>	<i>February 2014- April 2014</i>
Asst. Professor	<i>Centre for Environmental Science, APS University, Rewa</i>	<i>August 2008- June 2009</i>
Asst. Professor	<i>Centre for Environmental Science, APS University, Rewa</i>	<i>July 2005- August 2008</i>

Subjects Taught:

Introduction to Environmental Studies, Fundamentals of Environmental Science, Environmental pollution, Ecotoxicology, Ecological statistics, Reproductive biology of angiosperms, Basic Concepts of Ecology, Air quality monitoring and control technologies, Advance Air quality monitoring, analysis and air pollution control technologies. Life Science- Botany (B. Sc. Home Science, Honors as Resource person).

Post-Doctoral Experience:

Research Associate, Central Pollution Control Board (CPCB), New Delhi (Dec 2015 – May 2018)

Monitoring and managing the Continuous Ambient Air Quality Monitoring Stations (CAAQMS) across the India under **NAQMP. Water toxicity testing** using zebra fish and algal models. Sample collection, analysis and derivation of conclusion w.r.t. air and water pollution for environment protection under the EPA (1986), Air Act (1981) and Water Act (1974). Study of the different environmental issues, recommendations, presentation for advisory and executive purposes of CPCB.

Doctoral Research:

- *School of Environmental Biology, APS University, Rewa. (Jan 2005 – Dec 2008).*
PhD topic: “Effects of urban air pollution on roadside vegetation with special reference to lead toxicity”.
 Ambient air quality monitoring, Heavy metal analysis in ambient air and plant cells using **AAS**, biochemical analysis for sugar, carbohydrates and proteins, leaf micromorphological study. *This work was pioneering in highlighting the status of air pollution in the small city, especially in Madhya Pradesh which helped generate authentic database.*
- Research Trainee, Indian Institute of Toxicological Research (IITR), Lucknow (Oct 2007 – Dec 2007). Metal analysis and application of AAS.

- Research Trainee, Awadhesh Pratap Singh University (**APS Univ.**), Rewa (Jul2004 –Jan 05)

Educational Details:

Class/Degree	Board/University	Title/Stream	Year	Result
Ph. D.	APS University, Rewa	'Effects of urban air pollution on roadside vegetation with special reference to Lead toxicity.'	2008	Awarded (3 years)
M.Sc	APS University, Rewa	Botany	2004	First Division (68%)
B.Sc	APS University, Rewa	Botany, Zoology, Chemistry	2002	First Division (65%)
XIIth Std.	M.P.B.S.E, Bhopal	Biology, Physics, Chemistry	1998	First Division (62%)
Xth Std.	M.P.B.S.E, Bhopal	All Prescribed Subjects	1996	First Division (68%)

Projects (Completed):

- 'Preserved Products from Organic Produce in the campus: A feasibility study', Co-Project Investigator** – Dr. Mani Singh (Dept of EVS) and Ms. Upasana Gaggat (Dept of FT) A collaborative project of Department of EVS and Food technology Under Young Research Forum Scheme of University of Delhi. (2021).
- 'A model of Grassland Ecosystem and Commercial Applications as Ecosystem Services'** Department of EVS, Lakshmibai College, University of Delhi. Project Investigator: Dr Pratyush Vatsala and Co –Project Investigator: Dr Mani Singh. (2020-2022).

Faculty Induction/Faculty Development Programs:

From	To	FDPs
6/5/2024	15/05/2024	NEP 2020 Orientation & Sensitization Programme
26/6/2023	2/07/2023	1 week FDP on Higher Education–4.0 Making Teachers Future Ready
25/02/2023	27/3/2023	One month National Faculty Induction Programme/Orientation. Organised by LBC & SGTB, Delhi University
4/8/2020	8/8/2020	Five-day Faculty Development Workshop 'Content management system to learning management system'. Organised by Lakshmibai College, University of Delhi, India
14/02/2022	19/02/2022	Five Days Online Faculty Development Program on 'Mentoring for Institutional Social Responsibility and Facilitation for Community Engagement' Organised by MGNCRE, Ministry of Human Resource and Development, Delhi, India.

Trainings and Workshops attended: (09)

From	To	Training/Workshops
29/10/2012	10/11/2012	XXVII National Training Programme in Electron Microscopy for Scientific Investigators, All India Institute of Medical Sciences (AIIMS), New Delhi, India
10/1/2015	10/29/2015	<i>Satellite Remote Sensing of Particulate Matter Air Quality: Data, Tools, Methods and Applications</i> , National Aeronautics and Space Administration (NASA), Washington DC, USA
28/11/2016	1/12/2016	Newton Fund, Researcher Link, RSC Workshop on Urban air pollution in Indian and UK cities: Characterization and Prediction of chemically reactive pollutants, Indian Institute of Technology (IIT) , New Delhi, India
18/1/2021	27/1/2021	UGC STRIDE Workshop on “Bee keeping and management” at Mizoram University , Aizawl, Mizoram.
19/1/2021	27/1/2021	UGC STRIDE Workshop on “Molecular phylogeny and molecular docking” held at the Mizoram University .

Workshops, symposium and Seminars (Organized and coordinated): (5)

Year	Position	Workshops / symposium / Seminars
2021	Convenor	Special talk on “Covid -19 impacts on Air Pollution and Climate Change’, organized by Department of EVS, Lakshmibai College, University of Delhi. 7th April, 2021.
2022	Convenor	<i>One week talk series</i> Talk Series with plantation drive on the occasion of Van Mahotsav organized by Department of EVS, Lakshmibai College, University of Delhi. 1st July 2022 to 7th July 2022.
2022	Program Co-ordinator	<p><i>Workshop Series</i> organized by Department of EVS in association with Department of Home Science Lakshmibai College, University of Delhi on “Academic programme for UG students - Role of Life Sciences in Home Science, 2022.”</p> <p>a) Workshop 1- ‘Importance of Biodiversity and Its assessment in Home Science’. 15th September, 2022.</p> <p>b) Workshop 2- “Applications of Biotechnology and Cytology in home science’. 1st October, 2022.</p> <p>c) Hands on training on ‘Field identification of flora and fauna, Plant physiology and cytology practicals. 31st October 2022, (Scheduled)</p>

2022	Program Co-ordinator	<i>Seminar organized by Dept of EVS & NSS Lakshmibai College in collaboration with MCD, Keshawpuram Zone on “Extract and ground applications of solid waste management handling rule, 2016”. 17th October, 2022.</i>
2024	Coordinator	<i>Workshop organized by the Dept of Environmental Science, FET, JMI on “Environmental Impact and Assessment: scope and opportunity”. 5th June, 2024</i>

Seminars and Webinars (attended): (10)

- i) International Congress of Environmental Research, BITS Pilani, Goa, 18-20, December 2008.
- ii) Life Science Conclave 2012, Confederation of Indian Industry (CII), New Delhi, 11-12, December 2012.
- iii) CARBO-XXXI International Conference on New Frontiers in Carbohydrate Chemistry and Biology, University of Delhi, New Delhi, 14-16, Nov-2016. (*Plant Carbohydrates: New Frontiers in Herbal Medicines and Cosmetics.*)
- iv) 86th Annual Session, National Academy of Sciences, Deharadun, India, 02-04 Dec, 2016. (*Abstracts of the Research Papers in Biological Sciences*, Pandey Atindra and Singh Mani. *Genotoxic of hexaconazole in freshwater fish Channa spunctatus using alkaline single cell gel electrophores.*)
- v) Water Resource: Conservation for present and future India, School of Environmental Biology, Rewa (MP), 5th June 2018.
- vi) National Conference on Challenges and opportunities in life sciences for self-sustaining life security, organized by Department of Environmental Science, AKS University, Satna, MP. 18-19 August, 2020.
- vii) Webinar on National Education Policy, 2020 by Young Holistic (YoHo), School of Environmental Sciences, JNU organised on 27th August, 2020
- viii) Indo-Sri Lanka International Webinar 2021 (ISW21): *Global Trends in Algal Research: Environmental Restoration, Biomass Valorization and Sustainability*. IIT, Delhi, India and University of Moratuwa, Sri Lanka, 8th and 9th March 2021.
- ix) Using Mathematical Models to Understand Epidemics by Prof. Sunetra Gupta, Department of Zoology, University of Oxford, UK, organized by the School of Life Sciences, Mizoram University Aizawl, 19th May, 2021.
- x) Analysis of air quality trends in Delhi: Unveiling patterns of good to sever days from last 8 years. International conference on sustainable developments in air and waste

management.Organized by Aligarh Muslim University and University of Luxemburg, UK.
20-21st Dec, 2024.

Administrative Responsibilities at JMI campus:

From	To	Responsibilities/Achievements
2024	Till Date	Assistant Dean, Student's Welfare, Jamia Millia Islamia, New Delhi
2024	Till Date	Laboratory In-charge, Air Lab, Department of Environmental Science, JMI
2023	Till Date	Convener, Department Website Development, Department of Environmental Science, JMI
2023	Till Date	Coordinator, Departmental Activities, Department of Environmental Science, JMI
2023	Till Date	Teacher In-charge, Deptt Society 'Qudarat', Department of Environmental Science, JMI
2023	Till Date	Co-coordinator, Student's Grievance Committee
2023	Till Date	Co-convener, Departmental Student Event Organizing Committee, JMI
2023	Till Date	Convener, Subject Association Extension Lecture/ Event Report/Annual Report

Administrative Responsibilities/Achievements at LBC campus:

From	To	Responsibilities/Achievements
2020	2023	Member, Garden Committee - Garden landscaping and maintenance.
2019	2021	Teacher – in – Charge (TIC), Department of EVS, LBC
2020	2021	Member, Admission Committee
2020	2021	Member, Examination Committee in OBE
2019	2021	Preparation of NAAC evaluative report of Department of EVS and other reports related to environmental issues in all NAAC criteria
2019	2021	Key contribution in preparation and presentation of College report for NAAC.
2019	Till date	Solid waste management -Waste segregation, recycling, refurbishment, reduction and reuse: vermin-compost, <i>Aerobin (culture compost)</i> , Eco-brick formation, recycling of PET Bottle, paper meshes products, awareness programs.
2020	2022	Development of Ecopark – model grassland ecosystem
2020	2022	'Gokul' Development – Fruit orchards, Pond ecosystem, roof water harvesting, compost pits (conversion of a wasteland into a village prototype)
2021	Till date	Initiated Bee farming units – to enrich plant biodiversity of the campus.

2019	2019	Plant Biodiversity Assessment of LBC campus
2021	2021	Development of organic produce (food items and cosmetics) from Tangerine fruit of the campus.
2023	Till date	Nodal Officer, Waste Management and Vector Borne Disease Control Developed LBC as a zero waste generating campus in 2023.

Responsibilities/Achievements other than LBC campus:

- i) Establishment of Medicinal Plant Garden in Girls P G College, Rewa, MP.
- ii) Plantation for Green Campus in School of Environmental Biology APSU, Rewa, MP.
- iii) Training Research Scholars on handling and sample analysis using AAS, Digital Spectrophotometer and Microscopic techniques.
- iv) Identification of rare plant species in local Vindhyan flora viz. *Rauwolfia serpentina*, *Sturculia uriens*
- v) Conducted solid waste management and recycling project in the college campus under the World Wildlife Fund (WWF).

Sports and cultural activities:

- vi) First positions in solo and duet dance competitions and group song competition on annual day of college.
- vii) First in Badminton single at district level and played state qualifying in doubles and ranked first in the 100 m race competition.
- viii) First positions in Poster Competition on Environmental day, Speech competition on wildlife conservation day and several other competitions.

Future Plans:

- i) Project on "Alleviating smog problem in Delhi through physical interventions and phytoremediation"
- ii) Project on "Treatment of laboratory effluents through algal species for sustainable green campus"

List of Publications:

Books and Book Chapters:

- 1) Singh Mani, Singh PK, Kulshreshtha UC, (2025). Microplastics: An Invisible Air Pollutant of New Era, Book Societal and Environmental Ramifications of Plastic Pollution. edited by Nisha Gaur, Eti Sharma, Tuan Anh Nguyen, Muhammad Bilal, Niranjana Prakash Melkania IGI Global, Hershey, Pennsylvania. Copyright: © 2025. ISBN13: 9798369391631. DOI: 10.4018/979-8-3693-9163-1.ch002
- 2) Singh Anamika and Singh Mani, (2022). Concepts of Medicinal Botany. IK International Publisher, New Delhi, India. ISBN: 9789390620524.
- 3) Singh Mani, (2021). Fungi and Nitrogen Cycle: symbiotic relationship, mechanism and significance, Book Soil Nitrogen Ecology, Soil biology, 62. Edited by Critiana Cruze,

Kanchan Vishwakarma, Devendar Chaoudhary, Ajit Verma, Springer Nature Switzerland AZ. ISBN: 9783030712051 https://doi.org/10.1007/978-3-030-71206-8_20

- 4) **Singh Mani**, (2017). Climate Change: Managing Impact Through Policies, Book Air Pollution and Climate Change in South Asia: Issues, Impact and Initiatives. Edited by Dr Umesh Chandra Kulshreshtha, Athena Academic Ltd, London, United Kingdom. ISBN : 9781910390344

Paper publications:

- 1) Yamal Gupta, **Singh Mani**, Pardha-Saradhi P, Rao K S (2022). Roots of Pennisetum sp. possess the competence to generate nanoparticles of noble metals. *IJB Vol.59(4)*, 461-467. 0975-0959 (Online); 0301-1208 (Print). **IF -1.918** (Scopus indexed)
<http://nopr.niscair.res.in/handle/123456789/59505>
- 2) Biswajit Patra, Ramovatar Meena, Rosina Rosalin, **Mani Singh**, R Paulraj, Ramesh Kumar Ekka, Surya Narayan Pradhan (2022). Untargeted Metabolomics in *Piper betle* Leaf Extracts to Discriminate the Cultivars of Coastal Odisha, India. *Applied Biochemistry and Biotechnology*. 194, 4362-4376. ISSN: 0273-2289. **IF- 2.78** (Scopus indexed)
<https://doi.org/10.1007/s12010-022-03873-0>
- 3) **Singh Mani** (2020). "Changing characteristics of ambient aerosols in the smaller urban center in India". *Indian Journal of Environmental Protection*. Vol. 40 No. 03 pp 227-234. Print ISSN: 0253-7141. (UGC Care)
<https://www.e-ijep.co.in/283-289-mani-singh-h-95/>
- 4) **Singh Mani** (2020), "Future Challenges for Emerging Educational Environment due to Covid 19 Lockdown", *Current world environment*, Vol 15, No 3, pp 607-612. ISSN: 0973-4929, Online ISSN: 2320-8031. (UGC Care)
DOI : <http://dx.doi.org/10.12944/CWE.15.3.24>
- 5) Singh J S, Kumar Arun and **Singh Mani** (2019). Cyanobacteria: A sustainable and commercial bio-resource in production of bio-fertilizer and bio-fuel from waste waters. *Environmental and Sustainability Indicators*. 3.4, 1-8, ISSN 2665-9727. (Scopus Indexed) <http://doi.org/10.1016/j.indic.2019.100008> Open access publication. **SJR - 0.703, IS- 4.05**
- 6) Navin Chandra Durgapal, **Mani Singh**, Atindra Kumar Pandey and Y D Pandey. "Assessment of toxicity level in Bagad River and its impact on ground water bodies". *The Indian Journal of Applied and Basic Research*, Vol 2 (5): 154-158, (2017). E-ISSN No: 2454-4639.
- 7) **Singh Mani**, Singh Gunjana and Mishra R.M., "Trend of Particulate Matter in the Ambient Air of a Small City in India", *The Indian Journal of Applied and Basic Research*, Vol 1 (4): 70-76, (2016). E-ISSN No: 2454-4639.
- 8) **Singh Mani** and Mishra R.M.: Ambient Lead (Pb) concentration, bioaccumulation and its effects on leaf epidermal structures *Bougainvillea spectabilis*. *International Journal of Applied Environmental Sciences*. 5, (2): PP. 201-213, of (2010). Print ISSN No:0973-6077, online ISSN No: 0974-0260. (Scopus Indexed)

- 9) Mishra R.M. Tiwari M.K. and **Singh Mani**: Cement plant air pollution, impact on human health with special reference to village Bela, Rewa (M.P.). *Journal of Current Sciences*, 9 (1): 301 – 304, (2006). ISSN 0972-6101.

Publications on other subjects:

- 1) Singh Mani, Singh P K, Singh Rina, (2020). Paryavaran Vigyan Ki Shiksha: Avashyakta, Avasar va Chunautiyan. Adhigam, vol 14, PP: 22-25, ISSN 2394-773X
- 2) **Singh Mani** (2018). 'Atal Bihari Vajpayee: Loktantrik Netritva, Gathbandhan tatha Vikas ke Naye Pratiman' *Shodh*. XV, 374 – 381. ISSN 0970-1745.
- 3) **Singh Mani**, Singh P.K (2017). 'Challenges and Responsibilities of Teaching in Emerging India', *Journal of Indian Education*, NCERT, New Delhi, Vol XLII (2), 45-60. Print ISSN 0972-5628, 2959
- 4) **Singh Mani** (2015). 'Khel Khel Mein Vigyan', Prathmik Shikshak, NCERT, New Delhi, in Press, vol 39, no 1, January. PP: 34-40. ISSN 970-9312.

Popular articles:

- 1) Singh P K, Singh Mani, (January 2025). **Climate Diplomacy in 2025: A focus on India's leadership in COP 30.** *Extraordinary and Plenipotentiary Diplomatist • Vol 13 • Issue 1 • January 2025, Noida, Page 46-47.* ISSN 2349 557X
- 2) Singh Mani, (April 2017). **Should You Bother for Climate Change.** *Smart Citizen, Smart Habitat.* Page 9-10.
- 3) Singh Mani (May 2012). '**Paryavaran aur Hamari Zimmedari**'. Hindi Magazine-Sanchar Media, Page 12.
