



Dr. Arun Srivastava, Ph. D.

Associate Professor

School of Environmental Sciences,

Mob: 9868088440, Tel: 011-2673 8706 (O)

E-mail: a_srivastava@mail.jnu.ac.in, srivastava02@hotmail.com

Web: <https://www.jnu.ac.in/Faculty/aksrivastava/>

Education:

- Ph. D. (Environmental Science) – SES, JNU, New Delhi
- M. Phil. (Environmental Science) – SES, JNU, New Delhi
- M. Sc. (Applied Geology) – University of Allahabad, Allahabad
- B. Sc. (Physics, Math, Chemistry) – Purvanchal University, Jaunpur

Postdoctoral Research:

- School of Environmental Science (SES), JNU, New Delhi
- Institute for Methodologies in Environmental Analysis (IMAA), Council for National Research (CNR), Tito Scalo, Potenza, Italy
- Department of Environmental Science and Energy Research (ESER), Weizmann Institute of Science, Rehovot, Israel.
- Centre for Atmospheric Science, IIT Delhi, New Delhi

Research Interest:

Chemistry and microphysics of size segregated aerosols, Optical properties of aerosol, Bioaerosols, Source identification of urban aerosols, Indoor air pollution, Radiative forcing due to aerosols, Health and climate implication due to air pollution.

Projects:

1. Assessment of Mycotoxins, Endotoxins and Microbial VOCs levels in the Ambient Environment of Delhi, UPoE, UGC, New Delhi (2018-2021).
2. Characterization of Bio-Aerosols in Different Size Ranges over Delhi, University Grant Commission, New Delhi, India (2013-2017)
3. Application of Aerosol Optical Depths (ground and satellite based) for the estimation of size segregated Suspended Particulate Matters (SPM) in Delhi, University Grant Commission, New Delhi, India (2008-2011).
4. Physical and Chemical Characterization of Aerosols over Delhi in Different Size Ranges, Department of Science and Technology, New Delhi, India (2005-2008)

Workshops and Symposia Organised:

1. Organised GIAN (Global Initiatives of Academic Networks) course on “A hybrid approach to develop time space resolved estimates of air quality” during 18-22 June 2018 at SES, JNU, with Dr. Naresh Kumar, Miller School of Medicine, University of Miami, Florida.
2. Successfully organised one day National Conference (NEISS-22) in SES, JNU, New Delhi on 22nd April 2022

Member:

1. Air and Waste management Association (AWMA), United States
2. Indian Aerosol Science and Technology Association, BARC, Mumbai, India.
3. Bureau of Indian Standards (BIS) sectional committee on Air Purifiers and Air Pollution Standards CHD35.

Desk Editor: Journal of Atmospheric and Earth Sciences

Guest Editor: Frontiers in Environmental Sciences

Adjunct Faculty:

1. Associated faculty at Atal Bihari Vajpayee School of Management and Entrepreneurship, JNU, New Delhi.
2. Concurrent faculty at Special Centre for E-Learning, JNU, New Delhi.
3. Adjunct faculty at the School of Engineering (SoE), JNU, New Delhi

Reviewer for Journals:

Journal of Hazardous Materials, Indoor Air, Aerosol and Air Quality Research, Science of Total Environment, Atmospheric Research, Environmental Science and Technology, Aerobiologia, Journal of Environmental Management, Environmental Analytical Chemistry, Chemosphere, Atmospheric Environment, Transportation Research, Journal of Human and Ecological Risk Assessment, World Applied Science Journal, African Journal of Biotechnology, National Academy of Science Letter, Nature Communication etc.

Reviewer for Book:

1. McGraw Hill Publishing Company
2. Pearson Books Pvt. Ltd.

Awards and Honours:

1. Global Initiative for Academic Network (GIAN) under UGC-MHRD scheme.
2. Young Scientist Project under DST's Fast Track Scheme in Earth and Atmospheric Sciences.
3. National Level Eligibility Test of Council and Scientific and Industrial Research (CSIR) in Earth Sciences.

List of Publications

1. **Arun Srivastava**, Swati Tyagi, Characterization of size segregated fungal bioaerosols in and around a Sugar Mill of Western Uttar Pradesh, India, **Aerobiologia** (under revision) (2023).
2. **Arun Srivastava**, Richa Verma, Dudun Mehta, Characterization of bioaerosols in and around a landfill site in Delhi, **Aerobiologia**, **37**, 585–596 (2021).
3. **Arun Srivastava**, COVID-19 and air pollution and meteorology-an intricate relationship: A review, **Chemosphere** **263**, 128297 (2021).
4. Akash Kumar Singh, Naba Hazarika, Ujjwal Kumar, **Arun Srivastava**, Assessment of size distribution of aerosols at indoor environments in Delhi, India, **Urban Climate**, **37**, 100819 (2020).
5. Akash Kumar Singh, Arun Srivastava, Seasonal Trends of Organic and Elemental Carbon in PM₁ Measured Over an Industrial Area of Delhi, India, *Aerosols Science and Engineering* (2021), <https://doi.org/10.1007/s41810-020-00088-w>.
6. Akash Kumar Singh, **Arun Srivastava**, Seasonal Variation of Carbonaceous Species in PM₁ Measured Over Residential Area of Delhi, India, **SN Applied Sciences**, **2**, 1998, (2020).
7. Akash Kumar Singh, **Arun Srivastava**, The Impact of Fireworks Emissions on Air Quality in Delhi, India, **Environmental Claims Journal**, **32** (4), 289-309 (2020).
8. Sunita Maharia, **Arun Srivastava**, Seasonal effects in Endotoxin concentration at different sections of a Sewage Treatment Plant, Delhi, **Aerobiologia**, **36**, 449–458 (2020).
9. Dudun Mehta, Naba Hazarika, **Arun Srivastava**, Diurnal variation of BTEX at road-traffic intersection points in Delhi, India: Source, ozone formation potential and health risk assessment, **Environmental Science & Pollution Research**, **27**, 11093–11104 (2020).
10. Naba Hazarika, Arunangshu Das, Vikas Kamal, Khalid Anwar, **Arun Srivastava**, V. K. Jain, Particle phase PAHs in the atmosphere of Delhi-NCR: With spatial distribution, source characterisation and risk approximation, **Atmospheric Environment**, **200**, 329–342 (2019).
11. Naba Hazarika, **Arun Srivastava**, Estimation of risk factor of elements and PAHs in size-differentiated particles in the National Capital Region of India, **Air Quality, Atmosphere & Health** **10**(4), 469-482 (2017).
12. Naba Hazarika, **Arun Srivastava**, Arunangshu Das, Quantification of particle bound metallic load and PAHs in urban environment of Delhi, India: Source and toxicity Assessment, **Sustainable Cities and Society** **29**, 58-67 (2017).
13. Himanshu Lal, Bipasha Ghosh, **Arun Srivastava**, Identification and characterization of size-segregated bioaerosols at different sites in Delhi, **Aerosol and Air Quality Research** **17**, 1570-1581 (2017).
14. Arvind Saraswat, Milind Kandlikar, Michael Brauer, **Arun Srivastava**, PM_{2.5} population exposure in New Delhi using a probabilistic simulation framework, **Environmental Science & Technology** **50** (6), 3174–3183 (2016).

15. Sumant Kumar, Sagnik Dey, **Arun Srivastava**, Quantifying enhancement in aerosol radiative forcing during 'extreme aerosol days' in summer at Delhi National Capital Region, India, **Science of the Total Environment**, 550, 994-1000 (2016).
16. Bipasha Ghosh, Himanshu Lal, **Arun Srivastava**, Review of Bioaerosols with Special Reference to Sampling, Analysis and Control mechanisms, **Environment International** 85, 254–272 (2015).
17. Naba Hazarika, V. K. Jain, **Arun Srivastava**, Source identification and metallic profiles of size-segregated particulate matters at various sites in Delhi, **Environmental Monitoring and Assessment** 187, 602 (2015).
18. Sunita Maharia, **Arun Srivastava**, Influence of seasonal variation on concentration of fungal bioaerosol at a Sewage Treatment Plant (STP) in Delhi, **Aerobiologia** 31, 249-260 (2015).
19. Amit Mishra, Takashi Shibata, **Arun Srivastava**, Synergistic approach for the aerosol monitoring and identification of types over Indo-Gangetic Basin in pre-monsoon season, **Aerosol and Air Quality Research** 14, 767-782 (2014).
20. Rajesh Kushwaha, Arun Srivastava, Himanshu Lal and VK Jain, Traffic-related aerosol exposure and their risk assessment of associated metals in Delhi, India, **International Journal of Environment**, 2(5), 26-36 (2013).
21. Bipasha Ghosh, Himanshu Lal, Rajesh Kushwaha, Naba Hazarika, Arun Srivastava, V K Jain, Estimation of Bio aerosol in indoor environment in university library of Delhi, **Sustainable Environment Research** 23, 199-207 (2013).
22. Rajesh Kushwaha, Naba Hazarika, **Arun Srivastava**, SEM-EDX analysis of size segregated particulate matter in Allahabad located in north India, **International Journal of Advanced Research**, 1 (5), 248-255 (2013).
23. Himanshu Lal, Bipasha Ghosh, Teenu Punia, **Arun Srivastava**, V. K. Jain, Comparative study of bioaerosol during monsoon and post- monsoon seasons at four sensitive sites in Delhi region, **International Journal of Advancement in earth and Environmental Sciences**, , 1 (2), 1-7 (2013).
24. Amit Mishra, Arun Srivastava, Takashi Shibata and V. K. Jain, Pre-monsoonal characteristics of aerosol loading over the Indo-Gangetic Basin (IGB) - Synergetic analyses of MODIS, AERONET and MICROTOP II Sunphotometer observations, **Sustainable Environment Research**, , 23(2), 113-128 (2013).
25. Rajesh Kushwaha, **Arun Srivastava**, Himanshu Lal, Bipasha Ghosh and V. K. Jain, Human Exposure to Particulate Matter and Their Risk Assessment over Delhi, India, **National Academy of Science Letters** 35 (6) 497-504 (2012).
26. **Arun Srivastava** and V. K. Jain, Applying SEM–EDX and XRD techniques to demonstrate the overgrowth of atmospheric soot and its coalescence with crystal silicate particles in Delhi, **Atmospheric and Climate Sciences**, 2, 89-93 (2012).
27. **Arun Srivastava**, Manish Singh and V. K. Jain, Identification and characterization of size segregated bio-aerosol at Jawaharlal Nehru University, New Delhi, **Natural Hazards** 60 (2), 485-499 (2012).
28. Rajesh Kushwaha, **Arun Srivastava**, Himanshu Lal, Bipasha Ghosh and V. K. Jain, Particle size distribution of aerosols and associated metals, and source estimation in

- Delhi, India using personal sampler, **Sustainable Environment Research**, 22(5), 317-325 (2012).
29. Sandeep Gupta, Krishan Kumar, **Arun Sriavstava**, Alok Srivastava and V. K. Jain, Size distribution and source apportionment of polycyclic aromatic hydrocarbons (PAHs) in aerosol particle samples from the atmospheric environment of Delhi, India, **Science of the Total Environment**, 409 (22) 4674-80 (2011).
 30. Arun Srivastava, V.K. Jain and Anchal Srivastava, SEM-EDX Analysis of Various Sizes Aerosols in Delhi, India, **Environmental Monitoring and Assessment**, (2009),150, 406-416.
 31. **Arun Srivastava**, Sandeep Gupta and V. K. Jain, Winter-time size distribution and source apportionment of suspended particulate matters and associated metals in Delhi, **Atmospheric Research**, 92 (1), 88-99 (2009).
 32. **Arun Srivastava**, Sandeep Gupta and V. K. Jain, Source apportionment of total suspended particulate matter in coarse and fine size ranges over Delhi, **Aerosol and Air Quality Research**, 8(2), 188-200 (2008).
 33. Sandeep Gupta, **Arun Srivastava** and V. K. Jain, Study of particle size distribution of indoor aerosol due to combustion of cooking fuels, **Environmental Monitoring and Assessment**, 142, 141-148 (2008).
 34. **Arun Srivastava** and V. K. Jain, Source apportionment of suspended particulate matters in a clean area of Delhi: a note, **Transportation Research Part D – Transport and Environment** 13(1), 59-63 (2008).
 35. **Arun Srivastava** and V. K. Jain, Size distribution and source identification of total suspended particulate matter and associated heavy metals in the urban atmosphere of Delhi, **Chemosphere**, 68, 579-589 (2007).
 36. **Arun Srivastava** and V. K. Jain, Seasonal trends in coarse and fine particle sources in Delhi by the chemical mass balance receptor model, **Journal of Hazardous Materials**, 144 (1-2), 283-291 (2007).
 37. **Arun Srivastava** and V. K. Jain, A study to characterize the suspended particulate matters in an indoor environment in Delhi, India, **Building and Environment**, 42, (5), 2046-2052 (2007).
 38. **Arun Srivastava** and V. K. Jain, A study to characterize the influence of outdoor SPM and associated metals on the indoor environments in Delhi, **Journal of Environmental Science and Engineering**, 47 (3), 222-231 (2005).
 39. **Arun Srivastava**, V. K. Jain and H. N. Dutta, Surface wind characterization at an Antarctic coastal station Maitri, **Mausam**, 55 (1), 95-102 (2004).
 40. **Arun Srivastava** and V. K. Jain, Relationships between indoor and outdoor air quality in Delhi, **Indoor & Built Environment**, 12(3), 159-165 (2003).