

Resume of S. N. Tripathi

Name: Sachchida Nand Tripathi

Nationality: Indian

Date of Birth: July 24, 1971

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Present Designation: Professor, Indian Institute of Technology–Kanpur

Positions held

- Dec 2000-Dec 2001 Visiting Scientist, Environmental Assessment Division, Bhabha Atomic Research Centre, Mumbai, India.
- Jan 2002-July 2003 Post Doctoral Research Assistant, Atmospheric, Oceanic and Planetary Physics, Department of Physics, University of Oxford, UK.
- July 2003-Dec 2007 Assistant Professor, Department of Civil Engineering, Indian Institute of Technology-Kanpur, Kanpur, India.
- June 2004 Visiting Researcher, NOAA Aeronomy Laboratory, Boulder, USA.
- May-July 2006 Visiting Associate Professor, Centre for Climate System Research, The University of Tokyo, Japan.
- Jan 2008-Mar 2012 Associate Professor, Department of Civil Engineering and Centre for Environmental Science & Engineering, Indian Institute of Technology-Kanpur, Kanpur, India.
- Aug 2009-July 2010 Senior Fellow, NASA Goddard Space Flight Center, Greenbelt, Maryland, USA.
- April 2012-till date Professor, Department of Civil Engineering and Centre for Environmental Science & Engineering, Indian Institute of Technology-Kanpur, Kanpur, India.

May-July 2012	Professor, Laboratoire de Physique et Chimie de Environnement, University of Orleans, France.
June-July 2014	Visiting Professor, School of Civil Environmental Engineering, Georgia Institute of Technology, USA.
Nov 2014 onwards	Adjunct Professor, Department of Earth Sciences, IIT-Kanpur, Kanpur, India.
Nov 2014-Oct 2017	Coordinator, Centre for Environmental Science & Engineering, IIT-Kanpur, Kanpur, India.
December 2015	Visiting Professor, School of Civil Environmental Engineering, Georgia Institute of Technology, USA.
June 2018–May 2021	Head, Department of Civil Engineering, IIT-Kanpur, Kanpur, India.

Academic Background: B.Tech. (Civil Engineering), IIT-BHU (1992)
M.Tech. (Environmental Engineering), MNIT-Allahabad (1994)
Ph.D. (Environmental Engineering), University of Reading, UK (2000)

Citation Analysis

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Thesis Supervision

(a) PH.D supervised

Sr.No.	Name	Year	Title/Current Position
9.	Shamjad P.M.	2017	Impact of carbonaceous aerosol absorption and mixing state on direct radiative forcing in Kanpur-India. <i>Current position:</i> Postdoctoral Fellow, Aarhus University, Denmark.
8.	Chandan Sarangi	2017	Understanding aerosol-surface-cloud-rainfall interactions within Indian summer monsoon region. <i>Current position:</i> Postdoctoral Fellow, Pacific Northwest National Laboratory, Washington, USA,
7.	Abhishek Chakraborty	2016	Fog and organic aerosols interactions: processing, sources, and composition. <i>Current position:</i> Postdoctoral Fellow, Douai School of Engineering, Douai, France
6.	Deepika Bhattu	2016	Effect of aerosol size, chemical composition, mixing state and volatility on cloud condensation nuclei activity

			in the ambient atmosphere. <i>Current position:</i> Postdoctoral Fellow, Paul Scherrer Institut, Switzerland
5.	Chiranjib Chaudhari	2015	Characteristics of historical climate change over Indo-Gangetic basin: Observational analysis and numerical modeling. <i>Current position:</i> Catastrophe Modeler at Risk Management Solution, New Delhi
4.	Daya Shankar Kaul	2014	Understanding the formation of organic aerosol in urban environment during foggy and nonfoggy episodes. <i>Current position:</i> Postdoctoral Fellow, Hong Kong, China
3.	J. Jaidevi	2012	Effects of fine particulate matter on human health and climate. <i>Current position:</i> Assistant Professor, IITRAM, Ahmedabad
2.	Sumit Kumar Mishra	2011	Numerical estimation of optical properties of pure and polluted mineral dust particle. <i>Current Position:</i> Scientist, Radio and Atmospheric Sciences Division, National Physical Laboratory, New Delhi
1.	Sagnik Dey	2008	Aerosol radiative effects in Kanpur in the Indo-Gangetic basin, northern India. <i>Current position:</i> Assistant Professor, Dept. of CAS, IIT-Delhi

Ongoing PhD students: 09

(b) M.Tech thesis supervised

Sr.No.	Name	Year	Title/Current Position
27.	Mithun Krishnan K.V.	2017	Seasonal dynamics of surface energy balance over a semi-natural grass land in central Indo-Gangetic Basin. <i>Current position:</i> Pursuing PhD under my guidance in Department of Civil Engineering, IIT Kanpur
26.	Geet George	2017	Characterisation of cloud vertical structure (CVS) and cloud radiative forcing (CRF) over Kanpur. <i>Current position:</i> PhD Student, Max Planck Institute for Meteorology, Hamburg, Germany
25.	Bhuvana Joshi	2016	Real time size resolved analysis of organics in Kanpur city: A comparative study between fog and no-fog periods. <i>Current position:</i> Research Scholar, under my guidance in Department of Civil Engineering, IIT Kanpur
24.	Kuntamukkala Pavan Kumar	2016	Black carbon aerosol microphysical properties variation and electron microscopy study of PM205 in Kanpur. <i>Current Position:</i>
23.	Tirthankar Chakraborty	2015	Understanding urban Micrometeorology and its impact on the heat island of greater Kanpur. <i>Current Position:</i> Research Scholar, under my guidance

			in Department of Civil Engineering, IIT- Kanpur, Kanpur
22.	Kundan Kumar	2015	Aerosol Direct Radiative forcing over Indo-Gangetic basin during pre-monsoon season using WRF-CHEM. <i>Current Position:</i> Assistant Executive Engineer, Office of the Panchayat Raj Superintendent Engineer, Panchayat Raj Circle Adilabad, Tilangana
21.	Vipul Lalchandani	2014	The need for site-, season- and instrument-specific calibrations of a photo-reference method for determining aerosol Black Carbon concentrations and examining color signal of Organic carbon particles. <i>Current Position:</i> Assistant Manager, Enkay Enviro Services Pvt. Ltd, Jaipur, Rajasthan
20.	Amit Sharma	2014	Assessing health impact of Particulate Matter using Weather Research Forecasting-Chem model over IG Basin. <i>Current Position:</i> Ahmedabad
19.	Anubhav Dwivedi	2013	Investigation of activation kinetics of laboratory generated and ambient particles <i>Current Position:</i> pursuing PhD under my guidance in Department of Civil Engineering, IIT-Kanpur, Kanpur
18.	Rosalin Dalai	2013	Role of aerosol type and mixing state on CCN activity <i>Current Position:</i> IIT- Bhubaneswar
17.	Shamjad P.M.	2011	Hygroscopicity, mixing state and enhanced absorption of aerosols <i>Current Position:</i> pursuing PhD under my guidance in Department of Civil Engineering, IIT- Kanpur
16.	Priya Choudhry	2011	Validation of MODIS-retrieved AOD over Indo-Gangetic Plain. <i>Current Position:</i> Evalueserve, New Delhi
15.	Monika Srivastava	2011	Aircraft-based CCN Closure <i>Current Position:</i> BBD University, Lucknow
14.	Pawan Kumar Bharti	2010	A study of inter and intra variation seasonal of surface Cloud Condensation Nuclei and chemical closure in Kanpur <i>Current Position:</i> SIDBI, Ludhiana
13.	Vishnu Patidar	2009	First surface, spatial and vertical measurements of Cloud Condensation Nuclei (CCN) over Indian CTCZ region. <i>Current Position:</i> Environmental Engineer
12.	Jariwala Chinmay G.	2009	An observational and laboratory study on the effects of Cloud Condensation Nuclei and black carbon aerosol on fog persistence. <i>Current Position:</i> Environmental Engineer, Dar AL-Handasah, Pune
11.	Vivek Pratap Singh	2008	An experimental investigation of the effects of environmental and fog condensation nuclei parameters on rate of fog dissipation. <i>Current Position:</i> Engineer, Manali
10.	Sanjay Prakash Baxla	2008	A study of ambient ultra fine aerosols using SMPS. <i>Current Position:</i>
9.	Anirban Roy	2008	Measurement and simulation of particulate aerosols. <i>Current Position:</i> Ph.D. Student, Carnegie Mellon

			University, USA
8.	Anilkumar D. Vanga	2007	A numerical study of new particle formation in cirrus cloud. <i>Current Position:</i> Engineer, Jones Lang LaSalle, Mumbai
7.	Sudip Chakraborty	2006	Long term changes in surface and columnar water vapor over North India. <i>Current Position:</i> Ph.D. Student, The University of Texas at Austin, USA
6.	Abani Patnaik	2006	Climatology of cloud and aerosol over the Indian subcontinent and adjoining oceans. <i>Current Position:</i> Offshore Structural Engineer, L&T, Mumbai
5.	Roma Srivastava	2006	Study of trace gas concentration over Kanpur region. <i>Current Position:</i> Lecturer, Hindustan College of Engineering, Agra
4.	Parul Sharma	2006	Study of aerosol chemical composition over Kanpur region. <i>Current Position:</i> Software Engineer, WIPRO, Bangalore,
3.	Tanveer Ahmed	2005	Charging of radioactive aerosols containment wall of pressurized water reactor. <i>Current Position:</i> Post-Doctoral Fellow, Scripps Institute of Oceanography, San Diego, USA
2.	Nagesh Chinnam	2005	Analysis of ambient particles by high volume sampler and PM10.
1.	Shyam Kishor	2005	Investigation into seasonal and diurnal formation of atmospheric nitrate.

(c) Dual Degree B. Tech-M.Tech thesis supervised

Sr.No.	Name	Year	Title/Current Position
5.	Bharath Kumar	2015	Source Apportionment of Sub Micron Aerosol Over Kanpur. <i>Current position:</i> Business Analyst, ZS Associates, Gurgaon
4.	Karn Vohra	2015	A chamber study to understand aerosol deposition phenomena. <i>Current position:</i> Gurgaon
3.	Alabhya Mishra	2014	Electrical properties of Titan and Earth Atmospheres. <i>Current position:</i> Bangalore
2.	Arun Yadav	2013	An evaluation of WRF-Chem model over the Indian Domain <i>Current position:</i> Flipkart, Bangalore
1.	Akhilesh Rawal	2012	Study of ion-aerosol near-cloud mechanism to explain cosmic ray-cloud-climate conundrum <i>Current position:</i> New Delhi

(d) B. Tech- project supervised

Sr.No.	Name	Year	Title
5.	Praveen/Naveen	2007	A study of effects of black carbon on cloud

			microphysical properties using a two-dimensional cloud model
4.	Nikhil/Gaurav	2006	Retrieval of aerosol organic carbon obtained due to biomass burning from various locations of the world.
3.	Shiwesh/Sameer	2005	Parameterization of collision efficiency between of electrically charged aerosol particles and cloud of droplets.
2.	Ashwyn/Sandip	2005	Numerical investigation of atmospheric fogs.
1.	Abhishek/Chandel	2004	Comparison of satellite derived aerosol parameters with ground measured data over Gangetic Basin.

Field of Specialization: Atmospheric Science

I conduct laboratory experiments of aerosols to quantify their spectral absorption, hygroscopic and microphysical properties. We also formulate various modeling tools to improve process-level understanding (e.g. role of mixing state, brown carbon) of these properties including new particle formation.

In addition, I am conducting comprehensive analyses to improve our understanding of physical and optical properties of aerosols over the Indo-Gangetic Basin. This involves aerosol-related data from various platforms including long-term ground based and satellite, as well as intensive short-term campaign. Our ultimate goal is to accurately represent aerosol effects in the regional climate-chemistry models that are used to estimate the climate and health impacts of aerosols over the Indo-Gangetic Basin. I am also interested in the development of new techniques for measurement of aerosol absorption.

Professional Recognitions

- UP Ratna Award, Government of Uttar Pradesh (2018)
- Distinguished Alumnus Award, Banaras Hindu University (2015)
- Elected Fellow, The National Academy of Sciences, India (2015)
- Rajeeva and Sangeeta Lahri Chair Professor (2015-2018)
- Elected Fellow, Indian National Academy of Engineering (2015)
- Shanti Swarup Bhatnagar Prize in Earth, Atmosphere, Ocean and Planetary Sciences (2014)
- Sir M. Visvesaraya Research Fellowship for excellence in teaching and Research (2009-2012)
- NASA Senior Fellowship (2009-2010)
- NASI-SCOPUS Young Scientist Award for highest citation in Earth Sciences (2009)
- All India Council of Technical Education, Young Teacher Career Award (2003)

Other Recognitions

- Member, Research Council of CSIR-National Environmental Engineering Research Institute, 2017-2020.
- Member, Editorial Board, Journal of Aerosol Science, 2016-2019.

- Member, Advisory Board of Environmental Science: Processes & Impacts - A Royal Society of Chemistry Publication, 2016-2018.
- Academic Editor (member of the Editorial Board) of PLOS ONE (2014)

Publications

138. Trent, M, R. Dreibelbis, A. Bir, S.N. Tripathi et al., 2018, Access to household water quality information leads to safer water: A cluster randomized controlled trial in India, *Environmental Science & Technology*, DOI: 10.1021/acs.est.8b00035.
137. Sarangi, C., S. N. Tripathi et al., 2018, Aerosol and urban land use effect on rainfall around cities in Indo-Gangetic Basin from observations and cloud resolving model simulations, *Journal of Geophysical Research – Atmospheres*, 123, 3645-3667.
136. George, G, C. Sarangi, S.N. Tripathi, T. Chakraborty and A. Turner, 2018, Vertical structure and radiative forcing of monsoon clouds over Kanpur during the 2016 INCOMPASS field campaign, *Journal of Geophysical Research – Atmospheres*, 123, 2152-2174.
135. Chakraborty, A., S.N. Tripathi et al., 2018, Realtime chemical characterization of post monsoon organic aerosols in a polluted urban city: sources, composition, and comparison with other seasons, *Environmental Pollution*, 232, 310-321.
134. Shamjad, P.M., S.N. Tripathi et al., 2018, Absorbing refractive index and direct radiative forcing of atmospheric brown carbon over Gangetic Plain, *ACS Earth and Space Chemistry*, 2, 31-37.
133. Holben, B.N., S.N. Tripathi et al., 2018, An overview of mesoscale aerosol processes, comparison and validation studies from DRAGON networks, *Atmospheric Chemistry and Physics*, 18, 655-671.
132. Mhawish, A., T. Banerjee, D.M. Broday, Amit. Misra and S.N. Tripathi, 2017, Evaluation of MODIS collection 6 aerosol retrieval algorithms over Indo-Gangetic Plain: Implications of aerosols types and mass loading, *Remote Sensing of Environment*, 201, 297-313.
131. Thamban, N., S.N. Tripathi et al., 2017, Internally mixed black carbon in the Indo-Gangetic Plain and its effect on absorption enhancement, *Atmospheric Research*, 197, 211-223.
130. Lal, S., S. Venkataramani, S.N. Tripathi et al., 2017, Loss of crop yields in India due to surface ozone: An estimation based on a network of observations, *Environmental Science and Pollution Research*, DOI 10.1007/s11356-017-9729-3.
129. Mishra, S.K., N. Saha, S.N. Tripathi et al., 2017, Morphology, mineralogy and mixing of individual atmospheric particles over Kanpur (IGP): Relevance of homogeneous equivalent sphere approximation in radiative models, *MAPAN-Journal of Metrology Society of India*, 32(3), 229-241.
128. Satish, R., P.M. Shamjad, Thamban Navaneeth, S.N. Tripathi and N. Rastogi, 2017, Temporal characteristics of brown carbon over the central Indo-Gangetic Plain, *Environmental Science & Technology*, 51(12), 6765–6772.
127. Chowdhury, S., S. Dey, S.N. Tripathi et al., 2017, “Traffic intervention” policy fails to mitigate air pollution in megacity Delhi, *Environmental Science and Policy*, 74, 8-13.
126. Sarangi, C., S.N. Tripathi et al., 2017, Investigation of aerosol-cloud-rainfall association over Indian Summer Monsoon region, *Atmospheric Chemistry and Physics*, 17, 5185–5204.

125. Dimri, A.P., S.N. Tripathi et al., 2017, Cloudbursts in Indian Himalayas: A review, *Earth Science Reviews*, 168, 1-23.
124. Yu, H., L. Dai, Y. Zhao, V.P. Kanawade, S.N. Tripathi et al., 2017, Laboratory observations of temperature and humidity dependencies of nucleation and growth rates of sub-3 nm particles, *Journal of Geophysical Research - Atmospheres*, 122, DOI:10.1002/2016JD025619.
123. Soni, P., S.N. Tripathi and R. Srivastava, 2017, Radiative effects of black carbon aerosols on Indian monsoon: A study using WRF-Chem model, *Theoretical and Applied Climatology*, DOI 10.1007/s00704-017-2057-1.
122. Vohra, K., K. Ghosh, S.N. Tripathi et al., 2017, Submicron particle dynamics for different surfaces under quiescent and turbulent conditions, *Atmospheric Environment*, 152, 330-344.
121. Chakraborty, A, S.N. Tripathi and T. Gupta, 2016, Effect of organic aerosol loading and fog processing on organic aerosol volatility, *Journal of Aerosol Science*, 105, 73-83.
120. Ghosh, K., S.N. Tripathi et al., 2016, Modeling studies on coagulation of charged particles and comparison with experiment, *Journal of Aerosol Science*, 105, 35-47.
119. Chakraborty, T., C. Sarangi and S.N. Tripathi, 2016, Understanding diurnality and inter-seasonality of a sub-tropical urban heat-island, *Boundary-Layer Meteorology*, doi:10.1007/s10546-016-0223-0.
118. Shamjad, P.M., S.N. Tripathi, N. Thamban and V. Heidi, 2016, Refractive index and absorption attribution of highly absorbing brown carbon aerosols from an Urban Indian City-Kanpur, *Scientific Reports*, 6 : 37735, doi:10.1038/srep37735.
117. Cardnell, C., S.N. Tripathi et al., 2016, A photochemical model of the dust-loaded ionosphere of Mars, *Journal of Geophysical Research–Planets*, 121, doi:10.1002/2016JE005077.
116. Sen, Indra, S.N. Tripathi, et al., 2016, Emerging Airborne Contaminants in India: Platinum group elements from catalytic converters in motor vehicles, *Applied Geochemistry*, 75, 100-106.
115. Vreeland, H., J.J. Schauer, A.G. Russell, S.N. Tripathi et al., 2016, Chemical characterization and toxicity of particulate matter emissions from roadside trash combustion in urban India, *Atmospheric Environment*, 147, 22-30.
114. Lal, R., A. Nagpure, L. Luo, S.N. Tripathi, et al., 2016, Municipal solid waste and dung cake burning: Discoloring the Taj Mahal and human health impacts in Agra, *Environmental Research Letters*, 11(10), doi:10.1088/1748-9326/11/10/104009.
113. Bharath Kumar, A. Chakraborty, S.N. Tripathi and D. Bhattu, 2016, Highly time resolved chemical characterization of submicron organic aerosols at a polluted urban location, *Environmental Science: Processes & Impacts*, DOI: 10.1039/c6em00392c.
112. Chakraborty, A., S.N. Tripathi and T. Gupta, 2016, Combined effects of organic aerosol loading and fog processing on organic aerosols oxidation, composition, and evolution, *Science of the Total Environment*, 573, 690-698.
111. Bhattu, D., S.N. Tripathi and A. Chakraborty, 2016, Deriving aerosol hygroscopic mixing state from size-resolved CCN activity and HR-ToF-AMS measurements, *Atmospheric Environment*, 142, 57-70.
110. Misra, A., V. P. Kanawade, and S.N. Tripathi, 2016, Quantitative assessment of AOD from 17 CMIP5 models based on satellite derived AOD over India, *Annales Geophysicae*, 34, 657-671.

109. Snider, G., S.N. Tripathi, A. Misra, 2016, Variation in global chemical composition of PM_{2.5}: Emerging results from SPARTAN, *Atmospheric Chemistry and Physics*, 16, 9629-9653.
108. Sarangi, C., S.N. Tripathi, Amit Mishra et al., 2016, Elevated aerosol layers and their radiative impact over Kanpur during monsoon onset period, *Journal of Geophysical Research–Atmospheres*, 121,7936-7957.
107. Chakraborty, A., T. Gupta and S.N. Tripathi, 2016, Chemical composition and characteristics of ambient aerosols and rainwater residues during Indian summer monsoon: Insight from aerosol mass spectrometry, *Atmospheric Environment*, 136, 144-155.
106. Chakraborty, A., B. Ervens, T. Gupta and S.N. Tripathi, 2016, Characterization of organic residues of size-resolved fog droplets and their atmospheric implications, *Journal of Geophysical Research*, 121, 4317-4332.
105. Harrison, R.G., S.N. Tripathi et al., 2016, Applications of electrified dust and dust devil electrostatics to Martian atmospheric electricity, *Space Science Review*, DOI 10.1007/s11214-016-0241-8.
104. Kumar, N., S.N. Tripathi et al., 2016, Delhi's air pollution (Re) distribution and air quality regulations, *Environmental Policy and Law*, 46(1), 77-86.
103. Sen, I.S., Michael Bizimis, S.N. Tripathi and Debajyoti Paul, 2016, Lead isotopic fingerprinting of aerosols to characterize the sources of atmospheric lead in an industrial city of India, *Atmospheric Environment*, 129, 27–33.
102. Kirpa Ram, S. Singh, M.M. Sarin, A.K. Srivastava and S.N. Tripathi, 2016, Variability in aerosol optical properties over an urban site, Kanpur, in the Indo-Gangetic Plain: A case study of haze and dust events, *Atmospheric Research*, 174, 52-61.
101. Tiwari, S., Philip K. Hopke, Devraj Thimmaiah, S.N. Tripathi, et al., 2016, Nature and sources of ionic species in precipitation across the Indo-Gangetic Plains, India, *Aerosol and Air Quality Research*, 16(4), 943-957.
100. Arola, A., S.N. Tripathi et al., 2015, Direct radiative effect by brown carbon over Indo-Gangetic Plain, *Atmospheric Chemistry and Physics*, 15(22), 12731-12740.
99. Sarangi, C., S.N. Tripathi, S. Tripathi and M.C. Barth, 2015, Aerosol-cloud associations over Gangetic Basin during a typical monsoon depression event using WRF-Chem simulation, *Journal of Geophysical Research - Atmospheres*, 120(20), 10974-10995.
98. Shamjad, P.M., S.N. Tripathi et al., 2015, Contribution of brown carbon to direct radiative forcing over the Indo-Gangetic Plain, *Environmental Science & Technology*, 49 (17), 10474-10481.
97. Lalchandani, V., S.N. Tripathi, N. Ramanathan et al., 2015, Recommendations for calibration factors for a photo-reference method for aerosol black carbon concentrations, *Atmospheric Pollution Research*, 7(1), 75-81.
96. Chakraborty, A., D. Bhattu, T. Gupta, S.N. Tripathi and M. Canagaratna, 2015, Real-time measurements of ambient aerosols in a polluted Indian city: sources, characteristics and processing of organic aerosols during foggy and non-foggy periods, *Journal of Geophysical Research – Atmospheres*, 120(17), 9006-9019.
95. Kamra, A.K., Singh, D., S.N. Tripathi et al., 2015, Atmospheric ions and new particle formation events at a tropical location, Pune, India, *Quarterly Journal of Royal Meteorological Society*, 141, 3140-3156.

94. Chaudhuri, C., S.N. Tripathi, R. Srivastava and A. Misra, 2015, Observation- and numerical-analysis-based dynamics of the Uttarkashi cloudburst, *Annales Geophysicae*, 33(6), 671-686.
93. Patange, O., N. Ramanathan, S.N. Tripathi et al., Reductions in indoor black carbon concentrations from improved biomass stoves in rural India, *Environmental Science & Technology*, 49(7), 4749-4756, 2015.
92. Snider, G., C.L. Weagle, R.V. Marti, S.N. Tripathi et al., 2015, SPARTAN: a global network to evaluate and enhance satellite-based estimates of ground-level particulate matter for global health applications, *Atmospheric Measurement Techniques*, 8(1), 505-521.
91. Bhattu, D. and S.N. Tripathi, 2015, CCN closure study: effects of aerosol chemical composition and mixing state, *Journal of Geophysical Research-Atmospheres*, 120, 766-783.
90. Bergin, M.H., S.N. Tripathi et al., 2015, The discoloration of the TajMahal due to particulate carbon and dust deposition, *Environmental Science & Technology*, 49 (2), 808-812.
89. Villalobos, A.M., S.N. Tripathi et al., 2015, Source apportionment of carbonaceous fine particulate matter (PM_{2.5}) in two contrasting cities across the Indo-Gangetic Plain, *Atmospheric Pollution Research*, 6(3), 398-405.
88. Gaur, A., S.N. Tripathi et al., 2014, Four-year measurements of trace gases (SO₂, NO_x, CO, and O₃) at an urban location, Kanpur, in Northern India, *Journal of Atmospheric Chemistry*, 71(4), 283-301.
87. Dumka, U.C., Bhattu, D., S.N. Tripathi et al., 2014, Seasonal inhomogeneity in cloud precursors over Gangetic Himalayan region during GVAX campaign, *Atmospheric Research*, 155, 158-175.
86. Kedia, S., S.N. Tripathi et al., 2014, Quantification of aerosol type, and sources of aerosols over the Indo-Gangetic Plain, *Atmospheric Environment*, 98, 607-619.
85. Misra, A., Abhishek Gaur, S.N. Tripathi et al., 2014, An overview of the physico-chemical characteristics of dust at Kanpur in the central Indo-Gangetic Basin, *Atmospheric Environment*, 97, 386-396.
84. Kanawade, V.P., S.N. Tripathi, et al., 2014, Observations of new particle formation at two distinct Indian subcontinental urban locations, *Atmospheric Environment*, 90, 370-379.
83. Huttunen, J., S.N. Tripathi et al., 2014, Effect of water vapour on the determination of Aerosol Direct Radiative Effect based on the AERONET fluxes, *Atmospheric Chemistry and Physics*, 14, 6103-6110.
82. Kanawade, V., S.N. Tripathi, Deepika Bhattu and P.M. Shamjad, 2014, Sub-micron particle number size distributions characteristics at an urban location, Kanpur, in the Indo-Gangetic Plain, *Atmospheric Research*, 147-148, 121-132.
81. Alabhya Mishra, Marykutty Michael, S.N. Tripathi, Christian Béghin, 2014, Revisited modeling of Titan's middle atmosphere electrical conductivity, *Icarus*, 238, 230-234.
80. Dumka, U.C., S.N. Tripathi, Amit Misra, D.M. Giles, T.F. Eck, Ram Sagar and B.N. Holben, 2014, Latitudinal variation of aerosol properties from Indo Gangetic Plain (IGP) to central Himalayan foothills during TIGERZ campaign, *Journal of Geophysical Research-Atmospheres*, 119, 4750-4769.
79. Kirpa Ram, S.N. Tripathi, M.M. Sarin and Deepika Bhattu, 2014, Primary and secondary aerosols from an urban site (Kanpur) in the Indo-Gangetic Plain: Influence on CCN, CN concentrations and optical properties, *Atmospheric Environment*, 89, 655-663.

78. Kaul, D.S., T. Gupta and S.N. Tripathi, 2014, Source apportionment for water soluble organic matter of submicron aerosol: A comparison between foggy and nonfoggy episodes, *Aerosol and Air Quality Research*, 14, 1527-1533.
77. Bhattu, D. and S.N. Tripathi, 2014, Inter-seasonal variability in size-resolved CCN properties at Kanpur, India, *Atmospheric Environment*, 85, 161-168.
76. Ghosh, S. and S.N. Tripathi et al., 2014, Chemical characterization of summertime dust events at Kanpur: Insight into the sources and level of mixing with anthropogenic emissions, *Aerosol and Air Quality Research*, 14, 879-891.
75. Renard, J.B., S.N. Tripathi et al., 2013, In situ detection of electrified aerosols in the upper troposphere and stratosphere, *Atmospheric Chemistry and Physics*, 13, 1-8.
74. Arola, A., T.F. Eck, S.N. Tripathi et al., 2013, Influence of observed diurnal cycles of aerosol optical depth on aerosol direct radiative effect, *Atmospheric Chemistry and Physics*, 13, 7895-7901.
73. Srivastava, M., S.N. Tripathi, D. Bhattu, et al., 2013, CCN closure results from Indian Continental Tropical Convergence Zone (CTCZ) Aircraft experiment, *Atmospheric Research*, 132-133, 322-331.
72. Kaskaoutis, D.G., S.N. Tripathi et al., 2013, Aerosol properties and radiative forcing over Kanpur during severe aerosol loading conditions, *Atmospheric Environment*, 79, 7-19.
71. Rawal, A., S.N. Tripathi et al., 2013, Quantifying the importance of galactic cosmic rays in cloud microphysical processes, *Journal of Atmospheric and Solar-Terrestrial Physics*, 102, 243-251.
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5. The paper published in *JGR Planets*, Michael et al., 2009, was amongst the 5-top downloads for that week.
4. Das, B., Biting dust in Mars, doi:10.1038/nindia.2008.249; Published online 28 July 2008.
3. Das, B., Lifting the veil from Jupiter cloud, doi:10.1038/nindia.2008.177; Published online 9 April 2008.
2. Gopal Raj, N., Aerosols: The Earth's sun shield, *The Hindu Survey of Environment*, 2008.
1. Gopal Raj, N., Pollution, aerosols, and the climate change, Leader Page article, *The Hindu*, September 04, 2006.

Teaching Experience and Courses Offered (IIT Kanpur)

- Earth and Environment (Two times, Post Graduate Level, Class Size 15)
- Atmospheric Physics and Chemistry (Three times, PG Level, Class Size 25)
- Fate and Transport of Contaminants in Natural Systems (Twice, PG Level, Class Size 10-50)
- Environmental Quality and Pollution (Three times, Under Graduate Level, Class Size 60-80)
- Computational Methods in Engineering(Three times, Under Graduate Level, Class Size 160-180)
- Advanced Mathematics for Civil Engineers (Three times, Numerical Methods Module, Class Size 55-70)
- Modeling of Natural Systems (Two times, PG Level)
- Co-Taught Air Pollution and its Control (Once, Post Graduate Level, Class Size 30)

Courses Tutored

- Computational Methods in Engineering (Five Times)
- Mechanics of Solid (Four times)

- Fluid Mechanics (Twice Times)

Organizational Achievements

2. The Summer School on 'Sustainable Cities' was held at IIT Kanpur organized by Centre for Environmental Science and Engineering from June 2nd-27th, 2013 in collaboration with U. of Minnesota, Georgia Tech, NAE, Yale, NCAR and U. Colorado sponsored by USAID and NSF. The school was attended by more than 30 students and Scientists from IITs, collaborators Universities, ROI and ICLEI etc.
1. An invited DST Training School on 'Aerosol-Cloud Interaction' was held at IIT Kanpur from 7th-15th March, 2009. The school was attended by more than 25 students and scientists from various IITs, Universities and research laboratories such as NPL, SPL, IITM, IMD etc.

Workshops/Symposia Organised

8. Organized DST-UKIERI workshop on "An Introduction to Earth Observation Techniques: Applications to the Land and Atmosphere" held at Indian Institute of Technology Kanpur from March 26-28, 2018.
7. Organized DST National Workshop on "Aerosols: Science and Application" as part of proposed '*National Network Programme on Climate Change and Aerosols*' held at Indian Institute of Technology Kanpur, May 11-12, 2017.
6. Organized DBT-RCUK Workshop: Biological solution to reducing industrial waste, environmental inefficiency and pollution in India, organized by Centre for Environmental Science & Engineering (CESE), Indian Institute of Technology Kanpur, March 21-23, 2017.
5. Organized Theme Meeting on Aerosol Behavior Studies in a Nuclear Reactor under Severe Accident Conditions held at Indian Institute of Technology Kanpur, February 23-25, 2016.
4. Organised Indo-US workshop on 'Sources of Environmental Pollution in India: The influence of Municipal Solid Waste and Biomass Burning on Air Quality and the Microbiome of the Ganges' held at Indian Institute of Technology Kanpur, October 25-26, 2015.
3. Organised IITK-Archaeological Survey of India Joint workshop on 'Study of Impacts of Atmospheric Haze on TajMahal Monument' under Indo-US Science and technology forum at Indian Institute of Technology Kanpur, February 17, 2012.
2. Co-Convenor of Tiger-Z (Indo-NASA Joint Field Experiment) workshop held at Indian Institute of Technology Delhi, January 7-8, 2009.
1. Co-Convenor of biennial conference of Indian Aerosol Science and Technology Association, International Conference on 'Aerosol, Clouds and Indian Monsoon' held at Indian Institute of Technology Kanpur, November 15-17, 2004.

Plenary/invited Speaker

80. Invited talk titled, "Delhi air quality experiment" in Stakeholder Consultation Workshop on NCAP organized by MoEF&CC alongwith CPCB, World Bank and TERI at Ganga Auditorium, Vayu Wing, Indira Paryavaran Bhawan, Jor Bagh in (Delhi, April 18, 2018).
79. Invited talk titled, Aerosol-surface forcing-Rainfall associations over Gangetic Plains, in "National Conference on Recent Advances in Environmental Sciences, (NCRAES-2018)" at School of Environmental Science, Jawaharlal Nehru University in (Delhi, March 22, 2018).

78. Invited talk titled, Problem, measurement and sources- The air quality conundrum in Dainik Jagran Clean Air Conclave at Hotel Hilton Gargen In (Lucknow, February 17, 2018).
77. Invited talk titled, Sensor based technologies for air pollution monitoring in Technologies for management and abatement of air pollution at MoEFCC (Delhi, February 13, 2018).
76. Popular Lecture titled, The state of air pollution in Indo-Gangetic Plains and possible solutions, Dayalbagh Educational Institute, (Agra, December 22, 2017)
75. Invited talk titled, Cities Infrastructure & Sustainability cities in a training program as part of joint SRU-Clarkson-ICMR initiative to build capacities in the areas of Air Quality, Climate and Health, at the SRU-ICMR Center for Advanced Research, SRU (Chennai, December 19-20, 2017).
74. Panelist, Washington University St Louis Forum on Energy, Environment and Agriculture at Leela Palace Hotel (New Delhi, December 15-16, 2017).
73. Invited talk titled, Aerosol-cloud-surface-radiation-rainfall-climate interactions over Indian Monsoon region, in "5th Rajasthan Science Congress" at Amity University, (Jaipur, October 13, 2017).
72. Invited talk titled, Aerosol-surface forcing-Rainfall associations over Gangetic Plains, in National Workshop on "Urban Climate: Science, impacts and Adaptation" at IIT-Bhubaneswar (Bhubaneswar, September 21-22, 2017).
71. Invited talk titled, Aerosol impact on weather to climate scales over IG Basin: Results from observational and modeling based analysis, in International conference on Understanding, Predicting and projecting the Climate change over Asian Region (UPCAR), at S.V. University (Tirupati, June 26-28, 2017)
70. Invited talk titled, Chemical properties of geoengineering aerosols, in National Roundtable Discussion on Geoengineering and India: Science and Policy, at IIT-D (New Delhi, June 23, 2017).
69. Keynote talk titled, 'Hygroscopicity-CCN-clouds and rainfall associations over Ganga Plains' at Wadia Institute of Himalayan Geology (Dehradun, May 18, 2017).
68. Lead talk titled, 'Direct and indirect effects of aerosols on radiative forcing and rainfall over Indo-Gangetic plains in International Conference on Aerosol Climate Change Connection (AC3) at Bose Institute (Darjeeling, April 25, 2017).
67. Invited talk titled, 'Scale and adequacy of monitoring needed in Indian cities', in Global Strategic Communications Council (GSCC) Air Quality Workshop at Juniper Hall, IHC (New Delhi, April 12, 2017).
66. Invited talk titled, 'Aerosol direct and indirect effects in Gangetic plains', in Brainstorming Meeting on Climate change research in India: Progress, challenges, opportunities and way forward, BHU (Varanasi, February 23, 2017).
65. Invited talk titled, 'Aerosol-Cloud-Surface-Radiation-Rainfall interactions over Indo-Gangetic Plains (IGP)' in Indo-Dutch International conference 'Climate and Atmospheric Sciences & Applications' at IIT-D (New Delhi, February 21, 2017).
64. Invited talk titled 'Aerosol pollution: Implications to health, economy and climate', INSPIRE-2017 Programme at Amity University (Lucknow, February 15, 2017).
63. Lead talk titled 'Air pollution sources in India: Measurement and latest findings' Workshop on Air Quality at Hotel Westinn (Varanasi, December 12, 2016).
62. Invited talk titled 'Coupling of aerosol-land-cloud-rainfall system over Gangetic Plains: Observations and modeling analysis" Indo-UK Water Center (IUKWC) workshop at IITM (Pune, November 30, 2016).

61. Invited talk titled 'Variability in aerosol properties, their direct and indirect effect over Gangetic Plains' Seminar at Centre for Ecology and Hydrology, UK (Wallingford, September 17, 2016).
60. Invited talk titled 'Air pollution sources in India: measurements and latest findings, Air Quality in Indian Cities at Taj Hotel (Lucknow, May 25-26, 2016).
59. Invited talk titled 'Organic aerosols (OA) in Gangetic Basin: Composition, Chemistry, CCN, Radiative and health effects', Workshop on Biosphere-atmosphere interactions and impacts on climate and air quality and the iLEAPS SSC meeting in IISER, Mohali (Chandigarh, March 21, 2016).
58. Invited talk titled 'Air pollution implications to Health, Climate, Agriculture and Economy', Surya Roundtable Meeting on Climate Credit Pilot Project at India International Centre (New Delhi, March 15, 2016).
57. Invited talk titled 'Aerosol's impact on health and climate of Gangetic Plain', INSPIRE 2016 Programme at Amity University (Gwalior, January 21, 2016).
56. Invited talk titled 'Smoke, Dust, and Haze: Implications to Health, Climate, and Economy', INAE Kanpur Chapter Seminar at (IIT Kanpur, January 20, 2016).
55. Invited talk titled 'Discoloration of the Taj Mahal, Adverse Health effects and Climate Forcing due to Municipal Solid Waste and Dung Cake Burni', Workshop on Developing Smart, Healthy and Sustainable Cities: Learnings from US, China and India at The Lalit Hotel (New Delhi, January 11, 2016).
54. Invited talk titled 'Hydro climate of Gangetic System' India-UK Workshop on Future Ganga: Science Needs for Water Security at Tal Mahel Hotel (New Delhi, December 3, 2015).
53. Invited talk titled 'The Human-Ganga Biome Interactions: Unravelling the influences of environmental pollutants on humans and a living river' Workshop on Non Putreying Properties of Ganga Water at All India Institute of Medical Sciences (New Delhi, November 16, 2015).
52. Invited talk titled 'Dust, other ions can cause health problem' Birbal Sahni Institute of Palaeobotany (Lucknow, August 24, 2015).
51. Contributed talk 'Particulate Pollution and Daily Surface Rainfall: Observational Study over Indian Summer Monsoon Region' AGU Chapman conference on Evolution of the Asian Monsoon and its Impact on Landscape, Environment and Society: Using the Past as the Key to the Future, (The Chinese University of Hongkong, June 14-18, 2015).
50. Contributed talk 'Optical properties of brown carbon and its impact on earth's radiative budget' Workshop for Developing Priority Themes and Activities for IGAC Monsoon Asia and Oceania Networking Group (IGAC-MANGO), Asian Institute of Technology (Bangkok, Thailand, June 11-12, 2015).
49. Invited participant 'Science-Policy Dialogue', organized by the Scientific Advisory Panel of the Climate and Clean Air Coalition (CCAC) to Reduce Short-Lived Climate Pollutants (SLCP), Headquarters of World Meteorological Organization (Geneva, May 20-21, 2015).
48. Contributed talk titled 'Size resolved fog water chemistry and its atmospheric implications' European Geosciences Union (Vienna, Austria, April 12-17, 2015).
47. Invited talk titled 'Aerosol's impacts on climate, health, agriculture and monuments', Chandigarh Science Congress, Punjab University (Chandigarh, February 25, 2015).
46. Invited talk titled 'Aerosol-Cloud-Rainfall Associations over India', International Workshop on Climate Change, Ansal University (Gurgaon, January 12, 2015).

45. Invited talk titled 'Atmospheric Observations and Laboratory Studies of Carbonaceous Aerosols', Indian Aerosol Science and Technology Association, Biennial Conference, (Banaras Hindu University, Varanasi, November 12, 2014).
44. Invited talk titled 'Brown Carbon Absorption and its Impact on Atmospheric Radiative Forcing', ABC (Atmospheric Brown Clouds) – SLCP (Short-Lived Climate Pollutants) symposium in Tokyo, (Japan, July 21-23, 2014).
43. Theme Leader and organiser, Clean Air, Indo German Frontiers of Engineering, Potsdam, (Germany, June 23-25, 2014).
42. Invited talk '1st Workshop on Climate Science and Policy Workshop, IIT Bombay, (Mumbai, March 6-7, 2014).
41. Invited talk 'Scientific Basis for Knowledge to Action', Policy conclave on reducing vehicular emissions to improve air quality at Taj Hotel, (New Delhi, February 4, 2014).
40. Invited talk titled 'Observations and Monitoring Needs', Policy conclave on reducing vehicular emissions to improve air quality at Taj Hotel, (New Delhi, February 4, 2014).
39. Invited Interdisciplinary Lecture titled 'Atmospheric Aerosol Measurements: India perspective', National Space Science Symposium, Dibrugarh University, (Assam, February 1, 2014).
38. Plenary lecture on Long-Term Field Observations and Laboratory Studies of Atmospheric Aerosols from Kanpur, Indo-Gangetic Basin, in 8th Asian Aerosol Conference, Australian Technology Park, Sydney, (Australia, December 3, 2013).
37. Invited talk on 'Aerosol Measurements: India Perspective', India-California Air-Pollution Mitigation Program: Initiative for Mitigating Air Pollution from the Transportation Sector, Scripps Institute of Oceanography and The Energy and Resource Institute, Oakland, CA, (USA, October 22, 2013).
36. Invited talk on 'Role of chemical composition on CCN activity and Evaluation of microphysics parameterizations in WRF against CAIPEEX profiles' In CAIPEEX Science meeting, Indian Institute of Tropical Meteorology, (Pune, October 17, 2013).
35. Invited talk titled 'Long-Term Field Observations and Laboratory Studies of Atmospheric Aerosols from Kanpur, Indo-Gangetic Basin', Center for Climate Change, IIT (Bombay, October 9, 2013).
34. Invited talk on 'Evaluation of WRF-Chem simulations during an extreme rainfall event over Indo Gangetic Plain', in Monsoon Research and Prediction, Indo French Centre for Promotion of Advance Research in coordination with MoES, (New Delhi, October 5, 2013).
33. Invited talk in a 'CAIPEEX-Phase III – IGP Campaign Meeting' organized by Indian Institute of Tropical Meteorology, (Pune, August 30, 2013).
32. Invited talk in a workshop "Mars Orbiter Mission" organized by Physical Research Laboratory, (Ahmedabad, July 26-27, 2013).
31. Invited talk in a workshop 'First Annual Regional Atmospheric Science (FARAS)' organized by International Center for Integrated Mountain Development (ICIMOD), (Kathmandu, June 13-14, 2013).
30. Invited lecture in Naraina Group of Institution, (Kanpur, June 11, 2013).
29. GCR Generated Aerosol Electrification and the Effects on Cloud Microphysics in Earth and Planetary Atmospheres, Laboratoire de Physique et Chimie de l'Environnement et de l'Espace, CNRS, Orleans, (France, July 4, 2012).

28. Invited talk titled 'Climate Impacts of Aerosol over Ganga Basin' in a Alpine Summer School on Climate, Aerosols and the Cryosphere jointly organized by CNRS, France, ISAC-CNR, Italy and NSF, USA at Valsavarenche, Valle d'Aosta (Italy, June 27, 2012).
27. Invited talk in a workshop organised by International Center for Integrated Mountain Development (ICIMOD), Kathmandu, (Nepal, April 2-3, 2012).
26. Invited talk titled 'Climate impacts of aerosols' in a conference jointly organized by Department of HSS, IITK and Liberty Institute, Delhi on 'Climate Change: Science and Society', (IITK March 30-31, 2012).
25. Invited lecture in national seminar on Interdisciplinary application of weather and climate-Computational Perspective, C-DAC, (Pune, January 25, 2012).
24. Invited talk in US - India Workshop on Air Quality and Climate in Administrative Staff College of India, (Hyderabad, Sept. 12-14, 2011).
23. Lead Speaker in Indo-German Frontier of Engineering, (Khandala, June 2011).
22. Invited talk at Bhabha Atomic Research Center, (Mumbai, June 09, 2011).
21. Invited talk, QIP Course, IIT (Delhi, May 2011).
20. Invited talk in Brain Storming Session on Technology Vision 2035, IT-BHU, (Varanasi, May 2011).
19. Invited lecture in Brain Storming Session on Mars, Physical Research Laboratory, (Ahmedabad, March 2011).
18. Invited Lecture, Colloquium, National Physical Laboratory, (New Delhi, March 2011).
17. Invited talk, National Atmospheric Research Laboratory, Department of Space, (Gadanki, February 2011).
16. Invited lecture in local chapter of Institution of Engineers, (HBTI Kanpur, 2010).
15. Invited talk, Geophysical Fluid Dynamical Laboratory, Princeton University, (US, June 2010).
14. Invited lecture, Planetary Exploration Program of ISRO, Physical Research Laboratory, (Ahmedabad, May 2009).
13. Invited Colloquium, Physical Research Laboratory, (Ahmedabad, May 2009).
12. Lead Speaker, Third Indo-US Frontier of Science (Agra, March 1-4, 2009).
11. Invited Lecture at Aryabhata Research Institute of Observational Sciences (ARIES), (Nainital, October 2008).
10. Lecture at Air Force Administrative College, (Coimbatore, December 2007).
9. Five lectures delivered at the Winter School on Modeling of Planetary Atmospheres organised by Physical Research Laboratory, (Ahmedabad, January 2007).
8. Invited seminar at Center for Climate System Modeling, The University of Tokyo, (Japan, July 2006).
7. Invited talk in Dept. of Chemical Engineering, Institute of Technology, (Banaras Hindu University, Varanasi, February 2006).
6. Invited talk in workshop on Nanoparticle Aerosol Science and Technology (NAST): Emerging Trends and Priorities (IIT Mumbai, December 2005).
5. Invited lecture at Center for Atmospheric and Oceanic Sciences, IISc, (Bangalore, September 2005).

4. Five invited lectures in the 4th PG course on Space and Atmospheric Science of CSSTEAP (Center for Space and Technology Education in Asia and Pacific), (Physical Research Laboratory, Ahmedabad, July 2005).
3. Invited seminar given at Aeronomy Laboratory National Oceanographic and Atmospheric Administration, (Boulder, US, June 2004).
2. Academic Staff College (Banaras Hindu University, March 2004).
1. Invited lecture in local chapter of Institution of Engineers (HBTI Kanpur, January 2004).

Undergraduate Projects Thesis

5. A study of effects of black carbon on cloud microphysical properties using a two-dimensional cloud model (2007-2008).
4. Retrieval of aerosol organic carbon (2006-2007).
3. Parameterization of collision efficiency between of electrically charged aerosol particles and cloud of droplets (2005-2006).
2. Numerical investigation of Atmospheric Fogs (2004-2005).
1. Comparison of satellite derived aerosol parameters with ground measured data over gangetic basin (2002-2004).

Administrative Experience

14. Member, Institute Information Cell (IC), 2016-2017.
13. Coordinator, Centre for Environmental Science and Engineering, 2014-2017
12. Member, Senate Library Committee, 2013-till date.
11. Organizer, Alumni Seminar Series, Department of Civil Engineering, 2012-2013.
10. Senator, Academic Senate, IIT-Kanpur, October 2012 to October 2013
9. Member, Advisory Committee of Centre for Environmental Science and Engineering, 2011-2012
8. Member, DPGC, Environmental Engineering & Management Programme, 2012-till date.
7. Member, Institute Research Development Committee, 2010-2012
6. Faculty In charge, Computer Laboratory, Department of Civil Engineering, 2008-2009
5. Warden-in Charge, Hall V, March 2008-June 2008.
4. Warden, Hall V, March 2005- February 2008
3. Convenor, DPGC (EEM), 2004-2005, 2005-2006 and 2011-2012
2. Organiser, Almuni Seminar Series, Department of Civil Engineering, 2003-2004
1. Member, DUGC, 2003-2004, 2012-2014

Running Projects

10. Science and Technology Facilities Council (STFC), UK: Rs. 26.82 Lakhs

Thermal infrared technologies for supporting environmental assessment and decision making in the Ganges Basin
2018-2020

9. BP India Services Private Limited: Rs. 20.69 Lakhs
India Air Pollution Study for BP
2018
8. Respirer Living Sciences Private Limited: 24.78 Lakhs
Measurement and Calibration of Air Quality Monitors in 10 cities of India
2018-2020
7. Indo-US Science & Technology Forum (IUSSTF): 2.10 Crore
Streaming Analytics over Temporal Variables from Air quality Monitoring (SATVAM)
2017-2022
6. Department of Biotechnology: 113.80 Lakhs
Joint Research project on Delhi Air Pollution: Health aNd Effects (DAPHNE)
2017-2021
5. Department of Science and Technology (DST): 63.96 Lakhs
Indo-UK joint project on Towards an integrated approach for assessing the impact of climatic stresses on agriculture and the exchange of greenhouse gas on the Indo-Gangetic Plain
2017-2020
4. Board of Research in Nuclear Sciences (BRNS), Mumbai, Bhabha Atomic Research Centre (BARC), Mumbai (Department of Atomic Energy), Joint project: 980 Lakhs
Studies on aerosol behaviour under severe accident conditions in the context of Indian Nuclear Reactors by setting up of National Aerosol Facility
2015-2018 (extended upto 2020)
3. Ministry of Earth Sciences (MoES): 82.50 Lakhs
Indo-UK joint project on South Asian Monsoon: Monsoon Dynamics and thermodynamics from the land surface through convection to the continental-scale (INCOMPASS)
2015-2018 (extended upto 2019)
2. National Aeronautic and Space Administration: Rs. 27.82 Lakhs
TIGERZ
2008-2021
1. Indian Space Research Organization (ISRO-GBP): Rs. 84.10 Lakhs
Environmental Observatory
2007-2014

Completed Projects

21. Georgia Institute of Technology (GIT): 33.38 Lakhs
Crowd sourcing water quality: Using mobile technology and rapid microbiological tests to assess drinking water risks in rural India.
2016-2017
20. United States Agency for International Development: Rs. 100 Lakhs

- NSF-PIRE collaboration: Developing Low-Carbon Cities in India: Focus on Urban Infrastructures, Public Health, Climate Risks and Vulnerability
2013-2016
19. Indo-UK Ministry of Earth Sciences and Natural Environmental Earth Sciences: Rs 46.0 Lakhs
South Asian Precipitation: A Seamless Assessment SAPRISE
2011-2016
 18. Bhabha Atomic Research Centre (BARC): Rs. 49.98 Lakhs
Experimental Evaluation of Aerosol Behavior Relevant to Indian Nuclear Reactors
2013-2016
 17. Department of Science and Technology: Rs. 47.92 Lakhs
Modelling Relative Impact of Aerosol and LULC Changes on Regional Climate of Ganga Basin
2013-2016
 16. Ministry of Human Resource Development (MHRD): 360.00 Lakhs
Building a Novel System for Soot: Measurement, Toxicity Assessment and Source Identification
2014-2015
 15. Finnish Meteorological Institute (FMI)
Black and Brown Carbon Influence on Climate Change in India from Local to Regional Scale
2014-2015
 14. Ministry of Earth Sciences: Rs: 59.0 Lakhs
Cosmic Rays-Cloud-Climate Conundrum: Can Ion-Aerosol Near-Cloud Mechanism Explain the Observed Correlations?
2011-2014
 13. Board of Research in Nuclear Sciences (BRNS): Rs. 52.56
Measurement of aerosol and liquid droplet size distributions and validation of aerosol and droplet microphysical models
2010-2013
 12. Indo-French Centre for the Promotion of Advanced Research (IFCPAR): Rs. 7.18 Lakhs
Development of a Non-Hydrostatic Finite-Volume Icosahedral Model for Regional/ Global Climate Simulation and Weather Forecast
2009-2012
 11. Indo-US Science and Technology Forum: Rs. 6.90 Lakhs
Atmospheric Haze: Adverse impacts on Glaciers and Cultural Heritage in Indian
2009-2012
 10. Indian Space Research Organization-Geosphere Biosphere program (ISRO -GBP):
Rs. 68.49 Lakhs
Long term variation of Aerosol black carbon over Kanpur region
2005-08
 9. Department of Science & Technology: Rs. 1.63 Crores
Impact of anthropogenic aerosols on cloud microphysics
2007-2010

8. Indian Space and Research Organization (ISRO): Rs. 2.00 Lakhs
Understanding the Role of Cosmic Ray Induced of Total Solar Eclipse in 2009-10
2009-2010
7. Indian Space Research Organisation: Rs. 39.50 Lakhs
Modeling and parameterization of microphysical and optical properties of mixed-phase
clouds over Indian subcontinent
2007-2009
6. Indian Railways (MHRD): 20 Lakhs
Laboratory Investigations of Fog Microphysical Properties
2005-2008
5. Indian Space Research Organization (ISRO)-RESPOND Program, Government of India:
Rs. 11.14 Lakhs
Effects of Ionization Rate Variation on Aerosol and Cloud Microphysical properties
2003-2006
4. Department of Science & Technology: Rs. 7.98 Lakhs
Aerosol Optical Properties over Kanpur Region
2003-2006
3. Indian Space Research Organization (ISRO)-Geosphere Biosphere Program,
Government of India: Rs. 1.0 Lakhs
Integrated Campaign for Aerosols, Gases and Radiation Budget (ICARB)
2006-2007
2. Indian Space Research Organization-Planetary Science and Exploration Program (ISRO-
PLANEX), Government of India: Rs. 5.65 Lakhs
Aerosol Charging and Electrical Conductivity in the Lower Atmosphere of Mars
2004-2007
1. Indian Space Research Organization (ISRO): Rs. 2.50 Lakhs
Atmospheric Pollution (North India Land Campaign)
2004-2007

Service to Community

37. Member, International Advisory Committee, International Aerosol Conference, 2018.
36. Member, National Advisory and Technical Programme Committee, International
Conference on Aerosol Climate Change Connection (AC3), Bose Institute, Darjeeling, April
25-27, 2017.
35. Member, Technical Programme Committee, Indian Aerosol Science and Technology
Association (IASTA), conference on Aerosols and Climate Change: Insights and
Challenges, PRL, Ahmadabad, December 6-8, 2016.
34. Member, Advisory Council of Mahamana Malaviya Research Centre for Ganga, River,
Development & Water Resource Management, Government of India.
33. Expert member, Committee on Environment and Climate Change to review Central Sector
Scheme and Centrally Sponsored Scheme, Ministry of Environment, Forest and Climate
Change, Government of India.

32. Expert Member, Domain Expert Committee, Environmental Science and Climate Change Domain, Impacting Research, Innovation and Technology, Ministry of Human Resources and Development (MHRD).
31. Expert Member, Indian National Climate Change Committee, Ministry of Water Resources, March 17, 2015.
30. Member, Institute International Relations Committee, 2015-2016.
29. Session Convener, Indo-German Frontiers of Engineering Symposium, Potsdam, Germany, May, 2014.
28. Session Chair, "Aerosol Characterization: Chemical" in 8th Asian Aerosol Conference, Australian Technology Part, Sydney, Australia, December 3, 2013.
27. Session Convener, Fifth Indo-American Frontiers of Science Symposium, Indo-U.S. Science and Technology Forum-U.S. National Academy of Sciences, Agra, India - April 7-10, 2013.
26. Member, National Advisory Committee, Cloud-Aerosol Interactions and Precipitation Enhancement Experiment, Ministry of Earth Sciences, 2013-till date.
25. Evaluator, 'Atmospheric Brown Clouds' project administered by United Nation Environment Program, Bangkok, Thailand from November 5, 2012 to January 30, 2013.
24. Alternate Member, Nanotechnologies Sectional Committee, MTD 33, 2011.
23. Member, High Level Working Group, Aerosol and Cloud Nucleation, India Meteorological Department, Ministry of Earth Sciences.
22. Member, National Fire Facility at IIT Kanpur.
21. Member, Geophysical Research Letter Editor Search Committee.
20. Member, National Steering Committee, Cloud, Aerosol and Precipitation Enhancement Experiment, Largest Project Ever Taken by Ministry of Earth Sciences
19. Expert Member, DST Fast Track Scientist Committee.
18. Member, Publications Committee, American Geophysical Union, 2008-2010.
17. Member, Editorial Board, Indian Journal of Aerosol Science and Technology.
16. Member, Executive Committee, Indian Aerosol Science and Technology Association.
15. Member, Science Team, Mars Orbiter Mission, ISRO Planex Programme.
14. Convener, Session on Climate effects of the atmospheric particle system: aerosols and clouds, Asia Oceania GeoScience Meeting, Bangkok, 2007.
13. Participated in Indo-US Frontier of Science and Technology Meeting held in New Delhi, India. October 2006.
12. Reviewer for DST and CSIR project proposals submitted for funding.
11. Participated in campaigns of national importance organized by ISRO; Land Campaign II over North India and Integrated Aerosol, Gases and Radiation Budget (ICARB) that covered land, sea and air segment.
10. Center for Advanced Studies Fellow, Indian Institute of Technology, Banaras Hindu University, Varanasi.

9. Member, Steering Committee, ISRO Space Borne Lidar Project.
8. Member, Steering Committee (Cloud Studies), CTCZ experiment Department of Science and Technology, Govt. of India.
7. Member, Indian Association for Aerosol, Science and Technology.
6. Member, American Geophysical Union.
5. Reviewer for Journal of Geophysical Research, International Journal of Remote Sensing, Atmospheric Sciences, Atmospheric Environment, Geophysical Research Letters, Atmospheric Research, Atmospheric and Terrestrial Physics. Current Science, Aerosol Science and Technology, Tellus B, Space Science Review, Journal of Applied Meteorology, United Nations Environment Programme, Planetary and Space Science, Advances in Space Research.
4. Executed four projects of Indian Space Research Organisation (ISRO), DST and AICTE; three projects, sponsored by DST and ISRO are ongoing. Total research funding till date: 500 Lakhs.
3. Panelist, Workshop on Nanoparticles: Science and Technology, organized by IIT Bombay under the auspices of Indo-US Forum.
2. Member, Technical committee, Asian Aerosol Conference, Mumbai, December, 2005.
1. Convener, Technical (Indian Aerosol Science and Technology Association- IASTA Aerosol, Clouds and Indian Monsoon International Conference), November 2004, Kanpur.

Certified that the information given above is correct to my knowledge.

Sachchida Nand Tripathi