

## Dr. Sneha Gautam's Profile



**Dr. Sneha Gautam** M.Tech., Ph.D.,  
Assistant Professor

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### Academic Background

Degree	Specialization	University	Year
PDF	Air Pollution Research	NCTU, Taiwan	2017
Ph.D	Air Pollution Measurement and Modelling	IIT Kharagpur	2015
MTech.	Environmental Engineering	IIT (ISM) Dhanbad	2010

### Courses Taught

- Air and noise pollution control
- Global Climate Change and Its Impact
- Environmental Engineering

- Disaster Management and Mitigation
- Noise pollution and Control Techniques
- Disaster Preparedness and Planning
- Advanced Environmental Engineering Lab
- Atmospheric Environmental Pollution Control
- Solid Waste Management
- Industrial Waste Treatment and Disposal
- Environmental and Social Impact Assessment

#### Research Interests

- Air Pollution Measurement and Modelling
- Personal Exposure
- Bioaerosol
- Urban and rural air quality
- Aerosol

#### Experience Record

- Assistant Professor, Karunya Institute of Technology and Sciences, June 2019 till date
- Assistant Professor and Head of Department of Environmental Science and Engineering, Marwadi University, Rajkot, September 2017 – April 2019
- Post Doc Fellow, National Chiao Tung University, Hsinchu City, Taiwan, August 2016 – May 2017
- Environmental Health Scientist, The INCLIN Trust International and University of California Berkeley, USA, May 2015 – July 2016
- Research Fellow, IIT Kharagpur, July 2010 – December 2010

#### Research Profiles

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##### **Google Scholar Profile**

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Dr Sneha Gautam - Google Scholar

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## Scopus Profile

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Gautam, Sneha - Author details - Scopus

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## LinkedIn Profile

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## YouTube Profile

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## Research Projects

- Investigations on the relationship among lightning, aerosol concentration and meteorological parameters with specific reference to the wet humid tropic zone of southwest India, MoES, (Submitted), 2020.

## Patents

- Water purifier using natural strata, No. 202041021147, dated 19/05/2020

## Research Guidance

Research guidance as supervisor	Completed	Ongoing
Doctor of Philosophy	0	2
M Tech	5	0

## Summary of Publications

International /National Journal Publication	International /National Conference Publication	Scopus Citations	Google Scholar Citations	h- index
66	05	929	1332	22

## Memberships in Professional Bodies

- Member of the International Association of Engineers (IAENG), Hong Kong, 2018: Membership No. 242374.
- Associate Member of the Institutions of Engineer, India (AMIEI), 2018: Membership No. AM1838876.
- Senior Member of the Hong Kong Chemical, Biological & Environmental Engineering Society (HKCBEEES), 2017: Membership No: 101291
- Member of the Science and Engineering Institute (SCIEI), 2015; Membership No: 20150407003
- Member (life time) of Indian Association for Air Pollution Control (Delhi Chapter), 2015: Membership No: 561
- Member (student) of The Aerosol Society, 2015

### **Patents**

- 2020 Gautam S, Brema J, Ekka P, Gokul B. WATER PURIFIER USING NATURAL STRATA. Indian Patent (File number: 202041021147): Status: Granted.

### **Most Recent Publications**

- 2022 Gautam S and Gollkota ARK. Introduction to the special issue “Environmental impacts of COVID-19 pandemic”. Gondwana Research. (10.1016/j.gr.2022.10.021). (Impact Factor = 6.151)
- 2022 Kumar RP, Brema J, Samuel C, Gautam S. A bibliometric and scientometric: analysis towards global pattern and trends related to aerosol and precipitation studies from 2002 to 2022. Air Quality Atmosphere and Health. (10.1007/s11869-022-01290-0). (Impact Factor = 5.804)
- 2022 Kumar A, Raj A, Gupta A, Gautam S, Kumar M, A, Bherwani H, Anshul A. Pollution free UV-C radiation to mitigate COVID-19 transmission. Gondwana Research (10.1016/j.gr.2022.07.010). (Impact Factor = 6.151)
- 2022 Chelani A, Gautam S. Lockdown during COVID-19 pandemic: A case study from Indian cities shows insignificant effects on urban air quality. Geoscience Frontiers 13 (6), 101284. (doi.org/10.1016/j.gsf.2021.101284). (Impact Factor = 7.483)
- 2022 Gupta V, Bisht L, Arya AK, Singh AP, Gautam S. Spatially Resolved Distribution, Sources, Exposure Levels, and Health Risks of Heavy Metals in <63 µm Size-Fractionated Road Dust from Lucknow City, North India. International Journal of Environmental Science and Public Health 19 (19), 12898. (doi.org/10.3390/ijerph191912898). (Impact Factor = 4.614)

- 2022 Kumar RP, Perumpully SJ, Samuel C; Gautam S. Exposure and health: A progress update by evaluation and scientometric analysis. Stochastic Environmental Research and Risk Assessment (10.1007/s00477-022-02313-z). (Impact Factor = 3.82)
- 2022 Singh R, Singh V, Gautam AS, Gautam S, Sharma M, Soni PS, Singh K, Gautam A. Temporal and Spatial Variations of Satellite-Based Aerosol Optical Depths, Angstrom Exponent, Single Scattering Albedo, and Ultraviolet-Aerosol Index over Five Polluted and Less-Polluted Cities of Northern India: Impact of Urbanization and Climate Change. Aerosol Science and Engineering (10.1007/s41810-022-00168-z).
- 2022 Kurwadkar, S, Sankar TK, Kumar A, Ambade B, Gautam S, Gautam AS, Biswas JK, Salam MA. Emissions of black carbon and polycyclic aromatic hydrocarbons: Potential implications of cultural practices during the Covid-19 pandemic. Gondwana Research (10.1016/j.gr.2022.10.001). (Impact Factor = 6.151)
- 2022 Kollurua SSR, Nagendraa SMS, Patra A, Gautam S, Alshetty VD, Kumar P. Did unprecedented air pollution levels cause spike in Delhi's COVID cases during second wave? Stochastic Environmental Research and Risk Assessment (10.1007/s00477-022-02308-w). (Impact Factor = 3.82)
- 2022 Gautam S, Blessy A, Kumar RP. A methodological approach to identify communities at risk: Trajectory dispersion models to trace air pollutants during colour festival. Hygiene and Environmental Health Advances (S2773-0492(22)00027-7).
- 2022 Bisht DS, Srivastava AK, Singh V, Tiwari S, Gautam AS, Gautam S, Santosh M, Kumar S. High-Altitude Air Pollutants Monitored from Rainwater Chemistry in the Central Himalaya.. Water, Air & Soil Pollution. (10.1007/s11270-022-05855-8). (Impact Factor = 2.984)
- 2022 Selvadass S, Paul JJ, Marry TB, Packiavathy ISV, Gautam S. IoT-Enabled smart mask to detect COVID19 outbreak. Health and Technology (10.1007/s12553-022-00695-2).
- 2022 Naqvi HR, Mutreja G, Shakeel A, Singh K, Abbas K, Fatma D, Chaudhary AA, Siddiqui MA, Gautam AS, Gautam S, Naqvi AR. Wildfire-induced pollution and its short-term impact on COVID-19 cases and mortality in California. Gondwana Research (10.1016/j.gr.2022.04.016). (Impact Factor = 6.151)
- 2022 Mirza S, Niwalkar A, Gupta A, Gautam S, Anshul A, Bherwani H, Biniwale R, Kumar R. Is safe distance enough to prevent COVID-19? Dispersion and tracking

of aerosols in various artificial ventilation conditions using OpenFOAM.  
Gondwana Research (10.1016/j.gr.2022.03.013). (Impact Factor = 6.151)

- 2022 Kumar RP, Samuel C; Rekha SR, Gautam S. Air pollution in five Indian megacities during the Christmas and New Year celebration amidst COVID-19 pandemic. Stochastic Environmental Research and Risk Assessment (Accepted - 10.1007/s00477-022-02214-1). (Impact Factor = 3.82)
- 2022 Chelani A, Gautam S. The influence of meteorological variables and lockdowns on COVID-19 cases in urban agglomerations of Indian cities. Stochastic Environmental Research and Risk Assessment (10.1007/s00477-021-02160-4). (Impact Factor = 3.82)
- 2022 Thapliyal J, Bhattacharyya M, Prakash S, Patni B, Gautam S, Gautam AS. Addressing the relevance of COVID-19 pandemic in nature and human socio-economic fate. Stochastic Environmental Research and Risk Assessment (10.1007/s00477-022-02191-5). (Impact Factor = 3.82)
- 2022 Gautam S, Hens L. Omikron: where do we go in a sustainability context? Environment Development and Sustainability (10.1007/s10668-022-02207-8). (Impact Factor = 4.08)
- 2022 Gupta V, Bisht L, Deep A, Gautam S. Spatial distribution, pollution levels, and risk assessment of potentially toxic metals in road dust from major tourist city, Dehradun, Uttarakhand India. Stochastic Environmental Research and Risk Assessment (Accepted - 10.1007/s00477-022-02207-0). (Impact Factor = 3.82)
- 2022 Bisht L, Gupta V, Singh A, Gautam AS, Gautam S. Heavy metal concentration and its distribution analysis in urban road dust: A case study from most populated city of Indian state of Uttarakhand. Spatial and Spatio-temporal Epidemiology 40: 100470. (Accepted - 10.1016/j.sste.2021.100470).
- 2022 Musthaq J, Sharma M, Bangotra P, Gautam AS, Gautam S. Atmospheric Aerosols: Some Highlights and Highlighters, Past to Recent Years. Aerosol Science and Engineering. (Accepted - 10.1007/s41810-022-00133-w).
- 2022 Gautam S, Elizabeth J, Gautam AS, Singh K, Abhilash P. Impact Assessment of Aerosol Optical Depth on Rainfall in Indian Rural Areas. Aerosol Science and Engineering. (Accepted - 10.1007/s41810-022-00134-9).
- 2022 Gautam, S., Singh, K., Sharma, M., Gautam, S., Joshi, A., Kumar, S. Classification of Different Sky Conditions Based on Solar Radiation Extinction and the Variability of Aerosol Optical Depth, Angstrom Exponent, Fine Particles Over Tehri Garhwal, Uttarakhand, India. MAPAN (10.1007/s12647-022-00533-w). (Impact Factor = 1.446)

- 2022 Ranjbari M, Esfandabadi ZS, Gautam S, Ferraris A, Scagnelli SD. Waste management beyond the COVID-19 pandemic: Bibliometric and text mining analyses. Gondwana Research. (10.1016/j.gr.2021.12.015). (Impact Factor = 6.151)
- 2022 Gautam S, Setu S, Khan MGQ, Khan, B. Analysis of the health, economic and environmental impacts of COVID-19: The Bangladesh perspective. Geosystems and Geoenvironment. (10.1016/j.geogeo.2021.100011).
- 2021 Gautam S, Sammuel C, Bhardwaj A, Esfandabadi ZC, Santosh, M, Gautam, AS, Joshi A, Justin A, Wessley JW, James EJ. Vertical profiling of atmospheric air pollutants in rural India: A case study on particulate matter (PM10/PM2.5/PM1), carbon dioxide, and formaldehyde. Measurement 185, 110061 (doi.org/10.1016/j.measurement.2021.110061). (Impact Factor = 5.131)
- 2021 Gautam S, Patra AK, Brema J, Raj PV, Raimond K, Abraham SS, Chudugudu KR. Prediction of Various Sizes of Particles in Deep Opencast Copper Mine Using Recurrent Neural Network: A Machine Learning Approach. Journal of The Institution of Engineers (India): Series A. (Accepted - 10.1007/s40030-021-00589-y).
- 2021 Gollakota ARK, Gautam S, Santosh M, Sudan HA, Gandhi R, Jebadurai VS, Shu CM. Bioaerosols: characterization, pathways, sampling strategies, and challenges to geo-environment and health. Gondwana Research 99, 178 – 203. (10.1016/j.gr.2021.07.003). (Impact Factor = 6.151)
- 2021 Ambade B, Sankar TK, Panicker AS, Gautam AS, Gautam S. Characterization, seasonal variation, source apportionment and health risk assessment of black carbon over an urban region of East India. Urban Climate 38, 38, 100896 (10.1016/j.uclim.2021.100896). (Impact Factor = 6.663)
- 2021 Esfandabadi HS, Asl MG, Esfandabadi ZS, Gautam S, Ranjbari M. Drought assessment in paddy rice fields using remote sensing technology towards achieving food security and SDG2. British Food Journal (10.1108/BFJ-08-2021-0872).
- 2021 Sharma M, Bangotra P, Gautam AS, Gautam S. Sensitivity of normalized difference vegetation index (NDVI) to land surface temperature, soil moisture and precipitation over district Gautam Buddh Nagar, UP, India. Stochastic Environmental Research and Risk Assessment (10.1007/s00477-021-02066-1). (Impact Factor = 3.81)
- 2021 Gautam S, Gautam AS, Singh K, James EJ, Brema J. Investigations on the relationship among lightning, aerosol concentration, and meteorological parameters with specific reference to the wet and hot humid tropical zone of the

southern parts of India. Environmental Technology and Innovation (doi.org/10.1016/j.eti.2021.101414). (Impact Factor = 7.758)

- 2021 Gollakotta ARK, Munagapati VS, Voli V, Gautam S, Wen JC, Shu CM. Coal bottom ash derived zeolite (SSZ-13) for the sorption of synthetic anion Alizarin Red S (ARS) dye. Journal of Hazardous Material 416, 125925. (Impact Factor = 14.224)
- 2021 Gollakotta ARK, Munagapati VS, Gautam S, Wen JC, Shu CM. Hydrothermal tuning of morphology of aluminophosphate (AlPO-14) framework for the adsorption of Rhodamine 6G dye. Advanced Powder Technology (10.1016/j.apr.2021.06.015). (Impact Factor = 4.969)
- 2021 Bherwani H, Kumar S, Musugu K, Nair M, Gautam S, Gupta A, Ho CH, Anshul A, Kumar R. Assessment and valuation of health impacts of fine particulate matter during COVID-19 lockdown: a comprehensive study of tropical and subtropical countries. Environmental Science and Pollution Research (doi.org/10.1007/s11356-021-13813-w). (Impact Factor = 4.223)
- 2021 Gautam S, Sammuel C, Gautam AS, Kumar S. Strong link between coronavirus count and bad air: A case study of India. Environmental Development and Sustainability. (doi.org/10.1007/s10668-021-01366-4). (Impact Factor = 4.08)
- 2021 Gautam AS, Kumar S, Gautam S, Anand A, Joshi A, Bauddh K, Singh K. Pandemic induced lockdown as a boon to the Environment: trends in air pollution concentration across India. Asia-Pacific Journal of Atmospheric Sciences (doi.org/10.1007/s13143-021-00232-7). (Impact Factor = 6.623)
- 2021 Nepolian JV, Siingh D, Singh RP, Gautam AS, Gautam S. Analysis of Positive and Negative Atmospheric Air Ions During New Particle Formation (NPF) Events over Urban City of India. Aerosol Science and Engineering (doi.org/10.1007/s41810-021-00115-4).
- 2021 Bangotra P, Sharma M, Mehrab R, Jakhu R, Singh A, Gautam AS, Gautam S. A systematic study of uranium retention in human organs and quantification of radiological and chemical doses from uranium ingestion. Environmental Technology and Innovation (doi.org/10.1016/j.eti.2021.101360). (Impact Factor = 7.758)
- 2021 Bherwani H, Gautam S, Gupta A. Qualitative and Quantitative Analysis of Impact of COVID-19 on Sustainable Development Goals (SDGs) in Indian Subcontinent with a Focus on Air Quality. International Journal of Environmental Science and Technology (10.1007/s13762-020-03122-z). (Impact Factor = 3.519)



- 2021 Ambade B, Sankar TK, Kumar A, Gautam AS, Gautam S. COVID-19 lockdowns reduce the Black carbon and polycyclic aromatic hydrocarbons of the Asian atmosphere: source apportionment and health hazard evaluation. *Environmental Development and Sustainability* [Dol.org/10.1007/s10668-020-01167-1](https://doi.org/10.1007/s10668-020-01167-1). (Impact Factor = 4.08)
- 2021 Gautam S, Makitha LM, Gupta A, Brema J, James EJ, Gajendran C. Treatment and Effective Utilization of Greywater: A Preliminary Case Study. *Applied Innovation System* 16, 1- 12. ([doi.org/10.3390/asi4010016](https://doi.org/10.3390/asi4010016)).
- 2021 Gautam S, Arora AS, Singh AK et al. Coagulation influencing parameters investigation on textile industry discharge using *Strychnos potatorum* seed powders. *Environment, Development and Sustainability* 23(4), 5666-5673. (Impact Factor = 4.08)
- 2020 Gautam S, Tataliya A, Patel M, Chabhadiya K, Pathak P. Personal exposure to air pollutants from winter season bonfires in rural areas of Gujarat, India. *Exposure and Health* 12, 89–97. (Impact Factor = 8.835)
- 2020 Gautam S. The influence of COVID – 19 on air quality in India: A boon or inutile. *Bulletin of Environmental Contamination and Toxicology* 104(6): 724-726. (Impact Factor = 2.807)
- 2020 Gautam S, Arora AS et al. Coagulation influencing parameters investigation on textile industry discharge using *Strychnos potatorum* seed powders. *Environmental Development and Sustainability*. DOI: 10.1007/s10668-020-00836-5. (Impact Factor = 4.08)
- 2020 Gautam S, Brema J. Spatio-temporal variation in the concentration of atmospheric particulate matter: A study in fourth largest urban agglomeration in India. *Environmental Technology and Innovation* 17, 100546. (Impact Factor = 7.758)
- 2020 Changotra R, Rajput H, Rajput P, Gautam S, Arora AS. Largest democracy in the world crippled by COVID-19: current perspective and experience from India. *Environmental Development and Sustainability*. DOI: 10.1007/s10668-020-00963-z. (Impact Factor = 4.08)
- 2020 Kalpana P, Prathibha S, Gopinathan P, Subramani T, Roy PD, Gautam S, Brema J. Spatio-temporal estimation of rainfall patterns in north and northwestern states of India between 1901 and 2015: change point detections and trend assessments. *Arabian Journal of Geosciences*. 13, 1116. <https://doi.org/10.1007/s12517-020-06098-9>. (Impact Factor = 1.827)

- 2020 Rajput H, Changotra R, Rajput P, Gautam S, Gollakota ARK, Arora AS. A shock like no other: coronavirus rattles commodity markets. Environmental Development and Sustainability. DOI: 10.1007/s10668-020-00934-4. (Impact Factor = 4.08)

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