Curriculum Vitae

Full Name	Dr Alok Sagar Gautam		The Abdus
Designation	Assistant Professor (Senior Grade)		
Department	Physics		
Campus	Birla & Chauras Campus		
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	https://scholar.google.co.in/c		
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	works&sortby=pubdate	t/profile/AI	
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	https://orcid.org/0000-0002-	6656-7478	
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Education	Degree, University		
Qualification			
	B.Sc., M.J.P Ruhelkhand University Bareilly Uttar Pradesh India		
	M.Sc., Physics Specilization in Electronics, Banaras Hindu University, Varanasi, India		
	Ph.D Atmopsheric Physics and Space Science, Indian Institute of Tropical Meteorology and Savitribai Phule Pune University Pune Junior Associate, International Centre from Theoretical Physics (ICTP) Italy, 2012-2018.		
	Post Graduate Diploma in Sustainable Science (PGDSS) Indira Gandhi National Open University (IGNOU) Delhi		
Teaching	11 Years	Research	17 Years

Areas of Interest/ Specialization

Experience

Areas of Interest/ Specialization (Atmospheric Physics and Space Science/Electronics/Meteorology)

- 1. Space Weather Studies of Upper Atmosphere.
- 2. GPS based Total Electron Content (TEC) & Water Vapor content measurements and their variability.

Experience

- 3. Atmospheric studies involving aerosols, dust storms, winter fog, and their radiative and climate effects mainly in Himalayan region.
- 4. Study of VLF Whistler-Mode waves and their generation and propagation mechanisms.

- 5. Electrodynamics of the Atmosphere-Ionosphere-Magnetosphere.
- 6. Characterizing properties of atmospheric aerosols (including biological aerosols) to study the climatic and health impact (field measurements, laboratory experiments, and numerical modeling)
- 7. Climate change and public health
- 8. Cloud Dynamics in Pristine Himalayan region.
- 9. Air Quality Monitoring in Uttarakhand

Honours & Awards

- 1. Annual Research Excellence Award by Hemvati Nandan Bahuguna Garhwal University Srinagar Garhwal Uttarakhand India, 2021.
- 2. Young Scientist Award by 13th Uttarakhand Council of Science and Technology Congress, DST Govt of India, 2019 on 26-28 February 2019.
- 3. "Best Poster Award" on International Conference on Aerosol, Air Quality and Climate Change on Himalayan region of Uttarakhand" by Department of Physics, Hemvati Nandan Bahuguna Central University Srinagar Garhwal Uttarakhand India, 21-23 October 2018.
- 4. Junior Associate (2012-2018), Earth System Physics) the Abdul Salam International Centre for Theoretical Physics (ICTP), Trieste Italy.
- 5. Environmentalist of the year 2019 award by International Foundation for Environment and Ecology, February 24, 2020.
- 6. Student Innovation Award 2020 from IGNOU Delhi.
- 7. Research Excellence Award for best research paper on "The first report on Chemical Characteristics of atmospheric pollutants over Garhwal Region Uttarakhand "April 2019 by Institute of Scholars Bengaluru.
- 8. "Young Scientist Award" in Atmospheric and Space Science by Glocal Environment & Social Association (GESA) New Delhi on Oct 20 and 21, 2019.
- 9. Young Scientist of the year Award 2018 by International Academy of Science and Research (IASR), Kolkata.
- 10. Promising Indian Award in Science and Technology by Promising Indian Society Delhi.
- 11. Clean Environment Promotion Award by International Benevolent Research Foundation Kolkata.
- 12. International Travel grant by SRB-DST Govt of India to attend the International Conference on Atmospheric Electricity (ICAE) to be held in Rio de Janeiro Brazil from August 7-12, 2011 (File No: SR/ITS/2124/2011-2012) dated on June 28, 2011.
- 13. International Travel grant by SRB-DST Govt of India to attend the European Aerosol Conference (EAC -2015) at Milan Italy from September 6-11, 2015 (File No: ITS/3037/2015-2016) dated on 31.07.2015.
- 14. INSA Summer Research Fellow (2014)
- 15. "Budaun Shree" for the participation in the 28th Scientific Expedition to Antarctica by Dr. Urmilesh Jn Chetna Samiti Budaun, Uttar Pradesh, on 13th November 2010.

Membership of Scientific Organization

Editor-in-Chief: Journal of Science and Technological Research (JSTR).

https://jstr.org.in/

Managing Editor: Asian Journal of Physics

- Life Member: The Indian Science Congress Association (L32704)
- Associate Member American Geophysical Union (2854703717)
- Fellow, The Society of Earth Scientists, Lucknow- A/04
- Life Member: Indian Physics Association (GEN/LM/13265)
- Life Member: Indian Association of Physics Teachers (11564L7558)
- Life Member: Indian Association for Radiation Protection (1522)
- Life Member: Indian Meteorological Society (IMS): LM-3114
- Life Member: National Society of Aerosol, Air Quality and Climate Change Research (NSAACCR): LM- 2018/1003
- Life Member: International Academy of Science and Research (IASR) Kolkata: LM 016/LM/2019
- Life Member: Glocal Environment & Social Association (GESA) New Delhi: LM 126/2019.
- Life Member: Institute of Scholars Bengaluru: LM -2019
- Life Member: Indian Association of Societal Development: IASD/UK/LM/2020/17

Research Supervision (No. of Ph.D. Degree Awarded/ Registered)

03 -Registered

Research Projects/ MoU undertaken

- 1. Title, Funding Agency, Total Cost, Completed/Ongoing
 - 1. Science and Engineering Research Board (SERB) funded project entitled "Formation Mechanism and Characteristics of Aerosols in Different Seasons and its impact on Cloud formation, Processes and Climate at Himalayan region Uttarakhand" (PI-Completed-Rs 2568000=00)
 - 2. Department of Science & Technology funded research project entitled "What impacts do aerosols have on cloud condensation nuclei, clouds and rainfall over a pristine Himalayan region" Department of Science & Technology, (SPLICE-Climate Change Programme) Ministry of Science & Technology, Government of India (PI-Completed- Rs 7491983=00),
 - 3. Science and Engineering Research Board (SERB) funded project entitled "What impact do potential cloud-forming particles have on extreme weather events using machine learning and artificial intelligence approach over Central Himalayan Region" (PI- Ongoing-Rs 2238280=00)
 - 4. Ministry of Earth Science, GoI, New Delhi funded project entitled "Understanding and modelling the interactions between Debris and glacier Ice in a Changing Climate (D-ICE)" (Co-PI-Ongoing- Rs 14145520=00)

Administrative Experience

1. Assistant Director, Internal Quality Assurance Cell (IQAC), HNB Garhwal University Srinagar Garhwal Uttarakhand India.

- 2. Hostel Warden, Babu Jagjeevan Ram Hostel, Birla Campus Srinagar Garhwal
- 3. Master Trainer, Community Based Participatory Research, Unnat Bharat Abhiyan 2.0, UGC Government of India
- 4. Convener, Institute Innovation Cell (Ministry of Education Initiative) of HNB Garhwal University Srinagar Uttarakhand.
- 5. Assistant Dean Student Welfare, HNB Garhwal University Srinagar
- 6. Senior Program Officer/ Program Officer, National Service Scheme (NSS), HNB Garhwal University Srinagar
- 7. Deputy Program Coordinator, UGC Remedial Coaching, HNB Garhwal University Srinagar
- 8. Co-ordinator, Massive Open Online Courses (MOOCS), School of Science
- 9. Convener, MIC MHRD Innovation Cell, HNB Garhwal University Srinagar Uttarakhand
- 10. Member, Ph.D. Entrance Examination 2017
- 11. Member, Student Union Election Committee
- 12. Member, Admission Committee for UG/PG Classes
- 13. Member, INSPIRE –DST Programme, HNB Garhwal University Govt of India.
- 14. Co-ordinator- Indian Association of Physics Teachers Examination (2018-2019) at HNB Garhwal University Srinagar Uttarakhand

Scientific Visits Abroad/International Collaboration

- 1. Indian Antarctic Station at the South Pole in the 28th Indian Expedition to Antarctica 2007-2008.
- 2. Junior Associate Visit of 35 Days at the Abdul Salam International Centre for Theoretical Physics (ICTP), Trieste Italy from November 10, 2018, to December 15, 2018.
- 3. Junior Associate Visit of 42 Days at the Abdul Salam International Centre for Theoretical Physics (ICTP), Trieste Italy from November 10, 2016 to December 22, 2016.
- 4. Institute of Atmospheric Sciences and Climate, Italian National Research Council (ISAC-CNR) Bologna Italy in 2018.
- 5. European Aerosol Conference (EAC 2015), Milan Italy, September 06-11, 2015.
- 6. Junior Associate Visit of 35 Days at the Abdul Salam International Centre for Theoretical Physics (ICTP), Trieste Italy from November 17, 2014 to December 22, 2014.
- 7. the Abdul Salam International Centre for Theoretical Physics (ICTP), Trieste Italy to participate in the "School and workshop on "Weather Regimes and Weather Types in the Tropics and Extra-tropics: Theory and Application to Prediction of Weather and Climate" October 21-30, 2013, Miramare, Trieste, Italy.
- 8. the Abdul Salam International Centre for Theoretical Physics (ICTP), Trieste Italy to participate in the "School and Conference on "the General Circulation of the Atmosphere and Oceans: a Modern Perspective", 2011.

- 9. XIV International Conference on Atmospheric Electricity, August 08-12, 2011, Rio de Jenerio, Brazil.
- 10. Environmental Research Station Schneefernerhaus (UFS) at Zugspitze, Germany organized by WMO in 2011.

Conference/Symposium/Workshop Attended during last five years (2017-2022).

International

 Participated and presented the paper in Citizen Science with Application to Nuclear, Seismic and Air Quality Monitoring: Introduction (8-12 March 2021) & Citizen Science with Application to Nuclear, Seismic and Air Quality Monitoring: Applications (15-19 March 2021), ICTP - The Abdus Salam International Centre for Theoretical Physics, Strada Costiera 11, I-34151 Trieste, Italy.

National

- 1. Participated in 5 days FDP programme Teachers' Training on Disaster Management" from 21st to 25th September 2020 organized by National Institute of Disaster Management, Ministry of Home Affairs, Government of India.
- 2. Successfully completed the Refresher Course in Environment Conservation (Inter/Multi-Disciplinary) to be started from 17.11.2020 by UGC-HRDC, GNDU, Amritsar.
- 3. Successfully completed on-line course on Comprehensive Disaster Risk Management Framework during 22 Sep 09 Nov 2020, National Institute of Disaster Management, New Delhi New Delhi
- 4. Refresher Course in Environmental Science & Disaster Management from 04.12.2020 to 17.12.2020 organised by UGC-Human Resource Development Centre, Ranchi University, Ranchi.
- 5. Resource person in National Webinar on "Emerging Issues and Challenges on Health, Education & Environment due to Global Pandemic Covid-19"Topic: "Emerging Issues and Challenges on Health, Education & Environment due to Global Pandemic Covid-19" on Jun 10, 2020 10:30 AM India by Govt. Degree College, Budhni, Sehore, Madhya Pradesh.
- 6. Delivered a Plenary Lecture on "Variations of Atmospheric Pollutants during COVID-19 lockdown" in Recent Trends in International Multidisciplinary Conference on Agriculture, Aquaculture, Environment and Sustainability, 29-30 January, 2021 organised by Scientific and Environmental Research Institute (SERI), Kolkata.
- 7. Resource person in the one-week cum training program for Physical Education Teachers held from April 02, 2019 to April 07, 2019 organized by School of Education (Pandit Madan Mohan Malviya National Mission on Teachers and Training).
- 8. Resource person in the "World Environment Day Programme" jointly organized by IQAC HNBGU Srinagar and Department of Rural Technology at HNB Garhwal University Srinagar, Chauras Campus in June 05, 2019.

- 9. Chaired a session in the International Conference on Aerosol, Air Quality, and Climate Change Research over the Himalayan region of Uttarakhand during 21-23 October 2018 organized by Department of Physics HNB Garhwal University Srinagar Uttarakhand.
- 10. Presented oral presentation on "Variation of Radon concentration, gaseous pollutants and the influence of Meteorological parameters: A Review during third National Conference (Online) on Radiation Awareness and Detection in Natural Environment during March18-20, 2021 organised by Department of Physics Govt. PG College New Tehri and Department of Physics SRT Campus HNB Garhwal University Srinagar Garhwal.
- 11. Presented oral presentation on "Case studies on coronavirus (COVID-19) and the impact of meteorological parameters on its transmission" during International Web Conference on Science, Engineering and Technology (Iwcset-2020) (Encompassing Physical, Chemical, Biological, Material, Engineering Sciences & Technology towards Sustainable Development) on May 15-16, 2020 by STAMI in Association with ISTE Nagpur.
- 12. Presented oral presentation on "Generation Mechanism of Cloud Condensation Nuclei (CCN) Activity and at HCO Badshahithaul, Tehri Garhwal" at jointly organized International conference on "Recent Trends in Science, Technology, Agriculture and Management" (RSTAM 2019) by Glocal Environment & Social Association (GESA) New Delhi, Society for Science and Nature (SFSN), Lucknow and FDDI (Ministry of Commerce & Industry, Govt. of India) Raebareli, Uttar Pradesh on Oct 20 and 21, 2019.
- 13. Presented the oral presentation paper entitled "Cloud Condensation Nuclei (CCN) Activity Measurement at Himalayan Cloud Observatory (HCO) SRT Campus Badshahithaul, Tehri Garhwal in Uttarakhand: Preliminary Results" in the 13th Uttarakhand State Science and Technology Congress 2018-2019 at UCOST Dehradun.
- 14. Presented as lead lecture paper entitled "Cloud Condensation Nuclei (CCN) activity and its variation with meteorological Parameters at HCO Badshahithaul Tehri Garhwal" in the International Multidisciplinary Research Conference on Biodiversity, Climate Change and Physical & Life Science organised by DHSK College, Dibrugarh, Assam and Committee of International Academy of Science and Research (IASR) Kolkata on 21st January-23rd January 2019.

Conference/Symposium/Workshop Organized during last five years (2017-2022) Chairman/Convener/Organizing Secretary, Title of event, place, date, year

- 1. Organiser-Workshop on Environment Conservation (Celebrating 50th World Environment Day) at Department of Physics HNB Garhwal University Srinagar, 7-8, July 2023
- 2. Organiser-Summer Internship Programme-2023 at Department of Physics HNB Garhwal University Srinagar, 1 June to 15 July 2023.
- 3. Organizing Secretary- Earth Day Celebration-2023, Sponsored by Ministry of Earth Science, Government of India at Department of Physics HNB Garhwal University Srinagar Uttarakhand. 15 to 22 April 2023.

- 4. Organiser-Workshop on Environment Conservation (Celebrating 50th World Environment Day) at Department of Physics HNB Garhwal University Srinagar, 7-8, July 2023
- 5. Organizing Secretary, 2nd International Conference on Aerosol, Air Quality and Climate Change on Himalayan region of Uttarakhand 4-6 November 2022.
- 6. Organizing Secretary-National Science Day (2022), Theme "Women in Science" Department of Physics HNB Garhwal University Srinagar Uttarakhand. 28 February 2022.
- 7. Organiser Institute Innovation Cell, HNB Garhwal University online Internship Program from June 01, 2021 to July 26, 2021 at HNB Garhwal University Srinagar Garhwal Uttarakhand.
- 8. Organizer- International Conference on "Aerosol, Air Quality, Climate Change and Impact on Water Resources and Livelihoods in the Greater Himalayas" by Department of Physics Hemvati Nandan Bahuguna Garhwal University (A Central University) Srinagar, Pauri Garhwal, Uttarakhand, in collaboration with Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital during 14-16 September 2020.
- 9. Co-ordinator, International webinar on Aerosol, Air Quality, Climate Change, Environmental and health effects referring to COVID 19 Lockdown during 02-03 May 2020.
- 10. Organizing Secretary- Science Outreach Exhibition Program on National Science Day (2020), Theme "Women in Science" Department of Physics HNB Garhwal University Srinagar Uttarakhand. 28 February 2020.
- 11. Organizing Secretary- National workshop on "Recent Advancements in Atmospheric Science with special reference to Himalayan" organized by Department of Physics HNB Garhwal University Srinagar Uttarakhand on September 25, 2019.
- 12. Organizing Secretary- Seminar on International Day for the Preservation of the Ozone Layer Department of Physics HNB Garhwal University Srinagar Uttarakhand.
- 13. Co-ordinator- Indian Association of Physics Teachers Examination (2018-2019) at HNB Garhwal University Srinagar Uttarakhand
- 14. Organizing Secretary, 1st International Conference on Aerosol, Air Quality and Climate Change on Himalayan region of Uttarakhand (21-23 October 2018).
- 15. Co-organizer- National conference on Climate Change Social Variability Assessment, Department of Forestry & Natural Resources, HNB Garhwal University Srinagar, 19-20 February 2014.

Research Publications 2017 onwards Journals 2023

- 1. Gautam, A. S., Singh, K., Sharma, M., Gautam, S., Joshi, A., & Kumar, S. (2023). 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 Journal of Metrology Society of India*, 38(1), 21–36. https://doi.org/10.1007/s12647-022-00533-w IF 1.44
- 2. Alok Sagar Gautam, Sanjeev Kumar, Sneha Gautam, Karan Singh, Kripa Ram, Devendraa Siingh, Balram Ambade, Manish Sharma, Regional air quality: biomass burning impacts of SO2 emissions on air quality in the Himalayan region of Uttarakhand, India Air Quality, *Atmosphere & Health Springer Netherlands* 16 (8) & 1-18, https://doi.org/10.1007/s11869-023-01426-w IF 5.8

- 3. AS Panicker, K Sandeep, AS Gautam, S Kumar, G Beig, R Latha, BS Murthy, Black Carbon Characteristics over a Semi-urban Environment in the Garhwal Himalayas, *Pure and Applied Geophysics*, Springer International Publishing180 (6) & 1-10, https://doi.org/10.1007/s00024-023-03311-0, **IF 2.5** (Scopus)2023
- 4. Sanjeev Kimothi, Sumit Chilkoti, Vikash Rawat, Asha Thapliyal, Alok Sagar Gautam, Sneha Gautam Micro- to macro-scaling analysis of PM2.5 in sensitive environment of Himalaya, India, *Geological Joural John Wiley & Sons*, Inc.58 (12) & 4360-4378 **IF 2.0** (Scopus) 2023 https://doi.org/10.1002/gj.4765
- 5. Gautam, A., Singh, V., Gautam, A. S., Kumar, P. R., Soni, P. S., Singh, R., & Singh, S. P. (2023). Lightning Development over the Distinct Climate Regions of Uttarakhand, India. *Indian Journal of Science And Technology*, 16(9), 632–639. https://doi.org/10.17485/ijst/v16i9.1886 **IF 0.06**
- Steffi Joseph Perumpully , Roshini Praveen Kumar , Sneha Gautam , Balram Ambade, Alok Sagar Gautam An inclusive trend study of evaluation and scientometric analysis of microplastics, *Physics and chemistry of the Earth*, parts A/B/C Elsevier132 & 103-455 https://doi.org/10.1016/j.pce.2023.103455 IF 3.5 (Scopus) 2023
- 7. Gautam, S., Hens, L., Gautam, A. S., & Longyi, S. (2023). Introduction to the special issue 'aerosol optical depth, aerosols, and precipitation.' *Geological Journal*, August, 10–13. https://doi.org/10.1002/gj.4874 IF 2.128
- 8. Ghanshyam, Varshney, K. S., Gautam, A. S., Singh, K., Gautam, S., & Singh, S. P. (2023). Analysis of ionospheric GPS-TEC on intense geomagnetic storms over the equatorial ionization anomaly region of India during 2015–2020. *Astrophysics and Space Science*, 368(10). https://doi.org/10.1007/s10509-023-04242-x **IF 1.909**
- 9. Kansal, A., Subuddhi, S. P., Pandey, P., Gupta, D., Rawat, T., Gautam, A. S., & Gautam, S. (2023). Investigating the Impression of National Clean Air Programme in Enhancement of Air Quality Characteristics for Non-attainment Cities of Uttarakhand. *Aerosol Science and Engineering*, 7(3), 415–425. https://doi.org/10.1007/s41810-023-00181-w **IF 1.4**
- 10. Balram Ambade, Tapan Kumar Sankar, Sneha Gautam, Dilip Kumar Mahato, Umesh Chandra Dumka, Faruq Mohammad, Hamad A. Al-Lohedan, Ahmed A. Soleiman & Alok Sagar Gautam Black Carbon vs Carbon Monoxide: Assessing the Impact on Indian Urban Cities Water, Air, & Soil PollutionSpringer International Publishing 234 (11) & 710 https://doi.org/10.1007/s11270-023-06706-wy IF 2.9 (Scopus), 2022
- 11. Kumar, P. R., Ramakrishna, S. S. V. S., Gautam, A. S., & Narita, T. (2023). Lightning activity over Telangana and Andhra Pradesh states situated in the east coast of India. *Natural Hazards*, 117(1), 71–92. https://doi.org/10.1007/s11069-023-05850-0 **IF 3.7**
- 12. Kurwadkar, S., Kumar Sankar, T., Kumar, A., Ambade, B., Gautam, S., Sagar Gautam, A., Biswas, J. K., & Abdus Salam, M. (2023). Emissions of black carbon and polycyclic aromatic hydrocarbons: Potential implications of cultural practices during the Covid-19 pandemic. *Gondwana Research*, 114, 4–14. https://doi.org/10.1016/j.gr.2022.10.001 **IF 5.83**
- 13. Pandey, P., Kansal, A., Dhiman, M., Subudhi, S. P., Gautam, A. S., & Gautam, S. (2023). Synthesis of nanoengineered microporous activated carbon from Nerium Oleander fruit seeds for the adsorptive removal of carbon dioxide (CO2).

- *Environment, Development and Sustainability*, 0123456789. https://doi.org/10.1007/s10668-023-03841-6 **IF 4.9**
- 14. Singh, R., Singh, V., Gautam, A. S., Gautam, S., Sharma, M., Soni, P. S., Singh, K., & Gautam, A. (2023). 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*, 7(1), 131–149. https://doi.org/10.1007/s41810-022-00168-z IF 1.46
- 15. Singh, S. P., Ram, J., Kumar, Y., Kumar, A., & Gautam, A. S. (2023). A New Formulation of Generalized Equation of State (GEOS) based on Finite Strain Theory and Comparison with other Equations of State (EOSs). *Indian Journal of Science and Technology*, 16(12), 862–871. https://doi.org/10.17485/ijst/v16i12.2507 **IF 0.06**
- 16. Vaghmaria, N., M E, J., Gautam, A. S., & Gautam, S. (2023). Impact of Lockdown on Column and Surface Aerosol Content over Ahmedabad and a Comparison with the Indo-Gangetic Plain. *Earth (Switzerland)*, 4(2), 278–295. https://doi.org/10.3390/earth4020015
- 17. Gautam, A. S., Kumar, S., Gautam, S., Singh, K., Ram, K., Siingh, D., & Sharma, M. (2023). Regional air quality: biomass burning impacts of SO2 emissions on air quality in the Himalayan region of Uttarakhand, India. *Air Quality, Atmosphere & Health*, 1-18. https://doi.org/10.1007/s11869-023-01426-w **IF 5.1**
- 18. Ambade, B., Sankar, T. K., Gautam, S., Mahato, D. K., Dumka, U. C., Mohammad, F., ... & Gautam, A. S. (2023). Black Carbon vs Carbon Monoxide: Assessing the Impact on Indian Urban Cities. *Water, Air, & Soil Pollution*, 234(11), 710. https://doi.org/10.1007/s11270-023-06706-w **IF 1.9**
- 19. Singh, R., Singh, V., Gautam, A. S., Gautam, S., Sharma, M., Soni, P. S., ... & Gautam, A. (2023). 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*, 7(1), 131-149. https://doi.org/10.1007/s41810-022-00168-z IF 1.46
- 20. Naqvi, H. R., Mutreja, G., Shakeel, A., Singh, K. P., Abbas, K., Naqvi, D. F., Chaudhary, A. A., Siddiqui, M. A., Gautam, A. S., Gautam, S., & Naqvi, A. R. (2023). Wildfire-induced pollution and its short-term impact on COVID-19 cases and mortality in California. *Gondwana Research*, 114, 30–39. https://doi.org/10.1016/j.gr.2022.04.016 **IF 5.83**
- 21. Sangeeta Agarwal, Gazala Praveen, Alok Sagar Gautam, Sneha Gautam, Ravindra Nath Tiwari, Sanjeev Kumar Unveiling the Surge: Exploring Elevated Air Pollution Amidst the COVID-19 Era (2019–2020) through Spatial Dynamics and Temporal Analysis in Delhi, *Water, Air, & Soil Pollution Springer International* Publishing 234 (12) & 1-21, https://doi.org/10.1007/s11270-023-06766-y IF 2.9 (Scopus) 2022
- 22. Shivali Gupta, Akanksha Rajput, Rakesh Kumar, Sudesh Yadav, Anju Verma, Alok Sagar Gautam, Sneha Gautam Seasonal variation and sources of PM2.5 bound water-soluble ions at Jammu city in the foothills of the North-western Himalayas, India, *Geological Journal*, John Wiley & Sons, Inc.99 (6) & 1-16DOI: 10.1002/gj.4835 **IF 2.0** (Scopus) 2023
- 23. A Gautam, V Singh, AS Gautam, PR Kumar, PS Soni, R Singh, SP Singh, Lightning Development over the Distinct Climate Regions of Uttarakhand, India

Indian Journal of Science and Technology, Indian Society For Education and Environment 16 (9) & 632-639, DOI:10.17485/IJST/v16i9.1886 **IF 2.3** (Scopus)

- 24. Mushtaq, Z., Sharma, M., Bangotra, P., Gautam, A. S., & Gautam, S. (2022). Atmospheric Aerosols: Some Highlights and Highlighters, Past to Recent Years. *Aerosol Science and Engineering*, 6(2), 135–145. https://doi.org/10.1007/s41810-022-00133-w **IF 1.46**
- 25. Lekha Dhote, Pranjali Sharma, Sushil Dogra, P. Arulrajan, Prashant Pandey, Ankur Kansal, Manisha Dhiman, Alok Sagar Gautam & Sneha Gautam Quantifying the Effects of the National Clean Air Programme on Air Quality Parameters in Chandigarh: A Scientific Assessment, *Aerosol Science and Engineering Springer Nature Switzerland AG*, 7 (3) & 1-11, https://doi.org/10.1007/s41810-023-00206-4 IF 1.4 (Scopus), 2022
- 26. Gautam, A. S., Singh, K., Sharma, M., Gautam, S., Joshi, A., & Kumar, S., (2022). 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 Journal of Metrology Society of India*. 10.1007/s12647-022-00533-w. **IF 1.4**
- 27. Arya, S., Tiwari, P., Gautam, A. S., & Sharma, M. (2022). Aeropalynology of Parthenium hysterophorus L. in Relation to Meteorological Parameters from Srinagar Valley of Garhwal Himalaya, Uttarakhand. *Nature Environment and Pollution*Technology, 21(4), 1775–1781. https://doi.org/10.46488/NEPT.2022.v21i04.033 IF 0.53
- **28.** Bisht, D. S., Srivastava, A. K., Singh, V., Tiwari, S., Gautam, A. S., Gautam, S., Santosh, M., & Kumar, S. (2022). High-Altitude Air Pollutants Monitored from Rainwater Chemistry in the Central Himalaya. *Water, Air, and Soil Pollution*, 233(9). https://doi.org/10.1007/s11270-022-05855-8 **IF 2.7**
- 29. Das, S., Giorgi, F., Coppola, E., Panicker, A. S., Gautam, A. S., Nair, V. S., & Giuliani, G. (2022). Linkage between the absorbing aerosol-induced snow darkening effects over the Himalayas-Tibetan Plateau and the pre-monsoon climate over northern India. *Theoretical and Applied Climatology*, 147(3–4), 1033–1048. https://doi.org/10.1007/s00704-021-03871-y IF 3.33
- 30. Gautam, A. S., Joshi, A., Chandra, S., Dumka, U. C., Siingh, D., & Singh, R. P. (2022). Relationship between Lightning and Aerosol Optical Depth over the Uttarakhand Region in India: Thermodynamic Perspective. *Urban Science*, 6(4), 70. https://doi.org/10.3390/urbansci6040070 **IF 2.0**
- 31. Gautam, S., Elizabeth, J., Gautam, A. S., Singh, K., & Abhilash, P. (2022). Impact Assessment of Aerosol Optical Depth on Rainfall in Indian Rural Areas. *Aerosol Science and Engineering*, 6(2), 186–196. https://doi.org/10.1007/s41810-022-00134-9 **IF 1.46**
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- 7. Invention "Integrable Laser Marker" certified the registration of United Kingdom International Design Patent (Design Registration No. 6300180)
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- 9. Design Patent certified of registration of design of "Cancer diagnostic system" for the Patent Office, Government of India (Design No. 394161-001/31-08-2023)
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