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# RESEARCH EXPERIENCE:

* Ramanujan Fellow at Environmental Sciences Section, Bose Institute, Kolkata, India, September 2013 - Present
* Visiting Scientist during July-August 2014, Disaster Prevention Research Institute, Kyoto University, Japan
* Visiting Scientist during March 2014, Department of Physics, University of New Brunswick, Canada
* Post Doctoral Fellow at Department of Atmospheric Sciences, National Taiwan University, Taiwan, May 2011-August 2013.
* Post Doctoral Fellow at National Atmospheric Research Laboratory, Gadanki, India, July 2010 – May 2011.
* Resident Scientist at Project Atmospheric Brown Cloud, UNEP Regional Resource Center for Asia and the Pacific (RRC.AP), Hanimaadhoo, Maldives, Feb 2010 – June 2010
* Post Doctoral Fellow at Physical Research Laboratory (PRL), Ahmedabad, India, Oct 2008 – Feb 2010.
* Senior Research Fellow at PRL, Ahmedabad, India, Sep 2005 – Oct 2008.
* Junior Research Fellow at PRL, Ahmedabad, India, Aug 2003 – Aug 2005

# ACADEMIC QUALIFICATIONS:

* **Ph.D. in Science** from Gujarat University for the work carried out on “**Observational and Theoretical Estimation of the Contribution of Anthropogenic and Natural Aerosols to Radiative Forcing of the Atmosphere**” at Physical Research Laboratory, India at Jan 2011 under the guidance of Prof. A. Jayaraman.
* M. Sc. in Physics from Jadavpur University, India during 2001-2003 (First Class)
* B. Sc. in Physics Honors from Ramkrishna Mission Vivekananda Centranary College, Rahora; affiliated to Calcutta University, India during 1998-2001 (Second Class).
* Higher Secondary Examination from Naihati Narendra Vidyaniketan, West Bengal, India during 1996-1998 (First Division)
* Secondary Examination from Naihati Mahendra High School, West Bengal, India in 1996 (First Division)

# RESEARCH PAPERS IN PEER REVIEWED JOURNALS:

1. A. Roy, A. Chatterjee, C. Sarkar, **Sanat Kumar Das**, S. K. Ghosh, S. Raha, "A study on aerosol-cloud condensation nuclei (CCN) activation over eastern Himalaya in India", Atmospheric Research, Volume 189, 1 June 2017, Pages 69-81, ISSN 0169-8095.
2. **Sanat Kumar Das**, A. Chatterjee, , S. K. Ghosh, S. Raha, " An integrated campaign for investigation of winter-time continental haze over Indo-Gangetic Basin and its radiative effects", Science of The Total Environment,533, 15, 370-382, 2015.
3. **Sanat Kumar Das**, A. Chatterjee, , S. K. Ghosh, S. Raha, "Fog-Induced Changes in Optical and Physical Properties of Transported Aerosols over Sundarban, India", Aerosol and Air Quality Research, 2015.
4. **Sanat Kumar Das**, J. P. Chen, M. V. Ratnam and A. Jayaraman, “Investigation of radiative effects of the optically thick dust layer the Indian tropical region”, Ann. Geophys., 31, 647-663, 2013.
5. **Sanat Kumar Das** and A. Jayaraman, “Long-range transportation of Anthropogenic Aerosols over Eastern Coastal Region of India: Investigation of Sources and Impact on Regional Climate Change”, Atmos. Res., 68-83, 2012.
6. **Sanat Kumar Das** and A. Jayaraman, “Role of Black Carbon in Aerosol Properties and Radiative Forcing over Western India during Premonsoon Period”, Atmos. Res., 102, 320-334, 2011.
7. **Sanat Kumar Das,** A. Taori and A. Jayaraman, “On the role of dust storms in triggering atmospheric gravity waves observed in the middle atmosphere”, Ann. Geophys., 29, 1647-1654, 2011.
8. **Sanat Kumar Das,** D. P. Dhobal and N. Juyal, “Variability of Aerosol Optical Depth and recent recessional trend in Dokriani Glacier, Bhagirathi valley, Garhwal Himalaya”, Curr. Sci., 99, 1816-1821, 2010.
9. U. Das, H. S. S. Sinha, S. Sharma, H. Chandra, and **Sanat Kumar Das**, “Fine Structure of the Low Latitude Mesospheric Turbulence”, J. Geophys. Res., 114, D10111, doi:10.1029/2008JD011307, 2009.
10. **Sanat Kumar Das**, A. Jayaraman and A. Misra, “Fog induced variations in aerosol optical and physical properties over the Indo-Gangetic Basin and impact to aerosol radiative forcing", Ann. Geophys., 26, 1345-1354, 2008
11. S Ramachandran, R Rengarajan, A Jayaraman, M M Sarin, **Sanat Kumar Das**, “Aerosol radiative forcing during clear, hazy and foggy conditions over a continental polluted location in north India", J. Geophys. Res. 111. D20214, doi:10.1029/2006JD007142, 2006.

# BOOKS/CONTRIBUTARY CHAPTERS:

1. **Sanat Kumar Das**, “Evidences for the Recent Acceleration of Aerosol Heating Rate over Himalayas” in book “Air Pollution and Pollutants”, Academy Publish, 2014.
2. **Sanat Kumar Das**, “Natural vs Anthropogenic Background Aerosol contribution on Indian Thar Desert Radiation Budget”, in book “Atmospheric Aerosols - Regional Characteristics - Chemistry and Physics” (ISBN 978-953-51-0728-6), Intech Publisher, 2012.
3. **Sanat Kumar Das** and A. Jayaraman, “Atmospheric Radiative Forcing – Effects of Natural and Anthropogenic Aerosols” (ISBN 978-3-659-13691-7), Lambert Academic Publishing, 2012.

# PRESENTATIONS IN CONFERENCES/WORKSHOPS/SYMPOSIA:

1. A. Ghosh ,A. Chatterjee , A. Roy, C. Sarkar , S. K. Ghosh ,**Sanat Kumar Das**, S. Raha. " Effect of Shifting Cultivation Activity over Eastern Ghat and Adjacent Areas on Air Quality over a Tropical Urban Atmosphere in Eastern India During Premonsoon, 2016", Aerosol Climate Change Connection (AC3), Darjeeling, 25-27 April, 2016
2. T. Mukherjee, **Sanat Kumar Das**, A. Chatterjee, S. K. Ghosh, S. Raha, " A study on cloud microphysical properties during 'Kalbaishakhi’", Indian Aerosol Science and Technology Association (IASTA), Ahmadabad, 7-9 December, 2016
3. A. Roy ,A. Chatterjee , C. Sarkar , S. K. Ghosh ,**Sanat Kumar Das**, S. Raha, "Role of submicron aerosols on cloud condensation nuclei over eastern himalaya in India" Indian Aerosol Science and Technology Association (IASTA), Ahmadabad, 7-9 December, 2016
4. C. Sarkar, A. Chatterjee, A. Roy, **Sanat Kumar Das**, S. Ghosh And S. Raha. " Long term (2008-2016) trend of fine mode aerosol and black carbon over a high altitude hill station in eastern Himalaya, India", Indian Aerosol Science and Technology Association (IASTA), Ahmadabad, 7-9 December, 2016
5. **Sanat Kumar Das**, Hirohiko Ishikawa, S. K. Ghosh, S. Raha, " Application of TC Ensemble Technique to Tropical Cyclone over the Bay of Bengal, India", Disaster Prevention Research Institute, Kyoto University, 23-24 February 2015, Kyoto , Japan.
6. **Sanat Kumar Das**, A. Chatterjee, S. K. Ghosh, S. Raha, "An integrated campaign to quantify the radiative effects of transported haze from Indo-Gangetic Basin to Bay of Bengal", Asia Oceania Geoscieces Society, 28 Jul- 1 Aug 2014, Sapporo , Japan.
7. A. Chatterjee, C. Sarkar, **Sanat Kumar Das**, S. K. Ghosh, S. Raha, "Contribution of Local sources, Long-range and Mountain Wind transport for aerosols over an Eastern Himalayan High-Altitude station in India", COSPAR Scientic Assembly, 2-10 August 2014, Moscow, Russia.
8. **Sanat Kumar Das**, and J. P. Chen, “Vertical Profile of Aerosol Radiative Effects over Asia Estimated from CALIPSO Data”, at American Geosciences Union (AGU) meeting, 9-13 December 2013, San Francisco, USA.
9. **Sanat Kumar Das**, I-Chun Tsai, Tzu-Chin Tsai and J. P. Chen, “Investigation of the role of Aerosols in Tropical cyclones over North Indian Ocean”, at AOGS, 24-28 June 2013, Brisbane, Australia.
10. **Sanat Kumar Das** and J. P. Chen, “Investigation of Effects of Transported Aerosols over Semi-arid Region in Indian Subcontinent”, at JpGU, 19-24 May 2013, Makuhari Messe, Japan.
11. **Sanat Kumar Das** and J. P. Chen, “Investigation of Background Aerosol Properties and their effects on Radiation Budget over Western India”, at 39th COSPAR Scientic Assembly, 14- 22 July 2012, at Mysore, India.
12. **Sanat Kumar Das** and J. P. Chen, “Investigation of Aerosol Effects on Rain Drop Size Distribution”, at EGU General Assembly 2012 during 22 – 27 April 2012 at Vienna, Austria.
13. A. Chatterjee, **Sanat Kumar Das**, S. K. Ghosh and S. Raha, “Wet Scavenging of Black Carbon and Sulphate Depends on the Nature of the Rain; Effect on the Climate and Global Change”, at EGU General Assembly 2012 during 22 – 27 April 2012 at Vienna, Austria.
14. **Sanat Kumar Das** and A. Jayaraman, “Detection of Optically Thick Dust Layers Over Southern India by CALIPSO and Their Effects on Atmospheric Radiative Forcing and Heating” at AOGS in Taipei, Taiwan, - 8-12 August 2011.
15. **Sanat Kumar Das,** H. Gadhavi and A. Jayaraman, “Study of changes of aerosol apportionment in different breeze conditions at eastern coastal region of India” at AOGS in Hydrabad, India, - 5-9 July 2010.
16. **Sanat Kumar Das** and M. M. Sarin, “Dust storm induced modulation of aerosol optical depth: Implications to spatio-temporal variability in atmospheric radiative forcing”, at Goldschmidt™2009 – “Challenges to Our Volatile Planet” in Davos, Switzerland, 21 - 26 June 2009.
17. **Sanat Kumar Das** and A. Jayaraman, “Seasonal variation of black carbon at a high altitude station, Mount Abu”, submitted at XV National Space Science Symposium (NSSS 2008), at Radio Astronomy Centre, NCRA-TIFR, Ooty, 26-29th Feb, 2008.
18. **Sanat Kumar Das** and A. Jayaraman, “Aerosol Characteristics over Urban and Pristine Regions: A comparative Study”, at Aerosol-Chemistry-Climate Interactions (ACCLINT-2007) at Physical Research Laboratory, Ahmedabad, 20-22nd December 2007.
19. **Sanat Kumar Das** and A. Jayaraman, “Changes in Aerosol characteristic due to changes in land-sea breeze observed over Kalpakkam”, at Indian Aerosol Science And Technology Association (IASTA 2007), at National Physical Laboratory, Delhi, 14-16*th* November 2007.
20. **Sanat Kumar Das** and A. Jayaraman, “Aerosol size distribution variation in winter time aerosols over north India and its impact on aerosol radiative forcing” accepted at XIV National Space Science Symposium (NSSS 2006), at Andhra University, Visakhapatanam, 09-12*th* February 2006.
21. Amit Misra, **Sanat Kumar Das**, A. Jayaraman ; “Study of aerosol properties during fog events from satellite and ground based observations”, accepted at 4*th* Asian Aerosol Conference (AAC-2005), BARC, Mumbai, 13-16*th* December 2005.

# OTHER CONTRIBUTIONS:

1. Tripathy, G. R., and S. K. Singh, “Chemical erosion rates of river basins of the Ganga system in the Himalaya: Reanalysis based on inversion of dissolved major ions, Sr, and 87Sr/86Sr”, Geochem. Geophys. Geosyst., 11, Q03013, doi:10.1029/2009GC002862, 2010.

# AWARDS/HONORS:

1. **Ramanujan Fellowship** sponsored by Science and Engineering Research Board (SERB)- Department of Science and Technology (DST), India
2. **Visiting Scientist Scholarship** during July-August 2014 at Disaster Prevention Research Institute, Kyoto University for two months sponsored by Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan.
3. 27th Rank in Joint Entrance Screening Test (**JEST) 2003, an eligibility test for pursuing doctoral research in premier institutes of India.**
4. Qualified National Eligibility Test (**NET-2003)** conducted by Council of Scientific & Industrial Research (CSIR) for pursuing **Lectureship and Research in Universities in India.**

# ACADEMIC RESPONSIBILITIES:

Reviewer to Recent Five Journals

1. JGR-Atmospheres
2. Atmospheric Environment
3. Atmospheric Research
4. Terrestrial, Atmospheric and Oceanic Sciences
5. Environmental Science & Technology Letters

# PERSONAL PROFILE:

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