Dr. Daya Shankar Kaul

Assistant Professor

SOT, PDPU

Contact Details:

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Education and Qualification:

Sr. No.	*year*	*degree*	*Institute*	*Specialization*
1.	2004	B. Tech	IIT Delhi	Civil Engineering
2.	2007	M. Tech	IIT Kanpur	Environmental Engineering
3.	2014	Ph. D	IIT Kanpur	Civil Engineering

Work Experience:

Sr.No.	*Position held (Designation)*	*Place of work*	*Duration*
1.	Project Associate	IIT Kanpur	2007-2008
2.	Research Associate	City University of Hong Kong, Hong Kong	2014-2015
3.	Post-doctorate Fellow	City University of Hong Kong, Hong Kong	2015-2016
4.	Assistant Professor	Pandit Deendayal Petroleum University, Gandhinagar	2016-till date

TeachingWork Experience:

Sr.No.	*Position held (Designation)*	*Place of work*	*Subject Taught At UG Level Level (No of Times Taught)*	*Subject Taught At PG Level Level (No of Times Taught)*	*Duration*
1.	Assistant Professor	Pandit Deendayal Petroleum University, Gandhinagar	1. Environmental Engineering-I (2), 2. Environmental Engineering-II (3) 3. Air Pollution Monitoring and Modeling (1) 4. Advance Surveying Lab (2) 5. Environmental Engineering Lab-I (3) 6. Environmental Engineering Lab-II (3) 7. Applied Mechanics Lab (1) 8. Building Planning and Drawing Lab (1) 9. Engineering Geology (2)	1. Solid and Hazardous Waste Management (3) 2. Environmental Legislation (3) 3. Air Pollution Modeling Monitoring and Control (2) 4. Advance Environmental Engineering Lab (1) 5. Fate and Transport of Pollutants in Natural System (1) 6. Environmental Impact Assessment (3)	2016-till date

Awards and Recognitions:

1. Council of Scientific and Industrial Research (CSIR) foreign travel grant for attending European Geosciences Union (EGU) General Assembly, 2012
2. National Aeronautics and Space Administration (NASA) travel grant under collaborative research work between IIT Kanpur and NASA for attending Aeronet Network Sun Photometry and MODIS RS Training Workshop, China, 2009
3. Cash award for journal publication by IIT Kanpur (2011)
4. Cash award for journal publication by IIT Kanpur (2014)
5. Badminton Player (1st prize in single, PDBL, 2018)
6. Badminton Player (1st prize in single, PDBL, 2019)

Research Project and Consultancy Work from External Sources:

1. Title: Treatment of ammonical nitrogen from industrial wastewater in a combined electrochemical and biological process (PI: Dr. Daya Kaul; Funding Agency: DST-WOSA; Status: ongoing).

2. Title: Understanding odor around municipal solid waste landfill: a receptor and dispersion modeling approach (PI: Dr. Daya Kaul; Funding Agency: GUJCOST, SHODH; Status: undergoing).

ORSP Research Project (Completed):

1. Title: A method development for onroad online streaming of vehicle density and air pollution for a city to common public (CoPI: Dr. Daya Kaul; Funding Agency: PDPU; Status: ongoing).

2. Title: Diffusion based noise model development: an application for noise reduction through modified building orientation and noise damping material (CoPI: Dr. Daya Kaul; Funding Agency: PDPU; Status: undergoing).

Student Supervision:

Details	*Completed*	*Ongoing*	*Year*
B. Tech	15	2	2017-2021
B. Tech (orsp)	2	1	2016-2021
M. Tech	9	9	2016-2021
Ph D	0	3	2016-2021

M. Tech Thesis Supervision, Title (Completed):

1. Understanding the sources of heavy metal pollution in ambient air surrounding municipal solid waste landfill site
2. Preparation of sulfur composite material for manufacturing of corrosive resistance building structures using petrochemical solid waste
3. Design and development of miniature cyclone
4. Understanding the sources of soil pollution surrounding municipal solid waste landfill site using receptor modeling approach
5. LCA for Integrated steel plant
6. Comparative study of hydrometallurgy and biohydrometallurgy for extraction of metals from obsolete electronics
7. Assessment of noise pollution in urban traffic centers in Delhi
8. Development of a low cost device of urban air pollution and micro-climate studies.
9. Optimization of solid waste collection routes of Odhav ward of Ahmedabad city using network analyst

Ph. D Thesis Title (Ongoing):

1. Title: Treatment of ammonical nitrogen from industrial wastewater in a combined electrochemical and biological process(Student: Nibedita Pani; Status: ongoing).

2. Title: Understanding odor around municipal solid waste landfill: a receptor and dispersion modeling approach(Student: Rutu Joshi;Status: undergoing).

3. Title: Understanding soil pollution around municipal solid waste landfill: a receptor and dispersion modeling approach(Student: Rakesh Maheswari; Status: undergoing)

Administrative Responsibilities:

Positions	**Duration**
1. Laboratory In charge (Environmental Engineering)	2020-till date
2. PG Coordinator (Environmental Engineering)	2018-till date
3. Chairman, BOS (Environmental Engineering)	2018-2020
4. Coordinator (BOS: Environmental Engineering)	2020-till date
5. NBA Coordinator	2019-till date
6. NPTEL University level SPOC	2020-till date
7. Newsletter Coordinator	2018-till date

Professional Membership:

1. International Solid Waste Association
2. International Society of Indoor Air Quality and Climate
3. American Society of Civil Engineers
4. Society of Indoor Environment
5. American Association for Aerosol Research

Journal Publications:

1. Aatmeeyata, **Kaul, D. S.,** Sharma, M., Traffic Generated Non-Exhaust Particulate Emissions from Concrete Pavement: A Mass and Particle Size Study for Two-Wheelers and Small Cars, Atmos. Env., 43, 5691-5697, 2009 (Impact Factor- 3.46)

2. **Kaul, D. S.,** Gupta, T., Tripathi, S. N., Tare, V., Collett Jr, J. L.., Secondary organic aerosol: a comparison between foggy and nonfoggy days, Environ. Sci. Technolo., 45 (17), 7307-7313, 2011 (Impact Factor-5.23)

3. Misra, A., Tripathi, S. N., **Kaul, D. S.,**Welton, E., Study of MPLNET derived aerosol climatology over Kanpur, India, and validation of CALIPSO Level 2 Version 3 Backscatter and Extinction products, J. Atmos. Oceanic Technol., doi:10.1175/JTECH-D-11-00162.1, 2012 (Impact Factor- 2.26)

4. **Kaul, D. S,** Gupta, T., Tripathi, S. N., Chemical and microphysical properties of the aerosol during foggy and nonfoggy day: A relationship between organic and inorganic content of the aerosol, Atmos. Chem. Phy. Discuss., 12, 14483-14524, doi:10.5194/acpd-12-144483-2012, 2012 (Impact Factor: 5.52)

5. Gosh, S., Gupta. T., Rastogi N., Gaur, A., Misra, M., Tripathi, S. N., Paul, D., Tare, V., Prakash, O., Bhattu, D., Dwivedi, A. K., **Kaul, D. S**., Dalai, R., Mishra, S. K., Chemical characterization of summer time dust events at Kanpur: Insight into sources and level of mixing with anthropogenic emissions, Aerosol Air Qual. Res, 14, 879-891, 2014 (Impact Factor: 2.1)

6. **Kaul, D. S.,** Gupta, T., Tripathi, S. N., Source apportionment of water soluble organic matter of submicron aerosol: A comparison between foggy and nonfoggy episodes, Aerosol Air Qual. Res., 14, 1527-1533, 2014 (Impact Factor- 2.1)

7. Yang, F., **Kaul, D. S.**, Wong, K. C., Westerdahl, D., Sun, Li., Ho, K. F., Tian, L., Brimblecombe, P., Ning, Z., Heterogeneity of passenger exposure to air pollutants in public transport microenvironments, Atmos. Env., 109, 42-51, 2015 (Impact Factor: 3.46)

8. Jiang, S. Y., **Kaul, D. S.**, Yang, F., Li, S., Ning, Z., Source apportionment and water solubility of metals in size segregated particles in urban environment, Sci. Total Environ., 533, 347-355,2015, (Impact Factor- 3.2)

9. **Kaul, D. S.,** Ning Z., Westerdahl, D., Yin, X., Carry, R. A., A novel tandem of thermal desorption carbon analyzer and off-axis integrated cavity output spectroscopy for stable carbon isotope ratio measurement, Aero. Air Qual. Res,6, 1345-1355,2016, (Impact Factor- 2.1)

10. Patel, S., Rawal, I., Patel, P. K., Niwate, I., **Kaul, D. S.**, et al., Synthesis and characterization of high saline water resistant sulfur composite from petrochemical waste, International Journal of Green Chemistry, 6, 2,64-77, 2020 (Impact Factor- 5.0)

Full Paper Conference Publications:

1. **Kaul, D. S. et al.**, Development of low-cost miniature device for high spatial, distributed monitoring of aerosol optical depth for regional level microclimatic studies, IOP Conference Series: Earth and Environmental Sc., 281012006, 1-9, 2019

Conference Publications:

1. **Kaul, D. S.,**Aatmeyata, Sharma, M. K., Assessment of particulate matter and metal emission from tyre wear, European Aerosol Conference (EAC), Thessaloniki, Greece, August 22-29, 2008

2. **Kaul, D. S.,**Tripathi, S. N., Gupta., T, Tare, V., Enhanced secondary organic aerosols during fog episodes, European Aerosol Conference (EAC), Manchester, U.K, September 04-09, 2011

3. **Kaul, D. S.,**Tripathi, S. N., Gupta, T., Optical, microphysical and chemical properties of the aerosols: a comparison between foggy and non-foggy days over a typical location in Indo-Gangetic plain, Asian Aerosol Conference (AAC), Xian, China, August 16-19, 2011

4. **Kaul, D. S.,**Tripathi, S. N., Gupta, T., Tare, V., Enhanced secondary organic aerosol during fog episode over typical location in Indo-Gangetic region, American Geophysical Union (AGU), San Francisco, California, USA, December 5-9, 2011

5. Misra, A.., Tripathi, S. N., **Kaul, D. S.,**Welton, E., Comparison of CALIOP level 2, Version 3 backscatter and extinction products with MPLNET data at Kanpur, India, European Geoscience Union (EGU) General Assembly , Vienna, Austria, April 22-27, 2012

6. **Kaul, D. S.,** Gupta, T., Tripath, S. N., Evaluating the WRF-CMAQ simulations of aqueous phase produced secondary organic aerosol under foggy and nonfoggy conditions, Indian Aerosol Science and Technology Association (IASTA), Mumbai, India, December 11-13, 2012

7. **Kaul, D. S.,** Ning, Z., Westerdahl, D., Yin, X, Carry, B., A novel approach for online measurement of stable isotope ratio of carbonaceous atmospheric aerosols, Asian Aerosol Conference, Kanazawa, Japan, 2015

8. Jadeja, D., Kaul, D. S., et al., A method development for improving efficiency of solid waste collection system, International Conference on Solid Waste Management, Hyderabad, India 2017

9. Gajjar, H., **Kaul, D. S.,**A device development for measuring atmospheric columnar integrated air pollution, International Aerosol Conference, U. S. A, 242, 2018.