



Center for Atmospheric And Climate Sciences

Environmental Engineering Division
Department of Civil Engineering, IIT Madras



About Me



Dr. Supriya Dey
Institute Postdoctoral
Fellow

Mentor

Prof. Sachin S. Gunthe

I am a Researcher specializing in atmospheric sciences, presently engaged as a Postdoctoral Fellow at the Center for Atmospheric And Climate Sciences (CACS) at Indian Institute of Technology (IIT) Madras. I completed my Master's degree in Atmospheric Sciences from the University of Calcutta, West Bengal, and obtained a PhD degree from the IIT Mandi, where I specialized in Aerosol Chemistry. Driven by a strong academic background and a keen interest in research, I focus on advancing my expertise in aerosol characterization and understanding their formation mechanisms. My work strives to unravel their influence on atmospheric processes, ultimately contributing to a more comprehensive understanding of aerosol-cloud-climate interaction within the framework of Earth System Sciences.

Research Interest

- Atmospheric and climate sciences with a focus on aerosol–cloud–climate interactions.
- Optical, chemical and molecular characterization of light-absorbing brown carbon, their sources and transport pathways.
- Exploring the role of secondary organic aerosols in climate using a laboratory-based setup equipped with state-of-the-art instrumentation.

Skills

- PARAFAC, HYSPLIT, PMF model, MATLAB,
- Hands-on experience with laboratory instruments: - Aethalometer (AE-33), PM_{2.5} sampler, UV-Vis spectrophotometer, Fluorescence spectrometer, FT-IR spectrometer (FT-IR), IRMS, NMR, Ion chromatography system, TOC analyzer
- Currently learning to operate the SMPS, CCN counter, ACSM and PAM-OFR instruments.

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