

Semontee Deb

✉ write2semontee@gmail.com ☎ +35794597551 📅 23/03/1999 🇮🇳 Indian ♀ Female
🌐 linkedin.com/in/semontee-deb-168606197 📍 Nicosia, Cyprus

🎓 EDUCATION

PhD in Atmospheric Science 05/2025 – present
The Cyprus Institute
MSCA DUST-DN Project - DC1 "Modelling impacts of aeolian dust towards air quality policy planning"

MSc. (Atmospheric Science) 11/2021 – 07/2024
University of Calcutta
CGPA : 8.14/10
Elective subjects : Applied Mathematics and Physics

BSc., Physics(Hons.) 08/2018 – 06/2021
Bethune College, University of Calcutta
CGPA: 7.98/10
Elective subjects : Mathematics and Computer Science

12th 03/2016 – 04/2017
West Bengal Council of Higher Secondary Education
Percentage:83.4%

💼 PROFESSIONAL EXPERIENCE

Project Associate 08/2024 – 03/2025
Department of Centre for Environmental studies and Engineering, Indian Institute of Technology, Kanpur.
Source Apportionment Study, Air quality modelling and Analysis of air samples.

🧠 SKILLS

Python
numpy and scipy modules
calculus using numpy
Plotting and fitting of curves

FORTRAN
Computation and analysis of atmospheric parameters

LaTeX

📖 PUBLICATIONS

S. Chakraborty, S. Palit, S. Deb and T. Basak. 'Modeling of the long-term variability of D-region ionospheric electron density due to solar cycle 24'. 07/10/2024
Journal of Geophysical Research: Space Physics

🏆 AWARDS AND SCHOLARSHIPS

Marie Skłodowska-Curie Actions Doctoral Network Fellowship. Horizon Europe program · Grant No. 101168425.

"Kanyashree" For Meritorious MSc. Candidates.

🧩 PROJECTS

Masters Project 🔗
Modelling of The Long-Term Effects on D-region Ionospheric Parameters due to Solar Cycle 24
Indian Center for Space Physics, (ICSP) Kolkata

RESEARCH INTERESTS

Ionosphere| Atmospheric Chemistry| Air Pollution| Climate Physics

RESEARCH EXPERIENCE

- Air sample analysis using IC, ICP-MS, GC
- Soil sample analysis
- Air quality modelling with AERMOD, CMB.
- Structuring reports for Pollution control Boards
- Ionospheric parameters Calculations using LWPC simulation.
- Analyzing the long-term trends and periodicities in the electron density of the of the ionosphere and their connection to solar cycles.
- Implementing Python modules for data processing, visualization, and statistical analysis for large data sets
- Noise reductions and eliminating data outliers from VLF signals.
- Scientific writing using LaTeX

LANGUAGES

English ● ● ● ● ● **Bengali** ● ● ● ● ●
IELTS Band 8.0

Hindi ● ● ● ● ●

WORKSHOPS

Space Situational Awareness and Space Traffic Management, Indian Space Research Organisation (ISRO) 2023

3-day workshop on space traffic management, space debris detection, awareness on space situation, payload distribution on satellite, debris removal.

Training at National Centre for Medium Range Weather Forecasting (NCMRWF), Noida 2023

7 day training on Data Assimilation, Forecasting, Model Verification, Ensemble prediction, Numerical Weather Prediction, Hands on experience with HPC

Workshop on Experimental Physics 2019

Indian Association of Physics Teachers
(Hands on Experiment on various topics:electricity and magnetism,optics)

EXTRA-CURRICULAR ACTIVITIES

Field Visits

- Visit to India Meteorological Department, Delhi: Gathering basic knowledge about weather parameter analysis.
- ozone measurement Using Dobson Spectrometer.
- Handling Radiosonde and understanding underlying technicalities of weather balloon at IMD ,Delhi

Team work

- Lead my Group During Basic Mountaineering Course and worked Alongside 150 trainees.

Mountaineering

- Certified Basic Mountaineer, summit height: 14000 ft

Social Work

- Worked with Cowise care app as data entry (emergency contacts, oxygen supply chains) Personnel during Covid-19.
- organized and raised fund for the affected during Amphan Cyclone