

Soumya Satyakanta SETHI

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EDUCATION

DOCTORATE 2019-2025	PhD in ATMOSPHERE & OCEAN SCIENCES School of Earth, Ocean and Climate Sciences Indian Institute of Technology Bhubaneswar , Bhubaneswar Thesis : Urban Heat and Aerosol Pollution Islands in India: A Satellite-based Multicity Characterization Advisor: Dr. V. VINOJ
POSTGRADUATION 2017-2019	M.Tech. in CLIMATE SCIENCE & TECHNOLOGY School of Earth, Ocean and Climate Sciences Indian Institute of Technology Bhubaneswar , Bhubaneswar Thesis : Urban heat islands over Indian cities and their changes owing to aerosols and clouds Advisor: Dr. V. VINOJ CGPA: 9.09/10
GRADUATION 2013-2017	B.Tech. in MECHANICAL ENGINEERING Department of Mechanical Engineering National Institute of Technology Rourkela , Rourkela Thesis : Study on Flow Dynamics of a Moving Water Droplet under the Action of Heated Shear Flow Advisor: Dr. Suman. GHOSH CGPA: 7.83/10

JOURNAL PUBLICATIONS

1. Sethi SS & Vinoj V (2025).Transported dust modulates aerosol pollution domes over rapidly urbanizing Indian cities. **Communications Earth & Environment**. 6(1), 554. [doi10.1038/s43247-025-02538-0](https://doi.org/10.1038/s43247-025-02538-0)
2. Sethi SS & Vinoj V (2024).Urbanization and regional climate change-linked warming of Indian cities. **Nature Cities**. 1(6), 402-405. [doi10.1038/s44284-024-00074-0](https://doi.org/10.1038/s44284-024-00074-0)
3. Sethi SS, Vinoj V, Gogoi PP, Landu K, Swain D & Mohanty UC (2023). Spatio-temporal evolution of surface urban heat island over Bhubaneswar-Cuttack twin city: a rapidly growing tropical urban complex in Eastern India. **Environment, Development, and Sustainability**, 26(6), 15381-15402. [doi10.1007/s10668-023-03254-5](https://doi.org/10.1007/s10668-023-03254-5)
4. Nandini G, Vinoj V, Sethi SS, Nayak HP, Landu K, Swain D & Mohanty UC (2022). A modelling study on quantifying the impact of urbanization and regional effects on the wintertime surface temperature over a rapidly-growing tropical city. **Computational Urban Science**, 2(1), 40. [doi10.1007/s43762-022-00067-6](https://doi.org/10.1007/s43762-022-00067-6)
5. Sethi SS, Dutta SK, Jayant & Kumar M (2018). Techno-economic analysis of chemical looping system for Indian power plants. **Environmental Technology & Innovation**, 9, 16-29. [doi10.1016/j.eti.2017.10.004](https://doi.org/10.1016/j.eti.2017.10.004)

BOOK CHAPTER

1. **Sethi SS**, Nandini G, & Vinoj V (n.d.). Digital Twins for Urban Climate Studies: Towards Smarter and Sustainable Urban Development and Planning. (Under Review)

CONFERENCE

1. **Sethi SS & Vinoj V** (2024). Warming Over Indian Cities: Urbanization or Climate Change. Oral presentation, Presented at *TROPMET-2024*, Rourkela, India.
2. **Sethi SS & Vinoj V** (2023). Evolving Urban Heat Island in the Era of Climate Change: A Study Over a Tropical Twin City Region in Eastern India. Oral presentation, Presented at *the 20th Annual Meeting of AOGS*, Singapore.
3. **Sethi SS & Vinoj V** (2022). Evolving Urban Thermal Climate over Indian Cities. *Poster* presentation (Online), Presented at *the AGU Fall Meeting 2022*, Chicago, USA.
4. **Sethi SS & Vinoj V** (2022). Urbanization and The Evolving Heat Islands over the Indian Region. *Poster* presentation (Online), Presented at *the 2022 IAUC Virtual Poster Conference*, Sydney, Australia.
5. **Sethi SS**, Vinoj V, Gogoi PP, Landu K, Swain D & Mohanty UC (2021). Changing surface temperature and rainfall over a rapidly growing twin city in eastern India. *Poster* presentation (Online), Presented at *INTROMET-2021*, Kerala, India.
6. **Sethi SS**, Vinoj V, Gogoi PP, Landu K, Swain D & Mohanty UC (2020). Urbanization induced changes to Land surface temperature and rainfall over a rapidly growing city in Eastern India: A satellite remote sensing perspective. *Poster* presentation (Online), Presented at *the 14th Graduate Climate Conference*, Washington, USA.

TRAINING & WORKSHOP

MAR 13-24, 2023	Training Course on Satellite Meteorology and its Application in Numerical Weather Prediction Organised by <i>North Eastern Space Application Centre (NESAC), Dept. of Space, Govt. of India</i>
NOV 7-8, 2022	Urban Air Quality Management and Training on UrbAirIndia Organised by <i>Centre for Development of Advanced Computing (C-DAC) & Central Pollution Control Board (CPCB), India</i>
MAR 22-27, 2021 [virtual mode]	Training Program on Modelling Air Quality and Hydro-meteorological Extremes over Indian Mega-cities Organised by <i>Department of Civil Engineering, Indian Institute of Technology Madras</i>
FEB 22-28, 2021	International workshop on ICTP Regional climate model:

[virtual mode]	Applications over South Asia CORDEX domain Organised by <i>Department of Physics, Dibrugarh University</i>
OCT 15-18, 2019	TERI-NORCE Research School on 'Towards data science in climate research: perspectives on climate extremes' Organised by <i>The Energy and Resources Institute (TERI)</i> in collaboration with <i>NORCE, Norway</i> Awarded full funding for attending the workshop
MAR 12-15, 2019	International Workshop on Chemistry Climate Interaction Organised by <i>Indian Institute of Tropical Meteorology, Pune</i> Awarded full funding for attending the workshop

TECHNICAL SKILLS

Programming language: MATLAB, R, Python
 Tools: MATLAB, Spyder, ArcGIS, Panoply, RStudio
 Operating tools: CDO, NCO
 Models: WRF, WRF-Chem. (Basic Knowledge)
 OS: Linux, Windows, MacOS

SCHOLARSHIPS AND CERTIFICATES

- **CSIR-NET fellowship** to pursue PhD at IIT Bhubaneswar
- Qualified **Joint CSIR-UGC NET Exam (June 2018)** in *Earth Sciences* (AIR: 68)
- **MHRD fellowship** to pursue M.Tech at IIT Bhubaneswar
- Qualified **GATE 2017** in *Mechanical Engineering*
- **Medhabruti (Technical & Professional) Scholarship** by Department of Higher Education (Govt, of Odisha) to pursue B.Tech at NIT Rourkela