

DIKSHIKA MAHAPATRA

Research Scholar | School of Earth, Ocean and Climate Sciences | IIT Bhubaneswar

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PROFESSIONAL SUMMARY

Dedicated researcher in Earth, Ocean, and Climate Sciences with a strong focus on Urban Climatology, Climate Modeling, and Sustainable Development. Committed to designing advanced climate models to identify and mitigate the catastrophic impacts of shifting weather patterns on communities and ecosystems. Proven expertise in leveraging GIS and Remote Sensing technologies for environmental analysis.

EDUCATION

Ph.D. in Atmosphere and Ocean Sciences | IIT Bhubaneswar, Odisha (2022 – 2027)

Coursework: Remote Sensing and GIS Applications, Science of Climate Change, Satellite Oceanography, Mathematical Methods in Earth System. (CGPA: 8.35)

M.Sc. in Environmental Sciences | Tezpur University, Assam (2017 – 2019)

Key Areas: Climate change impacts, Remote Sensing, Atmospheric Chemistry. (CGPA: 7.2)

B.Sc. in Chemistry (Major) | Utkal University, Odisha (2013 – 2016)

Minors: Physics, Mathematics. (Score: 73.5%)

12th, Council of Higher Secondary Education | S. C. S Autonomous college, Puri, Odisha (2011 – 2013)

Physics, Chemistry, Mathematics (Score: 74.5%)

10th, Board of Secondary Education, Odisha | Govt. Girls High School, Puri, Odisha (2011)

Mathematics, Science, Social Science (Score: 82%)

RESEARCH EXPERIENCE

Institute Fellow | School of Earth, Ocean and Climate Science, IIT Bhubaneswar (Jan 2022 – Present)

- Engaged in doctoral research focused on urban climatology and surface energy balance.
- Teaching assistant for the course "Geoinformatics and Remote Sensing" at IIT Bhubaneswar.

Junior Research Fellow (JRF) | IIT Bhubaneswar (Sep 2021 – Dec 2021)

- Contributed to the DST-SPLICE sponsored research project (RP179) titled "Development of long-term high-resolution Land Use Land Cover (LULC) data for Bhubaneswar peri-urban & rural areas and future projection".

PUBLICATIONS & CONFERENCES

- **Mahapatra, D., & Swain, D.** (2026). Rising urban land surface thermal extremes in a rapidly evolving tropical Indian state. *Environmental Science: Advances*. 5 (7): 1774–1789.
- **Mahapatra, D., & Swain, D.** (2026). Impact of Biophysical Parameters on Urban Land Surface Temperature Change in a Tropical City of India. *Arabian Journal of Geosciences*, 19(8), 151.
- Kadali, S., Swain, D. & **Mahapatra, D.** (2025). A study of land cover and land surface temperature changes triggered by tropical cyclone "Titli". *Environmental Monitoring and Assessment*, 197, 64.
- **Mahapatra, D., & Swain, D.** (2026). Evolution of Land Surface Temperature and Urban Heat Island Scenario Over Bhubaneswar, India. *IEEE Xplore*. 67683-2025- 11584081: 68-71.
- **Mahapatra, D., & Swain, D.** (2024). Seasonal assessment of surface energy balance over Bhubaneswar, India. *SADCSS2024, SOA, Bhubaneswar*. 18 - 20 July 2024. [**Best Poster Presentation Award**]
- **Mahapatra, D., & Swain, D.** (2023). Monitoring Land Use Land Cover Changes and its impact on Surface Energy Balance: A case study of Bhubaneswar, India. *National Conference on Land-Atmosphere Interactions Controlling Weather & Climate: Applications of Numerical Models and Observations, NIT Rourkela* (January 9-12, 2023).
- **Mahapatra, D., & Swain, D.** (2022). Changing Meteorological conditions in response to Land Use Land Cover changes over Bhubaneswar urban and surroundings. *IGU Thematic Conference, International Geographical Union* (November 24-25, 2022). [**Received Best Paper Presentation Award**]
- **Mahapatra, D., & Gogoi, N.** (2019). Synthesis and Application of Activated Carbon from banana peel and weeds as ecofriendly and cost-effective bio-adsorbent for removal of Toxic environmental pollutants. *National seminar on "Current perspective in Environmental pollution: Challenges and Opportunities"*, Department of Environmental Science, Tezpur University, Assam (June 7-8, 2019).

ACHIEVEMENTS

- **UGC NET Qualified (2020):** Environmental Sciences (Qualified for Assistant Professor)

TECHNICAL SKILLS

- **Geospatial & Climate Tools:** ArcGIS, ENVI, QGIS, LUMPS, SUEWS.
- **Languages:** English, Hindi, Odia, Bengali, Assamese.
- **Soft Skills:** Academic writing, skillful presentation, cross-disciplinary teamwork.

Place: Jatni, India

Date: 22/07/2026