

CURRICULUM VITAE

- 1) **Name of Staff:** Dr. Abhishek Lodh
- 2) **Employer:** Swedish Meteorological and Hydrological Institute (SMHI), Norrköping, Sweden
- 3) **Date of Birth:** 5th December 1983 **Nationality:** Indian
- 4) **Education:**

S. No.	School, college and/or university attended	Degree/certificate or other specialized education obtained
1.	Sri Venkateswara College, University of Delhi	Bachelor of Science (Physics Honors)
2.	Indian Institute of Technology , Roorkee	Master of Science (Physics)
3.	Indian Institute of Technology , Delhi	Ph.D. (Atmospheric Sciences/Climate Science)

Ph.D. Thesis Title: “Numerical Study of Impact of Land Use-Land Cover Changes on Indian Monsoon Region”

5) **Professional Certification or Membership of Professional Associations:**

- Life Member of India Meteorological Society (Noida Chapter)
- NASSCOM certified Associate Analytics program in Big Data Analytics (R, Python, SQL, Tableau and Machine Learning) conforming to National Skill Qualification Framework Level – 7.
- REDHAT Linux certified System Administrator (RHCSA) with A-Grade from REDHAT certified Network Nuts, New Delhi, India.

Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

(a) Name of assignment or project: Development of climate vulnerability index over India

Year: 2021-22, **Location:** RMSI, Noida, India, **Main project features:** Extreme Hazard events assessment

Positions held: Technical Specialist

Activities performed: Geo-spatial modeling and assessment of exposure, sensitivity and adaptive capacity at a climate scale

(b) Researcher at Lund University, Sweden; **Year:** January’ 23 – November’23; **Activities Performed :** Cloud-Micro physics modelling

(c) Project Scientist at NCMRWF, Ministry of Earth Sciences, India; **Year:** 2014 - 2021 ; **Activities Performed :** Land data Assimilation, TC modelling

(d) Latest Peer-reviewed publications :

- **Kumar S., S. Verma, Abhishek Lodh (2025)** “Unravelling the dynamical characteristics of tropical cyclones: Amphan and Nisarga using ERA5 reanalysis”, *Front. Environ. Sci. , Sec. Atmosphere and Climate*, Volume 12 - 2024 |<https://doi.org/10.3389/fenvs.2024.1475324>
- **Lodh A., Routray. A, Dutta, D, Vivek Singh, John P. George (2024)** “ Impact of INSAT-3D land surface temperature assimilation via simplified extended Kalman filter-based land data assimilation system on forecasting of surface fields over India”, *Meteorological Applications*, Wiley, <https://doi.org/10.1002/met.70019>
- **Lodh A. and S. Haldar (2024)** “Investigating the impact of tropical deforestation on Indian monsoon hydro-climate: a novel study using a regional climate model”, **Natural Hazards, Springer**, 120, 11399–11431 (2024). <https://doi.org/10.1007/s11069-024-06615-z>
- A. Routray, **Abhishek Lodh** (2023) “Influence of ASCAT Soil Moisture on Prediction of Track and Intensity of Landfall Tropical Cyclones”, **International Journal of Remote Sensing, Taylor and Francis.**
- **Lodh A., (2022)** “Improving the prediction of monsoon depressions by assimilating ASCAT soil moisture in NCUM-R modeling system”, **Atmospheric Research, Elsevier.**
- **Lodh A., (2021)** “Simulating the impact of extended desertification on Indian hydro climate using ICTP-RegCM4.4.5.10 model”, **Journal of Hydrology, Elsevier.**
- A. Routray, Devajyoti Dutta, **Abhishek Lodh**, John P. George (2021) “Impact of the Assimilation of DWR-derived Precipitation Rates through Latent Heat Nudging on Simulation of Rainfall Events over Indian Region using NCUM-R”, **Journal of Hydrology, Elsevier.**
- **Lodh A., (2020)** “Reassessment of land–atmosphere interactions over India during summer monsoon using state-of-the-art regional climate models” **Theor. Appl. Climatol., Springer**

Abhishek Lodh

Date: 18th February’25