The Centre for Atmospheric Sciences is a premier Centre for education and research in atmospheric and oceanic sciences in India.

CAS offers M. Tech. in Atmospheric-Oceanic Sciences and Technology supported by the Ministry of Earth Sciences (MoES), under the Government of India.

The goal of CAS is to conduct cutting-edge interdisciplinary research & create highly skilled workforce for government and industrial sectors with expertise in modelling, data analysis and machine learning techniques in weather, climate, and air pollution.
Any industry, be it consulting, insurance, transportation, energy, agriculture or entertainment, is affected by weather and climate. Companies that incorporate weather and climate information in their decision-making see dramatic improvements in their bottom lines.

The Centre for Atmospheric Sciences produces top quality M.Tech. and Ph.D. students who are highly knowledgeable in weather and climate science and data analytics. They can be an asset to any company that wishes to achieve robust growth by managing the uncertainties caused by intermittent weather and climate change.

The students graduating from our department can contribute to producing a workforce in the multi-disciplinary area of atmospheric, oceanic and environmental sciences. Students receive fundamental and advanced knowledge in the areas of Atmospheric, Oceanic and Climate Sciences coupled with intensive comprehensive hands-on training in using analytical, experimental, and computational tools.

I extend a warm welcome to recruiters for campus placements, assured of finding exceptionally talented scientists who would be valuable assets to your organization.
Course Curriculum

- Advanced Data Analysis Methods for Weather and Climate
- Mathematical and Computational Methods
- Numerical Modelling of the Atmosphere and Ocean

- Science of Climate Change
- Dynamics and Physics of Atmosphere
- Physical and Dynamical Oceanography
- Air-Sea Interaction
- Tropical Weather and Climate
- Remote Sensing of the Atmosphere and Ocean

- Dispersion of Air Pollutants
- Impacts of Climate Change and Air Pollution on Human Health
- Renewable Energy Meteorology
- Atmospheric Measurements
M.Tech. Dissertations

- Long Term Wind Speed Forecasting For Renewable Energy Application Using AI/ML Techniques.
- Evaluating Physics-dynamics Coupling in the DYNAMICO model in an Aqua Planet Setup.
- Environmental Exposure Modelling.
- Future Changes in the Tropical Cyclone Activity over the North Indian Ocean.
- Tropical Cyclone Simulations using Atmosphere-Ocean Coupled Model.
- Characteristics of Marine Heatwaves along the Java Coast, Southeastern Indian Ocean.
- Long Term Monsoon Changes Inferred from Lakes in Haryana.
- Aerosol Characterization Upwind of a Megacity in the Indo-Gangetic Plain: Role of Sources, Sinks & Meteorology.
Research Areas

- Weather Forecasting
- Tropical Cyclones
- Air Quality Modelling and It's Health Impacts
- Indian Summer Monsoon
- Renewable Energy Meteorology
- Atmospheric Modelling and Extreme Weather
- Climate Model Development and Climate Change Impacts
- Urban Climate

Lab Facilities

- PADUM High Performance Computing Facility
- SIKKA and RAMA Storage Facility
- Remote Sensing Lab
- Climate Modelling Lab
- Air Quality Modelling Lab
- Ocean State Forecasting Lab
- Atmospheric Observatory
- Mesoscale Modelling Lab
- Atmospheric Measurement Lab
Programming Languages, Software and Models

Hands-on Expertise

- R Programming
- matplotlib
- Python
- Power BI
- MySQL
- Ubuntu
- NumPy
- ROMS
- WRF
- NCL
- OMI
- NCAR Community Earth System Model
- MATLAB
- GEOS-Chem
- MPAS
- CAM 5.3
- Bchron
Collaborations and MoUs
Placement Statistics

✓ 100% Placement recorded in Center for Atmospheric Sciences.

✓ Students were placed in various Atmospheric Scientist, Reinsurance and Analytics related positions in reputed Organizations.

![Placement Statistics Chart]
Past Recruiters

Portfolios We Look For

- Data Analyst
- Data Scientist
- Business Analyst
- Risk Modeller
- Meteorologist
- Atmospheric Scientist
- Wind Specialist
- Peril Specialist
Mr. Faizan Khan  
Founder and CEO 
Tensor Dynamics Pvt. Ltd., India.  
M.Tech. in 2018

Dr. Manish Modani  
Principal Solution Architect  
NVIDIA, India.  
Ph.D. in 2007

Dr. Swati Basu  
Ex-Scientific Secretary  
Office of Principal Scientific Adviser, GoI  
Ph.D. in 1983

Dr. K.J. Ramesh  
Ex-Director General  
Indian Meteorological Dept., MoES  
Ph.D. in 1990

Prof. Atul Jain  
Professor  
Dept. of Atmospheric Sciences, Univ. of Illinois Urbana-Champaign  
Ph.D. in 1987
Contact Us

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