CENTRE FOR ATMOSPHERIC SCIENCES

Centre for Atmospheric Sciences

Block VI, IIT Delhi
Hauz Khas, New Delhi – 110016.

Placement Brochure 2024-2025

Know more: www.cas.iitd.ac.in

About Us

- 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.

From the Desk

Prof. Somnath Baidya Roy

Head of the Centre

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.

Prof. Samiran Mandal

Faculty Coordinator

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

- Hyperlocal Air Quality Monitoring in Gurugram City Using Low-Cost Air Monitors and Machine Learning.
- Generating high-resolution and full-coverage XCO2 dataset across India by using a Machine learning model.
- Reduce GFS-Error using AI/ML technique.
- Tidal Asymmetry along the Head Bay of Bengal: Insights from Tide Gauges.
- Exposure and health utilising Geos-Chem outputs and satellite data.
- Air-Sea interaction based on the shape of the oceanic eddies.
- The impact of cloud radiative feedback and stochastic forcing for the development of different flavors of ENSO.
- Analysis of model biases and their sources in high latitude oceans in global models.

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

Machine Learning

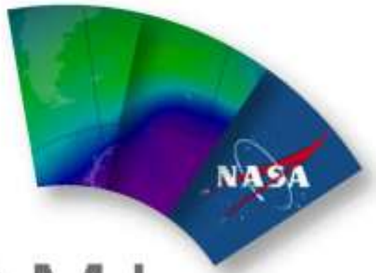
Power BI

MySQL

Ubuntu

Regional Ocean Modeling System
ROMS
Research Community

WRF
Weather Research & Forecasting



NumPy

NCAR | Community Earth System Model

pandas

OMI
Ozone Monitoring Instrument

HYSPLIT

MATLAB

GEOS Chem

MPAS
Model for Prediction Across Scales

CAM 5.3
The Community Atmosphere Model

Bchron

Collaborations and MoUs

UNIVERSITY OF MARYLAND

University of Massachusetts Amherst

ILLINOIS STATE UNIVERSITY
Illinois' first public university

Lancaster University

UNIVERSITY OF HELSINKI

Jet Propulsion Laboratory
California Institute of Technology

Indian Navy

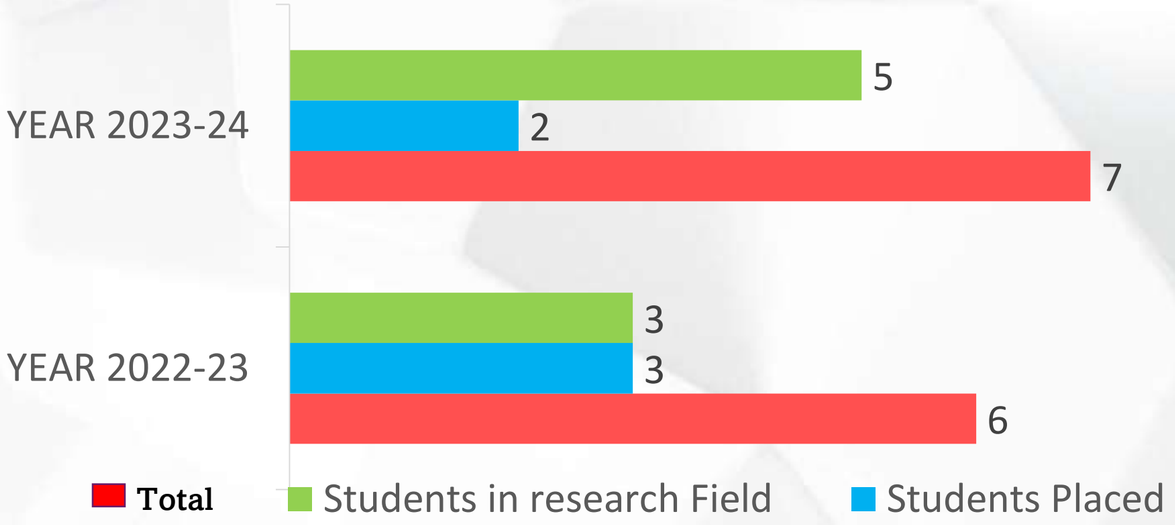
CPCB

ESSO- Indian National Centre for Ocean Information Services

CSIR-NATIONAL ENVIRONMENTAL ENGINEERING RESEARCH INSTITUTE

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.



Past Recruiters

Portfolios We Look For

- Data Analyst
- Data Scientist
- Business Analyst
- Risk Modeller
- Meteorologist
- Atmospheric Scientist
- Wind Specialist
- Peril Specialist

adani Renewables
Adani Green Energy Limited

Manikaran Analytics Limited

CLIMATE CONNECT
A ReNew POWER Company

Swiss Re Corporate Solutions

e·on

RMS™

TRANSORG ANALYTICS

HSBC

Maybank

HCL

SMARTANALYST®
an Ashfield Advisory Company

HeroFinCorp.

EXL

RxLogix

50hertz

Wolters Kluwer

Gallagher Re

Notable Alumni

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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