The Centre for Atmospheric Sciences (CAS) is a premier Centre for education and research in atmospheric and oceanic sciences in India. CAS offers PhD in Atmospheric Science and MTech in Atmospheric - Oceanic Science & Technology” supported by Ministry of Earth Sciences under MoU. The goal of CAS is to conduct cutting-edge interdisciplinary research and create highly skilled manpower in 4 core areas: Atmospheric modelling, Ocean modelling, Air pollution and Climate analysis.
MAJOR COURSES
• Data Analysis Methods
• Advanced Data Analysis for Weather and Climate
• Mathematical and Computational Methods
• Numerical Modelling of the Atmosphere and Ocean
• Dynamics & Physics of Atmosphere
• Science of Climate Change
• Atmospheric Chemistry and Air Pollution.

ELECTIVES
• Tropical Meteorology
• Remote Sensing of The Atmosphere and Ocean
• Atmospheric Aerosol
• Air Sea Interaction
• Dispersion of Air Pollutants

PROGRAMMING LANGUAGES
☑ PYTHON
☑ MATLAB
☑ FORTRAN

MODELS USED
☑ WRF
☑ CESM
☑ ENVIMET
ONGOING MTECH PROJECTS

Machine learning & Remote Sensing
- Sub-seasonal to Seasonal wind forecasting
- Air quality analysis over Delhi based on observations
- A deep-learning model to predict thunderstorm
- Analysis of satellite retrieved carbon dioxide (CO2) over India
- Aerosol and cloud interactions over the Indian region
- Methane emission estimations from landfill sites in India
- Fast impact of anthropogenic aerosols on regional land temperatures of south Asia.

Advanced Data Analysis

Atmospheric & Climate modelling
**Area of Research**
- Weather Forecasting
- Tropical cyclones
- Indian summer Monsoon
- Renewable energy meteorology
- Air quality modelling
- Atmospheric modelling & extreme weather
- Climate model development & climate change impacts
- Urban climate

**Lab Facilities**
- PADUM High Performance computing facility
- SIKKA and RAMA storage facility
- Remote sensing lab
- Climate modelling, Air quality modelling, Ocean state forecasting labs
PAST RECRUITERS

Manikaran Analytics Limited

HCL

HSBC

SMARTANALYST®
an Ashfield Advisory Company

RECONNECT

A ReNew Company

RxLogix

Maybank

Wolters Kluwer
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