पृथ्वी विज्ञान मंत्रालय, भारत सरकार

Ministry of Earth Sciences, govt. of India

भारतीय उष्णदेशीय मौसम विज्ञान संस्थान

INDIAN INSTITUTE OF TROPICAL METEOROLOGY (IITM),

डॉ होमी भाभा मार्ग, पाषाण, पुणे - 411008

Dr. Homi Bhabha Road, Pune-411008

Advertisement Number: PER /07/2023

PHASE - IV

RECRUITMENT OF VARIOUS PROJECT POSTS PURELY ON SHORT TERM CONTRACT BASIS UNDER THE SCHEME "MISSION MAUSAM"

The Indian Institute of Tropical Meteorology (IITM) is an Autonomous Research Organization fully funded by Ministry of Earth Sciences, New Delhi. It is a premier Institute of National and International repute, devoted to research in various aspects of Atmospheric Sciences with emphasis on tropical meteorology, particularly on the Climate Change and Indian Monsoon.

The Mission Mausam scheme adopts a multi-faced transformative approach aimed at making Bharat a "Weather-ready and Climate-smart" nation.

It is proposed to recruit the following posts under the scheme as detailed below:

Sr. No	Name of Post	Pay	No of posts	Age In Years
1	Project Scientist-E	₹123100/- + HRA	05	50
2	Project Scientist -III	₹78,000/- + HRA	24	45
3	Project Scientist –II	₹ 67,000/- + HRA	35	40
4	Project Scientist –I (SC-15, ST-8, OBC-21, EWS-9) 5 posts are reserved for Persons with Benchmark Disability.	₹ 56,000/- + HRA	88	35
5	Scientific Assistant (SC-3, ST-1, OBC-7, EWS-2) 1 post is reserved for Persons with Benchmark Disability	₹ 29,200/- + HRA	26	28
	Total Posts		178	

- *The number of vacancies mentioned in the advertisement may vary depending upon the requirements of the project.*

- The appointment is purely on temporary and contractual basis initially for a period of one year or co-terminous with the project whichever is earlier. Extension of tenure is subject to the satisfactory performance.

- **Aspiring candidates may submit their applications along with their CV online only: http://www.tropmet.res.in/Careers**

- **Hard copy of the applications will not be accepted.**

- **Other relevant details about the posts are available under www.tropmet.res.in/Careers Facility for submitting online applications for the posts will commence on 22nd April, 2025 (1700 hrs.)**

INSTRUCTIONS

1. The last date of submission of online application is **15th May, 2025 (1700 hrs.).** The last date is the cut of date for all purposes including age/qualification/experience etc.
2. Only Indian Nationals are eligible to apply.
3. Mere possession of required qualification will not entitle the candidates to be selected for interview. If the number of applications received in response to advertisement is large, it will not be convenient or possible for the selection Board to interview or conduct written test for all those candidates. The Institute may short list the candidates to a reasonable limit based on the essential and desirable qualifications / record of academic performance / relevant experience for the post or any other benchmarks as decided by a committee constituted to screen the applications.
4. No correspondence will be entertained with candidates who are not called for Interview.
5. Upper age limit is relaxed for SC/ST/ OBC/Physically Handicapped persons/Ex-servicemen as per Government of India norms.
6. Experience claim should be supported by valid documentation.
7. Selection will be on the basis of performance of the screened in candidates, in the online/ offline interview.
8. Candidates must produce all original documents as proof of details furnished in the application and photocopy of each, at the time of joining. Any discrepancies found in the certificate will attract the disqualification of applications. Non production of the original certificates at the time joining will also make the candidate disqualified.
9. Selected candidate may have to join the post immediately, on being found fit by Medical Authority.
10. Essential qualification, experience and age limit can be relaxed at the discretion of the appointing authority in exceptional cases.
11. Doctorate Degree will count as 3 years of experience (in case the doctorate degree is not mentioned as the essential qualification).
12. No TA/DA will be paid for attending the interview. For SC/ST candidates admissible TA/DA shall be considered as per Government of India orders.
13. CGPA grading is to be converted in percentage.
14. Online application submitted without scanned copies of the certificates will be rejected.
15. Applicants working in Government/ Semi-Government/ Public Sector Undertakings/ Autonomous bodies should produce the requisite 'No Objection Certificate' from their employer at the time of interview.
16. Director, IITM reserves the right to fill-up or not to fill up the post advertised without assigning any reasons thereof.
17. Canvassing in any form and /or bringing any influence, political or otherwise will be treated as disqualification of candidature. No interim correspondence/inquiry will be entertained.
18. **Details/updates regarding Phase-V will be uploaded on the IITM website only.**

PROJECT SCIENTIST – E		
Post Code	:	**MM_WM2025-001**
Name of the post	:	**Project Scientist – E (Mission Mausam_Weather_Mod)**
Number of post	:	**02 Nos.**
Essential Qualification	:	• Masters Degree in science(Physics / Chemistry /Mathematics / Instrumentation/ Atmospheric Sciences / Atmospheric Physics / Meteorology / Earth System Sciences / Computer Science / Geophysics (with Meteorology) or related fields from a recognized university . OR Masters Degree in Engineering / Technology (Electronics / Instrumentation / EEE / Electronics & Telecommunication / Mechanical / Civil / Aerospace / Atmospheric Sciences / Atmospheric Physics / Meteorology or related fields) from a recognized university. • Eleven years of experience in the fields detailed below in the desirable qualifications.
Desirable Qualification	:	• Doctoral Degree in any of the above subjects Experience in any one of the following demonstrated through peer reviewed publications 1. Development of physical parameterization in numerical models (mesoscale modelling, turbulence modelling, Direct Numerical Simulation, large eddy simulation) with experience in AI/ML and analyzing large datasets and with high-performance computing. 2. Leading laboratory and field measurements with weather radars, radiometers, wind profiling radars, mass spectrometers, CCN counters, aerosol and wind lidars, Eddy Covariance Systems, Aerosol and Gas analyzers, Micrometeorological tower instruments, airborne observations, in situ measurements of aerosol and clouds, atmospheric observations etc. 3. Experience with setting up laboratory experiments on cloud chamber, fog chamber, turbulent flows, convective flows, rotating convection, designing and conducting laboratory experiments with Particle Image Velocimetry, Particle Tracking Velocimetry, Laser Doppler Velocimetry, Phase Doppler Interferometry, Hotwire anemometry, ice nucleation and CCN measurements, numerical simulations (DNS / LES / RANS / CFD), data acquisition, processing and analysis using relevant software, instrument development etc. • Experience with HPC, Linux and computer programming using Python, MATLAB, Shell Scripts, NCL, GrADS, CDO etc. is desirable.

Job Responsibilities	:	• The candidate is expected to work on one or more of the following and contribute high-quality peer-reviewed publications: 1. Cloud microphysics, boundary layer and land surface process problems from the fundamental sciences to applications for urban weather extremes (heat, floods etc.), physical and dynamical aspects of convection and clouds, microphysics in the warm and mixed phase clouds, reconciling the observations and numerical model parameterization, aerosol-cloud and aerosol-radiation interactions, cloud seeding simulations, modelling extreme weather events and use of AI/ML in hyperlocal weather modeling / data assimilation / parameterization, numerical mesoscale modelling or Large Eddy Simulations, Direct Numerical Simulations, model development and model evaluation. 2. Investigating the data from radar, lidar, wind profiler, aerosol and chemistry observations, micrometeorological tower instruments, preparing for data assimilation and model verification, formulating nowcasting solutions, deriving useful data for investigation of earth system parameters, impact of aerosols on the radiation budget, characterization of the atmospheric profiles and investigation of cloud physical and dynamical processes, curation of various types of data through QA/QC and documentation of data sets for dissemination, regular check of instruments, calibration of instruments, etc. 3. Laboratory measurements and simulations (DNS, LES etc.) of turbulent flows, cloud flows, microphysics, cloud chamber/fog chamber design, development, installation and characterization of the operating conditions, aerosol characterization, chemistry, electrification, activation and nucleation studies, droplet growth mechanisms, hypotheses testing for weather modification strategies, conducting experiments on laboratory setups of convection, wind tunnel, rotating table, weather instrument calibration rigs, data acquisition, processing and preparing publication worthy data. 4. Involve in field campaigns anywhere in India with ground-based, airborne measurements of cloud, aerosol and precipitation characteristics and for weather modification involving cloud seeding with aircraft and UAV / drone, micrometeorological processing data sets collected during the campaigns, data quality control, curation archiving, airborne instrument calibrations. 5. Leadership roles in any of the above. **Willingness to work in locations other than Pune, as required by the project**
Post Code	:	**MM_D2025-001**
Name of the post	:	**Project Scientist – E (DEVELOP)**
Number of post	:	**01 No.**
Essential Qualification	:	• Master's degree in science (Meteorology/ Oceanography/ Atmospheric Sciences/ Earth Sciences/Climate Sciences / Physics/ Mathematics from a recognized university. • Eleven years of experience in Weather/Climate/Earth system model development.

Desirable Qualification	:	• Ph.D. Degree in Meteorology/ Oceanography/ Atmospheric Sciences/ Earth Sciences/Climate Sciences / Physics/ Mathematics from recognized university or equivalent. • Basic knowledge in model code handling. Working knowledge of Atmospheric, Oceanic and Coupled General Circulation Models and issues related to porting, installation and troubleshooting of dynamical models in HPC. • Ability to write and prepare model code using program language (Fortran, C, C++, Python) and shell scripts. • Experience in handling of large volume of data in formats like NetCDF, HDF, GRIB etc. • Knowledge in meteorological data analysis tools like GrADS, FERRET,NCL, NCO, CDO etc. • Ability to work in large groups.
Job Responsibilities	:	• Applicant will contribute to the development of IITM Unified Earth System Model in areas of non-hydrostatic dynamical core, land surface processes, sea ice, ocean biogeochemistry, cloud, aerosol etc.

Post Code	:	**MM_D2025-002**
Name of the post	:	**Project Scientist – E (DEVELOP)**
Number of post	:	**01 No.**
Essential Qualification	:	• Master's Degree in Engineering /Technology from a recognized University with Computer Science/ Electronics and Communication/ Data Science / Computational Science/ Computer Application with majors in computing **OR** B.E./B.Tech. in Computer Science/ Electronics and Communication/ Data Science / Computational Science, Computer Application, with majors in computing, from a recognized University. • Eleven years' experience in(a) Programming or (b) model Development
Desirable Qualification	:	• Good knowledge of programming (Fortran, C, C++), Python, Linux/Unix Operating systems demonstrated through prior experience. • Handling of large volume of data and conversant with data format like Net CDF, HDF, GRIB etc. • Experience in development of system software's, tools and applications used in high performance computing environment would be desirable. • Prior experience on the development of AI/ML models. • Good experience in development of parallel code using high level languages and/or in Python. • Knowledge of HPC Systems.
Job Responsibilities	:	• Applicant will contribute to the implementation of various physical schemes, developments of model architecture, code optimization in IITM Unified Earth System Model.

Post Code	:	**MM_AT2025-001**
Name of the post	:	**Project Scientist – E (ATCOMP)**
Number of post	:	**01 No.**

Essential Qualification	:	• M.E./M.Tech. (Atmospheric Science/ Climate Science/ Earth Science System and Technology/ Environmental Sciences/ Civil engineering/ Environmental Engineering and management from a recognized university) **OR** Master's degree in science with Physics/ Mathematics/ Chemistry/ Atmospheric Sciences/ Environmental Sciences / Geophysics (Meteorology) from a recognized University. • Eleven years of experience in Atmospheric regional/global chemistry transport modelling/ model development/ chemical data assimilation/ satellite data analysis relevant to air quality modelling/ experience in handling large atmospheric observations/modelling/ and satellite data and its analysis.
Desirable Qualification	:	**Desirable Qualifications:** • Ph.D. in any of the above subjects. • Experience in running forecasting models (like WRF/WRF-Chem). • Experience in using programming languages (like FORTRAN-90, IDL, C/C++ etc.), meteorological data analysis tools (like (GrADS, FERRET, ARCGIS, NCL, NCO, CDO etc.), and handling large volumes of satellite data like NetCDF, HDF, GRIB etc.
Job Responsibilities	:	• Develop the chemical data assimilation for air quality predictions and decision support system for air quality management

PROJECT SCIENTIST-III		
Post Code	:	**MM_OA 2025-001**
Name of the post	:	**Project Scientist-III (Observe_ALL)**
Number of post	:	2 Nos.
Essential Qualification	:	• Master's degree in science (Physics/Instrumentation/Meteorology/ Atmospheric Science/Electronics/Radio Physics/) from a recognized University or equivalent with at least 60% marks. **OR** Bachelor's degree in engineering/ technology (Electronics / Instrumentation/ EEE/E&T) from a recognized University or equivalent with at least 60% marks. • Seven years' work experience related to instrumentation for weather radar / LIDAR / wind profiler / aerosol / cloud microphysics / radiation / sounding / chemistry / other meteorological instruments / NWP models.
Desirable Qualification	:	• Doctoral Degree in Science or master's degree in engineering or technology from a recognized University or equivalent. • Experience in handling in-situ/profiling/remote sensing / UAV observations/chemical analysis/ and related data analysis. • Participation in observational field campaigns. • High quality publications in SCI index journals in the relevant field • Handling large volumes of data and conversant with data format like NetCDF, HDF, GRIB etc. • Ability to work in group and in remote environments. • Familiarity with Linux and computer programming like Python, MATLAB, NCL, GrADS, CDO etc. Numerical weather prediction models and verification studies using observations
Job Responsibilities	:	The candidate is expected to work on any one of the following: 1. To manage the Process Testbed observational systems related to winds, clouds, moisture, aerosols, microphysics, radiation, fluxes, and analysis of data sets. 2. Conduct regular observations and focused intensive operational period (IOPs) 3. Use of testbed observations for physical process understanding 4. Radar operation and maintenance, calibration/validation, and troubleshooting of radars, analysis of dual polarization radar data 5. Testing and evaluating model representation of processes, observed Willingness to work in locations other than Pune, as required by the project
Post Code	:	**MM_D 2025-003**
Name of the post	:	**Project Scientist-III (DEVELOP)**
Number of post	:	6 Nos.
Essential Qualification	:	• Master's Degree in Engineering or Technology/Atmospheric Sciences/ Meteorology/ Oceanography/ Physics/ Mathematics/ Data Science from a recognized University or equivalent. **OR** B.E./B.Tech. in Computer Science/ Electronics and Communication/ Data Science with minimum 60% marks from a recognized University or equivalent • Seven years of research experience in Earth system modelling/ climate modelling/ sea ice modelling/ land surface modelling/ modelling of cloud and convection/ ocean modelling/ global data assimilation/ data science/ AI/ML model development for weather and climate.

Desirable Qualification	:	• Ph.D. Degree in Meteorology/ Oceanography/ Atmospheric Sciences/ Earth Sciences/ Climate Sciences / Physics/ Mathematics/ Data Science from recognized university or equivalent. • Good knowledge of programming in Fortran, C, Python and familiar with Linux/Unix pperating systems. • Knowledge in meteorological data analysis tools like GrADS, FERRET,NCL, NCO, CDO etc. • Experience in handling of large volume of data in formats like Net CDF, HDF, GRIB etc. • Experience in weather/climate model development, supported by publications. • Working experience in HPC. • Ability to work in a large group.
Job Responsibilities	:	Applicant will contribute to the development of IITM Unified Earth System Model. Development of AI/ML model for weather and climate forecast/downscaling.
Post Code	:	**MM_AT 2025-002**
Name of the post	:	**Project Scientist-III (ATCOMP)**
Number of post	:	**3 Nos.**
Essential Qualification	:	• M.E./M.Tech. (Atmospheric Science/ Climate Science/ Earth Science System and Technology/) from a recognized university or equivalent. **OR** Master's degree in science with Physics/ Mathematics/ Chemistry/ Atmospheric Sciences/ Geophysics (Meteorology) with at least 60% marks from a recognized University or equivalent. • Seven years of experience in Earth Sciences/ Atmospheric regional/global chemistry transport modelling/ model development/ chemical data assimilation/ satellite data analysis relevant to air quality modelling/ experience in handling large atmospheric observations/modelling/ and satellite data and its analysis/ atmospheric chemistry/fog instrumentation.
Desirable Qualification	:	**Desirable Qualifications:** • Ph.D. in any of the above subjects. • Experience in running forecasting models (like WRF/WRF-Chem). • Experience in using programming languages (like FORTRAN-90, IDL, C/C++ etc.), meteorological data analysis tools (like (GrADS, FERRET, ARCGIS, NCL, NCO, CDO etc.), and handling large volumes of satellite data like NetCDF, HDF, GRIB etc. • Experience in conducting research and analyzing scientific data, specializing in field experiments and observations. Experience with laboratory experiments and handling of atmospheric chemistry/fog related instruments in the lab/field. • Experience on source apportionment of contaminants (organic and inorganic) in the atmospheric/environmental samples.
Job Responsibilities	:	• Develop the chemical data assimilation for air quality predictions and decision support system for air quality management and/or atmospheric chemistry related measurements for locations anywhere across India/ carry out fog related measurements/modelling.
Post Code	:	**MM_WM2025-002**
Name of the post	:	**Project Scientist –III (Mission Mausam_Weather Mod)**
Number of post	:	**10 Nos.**
Essential Qualification	:	• Master's Degree in science(Physics / Chemistry /Mathematics / Instrumentation/ Atmospheric Sciences /Atmospheric Physics/

		Meteorology / Earth System Sciences / Computer Science / Geophysics (with Meteorology) or related fields) from a recognized university or equivalent with at least 60 % marks OR Bachelor's Degree in Engineering / Technology (Electronics / Instrumentation / EEE / Electronics & Telecommunication / Mechanical / Civil / Aerospace /Atmospheric Sciences / Atmospheric Physics / Meteorology) or related fields) from a recognized university or equivalent with at least 60 % marks • Seven years of experience in the fields detailed below in the desirable qualifications.
Desirable Qualification	:	Doctoral degree in Science OR Masters degree in Engineering / Technology in the above subjects Experience in any one of the following demonstrated through peer reviewed publications 1. Experience with numerical modelling in mesoscale modelling, turbulence modelling (Direct Numerical Simulation / large eddy simulation) / numerical simulations / urban mesoscale models / hydrological models for flood forecasting / AI/ML application in numerical modelling and development of early warning systems for urban applications, experience in analyzing large datasets and with high-performance computing. 2. Experience with handling and calibrating laboratory and field instruments such as weather radars, radiometers, wind profiling radars, mass spectrometers, CCN counters, aerosol and wind lidars, Eddy Covariance Systems, Aerosol and Gas analyzers, Micrometeorological tower instruments etc. and handling observational datasets from these instruments for processing and analysis. 3. Experience with laboratory experiments on cloud chamber, fog chamber, turbulent flows, convective flows, rotating convection, designing and conducting laboratory experiments with Particle Image Velocimetry, Particle Tracking Velocimetry, Laser Doppler Velocimetry, Phase Doppler Interferometry, Hotwire anemometry, numerical simulations (DNS / LES / RANS / CFD), data acquisition, processing and analysis using relevant software, instrument development etc. 4. Experience with airborne observations / in situ measurements of aerosol and clouds / atmospheric observations using drones and/or UAVs Experience with HPC, Linux and computer programming using Python, MATLAB, Shell Scripts, NCL, GrADS, CDO etc. is desirable.
Job Responsibilities	:	The candidate is expected to work on one or more of the following and contribute high-quality peer-reviewed publications: 1. Cloud microphysics, boundary layer and land surface process problems from the fundamental sciences to applications for urban weather extremes (heat, floods etc.), physical and dynamical aspects of convection and clouds, microphysics in the warm and mixed phase clouds, reconciling the observations and numerical model parameterization, aerosol-cloud and aerosol-radiation interactions, cloud seeding simulations, modelling extreme weather events and use of AI/ML in hyperlocal weather modeling / data assimilation / parameterization, numerical mesoscale modelling or Large Eddy Simulations, Direct Numerical Simulations, model development and model evaluation. 2. Investigating the data from radar, lidar, wind profiler, aerosol and chemistry observations, micrometeorological tower instruments, preparing for data assimilation and model verification, formulating nowcasting solutions, deriving useful data for investigation of earth system parameters, impact of aerosols on the radiation budget, characterization of the atmospheric profiles and investigation of cloud physical and dynamical processes, curation of various types of data through QA/QC and documentation of data sets for

dissemination, regular check of instruments, calibration of instruments, etc.
3. Laboratory measurements and simulations (DNS, LES etc.) of turbulent flows, cloud flows, microphysics, cloud chamber/fog chamber design, development, installation and characterization of the operating conditions, aerosol characterization, chemistry, electrification, activation and nucleation studies, droplet growth mechanisms, hypotheses testing for weather modification strategies, conducting experiments on laboratory setups of convection, wind tunnel, rotating table, weather instrument calibration rigs, data acquisition, processing and preparing publication worthy data.
4. Involve in field campaigns anywhere in India with ground-based, airborne measurements of cloud, aerosol and precipitation characteristics and for weather modification involving cloud seeding with aircraft and UAV / drone, micrometeorological processing data sets collected during the campaigns, data quality control, curation archiving, airborne instrument calibrations

Willingness to work in locations other than Pune, as required by the project

Post Code	:	**MM_L2025-001**
Name of the post	:	**Project Scientist –III (Mission Mausam_LEAD)**
Number of post	:	**3 Nos.**
Essential Qualification	:	• Doctoral Degree in Atmospheric Sciences/Meteorology/Atmospheric and Ocean Sciences/Earth Sciences/Earth System Sciences/Earth Sciences and Space Applications/Oceanography from a recognized University or equivalent. • Seven year experience in research in one or more of the above subjects.
Desirable Qualification	:	• Research experience supported by publications in relevant topic in good impact journals. • Experience in handling project management and leading groups. Teaching experiences in relevant subjects in the essential qualification.
Job Responsibilities	:	• Contribute to conduct training programs under the LEAD program of Mausum Mission • Selected candidate is expected to engage in teaching and capacity building activities for LEAD program at IITM. • Field campaigns with Academica/Industry/MoES partnership

PROJECT SCIENTIST-II		
Post Code	:	MM_OA2025-002
Name of the post	:	**Project Scientist-II (Mission Mausam Observe_ALL)**
Number of post	:	3 Nos.
Essential Qualification	:	• Master's degree in science (Physics/Instrumentation/Meteorology/ Atmospheric Science/Environmental science/Electronics/Radio Physics/) from a recognized University or equivalent with at least 60% marks. **OR** Bachelor's degree in engineering or technology (Electronics / Instrumentation/ EEE/E&T/Aeronautical) from a recognized University or equivalent with at least 60% marks. • Three years' work experience related to instrumentation for weather radar/LIDAR/wind profiler/aerosol/cloud microphysics//radiation/sounding/chemistry and other meteorological instruments/NWP models.
Desirable Qualification	:	• Doctoral Degree in Science or master's degree in engineering or technology from a recognized University or equivalent. • Experience in handling in-situ/profiling/remote sensing/UAV observations/chemical analysis and related data analysis. • Participation in observational field camping.. • High quality publications in SCI index journals in the relevant field • Handling large volumes of data and conversant with data format like Net CDF, HDF, GRIB etc. • Ability to work in group and in remote environments. • Familiarity with Linux and computer programming like Python, MATLAB, NCL, GrADS, CDO etc. • Numerical weather prediction models and verification studies using observations
Job Responsibilities	:	The candidate is expected to work on any one of the following: 1. To manage the Process Testbed observational systems related to winds, clouds, moisture, aerosols, microphysics, radiation, fluxes, lightning, airborne observations and analysis of data sets. 2. Conduct regular observations and focused intensive operational period (IOPs). 3. Radar operation and maintenance, calibration/validation, and troubleshooting of radars, analysis of dual polarization radar data 4. Use of testbed observations for physical process understanding. 5. Testing and evaluating model representation of processes observed Willingness to work in locations other than Pune, as required by the project
Post Code	:	MM_D2025-004
Name of the post	:	Project Scientist-II (Mission Mausam Develop)
Number of post	:	10 Nos.
Essential Qualification	:	• Master's Degree in Engineering or Technology in Atmospheric Sciences/Meteorology/Oceanography/Physics/Mathematics from a recognized University or equivalent. **OR** B.E./B.Tech. degree in Computer Science/ Electronics and Communication/ Data Science with minimum 60% marks from a recognized University or equivalent

		• Three years of research experience in Earth system modelling/ climate modelling/ sea ice modelling/ land surface modelling/ modelling of cloud and convection/ ocean modelling/ global data assimilation/ data science/ AI/ML model development for weather and climate.
Desirable Qualification	:	• Doctorate Degree in Meteorology/Oceanography/Atmospheric Sciences/ Earth Sciences/Climate Sciences / Physics/ Mathematics from recognized university or equivalent. • Good knowledge of programming in Fortran, C, Python and familiar with Linux/Unix pperating systems. • Knowledge in meteorological data analysis tools like GrADS, FERRET,NCL, NCO, CDO etc. • Experience in handling of large volume of data in formats like NetCDF, HDF, GRIB etc. • Experience in weather/climate model development, supported by publications. • Working experience in HPC. • Ability to work in a large group.
Job Responsibilities	:	• Applicant will contribute to the development of IITM Unified Earth System Model. Development of AI/ML model for weather and climate forecast/downscaling.
Post Code	:	MM_AT2025-003
Name of the post	:	Project Scientist-II (Mission Mausam ATCOMP)
Number of post	:	**4 Nos.**
Essential Qualification	:	• M.E./M.Tech. (Atmospheric Science/ Climate Science/ Earth Science System and Technology/ Environmental Science/ Environment Engineering) from a recognized university or equivalent. **OR** Master's degree in science with Physics/ Mathematics/ Chemistry/ Atmospheric Sciences/Computer Science/ Environmental Science/ Geophysics (Meteorology) with at least 60% marks from a recognized University or equivalent. • Three years of experience in Atmospheric regional/global chemistry transport modeling, model development, chemical data assimilation, satellite data analysis relevant to air quality modeling, experience in handling large atmospheric observations/modeling, and satellite data and its analysis, atmospheric chemistry/fog related instrumentation.
Desirable Qualification	:	● Ph.D. in any of the above subjects. ● Experience in running forecasting models (like WRF/WRF-Chem). ● Experience in using Programming languages (like FORTRAN-90, IDL, C/C++ etc.), meteorological data analysis tools (like (Python, MATLAB, GrADS, FERRET, ARCGIS, NCL, NCO, CDO etc.), and handling large volumes of satellite data like NetCDF, HDF, GRIB etc. ● Experience in aerosol-chemistry processes/ parameterization schemes/tracer transport/dust schemes. ● Experience in Field campaign for measurement of chemical species and satellite data analysis ● Experience in air pollution transport and monsoon process studies ● Modelling of Atmospheric chemistry/ chemistry Climate modelling/Chemistry-transport modelling ● Experience in AI/ML for atmospheric chemistry and climate data ● Knowledge of stratospheric process studies will be an advantage
Job Responsibilities	:	• Develop the chemical data assimilation for air quality predictions and decision support system for air quality management/Development of

coupling interface between aerosol submodel and IITM-ESM/integrate of aerosol-chemistry processes in IITM-ESM/carry out atmospheric chemistry or fog related field/lab experiments and/or measurements.

Post Code	:	**MM_WM2025-003**
Name of the post	:	**Project Scientist –II(Mission Mausam Weather Mode)**
Number of post	:	**14 Nos.**
Essential Qualification	:	- Master's Degree in science(Physics / Chemistry /Mathematics / Instrumentation/ Atmospheric Sciences/Atmospheric Physics / Meteorology / Earth System Sciences / Computer Science / Geophysics (with Meteorology) or related fields) from a recognized university with at least 60 % marks OR Bachelor's Degree in Engineering / Technology (Electronics / Instrumentation / EEE / Electronics & Telecommunication / Mechanical / Civil / Aerospace /Atmospheric Sciences / Atmospheric Physics / Meteorology or related fields) from a recognized university or equivalent with at least 60 % marks - Three years of experience in the fields detailed below in the desirable qualification.
Desirable Qualification	:	Experience in any one of the following, demonstrated through peer reviewed publications 1. Experience with numerical modelling in mesoscale modelling, turbulence modelling (Direct Numerical Simulation / large eddy simulation) / numerical simulations / urban mesoscale models / hydrological models for flood forecasting / AI/ML application in numerical modelling and development of early warning systems for urban applications, experience in analyzing large datasets and with high-performance computing. 2. Experience with handling and calibrating laboratory and field instruments such as weather radars, radiometers, wind profiling radars, mass spectrometers, CCN counters, aerosol and wind lidars, Eddy Covariance Systems, Aerosol and Gas analyzers, Micrometeorological tower instruments etc. and handling observational datasets from these instruments for processing and analysis. 3. Experience with laboratory experiments on cloud chamber, fog chamber, turbulent flows, convective flows, rotating convection, designing and conducting laboratory experiments with Particle Image Velocimetry, Particle Tracking Velocimetry, Laser Doppler Velocimetry, Phase Doppler Interferometry, Hotwire anemometry, numerical simulations (DNS / LES / RANS / CFD), data acquisition, processing and analysis using relevant software, instrument development etc. 4. Experience with airborne observations / in situ measurements of aerosol and clouds / atmospheric observations using drones and/or UAVs Experience with HPC, Linux and computer programming using Python, MATLAB, Shell Scripts, NCL, GrADS, CDO etc. is desirable.
Job Responsibilities	:	The candidate is expected to work on one or more of the following and contribute high-quality peer-reviewed publications: 1. Cloud microphysics, boundary layer and land-surface process problems from the fundamental sciences to applications such as urban

weather extremes (heat, floods etc.), physical and dynamical aspects of convection and clouds, microphysics in the warm and mixed phase clouds, reconciling the observations and numerical model parameterization, aerosol-cloud and aerosol-radiation interactions, cloud seeding simulations, modelling extreme weather events and use of AI/ML in hyperlocal weather modeling / data assimilation / parameterization, numerical mesoscale modelling or Large Eddy Simulations, Direct Numerical Simulations, model development and model evaluation.

2. Investigating the data from radar, lidar, wind profiler, aerosol and chemistry observations, micrometeorological tower instruments, preparing for data assimilation and model verification, formulating nowcasting solutions, deriving useful data for investigation of earth system parameters, impact of aerosols on the radiation budget, characterization of the atmospheric profiles and investigation of cloud physical and dynamical processes, curation of various types of data through QA/QC and documentation of data sets for dissemination, regular check of instruments, calibration of instruments, etc.

3. Laboratory measurements and simulations (DNS, LES etc.) of turbulent flows, cloud flows, microphysics, cloud chamber/fog chamber design, development, installation and characterization of the operating conditions, aerosol characterization, chemistry, electrification, activation and nucleation studies, droplet growth mechanisms, hypotheses testing for weather modification strategies, conducting experiments on laboratory setups of convection, wind tunnel, rotating table, weather instrument calibration rigs, data acquisition, processing and preparing publication worthy data.

4. Involve in field campaigns anywhere in India with ground-based, airborne measurements of cloud, aerosol and precipitation characteristics and for weather modification involving cloud seeding with aircraft and UAV / drone, processing micrometeorological data sets collected during the campaigns, data quality control, curation archiving, airborne instrument calibrations

Willingness to work in locations other than Pune, as required by the project

Post Code	:	**MM_L2025-002**
Name of the post	:	**Project Scientist –II (Mission Mausam LEAD)**
Number of post	:	**4 No.**
Essential Qualification	:	• Doctoral Degree in Atmospheric Sciences/Meteorology/Atmospheric and Ocean Sciences/Earth Sciences/Earth System Sciences/Earth Sciences and Space Applications/Oceanography from a recognized University or equivalent. • Three year experience in research in one or more of the above subjects.
Desirable Qualification	:	• Research experience supported by publications in relevant topic in good impact journals. • Very good knowledge in Computer programming and data analysis using FORTRAN, Python etc. • Teaching experiences in relevant subjects mentioned in the essential qualification.
Job Responsibilities		• Contribute to conduct training programs under the LEAD program of Mission Mausam. • Selected candidate is expected to engage in teaching and capacity building activities for LEAD program at IITM. • Field campaigns with Academica/Industry/MoES partnership

PROJECT SCIENTIST-I		
Post Code	:	MM_OA2025-003
Name of the post	:	**Project Scientist-I (Mission Mausam_Observe ALL)**
Number of post	:	12 Nos.
Essential Qualification	:	• Master's degree in science (Physics/ Instrumentation/Meteorology/Atmospheric Science/Electronics/ Radio Physics) from a recognized University or equivalent with at least 60% marks. **OR** Bachelor's degree in engineering and technology (Electronics / Instrumentation/ EEE/E&T/Aeronautical) from a recognized University or equivalent with at least 60% marks.
Desirable Qualification	:	• Work experience related to instrumentation for weather radar/LIDAR/wind profiler/aerosol/ cloud microphysics/lightning/radiation/sounding/chemistry and other meteorological instruments/NWP models. • Experience in handling in-situ/profiling/remote sensing/UAV observations/chemical analysis/ and data analysis. • Participation in observational field campaigns • Experience in numerical weather prediction models and verification studies using observations. • High quality publications in SCI index journals in the relevant field • Handling large volumes of data and conversant with data format like Net CDF, HDF, GRIB etc. • Ability to work in group and in remote environments. • Familiarity with Linux and computer programming like Python, MATLAB, NCL, GrADS, CDO etc.
Job Responsibilities	:	The candidate is expected to work on any one of the following: 1. To manage the Process Testbed observational systems related to winds, clouds, moisture, aerosols, microphysics, radiation, fluxes, lightning and analysis of data sets. 2. Conduct regular observations and focused intensive operational period (IOPs) **3.** Use of testbed observations for physical process understanding. 4. Radar operation and maintenance, calibration/validation, and trouble shooting of radars, analysis of dual polarization radar data 5. Testing and evaluating model representation of processes observed 6. Thunderstorm and laboratory studies on electricity. Willingness to work in locations other than Pune, as required by the project
Post Code	:	MM_D2025-005
Name of the Post	:	Project Scientist-I (Mission Mausam Develop)
Number of Post :	:	21 Nos.
Essential Qualification	:	• Master's Degree in Engineering or Technology/Atmospheric Sciences/Meteorology/Oceanography/Physics/Mathematics /Data Science from a recognized University or equivalent. OR B.E./B.Tech. in Computer Science/ Electronics and Communication/ Data Science with minimum 60%marks from a recognized University or equivalent.
Desirable Qualification	:	• Good knowledge of programming in Fortran, C, Python and familiar with Linux/Unix operating systems. • Knowledge in meteorological data analysis tools like GrADS, FERRET,NCL, NCO, CDO etc.

		• Experience in handling of large volume of data in formats like NetCDF, HDF, GRIB etc. • Experience in weather/climate model development, supported by publications. • Working experience in HPC. Ability to work in a large group.
Job Responsibilities	:	• Applicant will contribute to the development of IITM Unified Earth System Model. Development of AI/ML model for weather and climate forecast/downscaling.
Post Code	:	**MM_AT2025-004**
Name of the Post	:	**Project Scientist-I (Mission Mausam ATCOMP)**
Number of Post :	:	12
Essential Qualification	:	• M.Tech. (Atmospheric Science/ Climate Science/ Earth Science System and Technology / Environmental Engineering / Environmental Sciences) from a recognized University or equivalent **OR** Master's degree in science with Physics/ Mathematics/ Chemistry/ Atmospheric Sciences/ Environmental Sciences / Geophysics (Meteorology) with at least 60% marks from a recognized University or equivalent.
Desirable Qualification	:	• Experience in running forecasting models (like WRF/WRF-Chem). • Experience in using Programming languages (like FORTRAN-90, IDL, C/C++ etc.), meteorological data analysis tools (like (MATLAB, Python, GrADS, FERRET, ARCGIS, NCL, NCO, CDO etc.), and handling large volumes of satellite data like Net CDF, HDF, GRIB etc. • Experience in air pollution transport, monsoon process and climate studies • Experience in AI/ML for atmospheric chemistry and climate data • Satellite/Balloon sonde data analysis of trace gases and aerosols • working knowledge of aerosol-radiation feedback/aerosol-cloud interactions/double moment microphysics scheme • Experience in handling atmospheric chemistry/fog related instrumentation
Job Responsibilities	:	• Develop and support the chemical data assimilation for air quality predictions and decision support system for air quality management/Incorporation of aerosol-chemistry sub module into IITM-ESM/carry out atmospheric chemistry or fog related field/lab experiments and/or measurements.

Post Code	:	**MM_WM2025-004**
Name of the post	:	**Project Scientist –I (Mission Mausam_Weather_Mod)**
Number of post	:	**36 Nos**
Essential Qualification	:	● Master's Degree in science(Physics / Chemistry /Mathematics / Instrumentation / Atmospheric Sciences /Atmospheric Physics/ Meteorology / Earth system sciences / Environmental sciences / Computer Science / Geophysics (with Meteorology) / Geology or related fields) from a recognized university or equivalent with at least 60 % marks OR Bachelor's Degree in Engineering / Technology (Electronics / Instrumentation / EEE / Electronics & Telecommunication / Computer / IT / Mechanical / Civil / Aerospace /Atmospheric Sciences / Atmospheric Physics / Meteorology or related fields) from a recognized university or equivalent with at least 60 % marks.
Desirable Qualification	:	Experience in any one of the following demonstrated through peer reviewed publications 1. Experience with numerical modelling in mesoscale modelling, turbulence modelling (Direct Numerical Simulation / large eddy simulation) / numerical simulations / urban mesoscale models / hydrological models for flood forecasting / AI/ML application in numerical modelling and development of early warning systems for urban applications, experience in analyzing large datasets and with high-performance computing, database management, IT developments with HTML, Java, PHP etc.) 2. Experience with handling and calibrating laboratory and field instruments such as weather radars, radiometers, wind profiling radars, mass spectrometers, CCN counters, aerosol and wind lidars, Eddy Covariance Systems, Aerosol and Gas analyzers, Micrometeorological tower instruments etc. and handling observational datasets from these instruments for processing and analysis. 3. Experience with laboratory experiments on cloud chamber, fog chamber, turbulent flows, convective flows, rotating convection, designing and conducting laboratory experiments with Particle Image Velocimetry, Particle Tracking Velocimetry, Laser Doppler Velocimetry, Phase Doppler Interferometry, Hotwire anemometry, numerical simulations (DNS / LES / RANS / CFD), data acquisition, processing and analysis using relevant software, instrument development etc. 4. Experience with airborne observations / in situ measurements of aerosol and clouds / atmospheric observations using aircraft / drones and/or UAVs Experience with HPC, Linux and computer programming using Python, MATLAB, Shell Scripts, NCL, GrADS, CDO etc. is desirable.
Job Responsibilities	:	The candidate is expected to work on one or more of the following and contribute high-quality peer-reviewed publications: 1. Cloud microphysics, boundary layer and land surface process problems from the fundamental sciences to applications such as urban weather extremes (heat, floods etc.), physical and dynamical aspects of convection and clouds, microphysics in the warm and mixed phase clouds, reconciling the observations and numerical model parameterization, aerosol-cloud and aerosol-radiation interactions, cloud seeding simulations, modelling extreme weather events and use of AI/ML in hyperlocal weather modeling / data assimilation / parameterization, numerical mesoscale modelling or Large Eddy Simulations, Direct

Numerical Simulations, model development and model evaluation.

2. Investigating the data from radar, lidar, wind profiler, aerosol and chemistry observations, micrometeorological tower instruments, preparing for data assimilation and model verification, formulating nowcasting solutions, deriving useful data for investigation of earth system parameters, impact of aerosols on the radiation budget, characterization of the atmospheric profiles and investigation of cloud physical and dynamical processes, curation of various types of data through QA/QC and documentation of data sets for dissemination, regular check of instruments, calibration of instruments, etc. Database management of the data from various instruments, documentation and archival in usable formats at various levels. IT developments with HTML, Java, PHP etc.

3. Laboratory measurements and simulations (DNS, LES etc.) of turbulent flows, cloud flows, microphysics, cloud chamber/fog chamber design, development, installation and characterization of the operating conditions, aerosol characterization, chemistry, electrification, activation and nucleation studies, droplet growth mechanisms, hypotheses testing for weather modification strategies, conducting experiments on laboratory setups of convection, wind tunnel, rotating table, weather instrument calibration rigs, data acquisition, processing and preparing publication worthy data.

4. Involve in field campaigns anywhere in India with ground-based, airborne measurements of cloud, aerosol and precipitation characteristics and for weather modification involving cloud seeding with aircraft and UAV / drone, processing micrometeorological data sets collected during the campaigns, data quality control, curation archiving, airborne instrument calibrations. May also be involved in field campaigns on ship.

Willingness to work in locations other than Pune, as required by the project

Post Code	:	**MM_L2025-003**
Name of the Post	:	**Project Scientist-I (Mission Mausam LEAD)**
Number of Post	:	**2 Nos.**
Essential Qualification	:	Master's Degree in science with Atmospheric Sciences/Meteorology/Atmospheric and Ocean Sciences/Earth Sciences/Earth System Sciences/Earth Sciences and Space Applications/Oceanography/ Space Science and Technology with at least 60% marks from a recognized university or equivalent.
Desirable Qualification	:	• PhD in any of the above subjects • Research experience supported by publications in relevant topic in good impact journals. • Very good knowledge in Computer programming and data analysis using FORTRAN, Python etc. • Teaching experiences in relevant subjects in the essential qualification.
Job Responsibilities	:	• Contribute to conduct training programs under the LEAD program of Mission Mausam. • Selected candidate is expected to engage in teaching and capacity building activities for LEAD program at IITM. Field campaigns with Academica/Industry/MoES partnership

Post code	:	**MM_L2025-004**
Name of the Post	:	**Project Scientist-I (Mission Mausam LEAD)**
Number of Post	:	**4 Nos.**
Essential Qualification	:	Master's Degree in science with Atmospheric Sciences/Meteorology/Atmospheric and Ocean Sciences/Earth Sciences/Earth System Sciences/Oceanography with at least 60% marks from a recognized university or equivalent.
Desirable Qualification	:	• PhD in any of the above subjects • Research experience supported by publications in relevant topic in good impact journals. • Very good knowledge in Computer programming and data analysis using FORTRAN, Python etc. Teaching experiences in relevant subjects in the essential qualification.
Job Responsibilities	:	• Contribute to conduct training programs under the LEAD program of Mausum Mission • Selected candidate is expected to engage in teaching and capacity building activities for LEAD program at IITM. • Field campaigns with Academica/Industry/MoES partnership

Post Code	:	**MM_L2025-005**
Name of the Post	:	**Project Scientist-I (Mission Mausam LEAD)**
Number of Post	:	**1 No.**
Essential Qualification	:	• Master's Degree in Computer Science/Computer Application/Information Technology with at least 60% marks from a recognized university or equivalent.
Desirable Qualification	:	• Website Development and Maintenance, Audio-Video editing, Online streaming services, Archiving digital materials, GitHub, Social Media platforms • Project management in IT of LEAD program. • Server management and Administration in Linux/Unix environment
Job Responsibilities	:	• Contribute to conduct training programs under the LEAD program of Mausum Mission • IT/Website related supports for capacity building programs of LEAD under Mausum Mission

		SCIENTIFIC ASSISTANT
Post Code	:	**MM_OA2025-004**
Name of the post	:	**Scientific Assistant (Mission Mausam Observe_ALL)**
Number of post	:	**6 Nos.**
Essential Qualification	:	Bachelor's degree in science (Physics/ Chemistry/ Instrumentation/ Atmospheric Physics /Atmospheric Sciences/ Meteorology from a recognized university / institute. (ii) Must have secured 50% marks in optional subjects taken together (not applicable to candidates possessing Master's degree in Science).
Desirable Qualification	:	• Work experience related to instrumentation for weather radar/LIDAR/wind profiler/aerosol/ cloud microphysics/lightning/radiation/sounding/chemistry/ air borne and other meteorological instruments. • Experience in handling in-situ, profiling, remote sensing observational data sets and data analysis. • Experience in participation in observational campaigns and interpretation of atmospheric measurements • Experience in numerical weather prediction models and verification studies using observations. • High quality publications in SCI index journals in the relevant field • Handling large volumes of data and conversant with data format like Net CDF, HDF, GRIB etc. • Ability to work in group and in remote environments. • Familiarity with Linux and computer programming like Python, MATLAB, NCL, GrADS, CDO etc.
Job Responsibilities	:	The candidate is expected to work on any one of the following: 1. To manage the Process Testbed observational systems related to winds, clouds, moisture, aerosols, microphysics, radiation, fluxes, lightning, and analysis of data sets. 2. Conduct regular observations and focused intensive operational period (IOPs) 3. Radar operation & maintenance, calibration/validation, and troubleshooting, analysis of dual polarization radar data Willingness to work in locations other than Pune, as required by the project
Post Code	:	**MM_D2025-006**
Name of the post	:	**Scientific Assistant (Mission Mausam DEVELOP)**
Number of post	:	**4 Nos.**
Essential Qualification	:	Bachelor's Degree in science with (Physics / Chemistry /Mathematics /Instrumentation / Atmospheric Sciences / Meteorology / Earth system sciences / Environmental sciences / Computer Science / Geophysics (with Meteorology) / Geology or related fields) from a recognized university / institute. ii) Must have secured 50% marks in optional subjects taken together (not applicable to candidates possessing Master's degree in Science).
Desirable Qualification	:	Experience with laboratory experiments, simulations, solid modeling, database management and IT developments using PHP, Java, HTML etc., Autocad, AI/ML, Data Science, GIS, Linux and computer programming using Python, MATLAB, Shell Scripts, NCL, GrADS, CDO etc. is desirable.
Job Responsibilities	:	The candidate is expected to assist in model development, data analysis, preparing datasets for model verification, etc.

Post Code	:	**MM_ATCOMP2025-005**
Name of the post	:	**Scientific Assistant (Mission Mausam ATCOMP)**
Number of post	:	**4 Nos.**
Essential Qualification	:	Bachelor's degree in science with Physics/ Mathematics/ Chemistry/ Atmospheric Sciences/ Environmental Sciences / Geophysics (Meteorology)/ Instrumentation from a recognized University /Institute. (ii) Must have secured 50% marks in optional subjects taken together (not applicable to candidates possessing Master's degree in Science)
Desirable Qualification	:	• Experience in running forecasting models (like WRF/WRF-Chem). • Experience in using Programming languages (like FORTRAN-90, IDL, C/C++ etc.), meteorological data analysis tools (like (Python, MATLAB, GrADS, FERRET, ARCGIS, NCL, NCO, CDO etc.), and handling large volumes of satellite data like NetCDF, HDF, GRIB etc. • Experience in air pollution transport and monsoon process studies • Modelling of Atmospheric chemistry/ chemistry Climate • High volume data analysis of trace gases and aerosols • Experience in handling atmospheric chemistry/fog related instrumentation
Job Responsibilities	:	• Support the chemical data assimilation for air quality predictions and decision support system for air quality management/atmospheric chemistry or fog related field/lab experiments and/or measurements.
Post Code	:	**MM_WM2025-005**
Name of the post	:	**Scientific Assistant (Mission Mausam Weather Mod)**
Number of post	:	**10 Nos.**
Essential Qualification	:	Bachelor's Degree in science with (Physics / Chemistry /Mathematics /Instrumentation / Atmospheric Sciences / Meteorology / Earth system sciences / Environmental sciences / Computer Science / Geophysics (with Meteorology) / Geology or related fields) from a recognized university / institute. ii) Must have secured 50% marks in optional subjects taken together (not applicable to candidates possessing Master's degree in Science).
Desirable Qualification	:	Experience with laboratory experiments, simulations, solid modeling, database management and IT developments using PHP, Java, HTML etc., Autocad, AI/ML, Data Science, GIS, Linux and computer programming using Python, MATLAB, Shell Scripts, NCL, GrADS, CDO etc. is desirable.
Job Responsibilities	:	The candidate is expected to assist in field deployments of radars, AWS, micrometeorological towers, radiosonde, laboratory experiments, setting up of cloud/fog chamber and instrumentation, airborne campaigns, data analysis using Python, LabView, MATLAB or other software etc., database management and IT developments using PHP, Java, HTML etc. **Willingness to work in locations other than Pune, as required by the project**
Post Code	:	**MM_L2025-006**
Name of the Post	:	**Scientific Assistant (Mission Mausam LEAD)**
Number of Post	:	**2 No.**
Essential Qualification	:	Bachelor's Degree in Mass Communication/Computer Application/ Information Technology/Computer Science/ Computer Design/ Graphics/ Design/ Animation etc. from a recognized university / institute. (ii) Must have secured 50% marks in optional subjects taken together (not applicable to candidates possessing Master's degree in Science)
Desirable Qualification	:	• Very good communication skills, IT, Photography, Videography

		• Diploma in Photography, Videography, Animations • Knowledge in audio-video-media • Knowledge in basic computer software (Windows/MS-Office etc) • Experience in field work at the level of assistants in various training programs • Science Communication.
Job Responsibilities	:	• IT Support for the training programs and capacity building activities under LEAD. • Documentation, Report Writing, Science Communication.