

## **Indian Institute of Tropical Meteorology (IITM), Pune**

(An Autonomous Institute under Ministry of Earth Sciences, Government of India)

**Advertisement No. PER/14/2010/CAT**

**Centre for Advanced Training in Earth System Sciences and Climate (CAT-ESSC)**

### **OPPORTUNITIES FOR OUTSTANDING RESEARCHERS IN CLIMATE SCIENCES**

The newly formed Centre (CAT-ESSC) attached to IITM, an organization fully devoted to research in various aspects of climate sciences, is looking for outstanding researchers to fill **Ten** Research cum Teaching Positions at the level of **Scientists E, D and C**. The selected faculty is expected to conduct cutting edge research on climate related topics and should have a commitment to quality teaching and inclination towards institutional development. They should inspire the trainees of the Centre at the M.Tech. / Ph.D levels using theoretical, modeling and observational techniques.

For details of the posts visit **[http://www.tropmet.res.in/view\\_jobs.php](http://www.tropmet.res.in/view_jobs.php)**. Aspiring candidates may submit applications, separately for each position, in the prescribed pro-forma with detailed CV, a list of publications and other relevant documents to the Administrative Officer of IITM latest by **31 December 2010**.

**Indian Institute of Tropical Meteorology, Pune, India**  
(An autonomous institute under the Ministry of Earth Sciences, Government of India)

**CENTRE FOR ADVANCED TRAINING IN EARTH SYSTEM SCIENCES AND CLIMATE**

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**OPPORTUNITIES FOR OUTSTANDING RESEARCHERS  
IN CLIMATE SCIENCES AT THE LEVEL OF SCIENTISTS – E, D and C**

The newly formed Centre for Advanced Training in Earth System Sciences and Climate (CAT-ESSC) attached to the Indian Institute of Tropical Meteorology (IITM), Pune, which is an autonomous research organization fully devoted to research in various aspects of climate science, is looking for outstanding researchers to fill **Ten** research cum teaching positions. The main objective of the Centre is to create a large pool of trained and dedicated climate and climate system scientists with in-depth hands-on expertise on individual physical processes of the land, ocean, atmosphere, biosphere and cryosphere with special emphasis on modeling. The aim is to go beyond the conventional training in individual systems and address weather and climate as processes arising from interactions between the above component systems. Meritorious Master in science and Bachelor/Master in engineering/technology degree holders will be recruited and provided this induction training extending to two to five years leading to M.Tech / Ph.D. and subsequently placed in IITM or any other Institutes of the Ministry of Earth Sciences. The program will be carried out in IITM and a new campus with self contained facilities for training and research is being developed in Pune.

The host institution, IITM is committed to develop world class research expertise for understanding and exploring unresolved scientific issues on climate science. It is engaged in basic research in all aspects of tropical ocean-atmosphere systems as applicable to weather and climate forecast. A Centre for Climate Change Research (CCCR) has been established at IITM to address all science issues related to Climate Change and Indian monsoon. To cater to the modelling needs, a High Performance Computing (HPC) Centre has been set up with peak performance of 70 TF and it is ranked 94th in the world. The Institute has excellent infra-structural facilities and also has the state of the art equipments for field observations. The IITM's activities include training to post graduates and to motivate them to take up research career in atmospheric and ocean sciences required to improve the skill for weather and climate prediction modeling. It has MoU with University of Pune for carrying out work leading to the award of M. Tech and Ph.D. For Ph. D IITM is being recognized by many other leading Universities.

The TEN positions of the Centre are to take up teaching and research in the following areas:

- Physical processes of the land, ocean, atmosphere, biosphere and cryosphere
- Climate and climate change
- Influence of the earth systems and processes on climate
- Dynamical prediction system of seasonal monsoon rainfall
- Extended range prediction system for active and break spells of the monsoon
- Interaction between tropical convection and large scale circulation
- Parameterization of tropical convection for weather and climate models
- State-of-the-art climate observational systems
- Climate data management and information systems

The positions available are in the grade of Scientist-E (two), Scientist-D (four), Scientist-C (four). The candidates should exhibit high degree of motivation and be self driven with an ability to participate as well as provide leadership in the training and research programs with a multidisciplinary approach. The selected faculty is expected to conduct cutting edge research on the climate related topics and should have a commitment to quality teaching and inclination towards institutional development. They should inspire the trainees of the Centre using theoretical, modeling and observational techniques.

Details of the posts are given below. Aspiring candidates may submit applications, separately for each particular Scientific Position, in the prescribed proforma with detailed CV, a list of publications and other relevant documents to the Administrative Officer, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, Pashan, Pune-411 008 by **31 December 2010**.

**Requirements for the posts are as under:**

**(I) Scientist 'E':** Two posts (unreserved)

**Scale of Pay:** Rs. 37400 - 67000, Grade Pay Rs. 8700.00 plus allowances admissible to Central Govt. employees stationed at Pune.

**Essential Qualifications:**

- (i) A Doctorate in Meteorology, Atmospheric Sciences, Oceanography, Physics, Mathematics, Applied Mathematics, Statistics, Applied Physics, Geophysics or in any other area of Earth System Sciences or Engineering from a recognized university/ institution with good scientific standing.
- (ii) A minimum of 8 years experience of research work (5 years of which should be after Ph.D.) and proven capacity for guiding and coordinating teaching and research in Atmospheric, Oceanic or other Earth System Sciences or Engineering preferably related to climate (as evidenced by published papers and guidance to Post Graduate and Ph.D. students).

**Desirable Qualifications:**

The candidates must have administrative and organizational experience in a recognized scientific Institution or university and must have demonstrated scientific leadership including guidance of research students. In addition, the candidate must have leadership contribution in any of the research areas viz. coupled ocean-atmosphere modelling and seasonal prediction of monsoon; extended prediction of active and break spells of monsoon; climate dynamics through climate modelling; dynamics and thermodynamics of air-sea interactions in tropics and its influence on Indian monsoon; data assimilation for climate models; parameterization of tropical convection and other physical processes of atmosphere, ocean and/or land; climate change.

**Upper Age Limit:** 50 years as on 31 December 2010

**Deputation:** Those who would like to be considered under deputation may also apply.

**(II) Scientist 'D':** Four posts (Three posts unreserved, one each for atmospheric, oceanic and land systems and one post for atmospheric systems reserved for Physically Handicapped).

**Scale of Pay:** Rs. 15600-39100, Grade Pay: Rs. 7600.00 plus allowances admissible to Central Govt. employees stationed at Pune.

**Essential Qualifications:**

- (i) A Doctorate in Meteorology, Atmospheric Sciences, Oceanography, Physics, Mathematics, Applied Mathematics, Statistics, Applied Physics, Geophysics or Civil, Mechanical or Chemical Engineering or in any other area of Earth System Sciences from a recognized University / Institution.
- (ii) A minimum of 6 years experience of research (2 years of which should be after Ph.D.) in Atmospheric Oceanic Sciences and / or Earth System Sciences or Engineering preferably related to climate (as evidenced by published papers).

**Desirable Qualifications:**

Proven expertise in any of the research areas viz., coupled ocean-atmosphere modelling and seasonal prediction of monsoon; climate dynamics and climate modelling; dynamics and thermodynamics of tropical air-sea interactions; assimilation of satellite and conventional data for climate predictions; parameterization of tropical convection; physical oceanography of the tropical ocean in general and Indian Ocean in particular and role of Ocean processes on Indian monsoon; diagnosing climate variability and climate model biases; understanding of the Asian monsoon and its variability; Atmospheric Radar Technology and Radar Meteorology, other climate observational and monitoring systems and their application for weather and climate prediction; climate change.

**Upper Age Limit:** 45 years as on 31 December 2010.

## **(II) Scientist ‘C’:** Four posts

**Scale of Pay:** Rs. 15600-39100, Grade Pay Rs. 6600/- plus allowances admissible to Central Govt. employees stationed at Pune.

### **Essential Qualifications:**

- (i) A Doctorate in Meteorology, Atmospheric Sciences, Oceanography, Physics, Mathematics, Applied Mathematics, Statistics, Applied Physics, Civil, Mechanical or Chemical Engineering, Geophysics or any other area of Earth System Sciences from a recognized university/institution.
- (ii) A minimum of 5 years experience of research in Atmospheric and/or Ocean Sciences or in any other area of Earth System Sciences or Engineering related to weather and climate (as evidenced by published papers).

### **Desirable Qualifications:**

Proven expertise in any of the research areas viz., diagnosing climate variability and climate model biases; a deep understanding of the Asian monsoon and its variability; modelling of land surface processes and their impact on climate; assimilation of satellite and conventional data to AGCMs and oceanic data to OGCMs; dynamics and thermodynamics of convection; interaction between clouds and environment; atmospheric Radar technology and Radar meteorology and other state of the art observational technologies and their application for weather and climate observations; nonlinear dynamics applied to atmospheric predictability; nonlinear time series modelling; Climate Change.

**Upper Age Limit:** 40 years as on 31 December 2010

### **GENERAL FOR ALL POSTS**

**Age Limit Relaxable:** The upper age limit is relaxable by 5 years for candidates belonging to SC/ST and 3 years for candidates belonging to the Other Backward Class, and as per rules for ex-servicemen and physically handicapped persons. There is no age limit for IITM and other government employees.

- Applications in the enclosed proforma indicating the name of the posts (e.g. Scientist E, D or C) together with detailed CV, copies of certificates and list of publications should reach the undersigned **by 31 December 2010**.
- The candidates should arrange three letters of reference to be sent directly to the undersigned from three researchers familiar with candidate's work.
- Separate applications should be submitted for each post.

- Candidates called for interview will be paid to and fro train fare as per IITM rules by the shortest route on production of original tickets.
- Candidates employed in government service have to apply through proper channel. However, they can submit an advance application.

**The Administrative Officer**  
**Indian Institute of Tropical Meteorology**  
**Dr. Homi Bhabha Road, Pashan**  
**Pune - 411008**  
**Phone : 020 – 25904203/259042504**  
**FAX : 020 – 25893825**  
**Email : [admadv@tropmet.res.in](mailto:admadv@tropmet.res.in) /**  
**URL: <http://www.tropmet.res.in>**

**Indian Institute of Tropical Meteorology**  
**Centre for Advanced Training in Earth System Sciences and Climate**

**PROFORMA**  
(Advt. No. PER/14/2010/CAT)

**Application for the post of Scientist .....**  
(Fill up separate application for each post)

**1. Name of the candidate in BLOCK letters**

Surname	Name	Father / Husband's name
Gender : Male / Female		Married / Unmarried

**2. Mailing address:**

City :                      Pin Code                      State

**3. Telephone No.**

**4. Mobile No.:**

**5. Fax No.:**

**6. E mail:**

**7. Permanent Address:**

City :                      Pin Code                      State

**8. Date of Birth**                      Day                      Month                      Year

**9. Place of Birth**

**10. Nationality**

**11. Whether belongs to SC / ST / OBC / Physically Handicapped / Ex-Servicemen**  
(Attach relevant certificates for the same)

**12. Academic Record**

Sr. No.	Qualification	Year	Board / University	Subjects	Class / Division	Percentage of Marks
i.	SSC (for date of birth)			--		
ii	B.Sc.					
iii	M.Sc./B.E/B.Tech.					
iv	M.Tech.					
v	Ph.D.					
vi						
vii						

**Enclose Photocopies of Mark Sheets / Certificates**

<b>13.</b>	<b>Computer Skills</b>					
<b>14.</b>	<b>Area of Interest/specialization</b>					
<b>15.</b>	<b>Leadership Contribution in the area of research:</b>					
<b>16.</b>	<b>The guidance provided to research students</b>					
<b>17.</b>	<b>No. of papers published (Attach list)</b>	i) Journals ii) Proceedings				
<b>18.</b>	<b>Conference / Seminars etc. attended (Attach list)</b>					
<b>19.</b>	<b>Employment record</b> (attach separate list, if required, for details)	From	To	Place of work	Salary / scale of pay	Brief nature of duties
<b>20.</b>	<b>Experience</b>					
<b>21.</b>	<b>Referees (name, mailing address and email)</b>	1 2 3				

**Reference letters from researchers familiar with the candidate's work be enclosed**

**Date:**

**Signature of the candidate**