



## Introduction

Indian Space Research Organisation (ISRO) routinely provides vertical profiles of atmospheric parameters using different earth observation satellites. INSAT-3D launched in 26 July 2013 and INSAT-3DR launched on 28 August 2016 continuously provide temperature and humidity profiles of the atmosphere using Infra-red (IR) based passive sounding instruments. The INSAT-3D/3DR sounder instruments measure IR-radiance at 18 different wavelength bands and visible radiation at one band. They provide atmospheric ozone content also.

ISRO launched a multi-channel passive microwave humidity sounder 'SAPHIR' on-board Megha-Tropiques satellite on 12 October 2011. The SAPHIR sounder is based on the principle of measuring humidity in six different channels located in the  $183.31 \pm 12$  GHz bandwidth.

Besides these, ISRO launched GPS Radio Occultation Sounder for Atmosphere (ROSA) on-board Oceansat-2 satellite [launched on 23 September 2009] and Megha-Tropiques satellite. The ROSA instruments look towards the limb of the atmosphere and measure radiation that leaves the atmosphere nearly tangentially. ROSA instruments provide water vapour and temperature profiles in the tropical belt.

Above satellite sounding measurements have distinct advantages over the conventional radiosonde measurements like better spatial, temporal and vertical resolutions.

## Training on Satellite based Sounding

Satellite Meteorology and Oceanography Research and Training (SMART) programme of SAC, Ahmedabad is organising a training programme on 'Satellite based Sounding of the Atmosphere: Techniques and Applications'. The proposed training programme aims to generate awareness about satellite sounding methods and their potential meteorological applications among students, researchers and faculty members. This training programme will cover basic concepts of satellite sounding techniques, parameter retrieval, validation methodologies, MOSDAC satellite data portal and applications of the sounder data.

## Details of the Training Programme

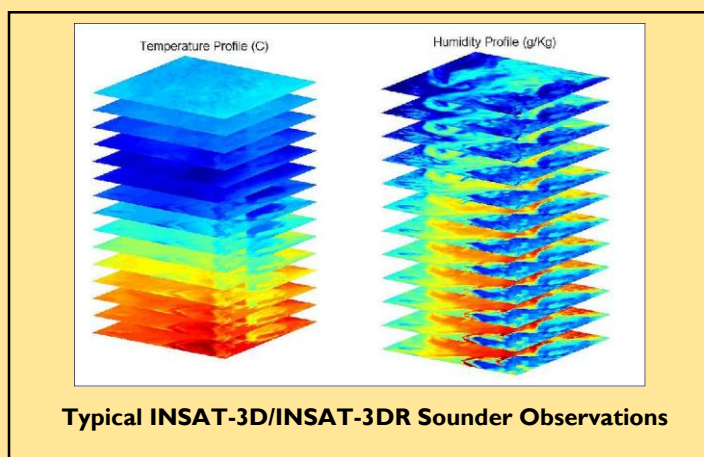
Course Date	27-30 November 2018
No. of participants	40
Target Group	Students, JRFs, Post-docs, early carrier researchers, faculty members and scientists affiliated to Govt. recognised Universities or Research Institutions.
Pre-requisite	Working knowledge of Linux, Python, Ferret and Fortran are required.
Last date to apply	Filled-in application must reach on or before 25 October 2018.

Training programme consists of lectures in the forenoon by eminent scientists working in Space Applications Centre (SAC), ISRO, followed by hands-on familiarisation with satellite data in the afternoon. Participants will be provided subsidised paid accommodation at SAC guest house on twin sharing basis. No fee will be charged for attending the training. No TA/DA will be provided for attending the training. Participation certificate will be provided after the completion of training. Only selected candidates will be intimated by email.

*Interested may send the filled-in application form to:*

Dr. V. Sathiyamoorthy  
Head, MRTD/MRG,  
Space Applications Centre (ISRO)  
Bopal, Ahmedabad - 380058  
Phone: 079-26916112 Fax: 079-26916127  
Email: sathya@sac.isro.gov.in

For further details please visit our website  
<https://mosdac.gov.in/smart>





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Space Applications Centre, Ahmedabad  
Application for SMART Training Programme  
**Satellite based Sounding of the Atmosphere: Techniques and Applications**

STP-07/2018

*(Please type or write in CAPITAL Letters)*

Name Dr./Mr./Ms/.....

Date of Birth (DD/MM/YYYY) .....

Gender (Male/Female) .....

Permanent Address .....

Pin code .....

Email .....

Phone .....

Designation .....

Educational Qualification .....

Institution Address .....

How this training programme will be useful  
to your studies/research work .....

Signature of the applicant with date .....

Recommendation from Head of the  
Department or Institution with seal .....

*[Note: (i) Get the photo attested by Head of Department/ Director / Principal with office seal  
(ii) Get the application recommended and forwarded by Head of Department / Director/ Principal with seal.*

*Last date to receive the completed application is 25 October 2018. Scanned applications sent by email is also accepted.*