

Online Training on Basics of Satellite Meteorology



Satellite Meteorology

Satellite meteorology refers to the study of the earth's atmosphere using data collected by remote sensing instruments flown on board satellites orbiting the earth. For studying the earth's atmosphere and predicting its future, precise measurements of the atmospheric parameters are important. Unlike the in-situ instruments, remote sensing instruments obtain information of the meteorological parameters without coming in to physical contact. Satellites equipped with remote sensing instruments monitor the state of the atmosphere continuously from space. These are called weather or meteorological satellites. They are generally launched in to geostationary and polar orbits. Geostationary meteorological satellites orbit the earth at an altitude of 36,000 km and remain stationary with respect to the rotating earth. Polar meteorological satellites orbit the earth at low earth orbits and circles from pole to pole.

India has a dedicated meteorological satellite programme. Currently INSAT-3D and INSAT-3DR geostationary meteorological satellites monitor the Indian land and adjoining oceanic regions at every 15-minute interval. They carry a 6-channel multi-spectral imager and a 19-channel sounder. Megha-Troiques and ScatSat-I are the two Indian low earth orbit meteorological satellites that are currently operational. They provide valuable data of the atmosphere and ocean. These data are archived at the MOSDAC web-portal.

Outline of the Online Training

Satellite Meteorology and Oceanography Research and Training (SMART) programme of Space Applications Centre, Ahmedabad is organising an online training programme on 'Basics of Satellite Meteorology'. Basic concepts of satellite meteorology, parameter retrieval and satellite data applications will be covered in this training. This training will provide exposure to:

- ❖ Basic concepts of satellite meteorology
- ❖ Satellite based Imaging and Sounding
- ❖ Satellite Scatterometry
- ❖ Principles of satellite based rainfall retrieval
- ❖ Radio Occultation concepts
- ❖ Tropical cyclone monitoring using satellites
- ❖ Potential uses of satellite data for NWP
- ❖ Demo on MOSDAC data portal

Details of the Training Programme

Training Date	21-23 December 2020
Target Group	Students, JRFs, Post-docs, early career researchers, faculties, etc., affiliated to recognised Universities and research institutions.
Pre-requisite	Prior knowledge on meteorology is required.
Last date to apply	Filled-in application must reach on or before 11 December 2020.

This is an online training programme. Lectures will be delivered by eminent scientists of Space Applications Centre, ISRO. No fee will be charged for attending the training. Participation certificates will be provided after completing the training.

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

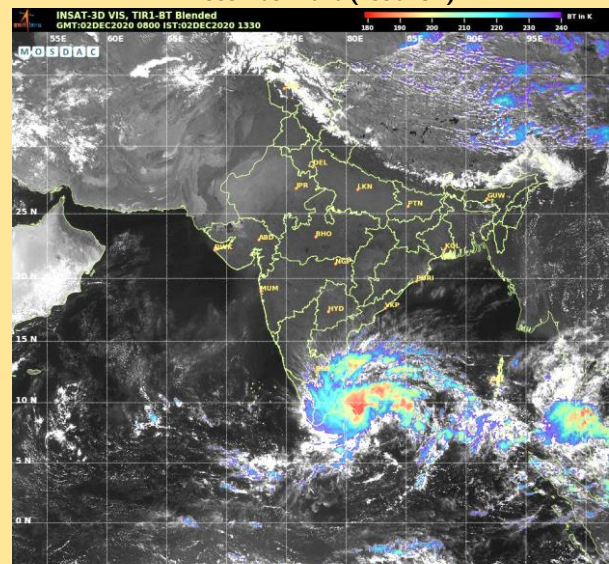
Email: smart@sac.isro.gov.in

Scanned copies of the filled-in application sent by email is also accepted.

For further details, please visit our website

<https://mosdac.gov.in/smart>

**Cyclonic Storm Burevi as viewed by INSAT-3D
2 December 2020 (1330 IST)**





Space Applications Centre, Ahmedabad
Application for SMART Online Training Programme

Affix recent
passport
size photo &
get it
attested by
HOD

Basics of Satellite Meteorology

(Please type or write in CAPITAL Letters)

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

Date of Birth (DD/MM/YYYY)

Gender

Correspondence Address (official)

[College/University/Institute details]

Pin code

Email

Mobile

Designation

Educational Qualification/course undergoing

Permanent address with Pin code

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

Last date to receive the completed application is 11 December 2020