

# Microwave Remote Sensing Applications

## (04 – 15 May, 2020)



The launch of the first Indian active microwave remote sensing satellite, Radar Imaging Satellite RISAT-1, has opened up new vistas for operational utilization of microwave data for management of natural resources and Disaster management. RISAT-1 is the first indigenously developed Microwave satellite.

RISAT-1 carries a multi-mode C-band (5.35 GHz) Synthetic Aperture Radar (SAR) as the sole payload. It operates at various beam modes having a number of combinations of linear as well as circular polarization, varying swath in the range of 200-600 km and spatial resolution varying between 3 to 50 m depending on the type of mode. Unique applications of radar technology

and synergy with optical data have tremendous scope for a better understanding in developing new applications. The RISAT-1 microwave data is useful in the fields of Agriculture, Soils, Forestry, Earth Sciences, Snow, Hydrology, Oceanography and Disaster Applications. Also, RISAT-1 provides unique characteristics of fully polarized & compact polarized data in multi incidence besides being equipped for interferometry.

### Training Focus:

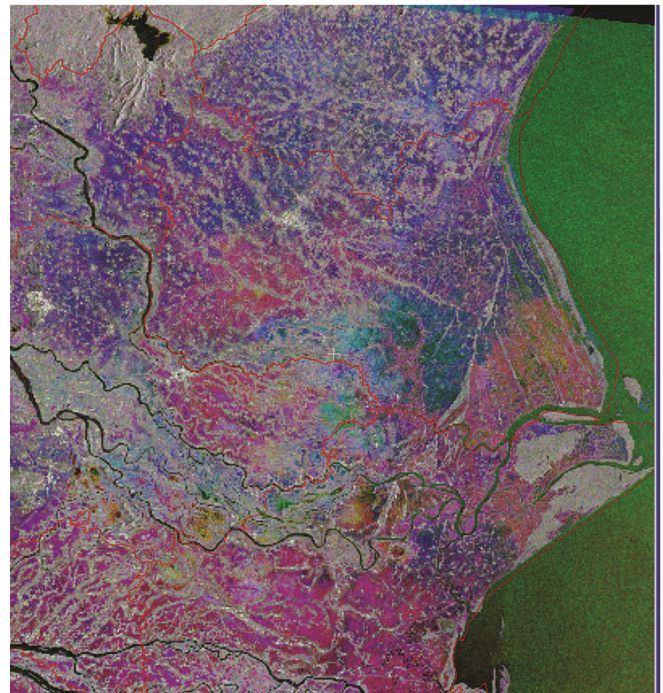
The main objective of this course is to enhance the knowledge of the participants towards a better understanding of the interaction of microwave with the objects on the Earth's surface when viewed from space platform and utilization for various applications.

The course covers Microwave Remote Sensing Technology & Applications addressing:

- Introduction to SAR Technology
- SAR Signal Processing
- Interferometry
- Advanced Polarimetry

Applications, Case studies and Tutorials in

- Agriculture
- Forestry
- Earth Sciences
- Snow & Hydrology
- Oceanography
- Disaster Management



Polarimetric Composite

### Who can Apply:

Users working in State Government / Central Government Departments, NGOs, Private Companies and faculty, research scholars from Academic Institutions who are gearing up to utilize the Active Microwave Remote Sensing data.

Participants should have minimum Masters degree in Science or Bachelors degree in Engineering or graduation with minimum 2 years of experience in relevant areas. Knowledge in Remote Sensing Applications using optical multispectral data and experience in using Image Processing software is essential. For course fee details kindly see *Training 2020: Quick Look & Fee details*. Right of admission reserved with NRSC.