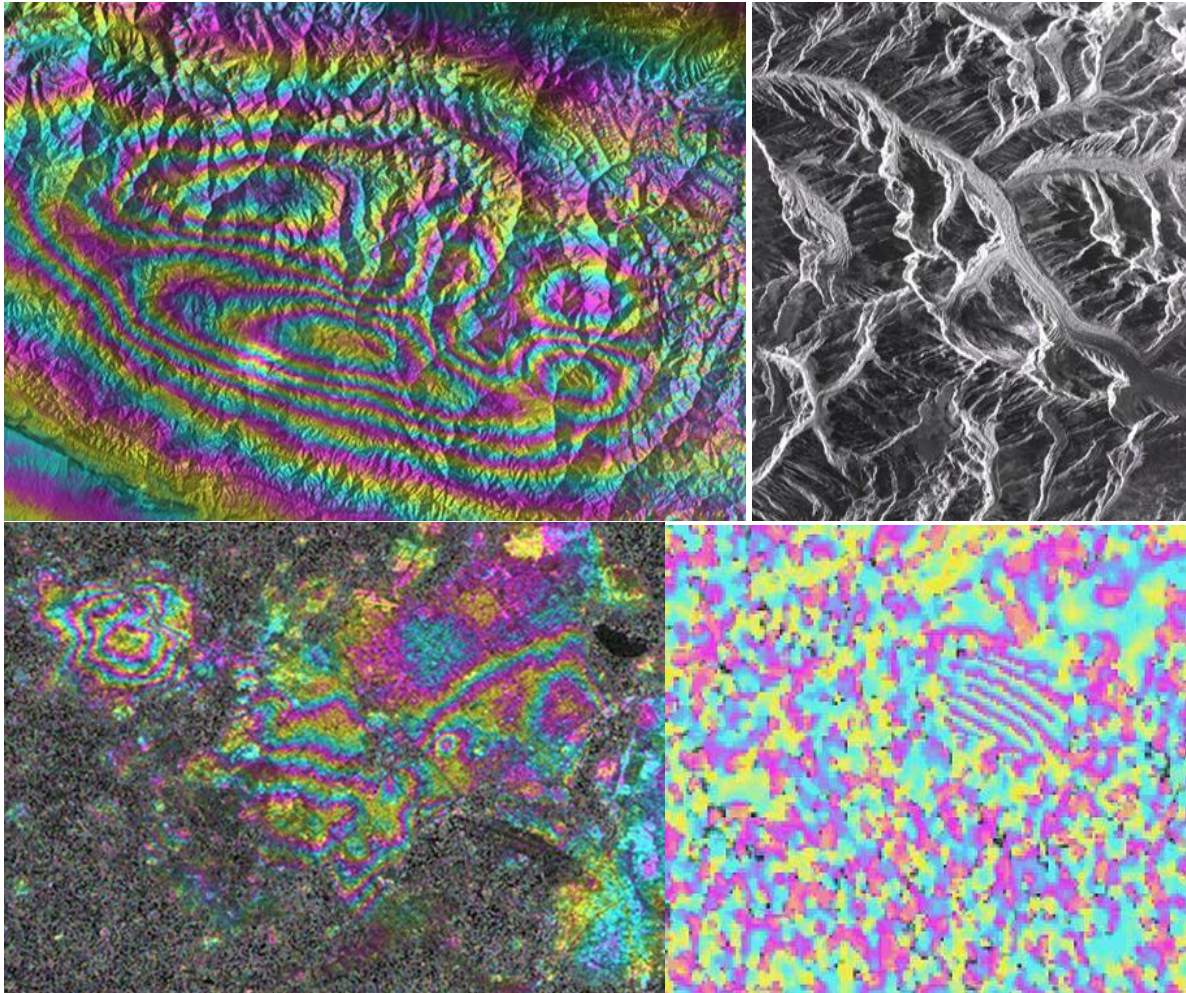




**iirs**

**Special course on  
Microwave Remote Sensing Applications in Geosciences with Emphasis on  
Surface Deformation Studies**

**April 22-26, 2019**



**Geosciences Department  
Indian Institute of Remote Sensing  
Indian Space Research Organization  
Department of Space, Govt. of India  
4, Kalidas Road, Dehradun- 248001, India**

[www.iirs.gov.in](http://www.iirs.gov.in)

## INTRODUCTION

The Earth has widely been studied by Synthetic Aperture Radar (SAR) for more than three decades. SAR provides weather-independent, day-and-night high resolution images for various applications ranging from geoscience, climate change to planetary exploration. InSAR (Interferometric Synthetic Aperture Radar) and DInSAR (Differential InSAR) are powerful tools for assessing Earth surface deformation and displacement caused due to seismicity, landslide, mining and ground water depletion. In recent years, InSAR and DInSAR have also become a popular tool in cryospheric studies to measure the motion of glaciers and ice sheets and glacier mass change. In this view, Indian Institute of Remote Sensing (IIRS), Dehradun is organizing a one week special course on “SAR Applications on surface deformation” for geoscientist working in India.

## TARGET PARTICIPANTS

The course is designed for young professionals, faculty members, scientists and researchers (JRF/SRF/RA) in Geosciences and related fields. Preference will be given to the working professionals from Govt. and public sector organizations.

## SIGNIFICANCE OF THE COURSE

The course is designed with a view to provide participants an understanding of the scientific concepts associated with SAR remote sensing and its applications to various geoscientific problems. The participants will also gain knowledge and ability to process, analyze and apply the radar remote sensing to multitude surface deformation studies.

## BRIEF OVERVIEW OF LECTURES

- Fundamentals of Microwave Remote Sensing
- Concepts of Polarimetric and Interferometric SAR
- Principles of Differential Interferometric SAR (DInSAR)
- SAR Data processing with emphasis on InSAR and DInSAR processing
- Applications of InSAR and DInSAR in Geosciences (Seismicity, Landslide, Land Subsidence, Glacier Dynamics).

## DURATION AND MODE OF COURSE

The course would be of one week duration from April 22-26, 2019. The course would have a blend of lecture on above topics, expert lectures, case studies, demonstrations and hands on exercises.

## COURSE FEES

A nominal course fee of ₹ 4000/- per participant. Please send a crossed Demand Draft from any Nationalized Bank drawn in favor of **‘Pay and Accounts Officer, Indian Institute of Remote**

**Sensing'** payable at Dehradun. Registration fees must be paid before commencement of the course.

## **IMPORTANT DATES**

The course will commence on April 22 and will end on April 26, 2019. **Last date to apply for the course is March 31, 2019.**

## **ACCOMMODATION and FOOD**

AC/Non-AC accommodation (as available) is available in the IIRS campus and will be provided to interested participants on the payment basis. The room rent is ₹ 100/- per day. Food may be available from IIRS mess on payment basis at a nominal charge of between ₹ 150/- to ₹ 200/- per day. TA/DA will not be provided to the participants.

## **HOW TO APPLY**

The aspirant participants may fill the attached application form and send to us along with registration fees latest by 31<sup>st</sup> March, 2019. Applicants are encouraged to apply well before last date. To facilitate early registration, an advance copy of your application can be send to us via e-mail/post.

### **Contact details**

#### **Dr. Pratima Pandey**

Course Coordinator and Faculty, Geosciences Department  
Geosciences and Disaster Management Studies Group  
Indian Institute of Remote Sensing (IIRS), ISRO,  
4 Kalidas Road, Dehradun-248001, Uttarakhand, India  
Tel: +91-135-2524159, **Email: [pratima@iirs.gov.in](mailto:pratima@iirs.gov.in), [pandeypreetu@gmail.com](mailto:pandeypreetu@gmail.com)**

#### **Dr. R.S. Chatterjee**

Course Director and Head, Geosciences Department,  
Indian Institute of Remote Sensing (IIRS), ISRO,  
4 Kalidas Road, Dehradun-248001, Uttarakhand, India  
Tel: 0135- 2524156 (O), 09412941296 (M)  
**Email: [rschatterjee@iirs.gov.in](mailto:rschatterjee@iirs.gov.in), [rsciirs@gmail.com](mailto:rsciirs@gmail.com)**  
Webpage: [www.iirs.gov.in](http://www.iirs.gov.in)

## **ABOUT IIRS**

Indian Institute of Remote Sensing (IIRS), a constituent unit of Indian Space Research Organization (ISRO), Department of Space, Govt. of India is a premier training and education institute setup to develop trained professionals in the field of Remote Sensing, Geoinformatics and GPS technology for natural resources, environmental and disaster management. While nurturing

its primary endeavor to build capacity among the user community by training mid-career professionals, the institute has enhanced its capability and evolved many training and educational programmes that are tuned to meet the requirements of various target groups, ranging from fresh graduates to policy makers including academia. Its alumni include around 11,722 participants from India including 1197 international participants from 96 countries.

The institute also conducts distance learning programmes which are first of its kind in the country in the field of 'Earth Observation and Geo-information technologies'. To widen its outreach, IIRS has started live and interactive Distance Learning Programme (DLP) since 2007. Today around 899 institutions and organizations are networked with IIRS and about 89,600 participants have attended various DLP courses. IIRS has also launched e-learning courses on Remote Sensing and Geo-information Science since 2014. Its experienced faculty offer a multi-disciplinary dimension to the training programmes. IIRS is also one of the most sought after Institute for conducting tailor made courses for professionals from Central and State Government Ministries and stakeholder departments for effective utilization of Earth Observation (EO) data. The institute campus also hosts Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), affiliated to UN and conducts international training programs in Remote Sensing and GIS.

## **LOCATION and ACCESSIBILITY**

IIRS is located in Dehradun and its campus is endowed with scenic beauty, Dehradun is well connected to major cities via, air/rail/road. City is famous for its picturesque landscape, pleasant climate, high quality school education and several scientific organizations of national and international repute. Places of religious and tourist importance like Haridwar, Rishikesh and Mussoorie etc. are located in the vicinity of Dehradun.

For more details please visit [www.iirs.gov.in](http://www.iirs.gov.in)

भारत सरकार Government of India  
अंतररक्ष विभाग Department of Space  
भारतीय अंतररक्ष अनुसन्धान संगठन Indian Space Research Organisation  
भारतीय सुदूर संवेदन संस्थान , देहरादून Indian Institute of Remote Sensing, Dehradun

**Special Course on  
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Surface Deformation Studies**

**April 22 - 26, 2019**

**Application Form**

Affix Recent  
Passport Size  
Photograph

(For Official use only)

ARS-WC

Application No:.....

Date received: .....

1. Name (Dr/Mr/Mrs/Ms): .....

2. Date of birth (DD/MM/YYYY): .....

3. Gender (Male/Female): .....

4. Designation: .....

5. Organization: .....

.....

6. Address (official):.....

.....

Tel: ..... Mob: ..... Fax:.....

Email:.....

7. Address (Residence):.....

.....

Tel: ..... Mob: ..... Fax:.....

Email:.....

8. Education Qualification (*from Bachelor degree onwards*)

Degree	University/Institution	Year of passing	Major subjects/specialization

(Enclose copy of highest degree obtained)

9. Have you attended any course at IIRS  Yes  No

10. Details of experience in the present profession (*including years of experience*)- max of 50 words

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11. How the course will help in your work/organization

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12. Accommodation required  Yes  No

13. Details of payment:

(Demand Draft no., Bank Name and Address, Date of Issue)

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14. Declaration by the Candidate

I have read the announcement brochure and will abide by the rules and regulation of the institute.  
I will make travel arrangements for attending the course and expenses (*other than mentioned in brochure*) for the period of stay.

Signature of applicant

Place:

Date:

**Last date to receive completed application form is March 31, 2019**

**Important:**

- The application which is incomplete is likely to be rejected
- The DD of those applicants who are not selected will be refunded