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Geosciences Department

Indian Institute of Remote Sensing

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

## INTRODUCTION

The geological hazards lurking in and around the Himalaya and throughout India have been a matter of concern to the geoscientists. Two most devastating ones include earthquakes and landslides. Many of the disasters can be mitigated using well-planned preventive measures in which satellite remote sensing based reconnaissance studies can provide first-hand information. Satellite remote sensing based information may be integrated with ground-based sub-surface data available by geophysical techniques. Various ground-based imaging and non-imaging instruments are available to-date to collect subsurface data. Some of the very useful ground-based geophysical instruments include Ground Penetrating Radar (GPR), Electrical Resistivity Tomography (ERT), Multi Channel Analysis of Surface Wave (MASW), Time Domain Electro-Magnetic (TDEM) Instrument which provide 1-D, 2-D and 3-D subsurface information. Moreover, integration of ground-based subsurface imaging data with medium to high resolution remote sensing data drastically enhance earth observation applications in Geosciences. On this background, the present course has been designed. The course will provide needful exposure for utilization of ground based geophysical data along with satellite remote sensing data to address all the ongoing and potential geological hazards. To cater to this need, Indian Institute of Remote Sensing (IIRS), Dehradun is organizing a one week special course on “Ground-based subsurface imaging for enhanced earth observation application in Geosciences”.

## CONTACT DETAILS

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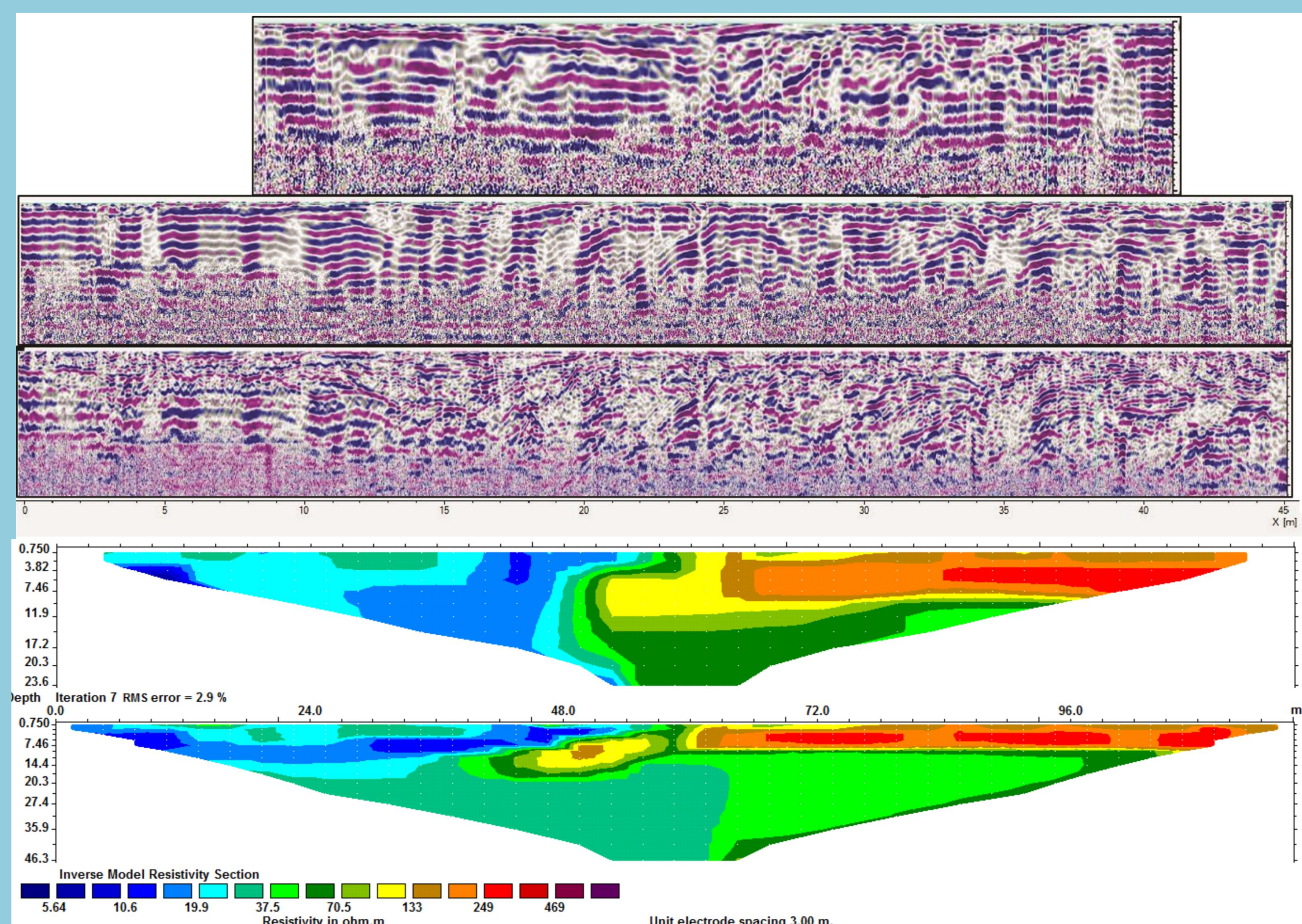
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## TARGET PARTICIPANTS

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



## BRIEF OVERVIEW OF LECTURES

- Fundamentals of ground-based geophysical methods. Concepts of ground penetrating radar (GPR), electrical resistivity tomography (ERT), multi-channel analysis of surface wave (MASW)
- Geophysical data acquisition, data processing and interpretation.
- Applications of ground-based geophysical methods in Geosciences (Seismicity, Landslide, Land Subsidence, groundwater etc.).
- Integration of RS and geophysical techniques for value addition and enhanced EO-based applications in Geosciences.

## ACCOMMODATION and FOOD

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

## COURSE FEES

A nominal course fee of Rs. 4,500 /- 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.

## HOW TO APPLY

The aspiring participants may fill the attached application form and send to us along with registration fees latest by 19<sup>th</sup> March, 2021. Applicants are encouraged to apply well before last date. To facilitate early registration, an advance copy of your application can be sent to us via e-mail/post.