

# Workshop on Applications of Remote Sensing to Archaeological Investigations

Organized by **Archaeological Sciences Centre**, IIT Gandhinagar

Instructor: **Dr. M.B. Rajani**

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Date: March 15<sup>th</sup> 2014    Time: 9:30 am to 6:00 pm

Venue: L-Block Conference Room & Computer Lab, IIT Gandhinagar

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Scientific developments and emerging technologies have provided new tools to study ancient material and decipher the past. But for these tools, some aspects of history would have remained undiscovered. One such powerful tool is *Remote Sensing* (RS). Images taken from aerial and space platforms display a perspective of landscapes which cannot be perceived from ground. Advanced RS technologies allow viewing landscapes in a “light” invisible to humans (infrared, microwave, etc.) and also help in 3-D modeling. Being purely non-invasive, this technology leaves sites untouched for the future.

This workshop will illustrate how RS imagery can be used for archaeological studies; it will give participants hands-on experience in using online tools for interpreting archaeological information; it will present an overview of advanced RS technologies and their uses, and will explain the potential of further research in this field.

## Plan of the workshop

9:30 – 10:00 hrs	Registration
10:00 – 10:30	<b>Opening session</b> Welcome, participants’ introductions, interaction, brief presentation on Archaeological Sciences Centre, IITGn, etc.
10:30 – 11:00	<b>Archaeology from the air: Beginning and development of RS technology</b>
11:00 – 11:15	Tea/coffee break
11:30 – 12:00	<b>Activity 1</b> Analyzing selected archaeological sites with Google Earth; comparing with ground photographs to understand the advantages of synoptic perspective

12:00 – 12:30	<b>Interpretation techniques and case studies</b>
12:30 – 13:00	<b>Activity 2</b> Interpreting subtle features of selected archaeological sites using Google Earth
13:00 – 14:00	Lunch
14:00 – 14:45	<b>Selected case studies</b> (national and international)
14:45 – 16:30	<b>Activity 3</b> Participants will be organised into small groups; they can either work on 1 or 2 archaeological sites of their choice or specific sites can be allotted to them; they will be made aware of various resources available online and will be guided to use those resources on the chosen/allotted sites
16:30 – 16:45	Tea/coffee break
16:45 – 17:30	<b>Advanced remote sensing technologies for archaeology</b> This is a lecture that will present case studies based on technologies that need specialised data and processing techniques
17:30 – 17:45	<b>Concluding session</b>

### **Expected outcomes**

At the end of the workshop, participants will be familiarized with the potential of remote sensing technology for archaeological investigations. They will have hands-on experience in identifying and interpreting archaeological features on satellite imagery; accessing relevant online tools; and will be made aware of the potential for further research in this field.

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