सीएसआईआर - राष्ट्रीय भूभौतिकीय अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)
उप्पल मार्ग, हैदराबाद, तेलंगाणा, भारत – 500007

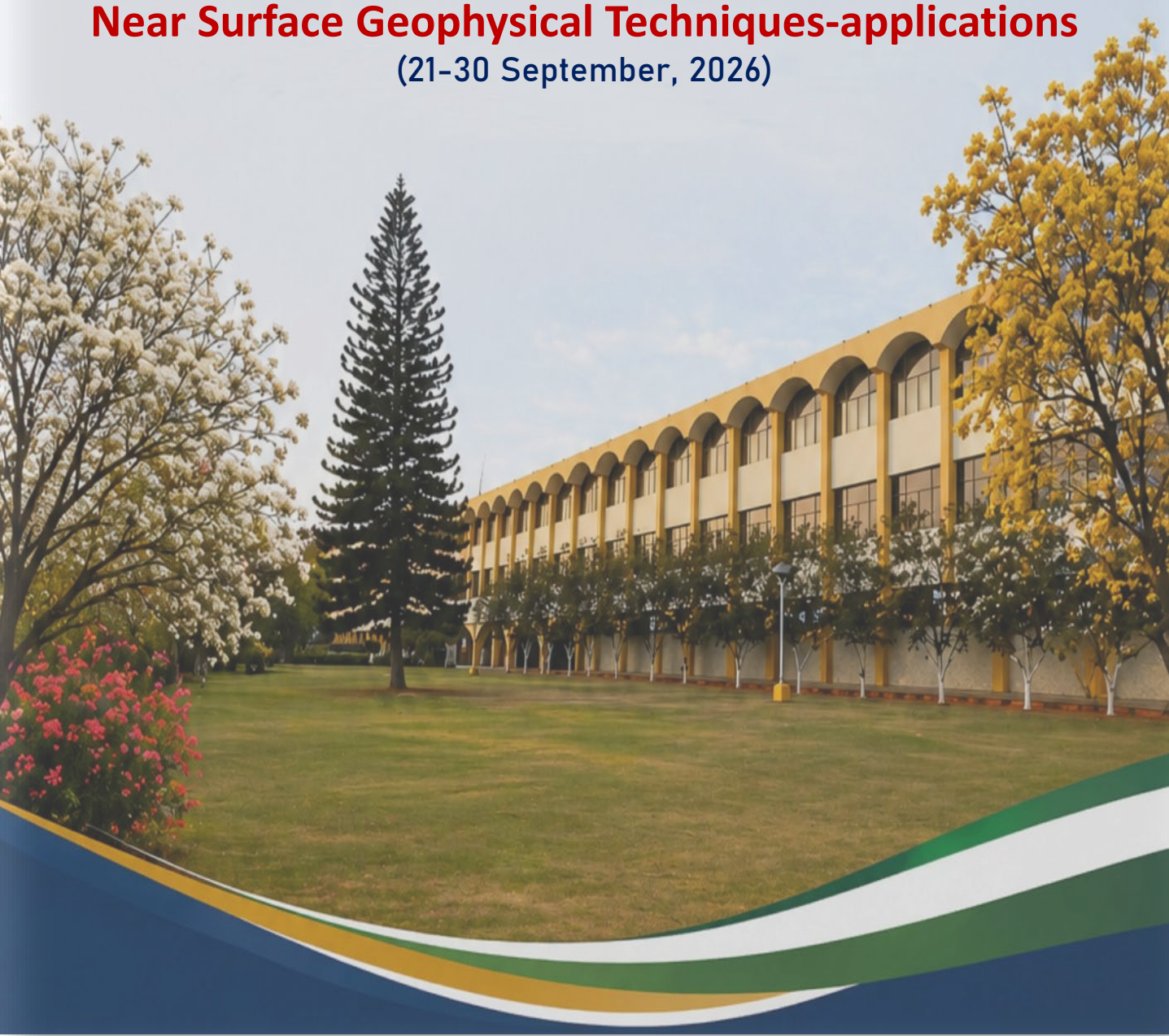
CSIR - National Geophysical Research Institute
(Council of Scientific & Industrial Research)
Uppal Road, Hyderabad, Telangana, India-500007

प्रशिक्षण कार्यक्रम
(सीएसआईआर की एक एकीकृत कौशल पहल)

Training Program
(CSIR-Integrated Skill Initiative)

CSIR Integrated Skill Initiative

Near Surface Geophysical Techniques-applications
(21-30 September, 2026)



About CSIR-NGRI

The CSIR-National Geophysical Research Institute (CSIR-NGRI), a constituent research laboratory of the Council of Scientific & Industrial Research (CSIR) was established in 1961 with the mission to carry out research in multidisciplinary areas of the highly complex structure and processes of the Earth system and its extensively interlinked subsystems. NGRI has the mandate to conduct research for public-good science to enable government agencies, public and private sector stakeholders to make informed decisions about use of geo-resources sustainably and improve preparedness and resilience to natural hazards.

As a close understanding of Earth processes and its intersections with the growth and development of the human society only can secure the future, it is our vision to develop the knowledge base of Earth system processes and apply it to produce strategies to minimize loss of life and property from natural disaster as well as manage water, energy, and mineral resources for enhancing the quality of life.

The research activities fall broadly under three themes: **Geodynamics**, which revolve round investigating and modeling fundamental aspects of the Earth system and processes, **Earthquake Hazards**, which encompass features on the surface and subsurface of crust which may potentially endanger lives and properties through catastrophes like earthquakes and landslides as well as deterioration in pollution levels of groundwater and soil, changes in climatic conditions and associated environmental issues. The theme **Natural Resources** comprise of implementation of techniques to identify primary geo-resources, which are the pillars of human civilization and fount of economic growth like groundwater, hydrocarbons as well as alternate energy sources and minerals.

The Institute is structured into seven major R&D Groups and twenty one Activities, which include expertise in a variety of geophysical, geochemical, geological techniques like Seismology, Magnetotellurics, GPS, Paleo-seismology, Structural geology, Controlled Source Seismics, Gravity and Magnetics, Geochemistry, Geochronology, Paleomagnetism, Planetary, Polar Geophysics, Geomagnetism, Airborne geophysics, Shallow subsurface geophysics and Rock Mechanics, Hydrochemistry, Paleo-environmental studies and Modeling and simulation of Earth processes.

1. About the Training Program

The NSGT-A training course would deal with various aspects of geophysical techniques with special emphasis on near surface geotechnical techniques and shallow seismic techniques and usage of software for data processing, analysis and geological interpretation.

This course covers the fundamentals of near-surface geophysical techniques, including shallow seismic techniques (refraction, reflection, MASW), Airborne (Gravity, Magnetic and Electromagnetic), geophysical well logging, borehole, and near surface wave methods. Typical seismic applications are coal, CBM, Shale gas and lignite exploration, geotechnical, groundwater and utility identifications, and geological stratigraphy, detecting geologic faults, evaluating karst conditions in limestone / granite mines, mapping the top of bedrock and the base of landslides. Airborne geophysical studies use sensors mounted on aircraft to efficiently map large areas, identifying subsurface geology and resources like minerals, groundwater, and oil and gas explorations. These surveys measure physical properties such as magnetic fields, gravity, and electromagnetic conductivity to understand variations in rock types, densities, and element concentrations, enabling detailed geological mapping, resource exploration, and hazard assessment with reduced environmental disturbance compared to ground-based methods. Other promising applications of near surface geophysical techniques includes mapping of hydro-geological features, assessing hydrological characteristics, liquefaction studies, measuring the depth to the water table, and assessing the decay of infrastructure (leaking pipes, storage tanks, and disposal containers using GPR techniques) and mineralized zones mapping.

Methods of Instruction:

The course structure will cover basics of the near surface geophysical techniques, data acquisition, data processing and geological interpretation techniques.

Faculty:

The training will be conducted by experts at NGRI and other universities with extensive experience.

Selection Procedure:

Selection will be on a first-come, first-served basis, subject to seat availability.

Sponsorship:

Established academic institutions/Government organizations/ industrial sectors are welcome to sponsor candidates of their interest.

Duration : 10 Days

Mode of Training Course : Offline

Number of Seats : 30

Certification : A certificate will be issued to the participants for the successful completion of the course

Venue: CSIR- National Geophysical Research Institute, Uppal Road, Hyderabad - 500007.

2. Eligibility

This training course is intended for those individuals who desire to gain an understanding of the NSGT-A, including theoretical concepts, field demo and data acquisition, data processing and analysis.

Educational Qualifications:
M. Sc. / M. Sc. (Tech.) in Geophysics / Applied Geophysics / Geology / Applied Geology / and B. Tech. / M. Tech. in Civil Engineering.

Nationality: Indian

3. Technical Requirements

- Participants will be participated in the field demo for various near surface geophysical techniques including MASW, Shallow Seismic refraction, Seismic reflection, Geophysical well logging and GPR, etc.
- **SALIENT FEATURES OF THE TRAINING**
  - ❖ 50% Theory and 50% Practical Sessions as per the course curriculum.
  - ❖ Continuous Monitoring system for individual trainees.
  - ❖ Lectures assisted with models and multimedia aids.
  - ❖ Tutorials (personal attention), Interactive session, Guest lecturers from experts.

4. Required Documents

The interested candidates may apply through online link given below: (https://www.ngri.res.in/cms/skill-development.php) and has to upload the following documents in the application form:

1. Proof of age (SSC/Aadhar Card/Pan Card)
2. A copy of last examination passed
3. ID proof (College/ Institute/ Employer) & Address proof (Aadhar Card)
4. No Objection Certificate (NOC) from the Institution / Employer
5. Self Declaration form (for those candidates who are currently not pursuing any higher degree or unemployed/not getting any fellowship).

5. Important Dates

Duration: 21-30 September, 2026

Last Date for Applying: 05 September, 2026

6. Charges

Course Fee:

- Rs. 2,500/- + 18% GST = 2950/- (only for Pursuing Master's Students)
- Rs. 5,000/- + 18% GST = 5900/- (For completed Masters/pursuing Ph.D./and who are working as Project assistant/ Project Associates and Senior Project Associate)
- Rs. 10,000/- + 18% GST = 11800/- (for Project Scientist/Post Doctorate/ Faculty / Industry sponsored)

Food:

Breakfast and dinner will be available at nominal rates in the CSIR-NGRI Campus and will be payable by the participants.

Accommodation Charges:

- **CSIR-NGRI Guest House (twin sharing basis):** ₹600/- per head per day for the first 6 days, ₹1200/- per head per day from the 7th day onwards.
- **Skills Development Quarters (twin sharing basis):** ₹100/- per head per day.
- **Staff Quarters/Research Scholars' Hostel (twin sharing basis):** ₹50/- per head per day.

7. Training Coordinator(s)

Dr. D. Mysaiah, Scientist-F (Course Coordinator)
Email: mysaiah.ngri@csir.res.in
Contact Details: 040-2701 2833 (O)/ +91 94404 90350

8. Extra Curriculum Activities

- Yoga Classes with expert Trainer
- Quiz Competition/Running/Cultural Programs (Dance/Singing)

9. Program Management Committee

Nodal Officer: Dr. Abhey Ram Bansal, Scientist - G
Email: arb.ngri@csir.res.in

Dr. Satendra Singh, Sr. Technical Officer
Email: satendrasingh.ngri@csir.res.in

Ms. Swaroopa G., Senior Project Associate
Email: skills.ngri@csir.res.in

Office Contact: 040-2701 2325/2810

10. Chairman

Dr. Prakash Kumar
Director
CSIR- National Geophysical Research Institute
Email: director.ngri@csir.res.in
Office Contact: 040-2701 2302

11. Visit Us

https://www.ngri.res.in/cms/skill-development.php

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