



Advanced Training Programme on Analytical Geochemistry March 3-11, 2025



- Registration** : Please fill in the online application form from NGRI website (<http://www.ngri.org.in/cms/skill-development.php>).
- Accommodation** : For faculty participants, accommodation will be provided in NGRI Guest House on twin sharing basis at the rate of Rs. 300/- per head per day for the first 6 days, and 7th day onwards Rs. 600/- per day per head.
- Accommodation in skill development quarters (twin sharing) @ Rs. 100 per day per head.
- Accommodation in staff quarters/ research scholars hostel (4 sharing) @ Rs. 50 per day per head.
- Food** : Breakfast and dinner will be available at nominal rates in NGRI food court on payment.
- Selection Procedure** : Depending on the number of applicants, selection criteria will be decided by the competent authority with due consideration for the merit, research experience and relevance with training programme.
- Payment** : Shortlisted candidates have to make online payment.

Course Coordinators

Dr. M. Satyanarayanan (E-mail: msnarayanan@ngri.res.in)

Dr. A. Keshav Krishna (E-mail: keshav_krishna@ngri.res.in)

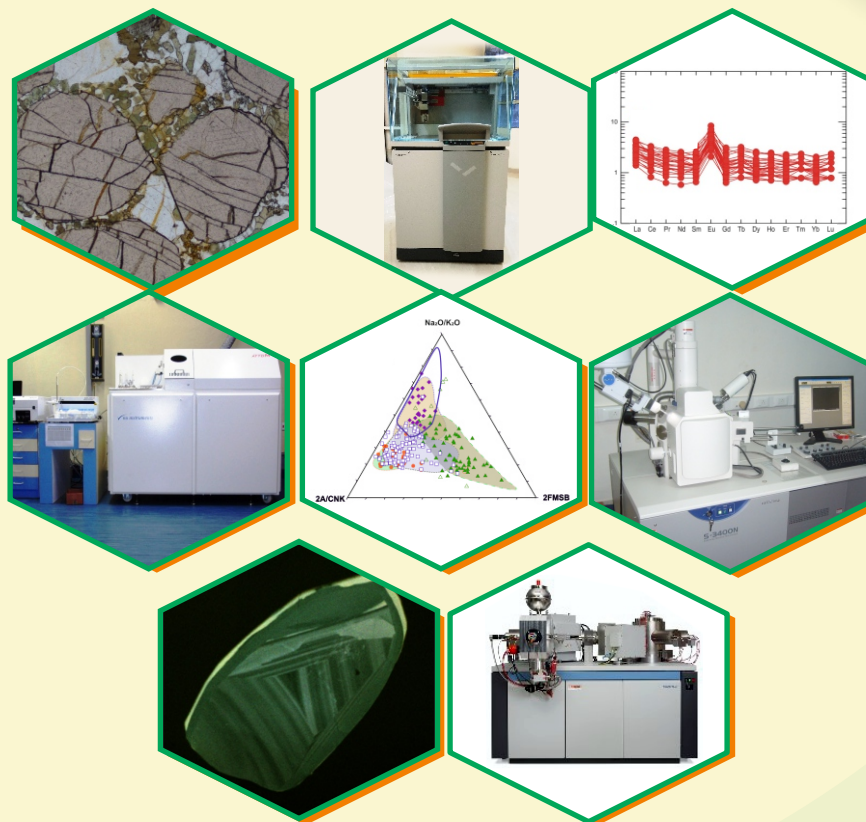
For further information, please contact

Email : skills@ngri.res.in

Telephone : 040-27012317

Advanced Training Programme on **ANALYTICAL GEOCHEMISTRY** (A CSIR - Integrated Skill Initiative)

March 3-11, 2025
CSIR-NGRI, Hyderabad



DIRECTOR
CSIR-NATIONAL GEOPHYSICAL RESEARCH INSTITUTE

(Council of Scientific and Industrial Research)

HYDERABAD-500007

Website: www.ngri.org.in; Ph: 040-27012000



National Geophysical Research Institute (NGRI), a premier research institute in Solid Earth, is one of the constituent research laboratories of the Council of Scientific and Industrial Research (CSIR). It was established in 1961 with the mission to carry out research in multi-disciplinary areas of the highly complex structure and processes of the Earth system and its extensively interlinked sub-systems. Its vision is to pursue earth science research which strives for global impact and its application for optimizing sustainable societal, environmental and economic benefits for the Nation. The institute plays a pivotal role in the exploration of mineral, hydrocarbons and groundwater resources in addition to studies on geodynamics and earthquake hazards. With ~110 scientists and equal number of technical staff, and ~200 research scholars, backed by state-of-the-art computational and analytical facilities, we pursue research on almost all aspects of the Earth System.

Geochemistry Group

Geochemistry group forms an integral part of CSIR-NGRI and is involved in various research programs related to the earth's crust and its interior. The R&D activities are focused to better understand the geodynamic evolution of the earth's crust, potentiality and the genesis of ore deposits across the country. Our approach towards addressing these complex scientific problems involve multi-disciplinary studies that include field geology, petrography, bulk rock geochemistry, mineral geochronology (U-Pb zircon, and Pb-Pb baddeleyite) and radiogenic isotopes. The Geochemistry Division has state-of-the-art analytical facilities. Over the years, substantial number of research articles are published by this group in reputed national and international journals.

About the Training

This course is designed to introduce the theory, applications, and operation of modern instrumental methods for chemical analysis in earth and environmental sciences. Equal emphasis will be given to theoretical aspects and practical sessions on advanced geochemical techniques for the high-quality data acquisition and processing.

Modules on spectrometric techniques such as X-ray Fluorescence (WD-XRF), and Inductively Coupled Plasma (HR-ICP-MS and ICP-OES) for the major, trace including REE and PGE analyses will be dealt. Special emphasis will be on mineral characterization and high precision geochronology (Pb-Pb Baddeleyite, U-Pb Zircon) by SEM-EDS, TE-TIMS and LA-HR-ICP-MS. Carbon-14 and Luminescence dating, IRMS, IC and GC-MS techniques will be part of the module. Different sample preparation techniques, specific to each analytical requirement will be demonstrated. Fundamental aspects such as sample reduction, thin sectioning and mineral separation techniques, with emphasis on contamination control at various stages of analytical procedures will be dealt. Quality assurance and data validation in geochemical datasets will be addressed. Geochemical data processing towards understanding the petrogenesis, tectonic setting and geochemical modelling will be outlined through specific case studies.



DURATION: 9 Days



NO. OF SEATS: 20

ELIGIBILITY M.Sc., Geology/ Geochemistry/ Analytical Chemistry/ Environmental Chemistry/ equivalent from any recognized university with 1 year relevant research / professional experience

VENUE CSIR-NGRI, Uppal Road, Hyderabad-500 007

COURSE FEE Rs. 5,000/- + 18% GST (for Research Scholars)
Rs. 10,000/- + 18% GST (for Faculty/ Industry sponsored candidates)
(Course fee includes working lunch, tea and snacks)

SALIENT FEATURES

- ❖ 50-50% Theory and Practical sessions
- ❖ Lectures with relevant case studies
- ❖ Practical exposure on state-of-the-art equipment

IMPORTANT DATES

The deadline for registration: 20th January 2025

Intimation of selection: 24th January 2025

CERTIFICATION

A certificate will be issued to the successful candidates at the end of the Training Program by CSIR-NGRI

