

Preamble

Four and a half billion years of the geosphere, hydrosphere, atmosphere, and biosphere evolution has incubated the earth the way we see it today. The active Himalayas, sedimentary basins, river systems, mineral and fuel resources, and biotic spectrum of this earth are the result of interaction between surface and deeper earth processes in time and space. Natural hazards like earthquakes, Glacial lake outburst floods (GLOFs) and Landslide lake outbursts floods (LLOFs), landslides, extreme hydrological events, and climate change involve a socio-economic impact that is to be understood with well-informed geoscientific knowledge. Mineral wealth, Rare Earth Elements (REE), and fuel that form crucial economic drivers keep requiring a newer research impetus. The world community keeps innovating ways to understand these processes of mineral and fuel genesis, methods of exploration and production, and hazard mitigation for humankind to sustain a better future.



This leads to a volume of new technologies and new knowledge that requires a platform to be discussed and disseminated. The Department of Earth Sciences at the Indian Institute of Technology, Roorkee started to build this platform in its golden jubilee year (ESICET-2013) and this conference is the second edition in that sequence that will allow the Indian earth science community to share the new geoscientific excitements across the sub-disciplines and career levels.

About the Host

The Department of Earth Sciences, Indian Institute of Technology, Roorkee was established in 1960. During six decades, the department has become one of the foremost centers of research, post-graduate training, research, and consultancy in Earth Sciences. The legacy of geological studies in the department dates back to the mid-19th Century when Colonel Sir Proby Cautley (responsible for establishing the Thomason Engineering College) was elected as a Fellow of the Royal Society, London,

175 YEARS of IIT Roorkee

for his pioneering work on the vertebrate fossils of the Siwalik Ranges. Later Henry Benedict Medlicot, who was also admitted as the Fellow of the Royal Society in 1877, occupied the Chair in Geology and Experimental Sciences at Thomason College in the year 1954. The department faculty is engaged in quality teaching and a number of research and consultancy projects sponsored by various industries and government agencies. The department has the S. S. Bhatnagar prize, Fellowship of National Science Academies, and National Geoscience Awards on its record with its alumni serving in prestigious positions both at national and international levels. The institution is located in a picturesque foothill of the Himalayas and is well connected via rail, road and air with the nearest airport located at Jolly Grant, Dehradun.

Registration Fees

- Academic & Research Professionals - **Rs. 3,000/-**
- Academic & Research Professionals with spouse - **Rs. 5,000/-**
- Industry professionals - **Rs. 8,000/-**
- Industry professionals with spouse - **Rs. 10,000/-**
- Students and Postdocs - **Rs. 1,000/-**



Department of Earth Sciences, IIT Roorkee, Roorkee

Cordially invites you to be part of
2nd National workshop on

“Earth Sciences in India: Challenges and Emerging Trends (ESICET-2023)” 27-29 December 2023

VENUE:

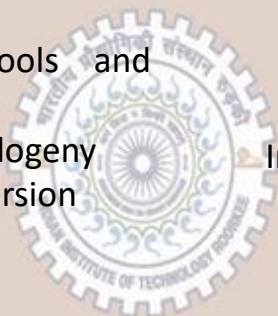
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Themes

The organizing team invites research papers under the following themes:

- Geodynamics of the Himalayas and deep structures
- Petroleum and strategic mineral resources – exploration to exploitation
- Energy security of India
- Contribution of Geospatial Technologies in Earth sciences
- Infrastructural development and challenges in engineering geology
- Evolution of the cratonic blocks of India – Precambrian geodynamics and thermodynamics
- Evolution of the sedimentary basins of India – past, present and future
- Natural Hazards, Mitigation, and Disaster Risk Reduction
- Quaternary science for sustainability
- Subsurface geophysics – scope and applications
- Geohydrological challenges
- Emerging technologies tools and protocols in Earth Sciences
- Crustal evolution and metallogeny
- Geophysical model and inversion



Important dates

Last date of Registration: **15th November 2023**
Last date of submission of abstracts: **15th November 2023**
Communication of acceptance of abstract: **30th November 2023**

Chief Patron

Prof. K. K. Pant
Director,
Indian Institute of Technology Roorkee,
Roorkee – 247667

Convener

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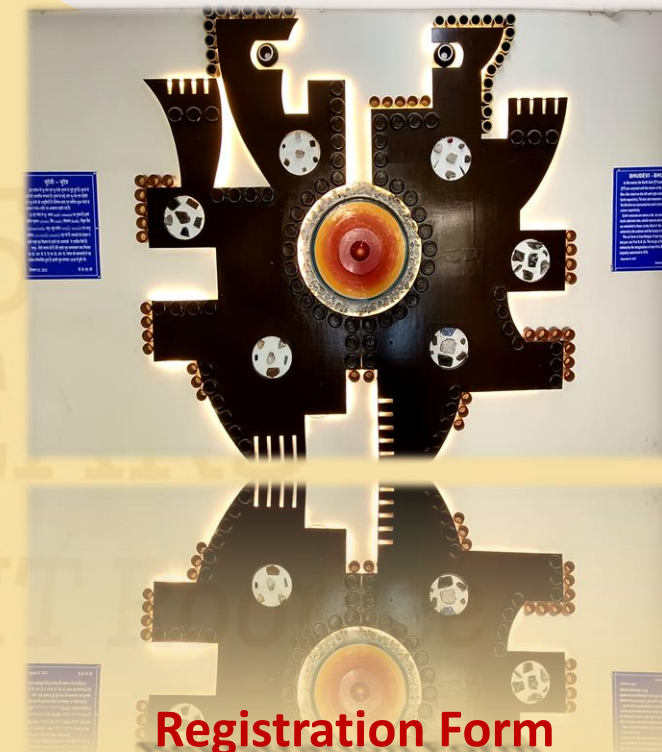
Organizing Secretary

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Organizing Committee

- Prof. Sunil Bajpai
- Dr. Sandeep Bhatt
- Dr. B. Bhattacharya
- Prof. G. J. Chakrapani
- Dr. Rajarshi Chakravarti
- Dr. Ashutosh Chamoli
- Dr. Pallavi Chattopadhyay
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- Prof. Mohd. Israil
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- Dr. Dharmendra Pratap Singh
- Dr. Pradeep Srivastava
- Dr. Sudheer Kumar Tiwari

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Name:

Organization:

Designation:

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