

For Immediate Release: November 4, 2025

PRESS-RELEASE

IIT (ISM) Dhanbad Launches First IIT-Level Course in Geoarchaeology, Bridging Science and Humanities

In a **landmark academic initiative**, the **Indian Institute of Technology (Indian School of Mines) Dhanbad**, has become the **first IIT in the country** to introduce an open elective course in “**Geoarchaeology**” — a field that merges **geology, archaeology, ecology, and anthropology** to explore how humans have interacted with their environments through time.

The **three-credit course**, designed by **Prof. Deepak Kumar Jha** from the **Department of Applied Geology**, will be offered from the upcoming **winter semester** to **undergraduate, postgraduate, and PhD students** across disciplines.

Aligned with the **National Education Policy (NEP) 2020** vision of **flexible and cross-disciplinary learning**, the course seeks to **bridge the sciences and humanities** — an approach described by the institute’s leadership as “*a long-overdue step toward integrating Earth sciences and human history in Indian higher education.*”

Supported by **Prof. Sukumar Mishra**, Director, IIT (ISM) Dhanbad, and **Prof. Shushanta Sarangi**, Head of the Department of Applied Geology, the initiative connects the study of the Earth with the evolution of civilizations. It explores **how ancient landscapes and climates shaped human evolution** and how humans, in turn, **transformed their surroundings**.

The course combines **traditional archaeological methods**—such as excavation, sampling, and artefact analysis—with **advanced scientific tools** like **biomarker and isotope analysis, geomorphological mapping, and digital surveying**.

Prof. Jha said the initiative “**equips students to connect deep history with present-day environmental questions.**”

He added that “**the course will feature a series of expert talks by renowned archaeologists and Quaternary geologists. These talks will ignite curiosity through case studies from India and abroad and are dedicated to the late Prof. S. N. Rajaguru, who laid the foundations of Geoarchaeology in India.**”

The launch of Geoarchaeology at IIT (ISM) has drawn **wide appreciation from leading Indian experts**.

Prof. Sheila Mishra, formerly of Deccan College, said, “**I am very happy to see the offering of Geoarchaeology in one of our premier science research institutions. Research on the history and prehistory of humans in the Indian subcontinent has been miniscule in relation to the importance of this region on the global scale and this is a very good effort to begin to rectify this.**”

Dr. Parth Chauhan (IISER Mohali) and **Dr. Tosabanta Padhan (Nalanda University)** noted, “**Geoarchaeology is an important subject that uniquely bridges the disciplines of geology and archaeology. This course will be highly beneficial to students to better understand their cultural heritage from geological perspectives. It has the potential to also engage students with multidisciplinary scientific methods through hands-on field and lab activities. Most importantly, such a course will be able to highlight modern and future climate change through a window into its past roots.**”

Emeritus Prof. S. K. Tandon (Delhi University) described it as “**a timely course that bridges Earth sciences and Archaeology, covering the early Palaeolithic phases to the Anthropocene debates.**”

Prof. Prasanta Sanyal (IISER Kolkata) and **Prof. Hema Achyuthan (Anna University)** also commended its **strong scientific foundation**, highlighting its focus on **micromorphology, biomarkers, and isotopic methods** for studying **ancient diets, migrations, depositional processes, and past climates**.

With this initiative, **IIT (ISM) Dhanbad** reaffirms its role as a **national leader in implementing NEP 2020’s multidisciplinary vision**, fostering collaboration among **engineers, scientists, and social researchers** to build a deeper understanding of **humanity’s shared environmental past** — and its implications for a sustainable future.

Rajni Singh

Dean (Corporate Communications)