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# PRESS-RELEASE

**Prof. Pratap Narayan Sahay from Mexico delivers talk on "Slow Shear Wave in Poroelasticity" at IIT (ISM) Dhanbad**

The Department of Applied Geophysics, IIT (ISM) Dhanbad, today hosted an expert lecture by **Prof. Pratap Narayan Sahay**, a distinguished professor of geophysics in the Department of Seismology at Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE), Mexico. The talk titled *"Slow Shear Wave in Poroelasticity"* was held at the Conference Hall of the Academic Complex of IIT (ISM) Dhanbad.

The programme began with a welcome address by **Prof. Saumen Maiti**, Associate Professor & Head, Department of Applied Geophysics, followed by the reading out of the bionote of the guest speaker by **Prof. Partha Pratim Mandal**. The event was graced by senior faculty members including **Prof. Sanjit Pal**, former Head of the Department, **Prof. Saurabh Datta Gupta**, Associate Professor and Professor-in-Charge (International Relations & Alumni Affairs), and **Prof. Swarndeep Sahoo**, Assistant Professor, among others. Prof. Sahay was felicitated at the concluding ceremony by Prof. Maiti and other faculty members.

During his talk, Prof. Sahay explained the scientific foundations of the *slow shear wave* in poroelasticity, highlighting its emergence due to the fluid viscous stress tensor in porous media. He elaborated that unlike the fast shear wave, which represents in-phase shear motion of solid and fluid phases, the slow shear wave occurs as an out-of-phase motion and is highly dispersive, attenuating within half a wavelength. His lecture provided valuable insights into the theoretical framework of poroelastic wave propagation, including the limitations of the Biot theory and the advancements offered by the de la Cruz-Spanos poroelasticity theory.

Prof. Sahay, an alumnus of the Indian School of Mines (M.Sc. in Applied Geophysics, 1977), earned his Ph.D. in Geophysics from the University of Alberta in 1986. With expertise in the theory of waves in porous media and poroelasticity, he has contributed significantly to global research in seismology. He has held visiting positions at leading universities including Stanford, University of Alberta, University of Calgary, and University of British Columbia, and has been instrumental in organizing the international workshop series on the physics of porous media since 1995.

The lecture offered students, researchers, and faculty an enriching academic interaction with one of the foremost global experts in the field.

Rajni Singh
***Dean (Corporate Communications)***