

35th Distinguished Lecture on Advanced Design and Manufacturing

Title: Designing a Tech University for the Future

Date, time & venue: 2nd January 2024, 4:00-5:00 PM, MMCR, Dept. of Design and Manufacturing (erstwhile Centre for Product Design and Manufacturing), IISc

Speaker: Prof. Rudra Pratap, Vice Chancellor, Plaksha University, Mohali

Abstract:

The churn in higher education has been palpable for almost two decades, but events post 2019 have accelerated the debate so much that everything about higher education is under question, including the very existence of higher education institutions. In such uncertainty, how do you design a new university? In particular, how do you design a tech university that imparts relevant education when advances in technology are turning the world upside down at an alarming rate? The current chassis of university education, designed with the imperatives of World War II and its aftereffects, clearly needs a radical change. What should guide the design of the new chassis? We dig deeper to look at human needs, intricately coupled with planetary needs, for a radically new design of a university for the future. With a foundation built on time-invariant elements of education, and a super structure that is modular and easy to rearrange, we create a new university that should stand as a modern day Takshashila. In this talk, I share the blueprints, some glimpses of the look and feel, and the future left to the imagination of the audience, of the new design of a university for the future.

Brief Bio:

Prof. Rudra Pratap is the Founding Vice Chancellor of Plaksha University. Before joining Plaksha, he was at the Indian Institute of Science, Bangalore, where he served as the Deputy Director of the Institute, Founding Chairperson of the Centre for Nano Science and Engineering (CeNSE), and a Professor at CeNSE as well as in the Department of Mechanical Engineering.

A pioneer in the field of Micro and Nano-Electro-Mechanical Systems, Prof. Rudra Pratap has been associated with the Indian Institute of Science (IISc), Bangalore for over 25 years and is credited for establishing the globally recognized Centre for Nano Science and Engineering at IISc. Prof. Pratap was also an invited professor at EPFL, Lausanne, Switzerland in 2004-05. Prior to joining IISc in 1996, he taught at the Sibley School of Mechanical and Aerospace Engineering, Cornell University, for 2.5 years. Prof. Pratap's research areas include microelectromechanical systems (MEMS), sensor technology, computational mechanics, and mechanobiology. He is an elected Fellow of the National Academy of Engineering and National Academy of Science.

Prof. Pratap has published more than 250 papers in peer-reviewed journals and conference proceedings. He is also an author on 17 patents. He is also an Associate Editor of the IEEE Journal of Microelectromechanical Systems and a member of the Editorial Board of the Journal of Micromechanics and Microengineering. Prof. Pratap holds a B.Tech (Hons) degree from IIT Kharagpur, M.S from the University of Arizona and Ph.D. from Cornell University.