Centre for Applied Physics
Central University of Jharkhand

Mission:

The Centre for Applied Physics is committed to excellence in the education of its undergraduate and graduate students in core and Applied Physics as well as related areas e. g. Nanotechnology etc. that encompass understanding of physical concepts, the generation and dissemination of new scientific knowledge involving physical principles and their applications to related interdisciplinary fields. Its objective is to have a beneficial impact on the community and nation at large, while enhancing the quality of teaching and research at Central University of Jharkhand leading to global recognition of the Centre for Applied Physics and the Central University of Jharkhand. The Centre aims to serve the society through the provision of high value-added education, fundamental and applied research in which fundamental physical principles are used to address research issues of technological importance at the frontiers of engineering and science and consultancy programmes in applied physics emphasizing academic excellence in teaching, research and in professional context.

About the Centre:

The centre for Applied Physics was started in July 2010 under the School of Natural Science of Central University of Jharkhand which offers 5 years integrated programs in Applied Physics. The centre started functioning with the following goals to provide programmes of study in applied physics with a strong engineering emphasis relevant to the local as well as regional industries, aiming at producing versatile graduates who command a range of generic, technical, professional skills to function flexibly in a variety of job positions. Applied physics provides the bridge between theoretical, fundamental physical concepts and their practical applications in engineering and in real life problems. The centre is committed to maintain an active, congenial atmosphere for teaching and learning in which faculty members set a high priority in teaching and subscribe to building a caring learning environment for students and to conduct research of applied nature both for advancement of knowledge as well as for underpinning teaching, with due emphasis given to support the industrial and economic development of the community; and to eventually become an internationally competitive centre for research into the science and technology of smart materials and systems, photonics and optoelectronics, biophysics, solid-state electronic materials and devices, plasma physics, and amorphous and nanostructured materials and devices. The research also encompasses the fundamental study of solid matter with the goal of engineering new materials with superior properties, and ultimately enabling altogether new types of devices.

The centre has highly active and vibrant faculty members committed to impart high quality research standards in pure and applied areas of physics and also trains students, so that they become competent and motivated physicists. The faculty and students in the centre for Applied Physics are cooperatively contributing to the advancement of scientific knowledge at the frontiers of human understanding in the

sciences in general and physics in particular. This process essentially intertwines the initial development of scientific methodology in classroom and laboratory instruction activities within the centre, affiliations outside, and dissemination through professional channels and in the classroom. In addition to scientific advancement, the ultimate objective is the preparation of future scientists with knowledge of historical perspectives of current physical principles, and their applications at the forefront of science and technology. The research interests of the faculty members cover broad range of physics: Condensed Matter Physics, Lasers and Photonics, High Energy, Theoretical and Mathematical Physics. The centre is planning to establish the state-of-the-art research laboratories and computational facilities.