



Indian Institute of Technology Kanpur

INSTITUTE LECTURE SERIES

February 02, 2026 (Monday) | 6.10 pm | L - 16

Evolution of Science Education and Research from Colonial to Independent era in India

Speaker: Prof. (Retd.) Arun Kumar Grover, FASc, FNASc

Tata Institute of Fundamental Research (TIFR)



Arun Kumar Grover, a condensed matter physicist of TIFR and former Vice Chancellor of Panjab University, is widely recognized for mentoring researchers, fostering inter-institutional collaborations, leading the Homi Bhabha Birth Centenary commemorations, initiating the Chandigarh Region Innovation and Knowledge Cluster (CRIKC), and revitalizing higher education in North-West India.

He was a leading figure in vortex state studies in superconductors at TIFR since the advent of the high- T_c era. He led major national and international collaborations to advance understanding of order-disorder phenomena in the vortex state and helped initiate the biennial TIFR-Weizmann Institute Interaction Meetings in 2006. He received the Homi Bhabha Science and Technology Award, served as Vice President of the Indian Academy of Sciences, and was awarded the TAA Excellence Award. As Vice President, SPSTI, he has nurtured partnership with Chandigarh Chapters of Science Academies to expand outreach. He serves on IUPAP's Commission (C14) on Physics Education and Working Group (WG16) on Physics and Industry.

Abstract

In this talk, the speaker will attempt to trace the evolution of science education and research in India from the mid-19th century to the present, highlighting how institutional structures, state policy, and the agency of Indian scientists collectively evolved to shape the national research ecosystem. Beginning with the establishment of the first three universities in 1857 and the constraints imposed by colonial governance, most notably the Indian Universities Act of 1904 which sought to recruit teachers and researchers but without commensurate funding, the talk will examine why research remained peripheral within universities in our country despite growing scientific talent. A critical turning point in this evolution occurred during the Second World War, when strategic necessity led to the creation of the Board of Scientific and Industrial Research, followed by the establishment of the CSIR in 1942. The talk will highlight the significant contributions made by eminent Indian teacher-scientists such as C. V. Raman, Meghnad Saha, J. C. Ghosh, S. S. Bhatnagar, and Homi Bhabha. Saha and Bhatnagar played a key role in arranging the visit of British MP and Nobel laureate A. V. Hill in 1943. This visit had followed the landmark 1943 symposium on 'Post-war organisation of scientific research' and the influential 1944 report based on it by A. V. Hill. These developments laid the intellectual and institutional foundations for science policy in independent India. The talk will conclude by reflecting on the long gestation of the National Research Council concept, realised eight decades later through the Anusandhan National Research Foundation (ANRF) Act of 2023, and discuss its significance for India's aspirations of self-reliance and global scientific leadership by 2047.

All are cordially invited to attend
Office of Dean Research & Development