

National Science Day Lecture

Indian Nuclear Programme: Rich traditions and way forward



Prof. A. K. Tyagi

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Abstract: Atoms have been pivotal in scientific and technological advancements of the nation. This talk will serve as a travelogue covering the historical trajectory and evolution of the Department of Atomic Energy, India and also highlight its crucial role in harnessing nuclear technologies. Further, the contribution to energy security and sustainability will be emphasized, in particular towards Net Zero target. The talk will also present the societal applications of radioisotopes in healthcare, agriculture and industry

Bio: Prof. Dr. A. K. Tyagi is a distinguished scientist in the field of materials science, with extensive contributions to nuclear materials, nanomaterials, functional materials, and hybrid materials. He began his career at BARC, Mumbai, earning his PhD in 1992, followed by postdoctoral research at Max-Planck Institute, Germany (1995-96). During his career spanning close to four decades, he occupied various positions at BARC such as Head, Chemistry Division, Head, Analytical Chemistry Division, Head, Radiation Medicine Centre, Director, Chemistry Group and Director, Bio-Science Group. He was a Distinguished Scientist, DAE. Currently he serves as Dean & Senior Professor at Homi Bhabha National Institute (HBNI), Director (Officiating) at UM-DAE Centre for Excellence in Basic Sciences, Mumbai, and Honorary Professor at JNCASR, Bengaluru. With an H-Index of 72, Dr. Tyagi has mentored 47 PhD students (38 awarded, 2 submitted, 7 ongoing) and has published around 680 research papers and 15 books. His outstanding contributions have been recognized with numerous national and international awards, including the Vigyan Shri Award (2024), DAE-Homi Bhabha Science and Technology Award, CRSI National Prize in Chemical Sciences, MRSI-CNR Rao Prize in Advanced Materials, and the Metallurgist of the Year Award from the Ministry of Steel, GoI. He is a Fellow of prestigious scientific and engineering academies, including INSA, IAS, INAE, NASI, RSC, TWAS, and the World Academy of Ceramics. He has also been a visiting scientist in over 15 countries), contributing to global research collaborations.

Friday, February 28, 2025, 3:00 p.m. at Prof. S.M. Chitre Hall