INST steering ahead with nanoscience and technology-based breakthroughs

New Delhi, 08 (India Science Wire): With the motto of “Knowledge of Nanoscience for the Nation,” the Institute of Nano Science and Technology (INST), Mohali (Punjab), is advancing knowledge, and educating young minds in nanoscience and technology that will best serve the nation.

It has achieved several nanosciences and technology-based breakthroughs like efficient low-cost electro-catalysts for rechargeable metal-air batteries from fish gills, visible light-assisted sensing of nicotine from cigarette smoke by using metal-organic nanotube Mobile 2D electron gas at oxide interfaces for electronic devices, says the statement issued by the Department of Science and Technology (DST).

The institute imparts advanced training courses and laboratory techniques of nanotechnology at the highest level, encouraging innovative and challenging technology/product based scientific projects, boosting translational research (from laboratory to industry) and foster interactions with industry, sensitizing the public and media about the advantages and safeguards in Nano Science and Technology.

INST, an autonomous institution of the Department of Science and Technology (DST), Government of India, was established under the umbrella of NANO MISSION, initiated by DST to emphasize nano research in India. It started its activities as the first Indian nano-research institute in the country on 3rd January 2013 and shifted to its new campus in 2020.

The institute brings together biologists, chemists, physicists, and materials scientists under the same umbrella to pursue their interests in nanoscience and technology. INST has created state-of-art facilities in a short span of seven years to support multifaceted research activities in varied fields like Energy, Environment, Health Care, Agriculture, and Quantum Materials.

With the vision to emerge as a globally competitive India's foremost research institution in Nano Science & Technology and contribute to society through applications of nanoscience & nanotechnology, INST has emphasized cutting-edge research in nanoscience and nanotechnology with an interdisciplinary flavour to meet global and local challenges.

To name some of its research achievements, the institute has about 180 research publications in international journals per year with an average impact factor of 4.2, and its overall rank (as per nature index) is 32. Further, two scientists from INST were ranked among the top 2% of scientists globally, and some scientists have become fellows of international organisations and editors of international journals and won prestigious awards.

INST has contributed significantly in promoting science and inculcating the practice to develop technology in India amongst the young generation of the nation through its unparalleled outreach program. The faculty of INST has directly interacted with more than 15,000 students in about 300 schools across the country and spread awareness about taking science as a career perspective. Through roadshows, the institute has demonstrated the importance of science in day-to-day life to more than 50,000 students and the general public.

It has reached out to more than 1000 students from marginalized sections of the society from 24 schools/colleges across the country towards scientific aptitude training.

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