

# National Science Day 2024 in BARC

## *Atoms for Society: Securing Water, Food, and Health*

**N**ational Science Day (NSD) is celebrated every year on 28 February to commemorate the discovery of Raman Effect by renowned Indian Scientist and Nobel Laureate Prof. C.V. Raman. The aim of this celebration is to provide a platform for fruitful interactions between students from various schools/colleges and leading scientists of BARC and DAE, as well as to emphasize on the significant role of science for the societal benefit.

The theme of NSD-2024 in BARC during February 28-1 March is 'Atoms for Society: Securing Water, Food, and Health', to spread awareness about research development work and associated technological outcomes in these vitally important domains of science and technology.

Audio-visual presentations, skit performance, quiz competition, invited talks by eminent scientists on topics related to the theme, technology exhibition, visit to various state-of-art laboratories and research facilities in Trombay were organized for the benefit of students as part of the 3-day event.

### Awards & Honors

## BARC scientist awarded Chemical Research Society of India medal



**D**r. K.R.S. Chandrakumar, Scientific Officer/G, BARC was awarded the "Chemical Research Society of India-Bronze Medal" for the year 2023. Dr. Chandrakumar joined BARC, Trombay soon after completing his Ph.D in the year 2003 from National Chemical Laboratory, Pune. His noteworthy contributions include the conceptual density functional theory based chemical reactivity descriptors, development of hydrogen storage materials and structure-reactivity relationship in carbon based nanostructured materials. His research interests are in the areas of nanostructured materials, growth mechanism of carbon nanotubes & fullerenes. Recently, he initiated the activity on investigating nanocatalysis for hydrogen generation from water, CO<sub>2</sub> reduction, the fundamental mechanisms of assembled complex nanostructures, including DNA-Origami and their functionalities.

Dr. Chandrakumar is deeply interested in science popularization and basic education programs. He is also a Visiting Faculty at the Center for Excellence in Basic Sciences (CEBS), University of Mumbai.

He is a recipient of the Young Scientist Award from Indian Science Congress Association (2002), Young Scientist Medal from Indian National Science Academy (2005) and Young Scientist Award from Department of Atomic Energy (2007). He was also awarded the Scientific & Technical Excellence Award (2015) from Department of Atomic Energy.

## BARC scientist selected as a Member of INYAS



**D**r. Brindaban Modak, Scientific Officer/F of Theoretical Chemistry Section, Chemistry Division, BARC, has been selected as a member of the prestigious Indian National Young Academy of Sciences (INYAS) for a period of 5 years (2024-2029).

The major thrust of his research activities include developing novel materials for hydrogen generation through solar water splitting, Li/Na-ion batteries, tuneable materials for optoelectronics and light-emitting devices, modeling of thermophysical properties of advanced nuclear fuels, materials for nuclear waste immobilization and phosphor materials for radiation dosimetry. Dr. Modak has 77 publications in reputed international journals to his credit which are well cited in literature. He is also a recipient of Young Scientist

Platinum Jubilee Award (2019) of The National Academy of Sciences, India (NASI), Outstanding Doctoral Student Award of HBNI (2019), DAE Young Scientist Award (2018), Homi Bhabha Prize (2008), and Four Best Poster Presentation Awards. He is also a member, NASI (2021); and Young Associate of Maharashtra Academy of Sciences (2021).