



## ISNT Conference and Exhibition on Non-Destructive Evaluation & Enabling Technologies

The 34<sup>th</sup> Annual Conference and Exhibition on Non-Destructive Evaluation & Enabling Technologies (NDE-2024) was organized by the Indian Society for Non-Destructive Testing (ISNT) during 12-14 December, 2024 at Chennai, Tamil Nadu and the conference was inaugurated on 12<sup>th</sup> December, 2024 by Anil V. Parab, Sr. Executive Vice President, L&T (Heavy Engg. & L&T Valves). More than 1000 delegates from national and international research & development laboratories, academia and industries, participated in the proceedings of the three-days conference. Dr. V. H. Patankar, Head, UIEFS, Electronics Division, BARC chaired a technical session on 'Applications of NDE in Energy Sector' and he delivered an invited talk on

'Ultrasonic Instrumentation for NDE of Components & Structures and Way Forward', in the technical session on 'Advances in Ultrasonics: Instrumentation & Acquisition'. Other officers from BARC who participated in the conference and presented research papers include Manojit Shaw, QAD; Roshan R. Sahu, CnID; Kum. Samadrita Chakraborty, CDM; Dr. Lakshminarayana Yenumula, ITIS; Sayan Banerjee, ED; Ashutosh Srivastava, CDM; Anant Mitra, ITIS, and Rajesh V. Acharya, ITIS. NDE 2024 conference was aimed to address the specific needs and challenges of a myriad of industries, including aerospace, automobile manufacturing, power generation, infrastructure, and others.

- 1 Komal Kapoor, Chairman, NDE 2024 & Chief Executive, Nuclear Fuel Complex, Hyderabad speaking at the event.
- 2 Dr. V.H. Patankar, Head, UIEFS, Electronics Division, BARC speaking in the technical session on 'Advances in Ultrasonics: Instrumentation & Acquisition'.

## Reports from conferences, theme meetings, symposia, and outreach



### Symposium on Advances in Atomistic and Continuum Modeling

The DAE-BRNS Symposium on Advances in Atomistic and Continuum Modeling (DAE-SAACM-2024) was organized at the DAE Convention Center in BARC Campus, Mumbai during 23-26 November 2024. The three-days symposium was organized jointly by Chemical Engineering Group (ChEG), BARC in association with the Board of Research in Nuclear Sciences, DAE and the Society for Atomistic and Continuum Modeling (SACM). During the inaugural day of the symposium, the welcome address was made by Dr. S. Mukhopadhyay, Head, ChED followed by introductory remarks by Dr. R. Tewari, Director of the Materials Group, BARC. In his speech, Shri K.T. Shenoy, Director, ChEG and Chairman of the SAACM-2024 emphasized the need to work out a common platform that will function as a bridge between atomistic and continuum modeling research. Professor R.B. Grover, Member, Atomic Energy Commission had been invited as the chief guest to the symposium. In his inaugural speech, Prof. Grover discussed the needs of the atomistic modeling based multi-scale approach in advanced scientific research. The proceedings of the workshop, presented in the form of a souvenir, was released by him. The special issue of SACM was released by Prof. E.D. Jemmis of IISc, Bangalore, who

was the guest of honor to the symposium. The vote of thanks was delivered by Dr. Sk. Musharaf Ali, Head, AMCAS, ChED and Convener of the SAACM-2024. The symposium saw participation of 300 delegates from both DAE units and non-DAE institutes. A total of 185 abstracts were submitted by the invited speakers and research scholars for the symposium. A plenary lecture, invited lectures and short lectures were delivered on varied topics, including on electronic structure calculations such as density functional theory, equilibrium and non-equilibrium statistical mechanics, molecular dynamics and Monte Carlo simulations and computational fluid dynamics. Machine learning-driven atomistic modeling was also discussed. The subject experts from several Pan-India institutes such as IISc, TIFR, IACS (Kolkata), JNCASR, IITs (Mumbai, Chennai, Patna, Hyderabad, Jodhpur), ICT (Bhubaneswar), IISER (Pune), CEBS (Mumbai), IGCAR (Kalpakkam) and from BARC made their presentation on various aspects of atomistic modeling. SAACM handed over the certificates of participation to all participants. The Atomistic Modeler of Year-2024 plaque was awarded to Dr. Arya Das of Nuclear Recycle Board, BARC, Mumbai at the symposium.