



Webinar-37

Asian Consortium on Computational Materials Science (ACCMS) Centre
SRM University-AP, Amaravati, Andhra Pradesh, India

October 14, 2025 | 11:30 AM - 01:30 PM (IST)

Webinar Zoom link:

<https://srmap.zoom.us/j/99398959483?pwd=XIXFzXU8Vky9M4nvHE2wx2qWET84Tw.1>
Meeting ID: 993 9895 9483, Passcode: 351048

Title: Quantum Materials by Computation: Challenges & Opportunities

Abstract:

In recent time, there has been a world wide surge of activity on Quantum materials, materials whose properties are dominated by quantum fluctuations, quantum entanglement, quantum coherence, topological behavior. In this talk, I will discuss the contribution of computation in understanding and predicting these materials. In particular, I will discuss its application in understanding materials properties by understanding the structure-property relation, prediction of new functionalities in known materials, and predicting new materials all together.

Short Biography:

Prof. Saha-Dasgupta works in the area of computational condensed matter/ materials physics, and a major thrust of her research is the application of first-principles electronic structure calculations to understand the physics and chemistry of novel and complex materials. She obtained her PhD degree from Calcutta University in 1995. She was a Post-doctoral Fellow at ONERA, Paris; CNRS, Cergy-Pontoise, France; Max-Planck Institute, Stuttgart, Germany and IISc, Bangalore. Saha-Dasgupta joined the S.N.Bose National Centre as a lecturer in 2000. She is currently a Senior Professor and Director at the same Institute. She has so far produced 20 PhD students and published more than 350 research papers. She is a fellow of the American Physical Society, the World Academy of Sciences, the Indian National Academy of Sciences, the Indian Academy of Sciences, National Academy of Sciences, India, and the West Bengal Academy of Sciences. She is a recipient of the Swarnajayanti Fellowship, MRSI-ICSC Superconductivity & Materials Science Annual Prize, DAE-Raja Ramanna prize, P. Sheel Memorial Award, Dr A. P. J. Kalam HPC award and J. C. Bose fellowship. She headed the Max-Planck-India partner group, Advanced Materials Research Unit and Thematic Unit of Excellence on Computational Materials Science at S.N.Bose National Centre.



Prof. Tanusri Saha-Dasgupta

*Director & Senior Professor
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Panelist :-

Dr. Arkapol Saengdeejing

*Special Researcher,
Research Center for Structural
Materials, National Institute for
Materials Science, Japan*

Conveners:

Prof. Yoshiyuki Kawazoe, Head, ACCMS-Centre
Prof. G. P. Das, TCG Crest
Prof. Ranjit Thapa, SRM University-AP

Local Organisers:

Dr Mahesh Kumar Ravva, SRM University-AP
Prof. Umesh Waghmare, JNCASR
Dr Surya VJ, ACCMS