Second International Conference on Smart Technologies for Smart Nations
SmartTechCon2023 18-19 August 2023 | Amity Global Institute, Singapore

Computational Nanotechnology and Bioinformatics

Objective of the Session

This conference aims to bring together experts from various disciplines to discuss and present their research findings, as well as foster collaboration and exchange of ideas. Computational Nano Technology and Bioinformatics involves the use of computational methods, such as computer simulations, machine learning models and IoT based devices for the simulation and analysis of biological data. To study and analyse the behaviour of nanoscale materials and devices using the advance intelligent techniques. Computational methods provide a powerful tool for understanding the fundamental principles governing the behaviour of nanoscale systems and enables the design and optimization of novel nanomaterials, cell biology and nanodevices with enhanced properties and functionalities. The scope of this special session conference encompasses a wide range of topics related to Computational Nano Technology, Bioinformatics, Computational Biology. These include, but are not limited to, the development and application of computational methods and algorithms for studying the structural, mechanical, electronic, and optical properties of nanoscale materials, as well as the simulation of nanoscale processes and phenomena. This Session aims to explore the integration of computational techniques with experimental approaches, as well as the utilization of big data analytics and machine learning algorithms in the field of nanotechnology. It also seeks to address the challenges and limitations associated with computational modelling and simulation at the nanoscale and discuss potential solutions and future directions. The goal of this special session conference is to advances the field of Computational Nano Technology and Bioinformatics to promote its practical applications in various industries, such as electronics, energy, medicine, and environmental science. By bringing together researchers, scientists, engineers, and industry professionals, this session aims to facilitate knowledge exchange, foster collaborations, and drive innovation in the field of nanotechnology and bioinformatics.

Topics of Interest: Original and unpublished papers are invited in the following topics and not limited to:

1. Quantum Mechanics in Nanotechnology
2. Protein Structure Prediction
3. Machine Learning in Bioinformatics
4. Nanoscale Device Modeling
5. Data Mining in Biomedical Research
6. Computational Design for biomedical equipment
7. Molecular Modeling and Simulation
8. Human-computer interfaces for biomedical devices
9. IoT based Green Nanotechnology and Water Treatment
10. Cancer Cell Analysis and Prediction
11. Computing techniques for Hospital information System

12. Forensic Nanotechnology
13. Biomedical data storage devices
14. IoT based Industrial Nanotechnology
15. Machine learning techniques for Biotechnology

Special Session Chairs:

Dr. Nafees Akhter Farooqui
Assistant Professor
School of Computer Applications,
BBD University, Lucknow, UP, India

Dr. Mohammad Haleem
Associate Professor
Department of Computer Science,
Era University, Lucknow, UP, India

Dr. Manaal Zehra
Assistant Professor
Department of Biotechnology
Era University, Lucknow, UP, India