

## **Report: Expert Lecture**

### **High Performance Computing & Artificial Intelligence**

**08.04.2024**

The Department of Computer Engineering, J.C. Bose University of Science and Technology, YMCA organized an expert lecture on **High Performance Computing & Artificial Intelligence** for the students of B.Tech 6th Sem. The lecture, which was conducted on 8<sup>th</sup> April 2024 was attended by 230 students. The students of various branches of the University (Computer Engg, Information Technology, Computer Engg (with spl. in Data Science, Computer Engg (Hindi) & Electrical Engg) enthusiastically participated in the lecture. Dr. Preeti (Associate Professor, Department of Computer Engg), Dr. Shivi (Assistant Professor, Department of Computer Engg) and Dr. Dimple (Assistant Professor, Department of Computer Engg) were the program coordinators of this expert lecture.

The lecture was presided over by Dr. Dimple. She welcomed the resource person, Mr. Ritesh Nohria and extended gratitude for sparing valuable time to deliver a lecture to the students. She further acquainted the audience about the rich experience of the resource person. Mr. Ritesh, is an HPC & AI Solution Architect, Lenovo. He is an alumnus of J.C. Bose University of Science & Technology, YMCA, Faridabad (1991-1995 batch) and has a vast experience in different environments within the HPC domain. He started his journey in July 1995 with CMC PSU company (now known as TCS) and worked on IBM 4381 mainframe support. He shifted to India Meteorological Department in 1999 and maintained the Control Data CYBER 2000U mainframe system and was part of monitoring the Y2K bug. In 2003, he started supporting Cray SV1 @ National Center for Medium Range Weather Forecast. From 2009 onwards he started pre-sales activity. In 2012, he joined HCL Infosystem as GM in HPC technical and managing R & D team of HPC and sales activity all over India. From 2014 to 2019 he handled multiple roles related to Platform Computing with IBM India - STG .

The expert lecture delivered by Ritesh Nohria on the integration of High Performance Computing (HPC) and Artificial Intelligence (AI) provided a comprehensive overview of the synergistic relationship between these two transformative technologies. Mr. Nohria's insightful presentation shed light on the importance, challenges, and future prospects of harnessing the combined power of HPC and AI to drive innovation and address complex computational problems effectively. Mr. Nohria began by introducing the audience to the fundamental concepts of High Performance Computing and Artificial Intelligence, emphasizing their roles in advancing computational capabilities across various domains.

The speaker also highlighted the increasing demand for integrating HPC with AI techniques to tackle the growing volume and complexity of data-driven challenges. He elucidated on the

synergies between these fields and their potential to amplify each other's strengths.

Attendees gained insights into the numerous benefits of combining HPC and AI, including accelerated processing speeds, improved algorithmic performance, and enhanced predictive analytics capabilities. Real-world examples were provided to illustrate the transformative impact of this integration in areas such as scientific research, healthcare, finance, and autonomous systems.

Mr. Nohria concluded the lecture by offering insights into future trends and directions in the field, highlighting the potential for continued innovation and collaboration between HPC and AI communities. He encouraged attendees to explore emerging technologies such as quantum computing and neuromorphic computing, which hold promise for further enhancing computational capabilities.

The expert lecture on High Performance Computing and AI integration provided valuable insights into the transformative potential of leveraging these technologies in tandem. Attendees gained a deeper understanding of the synergies between HPC and AI and the opportunities they present for driving innovation and addressing complex computational challenges across various domains.











**J.C. BOSE UNIVERSITY  
OF SCIENCE AND TECHNOLOGY,  
YMCA, FARIDABAD (HARYANA)**  
A State Government University (Accredited 'A++' Grade by NAAC)



## Expert Lecture (under Alumni Lecture Series)

on

### “High Performance Computing & Artificial Intelligence”

Organised by

**DEPARTMENT OF COMPUTER ENGINEERING**

(Faculty of Informatics & Computing)

**Date : 8<sup>th</sup> April 2024 | Time : 11:00 a.m. onwards**

**Venue : University Auditorium**



*Patron*

**Prof. Sushil Kumar Tomar**

Vice-Chancellor, JC Bose UST, YMCA, Faridabad



*Resource Person*

**Mr. Ritesh Nohria**

(Alumni ,JCBOSEUST & HPC-AI SOLUTION  
Architect , Lenovo)

**Prof. C.K. Nagpal**

Dean Faculty of Informatics &  
Computing

**Prof. Atul Mishra**

Chairperson,  
Department of Computer Engineering

**Dr. Preeti Sethi**

Associate Professor

**Dr. Shivi**

Assistant Professors

**Dr. Dimple**

Faculty Coordinators,  
Department of Computer Engineering