

Numerical Linear Algebra in Quantum Computing and Machine Learning

21-22
 Feb
 2025
 Venue
 CDS
 IISc

Department of Computational and Data Sciences

About the Workshop

The workshop (NLA-QCML) aims to advance the frontiers of computational science by uniting leading experts in traditional numerical methods, quantum computing, and machine learning. Through engaging discussions and collaborative exchanges, participants will explore the intersection of classical numerical techniques and quantum paradigms, revealing their combined potential to drive advancements in machine learning.

Attendees will gain a deeper understanding of the fundamentals of quantum computation and how quantum algorithms can revolutionize computational capabilities. Our experts will also address critical topics, including quantum error correction and post-quantum cryptography, ensuring a comprehensive understanding of the challenges and opportunities in this dynamic field. Additionally, the workshop will investigate large-scale machine learning algorithms, providing participants with practical insights to tackle computational challenges in big data environments. Special emphasis will be placed on pioneering applications in healthcare, particularly the role of artificial intelligence in medical imaging for precision medicine.

The workshop consists of structured discussion sessions and collaborative forums that foster meaningful knowledge exchange, enabling participants to explore quantum technologies through diverse perspectives.

Speakers



Biswa Nath Datta
Research Professor
Northern Illinois
University



Bhupendra Singh
Scientist at DRDO
Bengaluru



Vaanathi Sundaresan Assistant Professor IISc Bangalore



M. Tanveer
Professor
IIT Indore

Highlights

- Numerical Linear Algebra in Quantum Computing and Machine Learning
- Quantum Computing and its applications
- Quantum Error Correction
- AI in medical imaging for precision medicine

Important Dates

Registration Starts: Jan 01, 2025 Registration Closes: Feb 17, 2025 Workshop Date: Feb 21–22, 2025

Registration Fees

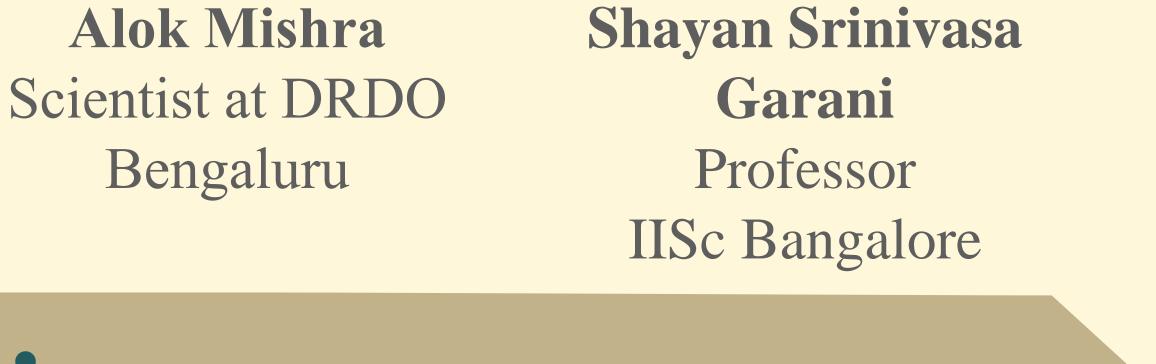
- BTech/MTech/MS/MSc/PhD: INR 1500 + GST
- Post Doc: INR 2000 + GST
- Faculty: INR 3500 + GST
- Industry: INR 4500 + GST

Note: Accommodation (Not included)

Step-2



Navin Kashyap
Professor
IISc Bangalore





Webpage



Step-1

Pay to register



Register here

Organizers:

Apoorva D Patel

Emeritus Professor

IISc Bangalore

Convener: Prof. Ratikanta Behera

Chairperson: Prof. Venkatesh Babu Radhakrishnan

Committee Prof. Ratikanta Behera Members: Prof. Jajati Keshari Sahoo Prof. Sk. Safique Ahmad



