VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

One Day Workshop
on
Quantum Computing
Algorithms

27th October 2023

Organized by

School of Computer Science and Engineering

VIT, Vellore

VIT – A place to learn; A chance to grow

ABOUT VIT

VIT has made a mark in the field of higher education in India imparting quality education in a multicultural ambiance, intertwined with extensive application-oriented research. VIT was established in 1984 by the well-known educationist, and former parliamentarian, honourable Dr.G.Viswanathan, the Founder and Chancellor, a visionary who transformed VIT into a Centre of Excellence in higher technical education. It persistently seeks and adopts innovative methods to improve the quality of higher education in all fields of science and technology. As per QS World University Ranking 2023, in engineering and Technology, VIT stands 240th best in the World, the 9th best in India, and by Subject 2023: Computer Science and Information Systems, VIT stands under the band of 201- 250, securing 8th rank in India. Also based on the same survey, eight subjects of VIT are within the top 500 in the world. It is ranked the 8th best University, 11th best Research institution, and the 11th best Engineering institution in India (NIRF ranking, Govt. of India 2023) and has got A++ in the 4th cycle of NAAC accreditation.

ABOUT SCOPE

History of computing discipline at VIT dates back to 1993, when the Department of Computer Science & Engineering was established to meet the demand for well-qualified computer professionals. The School of Computer Science and Engineering (SCOPE) was conceived in the year 2009.

At present, the School headed by Dr.Ramesh Babu K, has more than 15000 students and 250 core faculty members apart from many visiting professors, distinguished professionals from industry, eminent researchers and teaching/ research assistants.

The school has one of the best infrastructure including domain-specific labs associated with the technical departments mentioned below - many of these labs are sponsored by industry leaders e.g. IBM, Cisco, Intel and Microsoft. The School has a good record of organising seminars, workshops, symposia and conferences in emerging technological areas. With an objective of developing core competence in the respective subject matter specialisations and special interest groups for learning newer technologies, the School has formed the following technical departments:

- Department of Analytics
- Department of Computational Intelligence
- Department of Database Systems
- Department of Software Systems
- Department of Information Security
- Department of IoT

ABOUT THE WORKSHOP

Quantum computing is an emerging technology that harnesses the laws of quantum mechanics to solve problems too complex for classical computers. It combines mathematics, quantum physics, and computer science to optimise, learn, and simulate chemical, physical, and biological systems. With the capabilities of quantum computers and the availability of quantum development kits, quantum computing is expected to become ubiquitous, and the demand for trained people is expected to rise significantly. Quantum technology is opening up new frontiers in computing, communications, and cyber security with widespread applications. The range of quantum technologies is expected to be one of the significant technology disruptions that will change the entire paradigm of computation, communication, and encryption. In India, there is a tremendous interest in quantum computing, with active participation from students, developers, industry, and academia, leading to many initiatives and developments that have taken place recently. India is also expected to emerge as a talent hub for quantum computing very soon as stated in "Quantum computing in India: Recent developments and future." *IET Quantum Communication*. Hence this workshop is an opportunity to faculty members and students to learn and practice methodologies.

Event will run for **one day in offline mode** with limited to 50 number of participants. With its high quality, it provides an exceptional value for Industry Professionals, Researchers, Faculty members and Students.

Target Audience: Students /Academician / Research Scholars / Industry Professionals

Last Date of Registration: 25.10.2023 Accommodation will be provided based on request

RESOURCE PERSON

Jayakumar Vaithiyashankar , PhD
IBM Quantum Qiskit Advocate Mentor
Senior IEEE Member
Bengaluru, Karnataka, India

CONVENERS

Dr. Ramesh Babu K
Professor & Dean
School of Computer Science and Engineering
VIT, Vellore.

Dr.Saleem Durai M A
Professor & Associate Dean
School of Computer Science and Engineering
VIT, Vellore

CO-CONVENERS

Dr. Ananda Kumar S
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Dr. Murali S
Associate Professor & HOD
Department of Database Systems,
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COORDINATORS

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For Online Registration and Payment

https://events.vit.ac.in/

Registration Fee
Internal Participant(including GST) : Rs. 600

External Participant (including GST) : Rs. 750

Registration charges include course material, lunch and snacks. The number of Participants is limited to 50 based on first come first serve.