



Faculty Development Program



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

Title : Quantum Computing and Artificial Intelligence: Foundations and Applications

Date : 2026-03-16 - 2026-03-20

Time : 10:00 - 17:30

Venue : SJT G07

Event Outcome

- Foundations of Quantum Computing
- Quantum Algorithms and Computational Advantage
- Quantum AI Frameworks
- Applications of Quantum AI Systems
- Challenges in Quantum AI Integration

	<p>Resource Person 1 - Details Name : Ragukumar P Designation : Assistant Professor Sr. Grade 2, School of Advanced Sciences University/ Company : VIT, Vellore Address : India, 632014.</p>
	<p>Resource Person 2 - Details Name : Ganesan K Designation : Professor Higher Academic Grade, School of Computer Science Engineering and Information Systems University/ Company : VIT, Vellore Address : India, 632014.</p>
	<p>Resource Person 3 - Details Name : Jafar Ali Ibrahim S Designation : Assistant Professor Sr. Grade 2, School of Computer Science and Engineering University/ Company : VIT, Vellore Address : India, 632014.</p>
	<p>Resource Person 4 - Details Name : N S Vidhyadhiraja Designation : Professor, Theoretical Sciences Unit University/ Company : Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru Address : India, 560064.</p>
	<p>Resource Person 5 - Details Name : Karthiganesh Durai Designation : Founder and CEO, R and D University/ Company : KwantumG Research Labs Pvt Ltd, Bengaluru Address : India, 560064.</p>
	<p>Resource Person 6 - Details Name : S Bose Designation : Professor, Computer Science and Engineering University/ Company : Anna University, Chennai Address : India, 600025.</p>

Resource Person's Profile :

1. Profile of Ragukumar P

Assistant Professor Senior Grade 2, SAS, VIT Vellore

2. Profile of Ganesan K

Professor HAG, SCORE, VIT Vellore

3. Profile of Jafar Ali Ibrahim S

Assistant Professor Senior Grade 2, SCOPE, VIT Vellore

4. Profile of N S Vidhyadhiraja

N.S. Vidhyadhiraja obtained his Ph.D. from the Indian Institute of Science, Bengaluru, in 2001. He then spent four years as a postdoctoral fellow at the University of Oxford, UK. In 2005, he joined the Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru, where he currently serves as a Professor in the Theoretical Sciences Unit and Dean of the Fellowships and Extensions Office. Over the years, he has held visiting positions at the University of Cincinnati, Purdue University

5. Profile of Karthiganesh Durai

Experienced Quantum Computing Architect, Researcher, Consultant and Trainer with over 25 years of experience across Quantum Computing, AI and ML, Data Engineering, GenAI and Full-Stack Development. Proven track record in corporate training, architecture of Quantum Classical hybrid solutions and mentoring. Former Data Scientist at DELL and Chief Quantum Architect at BosonQ Psi. Strong expertise in Quantum Optimization, Quantum Inspired Solutions, QML, NLP, and cloud data platforms.

6. Profile of S Bose

Dr. S. Bose, a Professor in the Department of Computer Science and Engineering at the College of Engineering, Guindy, Anna University, Chennai. With over two decades of experience in academia, research, and administration, I am deeply passionate about shaping the future of Cybersecurity, Machine Learning and Deep Learning, Social Networking Analysis in Big Data, Web Technology, Blockchain Technology, Cloud Computing, and Future Generation Networks (5G 6G).

The convergence of Quantum Computing and Artificial Intelligence (AI) represents a major shift in the evolution of modern computing, giving rise to the next technological revolution. The programme is designed to familiarize faculty members with key quantum concepts such as qubits superposition entanglement and quantum gates, along with core AI and machine learning techniques. It bridges theory and practice by introducing quantum algorithms quantum machine learning models and hybrid quantum classical frameworks using contemporary tools and simulators.

The significance of this FDP lies in preparing educators and researchers to meet the growing demand for expertise in quantum and AI technologies. It also addresses challenges such as the limitations of classical computing for complex AI problems, issues related to noisy quantum hardware, and the integration of quantum systems with existing AI workflows. Emphasis is placed on interdisciplinary learning, research opportunities, and effective pedagogical strategies for teaching these emerging technologies, enabling participants to contribute meaningfully to future-ready education and innovation.

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Coordinator's: Prof. CHEMMALAR SELVI G 14459 - Assistant Professor Sr. Grade 2 - SCORE
Prof. KUMAR P J 11953 - Associate Professor Grade 2 - SCORE