

## Schedule of Basic FDP

**FDP Application Number:**

**Title of the FDP :** *Quantum Computing & Technology: Bridging Theory and Applications*

**FDP Start Date :** 27 October 2025

**FDP End Date :** 1 November 2025

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
9.00 – 9.30 Inauguration					
<p style="text-align: center;"><b>9.30 – 12.00</b> <b>Session 1</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Mr.T.Jayakumar</li> <li><b>Designation:</b> Quantum Researcher, Qiskit Programmer</li> <li><b>Organization:</b> KwantumG Research Labs Pvt. Ltd., Bengaluru</li> <li><b>Experience in Years:</b> 10</li> <li><b>Topic to be taught:</b> Quantum Computing Foundations (Superposition, Entanglement, Qubits)</li> </ol>	<p style="text-align: center;"><b>9.30 – 12.00</b> <b>Session 3</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Ms.P.Vanitha</li> <li><b>Designation:</b> Quantum Computing Researcher and Trainer</li> <li><b>Organization:</b> KwantumG Research Labs Pvt. Ltd., Bengaluru</li> <li><b>Experience in Years:</b> 10</li> <li><b>Topic to be taught:</b> Quantum Machine Learning (Hybrid AI &amp; Quantum Systems)</li> </ol>	<p style="text-align: center;"><b>9.30 – 12.00</b> <b>Session 5</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Dr. K.Venkata Subba Reddy</li> <li><b>Designation:</b> Associate Professor</li> <li><b>Organization:</b> NIT Warangal</li> <li><b>Experience in Years:</b> 15 Years</li> <li><b>Topic to be taught:</b> Quantum Communication (Quantum Internet, Satellite Communication)</li> </ol>	<p style="text-align: center;"><b>9.30 – 12.00</b> <b>Session 7</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Dr.Subramani</li> <li><b>Designation:</b> Assistant Professor</li> <li><b>Organization:</b> IIITDM,Kancheepuram</li> <li><b>Experience in Years:</b> 12 Years</li> <li><b>Topic to be taught:</b> Quantum Sensors &amp; Metrology (Precision Measurement, Navigation, Medical Imaging)</li> </ol>	<p style="text-align: center;"><b>9.30 – 1.00</b> <b>Industrial Visit</b></p> <p><b>Name of the Organization:</b> Centre for Development of Advanced Computing (C-DAC), Chennai</p> <p><b>Complete Address with Pincode:</b> TIDEL Park, 8th Floor, 'D' Block (North &amp; South), No. 4, Rajiv Gandhi Salai, Taramani, Chennai, Tamil Nadu 600113, India</p> <p><b>Industry Type:</b> Autonomous Scientific Society under the Ministry of Electronics and Information Technology (MeitY), Government of India</p> <p><b>Area of Specification:</b> High-Performance Computing</p>	<p style="text-align: center;"><b>9.30 – 12.00</b> <b>Session -10</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Dr.Tirupathy</li> <li><b>Designation:</b> Scientist</li> <li><b>Organization:</b> Society for Electronic Transactions and Security (SETS - Taramani)</li> <li><b>Experience in Years:</b> 16 years</li> <li><b>Topic to be taught:</b> Quantum Machine Learning (Hybrid AI &amp; Quantum Systems)</li> </ol>
<p style="text-align: center;"><b>12.00 – 1.00</b> <b>Article Discussion</b></p> <p><b>Title of the Research Paper:</b> A Quantum-Inspired Bi-level Optimization Algorithm for the First Responder Network Design Problem</p> <p><b>Name of the Journal:</b> INFORMS Journal on Computing</p> <p><b>Year of Publication:</b> 2024 (Pending/Forthcoming)</p>	<p style="text-align: center;"><b>12.00 – 1.00</b> <b>Article Discussion</b></p> <p><b>Title of the Research Paper:</b> Quantum processor-inspired machine learning in the biomedical sciences</p> <p><b>Name of the Journal:</b> Patterns</p> <p><b>Year of Publication:</b> 2021</p>	<p style="text-align: center;"><b>12.00 – 1.00</b> <b>Article Discussion</b></p> <p><b>Title of the Research Paper:</b> An Application of Combinatorial Optimization to Statistical Physics and Circuit Layout Design</p> <p><b>Name of the Journal:</b> Operations Research</p> <p><b>Year of Publication:</b> 1988</p>	<p style="text-align: center;"><b>12.00 – 1.00</b> <b>Article Discussion</b></p> <p><b>Title of the Research Paper:</b> Quantum Machine Learning: A Tutorial</p> <p><b>Name of the Journal:</b> Neurocomputing</p> <p><b>Year of Publication:</b> July 2021</p>		<p style="text-align: center;"><b>12.00 -1.00</b> <b>Article Summary</b></p>
<p style="text-align: center;"><b>1.00– 2.00</b> <b>Lunch</b></p>	<p style="text-align: center;"><b>1.00– 2.00</b> <b>Lunch</b></p>	<p style="text-align: center;"><b>1.00– 2.00</b> <b>Lunch</b></p>	<p style="text-align: center;"><b>1.00– 2.00</b> <b>Lunch</b></p>	<p style="text-align: center;"><b>1.00– 2.00</b> <b>Lunch</b></p>	<p style="text-align: center;"><b>1.00– 2.00</b> <b>Lunch</b></p>
<p style="text-align: center;"><b>2.00 -4.30</b> <b>Session-2</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Dr. S. Rajalakshmi</li> <li><b>Designation:</b> Assistant Professor</li> <li><b>Organization:</b> SSN College of Engineering</li> <li><b>Experience in Years:</b> 19</li> <li><b>Topic to be taught:</b> Quantum Algorithms (Shor's, Grover's, Quantum Annealing)</li> </ol>	<p style="text-align: center;"><b>2.00 -4.30</b> <b>Session-4</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Mr. R.Mageswar</li> <li><b>Designation:</b> Associate Vice President</li> <li><b>Organization:</b> TNStartup</li> <li><b>Experience in Years:</b> 10 Years</li> <li><b>Topic to be taught:</b> Quantum Cryptography (QKD, Post-Quantum Security)</li> </ol>	<p style="text-align: center;"><b>2.00 -4.30</b> <b>Session 6</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Dr. Kapil Kumar Soni</li> <li><b>Designation:</b> Associate Professor</li> <li><b>Organization:</b> NIT, Raipur</li> <li><b>Experience in Years:</b> 15 Years</li> <li><b>Topic to be taught:</b> Quantum Hardware &amp; Platforms (Superconducting Qubits, Trapped Ions, Photonic Qubits)</li> </ol>	<p style="text-align: center;"><b>2.00 -4.30</b> <b>Session 8</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b>Mr. Durai Karthi Ganesh</li> <li><b>Designation:</b> Founder &amp; CEO</li> <li><b>Organization:</b> KwantumG Research Labs Pvt. Ltd., Bengaluru</li> <li><b>Experience in Years:</b> 15 years</li> <li><b>Topic to be taught:</b> Quantum Computing Frameworks (IBM Qiskit, Google Cirq, Rigetti Forest, Fault-Tolerant Quantum Computing)</li> </ol>	<p style="text-align: center;"><b>2.00 -4.30</b> <b>Session 9</b></p> <ol style="list-style-type: none"> <li><b>Name of the Expert:</b> Dr.Usha Eswaran</li> <li><b>Designation:</b> Professor</li> <li><b>Organization:</b> Mahalakshmi Tech Campus</li> <li><b>Experience in Years:</b> 36</li> <li><b>Topic to be taught:</b> Respect, Responsibility, and Resilience: The Core of Indian Classroom Culture</li> </ol>	<p style="text-align: center;"><b>2.00 -4.00</b> <b>MCQ &amp; Reflection Journal</b></p>
<p style="text-align: center;"><b>4.30 – 5.30</b> <b>Hands on Training/ Labs</b></p>	<p style="text-align: center;"><b>4.30 – 5.30</b> <b>Hands on Training/ Labs</b></p>	<p style="text-align: center;"><b>4.30 – 5.30</b> <b>Hands on Training/ Labs</b></p>	<p style="text-align: center;"><b>4.30 – 5.30</b> <b>Hands on Training/ Labs</b></p>	<p style="text-align: center;"><b>4.30 – 5.30</b> <b>Hands on Training/ Labs</b></p>	<p style="text-align: center;"><b>Valedictory Session</b></p>