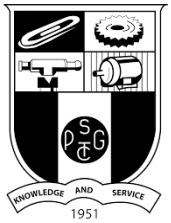

MeitY - Electronics & ICT Academy Sponsored

Joint Online Summer Course on

"Quantum Computing"

7th August – 12th August 2020

Government of India had announced a National Policy on Skill Development, which has set a target of skilling 500 million people by 2022 in the domain of Electronics & IT. Under the plan scheme of "Digital India Manpower Development". MeitY has set up seven (07) Electronics and ICT Academies as a unit in 03 IITs, 03 NITs and 01 IIIT with an objective of faculty/mentor development/up gradation in the areas related to Electronics & ICT leading ultimately to improved employability of graduates/diploma holders.

Target Beneficiaries

Interested Faculty of engineering/technical institutions are eligible to attend these Summer courses.
Non-faculty participants are also invited to attend the aforesaid programmes to upgrade their skills.

Availability of seats at each offering Academy

Participants will be selected based on first-cum-first-serve basis by organizing academy. Selected participants will be communicated through e-mail / notified in E&ICT Academy websites.

Course duration

The contact hours are to be spread over 6 days, implying NOT more than 3½hours per day.

PSG College of Technology hosts this online summer course as a Remote Centre.

Convener

Dr. V. Krishnaveni, Associate Professor and Head In-charge, Dept. of ECE, PSG College of Technology

Coordinators

Dr. P. Saravanan, Associate Professor
Dr. S. Hema Chitra, Assistant Professor (Sl.Gr)
Department of Electronics and Communication Engineering, PSG College of Technology
Email: dpsaravanan@gmail.com, dps.ece@psgtech.ac.in
Ph: 9894412300, 8072024033

Proctoring Coordinator

Dr. P. Saravanan, Associate Professor, Department of ECE , PSG College of Technology

Resource Person

Experts from Microsoft Garage - Azure Quantum.

Course Contents

- Quantum Measurements Density Matrices; Positive-Operator Valued Measure; Fragility of quantum information: Decoherence
- Quantum Superposition and Entanglement; Quantum Gates and Circuits; No cloning theorem & Quantum Teleportation; Bell's inequality and its implications
- Quantum Algorithms & Circuits; Deutsch and Deutsch–Jozsa algorithms; Grover's Search Algorithm; Quantum Fourier Transform
- Shore's Factorization Algorithm; Quantum Error Correction: Fault tolerance; Quantum Cryptography; Implementing Quantum Computing: issues of fidelity
- Scalability in quantum computing; NMR Quantum Computing; Spintronics and QED approaches
- Linear Optical Approaches; Nonlinear Optical Approaches; Limits of the approaches; Future scope

Key Features

- Online / Live lectures sessions by subject experts
- Online lab and training sessions.

Certification Fee

Faculty/Research Scholar = Rs. 500/- (SC/ST = Rs. 250/-)
Others (Except Faculty/Research Scholar) = Rs. 1000/- (SC/ST = Rs. 500/-)

No Fee for No Certificate

Link for Registration

https://forms.gle/bha37vdsoZ96Mrs76