IISERB

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान भोपाल

Indian Institute of Science Education and Research Bhopal

शैक्षणिक कार्यालय / Office of Academic Affairs

IISERB/DOAA/2025/538
August 05, 2025

परिपत्र / Circular

Sub: Minor in Quantum Technologies – reg.

Ref: Minutes of the 2025-1/84th Senate meeting dated July 17, 2025 (Item No. 25.06).

The Senate vide minutes referenced above has approved that the BSMS/BS/B.Tech. students may obtain a minor in Quantum Technologies subject to fulfilling the following requirements:

A total of 18 credits must be completed for a QT minor. No course which is already being used as part of the credits for a major can also be used as credits for the minor. The same course credit cannot be used to claim more than one minor.

The following will be essential courses for the minor:

1. PHY303 : Quantum Mechanics I
2. PHY425/625 : Quantum Information Theory
   OR
   ECS417/617 : Introduction to Quantum Computer Science
3. ECS326/676 : Digital Circuits and Systems
4. ECS 327: EECS Laboratory I
   OR
   ECS330 : EECS Laboratory II

Other than this, any of the following flexible box of courses may be used to make up for the remaining credits:

1. PHY403/607 : Condensed Matter Physics
2. PHY435/637 : Decoherence and Open Quantum Systems
3. PHY430/640 : Classical and Quantum Optics
4. PHY527/627 : Quantum Engineering
5. PHY504/620 : Magnetism and Superconductivity
6. PHY613 : Ultrafast Optics and Spectroscopy

7. ECS410/610 : Modern Cryptography
8. ECS426/626 : Information Theory and Coding
9. ECS428/628 : Nanoelectronics: Fundamentals and Applications
10. ECS521/641 : Spintronics and Nanomagnetics
11. ECS411/611 : Introduction to MEMS
12. ECS413/613 : Smart Sensing Technologies

This is for information and necessary action by all concerned..

शैक्षणिक अधिष्ठाता / Dean, Academic Affairs

प्रतिलिपि:

1. All Students via E-mail
2. All Convener, DUGCs via E-mail
3. All HoDs via E-mail