



Module PMRF-ISSS019/2022

Quantum Mechanics-Problems in One Dimension

Name of the PMRF student

Priyanshi

Details of the content of the module

This course will cover quantum mechanical problems concerning a single particle in one dimension. The conceptual and mathematical background of important quantum mechanical processes, such as tunnelling, etc., will be covered. Following problems will be covered in the course:

1. Free Particle
2. Single Step potential: Scattering Problem
3. Particle in a well
4. Potential barrier: Quantum Mechanical Tunnelling
5. Double potential well
6. Quantum Harmonic Oscillator

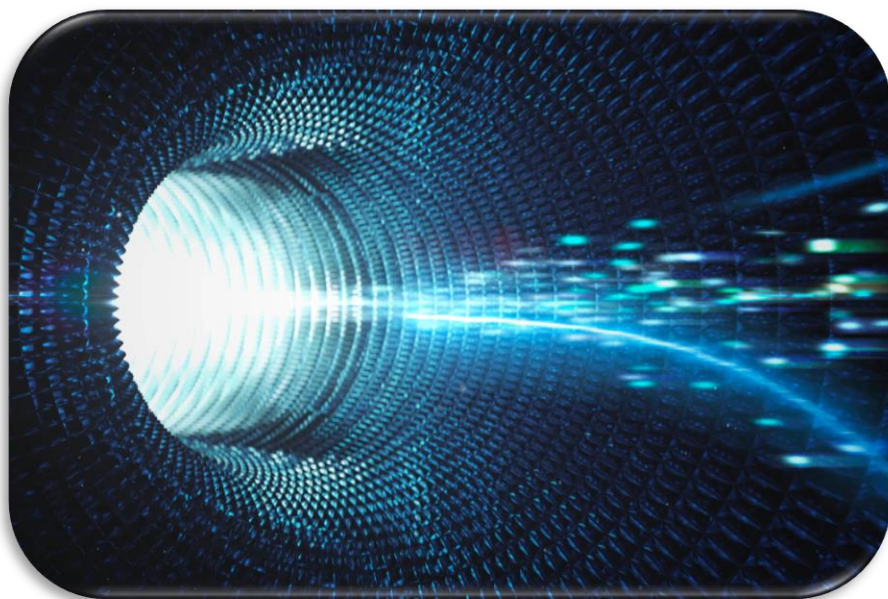
Nature of Module: Lectures and Problem-Solving sessions

Prerequisites: Basic knowledge of quantum mechanics

Course Relevant for

All Engineering Streams

- Useful for Undergraduates and Postgraduates interested in pursuing a career in Quantum Technologies such as Quantum Computation, Nanoscience etc.
- Beneficial for GATE, JAM, NET aspirants.



Schedule of the module

Timings: Recorded lectures will be available every Monday, 5 PM (IST)

Lecture Duration: 1 hour

Start Date: July 11, 2022

Total number of sessions: 13

Meeting link: Will be shared later with the registrants

Contact email ID: priyanshi1@iisc.ac.in

Registration link:

<https://forms.gle/YHvHkYQuXRJCYTDK6>