

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Deshpande Ajinkya Charudatta
- **User Type:** Ph.D. Scholar
- **Institution Name:** Indian Institute of Science
- **Institutional Contact No:** 9657429412
- **Research Topic:** Spin Qubits with new 2D materials channel

Software Request Details

- **Software Name:** Comsol Multiphysics
- **Justification for Software Request:** The qubits fabricated on a silicon wafer are mounted on a PCB for integration inside the dilution refrigerator. The PCB traces must be precisely designed and calibrated for operation in the GHz frequency range. COMSOL Multiphysics enables electromagnetic simulation of the PCB structure and materials across these frequencies, allowing accurate determination of resonant modes and impedance characteristics essential for optimal qubit performance.

Guide/Supervisor Approval

I, Prof. Mayank Shrivastava,

- Confirm that the above-mentioned researcher is affiliated with our institution
- Have reviewed the software request and its relevance to the researcher's academic work
- Approve the software request for research purposes

Approval Confirmation

- I approve the software request
- The software aligns with the researcher's research objectives
- The request meets the institutional research guidelines

Guide/Supervisor Signature:

Date: 07/11/2025

Official Stamp/Seal:

Prof. Mayank Shrivastava
Professor

Department of ESE

Indian Institute of Science

Bangalore - 560012, Karnataka, India

Important Notes

1. This form must be signed and sealed by the Guide/Supervisor.
2. The scanned copy must be uploaded with the software request
3. Electronic signatures are acceptable if from an official institutional email