

I-STEM Software Request - Guide Approval Form

User Details

- Name of Researcher: Nambi Rajan M
- User Type: ☐ Ph.D. Scholar ☐ Postdoctoral Researcher ☒ Bachelor's ☐ Masters
- Institution Name : Vellore Institute of Technology
- Institutional Contact No: +91 73488 64931
- Research Topic: Quantum Photonics Simulation

Software Request Details

- Software Name: COMSOL Multiphysics – RF Module, Wave Optics Module
- Justification for Software Request: COMSOL Multiphysics is well-suited for simulating our quantum CNOT gate as it enables accurate mode analysis, effective index calculation, and field visualization in complex waveguide structures. Its FEM-based solvers handle geometry and material variations precisely, aiding in optimizing coupling and symmetry-breaking. With parametric sweeps and multiphysics support for thermo-optic effects, COMSOL is ideal for refining and extending our photonic quantum designs.

Guide/Supervisor Approval

I, Dr. Laxmi Narayan Tripathi (Guide/Supervisor Name),

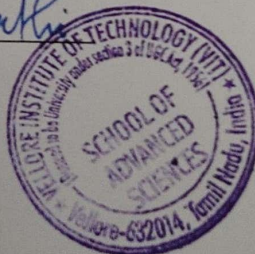
- Confirm that the above-mentioned researcher is affiliated with our institution
- Have reviewed the software request and its relevance to the researcher's academic work
- Approve the software request for research purposes

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: 25-07-2025



Official Stamp/Seal:

Important Notes

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