

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Priya Sharma
- **User Type:** ☒ Ph.D. Scholar ☐ Postdoctoral Researcher ☐ Bachelor's ☐ Masters
- **Institution Name:** Indian Institute of Technology Delhi
- **Institutional Contact No:** 9560281154
- **Research Topic:** Quantum Optics

Software Request Details

- **Software Name:** Comsol
- **Justification for Software Request:** The software COMSOL Multiphysics is required to support my research work in the field of quantum optics, particularly in waveguide-based systems and nonlinear optical processes. In these areas, it is challenging to directly visualize and analyze field evolution, mode propagation, and nonlinear interactions through experiments alone due to the complexity of the underlying physics. COMSOL provides a robust simulation environment for modeling electromagnetic wave propagation in waveguides and studying nonlinear phenomena such as frequency conversion, parametric processes, and intensity-dependent refractive index effects, enabling accurate analysis of field distributions, mode profiles, and propagation dynamics in structured optical systems.

Guide/Supervisor Approval

I, Joyee Ghosh (Guide/Supervisor Name),

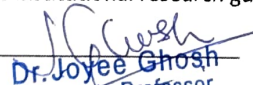
- Confirm that the above-mentioned researcher is affiliated with our institution
- Have reviewed the software request and its relevance to the researcher's academic work
- Approve the software request for research purposes

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: 20/4/2026


Dr. Joyee Ghosh
Associate Professor
Department of Physics
Indian Institute of Technology Delhi
Hauz Khas, New Delhi-110016 (India)

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