I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher**: Ritika Pahal
- **User Type**: Masters
- **Institution Name :** Centre for Nanoscience & Nanotechnology,Panjab University,Chandigarh
- **Institutional Contact No**: 9467144935
- **Research Topic**: Numerical Simulation of Photonic Nanojets, Photonic Hooks, and Surface Plasmonics for Nanophotonics applications

Software Request Details

- **Software Name**: COMSOL Multiphysics — Wave Optics Module
- **Justification for Software Request**: COMSOL Multiphysics with the Wave Optics Module is required for my research in nanophotonics. Under the guidance of Dr. Jadab Sharma, Centre for Nanoscience & Nanotechnology and for research problems assigned by Dr. Samir Mondal at CSIR–CSIO, Chandigarh, I will simulate photonic nanojets, photonic hooks, and surface-plasmonic effects in gold-, silver-, and silicon-coated spherical structures. The study will analyse electromagnetic-field distribution, near-field enhancement, beam curvature, focal properties, scattering, absorption, and resonance behaviour to optimise nanophotonic structures for nanoscale light manipulation and optical-sensing applications

Guide/Supervisor Approval

I, Dr. Jadab Sharma (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: _____

Assistant Professor
Centre for Nanoscience & Nanotechnology
(U.I.E.A.S.T), P.U. Chandigarh

Date: 22 Aug 2026

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