

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher** : Srinivasan D
- **User Type** : Ph.D. Scholar
- **Institution Name** : SRM Institute of Science and Technology
- **Institutional Contact No** : 044 2741 7000
- **Research Topic** : Simulation on Magneto-Optical Waveguides and Electromagnetic Scattering in Nanostructured Magnetic Materials

Software Request Details

- **Software Name:** COMSOL Multiphysics 6.0
- **Justification for Software Request:** I am currently conducting research in the areas of micromagnetism and nanophotonics, with a focus on the simulation and analysis of waveguides and electromagnetic scattering in magneto-optical nanostructures. COMSOL Multiphysics 6.0 is a critical tool for this work, as it enables the accurate modeling of electromagnetic wave propagation through complex geometries and anisotropic magnetic materials. My project involves studying field confinement, mode distributions, and magneto-optical effects such as Faraday and Kerr rotation within integrated photonic structures. The software's ability to couple the AC/DC, Wave Optics, and Heat Transfer modules allows for comprehensive multiphysics simulations, including thermal effects and magneto-optical interactions. This capability is essential for understanding and optimizing device performance at the nanoscale, and COMSOL's flexibility in defining material parameters and custom physics will significantly contribute to the success of my research.

Guide/Supervisor Approval

I, Dr .Arnab Ganguly,

- 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: *Arnab Ganguly*

Date: 23/7/25

Official Stamp/Seal:

Arnab Ganguly, Ph.D.
Research Assistant Professor
Department of Physics and Nanotechnology
SRM Institute of Science and Technology
Kattankulathur, Chennai - 603 203.
Tamil Nadu, India

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