

I-STEM Software Request - Guide Approval Form

User Details

- Name of Researcher: GULZAR ALI J
- User Type: Ph.D. Scholar
- Institution Name: Vellore institute of technology, Vellore, Tamil Nadu
- Institutional Contact No: 0416 224 3091
- Research Topic: Angle-Independent Topological States in Photonic Structures

Software Request Details

- Software Name: COMSOL Multiphysics
- Justification for Software Request: COMSOL Multiphysics is essential for my research on angle-independent topological states in photonic heterostructures, as it enables accurate electromagnetic simulations using the finite element method. It allows precise calculation of transmission spectra under oblique incidence, which is crucial for validating angular robustness. The software supports anisotropic and dispersive material modeling, enabling realistic implementation of graphene-based photonic structures, and provides detailed electric-field intensity and spatial field profiles for identifying interface-localized topological states. Overall, it ensures reliable and physically accurate analysis of complex graphene-integrated photonic crystal heterostructures.
- Guide/Supervisor Approval

I, Dr. Chittaranjan Nayak (Guide),

- 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: 09-02-2026

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

Dr. CHITTARANJAN NAYAK
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