

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Maram Anasuyakumari
- **User Type:** ☒ Ph.D. Scholar ☐ Postdoctoral Researcher ☐ Bachelor's ☐ Masters
- **Institution Name:** National Institute of Technology Andhra Pradesh
- **Institutional Contact No:** 08818-235072
- **Research Topic:** Analysis of Material characteristics using Peri-elastodynamics.

Software Request Details

- **Software Name:** COMSOL
- **Justification for Software Request:** Ongoing research focuses on the analysis of material characteristics of piezoelectric and piezomagnetic materials using peri-elastodynamics. COMSOL Multiphysics provides robust multiphysics coupling capabilities, enabling accurate simulation of electromechanical and magnetoelastic interactions. Its flexibility in defining user-based physics interfaces is essential for validating non-classical continuum theories like peridynamics. This software will significantly support validating theoretical formulations and analyzing wave propagation, fracture, and dynamic responses in such coupled systems.

Guide/Supervisor Approval

I, Sudarshan Dhua,

- 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: 26/09/2025

Official Stamp/Seal:

Dr. SUDARSHAN DHUA
Assistant Professor
School of Sciences (Mathematics)
NIT Andhra Pradesh

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