

I-STEM Software Request - Guide Approval Form

User Details

- Name of Researcher: Jyothi Budida
- User Type: ☒ Ph.D. Scholar ☐ Postdoctoral Researcher ☐ Bachelor's ☐ Masters
- Institution Name : Aditya College of Engineering & Technology
- Institutional Contact No: 9959176665
- Research Topic: Mechanical and Optical properties of Rare earth doped Glasses

Software Request Details

- Software Name: COMSOL(Multi Physics)
- Justification for Software Request: Glasses contained with rare-earth ions are significant for development both optoelectronics and photonics due to their various properties such as like up- and down-transformations, nonlinear optical features. But cost of rare earth is very high in order to research, if we can predict their optical properties by using COMSOL, so that we can easily alter composition to enhance their mechanical and optical properties. COMSOL can predict optical properties like absorption, scattering, and extinction, helping to understand and optimize optical devices and materials researchers can tailor the optical properties of glasses for specific applications, such as imaging. The addition of rare earth ions can alter the strength, hardness, and other mechanical characteristics of the glass, depending on the specific dopant and host material. For this purpose I need Ray Optics Module, Wave Optics Module & corrosion module and also for elasticity Structural Mechanics Module is required.
- Guide/Supervisor Approval

I, Dr. Adireddy Ramesh (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: 02/06/2025

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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