

I-STEM Software Request - Guide Approval Form

User Details

- Name of Researcher: SNIGDHA ROY CHOWDHURY
- User Type: ☐ Ph.D. Scholar ☐ Postdoctoral Researcher ☐ Bachelor's ☒ Masters
- Institution Name : IIIT GUWAHATI
- Institutional Contact No: _____
- Research Topic: PHOTOACOUSTICS FOR MEDICAL: BREAST CANCER DETECTION

Software Request Details

- Software Name: COMSOL MULTIPHYSICS
- Justification for Software Request: [Provide detailed explanation of how the software supports your research objectives] - Please see Annexure-I.

Guide/Supervisor Approval

I, Dr. Mohd Mansoor Khan (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: 21/08/2025

Assistant Professor
Indian Institute of Information
Technology Guwahati

Official Stamp/Seal: [Space for Institutional Stamp]

Important Notes

- This form must be signed and scanned
- The scanned copy must be uploaded with the software request
- Electronic signatures are acceptable if from an official institutional email

JUSTIFICATION FOR SOFTWARE REQUEST

- 1> COMSOL will help me simulate how laser light interacts with different breast tissues to generate photoacoustic signals for tumor detection.
- 2> It will allow me to model both heat generation and acoustic wave propagation together, which is essential for understanding breast cancer imaging.
- 3> Using COMSOL, I can optimize parameters like wavelength, tissue layers, and detector settings to improve the accuracy of photoacoustic breast imaging.

Singha Roy Chowdhury
21/08/2025