

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Bhavana Gadad
- **User Type:** ☒ Ph.D. Scholar ☐ Postdoctoral Researcher ☐ Bachelor's ☐ Masters
- **Institution Name:** Manipal Institute of Technology Bengaluru, MAHE, Bengaluru 560064
- **Institutional Contact No:** 8123158384
- **Research Topic:** Electrokinetic Flow in Microfluidic Systems

Software Request Details

- **Software Name:** COMSOL Multiphysics
- **Justification for Software Request:** The requested software, COMSOL Multiphysics, is essential for carrying out advanced simulations in my research on electrokinetic flow within microfluidic systems. This involves modeling complex interactions between electric fields and fluid flow, which require robust multiphysics coupling capabilities. COMSOL provides dedicated physics interfaces for electrostatics, fluid flow, and species transport, allowing accurate simulation and analysis of electroosmotic and electrophoretic phenomena. We are currently collaborating with IIT Guwahati on this research, focusing on the theoretical and numerical aspects of electrokinetic transport. Access to COMSOL will enable us to simulate and validate our models effectively and support the development of efficient microfluidic devices.
- **Guide/Supervisor Approval**

I, Dr. Rajashekhar V Choudhari,

- 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: 02/07/2025



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