

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Sudarshan V
- **User Type:** ☐ Ph.D. Scholar ☐ Postdoctoral Researcher ☒ Bachelor's ☐ Masters
- **Institution Name:** Indian Institute of Science, Bangalore
- **Institutional Contact No:** +91 80 2293 2228
- **Research Topic:** Studying behaviour of Janus Particles in Non-Newtonian fluids

Software Request Details

- **Software Name:** COMSOL Multiphysics version 6.0 (Basic + Advanced modules)
- **Justification for Software Request:** COMSOL Multiphysics enables accurate simulation of Janus swimmer dynamics in non-Newtonian fluids by solving coupled fluid-structure interactions using the finite element method, helping analyse complex rheological effects and propulsion mechanisms in microscale environments.

Guide/Supervisor Approval

I, Dr. Shubhadeep Mandal (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: Shubhadeep Mandal

Date: 06/06/2025

Dr. Shubhadeep Mandal
Assistant Professor

Official Stamp/Seal: **Department of Mechanical Engineering**
Indian Institute of Science
Bengaluru - 560 012, INDIA

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