

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Sheth Chaitanya Umesh
- **User Type:** ☒ Ph.D. Scholar ☐ Postdoctoral Researcher ☐ Bachelor's ☐ Masters
- **Institution Name:** The Maharaja Sayajirao University of Baroda
- **Institutional Contact No:** +91 8320580237
- **Research Topic:** Fluid Dynamics

Software Request Details

- **Software Name:** COMSOL
- **Justification for Software Request:**

My current research focuses on fluid dynamics, where accurate simulation of fluid flow behaviour is important for understanding various physical phenomena. COMSOL Multiphysics offers a wide platform for modeling a wide range of fluid flow problems, which makes it perfect for my academic research.

Access to COMSOL through the I-STEM will allow me to do detailed numerical simulations that are usually difficult to perform using other techniques. I plan to use the software to model and analyze flow of biofuels, which is the focus of my research objectives. These simulations will help in gaining detailed knowledge of governing equations and in validating results.

Moreover, COMSOL's ability to deal with coupled problems with other domains such as heat transfer or structural mechanics suits well with the interdisciplinary nature of my work. Having access to this software will highly support my research and will help improving the quality and impact of my findings.

Guide/Supervisor Approval

I, Prof. H. R. Kataria (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: _____

Professor

Date: 30/07/2025

Original Stamp/Seal:

Department of Mathematics
Faculty of Science
The M.S. University of Baroda
Vadodara-390 002



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