

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** JOREEGALA NITHISHA
- **User Type:** ☐ Ph.D. Scholar ☐ Postdoctoral Researcher ☒ Bachelor's ☐ Masters
- **Institution Name :** INDIAN INSTITUTE OF TECHNOLOGY INDORE
- **Institutional Contact No:** 731-660-5110
- **Research Topic:** Underwater soft robotics

Software Request Details

- **Software Name:** COMSOL MULTIPHYSICS
- **Justification for Software Request:** For my project on an under water soft robot, COMSOL Multiphysics is ideal as it integrates multiple domains in one platform. The Heat Transfer and AC/DC modules model SMA heating, cooling, and electrical actuation, while the Structural Mechanics and Multibody Dynamics modules capture deformation, locomotion. The Material Library ensures accurate SMA and elastomer properties, and the CFD module enables accurate prediction of swimming performance under realistic underwater conditions. Together, these modules enable precise prediction and optimization of actuation and locomotion, reducing trial-and-error in prototyping.

Guide/Supervisor Approval

I, Prof. I.A.Palani (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

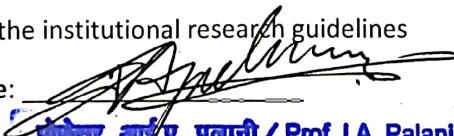
Guide/Supervisor Signature: _____

Date: _____

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


प्रोफेसर आई.ए. पलानी / Prof. I.A. Palani
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