

I-STEM Software Request - Guide Approval Form

User Details

- Name of Researcher: Rahul Somnath S
- User Type: Ph.D. Scholar
- Institution Name : SRM Institute of Science and Technology
- Institutional Contact No: 044-27417777
- Research Topic: Ageing of transformer oil

Software Request Details

- Software Name: COMSOL Multiphysics

Justification for Software Request: The requested COMSOL Multiphysics modules enable coupled electro-thermal-hydrodynamic modelling of natural ester-based transformer insulating oils under realistic operating and ageing conditions. The software supports simulation of electric field stress, heat transfer, buoyancy-driven oil flow, moisture transport in oil-paper insulation, and bubble/contaminant dynamics under high electric stress. These capabilities are essential for evaluating ageing mechanisms, dielectric reliability, and cooling performance prior to experimental validation.

Guide/Supervisor Approval

I, Dr. Sowmmiya U (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: 8/11/26

Dr. U. SOWMMIYA

Associate Professor / EEE

SRM Institute of Science & Technology
Kattankulathur

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