

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Cyril G Thottumkal
- **User Type:** Ph.D. Scholar
- **Institution Name:** Mar Athanasius College of Engineering, Kothamangalam
- **Institutional Contact No:** 9656283263
- **Research Topic:** Development and Optimisation of Graphene Oxide Modified Recycled Aggregate Concrete Reinforced with Carbon Fiber Waste for Electromagnetic Shielding Applications

Software Request Details

- **Software Name:** COMSOL Multiphysics software
- **Justification for Software Request:** I am currently conducting research on electromagnetic shielding concrete, with a focus on numerical modelling and simulation of electromagnetic wave attenuation and material behaviour in cementitious composites containing conductive inclusions. The proposed study requires advanced Multiphysics-based simulation to accurately capture electromagnetic field interactions, wave propagation, and coupled material responses within heterogeneous concrete systems. In this context, COMSOL Multiphysics is particularly well suited due to its comprehensive capabilities in electromagnetic wave modelling, RF analysis, AC–DC simulations, and Multiphysics coupling. I therefore kindly request access to COMSOL Multiphysics software, preferably with the RF Module and/or AC–DC Module, for academic research purposes. Access to this software will significantly enhance the accuracy and scientific rigor of the proposed numerical investigations.
- **Guide/Supervisor Approval**

I, Dr. Elson John (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: _____

Dr. ELSON JOHN
Professor & Head

Date: 21/01/2026

Official Stamp/Seal:

Department of Civil Engineering
M.A. College of Engineering
Kothamanglam - 686 666

