

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Anne Jose M
- **User Type:** Ph.D. Scholar
- **Institution Name** : Sree Kerala Varma College, Thrissur
- **Institutional Contact No:** 0487-2380535
- **Research Topic:** TiO_2 @ CD/CNT POLYMER NANOCOMPOSITES FOR VARIOUS APPLICATIONS

Software Request Details

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

One of the objectives of this research is to **study photothermal properties of composites by simulation using COMSOL Multiphysics.**

Phototherapy, which mainly includes photothermal treatment (PTT) and photodynamic treatment (PDT), is a photo-initiated, non-invasive and effective approach for cancer treatment. In phototherapy, light is converted into heat and the heat is used to destroy tumours, cancers etc. This application is essentially making use of the efficiency of a material to convert light to heat. Though many experimental studies are appearing in this area, it is yet to be studied in depth using more simulation works. COMSOL Multiphysics is a cross-platform simulation software using which, thermal effects of light can be studied.

- **Guide/Supervisor Approval**

I, Dr. Bindu Krishnan (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

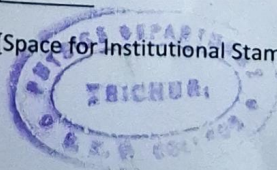
Approval Confirmation

- I approve the software request
- The software aligns with the researcher's research objectives
- The request meets the institutional research guidelines

Guide/Supervisor Signature: Bindu Krishnan

Date: 3/2/2026

Official Stamp/Seal: [Space for Institutional Stamp]



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