

I-STEM Software Request - Guide Approval Form

User Details

- Name of Researcher: Nanditta Nandy
- User Type: ☒ Ph.D. Scholar ☐ Postdoctoral Researcher ☐ Bachelor's ☐ Masters
- Institution Name : Pondicherry University
- Institutional Contact No: 9040818300
- Research Topic: Plasma treatment of organic pollutants in aqueous medium

Software Request Details

- Software Name: COMSOL
- Justification for Software Request: [Provide detailed explanation of how the software supports your research objectives] My research involves modeling the interaction of a non-equilibrium plasma jet with a liquid phase. COMSOL, with its Plasma Module, will allow me to simulate the behavior of the non-thermal plasma jet inside solution and understand how reactive species are generated. The CFD module will help to visualize the plasma jet flow dynamics and its injection and mixing behaviour in the liquid. The Heat transfer Module will help in analyzing the thermal effects by Plasma. The Chemical Reaction Engineering module further enable to model complex reaction kinetics. Thus, COMSOL's multiphysics capabilities will offer a comprehensive and integrated platform to simulate the real-time physical, chemical, and thermal interactions in my system.

Guide/Supervisor Approval

I, Dr. Yugeswaran Subramaniam (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: [Signature]

Date: 29/5/25

Official Stamp/Seal:

Dr. YUGESWARAN SUBRAMANIAM
UGC - Assistant Professor
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