

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** Mr. Bobbadhi Gangadhara Rao
- **User Type:** [*] Ph.D. Scholar [] Postdoctoral Researcher [] Bachelor's [] Masters
- **Institution Name:** VIT AP University
- **Institutional Contact No:** 0863 2370362,9437746198
- **Research Topic:** Simulation of Microfluidics and Optics

Software Request Details

- **Software Name:** COMSOL Multiphysics
- **Justification for Software Request:** *The COMSOL Multiphysics software will be utilized for the simulation and optimization of microchannel designs incorporating dielectrophoresis (DEP) for the selective separation of biomolecules. Its advanced multiphysics capabilities enable precise modeling of complex interactions within microfluidic environments, allowing for the fine-tuning of parameters to enhance separation efficiency. Additionally, the Optics and Electromagnetics modules will support the simulation of evanescent wave absorption phenomena, crucial for detecting plasmonic-labeled biomolecules. These tools will facilitate the accurate analysis of optical responses, thereby enabling the development of highly sensitive biosensing platforms.*

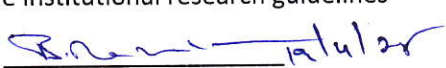
Guide/Supervisor Approval

I, Dr. Bandaru Ramakrishna (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

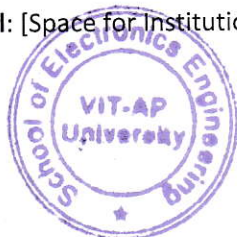
Approval Confirmation

- 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. Bandaru Ramakrishna)

Date: 19/4/25

Official Stamp/Seal: [Space for Institutional Stamp]



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