

I-STEM Software Request - Guide Approval Form

User Details

- **Name of Researcher:** _GURRALA NAGAJYOTHI
- **User Type:** ☐ Ph.D. Scholar ☐ Postdoctoral Researcher ☒ **Bachelor's** ☐ Masters
- **Institution Name** : **Mother Theresa Institute of Engineering and Technology**
- **Institutional Contact No:** 6385788564

Research Topic: An Innovative Two-Level Model for Electric Vehicle Parking Lots in Distribution Systems with Renewable Energy

- **Software Request Details**
- **Software Name:** MATLAB
- **Justification for Software Request:**

MATLAB is chosen for this study due to its powerful toolboxes and flexibility in modeling complex power systems, including electric vehicle parking lots integrated with renewable energy in distribution networks. It supports advanced simulation, optimization, and visualization, making it ideal for implementing the proposed two-level model. With toolboxes like Simscape Electrical and Optimization Toolbox, MATLAB enables precise modeling of EV behaviors, renewable intermittency, and grid constraints. Its ability to handle nonlinear, multi-objective problems and provide reproducible, research-grade results makes it a preferred platform for analyzing planning and operational strategies in smart energy systems with high EV and renewable penetration.

- **Guide/Supervisor Approval**

I, Dr.S.Sooriya Prabha ,

- 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: 01.09.2025

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



Dr. S. Sooriya Prabha
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