

I-STEM Software Request - Guide Approval Form

User Details

- ✓ **Name of Researcher:** _____ P.POORNIMA _____
- ✓ **User Type:** [☒] Ph.D. Scholar [] Postdoctoral Researcher [] Bachelor's [] Masters
- ✓ **Institution Name** : AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY
- ✓ **Institutional Contact No:** +8754541025
- ✓ **Research Topic:** Artificial intelligence based energy management and grid integration of solar power system

Software Request Details

- **Software Name:** MATLAB

Justification for Software Request: The requested software is essential for simulating and modeling key components of my research system.

It enables accurate design and analysis of renewable energy systems using real-world parameters.

The built-in toolboxes support development and testing of AI-based MPPT and energy management algorithms.

It provides efficient data visualization and result validation tools.

Algorithm performance can be compared and optimized using its integrated solvers.

The software helps reduce the need for costly physical prototypes.

It ensures reproducibility and aligns with international research standards.

Hardware-in-the-loop capabilities support real-time simulation and control testing.

Its support for multi-domain co-simulation enhances system-level analysis.

Overall, it significantly accelerates research progress and output quality.

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Guide/Supervisor Approval

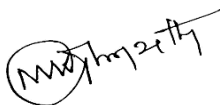
I, Dr.K.Boopathy (Guide/Supervisor Name),

- 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

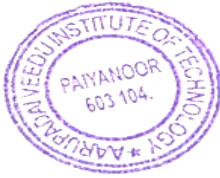
- I approve the software request
- The software aligns with the researcher's research objectives
- The request meets the institutional research guidelines

Guide/Supervisor Signature:



Date: 25.7.25

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