

## **DESIGN AND SIMULATION OF A GRID-CONNECTED SOLAR PV SYSTEM WITH INTEGRATED BATTERY ENERGY STORAGE**

(Started from 20<sup>th</sup> January, 2025, work is in Progress)

- Attempts to maximize energy efficiency, enhance dependability, and minimize losses in the entire electrical system by optimizing power flow between the solar PV system, battery storage and the grid.
- To system performance and successful integration for a reliable and effective power supply, MATLAB is utilized.