FINAL YEAR PROJECT REPORT

PERTURB AND OBSERVATION CONTROLLER BASED BUCK BOOSRT CONVERTER FOR MAXIMUM POWER POINT TRACKING

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STATEMENT OF SUBMISSION

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ABSTRACT

This thesis gives the whole idea of theme of the MPPT battery charger for PV Panels to the reader. Solar power is becoming most important from of power technology that will hopefully lead us away from depending on exhaustible energy sources. We explained how exactly we can use the simple yet effective controller for the solar panel in sequence to find the maximum power. We also provided the modeling techniques used for its development and application. Being a maximum power point tracker (MPPT), we could follow various MPPT algorithms and control methods but we have used Perturb and Observe method which best suits for simple implementation.

PROTEUS and MATLAB Simulink are used for simulation which is helping hand in hardware implantation. Complete designing procedure and hardware charge controller. The result and verification done in the report explain the validation of the project made. Hence, the report explain the overall design, modeling and implementation of the MPPT charge controller to enhance the efficiency of solar panel and to utilize the solar power in the best way we can.

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DECLARATION

We hereby declare officially that our project work entitled, Maximum Power Point Tracking based solar battery charging regulator, submitted to the department of Electrical Engineering; under school of Engineering at University Of Management And Technology, is a record and written evidence of our work performance under the guidance of Mr. Fahad Usman (Lecturer at EE Department). This Document Along with its project work is submitted in the partial fulfillment of the requirements of the award of the Degree of Bachelor Of Science In Electrical Engineering .The results embedded in this Document and performance done is not done or submitted to any other University or Institute for the award of any Degree or diploma.