International Journal of Advanced Research Trends in Engineering and Technology (IJARTET)
Vol. 1, Issue 3, November 2014

Implementation of Solar Tracking Mechanism Based On Mobile PV Panel

L.Megala[1], B.Devanathan[2]

Assistant Professor, Department of ECE, V.R.S. College of Engineering & Technology, Arasur, Villupuram, Tamilnadu, India [1]

Lecturer, Department of ECE, University College of Engineering, Kakuppam, Villupuram, India [2]

Abstract: This paper presents the Design of an automated solar tracking system is discussed in this paper. The objectives of the proposed work are to design an automated tracking technique using Light Dependent Resistance (LDR), and solar panel power output to position the solar panel to absorb maximum energy. For positioning the solar panel DC motor is used, each for positioning in a plane. These DC motor was driven by a Programmable Logic Controller (PLC). The controller is designed using wonder ware software considering the inputs from LDR Sensor and solar panel output to drive the DC motor connected to solar panel. The energy saves to the Li-Po battery. The energy applied to the vehicle. Then the whole program is implemented with the help of PLC. The system was tested on a real time and results showed the proposed technique had improved the efficiency of solar panel by an amount of 25%.

Keywords: PLC, photovoltaic, DC motor, Li-Po Battery, LDR sensor.