

IoT Solar Power Monitoring System

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Abstract- As we know day to day use of solar panels, it is difficult to know how much power does one panel gives to user. To overcome this problem we introduced “IoT solar panel power monitoring system”. So that user can identify how much power does one panel can give to user to use.

Index Terms- solar panel, solar power, solar

Solar power plants need to be monitored for optimum power output. This helps retrieve efficient power output from power plants while monitoring for faulty solar panels, connections, and dust accumulated on panels lowering output and other such issues affecting solar performance. So here we

propose an automated IoT based solar power monitoring system that allows for automated solar power monitoring from anywhere over the internet. We use PIC microcontroller based system to monitor solar panel parameters and wifi module esp8266 to connect system to internet. Our system constantly monitors the output voltage, current and power of two solar panels and transmits this data to IoT system over the internet. Here we use Ubidots to transmit solar power parameters over the internet. It now displays these parameters to the user. This makes remotely monitoring of solar plants very easily and ensures best power output.

Block Diagram:

