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System to Measure Solar Power

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Abstract: *The solar-energy market is one of the most rapidly expanding renewable energy markets in the world. presently we have seen a significant increase in requests for measuring equipment for solar-energy applications. This presented work aims to measure solar energy through multiple sensor data acquisitions. A solar panel is used as it continues to track sunlight. Here, different parameters for a solar panel like light intensity, voltage, current, temperature are measured and measured data is sent to Arduino which is show them an on-LCD display. Nowadays, the Internet of Things (IoT) is a developing technology that connects things through a communication protocol and a cloud platform to make them smarter and more user-friendly. Basic characteristics such as current, voltage, irradiance, and temperature will affect the solar panel's efficiency. As a result, a real-time solar monitoring system is required to improve the panel's performance by comparing it to the experimental result and taking preventive action.*

Keywords: Solar Panel, Arduino Uno, Temperature Sensor, Current Sensor, Intensity Sensor

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