

Solar-powered meteorological monitoring station

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Abstract: In the context of the increasing demand for clean energy and automation in the hydro-meteorological sector, this topic focuses on designing and deploying a weather measurement system based on renewable energy. The goal is to build an efficient meteorological monitoring station using solar panels as the main energy source. Through a combination of theoretical research and experimental methods, this topic not only contributes to promoting the development of clean energy technology but also brings high practical value in providing timely and reliable weather data for environmental management agencies. The expected outcome of the project is a sustainable, cost-effective, and easily scalable system.

Keywords: Meteorological monitoring station, solar panel, renewable energy, automation, weather data