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Performance Improvement of Photovoltaic Module at Different Tilt Angle in Kuwait

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Abstract : In this paper we will study the performance of a Silicon Photovoltaic (PV) system with different tilt angle arrangement in Kuwait (latitude 30˚ N). In this study the PV system is installed facing south, collecting maximum solar radiation at noon, and their angles are from 00 to 900 respectively, during full year at the Solstice and Equinox periods and aiming for a higher angle than 300 with competitive output power. The results show that the performance and the output power of the PV system with 50˚ tilt angle, is equivalent to the latitude tilt angle (30˚) during a full year.

Keywords : photovoltaic model, tilt angle, solar collector, PV system performance, State of Kuwait
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