Maximum Power Calculation of Photovoltaic Modules at Different Irradiance Levels

The Performance of photovoltaic (PV) solar module is widely affected by the level of solar irradiance, or in other form the angle of incident of solar radiation. PV systems are one of the next generation's renewable energy sources for our world energy demand. In this study, the we investigate the effect of angle of panel orientation on performance of PV module. The study includes one set PV module adjusted at different angles in both x and y directions. In these positions the values of current, voltage, power and solar radiation intensity were measured from the real solar radiation. The maximum power can be obtained in which maximum values of solar intensity and maximum power were registered. In photovoltaic's the actual curve of the current voltage characteristic of a solar generator is often needed. The results are simulated with the aid of solar module analyzer.