

Photovoltaic array modeling and MPPT using artificial neural network.

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Abstract : The good operation of a photovoltaic system depends on weather conditions such as illumination and temperature, because for example in a mobile station powered by a photovoltaic source, power supplied by the photovoltaic generator fluctuates when changing direction or during passage in poorly sunny, In other words, a good photovoltaic system is where the power delivered by the photovoltaic generator is maximum whatever the conditions. In the present work, we will precede first time modeling of solar cells by neural networks, then, we will use this approach to track the point of maximum power regardless of the location of use and operating conditions.; ; ; .

Keywords : signal diode model, modeling, photovoltaic array, Neural Network, MPPT