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Abstract

Solar energy is clean and renewable source of energy and its decentralized property is appropriate well at the scattered state of the zones with low density of population. The cost of electricity from the solar array system is comparatively more than the electricity from the utility grid. Therefore, it make sense to operate the PV system at maximum efficiency by maximum power point tracking (MPPT)at any given environmental condition. In this work, the neural

network (NN) back propagation algorithm is used to control the operation of the PV array for maximum power point extraction. Two error functions are used. The first is classical error function and the second is a modified error function which takes into consideration the derivative of the error function also. The results obtained are compared and discussed in the current study.

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