Abstract

The power generation capacity of solar photovoltaic systems (SPV) depends on input solar radiation (insolation) and ambient temperature. To improve the design efficiency of the system, maximum power point tracking (MPPT) techniques has to be utilized while installing SPV systems. A comparative analysis of three maximum power point tracking techniques for solar photovoltaic systems has been presented in this paper. Along with this, various advantages of
using genetic algorithm (GA) as a MPPT approach for SPV systems has been projected. The proposed methods are taken from the literature from previous research articles to the earliest applied ones and it has been revealed that three distinct methods are implemented with number of variations. The present study can become a bench mark for designing of practical SPV systems with considerable improvement in efficiency.

References


Index Terms

Computer Science Circuits And Systems

Keywords

Overview of Genetic Algorithm Technique for maximum Power Point Tracking (MPPT) of Solar PV System