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Abstract

This paper takes into account a hybrid power system consisting of solar and wind units. Both units are connected to the utility grid. The paper concentrates on the use of multi-junction solar cell (MJSC) in order to increase the conversion efficiency. The DC output of solar photovoltaic (PV) system is raised by using boost convertor. MPPT technique is used to maximize the output of solar system. A multilevel inverter is used to convert DC to AC power. In wind system, PMSG is used which is derived by a turbine. The modeling and analysis of the above

system is carried out in MATLAB using Simulink toolbox

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Computer Science

Index Terms

Power System

Keywords

Mpvt, Multi-level Inverter; Multi-junction Solar Cell; Pmsg; Boost Converter

