DESIGN OF RENEWABLE ENERGY BASED PEVs CHARGING STATION WITH ENERGY MANAGEMENT TECHNIQUE

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Abstract:

Currently more attention is turned on Electric Vehicles (EVs) because of their low energy dependence, low emission and high fuel economy. In the near future, there is a need for more Electric Vehicle charging station. It will increase the demand of electrical energy. To power the charging station in future, the small-scale and renewable energy sources are needed. This paper proposes the design of Plug-in Electric Vehicles(PEVs) charging station with Super capacitor and different renewable energy sources like wind, PV and Fuel cell. These energy sources are controlled according to the demand of the charging station with embedded controller. In this controller the energy management is also obtained. This proposed system has simulated in MATLAB/SIMULINK environment.

Issue: 17-Special Issue

Year: 2017

Pages: 856-869

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