

ABSTRACT

A solar charge controller with function to dissociate the battery during overcharging or deep-discharging and to protect the battery during overvoltage or high-current as well as to reconnect the battery or load when the faults are removed. As solar power isn't a harmonious source of power, it should be regulated to a particular operating voltage and current by a DC-DC Buck Boost motor with PID controller to make sure the constant affair voltage and current. Without charging the battery from the solar panel, the MPPT charge regulator made by us gives colorful kinds of protection like as night help current protection, load control, over charge control, show battery charge position and short circuit protection. These are used to gain the accurate and effective cut off or cut in action which is capable of guarding the battery and load whereas LED index is to show the status of the systems. All control functions are to be applied in software through Arduino. This solar charge controller is to be developed in order to make sufficiently effective and reduce the price of charge regulator to an affordable position. This can be further progressed by vindicating and validating the simulation affair from PROTEUS software.