

# Implementing Different MPPT Algorithm For Solar Charge Controller

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**Abstract:** *In this paper, MPPT methods such as Perturb and Observe (P and O), Incremental Conductance and Fractional open Circuit Voltage method has been studied. Also, two converter topology, Buck and Synchronous buck converter has been Studied. Hardware implementation of the solar charge controller is done based on the software simulation data and results. Hardware is developed for 1kW system and 48V, 100Ah battery is going to be charged with it. Two MPPT method with synchronous buck converter has been implemented in hardware. This designed hardware has been tested with different irradiance condition. This proposed system can be used in golf cart to make it a stand-alone system with taking care of all protection measures.*

**Keywords:** MPPT.