

**PROTEUS BASED SIMULATION DESIGN OF PORTABLE
CHARGE CONTROLLER**

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In the name of ALLAH, the most kind and merciful and praise be upon the prophet MUHAMMAD S.A.W

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ABSTRACT

This thesis presents design of portable charge controller by using Proteus software. Charge controller is designed to charge a battery with rating voltage of 12V and has the ability to indicate its fully charged condition. The charge controller is powered by common household socket outlet. A rectifier circuit is designed to make the input current and voltage suitable to be applied to the charge controller. The results of simulation based on battery capacity indicator and output voltage stability are obtained. A prototype was constructed and tested for their capability to indicate fully charging condition of battery and voltage stability of the output. The results obtained showed that the design of charge controller works perfectly in simulation.

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