

RANCANG BANGUN SISTEM FAST CHARGING BATERAI MOBIL LISTRIK

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ABSTRACT

The battery is a very important component as a source of energy to drive an electric car. The capacity of using the battery adjusts to the load supplied. The use of batteries in addition to supplying loads is a storage of electrical energy. Methods of storing electrical energy in batteries can use a generator or power supply. This paper discusses the optimal charging system design for lead-acid-calcium batteries in the UNY 2020 electric car. The proposed charging system uses constant current (CC) and constant voltage (CV) based on the 3 stage charging process used. In the design, the characteristic curve of voltage, current, state of charge (SoC) is obtained. The design simulation results show the battery performance during the charge and discharger cycle processes for 75 times with the bulk stage, absorption stage, and float stage.

Kata Kunci: *battery, constant current, constant voltage, lead-acid calcium, state of charge*