

ABSTRACT

An electrical energy is one of energy forms has important role in progressing of human civilization. The storage of energy is very important to support the provision of supplies in a relative long time on of them is battery. The battery is on of the media storage of electrical energy that can be used for any time and can be moved easily from one place to another. There are several factors that affected in the performance of batteries that is not overload when filled and emptied process. There are some important indicatorson the batteries such us strained in every cell out or in currentto the battery can be observed by using the parameters of state of charge (SOC). By using parameters of SOC, the battery can show its condition safety when filled and emptied process to improve battery's life. One of SOC method which is easy to be implemented and mostly used themethod of *coulomb* counting. The basic principle of *coulomb* counting to conduct amount of in or out current of battery.

SOC value obtained by using a 15-watt light load of 9.6 ohms at minimum charging process is 0%. and a maximum of 100%, while in the process of emptying the resulting SOC maximum value of 99.99% and a minimum 0:33%. In experiments using 35watt resistor 77ohm load on the charging process results obtained SOC is 21:51% minimum. and a maximum of 100%, while in the process of emptying the SOC maximum value of 99.99% and a minimum of 0%.

KeyWords: Electrical Energy, battery, SOC, Coloumb Counting

