

ABSTRACT

The continued development of electronic technology, forms the source of supply increasingly diverse, is one of the most dominant secondary battery is used because it can be recharged. By applying the principles of thyristor component work, the authors designed a battery charging system using a controlled rectifier circuit. Thyristor components are given here known as SCR (Silicon Controlled Rectifier). SCR is a semiconductor that uses a gate (G) as the controlling. And the SCR is a common component, because it is easily found.

One of the functions of the SCR as an electronic switch, it will be used to rectify the voltage sourced from AC PLN to charge the battery. Before the voltage is rectified to charge the battery, system will reduce the ripple voltage using filters. The charger systems using current sensor and voltage sensor that functions as a feedback to Microcontroller then the system regulating the output voltage, for charging the battery controlled.

In this final project have made the battery charger system with controlled rectifier circuit semiconverter symmetric, the resulting voltage can be regulated to charge the battery. The system will automatically disconnect (open circuit) when charging is complete to avoid being overcharged. By using the LCD, the system displays the current and voltage as well as the status of the battery.

Keywords: SCR, Rectifier, Microcontroller, LCD