

PENGEMBANGAN SOLAR PANEL DAN INVERTER SEBAGAI ALAT UNTUK CHARGING BATERAI PADA SEPEDA LISTRIK

by Eko Prianto, Sigit Yatmono, Andik Asmara

ABSTRACT

This research aims to design a battery charging system using an inverter as a provider of electrical energy in the Electric Bicycle, find out the performance and effectiveness of charging the battery using an inverter compared with the system that has been installed. The method used in this research is Research and Development by developing battery charging system using inverter on commercial electric bike (SLN) that has been made. The results showed that charging the commercial Electric Bicycle has a more effective value and faster battery charging process using an inverter in a 300wp solar panel that is used as its main energy supply. The battery charging system using an inverter as a provider of electrical energy in the SLN takes 10,182 hours to charge 48 volts to full. So the process of charging the battery using an inverter is more effective than the system that has been previously installed with a ratio of charging the battery of 1: 2.94 or three times more effective than the previous system.

Kata Kunci: *Electric Bike, Solar Panel, Inverter*