

ABSTRACT

PROTOTYPE DESIGN OF THE AUTOSWITCH COORDINATION HYBRID POWER PLANT USING CURRENT SENSOR AND VOLTAGE SENSOR BASED BY MICROCONTROLLER

BY

EDY SETYO BAYU AJI

Hybrid Power Plant system is composite of some renewable energys whose assambled parallel to suply of the load network. One reason cause the renewable energy dependent on natural conditionds, then the renewable energy must be coordinated in power distributions prosses. Besides of the natural conditions, load conditions whose allways fluctuate become to coordinations of the source corresponding with conditions of the load and sources.

The Prototype autoswitch coordination was made to control coordinations hybrid power plant source based change of the loads and conditions of the source. The change of loads are being detected with current sensor and conditions of the sources are being detected with voltage sensor. Increase of the loads will be detected with increase of the currents, after then will be processed by microcontroller based rattung current on the predetermined. With consider of the voltage on the sources then the microcontroller will take execution what of the sources can supply power or not.

The result coordination by autoswitch coordination can working be right. Coordinations process is done by taking into account the current changes dan the voltage athe the sources. Coordinations can improve the quality of voltage, This can be seen from the phenomenon of the voltage increase at the system when the sources increases.

Keywords: hybrid, autoswitch coordination, current sensor, voltage sensor