ABSTRACT

Energy sources that are commonly used in the world today are from fossil. The energy from fossil fuels are limited. Solar panels (Photovoltaic) is one of the renewable energy and can be used as an alternative to replace fossil energy. Solar panels use solar energy or solar power to generate electricity.

The power generated by the solar panels is not optimum for a particular load. The power generated by the solar panels is always changing and influenced by the level of light (irradiance) and temperature. Therefore we need a way to be able to maximize the power output of solar panels. Maximum Power Point Tracking (MPPT) is a method for finding maximum power point. In this final design of the MPPT is used to locate the point of maximum power generated at solar panels.

MPPT controllers are used in the design of this system using fuzzy logic. The voltage and current from the solar panels will be the input to the fuzzy logic. The output of fuzzy logic in the form of a PWM signal that will regulate the process of switching boost converter design MPPT. Experimentation shows that output power from PV increase 15.9%.