

Abstract

One alternative is the use of solar energy utilization as an energy source. There are several ways to use the sun, one using photovoltaic technology, which is a solar power technology that uses solar cells to convert sunlight into electricity. However, in reality the conventional solar cell still has a relatively low efficiency and cost of solar cell investment is still very expensive. In the preparation of this final project is Design and Implementation Maximum Power Point Tracking On Photovoltaic With Fuzzy Logic Controller. MPPT is electronic system design that serves to track and find the point of maximum output power of photovoltaic. MPPT system is not a physical shape but it is a system designed to find the greatest power and is used to improve the efficiency of a system. MPPT system requires resources, converters, controllers and load as an output. One method of MPPT system is the fuzzy logic controller is to set the reference voltage, temperature, and irradiation which will produce the duty cycle. The reference voltage photovoltaic forwarded to buck converter to be converted into DC voltage is lower. This phase continues with a different duty cycle values to be found working points which can generate maximum power for photovoltaic. The result of this final project is to maximize the solar cell to be more efficient and effective.

Keyword : Photovoltaic, MPPT, Fuzzy Logic, Buck Converter

