

ABSTRACT

Partially micro hydro power plants using generator DC, thus the necessary electronic devices buck converter which is one type of dc-dc converter which serves to change the amount of electricity to the transmission of energy storage or from the battery to the load electricity use. In buck converter's circuits inductor component is used. Inductor component itself is also sensitive to disturbance magnetic fields around. If the device operates in buck converter micro hydro generator then enables disturbance magnetic field emanating from the generator. Therefore, we need a special treatment to maintain the state of the system response although plagued system.

In this study will be tested using a buck converter with an adaptive control method of proportional Dahlin. This method is by using state of the system is expected to be known at all times, in order to know which treatment should be given to the system. In addition, these methods will be compared with conventional proportional control method.

Keywords: Buck Converter, Micro hydro, Magnetic Field Disturbance, Adaptive Control Method of Proportional Dahlin