

ABSTRACT

With the development of current technology and power plant potential especially potent abundant water power, that is why this small scale power plant is developed by utilizing water power that is called microhydro power plant (MPP). microhydro power plant is one of alternative energy that is very possible to be developed in countries with abundant water power source like Indonesia.

But in reality many MPP that has been running is not functioning optimally and one of the problem is the water supply on the system itself. thus, to simplify the research of this microhydro power plant there needs to be a prototype model that controls the water flow in MPP, that functions to make the use of water to run MPP's turbine itself become more efficient. In the design of water flow control prototype will be used ultrasonic sensor as feedback, arduino uno as the controller and generator also small scale water turbin.

The outcome of this final project is water controller for water flow control system so the turning of the turbin will be more efficient even though the water that flows to the MPP is in small debit. Finally the water will not be wasted and its flow could be controlled.

Keywords : electric energy, water power, MPP, ultra sonic, arduino