

## **ABSTRACT**

In Indonesia, demand for electricity in residential sector uses more than the other sectors. Then, most of the power plants in Indonesia are still using diesel power or other resources than can't be renewed, while the resources are gradually depleted, and needs for electricity are increasing day by day. Thus, alternative energy are needed from other resources.

In this Research, we will design a Micro-Hydro Powerplant that the application is done at the rainwater drainage and the design is quite easy with the materials which are quite easy to find. The waterfall in the vertical pipeline will be used to drive a turbine generator. Generator which is used is Alternator. The voltage generated will be used later for loads.

Hopefully, one of this Powerplant could produce maximum electrical energy for each test place.

Keywords: *Micro-Hydro Powerplant, Rainwater Disposal Pipe, Alternator.*