

## **ABSTRACT**

### ***DESIGN AND IMPLEMENTATION OF MICROHYDRO ELECTRICITY ENERGY WITH PUMPED STORAGE***

*Hydro electric power plant is a current energy which has been generated from a water movement (called as water potential energy), water potential energy is used to give an input to water turbine. Water potential energy will give an input to the water turbine and will make a rotor from water turbine rotate to create current energy.*

*In this final project the writer will will design and implement a micro hydro electric pumped storage with a metode who identic with a hydroelectric plant in the smart home, it used as a backup power in the smart home. a lower place storage will send the water to a higher storage with a PV power. When the electrical load is over than PV can be give or when the battery can't supply enough energy to the load, then pumped storage will opened and start working to produce an extra energy from a higher place of storage to the lower place of storage for smart home.*

**Key word kunci:** *pumped storage HydroElectric plant, Energy Storage*