

ABSTRACT

AC (Air Conditioner) is a device to cool the room. AC is currently used by the general public regardless of their social status. However, the use of AC consumes much electricity. Many forget to turn off the air conditioner when it is not in use. This unwise use of electricity will result in the depletion of electrical energy supplies.

In this research, an “AC Electric Load Control Device Using Fuzzy Algorithm” will be made using the Mamdani method. The fuzzy logic input includes the user having a set temperature and the outdoor temperature, which will produce an output in the form of an ideal room temperature. The type of AC that will be used is split AC, and the fuzzy logic method is the Mamdani method.

The results of this study, it was found that the average AC power consumption before the fuzzy system was applied was 1.22kWh, and after the fuzzy system was applied, it was 0.78kWh. A savings of 36.16% was obtained. Savings on the device will be adequate if the device works in areas with high temperatures. The device that is made is expected to be a solution to save power consumption in AC.

Keywords : *Air Conditioner, Saving, Fuzzy Mamdani.*