

## **Abstract**

**One characteristic of the information society is that they spend most of their time working inside buildings using artificial ventilation, the Air Conditioner (AC). Temperature and humidity in an AC room are significant factors that can affect the health and the productivity of people who work in the room. The problem is, the cooling process by the AC does not always go well that has to do with the age of the AC. The solution that will be made in this research is a device that can process the output data from the AC room which later will provide broken or not broken category. The sensor used to capture temperature and humidity is DHT11 which installed at NodeMCU. Category of output result from device will be displayed on ThingSpeak which will be considered for repairing the AC or not. This calculation is done with Fuzzy Logic because this algorithm can calculate values that contain ambiguity. The results of the test say that the calculation of the used of Fuzzy logic used has an accuracy rate of 79%**

**Keywords: Internet of Things, Fuzzy Logic, NodeMCU, DHT11 and AC**