Abstract

Indonesia has 2 seasons, dry season and rainy season. If the dry season comes, air temperature will increase compared to the rainy season. The temperature in the room becomes uncomfortable because of the increase in air temperature. Smart Fan is a tool that will be made in this study to deal with the problem of electricity consumption. In connection with this, this study proposes the design and implementation of Smart Fan to regulate temperature and humidity in a room based on microcontroller. The working system of the Smart Fan utilizes a thermoelectric module. The thermoelectric module is placed on the fan so that when there is air blowing from the fan, the air that blows will be cooler than the air absorbed by the fan. Microcontroller along with PIR sensor (Passive Infrared Sensor), DHT22 sensor, Peltier Cooling Modules and other supporting devices that have been configured so that the Smart Fan will turn on and turn off automatically according to the configuration that has been applied.

Keywords: : ***Smart Fan, microcontroller, peltier, PIR sensor, DHT22 sensor*****.**