

IMPLEMENTATION OF AUTOMATIC PESTICIDE SPRAYING SYSTEM BASED ON INTERNET OF THINGS (IOT)

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ABSTRACT

Spraying pesticides is still done manually by some farmers in Indonesia by utilizing a spray tank that is operated by carrying the tank, often the spraying is uneven and the use of pesticides is wasteful. The problem can be solved by making an automatic pesticide spraying tool based on the internet of things (IoT). This system consists of a NodeMCU ESP8266 microcontroller as a controller and a PZEM-004T sensor used to detect the voltage and current of the water pump, RTC is used as a time setting. This tool can be controlled remotely anywhere and anytime. So that plants are optimally maintained and can produce quality crops. The test results show that this tool can spray evenly and successfully perform automatic spraying. The water pump works with a voltage of 239 V and a current of 1.6 A with a flush time of 1 minute with an average voltage of 238.8 V and an average current of 1.57 A, this tool works well with a success rate of 100% success.

Keywords: *Pesticide, Automatic Spraying, IoT, NodeMCU ESP8266*