

# ***IOT-BASED AUTOMATIC PADDY IRRIGATION PROTOTYPE USING NODEMCU MICROCONTROLLER ESP8266***

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## ***ABSTRACT***

*Water is an important aspect of life. Agriculture is the main component to keep the soil moist. Usually farmers give water twice a day at the usual time, but at certain times it requires excess water to maintain soil moisture. Internet of things (IoT) technology can help farmers to detect the need for water in the soil. IoT technology can also help in the irrigation process by turning off or turning on the pump automatically. The IoT devices used to form this system include NodeMCU, soil moisture sensors and the Blynk application as IoT device control software. The Internet of Things (IoT) system can help irrigation systems in rice fields to maintain soil moisture. In addition, we can also measure the water level in the reservoir when using a reservoir to store water, using an ultrasonic sensor. With an accuracy rate of 98.95% and a precision level of 99.11%.*

***Keywords:*** *Internet Of Things (IoT), NodeMCU, Humidity, Blynk, Sensors.*