

ABSTRACT

One of the factors that is always an obstacle for farmers is drought and disturbances from various types of pests that damage pineapple plants. Therefore, an automatic plant sprinkler and pesticide system that can be monitored via a smartphone was created in this study using the BLYNK application. This system can do automatic watering according to soil moisture and can do pesticide watering based on day and time controlled by ESP8266 which is equipped with YL-69 sensor. The trial watering system had good readings comparable to a measuring instrument. soil moisture and Scheduling informed via smartphone. The BLYNK application is able to send information to carry out the watering automation function when the soil moisture is less than 5 RH (Relative Humidity) or 50% as a reference according to the characteristics of the pineapple plant. In addition, the trial of automatic pesticide sprinklers through the BLYNK application according to the user's wishes was also successfully carried out by determining the day and time on the BLYNK application. The results of this test conclude the success of making a plant watering system based on soil moisture information and also shows the ability of the BLYNK application to provide remote commands to the working system.

Keywords: sprinkler, esp8266, WiFi, blynk, yl-69,