

ABSTRACT

Water is an important element for hydroponic plants, water used for hydroponic plant growth must have good substances for hydroponic growth. Electrolysis of water can be used to convert water molecules H₂O into hydrogen (H₂) and oxygen (O₂) using electrical energy. Electrolysis occurs when two electrodes are placed in a container of water to drain iron nutrients in hydroponic plants.

To make it easier at long distances to see the current value, you can use the thinkspeak server. This system was built to carry out an electrolysis current monitoring system on hydroponic plants based on the Internet of Things (IoT). This system can monitor current, voltage, power for the operation of this system needed such as current sensor INA219, Arduino UNO, ESP8266 module.

In the research, the system functions as reading the magnitude of the value of the electrolysis current with two iron electrodes using the INA219 sensor, the results of which can be displayed via thinkspeak by connecting to the wifi internet with an electrolysis system. The system can see changes in the value of current, voltage, power generated by electrolysis and can be displayed by thinkspeak. The reading of the current voltage value for this electrolysis system has a 100% success rate using a 12 V PLN power source.

Keywords: *electrolysis, internet of things, ina219*