

## ABSTRACT

Indonesia is an agricultural country, using traditional methods of farmers doing activities. This traditional method, the weather will be the most important faktor in determining the success of *farming*. Meanwhile, the current condition of the weather changes frequently so that it can cause reduced crop production. We take the example of the chili plant. production of chili plant growth is not directly proportional to the projection of public consumption of chilies. One of the causes of decreased production is environmental faktors, namely air temperature, humidity, and light intensity. Responding to these problems, this study creates an intelligent agricultural system to be used as a controller of environmental faktors. In its implementation, a microcontroller will be used to monitor and control environmental parameters which will be monitored remotely by utilizing an internet system of things. Parameters that are considered are light intensity, air temperature, air humidity, and soil humidity. This research will make an agricultural system that can be implemented in a *greenhouse*, and then will analyze the distribution pattern of environmental faktors, power consumption of the system. Thus, it is hoped that this research can create an intelligent agricultural system based on the Internet of Things that can control environmental parameters according to the characteristics of certain plants.

**Keywords:** Smart *farming*, monitoring, controlling, microcontroller, *greenhouse*, Internet of Things