

ABSTRACT

In the industrial era 4.0, all activities are carried out online by collaborating cyber technology and automation technology. With the main concept of carrying out activities that do not require human labor in the process of activities. With a system like this, it certainly increases the efficiency of work activities in the work environment itself. By utilizing the Internet of Things (IOT) and Cloud Computing. As well as the use of alternative energy as a substitute for existing or conventional energy that will not run out at any time, such as oil and coal which will eventually run out and pollute the environment because it produces high carbon dioxide, which contributes greatly to global warming based on the Intergovernmental Panel on Climate. Change.

By carrying out the concept of industry 4.0, the author took the initiative to create an automation tool that can help in agriculture and the use of solar panels (sollar cells) as substitute energy and can be monitored via the web. By using the Arduino uno R3 as a microcontroller which will work based on the DHT sensor readings. how this tool works, namely the DHT sensor reads the temperature and humidity in the surrounding environment and provides information to Arduino, after getting the information then Arduino will give an order to the mist maker or lamp, the reading data will be sent to Firebase and will be displayed on the web, while for the source the energy itself uses solar panels.

Keywords: Technology, Arduino, smart farming, smart monitoring, sollar cell.