ABSTRACT

Nowadays, Green house which is well-known with Glass House is not a new thing in agro businessman, especially for horticulture agro business like vegetables and ornamental plants. But, there is a problem in Green House technology, it is the humidity level. The humidity level in Green House is about 65-85% RH and every where in Green House has different humidity level. So, an automatic system of monitoring and controlling humidity level is required.

The prototype of automated system of monitoring and controlling humidity level based on microcontroller was designed and implemented In this research. This system consists of two Slaves and a Master. Each Slave attached humidity sensor HSM-20G to take and detect the data of humidity level in arround. Slave will send the data to Master. While the Master will control the Slave's work, so there is no collision of communication data and the result will display on LCD. The data is number of each sensor. Master-slave is connected to AVR ATMega 8535 microcontroller to do it.

From the experiment result, if the humidity level is less than 65% RH, water splasher will active to increase humidity level until reach the standard value. And if the humidity level is more than 85% RH, the fan dan lamp will active to reduce the high humidity level.

Key words: *Green house, Master, Slave, HSM-20G, AVR Atmega8535 microcontroller, LCD*