PROJECT REPORT

AUTOMATIC WATERING LEEKS FARM IN A MINI GREENHOUSE USING FUZZY LOGIC

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ABSTRACT

One of the biggest problems in the 21st century in urban areas is consumerism. We are encouraged to buy all our daily necessities instead of trying to produce or grow our own food. We are very dependent on traditional markets and supermarkets to meet our daily needs. Lack of soil and busyness are also some of the problems we face in urban areas. Some people who want to try to grow their own food sometimes fail because of erratic busyness, as a result, the plants that they cultivate are not taken care of and they wither and die.

The solution I want to offer is a mini greenhouse that is equipped with Soil Moisture, Temperature, Light sensors and can give notifications to the user when the plants have been watered. To make a greenhouse-like this I use Arduino Mega2560 R3 with ESP8266 and the algorithm I will use is Fuzzy Logic using Sugeno FIS.

The final result I hope for from this project is a device that can irrigate plants in a mini greenhouse which in this case contains leeks.

Keywords: Fuzzy Logic, Arduino Mega2560 R3, Sugeno FIS, Mini Greenhouse, Leeks.

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