



Green Plant (Hydroponic) System

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M.Sc. in IT

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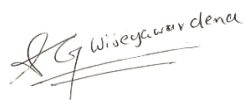
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DECLARATION

I hereby declare that the project work entitled “Green Plant (Hydroponic) System”, submitted to the Sri Lanka Institute of Information Technology is a record of an original work done by me, under the guidance of our Supervisor Dr. Anuradha Jayakody. This project work is submitted in partial fulfillment of the requirement for the award of the Master of Science in Information Technology. The results embodied in this report have not been submitted to any other University or Institution for the award of any MSc or PGD. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

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ABSTRACT

The proposed hydroponic Greenhouse system is related to IoT based structure which aids with a web application to control it. The main objective of this proposed system is to give information technology solutions for greenhouses to clean up their watering system. This proposed system is connected with a web application so Users/Farmers can get an idea about plant conditions by referring to the web application. So, in this research, there are several components are implemented. As a component in this research mainly identifies water level based on the pH scale, also, identifies humidity level and temperature levels, then identifies the pH scale to clean pipelines, also identify water temperature level. So, by referring to web applications User/Farmer can make decisions easily by identifying plant conditions. Apart from that in this research check if premade Albert solution pH scale is less than 5.5 pH or greater than 6.5pH, directly popup the notification into the web application so the user can turn ON the switch to clean up the pipelines. This proposed system mainly focuses on the water pipes cleaning method so it's mainly targeted by referring to the pH scale. This research going to use an MCU board to connect all the sensors and web applications.

Keywords: IoT based, greenhouse, hydroponic, Humidity, pH, MCU board, temperature, and Web application.

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