Intelligent drip irrigation system for sustainable farming of maracuya

Ruthber Rodriguez Serrezuela

Industrial Engineering Program, University Corporation of Huila, CORHUILA, Colombia

Abstract:

Abstract: Agriculture is the vertebral column of the Republic of Colombia. In order to make sustainable agriculture possible, the following electronic system is proposed. This system consists of an 18F4550 microprocessor, which is used to control and monitor the radio system. Different types of sensors like son are used: humidity sensor, temperature sensor, CO_2 concentration meter, among others. This document presents a fully automated drip system that is controlled and monitored using the 18F4550 processor. The PH content and its nitrogen content are controlled with frequency. For the purpose of monitoring and control, the GSM module is implemented. The system informs the user about any abnormal conditions, such as lower humidity and temperature increase, including CO_2 concentration via SMS via the GSM module.

Biography:

I'm a professional in Electronic Engineering graduated from the Surcolombian University. Obtained my Mastery in Industrial Control Engineering at the University of Ibague. I'm currently a doctorate student of the University of the Orient. I am an active member of IEEE, with membership in IES (Industrial Electronic Society) and CSS (Control System Society), with a rigorous discipline of study, ethical-social responsibility, marked honesty and ability to develop my profession. of autonomous way, with amplitude of thought and capacity of leadership, of enterprise and of social protection.

Founded in an integral scientific-technological formation, with solid physical-mathematical foundations, complemented by knowledge in the economic-administrative areas, with the capacity of analysis, synthesis, decision-making, great moral and ethical integrity. This training includes electrical science, circuits and systems, electronic devices and circuits, information theories, communications and control, as well as the management of specialized design programs like Codesys, Gracfet and Simulation such as Simulink, Matlab, Labview, Latex and Python. .

Publication of speakers:

1. Ranjan, A., Denis, D. M., Mishra, H., & Singh, I. (2018). Performance evaluation of drip irrigation under high density planting of papaya. Journal of Pharmacognosy and Phytochemistry, 7(3), 2262-2270.Bauernfeind A, Croisier A, Fesselet JF et al. Cholera guidelines, 2nd ed. Paris: Medecins sans Frontieres; 2004

2. Motha, K., Nilsson, A., Nikhade, P., Dasgupta, C., & Asting, J. (2018). U.S. Patent Application No. 10/010,030.

3. DENIS, B., WATANABE, F., SUZUKI, S., & KUGA, S. (2018). Optimal water use on low pressure drip irrigation system for tomato cultivation in Uganda. Journal of Arid Land Studies, 28(S), 77-80.

4. Peji, B., Sikora, V., Mili, S., Maki, K., Koren, A., & Baji, I. (2018). Effect of drip irrigation on yield and evapotranspiration of fibre hemp (Cannabis sativa L.). Ratarstvo i povrtarstvo, 55(3), 130-134.

5. Sarkar, N., Ghosh, U., & Biswas, R. K. (2018). Effect of drip irrigation on yield and water use efficiency of summer rice cultivation in pots. Journal of Pharmacognosy and Phytochemistry, 7(1), 37-40.

Citation: Shintaro Kagimoto; Pre-Clinical Study: Regenerating autologous elastic cartilage for treatments of facial deformities using monkey auricular cartilage progenitor cells; Plastic Surgery 2020; September 10, 2020; London, UK