## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 3, Issue 1, January 2023

## IOT-Based Monitoring and Control System for Greenhouses

Khandebhrad R. N.<sup>1</sup>, Waydande Lakhan<sup>2</sup>, Kamble Pravin<sup>3</sup>, Kshirsagar Prashant<sup>4</sup>, Kolage Abhijit<sup>5</sup>

Faculty, Department of Electrical Engineering<sup>1</sup>
Students, Department of Electrical Engineering<sup>2,3,4,5</sup>
SVERI's College of Engineering Pandharpur, Maharashtra, India

Abstract: Plants are grown in greenhouses, which are controlled conditions. Because current greenhouse plants are self-restrictive, they cannot be regulated automatically; rather, they must be manually operated using a number of methods. The suggested system needs to be regularly checked and maintained, including temperature, wetness, soil humidity, light intensity, etc., to produce the best growth possible for plants. This study presents an Internet of Things- based management system for child care facilities (IOT). The system may keep an eye on such obvious parameters as temperature, humidity, soil saturation, proximity to a fire, light intensity, etc. Through the Node MCU esp8266, all environment parameter data is supplied to the nub. If a parameter exceeds the set limit, the connected actuator for that parameter is activated. If the Earth parameter is out of range, the microcontroller turns on the motor. On a PC and a mobile device, the user can display and monitor parameters.

Keywords: IoT Technology, Temperature Control, Fuzzy Controllers, And Greenhouse Technology

## REFERENCES

- [1]. Jayasuriya YP, Elvitigala CS, WamakulasooriyaK, Sudantha BH. Low Cost and IoT BasedGreenhouse with Climate Monitoring andControlling System for Tropical Countries.In2018 International Conference on System
- [2]. Science and Engineering (ICSSE) 2018 Jun 28(pp. 1-6). IEEE.
- [3]. Shinde D, Siddiqui N. IOT Basedenvironment change monitoring &controlling in greenhouse using WSN. In 2018 International Conference on Information, Communication, Engineering and Technology (ICICET) 2018 Aug 29 (pp. 1-5).IEEE.
- [4]. H. Anandakumar and K. Umamaheswari, A bio-inspired swarm intelligence technique forsocialaware cognitive radio handovers, Computers & Electrical Engineering, vol. 71, pp. 925–937, Oct. 2018.
- [5]. doi: 10.1016/j.compeleceng.2017.09.016
- [6]. R. Arulmurugan and H. Anandakumar, EarlyDetection of Lung Cancer Using Wavelet Feature Descriptor and Feed Forward BackPropagation Neural Networks Classifier,Lecture Notes in Computational Vision andBiomechanics, pp. 103–110, 2018.doi:10.1007/978-3-319-71767-8 9
- [7]. Rupali S, Hemant G, Shoaib K, Aaditya I, DeepD. IOT based greenhouse monitoring system. International Journal for Research in AppliedScience and Engineering Technology. 2018; 6(4):2084
- [8]. Akkaş MA, Sokullu R. An IoT-based greenhouse monitoring system with Micaz motes. Procedia computer science. 2017 Jan 1; 113:60

DOI: 10.48175/IJARSCT-7882