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## **Implementation of IoT in Precise Agriculture**

Miss. Payal Rathi, Miss. Sayali Joshi, Mr. Shailesh Gawande , Mr. Akshay Nutiwar

Students, Department of Electronics and Telecommunication

Shri Sant Gajanan Maharaj College of Engineering, Shegaon, Maharashtra, India

**Abstract:** The Internet of Things(IoT) is a technological advancement that allows communication between smart devices and devices, reducing human intervention. IoT technology-based changes have been regarded to be influencing the growth of productivity. Developing IoT based equipment to reduce farmer stress is the main purpose of this paper. This project measures environmental parameters such as temperature, humidity, soil moisture, and pH and sends the data to the cloud and then to user's device. User can monitor this dataas well as control the applications. This paper emphasizes the role of IoT in agriculture and the benefits that could be achieved by its implementation.

Keywords: Micro-controller ESP-32, Precise, Sensors, Blynk

## REFERENCES

- [1]. Ahmed, S.; Shekhawat, A.S.; Kumar, S.G.; Nair, M.K.; Kumar, V. (30 October 2016) "Intelligation": An IOT based Framework for Smarter Irrigation. In Proceedings of the National Conference on Product Design (NCPD 2016), Bangalore, India.
- [2]. Andrew Maddocks, Betsy Otto, and TianyiLuo, (2016) 'The Future of Fresh Water'.
- [3]. Jain, S. and Vani, K.S. (2018) A survey of the automated irrigation systems and the proposal to make the irrigation system intelligent.
- [4]. Joshi, A.; Ali, L. (3–4 March 2017) A Detailed Survey on Auto Irrigation System. In Proceedings of the IEEE Conference on Engineering Devices and Smart Systems, Tamilnadu, India.
- [5]. Mohopatra, A.G.; Keswani, B.; Lenka, S.K. (2018) *ICT specific technological changes in precision agriculture environment. Int. J. Comput. Sci. Mob. Appl*
- [6]. Monica, M.; Yeshika, B.; Abhishek, G. S.; Sanjay, H.A. and Dasiga, S. (2017) 'IoT based control and automation of smart irrigation system: An automated irrigation system using sensors, GSM, Bluetooth and cloud technology'
- [7]. Parameswaram, G.; Sivaprasath, K. (2016) Arduino based smart drip irrigation system using internet of things. Int. J. Eng. Sci. Comput
- [8]. Saraf, S.B. and Gawali, D. H. (2017) 'IoT based smart irrigation monitoring and controlling system'
- [9]. Sukhadeve, V.; Roy, S. (2016) Advance agro farm design with smart farming, irrigation and rain water harvesting using internet of things. Int. J. Adv. Eng. Manag.
- [10]. World Bank. (2018). Water in Agriculture. [online] Available at: https://www.worldbank.org/en/topic/water-in-agriculture