

# Design and Implementation of an Automatic Irrigation System based on Monitoring Soil Moisture and Agriculture Thief Detection

Monika K. Kute<sup>1</sup>, Supriya J. Patil<sup>2</sup>, Poonam S. Chavan<sup>3</sup>, Pooja S. Bhore<sup>4</sup>

Lecturer, Department of Computer Engineering<sup>1,2,3,4</sup>  
Pimpri Chinchwad Polytechnic, Pune, Maharashtra, India

**Abstract:** *This Project is proposed on precision agriculture system over the Internet of Things (IOT). Through analysing the present development of precision agriculture in outside world and considering its advantages and shortcomings, we decide an ecology farm as an example to conduct a replacement precision agriculture management system (PAMS). Designing a non-public Internet of Things (IOT) enabled platform for the research in precision agriculture and ecological monitoring domains. As water supplies become scarce thanks to climatically change, there's an urgent must irrigate more efficiently so as to optimize water use. During this context, farmers' use of a decision-support system is unavoidable. Indeed, the real-time supervision of microclimatic conditions are the sole thanks to know the water needs of a culture. Wireless sensor networks are playing a very important role with the arrival of the web of things within the community of the farmers. It'll be judicious to form supervision possible via Sensors.*

**Keywords:** Water Harvesting, Moisture, Irrigation, ArduinoController, etc.

## REFERENCES

- [1] Kshitij Shinghal, Dr. Arti Noor, Dr. Neelam Srivastava, Dr. Raghuvirsingh, wireless sensor networks in agriculture: for potato farming.
- [2] Prakash Gaud Patil, vidya h, Shreedevi Patil, Umakant Kulkarni, wireless sensor network for precision agriculture, 2011.
- [3] Jianfa Xia, Zhenzhou Tang, \*Xiaoqiu Shi, Lei Fan, Huaizhong Li, an environment monitoring system for precise agriculture based on wireless sensor networks, 2011.
- [4] A Survey on Zigbee Based Wireless Sensor Networks in Agriculture T.Kalaivani, A. Allirani, P. Priya, 2011 IEEE.
- [5] Design and Implementation of a smart irrigation system for improved water-energy efficiency, kizitomasaba, AminiNtakirutimana, taha selimustan.
- [6] Mobile Integrated Smart Irrigation Management and Monitoring System Using IOT, Vaishali S, Suraj S, Vignesh G, Dhivya S and Udhayakumar S., International Conference on Communication and Signal Processing, April 6-8, 2017, India.