

IoT Based Fire Detection System

Priya Venugopal¹, Joseph Babu², Atul Venugopal³, Sayooj Suresh⁴
Assistant Professor, Department of Electrical and Electronics Engineering¹
Students, Department of Electrical and Electronics Engineering^{2,3,4}
SCMS School of Engineering and Technology, Ernakulam, Kerala, India

Abstract: *As the human technology moved further, the risk of natural and man induced catastrophes increase exponentially. One of the most dangerous disasters is fires. In addition to its direct danger on human's lives, fire consumes forests where trees that provide humans with oxygen are destroyed. The risk of fire has increased due to the problem of global warming which appeared in the 1980s. Forest fires represent a constant threat to ecological systems, infrastructure and environmental aspects of a community. This gives rise to the urgent need to detect forest fires as fast as possible. This paper highlights the powerful feature of wireless sensor networks as a potential solution to the challenge of early detection of forest fires. The device presented makes use of various sensors attached, solar recharging mechanism, and wireless data transmission, to fulfill the task in question. These collected data are transmitted to a near central unit where they are analyzed. This website is accessible by the specific authorities in order to take early actions in case of any alert. It is worth mentioning that this system is efficient and green; thus, enforcing the need for its creation.*

Keywords: Fire detection

REFERENCES

- [1] Vinay Dubey, Prashant Kumar and Naveen Chauhan "Forest Fire Detection System Using IoT and Artificial Neural Network" International Conference on Innovative Computing and Communications Proceedings of ICICC 2018, Volume 1
- [2] N. Saranya, S. Sahana, B. Suganthi, R. K. Vijaynigilesh, T. Vivin "IOT Based Forest Fire Prediction and Detection" International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-6, April 2020
- [3] Jayaram K, Janani K, Jeyaguru R, Kumaresh R, Muralidharan N "Forest Fire Alerting System With GPS Coordinates Using IoT" 2019 5th International Conference on Advanced Computing & Communication Systems (ICACCS)
- [4] Sathishkumar, R. Vinothkumar, M. Devaraj Varatharaj, S., & Gowthaman, S. M. (2016) , Design And Development Of Automatic Fire Detection Using Sms And Voice Alert System" International Journal of Scientific & Engineering Research