

# Automatic Monitoring of Deforestation using Arduino

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**Abstract:** *The manual monitoring of the forest to prevent unauthorized activities is practically difficult job. The three major operations that are essential in monitoring the forest are developed in this work, namely tree cutting detection, fire detection and contaminated water detection using metal sensor, vibration sensor, firesensor and pH sensor respectively. An Arduino Uno is used along with GSM to communicate to central server from remote place. The sensed data from sensors is collected and sent to the authorized person via GSM. In addition, this system uses Wi-Fi router module through which employee and forest officer can communicate with each other in case of network is disabled.*

**Keywords:** Forest, Monitoring

## REFERENCES

- [1]. Sakib Abdullah, Sandor Bertalan, Stanislav Masar, Adem Coskun and Izzet Kale “A wireless Sensor Network for Early Forest Fire Detection and monitoring as a Decision Factor in the context of a complex Integrated Emergency Response System” 2017 IEEE.
- [2]. <https://www.minelab.com/knowledge-base/getting-started/how-metal-detectors-work>
- [3]. <https://www.upkeep.com/maintenance-glossary/vibration-sensor#:~:text=By%20far%20the%20most%20common,to%20produce%20an%20electrical%20signal>
- [4]. Santoshinee Mohapatra, Pabitra Mohan Khilar” Forest Fire Monitoring and Detection of Faulty Nodes using Wireless Sensor Network”2016 IEEE.
- [5]. L.K. HEMA 1,Dr D. MURUGAN, R. MohanPriya “Wireless Sensor Network based Conservation of Illegal logging of Forest Trees” 20 14 IEEE.