

An Enhanced IoT Based Rainforest Protecting and Alerting System

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Abstract: The process is described around wood smuggling such as sandalwood, red sandalwood, and the drug "sagwan". This tree is very expensive and not found worldwide. They can be used not only in medicine, but also in cosmetology and medicine. It costs a lot of money to sell these forests, so there is a lot of loss and wood smuggling. Certain measures must be taken to stop this poaching and save forests around the world. The smuggling/theft of the most important timber in the forest, such as sandalwood, poses a threat to forest resources, causing serious damage and ultimately catastrophic for the global environment. The main objective of the project is to use microelectromechanical (MEMS) technology and vibration sensors to plant special trees such as sandalwood for the Forest Service using renewable solar energy. be careful. This project presents a microcontroller-based anti-poaching system that can detect thieves by monitoring vibrations caused by tree/branch fall with a 3-axis MEMS accelerometer using Wireless Sensor Network (WSN) technology do it. When the tree changes, a loud sound lets you know that the tree is breaking deep in the forest. In this article, six basic functions such as detection (cutting), fire detection, human detection, location detection, passive infrared sensor (PIR) are important for forest management), GPS sensors. The concept of IoT-based forest security is divided into two parts, firstly, sensor data is collected from forest areas. The second is a Python based system that receives SMS and captures addresses, processes, analyzes and sends them to security personnel, workers or forest workers. The system supports e-government forestry.

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