Title of the project: MODERN FOREST FIRE DETECTION SYSTEM

Name: Elsa Parida Registration No.: 1801106229

Name: Priyabrata Panda Registration No.: 1801106352

Name: Anshuman Debata Registration No.: 1801106093

Name of the Supervisor: Mr. Santanu Sen

## **ABSTRACT**

Now a days forest fires are most concerning and prevalent type of disaster. They are major cause of forest degradation. They have wide ranging adverse ecological, economic, environmental and social impacts. There are many fire detection system exist which includes NASA's MODIS and other advanced fire detection system. But none of the systems are efficient enough to detect and control forest fire as early as possible. Now forest fire incidences are increasing in Asia, Europe, Canada, Oceania and South America. So there is a need to develop most efficient, faster forest fire detection and control system. Our proposed system includes two main modules i.e. Monitoring area module and Forest area module. These together are split into five sub-modules which includes Sensor module, Serial communication through Arduino and Zigbee module, Power supply module, PC based web server and Mechanical modeling. The benefits of implementation of such system: various sensor module improves security of the forest area, serial communication and web server based system not only reduces bulkiness and cost of entire system but also increase efficiency in time management.

Keywords:- forest fire, web server, sensor, serial communication

## **References:**

- [1] Ahmad A. A. Alkhatib. 'A Review on Forest Fire Detection Techniques'. First Published March 4, 2014 Review Article <a href="https://doi.org/10.1155/2014/597368">https://doi.org/10.1155/2014/597368</a>.
- [2] Junguo Zhang; Wenbin Li; Zhongxing Yin; Shengbo Liu; Xiaolin Guo. Forest fire detection system based on wireless sensor network'.2009 4th IEEE Conference on Industrial Electronics and Applications Year: 2009 | Conference Paper | Publisher: IEEE
- [3] Aslan, Y. A framework for the use of wireless sensor networks in the forest fire detection and monitoring [M.S. thesis]2010 Department of Computer Engineering, The Institute of Engineering and Science Bilkent University.

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