# VISVESVARAYA TECHNOLOGICAL UNIVERSITY
## "JNANA SANGAMA", BELGAVI-590018 KARNATAKA

Mini Project Report (18ECMP68)

ON

# "FOREST FIRE MONITORING"

**Submitted in partial fulfillment of the requirement for the award of degree**

BACHELOR OF ENGINEERING

**IN**

ELECTRONICS & COMMUNICATION ENGINEERING


**Submitted by:**

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SHRIDEVI EDUCATION

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Recognized by govt. of Karnataka, Affiliated to VTU, Belagavi and approved by AICTE, New Delhi)

Sira Road, Tumkur-572106


2021– 2022

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## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

# *Certificate*

This is to Certified that the mini project work (18ECMP68) entitled "**FOREST FIRE MONITORING**" has been Successfully carried out by **BHAVANA U (USN: 1SV19EC005) ,NALINA D K (USN: 1SV19EC019),** a bonafide students of **Shridevi Institute of Engineering and Technology, Tumkur- 572106,** in partial fulfillment for the award of **Bachelor Of Engineering in Electronics & Communication Engineering** of the **Vishvesvaraya Technological University, Jnana Sangama, Belagavi -590018,** during the academic year 2021–2022. It is certified that all corrections/suggestions indicated for internal assessments have been incorporated in the report. The mini project report has been approved as it satisfies the academic requirement with respect to the mini project work prescribed for the said Bachelor Of Engineering degree.

| Signature of the guide | Signature of the HOD | Signature of the principal |
|---|---|---|
| **Prof. Raghavendra D** | **Prof. Aijaz Ahamed Sharief** | **Dr. Narendra Viswanath** |
| **Assistant professor** | **HOD** | **Principal** |
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## EXTERNAL VIVA

| Name of examiners: | Signature with date: |
|---|---|
| 1. Raghavendra.D | 28/07/2022 |
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28/07/2022

## Declaration

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# ABSTRACT

Forest fire detection using Arduino based wireless sensor network. Forest fire is repetitive phenomena, natural or man-made in many parts of world. In order to fight against this disaster, it is needful to carry a broad, adoptable approach that enable situational awareness and instant responsiveness. In this work, system that detect presence of fire via sensor and send information to monitoring center. The important feature is ability to remotely send an alert to server using node MCU where fire detected. Advantage of this system is it detect early fire. A forest has different types of vegetation like herbs, trees, shrubs and different species of animals. In one way or other, these renewable resources are very essential to mankind. Forest fires are the most common hazards in forests which lead to serious destruction of forest wealth, bio-diversity and natural habitat. Early detection and preventive measures are necessary to protect forests from fires. In order to achieve early detection, there are two most used traditional methods of human surveillance. One is directly through human observation and the other is through distant video surveillance. Doing the observation through distant mode, one can achieve surveillance through automation approach of detection. Automated fire alert detection system proposed in this paper comprises of two sensors, namely smoke and fire. These sensors detect change in a measurable physical quantity and help in the early detection of a forest fire. A key feature of this fire detection system is to alert the user remotely by using a flame and smoke sensor, whenever a fire is detected.

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