

**EVALUATION OF TYPICAL SPECTRAL INDICES
FOR DROUGHT SURVEILLANCE SYSTEM FOR
DROUGHT HIT AREAS**

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ABSTRACT

In India, droughts are one of the problems for farmers economic losses. However, there has been no development in these field to restrict or erase these problems. But still the governments provides some help in terms of finance to those farmers who are suffering from the drought. In this paper a novel method has been proposed where the drought hit areas are monitored through a remote place and help is provided later. Some of the Wireless sensors are used for monitoring and these are fed to the Arduino which is the heart of this project. The values are accessed through android app.

INTRODUCTION

India is very prone to drought due to its unevenly distributed rainfall in time and space along with its short and steep watercourses making it difficult for reservoirs to hold water. According to the statistics of Water Resources Agency, Ministry of Economic Affairs, the most water-dependending industry is farming, which consumes 71% of the total water resources. In addition, the statistics of the estimated crop damage in major agricultural disasters in the past 10 years issued by Council of

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Agriculture in 2005 demonstrates that crop damage done by drought reach a high value of USD \$21,000,000, among, which, the damage by drought accounted for 32% of the total loss due to agricultural disasters.

The Internet of Things (IOT) is a new evolution in technological advancement taking place in the world today. This paradigm allows physical world objects in our surroundings to be connected to the internet. This idea comes to life by utilizing two architecture; the Sensing Entity in the environment that collects data and connects itself to the cloud and the Cloud Service that hosts the data from the environment. The combination of wireless sensor networks and cloud computing is becoming a popular strategy for the IOT era. The monitoring process is the only assurance which tells if a certain process has been carried out successfully.

In this paper, we are proposing a method based on IOT where the information related to drought hit areas are uploaded to the cloud which can be accessed by the concerned person. The wireless sensors used are like Humidity sensor, temperature sensor, water level sensor and soil moisture sensor.

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