# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

## BELAGAVI, KARNATAKA-590018

**A Report on**

**Technical seminar:**

**"Water Irrigation System Using Cisco Packet Tracer"**

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

***BACHELOR OF ENGINEERING***

***in***

**ELECTRONICS AND COMMUNICATION ENGINEERING**

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# GOVERNMENT ENGINEERING COLLEGE RAICHUR- 584135

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

# CERTIFICATE

This is to certify that Technical Seminar work entitled **"Water Irrigation System Using Cisco Packet Tracer"** carried out by VISHAL of B.E **7th semester** bearing the USN 3GU22EC416, a bonofide student at GOVERNMENT ENGINEERING COLLEGE, RAICHUR-584135 in partial fulfilment for the award of **Bachelor of Engineering** in **ELECTRONICS AND COMMUNICATION ENGINEERING** as prescribed by the Visvesvaraya Technological University, Belagavi, during the academic year **2023- 2024**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the department library.

The technical seminar report has been approved as it satisfies the academic requirements in respect of prescribed for the said Degree

Technical Seminar coordinator and Guide

Signature of the HOD

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# ABSTRACT

In this work, we had proposed a smart irrigation system using Cisco packet tracer software for Indian climatic conditions. We had used different sensors, webcams, and different electronic devices for smart control and security of the farms. Different analyses for different crops (Kharif and Rabi) are discussed so that effective use of water and resources are maintained. For each case, proper simulation is done on the software. In the later section, security-based simulations are done and discussed. With the help of the Internet, our farmers can control and monitor the farms staying away from it.

This study presents the design and implementation of a smart irrigation system tailored for Indian agricultural conditions, utilizing Cisco Packet Tracer software. By integrating various sensors, including soil moisture, temperature, and humidity sensors, alongside surveillance cameras, the system facilitates efficient water management and enhances farm security. Detailed analyses are conducted for Kharif and Rabi crops, ensuring that irrigation practices are optimized for the unique requirements of each growing season. The simulations demonstrate the system's capability to monitor and control irrigation remotely, empowering farmers to manage their resources effectively from afar. Additionally, security features are integrated to protect against potential threats, ensuring the safety of agricultural investments. This innovative approach leverages IoT technology to promote sustainable farming practices, ultimately contributing to increased productivity and resource conservation.

Index Term : Cisco packet tracer, IoT-Internet of Things, smart irrigation, and security.