# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590018

*Mini Project Report on*

## "SOIL NUTRIENT MAPPING - HOLENARASIPURA"

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

**BACHELOR OF ENGINEERING**

**IN**

**AGRICULTURE ENGINEERING**

**Submitted By**


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**DEPARTMENT OF AGRICULTURE ENGINEERING**

# CERTIFICATE

This is to certify that the following students,

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has submitted mini-project report on **"Soil Nutrient Mapping - Holenarasipura"** for VI Semester B.E. in Agriculture Engineering during the academic year 2023-24. The mini project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Mini Project Guide
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# ABSTRACT

This study investigates soil nutrient distribution in Holenarasipura Taluk, Hassan District, Karnataka, aiming to improve agricultural productivity through informed soil management. Using data from the Soil Health Card Scheme, GIS tools were employed to create nutrient distribution maps, revealing significant spatial variations. Results indicated that 40% of the area had optimal nitrogen levels, while 60% had high nitrogen content. Phosphorus levels were uniformly high, potassium levels were optimal in 75-80% of the area, and soil pH was mostly neutral. Electrical conductivity levels were optimal, and organic carbon levels were high. Sulphur was sufficient in nearly the entire area, but zinc deficiency affected 65-70% of the region. Boron levels were sufficient throughout, iron deficiency was prevalent, and manganese deficiency was observed in 80-85% of the area. Copper levels were sufficient in 95% of the area. The study highlights the importance of targeted nutrient interventions and sustainable practices to enhance soil health and agricultural productivity. These findings provide valuable insights for farmers and agricultural stakeholders, guiding them in optimizing soil health and ensuring sustainable agricultural growth in Holenarasipura Taluk.