

# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“Jnana Sangama” Belagavi – 590 018**



## **PROJECT REPORT ON “SMART BOREWELL CHILD RESCUE SYSTEM”**

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

### **BACHELOR OF ENGINEERING IN ELECTRONICS & COMMUNICATION ENGINEERING**

**Submitted By**

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**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY**

**A+, Accredited by NAAC & NBA (ECE & CSE)**

**MOODBIDRI – 574 225.**

**2022-2023**

# ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI - 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

## CERTIFICATE

*Certified that the project work entitled "SMART BOREWELL CHILD RESCUE SYSTEM" is a bona fide work carried out by*

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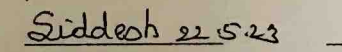
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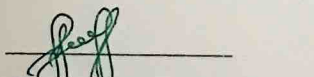
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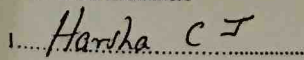
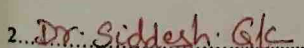
in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2022-2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

  
Signature of the Guide  
Mrs. Vijetha T S

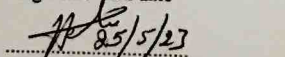
  
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## ABSTRACT

Water well or borewell is an excavation or structure created in the ground by digging, driving, boring, or drilling to access groundwater in underground aquifers. The well water is drawn by a pump, or using containers, such as buckets, that are raised mechanically or by hand. Now a day's its quiet often to see unused borewell left open after use. These wells become the death pit for those small kids who unaware of their depth play near these wells.

Rescue of children trapped inside the borewell is not only difficult but also risky task. The rescue teams spend hours and sometime days in futile attempts to save these little kids. A lot of money is also required for this rescue operation. Hence there is a need to use a technology for upgrading the rescue operation.

The rescue robot not only rescues a trapped victim from borewell but also deals with safe handling of the victim. The robot is light in weight that goes inside the borewell and holds the victim systematically. This robot consists gas sensor, Bluetooth, LCD board, Arduino board, artificial arm. The rescue robot uses artificial arm that rotates in 360 degrees so that the victim can be removed safely with less injury caused to the victim. The use of safety air balloon makes the robot safer and smarter. Gas sensor is displayed on the PC which present on the receiver side. The artificial arm is controlled using remote controller.