# AI based safeguards for water storage bodies in agricultural land

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**Abstract:** Nowadays we can more often here or see news about children and even adults' loss their life by falling in Krishi honda or water lands in agricultural lands. It is basically a water storage bodies used in agricultural lands where is will not be having any kinds of safety covering for it or it will be kept open. So we have come up with any idea of KRISHI HONDA to rescue life by using basic AI robot with IR sensors connected to it for the detection of life and with the help of dc motors we can immediately save life when a human being fall into Krishi honda.

**Keywords:** KRISHI HONDA, AI

## I.     INTRODUCTION

From so many years we hear news of loss of life of human or animal in krisha honda or even in bore wells. In borewell there are lots of chances of loss of life of a child but in a Krishi honda a fully grown up adult can loss their life by falling into it.In early methods when a person fall into wells it would take a lot of time to rescue the the person from well.so in early methods peple used to dig the whole surroundings when a pers fall into the Krishi honda or if someone notices a person falling divers will dive in try to to rescue the respective person but it is more dangerous and harmful. These kind of old-fashioned methods does not work all the time. We have come with the project called KRISHI HONDA to rescue life's from water storage bodies. This project work basically on the micron troller or Arduino.

Arduino is a basic micron troller which is used in most of the AI projects it is cheep compared to all other hardware components it is also handy.We will be using IR sensors like heat ,temperature or pulse to detect the human or animal fall. When those IR sensors detects the fall it will trigger the alarm and and the IR sensors will calculate the exact distance from human and it will update the values. Then as soon as it updates the values without wasting the time The micron troller will get the values and using power supply it turn on the DC motor so that from both the sides motors will run with the help of arm the baby or animal will be saved. This project is more efficient and it consumes less time as compared to others methods to save a child from Krishi honda it also less in cost every one who is having a Krishi honda can install thus system in their farms and reduce unnecessary loos of life.

## II.     LITERATURE REVIEW

[1] During crisis every single minute is precious and transmission of critical data is very essential for the rescue operation to be successful. The sensors equipped with the device record and transmit the data and as the MCU is connected to network wirelessly it can be sent to locations which are not in human reach. This project in an attempt which provides a solution while keeping economic and technical constraints in consideration.

[2] According to the hardware components, the prototype for human detection robot functions properly. The basic principle is represented by the design, in which the robot estimates obstacles and moves in accordance with the passage. As the robot moves, it covers a large amount of ground, reducing. the need for numerous sensors. . It will be simple to save large groups of people at catastrophe areas with this technology. The approach is a simple and costeffective way to detect humans. This will also be utilized to detect humans in the field of battle, as well as for security at jeweler stores, museums, and other places. Both the PC and the remote will control the robot's.

[3]It is without a doubt that the development and studies for rescue robotics is of great importance to the modern society. Natural and human disasters occurs regularly and it is important that help canarrive fast enough. Rescue robot are the increasing level of technical parts involve in our today life. one the other side it is always good that the rescue robot increases in development with better performance and it can handle all the situation as needed.

[4] The aim of this paper is to give a lower cost human detect rescue robot for improving country rescue mission in disaster situation. The developed robot is joystick control with IOT which willhelp user to drive the robot easily. ZigBee module is used for data transfer to make the system performance reliable inside the rescue area.

Though there are lot of USAR rescue robot available with many features and different sensor but they are high cost, but the sensors used in this project are easily available and low cost. We are created a robot with two different type of human sensing in order to get higher efficiency in rescue mission. The first type is a PIR sensor which detect human in the spot by their radiated infrared wave and second type is a wireless camera to see the existence of human in disaster area. Because of the two type of human detection system the system is reliable for rescue operation.

[5]The purpose of the proposed system is to provide a cost effective robot for rescuing human beings in catastrophic conditions. The proposed system is superior to other existing robots due to the use of sensors that are cheaper and easily available. It is not feasible for rescue personnel to individually visit the site (war field, earthquake-stricken area, mines etc) and check who is alive and who needs rescue. So, in such circumstances, the proposed system can be of great importance. It can be deployed to detect alive human beings and send the information regarding the situation of the spot to rescue team for proceeding further rescue operation. Furthermore, the reliability of detection is enhancedbytwolevel sensors.Thefirstlevel sensor is PIR sensor which detects the motion of human.

This is primary sensor. The second level sensor used is IR sensor. It is used to detect the obstacle that comes on the way of robot. So if one sensor fails, other sensor can also provide sufficient information in conjunction with the wireless camera mounted on it. This prototype can be further enhanced in the future by incorporating an IR camera that can exactly capture IR pattern emitted by human body. In addition, to know the exact location, GPS system can be added. For increasing the range of communication with the rescue team, GSM module can be included. Furthermore, metal and bomb detector can be used to protect from possible damage.

[6] In order to meet the ever-increasing demand for water, bore wells are dug. But these are usually left uncovered and children fall into it. The main aim of our project is to save the child from the bore well, so we proposed a system of designing an adjustable diameter robot for the rescue of a child from borewell. We aid the child by continuous monitoring using camera and supply of necessary items mainly, air filler which supplies oxygen for the survival.

Robot for bore well rescue offers solution to this situation. This system will attach a harness to child using robotic arms for picking up. It includes an infrared transmitter and receiver to calculate the distance to the child. A temperature sensor is used to measure temperature and gas sensor is used to detect the presence of any toxic gas.

[7] In this paper, a multi-functional search and rescue robot system based on Vision technology is developed. The system is likely to help the rescuers to detect hazardous substances and search human in the ruined area. As ongoing work (outlook), the following issues areunder investigation: (1) Collection of data from the robot system with different states which are with action and without action; (2) Quick analysis of the data from all sensors, (3) Improvement of real-time performance.

[8] In this paper we presented our experience and experimental results of using sensors designed and developed for a team of USAR robots that competed in the Robocopy Rescue 2001. TheNIST test course offered a semi-realistic environment for ex- peri mentation with the sensors. We hereby tried to investigate minimal requirements for satisfactory performance in the NIST.

## III. CONCLUSION

Here we are proposing the project to rescue life from Krishi honda which are in Indian farming lands. We are making the project with cheaper amount of money so every farmer can afford the system and install it in their agricultural lands so that we can avoid loss of life of child or even an animal or fully grown adult.

This project is also can be installed in industry and blind schools or even in mining's wherever there is a deep-water body we can easily install this system.

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