**ABSTRACT**

Autonomous robotic system is an outstanding innovation of a modern technology. The existing system suffered many problems like high cost to set up communication between robots and differentiating between humans and animals, noisy wireless communication link between robot and control unit which ultimately stopped the robot to function .The system will be able to solve all these problems. The robotic system detects human in the catastrophic environment and differentiate it as an animal or human.

Machine Learning Algorithms have been used to differentiate between humans and animals and then find out if the human belongs to the respective army team or is a suspect. Disasters can be of two kinds- natural and human-induced. Natural disasters are not under the control of human beings. The main aim of the project is to implement a Wireless multipurpose Robot which can be controlled through PC using RF interface and navigates around the disaster areas and tries to find the human which may be a suspect.

Keywords: Sensor, Raspberry Pi, IR Sensor, Face Recognition, MATLAB.

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**GLOSSARY**

|  |  |
| --- | --- |
| SRS | Software Requirement Specification |
| DFD | Dataflow Diagram |
| TCP | Transmission Control Protocol |
| PIR | Passive infrared sensor |
| PIC16F77 | Analog to Digital Convertor |
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