

A NOVEL EMBEDDED SYSTEM TO DETECT THE PRESENCE OF LIFE IN LIMITED ACCESSIBLE AREAS

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Abstract

This paper discusses a novel embedded system which is used to detect and locate the presence of life in limited accessible areas and obtain valuable information regarding the location and health condition of the trapped life. The proposed robot based system with passive infra-red and heartbeat sensors is interfaced for detection and the GPS module locates the position of the trapped life which helps in reducing the time of operations that is otherwise wasted in just searching for the trapped life by the rescue personnel. Hence it facilitates the operations of rescue teams involved in saving the lives of people trapped in limited accessible area. A hardware prototype of the life detection system has been developed and experimental results show that the proposed method is cost effective and efficient which can be used to detect as well as locate the victims trapped in limited accessible areas without risking life of rescue personnel.

Keywords : Infra-red, Heartbeat sensor, GPS, Life Detection, Hyper terminal