

IoT Based Smart Helmet for Site Worker's Safety

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Abstract: *The death rate of the construction workers at the construction site is increasing day by day. But still there are no such chances to reduce this fatality rate. So for providing continuous observing of the labors and to prevent them from any health hazards during working, this system proposes a smart flexible helmet for the construction workers to provide security and rescue measures in case of any panic situations. The proposed system describes a smart low-cost helmet for the construction workers. Specially, safety becomes a main issue when you consider construction and manufacturing business. The project aims to provide a secure and safer working environment for labors thus to reducing the number of deaths happening in construction sites. The helmet includes different sensors such as temperature Sensor, gas Sensor, light Sensor etc. & IoT devices such as Arduino Uno which is a microchip controller and ESP8266 to send signals over the Wi-Fi. The aim of this project report is to describe a prototype system and integrating some different IoT technologies and some safety levels for the industry construction site.*

Keywords: Smart Helmet, Internet of Things (IoT), Arduino Uno, Sensors, Gas sensor, Temperature sensor, light sensor, LDR, ESP8266 Wi-Fi module, Buzzer, ThingSpeak.

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