

IOT Based Smart Helmet for Construction Workers

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Abstract: *Industrial safety is one of the main aspects of industry. Working environment hazards include suffocation, gas poisoning and gas explosion. Hence air quality and hazardous event detection is very important factor in industry. In order to achieve those safety measures, the proposed system provides a wireless sensor network for monitoring real time situation of working environment from monitoring station. It provides real time monitoring of harmful gases like CO, CH₄ and LPG and also temperature and humidity. To overcome those hazardous situation, this system provides emergency alert to the monitoring station. Some workers are not aware of safety and they did not wear helmet properly. For this purpose, a limit switch was used to successfully determine whether the workers had worn their helmet properly or not. The system uses Wi-Fi technology for transmission of data from working environment to the monitoring station. There is an alert switch at working environment for emergency purpose.*

Keywords: Safety, NodeMCU, Sensors, IoT, Cloud Computing.

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