

Kid's safety monitoring – IOT

Abstract

As children grew up it is hard for parents to look after their safety. Children can face any type of dangerous situations both inside and outside the home. Parents who go to work will always be concerned on their kid's safety. Similarly, they have the same fear when the kid leave home for school or playing or for anything else. One of the solution for this problem is to monitor the kid 24/7 by using some sensors working together. The system focuses on monitoring children by wearable sensors attached either to the kid or to their belongings. Vibration sensor and heartbeat sensor are used in addition to GPS (to track their location 24/7) add-ons with Push Button to check whether the child is wearing the device or not. A keypad is attached to the system to enroll a contact number to which messages are to be sent in the time of emergency. The working of this system is ensured by ON state of the PUSH Button i.e., the kid wears the device, the push button goes to ON state and vice versa. Heartbeat sensor measures the heartbeat of the kid continuously. Vibration sensor senses the vibration if it exceeds the threshold level. GPS keeps track of the kid's current location. The above information is updated in the cloud server regularly, so that the parents can check their kid's status whenever they want by signing into their cloud account. In case of any emergency situation the device notifies parent about the state of their kid through an SMS. An android application is also provided, which fetches the details from the encrypted message received such as heartbeat value, vibration, status of push button, and location. The application also redirects us to Map to show the kid's current location. The system sends messages to parents if the observed vibration level is too high, or if push button goes OFF.