

Elder Assist - An IoT Based Fall Detection System

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Abstract: *With the ever-growing population, there is an urgent need for the development of fall detection systems that can help individuals in falling which is one of the most damaging events elderly people may experience. Thanks to the rapid development of sensors and the development of the Internet of Things (IoT), human-computer interaction using sensor fusion has been considered an efficient method to deal with the problem of fall detection and can help in aiding immediately. In this paper, we discuss about a solution to this problem by proposing an IoT based device which can be implemented on a walking stick which is used by elderly people. This device is made using sensor networks and IoT. The development of technology requires the innovation of a device that can be used to help the blind & senior citizen as a road guide. The project describes walking stick. Senior citizen & blind people must ask guidance to reach their destination. They must face more struggles in their life daily life. Using this stick, a person can walk more confidently. This stick detects the object in front of the stick and gives response to the user. So, the person can walk without any fear. This system will be best solution to overcome their difficulties. We are going to upgrade the project by increasing its application. In this project, we are going to use ultrasonic sensor to sense any obstacle. The smart walking stick helps people to perform navigation and to do their work easily and comfortably. In smart walking stick, the object is detected with the help of ultrasonic sensor which detects the distance between object and the stick. If any obstacle comes in front of stick, he/she can know about the obstacle by indication.*

Keywords: Internet of things (IoT), Accelerometer, Fall Detection System, Sensors Networks, Assistance

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