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IOT Based Smart Safety Wearable for Small Fry and Alzheimer's Patients

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Abstract: *This paper discusses the concept of a smart wearable device for little children/Alzheimer's. The major advantage of this wearable over other wearable is that it can be used in any cellphone and doesn't necessarily require an expensive smartphone and not a very tech savvy individual to operate. The purpose of this device is to help parents locate their children with ease. At the moment there are many wearables in the market which help track the daily activity of children and also help find the child using Wi-Fi and Bluetooth services present on the device. But Wi-Fi and Bluetooth appear to be an unreliable medium of communication between the parent and child/Alzheimer's. Therefore, the focus of this paper is to have an SMS text enabled communication medium between the child's wearable and the parent as the environment for GSM mobile communication is almost present everywhere. The parent can send a specific keywords such as "LOCATION" "TEMPERA TURE" "UV" "SOS" "BUZZ", etc., the wearable device will reply back with a text containing the real time accurate location of the child /Alzheimer's which upon tapping will provide directions to the child's location on google maps app and will also provide the surrounding temperature, UV radiation index so that the parents can keep track if the temperature or UV radiation is not suitable for the child/Alzheimer's. The prime motivation behind this paper is that we know how important technology is in our lives but it can sometimes can't be trusted, and we always need to have a secondary measure at hand. The secondary measure used in this project is the people present in the surrounding of the child who could instantly react for the child's safety till the parents arrive or they could contact the parents and help locate them. The secondary measure implemented was using a microphone we can get a surrounding voice. Hence this paper aims at providing parents/ guardians with a sense of security for their child/Alzheimer's in today's time.*

Keywords: Internet of Things (IoT), Wearable Kit, Microphone, GPS, Moisture sensor, Microcontroller, GSM, Safety

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