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Smart Wearable Device for Women Safety using IBEACON Technology

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Abstract: *This paper presents a smart wearable device for women safety using IBEACON technology. The security of women is the most important concern these days and this device is to ensure a much safer environment for their protection and defend women in the event when they might face any danger. This proposed paper comprises of BLE- Wi-Fi supported Beacon module, AI controller and make use of MEMS accelerometer sensor to detect the abnormalities. In case of sexual harassment or an emergency situation, the accelerometer sensor detects shaking alert which is feed as a set threshold input. The device gets activated automatically by sending SMS alert as well as call alert to a predefined emergency contacts or authorities. The details of the affected person will be continuously transmitted to the beacon module interfaced with AI controller. Beacon module can scan and access any network connection irrespective of password protection so that the live location of the victim can be traced and monitored through the main cloud server without the Wi-Fi requirements of the victim in critical times. The proposed system with the help of panic switch, triggers buzzer which alerts the people around. The proposed framework is flexible, interoperable and without human interface results in improved accuracy effectively addressing the concern.*

Keywords: IBEACON Technology, MEMS Accelerometer Sensor, GPS, AI- Tensilica Controller