

Abstract:

A large number of deaths are caused by Traffic accidents worldwide. The global crisis of road safety can be seen by observing the significant number of deaths and injuries that are caused by road traffic accidents. In many situations the family members or emergency services are not informed in time. This results in delayed emergency service response time, which can lead to an individual's death or cause severe injury. The purpose of this work is to reduce the response time of emergency services in situations like traffic accidents or other emergencies such as fire, theft/robberies and medical emergencies. By utilizing onboard sensors of a smartphone to detect vehicular accidents and report it to the nearest emergency responder available and provide real time location tracking for responders and emergency victims, will drastically increase the chances of survival for emergency victims, and also help save emergency services time and resources.

Keywords: Traffic accidents; accident detection; on-board sensor; accelerometer; android smartphones; real-time tracking; emergency services; emergency responder; emergency victim; SOSafe; SOSafe Go; firebase