Landmark Based Shortest Path Detection in Alarm System

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Abstract

In this paper, an alarm system for four types of emergency states (explosion, car accident, earthquake and fire) is built. The proposed system divided into two parts: transmitted part (Arduino, sensors, GSM and GPS), and emergency part (central site and sub center sites). Central site consists of (Android phone, Server while Sub center sites (helping centers) contain the mobile phones of competent authorities like police center or hospital. The alerting as SMS message is sent by GSM. The system used Haversine formula to determine the nearest sub center from emergency state that receives the SMS alarm message from transmitted part. Also the path is tracked using Google map application.

Keywords

Arduino --- GSM --- GPS --- Proteus --- Google map --- Haversine.