AUTOMATED AMBULANCE DISPATCH SYSTEM "EMERGENCY STOP"

Heshmanthi Fernando

A dissertation submitted in partial fulfilment for the requirement for Bachelor of Science (Honours) degree in Business Information Systems

Department of Computing

Informatics Institute of Technology, Sri Lanka in Collaboration with University of Westminster, UK

2020

Abstract

Emergencies like accidents demand immediate medical attention for patients to be transported from the location of the incident to the nearest hospital for treatment. In situations such as this, emergency dispatch systems are a critical aspect in saving lives where the importance of transporting the patient is related to the arrival of an ambulance. A delay of any category can not only worsen a patient's condition but may even lead to death. The delay in the response time of an ambulance will occur due to multiple reasons including the telephone operator failing to answer the call right away, the caller having to respond to an extensive list of questions and redialling the helpline due to failures in telecommunication infrastructure. This represents an immense need for automated ambulance dispatches as a solution to this existing problem.

This main aim of this project is to assess the problem of delay in the services of ambulance dispatch systems and develop a solution for the general public to facilitate hassle free reservation of ambulances and for health care organizations, to make their daily ambulance dispatch processes hassle free in order to deliver an efficient service. This is proposed in terms of both an automated android application and a web application allowing both general users and hospital staff to using geographical location tracking to dispatch and transport a patient to the nearest hospital. The android and web application will be sold as a system to each hospital and will be customized according to their dispatching process allowing it to be a source of income generation as well.

Keywords: Ambulance Dispatch Systems, Ambulances, Emergency Medical Services