Mobile Apps for Emergency Situation Awareness
During Hurricane and Disaster

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Abstract

Nowadays, people are surrounded by mobile devices, such as smart phones, tablet, and others that allow them to get access to Internet and link to social networks, such as Facebook and Twitter. In viewing of those emerging technologies, a need existed to develop a system for real-time emergency situations awareness and sharing among all interest parties, at anytime from anywhere. This paper presents the design of an application that creates a situation awareness system using mobile devices such as android cellphone or iPhone. The design was implemented, in-part, by the senior Capstone project team at the Industrial Engineering Department, University of Houston.

Development of the application consists of four stages: 1) to develop an android application using "Android SDK", 2) to modify the application of 1) into a Facebook application using "Facebook SDK for Android", and 3) to enhance the application of 2) with real-time images, streaming video and voice capturing capability and wireless upload functionality for storing situation contents at the Facebook server, and 4) to test the application in a real-world emergency situation, such as hurricane or flash flood . The main purpose of the application is to inform users of any emergency situations during hurricane and/or other disasters, using social network links, and keep them updated of any dangerous circumstances that will help them when it comes to make personal decision.