Simulation of an Automatic Flood Alert System Using Short Message Service and Mobile Application

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Abstract

The Automatic Flood Alert System is a real-time system developed for both SMS and Mobile Application. It is developed for the purpose of automatic flood detection and sends the warning to the SMS and Mobile Application. It is also developed for travelers to know the areas that are flooded before they can travel.

The Automatic System has two main functionalities: SMS Sending and Mobile Application Update. SMS Sending is where the registered user will receive SMS upon detection of flood by each level. The sensors automatically send SMS whenever flood touches each sensor and whenever flood goes down by one level. It will also send the SMS with the message of "NO FLOOD" whenever flood is gone. Mobile Application Update is the application for Android Smartphone users. It has three main menus, Real-Time Flood Status, Map Report and Real-Time Image. Real-Time Flood Status Menu displays the current flood level status of a particular street and the date and time when the flood level is detected. Map Report displays the map of the area and the highlighted streets indicate that floodis present in the street. It highlights the street based on color coding for each level, Yellow for Level 1, Green for Level 2, and Red for Level 3. Real-Time Image displays the captured image of the flood from the IP Camera.

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