ABSTRACT

The system for delivering information or reports on natural disasters (such as floods, fires) or emergency calls (such as critical illness, the existence of a crime) from the general public to a disaster management center or emergency calls (hospital, police, fire department) is still carried out conventionally where in in the event of a disaster, sending photos / videos to social media, or for an emergency call to 112, where officers still have to ask about the location where it happened. Currently, smartphones are widely used in which there is a geo tagging feature and a GPS system which, when combined, will produce the information needed by the relevant handling center officers.

In this final project, an android-based application was designed and realized for the utilization of the geo tagging feature on a smartphone camera so that photos of disaster events sent by the general public to the related handling center already contain information on location coordinates and date or time, a brief description of the location entered by the reporter. On the other hand, at the related handling center (disaster management, fire department, police, ambulance) a web (virtual machine) is created which can display the location of the incident on a digital map accompanied by a beep sound and also an identity for each incoming report.

The test results show that this application functions as planned in delivering information on disaster events or emergency buttons in real-time to the relevant service center and on the central side there is a web that can display the location of the incident on a digital map and can send it to the related officer with the excellent accuration of location point and time stamp displayed on reporter smartphone, web pages, and duty officer compared to reference of point location and time reference of zone.

Keywords*: Smartphone, Disaster Emergency Response, Geotagging*