



UNIVERSITY OF NAIROBI  
SCHOOL OF COMPUTING AND INFORMATICS

## **PUBLIC DANGER NOTIFICATION SYSTEM - VIGIL**

By

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P15/36174/2010

SUPERVISOR

MR.S MBURU

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**A project submitted in partial fulfillment of the requirements for  
Bachelor of Science in Computer Science of the University of Nairobi**

# Declaration

I, hereby declare that this project, as presented within this report, is entirely my own work. The work reported and undertaken in this report has been executed by me expect where explicitly stated otherwise in the text. I affirm that this project has not been presented for any other University award.

**Name:** MUCHINA PETER NDEGWA

**Admission Number:** P15/36174/2010

**Signature:** 

**Date:** June 3<sup>rd</sup>, 2014

This project has been submitted as partial fulfillment of the requirements of the Bachelor of Science in Computer Science of the University of Nairobi with my approval as the University supervisor.

**Name:**  MR. S MBURU

**Signature:** 

**Date:** June 3, 2014

## Abstract

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The city of Nairobi Kenya struggles with lack of an effective communication system between disaster/danger management authorities, first responders and the public. It turns out that often in the event of danger the details are not properly communicated, and in most cases unclear, danger operations authorities take time to confirm the reports and the public do not know how to react to minimize the potential loss or escalation of the situation. Frequently danger operations authorities receive insufficient information for them to properly react to the situation, and the information is incomprehensible, and, in addition, delivered too late to take appropriate actions. A drawback is the poor public awareness of what to do during danger situation.

The project is about leveraging the use of social media as a tool of effective communication against extreme situations, events, natural disaster that can cause harm to the public. The system will extract data from Twitter, filter the data and promptly notify the user within three minutes of a confirmed danger. It will also show high risk areas, allow the user to report and attach evidence of a danger through twitter, avail important danger operation centers contacts, give information of basic responses to danger and finally but not least, give directions to a location that has a blood donation drive.

The impact of the project should be similar to that of cities which have embraced such systems. The project will also be a foundation for studies of public awareness about the dangerous phenomena, that is; whether people understand phenomena and about the shortcomings in communicating the phenomena to the public and danger operations authorities. The data collected by the system about its users will help uncover the preferred method of notification delivery.