



**BUSITEMA
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BUSITEMA UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF COMPUTER ENGINEERING
FINAL YEAR PROJECT REPORT

TITLE: FLOOD DETECTION AND ALERT SYSTEM ON ROADS.

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DECLARATION

I MAHANDE XAVIER MUWAYI, BU/UP/2016/ 253 declare that this project is my original work except where explicit citation has been made and it has not been presented to any higher learning institution for any academic award.

Signature:

APPROVAL

The final year project under the title “**Flood Detection and Alert System on Roads.**” has been done under my guidance and is now ready for examination.

Signature

Date

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List of Acronyms.

CSS - Cascading Stylesheet

GSM - Global Systems for Mobile Communication

HTML - Hyper Text Markup Language

IDE - Integrated Development Environment

LAN - Local Area Network

LCD - Liquid Crystal Display

MAN - Metropolitan Area Network

WAN - Wide Area Network

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Abstract

Floods have been catastrophic on the entire globe. They have led to massive loss of lives and destruction of various infrastructure including roads. These floods are caused by factors such as the growing occupation of floodplains as a result of rapid population increase, increased runoff from hard surfaces, inadequate waste management and silted drainage, increased uncontrolled and usually unplanned urbanization which in turn restricts where the flood waters can flow.

A flood detection and alert system was therefore necessary for this research so as to monitor the state of roads at well known flood points and then alert the different road users especially the motorists on the available safer routes that they can use incase of a flood ahead of time. This doesnot only save lives but also saves time as one doesnot need to reach the flood point to realise the road is flooded. The information received by the motorists gives them ample time to use the available alternative routes.

The system will therefore, reduce the fatalities on roads as a result of floods as well as save motorists time as they will be able to know beforehand what lies ahead of them and then act accordingly.

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