UNIVERSITY OF NAIROBI

SCHOOL OF COMPUTING AND INFORMATICS

MOBILE PHONE –BASED PARKING SYSTEM

BY

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Masters of Science in Information System

Declaration

This project entitled "Mobile Phone-Based Parking System" is my original work and has not been submitted to any other university.

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This project has been submitted for examination with my approval as the university supervisor

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Abstract

Traffic flow, allocation and availability of parking space within the streets of Nairobi, is a major concern to for every motorist. Parking is managed by the City Council of Nairobi (CCN) and this exercise is currently a nightmare for the officials of the city council. For the CCN the concern is the allocation of parking space and charging thereof, while for the motorist, the concern is the need to park his/her vehicle as well as get fairly charged for the service. On the other hand, anyone visiting the city is concerned about the congestion in the city among other things.

The availability of the mobile phone and its increased affordability has led to its adoption as the main gadget and technology for contemporary communication in most developing countries. Furthermore, the convenience it offers to users and its cost effectiveness has made it the technology driver not just in developing world but also in the developed countries. One area where its application has born fruits in some countries is in mobile parking.

By use of mobile communication as applied in telematics[1] , cities in countries such as Sweden, Singapore and Germany have experienced increased efficiency in traffic management and parking fees collection as well as prevention of car theft.

In some cases, this technology is based on a specific software or hardware. The complexities involve even the service providers of the mobile communication services and banking organizations. This means that technology used in the aforementioned states may not be appropriately imported and used in Kenya.

This fact makes it necessary for any mobile-phone based solution required for traffic management to be locally developed; hence the mobile phone-based parking system that is the subject of this project.

This project seeks to provide a local solution to the problem by developing a prototype system that can allow payment and remote access to parking information via a mobile phone.

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[1] The science of sending, receiving and storing information via telecommunication devices.