COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

MOTORCYCLE ALARM SYSTEM (MAS)

A Thesis
Presented to the Faculty of the
College of Communication and Information Technology
Ramon Magsaysay Technological University
Iba Campus, Iba, Zambales

In partial fulfillment of the requirements for the Degree
Bachelor of Science in Computer Engineering

By:

Jamil T. Elamparo
Pamela M. Fortin
Oliver M. Muyano

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COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

CERTIFICATION

This thesis entitled "**Motorcycle Alarm System (MAS)**", prepared and submitted by **Jamil T. Elamparo, Pamela M. Fortin, and Oliver M. Muyano** in partial fulfilment of the requirements for the degree **Bachelor of Science in Computer Engineering**, has been examined and recommended for Oral Examination.

ENGR. RICKY S. BARRERA
Adviser

APPROVAL

Approved by the Panel of Examiners on Oral Examination on March 21, 2017.

ENGR. DIONISIO M. MARTIN, JR.
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Member

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Member

ENGR. RICKY S. BARRERA
Program Chair, BSCpE

Accepted in partial fulfilment of the requirements for the degree **Bachelor of Science in Computer Engineering.**

MENCHIE A. DELA CRUZ, Ph.D.
Dean

Abstract

This project is about motorcycle alarm system which is a system that can prevent a motorcycle from being stolen. Alarm systems that have in the market nowadays are very sensitive and make many false alarms. The design concept is based on two-way communication strategy between the vehicle and owner. Radio frequency (RF) link technology is employed to achieve two-way communication. The false alarm will increase if anyone touches the motorcycle, the alarm will trigger easily even though they do not have intention of stealing. So, by doing this project, the motorcycle alarm system will reduce the false alarm as main objective. To do so, first is a research about the alarm system for motorcycle was done. The main component in the alarm circuit and sensor that will be used to achieve the objective was studied. After that, the circuit was constructed and the testing was done to make sure the system is running well. In this motorcycle alarm system there are four sensors to trigger the alarm. This device will alarm when someone attempt to steal the motorcycle. The PIR sensor will place on the motorcycle's centre stand. Then, the alarm will just trigger when the stand is lift up. From this method, it will reduce the false alarm.

This project was able to determine the following; Effectiveness of the Project Design; The Evaluation of Device Quality of Motorcycle Alarm System as perceived by Technical Experts and Motorcycle Users; and The Evaluation of acceptability of the motorcycle alarm system as perceived by Technical Experts and motorcycle Users.

The proponents have used the descriptive research method wherein the study focused on the current situation, and purposive sampling in determining the respondents of the study.

The proponents determined that the effectiveness of the product is very good in terms of 0.075 and 0.125 distances, when there are barriers or noise sensitivity, and if the device and the transmitter has enough power supply. The product quality and acceptability is significantly high as perceived by the respondents.