



**FACULTY OF ENGINEERING
DEPARTMENT OF COMPUTER ENGINEERING
DIPLOMA IN ELECTRICAL AND ELECTRONICS ENGINEERING.
FINAL YEAR PROJECT REPORT**

**PROJECT TITLE
AN AUTOMATIC FIRE DETECTOR AND ITIMATION SYSTEM.**

BY

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DECLARATION

We hereby declare that these project report submitted in has been compiled by us and produced to the best of my own understanding as a prerequisite to pertain a Diploma in Electrical and Electronics engineering. This report has never been submitted elsewhere for any professional award in any institution of higher learning.

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DEDICATION

This project report is dedicated to Busitema University, Faculty of Engineering in particular, our family's, the family of Mr. &Mrs. Okoke Mark and Mr. &Mrs. Maseruka Godfrey and Mr. Kgozi John whose consistent guidance and timely assistance helped us to come up with this good project report.

ACKNOWLEDGMENT

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APPROVAL

This is to certify that this project report entitled “ An Automatic Fire Detection and Intimation System ” was designed and implemented by **KOMAKECH MARVIN AND NNAAMALA EDITH** And has met the required standard for submission in partial fulfillment of the requirements for the award of a Diploma in electrical and electronics engineering at Busitema university at the faculty of Engineering. under the Supervision of:

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LIST OF ABBREVIATIONS

- GSM – Global System for Mobile
- SMS – Short Message Service
- SIM – Subscriber Identity Module
- LCD – Liquid Crystal Display
- AVR – Advanced Virtual RISC
- PFP – Passive Fire Protection
- LED – Light Emitting Unit o UV – Ultraviolet
- IR – Infrared
- NFPA – National Fire Protection Association
- CPU – Central Processing Unit o ALU – Arithmetic Logic Unit
- ROM – Read-Only Memory o PIC – Programmable Intelligent Computer
- RISC – Reduced Instruction Set Computer
- EEPROM – Electrically Erasable Programmable Read-Only Memory
- RAM – Random-Access Memory
- MIPS – Millions of Instructions per Second
- CMOS – Complementary Metal Oxide Semiconductor
- IC – Integrated Circuit
- GND – Ground
- DC – Direct Current
- AC – Alternative Current
- NO – Normal Open
- NC – Normal Closed
- RS – Register Select
- R/W – Read/Write
- IMEI – International Mobile Equipment Identity
- GPS – Global Positioning System

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ABSTRACT

This report describes designing and implementing An Automatic Fire detection and intimation system for Njuki hostel which is located in Busitema University main campus-Busia District, Uganda.

The Institutes hostels uses Fire extinguishers in each hostel but the students are not well educated on how these extinguishers work. So, in case of fire outbreak, the Institute has no any system for fire detection which can detect smoke before it outbreaks.

Also, all workshops, laboratories, offices, lecture rooms and Library lack fire detection systems.

Thus, by designing an automatic fire detection and intimation system which detects smoke in case of fire outbreak in the hostel will encourage or be a starting point for the Institute to implement in the places mentioned above.