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DEPARTMENT OF COMPUTER ENGINEERING

‘IOT BASED IRRIGATION SYSTEM’

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DECLARATION.

I NAHAIMA MUSA, do hereby declare that this project proposal is my original work and has never been published for any other degree award to any other university or institution of higher learning.

SIGN:

DATE:

APPROVAL.

The final year project proposal titled “IOT based irrigation system” has been done under my guidance and is now ready for examination.

SIGN:

DATE:

MR. MATOVU DAVIS

ACKNOWLEDGEMENT

Throughout my entire stay and study at Busitema university for the period of four years , I have received the knowledge and skills in different technical sectors. However, I would like to take this opportunity to give my utmost gratitude to God for opening doors and always having better plans for me.

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LIST OF ACRONYMS

2G-Second generation.

API-Application Programmable Interface.

ESTI-European Telecommunications Standards Institute.

FDMA-Frequency Division Multiplex

GSM- Global System for Mobile Communication.

IDE- Integrated Development Environment

LED- Light Emitting Diode.

PCB-Printed Circuit Board

TDMA-Time Division Multiplex

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ABSTRACT

After hundreds of years of irrigation, a lot of irrigation water has been misused and over watering on irrigation farms. This leaves us wasting water in the times where irrigation is carried out without predicting the likeliness of rainfall in the near hours. However, this also causes the unexpected dangers of over watering like leaching, flooding of the farm land, wastage of irrigation water say when stored for irrigation and also uprooting of crops.

This research focused on addressing the major problems encountered due to too much waters resulted from rainfall which is experienced after irrigation. This happens through keeping track of the weather forecasting to predict rainfall likeliness once the farm land is detected dry before irrigation takes place.

The system achieves its functionality through use of soil moisture sensor for moisture level detection and weather APIs for weather forecasting before automatically irrigation by turning on the irrigation pump.

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