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FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER AND ELECTRICAL ENGINEERING

FINAL YEAR PROJECT REPORT

FOR

ELECTRICAL CORN ROASTER MACHINE

BY

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Supervisor

MR. MUGWANYA PATRICK

Final year project report submitted to the faculty of engineering, department of computer and electrical engineering in partial fulfillment for the award of a diploma in industrial electronics and electrical engineering.

Declaration

We, GIMEI WILBER AND WASWA ANTHONY do hereby declare that this proposal report compiled is our original work and to the best of our knowledge, it has never been published or submitted for the award of any academic qualification in any higher institutions of learning

GIMEI WILBER

BU/UP/2018/3221

Signature.....

Date……...

WASWA ANTHONY

BU/UP/2019/1379

Signature.....

Date…….

Approval

This is to certify that GIMEI WILBER AND WASWA ANTHONY are the original author of this proposal report to be submitted for examination for partial fulfillment for the award of a Diploma in electronics and electrical engineering, Busitema University under the approval of my supervision.

Supervisor

Mr. Mugwanya Patrick

Signature……...

Date.....

Dedication

We dedicate this report to our dear families and friends for the unsparing support, our love for you is beyond words, our supervisor thank you very much may the good Lord bless u all.

Acknowledgment

Glory to God Almighty for life situations. Special thanks go to the computer and electrical engineering department, the head of the department, and all the lecturers of the computer and electrical department at Busitema University.

we thank our supervisors for all their tireless endeavors during this final report writing. Thanks also go to our colleagues of Dee class of 2019 may tLordord guide you always.

And finally, our sincere appreciation goes to our families and friends for the financial support extended to us throughout the project period and report writing, may the Almighty reward you abundantly.

Abstract

Maize is one of the major staple foods in Uganda, providing over 45% of Ugandan's daily calorie consumption. To meet the country's maize demand, most farmers grow some maize on their land, with over two million Ugandans counting on maize as their main source of income. Maize can be consumed when fresh or dry or processed into a variety of food and industrial products, including starch, sweeteners, oil, beverages, glue, industrial alcohol, and fuel ethanol.

Sweet corn is the most common variety of maize eaten directly off the cob. The ear is picked while the endosperm is in the "milk stage" so that the kernels are still tender. Ears of corn are steamed or boiled, usually without green husks, or roasted.

In Uganda, there are many methods of preparing maize which includes boiling, steaming, grilling, and roasting. There are different methods of roasting maize which include the use of an electrical corn roaster, the existing corn roaster is slow because it requires the manual turning of maize and also consumes a lot of power thus the need to construct a time-efficient machine to save time.

This can be achieved through the following method; selection of the material, design of the various components, fabrication of the parts, assembling the parts, testing of the machine performance, and carrying out an economic evaluation for the project.

At the end of this study, an electrical corn roaster will be constructed and the facility will be in a position to ensure; time efficiency due to the ability to rotate maize automatically using a dc motor driven by electricity as opposed to the existing project which requires changing the maize manually.

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