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FACULTY OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND ELECTRICALS ENGINEERING

FINAL REPORT

FOR

PIEZOELECTRICITY GENERATIONS

BY

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Final report submitted to the faculty of engineering, department electrical and electronics engineering in partial fulfillment for the award of a bachelor of electronics and electrical engineering.

Abstract

In this study, a suggestion for producing renewable energy using piezoelectric cells and the PZT is made. transform mechanical energy into electrical energy by causing the material to bend in order to recharge and power portable electronics. This study makes a suggestion for harnessing the mechanical energy that is generated during walking, which is then converted into deformation and the mechanical energy needed to power piezoelectric cells. This mechanical energy is consumed everyday by the entire world's population. The energy generated by a piezoelectric single cell is relatively small. Requires the use of multiple cells in a limited contact area in order to boost the system's output of power. The signal pulse created by the cells is repeatedly converted and stored in capacitors during the piezoelectric rectification and filtering stages that are used to treat the signal. Ends up presenting a shoe-mounted prototype to conduct tests and measurements of the system to determine its ability to generate power from the piezoelectric effect, given that the energy produced by the system is currently not being used for anything, resulting in energy waste.

Declaration

I MUHAWANA TIMOTHY, do hereby declare that this final report compiled is my original work and to the best of my knowledge, it has never been published or submitted for the award of any academic qualification in any higher institution of learning.

Approvals

This is to certify that MUHWANA TIMOTHY is the original authors of this report to be submitted for examination for partial fulfilment for the award of a diploma in electronics and electrical engineering, Busitema University under the approval of my supervisors.

Supervisor

Mr. Kigozi John

Signature.....

Dedication

I dedicate this report to my dear family, my parents Mr. WASIPOKOLI GEORGE, Mrs. ABOTH DOROTHY

My biggest appreciation goes to my mentor, my brother MR WALIMBWA ERIC JACOB finally to my friends for the unsparing support that made this report writing a success. Love, God bless u all.

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