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DEPARTMENT OF COMPUTER ENGINEERING

FINAL YEAR PROJECT PROPOSAL REPORT

TITLE: AUTOMATIC LANGUAGE TRANSLATION DURING A VOICE CALL FROM LUSOGA TO LUO

BY

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DECLARATION

I AWEBWA ZAUJA BIRYELI BU/UG/2014/1992 declare that this project report is original and has not been published or submitted before to any university or higher institution of learning.

Sign.....

Date.....06/06/2018.....

DEDICATION

I dedicate this report to my Great God, beloved parents, friends, lecturers and all the class mates for their contributions towards this journey of achieving my degree in computer Engineering. May God release blessings upon your lives.

Signature .....

Date .....

APPROVAL

This Dissertation Report has been submitted with the approval of the following supervisor.

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MR. OCEN GILBERT

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LIST OF ABBREVIATION AND ACRONYMS

ASR	AUTOMATIC SPEECH RECOGNITION
ASU	AUTOMATIC SPEECH UNDERSTANDING
CBMT	CORPUS BASED MACHINE TRANSLATION
EBMT	EXAMPLE BASED MACHINE TRANSLATION
ELRA	EUROPEAN LANGUAGE RESOURCES ASSOCIATION
MT	MACHINE TRANSLATION
NLP	NATURAL LANGUAGE PROCESSING
RBMT	RULE-BASED MACHINE TRANSLATION
SMT	STATISTICAL-BASED MACHINE TRANSLATION

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ABSTRACT

The report covers the developed system which is lusoga speech to luo speech translation system that aimed at developing a mobile application called TRANSLATOR" that translates lusoga speech to luo speech and luo speech to lusoga speech during a voice call.

Lusoga to luo speech translation system was developed to meet the main objective of translation from lusoga speech to luo speech and from luo speech to lusoga speech during a call.

The project utilizes the basic concepts of speech processing such as speech recognition and speech synthesis.

The main pushing factor for this system was language barrier and after development, the system enables a musoga person to speak specified lusoga words and they are translated to luo and a luo speaking person to speak specific luo words and they are translated to lusoga.

This aims at reducing the language gap between the lusoga language and luo language thus facilitating effective communication in the socio-economic, political and cultural interaction.

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CHAPTER ONE
INTRODUCTION

1.1 Background.

Language is the most important form of communication; the words we use convey our thoughts, emotions and ideas. But unfortunately, not everyone has the same lexicon. Since the Tower of Babel, the use of different languages has caused division among peoples, and today more than ever, businesses and individuals are seeking real-time translation services in order to communicate with partners and customers around the world.

Language translation is the transfer of the meaning of a text or speech from one language to another for readership. Language translation methods have evolved over the years and vary from traditional human translation to machine translation to machine translation with a human translation component. Various pre- and post-translation editing techniques have also been employed to increase the accuracy of translated text. Human translators use a variety of thought processes, skills and resources to interpret the meaning of a sentence and communicate the meaning of that sentence in a different language. They are experts at the proper grammar, idiomatic turn of phrase, and specialty vocabulary areas, which ensure a translation that will be clearly understood in the target language. Understandably, the automation of this human process has proven to be challenging and costly, and to date the publication of translated documents often requires the involvement of a human translator acting as an editor[1].

According to the 2005 edition of Ethnologue, there are 7,099 living languages in the world[2]. According to the 2015 edition of Ethnologue, Uganda has a total of 41 living languages. A living language is one that has at least one speaker for whom it is their first language. The languages are concentrated in the regions of Uganda as follows; Runyankole-Rukiga, Rutooro, Runyoro, Rukonjo in Western Uganda, Luganda in Buganda region, Lusoga in Busoga sub-region, Lugisu, Samia, Ateso, Kumam, Lunyole, Lugbara in Eastern region, Alur, Langi, Luo, Karimojong, in Northern Uganda, among other local languages.

Majority of the local people understand their different native languages and they are wide apart making communication between them hard, therefore the invention of an automatic language

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