DIFFERENT PROTOTYPE SOURCES OF ELECTRICITY FOR INSTRUCTIONAL PURPOSES

THESIS

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ABSTRACT

BELANO, ERICK CHRISTIAN M. and BUENAFE, VICTOR BRIGOLI C. Different Prototype Sources of Electricity for Instructional Purposes for Cavite State University. Undergraduate Design Project. Bachelor of Industrial Technology Major in Electrical Technology. Cavite State University, Indang, Cavite. April 2016. Adviser: Mr. Garry M. Cahibaybayan.

The study was conducted to produce different prototype sources of electricity for instructional purposes. It provides knowledge about basic electricity to the students taking any related electrical courses, especially to Electrical Technology. The project was tested and evaluated in terms of user interaction, consistency, efficiency, accuracy and reliability.

The different prototype sources of electricity for instructional purposes were composed of four different prototypes. These were placed in a cabinet made of glass and aluminum frame. Precaution stickers were attached on the doors of the cabinet to be easily read.

Testing of the project was conducted before it was subjected to final evaluation. It was tested by conducting the provided experiment at the electrical laboratory. The experiment was tested with various activities performed by the researcher. The good outcome led to subject the design project for evaluation.

The performance of the project was evaluated and found to be very efficient, reliable and economical to use in any electrical activities of the university. The study satisfied all the objectives and therefore confirmed that it was conducted. However, there were some recommendations to further determine the performance of the project.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

DIFFERENT PROTOTYPE SOURCES OF ELECTRICITY FOR INSTRUCTIONAL PURPOSES

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INTRODUCTION

Electricity has become one of the basic needs in everyday living. People use electricity constantly in their daily lives to operate technologies such as machines, motors, vehicles, gadgets, and home appliances.

In Benjamin Franklin's time, scientists thought that electricity was a fluid that could have positive and negative charges. But today, it has been proven a fact by scientists that electricity is produced by very tiny particles called electrons and protons. These particles are too small to be seen, but they exist in all materials. To understand how they exist, one must first understand the structure of all matter.

According to a study by the electricity distribution company, Meralco, in the year 2014, Filipino residential consumer's electricity consumption behaviour is parallel to their socio-economic class. The lower the socio-economic class, the lower the consumption. This is due to limitations in spending capacity for purchase of appliances, resulting in