

DESIGN AND DEVELOPMENT OF A CCTV TRAINER

Undergraduate Design Project
Submitted to the Faculty of the
College of Engineering and Information Technology
Cavite State University
Indang, Cavite

In partial fulfillment
of the requirements for the degree
Bachelor of Industrial Technology
major in Electronics Technology

CATHERYN M. BERNAL

June 2017

ABSTRACT

BERNAL, CATHERYN M. Design and development of a CCTV trainer. Undergraduate Design Project. Bachelor of Industrial Technology major in Electronics. Cavite State University, Indang, Cavite. June 2017. Adviser: Ms. Ma. Fatima B. Zuñiga.

The study was conducted from August 2016 to November 2016 at the Department of Industrial Engineering and Technology, Cavite State University, Indang Cavite. Its main objective is to design and develop a CCTV trainer.

It was configured with a set of electronic devices, convenient casing, and an instructional manual with laboratory activities for incoming electronics students. The study accomplished its objectives such as designing the closed-circuit television trainer, integration of major devices, construction of the casing, test and evaluation of the designed project, and providing instructional manual.

All components are organized in one portable casing with some safety compartment and straps inside. The instructional manual can also be found inside the casing where it contained a step by step procedure for system operation. It is very efficient to use for demonstration because it was intentionally designed with a hassle free to carry and storage space saving.

The activities provided by the researcher were conformed according to its diagram, CCTV trainer parts, installation process, and basic operation. Through the participation of the thesis adviser, technical critic, DIET instructors, and Electronics Technology students during evaluation process, the output was attained successfully considering its effectiveness.

TABLE OF CONTENTS

	Page
BIOGRAPHICAL DATA	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	vi
LIST OF FIGURES	ix
LIST OF TABLES	x
LIST OF APPENDIX FIGURES	xi
LIST OF APPENDIX TABLES	xii
LIST OF APPENDICES	xii
INTRODUCTION	1
Statement of the Problem	3
Significance of the Study	4
Objectives of the Study	4
Time and Place of the Study	4
Scope and Limitations of the Study	5
Definition of Terms	5
REVIEW OF RELATED LITERATURE	10
METHODOLOGY	32
Materials	32
Methods	33
RESULTS AND DISCUSSION	45
Project Description	45

Project Structure	45
Project Capabilities and Limitations	46
Project Evaluation	49
SUMMARY, CONCLUSION, AND RECOMMENDATIONS	52
Summary	52
Conclusion	52
Recommendations	53
REFERENCES	54
APPENDICES	56