DESIGN AND DEVELOPMENT OF AN INTERCOM SYSTEM FOR THE COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY

Design Project

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Indang, Cavite

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DESIGN AND DEVELOPMENT OF AN INTERCOM SYSTEM FOR THE COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY[1/]

Undergraduate Design Project
Submitted to the faculty,
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Indang, Cavite

In partial fulfillment
of the requirements for the degree of
Bachelor of Science in Electronics and Communications Engineering

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Department of Computer and Electronics Engineering

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Title: **DESIGN AND DEVELOPMENT OF AN INTERCOM SYSTEM FOR THE COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY**

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ABSTRACT

DAYAUON, HENRY CARL R., DIMAS, LOVELY MAE P., and ROMAN, JERRIE MAE Y. Design and Development of an Intercom System for the College of Engineering and Information Technology. Undergraduate Design Project. Bachelor of Science in Electronics and Communications Engineering. Cavite State University, Indang, Cavite. April 2008. Adviser: Engr. Cesar C. Carriaga.

The design and development of an Intercom System was conducted at Golden City Subdivision Anabu II-F, Imus, Cavite. The main objective of the study was to design and develop an intercom system for the College of Engineering and Information Technology of the Cavite State University.

The project was composed of ten telephone units and an intercom device that acts as the controller for the whole system. The ten telephone units were installed to the ten offices of the College of Engineering and Information Technology. The controller was placed in the Department of Agriculture and Food Engineering (DAFE).

The intercom device was composed of a power supply, relays and a microcontroller. The power supply used two step down transformers that transformed the 220V AC to 100V, 50V, 12V and 5V required for the ringer, telephone unit, relays and ICs, respectively.

The relays act as the switching device whenever a call was made. The PIC microcontroller controls what tone is heard when the phone is used.

The total cost of the device was PhP 17, 310.00.

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[1/] A design project presented to the faculty of the Department of Computer and Electronics Engineering, College of Engineering and Information Technology, Cavite State University (CvSU), Indang, Cavite in partial fulfillment of the requirements for graduation with the degree of Bachelor of Science in Electronics and Communications Engineering (BSECE) with Contribution No. ECE-2007-08-009. Prepared under the supervision of Engr. Cesar C. Carriaga.

INTRODUCTION

In early time, the modes of communication that takes place during that time consume a very long span of time in order to carry the data or information to its desired destination. One example of these modes of communication is through the use of mails and letters. Nowadays, modes of communication have been improved, innovated and upgraded electronically. The telecommunication devices have been used to make communications and the transfer of information more reliable, efficient and done in the shortest time possible.

At present, telecommunication devices have been used in firms and in organizations that needs to be constantly connected to its different offices. Intercoms are one of the very popular telecommunications that is used in this kind of situation. Intercom is a private telecommunication system that allows typically two or more locations to communicate with each other like the normal telephone does. In our