HIGHER TECHNICAL INSTITUTE
ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

# DEVELOPMENT OF A DATA ACQUISITION SYSTEM FOR LAB EXPERIMENTS

by
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# Development of a Data Acquisition System for Lap Experiments.

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# CHAPTER I

## Introduction to Data Acquisition Systems.

### Introduction

The operation of the computers nowadays has been improved to a very high stage. Day by day the speed of processing and storing capabilities of the computers are being advanced giving us the opportunity to create and use very advanced software programs to facilitate our work.

Though there is an essential need for the computer to process, not only data supplied to the PC from a keyboard or from other devices, but to receive data from the outside world and vice versa that is to give information to the outside world.

For this purpose a chapter of computers technology called Data Acquisition has been created and advanced.

This leads to the purpose of this project which is to explain to the student, in the form of laboratory experiments, not the whole Data acquisition system but from the point from which a signal is entering the computer and is displayed on the screen and vice versa that is after the execution of a program the output will be sent to an output port. The input devices are either eight lateral switches or an ADC. The output device is eight LED's.

Also another part of the Data Acquisition system is the Analogue to digital converter (Successive Approximation ) which will be also illustrated in the form of laboratory experiments.