

**Higher Technical Institute  
ELECTRICAL ENGINEERING DEPARTMENT**

**DIPLOMA PROJECT**

**DEVELOPMENT OF A DATA ACQUISITION  
SYSTEM CONNECTED TO THE INTERNET**

*BY  
STATHIS PANAYIDES*

*E/1174*

JUNE 1999

**HIGHER TECHNICAL INSTITUTE  
ELECTRICAL ENGINEERING DEPARTMENT**

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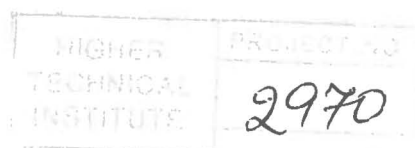
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## INTRODUCTION:

The sudden evolution of modern technology made computers in our days one of the most essential tools for the human. Most of the companies, schools and houses have nowadays their own pc. Furthermore Internet has come to change our lives and provide us with lots of services that can save us time and money, such as the electronic mail, the World Wide Web and so on.

With the great development of modern computers the computers past the period of time which they were used just to process documents, spreadsheets etc., but they are now used to perform many different, powerful and useful tasks. One of the most efficient tasks a pc can perform is the capture of data.

Engineers have realised the critical role that the capture of data can play in modern societies and came out with the Data Acquisition Systems. These systems consist of many electronic components that can be used to capture data from the outside world ( such as temperature, humidity, voice etc. ) store and process it in the pc and finally output the result of the process either on the pc monitor or the printer.

This project aim is to design and construct a Data Acquisition System that will process the input data and after several manipulations of the result, these are going to be available for the user through a software program at its pc and at the Internet.

For this reason an electronics card is constructed and inserted at the pc system bus, which then enables the computer to capture the data present at the single analogue input that is fed to it. This analogue signal is a voltage, and can be replaced with any kind of sensor, like temperature sensor, that is going to convert the temperature into voltage.

A software program is then written in order to provide control of the card and provide the user with the ability to process the input data. Finally the manipulated data is stored in pc memory and is published on the Internet so that anyone that has access to the Internet can have them.