

HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

NETWORK ACCESSIBLE DATA

COLLECTION UNIT

E. 1249

BY: STELLA S. SAVVIDES

JUNE 2000

HIGHER TECHNICAL INSTITUTE



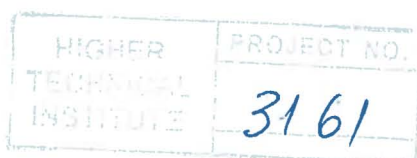
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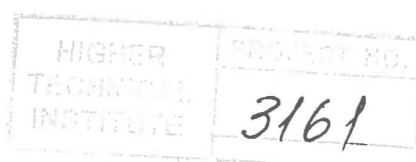
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COLLECTION UNIT**

BY

STELLA S. SAVVIDES

This project is submitted in partial fulfillment of the Technician
Engineer Diploma in Electrical Engineering

JUNE 2000



To my father and at the same time my best friend, Savvas.

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ABSTRACT

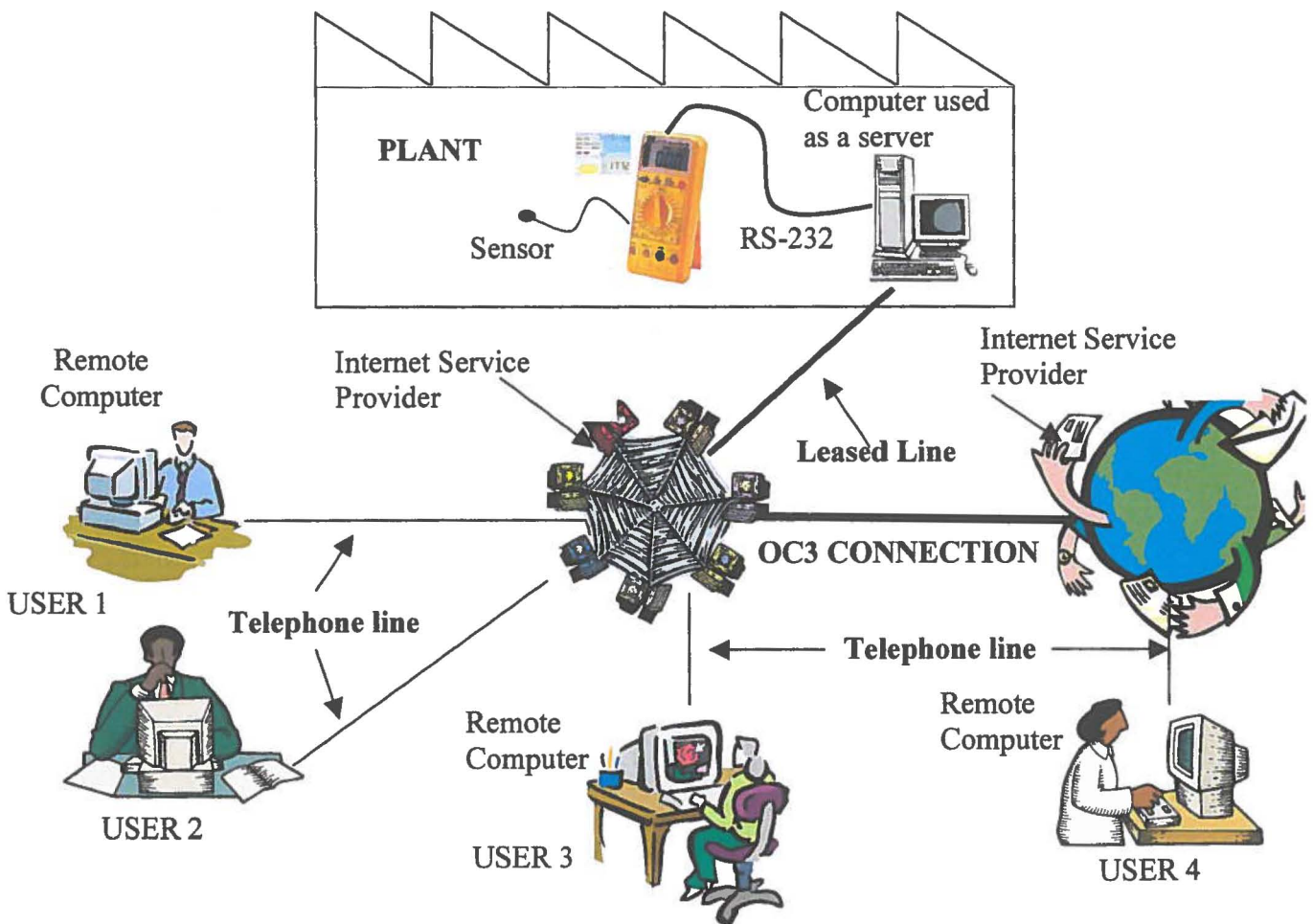
This project is about a Network Accessible Data Collection Unit. A multimeter (TES 2730) which is provided with an RS232 port (serial port) is used to capture the data, which is temperature for the purpose of this specific project. The instrument is connected to a computer and with the use of software that is provided with the instrument, temperatures are recorded at predefined intervals. A Visual Basic software programme was developed in order to make available the data recorded on the computer and from there to the Internet. The access to the data through the Internet is given under another software (Front Page), which was also developed. The users that would like to have access on the data captured by the multimeter have to have this software installed on their computer.

Finally the objective of the project is to have the room temperatures of a plant recorded at regular intervals. In case that certain predefined limits are exceeded warning signals are given for remedial action.

INTRODUCTION

The idea of this project is to get access to specific data through the Internet. The data received for this specific project is temperature but it could easily change to voltage, current, frequency, resistance, capacitance, and inductance by using exactly the same data collection unit (TES 2730 multimeter). Also with the use of other type of instrument or specific interface equipment, other type of data could be recorded according to the case and need.

For the purpose of this project it is considered that a plant with very expensive equipment is installed in a certain site and data regarding the room temperature is very important for the safe functioning of the equipment. This plant is not permanently manned. By installing a computer with large capacity of a hard disc, which is connected, to the TES 2730 through a serial port, temperature data can be made available to the Internet. The following schematic diagram shows how the data can be accessed from different locations.



Specific software written in Visual Basic was developed in order to make it possible to access the data from the Internet.