

HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

COMPUTERISED  
IRRIGATION SYSTEM

E. 1226

STEPHANOU ANNA

JUNE 2000

**HIGHER TECHNICAL INSTITUTE**

**ELECTRICAL ENGINEERING  
DEPARTMENT**

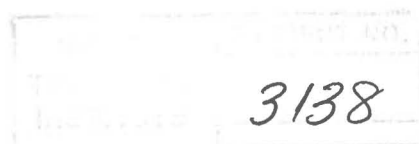
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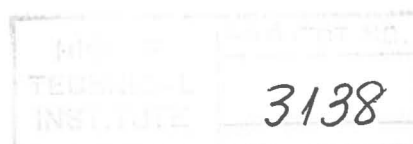
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**E/1226**

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**COMPUTERISED IRRIGATION SYSTEM**

**SUBMITTED BY:**

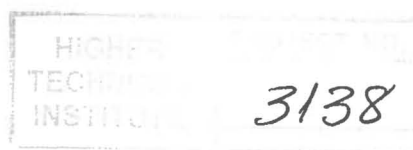
**STEPHANOU ANNA**

**E/1226**

**In partial of the requirements for the diploma award of the  
technician engineer in electrical engineering department**

**HIGHER ELECTRICAL INSTITUTE**

**JUNE 2000**



**HIGHER TECHNICAL INSTITUTE**  
**NICOSIA - CYPRUS**  
**ELECTRICAL ENGINEERING DEPARTMENT**  
**DIPLOMA PROJECT**

1999/2000

**Project Number:** E. 1226

**Title:**

"A Computerised Irrigation System."

**Objectives:**

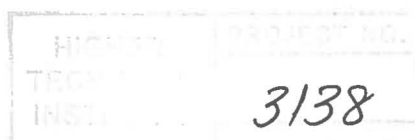
To investigate commercially available and develop a control scheme for automatic irrigation.

**Terms and Conditions:**

- Investigate the common facilities available in the commercially available irrigation systems.
- Investigate possible facilities and sensor drivers for this purpose.
- Select the most suitable design and build such a facility.

Student : Miss. Stephanou Anna.  
Supervisor : Mr. Spyros Spyrou.  
External Assessor : Mr. Michael Souroupetsis.

Mark : %



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Last but not least a special thank to my mother and sister for their patience during the last three months of my final year when this project was written

## SUMMARY- INTRODUCTION

This project deals with the techniques used today for watering fields, lawns and crops in Cyprus. The main objective of the project is a sensor board fitted in the controller of an automatic irrigation system.

Although, this is not a new technology, it is not widely used in Cyprus where distances are small and one can visit his field often to check on the soil moisture and the need for irrigation.

Automatic Irrigation Systems –especially through computers- are too expensive in the Cyprus market due to the rare use. There should be though more wide usage of them since they can save a great amount of water from being wasted, labor and time.

The project comprises with a brief analysis of the history of irrigation, a simplified automatic irrigation system installation, research in the Cyprus market for the availability of such products and their prices along with photographic material for better understanding of the terms used. The other part of the project deals with the construction of a sensor board for measurement of soil and air temperature and moisture, and how this could be fitted in a fully computerized irrigation system.

An effort has been made for specialized technical language not to be used so that the project can be fully understandable to anyone who reads it, engineer, agriculturist, or any other person who is interested in using such systems.