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DIPLOMA PROJECT

MONITORING OF PARKING LOTS WITH PROGRAMMABLE LOGIC CONTROLLERS

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DEVELOPMENT OF A PROGRAMMABLE LOGIC CONTROLLER PARKING

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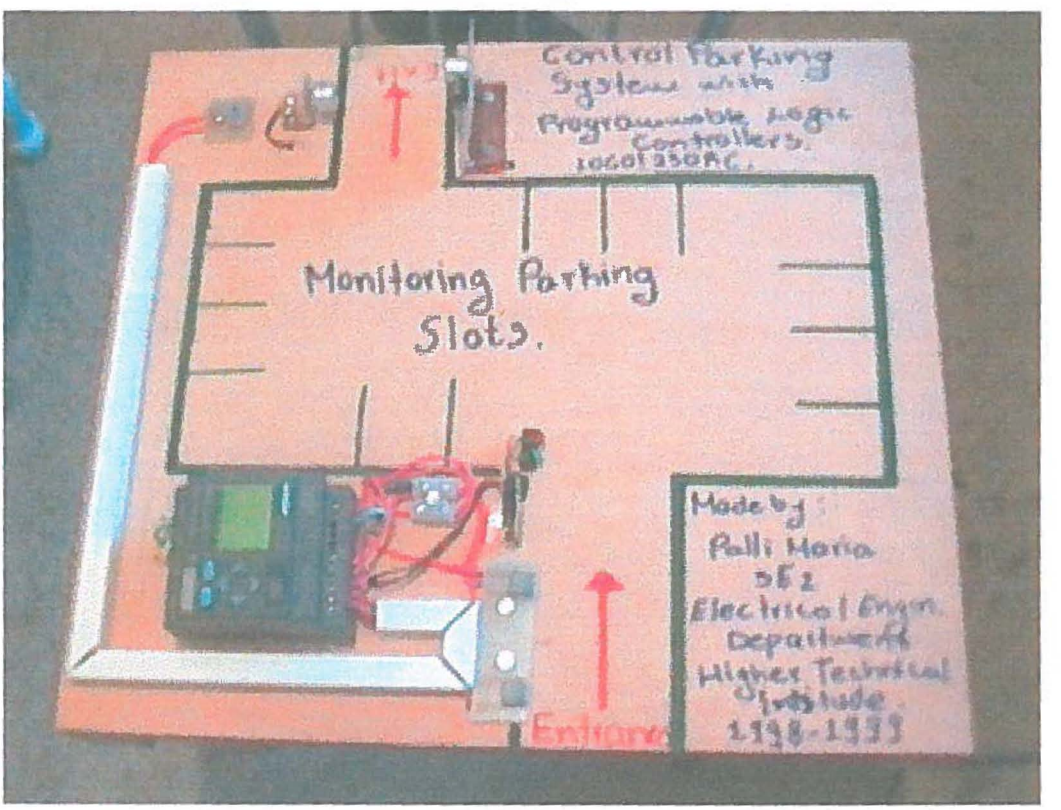

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To my family

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SUMMARY

The reason of writing this book was, firstly, to give a brief explanation about the internal and external operation of the **Programmable Logic Controller** and, secondly, to represent a specific application in the modern industry. In this way, everybody will get a general idea about the superiority, some advantages and disadvantages, the usage and applications of this type of PLC.
But, it is good to mention that, this type of PLC has not been studied before by anybody, so that, some other disadvantages or advantages will be specified during the execution of this specific construction.

There are many types of PLCs, but only the LOGO! 230RC are going to be considered in this book. In LOGO! You have acquired a logic module that meets the stringent quality requirements of ISO 9001.

The interest of mine for a new type of parking system –which is already used in Europe- with the need of a unit to control the parking slots was the main motive which pushed me to execute this project. This unit will be able to supply the drivers with the information regarding the availability of empty parking positions in the parking place.

This project is dealing with the design, construction and development of the necessary software and hardware to control this unit.

Different electronic circuits are going to be used, as inputs of the PLC, in order to cover a wide range of techniques that anyone can use for the perfect operation of the Monitoring of Parking Lots. Also, as outputs, solutions with a motor will be shown. Moreover, traffic lights will be used for indicating the present situation, which will exist in the Carpark, any time.

Finally, as it has been mentioned above, this controlled parking system is already taken place in Europe and in the near future it is going to appear in Cyprus, too. So, it is believed that this project will be valuable and useful for the not distance future, in the Cyprus modern industry.

So, enjoy by studying carefully the valuable information about this specific application and for the PLC, generally, in the chapters that are following...