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ELECTRICAL ENGINEERING COURSE

DIPLOMA PROJECT

DEVELOPMENT OF A POLISHING MACHINE USING PROGRAMMABLE LOGIC CONTROLLERS

By

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DEVELOPMENT OF A SEQUENCE CONTROL SCHEME OF A POLISHING MACHINE USING PROGRAMMABLE LOGIC CONTROLLERS

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PREFACE

Few words to start with....

This book intends to discuss mainly the Programmable Logic Controllers, explain the internal and external operation and show their applications in the modern industry. It will explain the superiority and advantages, the usage and applications.

A control sequence was chosen to illustrate better the characteristics and capabilities of the PLCs. This is a complete Polishing Machine. With this simple example the 'ladder' programming language will be examined and an associate program will be introduced and analyzed.

Since the topic of Programmable Controllers is relatively difficult to be understood by people with little technical knowledge, the purpose of this book is to introduce the subject in the simplest way. It is not my intention to present any sophisticated material that will be addressed only to engineers, because any other book will make a better impact. I decided to write this book to apply to any category of people so as to make the subject matter of PLCs more accessible.

The language is very simple and the technical clauses are minimized where possible and explained thoroughly. Special care was taken to explain in understandable words, every single technical word that is needed to be inserted.

Diagrams are used throughout the book to illustrate the subject better and make the reading more pleasant. I tried my best to present a very enjoyable material and I hope nobody will be bored reading it.

The application program is based on the Allen Bradley Micrologix 1000 Programmable controller instruction manual and different techniques were used to cover a wide range of programming capabilities. References are taken from a variety of books on Programmable Controllers and other manual and data sheets.

So, step into the world of Logic Controllers and enjoy every chapter while learning a very important aspect of modern industry.