الآيــــــــة

قال تعالى:

{ لَقَدْ أَرْسَلْنَا رُسُلَنَا بِالْبَيِّنَاتِ وَأَنزَلْنَا مَعَهُمُ الْكِتَابَ وَالْمِيزَانَ لِيَقُومَ النَّاسُ بِالْقِسْطِ وَأَنزَلْنَا الْحَدِيدَ فِيهِ بَأْسٌ شَدِيدٌ وَمَنَافِعُ لِلنَّاسِ وَلِيَعْلَمَ اللَّهُ مَن يَنصُرُهُ وَرُسُلَهُ بِالْغَيْبِ إِنَّ اللَّهَ قَوِيٌّ عَزِيزٌ }

ꙮ

سورة الحديد
الآية (25)

Dedication

I am deeply grateful & thankful to
Allah for guidance &assistance.
I would like to particularly thank my
parent for sacrifices & commitment to
enriching my life; also my appreciation
is extending to all my family &
colleague long standing support.
All have my thanks & gratitude

Acknowledgement

A special acknowledgment to my supervisor Dr. **Eisa Bashier** for his advice, to the staff of the Electrical Department, to all those who had been of great help to me through my studies, whatever kind of helps I would like here to express my gratitude and appreciation for their aid and guidance.

ABSTRACT

This project study's the logo language as used in the international factory for iron and steel (IFS) to change the factory from classically controlled into programmable logic controlled.

The logo language depends on logic, the computer used to change from logo into programmable logic which in turn used to control the (IFS) factory. The main parts dealt with in the factory application are the detecting of hot metal, rolling, cutting and tail breaking.

المستخلص

يهتم هذا المشروع بدراسة لغة الـ Logo التي استعملت في المصنع الدولي للحديد والصلب لتغيير نظام التحكم في المصنع من تحكم تقليدي إلى تحكم منطقي مبرمج. حيث تعتمد لغة الـ Logo على علم المنطق. ثم يستخدم الكمبيوتر لتحويل لغة الـ Logo إلى لغة الـ Ladder والتي تعتبر اللغة الأساسية في نظام التحكم بالمصنع. وذلك عن طريق الأجزاء الرئيسية المستخدمة وهي خلية ضوئية ورولات ومقص.

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List of Symbols

I	INPUT
Q	OUTPUT
≥1	OR GATE
&	AND GATE
1	NOT GATE
	OFF DELAY TIMER
	ON DELAY TIMER
	ON/OFF ELAY TIMER

List of Abbreviations

IFS	International Factory for Iron and Steel
PLC	Programmable logic controllers
ASIC	Application Specific Integrated Circuits
FPGA	Field Programmable Gate Arrays
ADC	Analog-to-digital converters
DAC	Digital-to-analog converters
I/O	Input/output
PROM	Programmable read-only memory
EPROM	Erasable programmable read-only memory
EEPROM	Electrically erasable programmable read-only memory
NOVRAM	Nonvolatile random access memory
PV	Process variables
MV	Manipulated variables
SV	Set value

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