

الآية

بسم الله الرحمن الرحيم

{ شَهِدَ اللَّهُ أَنَّهُ لَا إِلَهَ إِلَّا هُوَ
وَالْمَلَائِكَةُ وَأُولُوا الْعِلْمِ قَائِمًا
بِالْقِسْطِ لَا إِلَهَ إِلَّا هُوَ الْعَزِيزُ
الْحَكِيمُ }

صدق الله العظيم

آل عمران: (18)



DEDICATION

I'm so glad to dedicate this project to my father, mother, wife, family and all who support me to bring it to life.

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First, I thank my God Allah for blessing me with patience, health and insistant to finish this research.

Iwould like to express my sincere gratitude to the electrical engineers in ATBARA pump station.

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Abstract

The distributed control systems (DCS) are increasingly being used by control engineers to achieve tighter controls of processes in various industries.

Each DCS application is unique in the sense, that the DCS system configuration depends on the process flow and equipment specific to the plant and specific needs of the plant in terms of control strategies, operator displays logging and reporting, and alarm management system...etc.

The objective of this research is to study the integral role of DCS and measurement devices to protect Sudanese petroleum pipe lines company (SPPC), and I dedicated my study in ATBARA pump station.

□□□□□□

كثير إستخدام نظام التحكم الموزع في مختلف الصناعات وذلك للوصول إلى أقصى درجات التحكم.

ونجد أن كل تطبيقات أنظمة التحكم الموزعة يتم تهيئتها اعتماداً على نوعية المعالجات المطلوبة وفقاً للمعدات الخاصة بالدق و احتيا جاته بما يسمى إستراتيجية التحكم، وتشمل شاشات العرض، التقارير، إدارة أنظمة الإنذار، ...إلخ.

تمت هذه الدراسة بمحطة الضخ عطبرة والغرض منها دراسة الدور المتكامل لأجهزة القياس ونظام التحكم الموزع لحماية محطات الضخ بالشركة السودانية لخطوط أنابيب البترول .

Table OF Contents

الإهداء.....	I
Dedication.....	II
Acknowledgment.....	III
Abstract	IV
ملخص V	
Table of Contents	VI

CHAPTER ONE- INTRODUCTION

1.1 Historical Background	1
1.2 Overview OF Control System	2
1.3 Comparison Of the Term DCS , SCADA , and PLC	5
1.4 Research Layout	6

CHAPTER TWO- MEASUREMENT OF NONE ELECTRICAL QUANTITIES

2.1 Introduction	7
2.2 Flow Measurement	7
2.2.1 Turbine Flow meter	7
2.2.2 Electric display Unit	10
2.3 Pressure Measurement	10
2.3.1 Diaphragm of Capsule Type Pressure Sensor	11
2.3.2 Pressure Gauge	12
2.3.3 Digital Display	13
2.4 Temperature Measurement	14
2.4.1 Resistance Temperature Detector (RTD).....	14
2.4.2 RTD Advantage and Disadvantage	16
2.4.3 RTD Failure Modes	17
2.5 Level Measurement	17
2.5.1 Float and Guide Tube Design	17
2.5.2 Level Radar	18

CHAPTER THREE – DISTRIBUTED CONTROL SYSTEM COMPONENTS

3.1 Process Supervisor Unit	20
3.1.1 Main Feature	21
3.1.2 Profibus	21
3.2 Module	23
3.2.1 Digital Input Module	24
3.2.2 Digital Output Module	32
3.2.3 Analogue Input Module	37
3.2.4 Analogue Output Module.....	40

3.2.5 Frequency Input Module	42
3.2.6 RTD Module	43
3.3 Multi Screen Display	46
3.4 Location Of Sensors	47

CHAPTER FOUR- DCS COMMUNICATIONS AND NETWORK SYSTEMS

4.1 Essential Of Communication System	49
4.2 Communication Modes	49
4.2.1 Simplex	49
4.2.2 Half- Duplex	50
4.2.3 Full- Duplex	50
4.3 Asynchronous System.....	51
4.4 Synchronous System.....	51
4.5 EIA-232 Interface Standard.....	52
4.5.1 Main Features of Equipment Using the EIA-232.....	52
4.6 The EIA-485 Interface Standards.....	54
4.7 Local Area Network System	55
4.8 Network Topologies	56
4.9 Network Interconnection Components	57
4.9.1 Repeaters	57
4.9.2 Bridges	57
4.9.3 Router	57
4.9.4 Gate way	58
4.9.5 Hubs	58
4.9.6 Switches	58
4.10 TCP/IP Protocols	59

CHAPTER FIVE – DISTRIBUTED CONTROL SYSTEM CONFIGURATION

5.1 Introduction	60
5.2 Main Features For System Configuration	60
5.3 DCS System Database	61
5.4 Configuration Of Function Block Diagram FBD	62
5.5 Configuration Of Instruction Lists	63
5.6 Configuration Of Sequential Function Chart	66
5.7 Configuration Of System Hardware Structure	67
5.8 Configuration Of Alarm	67
5.8.1 Type Of Alarm	68
5.8.2 Adjustable Alarm	68
5.8.3 Units Alarm Setting	69
5.8.4 Testing Of Alarm	69
5.8.5 Setting Alarm Priority	70
5.9 Trend Display	71

5.10 Overview Graphic Display	72
5.11 Daily Tank Filling Model	74
5.12 Unit Start Sequence Model	76
5.13 Engine Water Temperature Shutdown Model	78
CHAPTER SIX – CONCLUSION AND RECOMMENDATION	
6.1 Conclusion	79
6.2 Recommendation	79
6.3 References	80