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JUDUL: **PERFORMANCE INDICATORS SYSTEM IN DECISION SUPPORT FOR INFINEON TECHNOLOGIES (M) SDN BHD.**

SESI PENGAJIAN: **2006**

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PERFORMANCE INDICATORS SYSTEM IN DECISION SUPPORT FOR INFINEON TECHNOLOGIES (M) SDN BHD.

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This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Software Development)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA
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DEDICATION

To my beloved parents, Mr. Lee Thau Yun and Mrs. Lin Mui Len, and also my family for their seems less expression of love and fully support ...

To my supervisor, Puan Siti Azirah bt. Asmai, for making it all worthwhile …

and also to all my beloved one., thanks for all the supprts

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ABSTRACT

Employee Performance in any company is a raising issue now. By using a standardized indication system evaluation towards employees can be done in an easy yet efficient way especially for big company with more than 5000 employees. Infineon Technologies (M) Sdn Bhd foresees the important of fine employee evaluation system, and request for the development of Performance Indicators System In Decision Support. The purpose of the project is to implement a successful performance indicators system to evaluate Infineon's employee performance, thus supporting decision making by management team to monitor and fully utilize available resources. This thesis describes the design and implementation of Performance Indicator System that is suite with the company's need. Basically, this system comprises of four modules which is payroll, resource planning, leave application and data analysis. It is essentially a decision support system that operates by acquiring data from individual and task involved, applying analyzing technique to obtain real effort value by the particular employee and giving out rewards based on the employee's performance. This system provides a reliable evaluation schemes to identify ability of an individual. Object Oriented Analysis and Design has been chosen as a methodology for this project and will be implemented along the system development process to ensure the objectives of the project can be fulfilled. Definitely, the proposed system provides a solution to the company current problem.

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ABSTRAK

Isu persembahan pekerja di kalangan industri telah dibangkitkan pada masa ini. Dengan menggunakan suatu system yang menjadi panduan selaras kepada persembahan pekerja, penilaian boleh dijalankan dengan mudah dan efisien terutamanya untuk syarikat besar yang mempunyai lebih daripada 5000 orang pekerja. Menyedari kepentingan untuk suatu penilai persembahan pekerja yang bekesan, Infineon Technologies (M) Sdn Bhd telah membuat permintaan untuk pembangunan sistem penilaian persembahan pekerja sebagai sokongan membuat keputusan. Tujuan projek ini adalah untuk melaksanakan system Penilaian Persembahan Pekerja untuk menilai keberkesanan daya usaha perkerja Infineon Technologies, dan sebagai sokongan untuk pihak pentadbiran mengawas dan menggunakan sumber dengan sepenuhnya. Tesis ini menerangkan rekabentuk dan perlaksanaan Sistem Penilaian Persembahan yang sesuai dengan keperluan syarikat tersebut. Sistem ini pada asasnya terdiri daripada empat modul iaitu gaji, perancangan sumber, pemohonan cuti and analisa data. Pada asasnya sistem ini merupakan sistem penyokongan untuk membuat keputusan dengan dari data yang diperolehi dalam individu dengan kerja yang dilaksana, lalu mengaplikasikan teknik menganalisa untuk mendapat nilai sebenar yang diperolehi dari persembahan pekerja dan akhirnya memberi ganjaran setimpal dengan usaha yang diberi. Sistem ini menyediakan satu skema yang perihal untuk menentukan daya usaha seseorang individu dalam syarikat. Analisis dan reka bentuk yang berasaskan objek telah dipilih sebagai kaedah bagi projek ini dan ia akan dilaksanakan sepanjang proses pembangunan sistem untuk memastikan pencapaian objektif. Yang pastinya bahawa cadangan system ini membekalkan jalan penyelesaian untuk masalah semasa syarikat tersebut.

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TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
	PROJECT TITLE	i
	ADMISSION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii-xi
	LIST OF TABLES	xii
	LIST OF FIGURES	xiv
	LIST OF APPENDICES	xvi-xviii
	LIST OF ABBREVIATIONS	xvix
CHAPTER 1	INTRODUCTION	
	1.1 Project Background	1
	1.2 Problem Statement	2
	1.3 Objectives	2
	1.4 Scopes	3
	1.5 Project Significance	5
	1.6 Conclusion	5
CHAPTER II	LITERATURE REVIEW AND PROJECT METHODOLOGY	
	2.1 Introduction	7
	2.2 Facts and Findings	7
	2.2.1 Domain Background	8

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2.2.2	Existing System Research	8
	2.2.2.1 Infineon Current System	8
	2.2.2.2 Halogen e-Appraisal System	11
	2.2.2.3 Manager Assistant 3.0	13
	2.2.2.4 Conclusion	16
2.2.3	Technique	16
2.3	Project Methodology	17
2.4	Project Requirements	19
2.4.1	Software Requirement	19
2.4.2	Hardware Requirement	20
2.4.3	Other Requirements	20
2.5	Project Schedule and Milestones	20
2.6	Conclusion	20

CHAPTER III ANALYSIS

3.1	Introduction	22
3.2	Problem Analysis (Current System)	22
3.2.1	Background of Current System	23
3.2.2	Problem Statements	26
3.3	Requirement Analysis (To-Be System)	27
3.3.1	Functional Requirements	27
	3.3.1.1 Scope	28
3.3.2	Business Flow	29
3.3.3	Use Case View	30
3.3.4	Actors	30
3.3.5	Use Case Description	30
3.3.6	Sequence Diagram	46
3.4	Software Requirements	46
3.5	Hardware Requirements	46
3.6	Conclusion	47

CHAPTER IV DESIGN

4.1	Introduction	48

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4.2	High Level Design	49
	4.2.1 Raw Input/Data	49
	4.2.2 System Architecture	51
	4.2.2.1 Static Organization	52
	4.2.2.2 High -Level Class Diagram	53
	4.2.3 User Interface Design	53
	4.2.3.1 Navigation Design	54
	4.2.3.2 Input Design	54
	4.2.3.3 Output Design	56
	4.2.3.4 Prototype User Interface	58
	4.2.4 Database Design	58
	4.2.5 Deployment View	62
4.3	Detailed Design	63
	4.3.1 Software Specification	63
	4.3.2 Physical Database Design	70
4.4	Conclusion	70

CHAPTER V IMPLEMENTATION

5.1	Introduction	70
5.2	Software Development Environment Setup	71
5.3	Software Configuration Management	72
	5.3.1 Configure Environment Setup	72
	5.3.2 Version Control Procedure	72
5.4	Implementation Status	73
5.5	Conclusion	75

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CHAPTER VI TESTING

6.1 Introduction 76

6.2 Test Plan 77

6.2.1 Test Organization 77

6.2.2 Test Environment 77

6.2.2.1 Overview 77

6.2.2.2 Hardware 77

6.2.2.3 Software 78

6.2.3 Test Schedule 78

6.3 Test Strategies 78

6.3.1 Classes of Tests 79

6.4 Test Design 80

6.4.1 Test Description 80

6.4.2 Test Data 87

6.5 Test Case Results 89

6.5.1 Test Result for Login 89

6.5.2 Test Result for Register New User 90

6.5.3 Test Result for Insert New Project 90

6.5.4 Test Result for Apply Leave 91

6.5.5 Test Result for Request Involvement 91

6.5.6 Test Result for Approve Involvement 92

6.5.7 Test Result for Approve Leave 92

6.6 Conclusion 92

CHAPTER VII CONCLUSION

7.1 Observation on Weakness and Strengths 94

7.1.1 System Strength 94

7.1.2 System Weaknesses 95

7.2 Propositions for Improvement 95

7.3 Contribution 95

7.4 Conclusion 96

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REFERENCES 97
BIBLIOGRAPHY 98
APPENDICES 99

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LIST OF TABLES

TABLE	TITLE	PAGE
3.1	Software Requirements	48
3.2	Hardware Requirements	48
4.1	Raw Data for PIS Database	49
4.2	New Registration Form Input Design	54
4.3	Authentication Form Input Design	55
4.4	Request Involvement Form Input Design	55
4.5	Leave Application Form Input Design	55
4.6	Insert New Project Form Input Design	55
4.7	Registration Form Output Design	56
4.8	Authentication Form Output Design	56
4.9	Request Involvement Form Output Design	57
4.10	Insert New Project Form Output Design	57
4.11	Apply Leave Output Design	58
5.1	Configuration Management Phases	72
6.1	Test Schedule	78
6.2	Login Test	80
6.3	Register User Test	81
6.4	Insert New Project Test	82
6.5	Apply Leave Test	82
6.6	Request Involvement Test	83
6.7	Approve Involvement Unit Test	84

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6.8	**Approve Leave Unit Test**	**85**
6.9	**Module Testing**	**85**
6.10	**System Integration Testing**	**87**
6.11	**Test Summary Result**	**87**
6.12	**Test Data**	**88**
6.13	**Test Result for Login**	**89**
6.14	**Test Result for Register New User**	**90**
6.15	**Test Result for Insert New Project**	**90**
6.16	**Test Result for Apply Leave**	**91**
6.17	**Test Result for Request Involvement**	**91**
6.18	**Test Result for Approve Involvement**	**92**
6.19	**Test Result for Approve Leave**	**92**

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LIST OF FIGURES

FIGURE	TITLE	PAGE
2.1	Project Allocation View of Infineon Performance Monitoring System	9
2.2	Chart Generated from Infineon Performance Monitoring System	9
2.3	Project Resource Overview Page	10
2.4	Halogen e-Appraisal System Individual Performance Score Page	12
2.5	Halogen e-Appraisal System Admin Editing Page	13
2.6	Employee Information Page	15
2.7	Employee Performance Review Page	15
2.8	RUP Process Architecture	18
3.1	Project Resource Overview	24
3.2	Resource Distribution Chart	25
3.3	Overall Chart for Resource Loading	25
3.4	Overview of PIS	28
3.5	Register User Password Use Case	30
3.6	Password Registration Sample User Interface	33
3.7	Approve User Request Use Case	33
3.8	Approve User Request Sample User Interface	35
3.9	Insert New Project Use Case	35
3.10	Insert New Project Sample User Interface	38

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3.11	Insert New Project Use Case	38
3.12	Authenticate Password Use Case	40
3.13	Password Authentication Sample User Interface	42
3.14	Apply Leave Use Case	43
3.15	Apply Leave Sample User Interface	45
3.16	Request Involvement in Project/Task Use Case	45
3.17	Request Involvement in Project/Task User Interface	47
4.1	PIS System Architecture	51
4.2	PIS Packages	52
4.3	PIS Entity Relationship Diagram	58
4.4	Relationship between TBLPROJECT and TBLBONUS	59
4.5	Relationship between TBLUSERS and TBLLEAVE	59
4.6	Relationship between TBLPROJECT and TBLUSERS	60
4.7	Relationship between TBLUSERS and TBLBONUS	60
4.8	Relationship between TBLPROJECT and TBLMANAGER	60
4.9	Relationship between TBLPROJECTDETAILS and TBLPROJECT	61
4.10	Relationship between TBLLEAVE and TBLAPPROVEDLEAVE	61
4.11	Relationship between TBLMANAGER and TBLAPPROVEDLEAVE	62
4.12	PIS Deployment View	63
4.13	Class LoginForm	63
4.14	Class FormNewProjects	64
4.15	Class ApproveLeaveScreen	66
4.16	Class ApproveInvolvementScreen	67
4.17	Class AnalysisScreen	68
4.18	Class ApplyLeaveForm	69

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LIST OF APPENDICES

ATTACHMENT	TITLE	PAGE
A	GANTT CHART	99
B	AS-IS SYSTEM ACTIVITY DIAGRAM	100
C	TO-BE SYSTEM ACTIVITY DIAGRAM	
	C.1 To-be System Model for User Process	101
	C.2 To-be System Model for Administrator Process	101
D	TO-BE SYSTEM USE CASE VIEW	102
E	TO-BE SYSTEM SEQUENCE DIAGRAM	
	E.1: Sequence Diagram for Approve User Leave Request	103
	E.2: Sequence Diagram for Approve User Leave Request Alternative Flow[A1]	104
	E.3: Sequence Diagram for Approve Involvement in Project	105
	E.4: Sequence Diagram for Approve Involvement in Project Alternativr Flow [A1]	106
	E.5: Sequence Diagram for Insert New Project	107
	E.6 New Project Exception Flow [E1]	108

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E.7 Sequence Diagram for View Analyzed Data 109
E.8 Sequence Diagram for Authenticate Password 110
E.9 Sequence Diagram for Authenticate Password Exception Flow [E1] 111
E.10 Sequence Diagram for Authenticate Password Exception Flow [E2] 112
E.11 Sequence Diagram for Apply Leave 113
E.12 Sequence Diagram for Apply Leave Exception Flow [E1] 114
E.13 Sequence Diagram for Request Project Involvement 115
E.14 Sequence Diagram for Request Project Involvement Exception Flow [E1] 116

F RAW DATA

F.1 Sample of Employee Involvement in Project (real data) 117

G HIGH LEVEL CLASS DIAGRAM

G.1 PIS High Level Class Diagram 118

H NAVIGATION DESIGN

H.1 PIS Admin Navigation Design 119
H.2 PIS User Navigation Design 119

I USER INTERFACE DESIGN

I.1 User Interface Design for Insert New Project 120
I.2 User Interface Design for User Authentication 120
I.3 User Interface Design for Manager Authentication 121
I.4 User Interface Design for Request Involvement in Project 121
I.5 User Interface Design for Password Registration 122

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Form

I.6 User Interface Design for Leave Application Form 122

I.7 User Interface Design for Leave Report 123

APPENDIX J – DATA DICTIONARY 124

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LIST OF ABBREVIATIONS

NO	ABBREVIATION	NAME
1.	KUTKM	Kolej Universiti Teknikal Kebangsaan Malaysia
2.	OOAD	Object-Oriented Analysis and Design
3.	OOSE	Object-oriented Software Engineering
4.	PIS	Performance Indicators System
5.	PSM	Project Sarjana Muda

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CHAPTER I

INTRODUCTION

1.1 Project Background

The proposed Performance Indicators System in Decision Support consists of four modules, which are resource planning, data analysis, leave application, and bonus appraisal system. There are two level of user authorization, which is managers and general users whom are engineers, the system mainly provides a work station for users to do data entry and processing. With the data provided, system will do extracting and analyzing, and the results will be used to support management team for decision making. The performance indicators system is to provide a user friendly system to monitor all the staff headcount usage under the department. This module intends to support project management team to fully utilize the resources in the department, provides resource allocation that proportional to the project's importance. Generally, leave application module is for general users to apply for leave, and administrator to approve/reject the leave application. While bonus appraisal application uses data collected from the other modules to auto generate bonuses proportional to the particular staff.

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1.2 Problem Statement

Currently, Infineon Technologies (M) Sdn Bhd. Power Semiconductor Development Department (PS DEV) is doing a resource monitoring system among all its staff where each engineers have to provide a real number of their own headcount for used in certain project. The system is run by using an excel sheets where everyone can read and write the file which located in a network drive. Currently the file only display static data with some charts, and sometimes it is not updated. User found it hard to do data entry in a data sheet form. Difficulties found where only one single user can open the file to do editing in one time.

Whereas, for the bonus appraisal, staffs need to manually enter their own total headcount for each month separately in order to generate bonus added to their salary since the resource planning spreadsheet is not connected to the payroll system, causing work redundancy for the staffs. Therefore, a solution needed to be developed in order to upgrade the system to be run efficiently and effectively.

1.3 Objective

- To provide a web-based service to staffs, including resource planning, data analysis, leave application, and bonus appraisal system.
- To provide a secure Performance Indicators System with different level of authorization.
- To provide capabilities for extracting, processing and analyzing the project resource allocation.
- To support strategic decision-making for management team with access to useful information.

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1.4 Scopes

Before the construction of the system commence, the scope of the project has to be determine in order to create the boundary of the system. This will keep the development of the system within a manageable scope. The scope is divided into 2 parts, which are users and functionality.

1.4.1 User

The user for the system would be:

a. Engineers
b. Department Managers

1.4.2 Functionality

The project will be focused in the development of Performance Indicators System in Decision Support for Infineon Technologies(M) Sdn Bhd. The scopes of project are identified as follow:

a) Resource Planning

- Adding New Projects and resource.
    - In this part, administrator can add a new project and details to the database.
    - Administrator can add or delete a staff from certain projects.
    - General user who wishes to join or delete their name to or from a project can make a request here and wait for the administrator to approve.

- Total Resource Allocation
    - All individuals and their total head count used for current 12 months can be viewed here.

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- View Project Details
    - Project category, BIM , AKZ number, Ratio 12 and Ratio 52, Start Date and End Date are listed here.

b) Leave Application

- Provide function to apply leave (annual leave, maternity leave or unpaid leave) for each month to all users.
- Staffs can also view their own approved/pending leave here.
- Administrator can approve/reject user application here according to user's status changes.

c) Bonus Appraisal

- This function will auto generate bonus for staffs according to data collected from the project planning and leave application modules
- Total head count used for staff will add extra bonus for staff.

d) Data Analysis

- This function will auto generate report that will support management team in making decision according to user needs.

- View Graph
    - Ratio Chart
        - User can view each month's total resource in ratio 12 and ratio 52 for all projects.
    - Overall Chart
        - User can select projects that wished to view in the graph, then system will generate a graph of categories and headcount used for each categories depend on user's selection.

- View report.

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