

**Universiti Teknologi MARA**

**Electronic Performance and Career Development  
Supporting System for Multiple Evaluators  
“Sistem Prestasi dan Peningkatan Kerjaya”**

**Noreen binti Muslim**

Thesis submitted in fulfillment of the requirement for  
**Bachelor of Science(Hons) Information Technology**  
**Faculty of Information Technology and Quantitative Science**

April 2006

## **DECLARATION**

I hereby declare that this thesis and the research are the work of my own and investigation. Any ideas or quotation from the work of other people published or otherwise are fully acknowledgement in accordance with the standard referring practices of the discipline.

APRIL 27<sup>th</sup>, 2006

NOREEN BINTI MUSLIM

2003327307

## **ABSTRACT**

This project focuses on performance evaluation and career development for academic staffs in Universiti Teknologi Mara (UiTM) Shah Alam who can be promoted if fulfill the term of promotion. The objectives of this project are 1) to computerize the manual procedure of promotion to web based group decision support system; 2) to construct rules based on the criteria of the staff performance to support the process of evaluation and 3) to determine the staff that qualified to promotion with automatic analysis for purpose candidate recommendation. This project is implementing using Web based asynchronous group decision support system (GDSS) with rule-based system and multi criteria decision making (MCDM) model in developing Electronic Performance Evaluation and Career Development Supporting System. A Web based GDSS provide decision tools and decision support information to its users. All individual evaluator will be automatically aggregated as the group judgement that evaluate the annual performance, competence level (PTK), and 7 general principles at different locations. When all decision issues are resolved, the evaluation by decision makers will be automatically synthesized to provide the final ranking for all candidates under consideration. The rules had been constructing based on criteria of the staff promotion to support the process of evaluation based on hierarchy model of multi criteria decision making technique. The result indicates that the use of the system may help to guide evaluators and able to minimize confusing in choosing the qualified staff for promotion. Thus, this system will reduces the geographical barriers, operating cost and operating time. Consequently, this system also may help improved delivery process of staff information. It is recommended to upgrade the current system to be centralized database through Internet and provide help decision making so that the project will become wider and more useful.

## TABLE OF CONTENT

CONTENT	PAGE
TITLE PAGE	i
DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
TABLE OF CONTENT	v
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS	xii
<b>CHAPTER 1 INTRODUCTION</b>	
1.-1 Introduction	1
1.1 Problem Description	2
1.2 Project Aim	4
1.3 Project Objective	4
1.4 Project Scope	4
1.5 Project Significant	5
<b>CHAPTER 2 LITERATURE REVIEW</b>	
2.0 Introduction	6
2.1 Human Resources Information System (HRIS)	6
2.2 Background of Performance Evaluation System	7
2.3 Performance Evaluation in Other Country	8
2.4 Electronic Performance Appraisal Supporting System (HRIS)	8

2.5	Similar Electronic Appraisal Supporting System	
2.5.1	Halogen e Appraisal	9
2.5.1.1	Example Halogen eAppraisal Interface	10
2.5.2	INTEGIC Web-based Employee Performance Appraisal Decision Support System	12
2.6	Decision Support System	
2.6.1	Definition	13
2.6.2	Related Overview	14
2.6.3	DSS Development and Delivery Mechanisms	
2.6.3.1	Web-based DSS	15
2.6.3.2	Group Decision Support System (GDSS) with Multi-Criteria Decision Making	16
2.6.3.2.1	Multiple Criteria Decision Making Model	18
2.6.3.3	Rule-Based System	22
2.6.3.3.1	Advantages and Limitations of Rules	25
2.7	System Development Life Cycle Methodologies	26
2.8	Conclusion	27

### **CHAPTER 3 RESEARCH APPROACH AND METHODOLOGY**

3.0	Introduction	28
3.1	System Development Approach	28
3.2	System Planning	30
3.3	System Analysis	33
3.3.1	Knowledge Acquisition	
3.3.1.1	Primary Data	33
3.3.1.2	Secondary Data	36