



**Faculty of Information Technology**

**Implementation of a Decision Support System for Human  
Resources Evaluation and Selection**

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**This Thesis is Submitted to Faculty of Information Technology  
as a Partial Fulfilment of the Requirement for master's degree in  
software engineering**

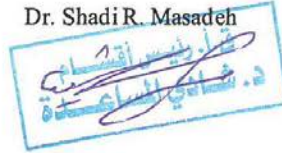
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The undersigned have examined the thesis entitled '*Implementation of a Decision Support System for Human Resources Evaluation and Selection*' presented by *Anwar Al-Gleilat*, a candidate for the degree of Master of Science in Software Engineering and hereby certify that it is worthy of acceptance

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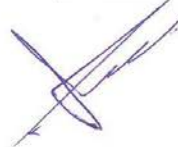
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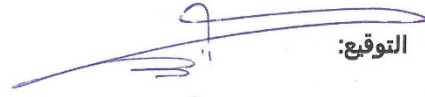
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# **DEDICATION**

*To my parents, who never stop giving in countless ways ....*

*My beloved brothers and sisters....*

*To all my family, the symbol of love and giving ....*

*To my friends who encourage and support me ....*

**I dedicate this research**

*Anwar Al-Gleilat*

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## LIST OF ABBREVIATIONS

AI	Artificial Intelligence
DSS	Decision Support System
GA	Genetic Algorithm
HR	Human Resources
UI	User Interface
SRS	Software Requirement Specification
IDSS	Intelligent Decision Support System
SDLC	Software Development Life Cycle

## ABSTRACT

The Implementation of a Decision Support System for Human Resources evaluation and Selection is used to evaluate twenty-five CVS and select the best three among them from linked in to decrease the human interaction with the employment process which may increase the accuracy of employees selecting.

The aim of this study is to develop Implementation of a Decision Support System for Human Resources Evaluation and Selection. In this study, the researcher seeks for the appropriate staff for the project according to their skills and characteristics using Artificial Intelligence techniques. In addition, the objectives of this study are studying the previous approaches to define or modify a method for solving its problem by performing an evaluation study to see the effectiveness of our defined method. The study major contribution is the suggestion an ontology that focuses on defining the competencies and experience for workers using the Genetic Algorithm to use the classification rule, and the use of semantic methods in the current thesis, it is the maybe of the one attempt to create a method that selects the right staff according to their skills and expertise without the intervention of the human factor. To use this system in different companies to reduce time and effort in the selection process. However, any company will be more productive in its various businesses because of choosing the right employee in the right place. The program was created by using C# and Asp.net. The assessment of the classifier accuracy of the resulting classification rule indicates the requiring to create more precise descriptions to improve the SRL. In the present study, the researcher introduced a semantic-based method capable of recommending the workers that apply for job by examining the experiences, skills, major and. The plan achieved impressive outcomes via an F-Measurement value of 0.7747 and Precision Value of 0.7942.

**Keywords:** Human resources, Ontology, Semantic Index, semantic annotation, Genetic algorithm