

**A NEURAL NETWORK APPROACH FOR
INTELLIGENT COMPETENT BASED LEARNING
PATH PREDICTION IN HUMAN RESOURCE
MANAGEMENT SYSTEM**



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A Neural Network Approach for Intelligent
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Dedication

I am dedicating this thesis to my beloved parents who raised me to be the person I am today. Special thanks to my beloved mother who suddenly passed away while I was pursuing my masters, all sudden thing went up and down the burden of responsibilities stopping my way to pursue it further but her fruitful everlasting advices and motivation in mind, I make my way to move and pursed it as she always wanted me to do masters and complete it with thesis work. Indescribable how much I wish she was still with me so that I can see confident smile on her face, and she could see that his only child completed his master's with thesis work by fighting with all the ups and downs.

Last but not least I also want to dedicate it to my father for his advice, his patience and his faith in this hard time, because he always understood. I love you all beyond words. May Allah (SWT) grand my mother Jannah Firdaws.

Ameen.

Acknowledgements

First and foremost, I thank Allah (SWT) for letting me live to see this thesis.

This study could not have been possible without the cooperation, continuous guidance and motivation of my supervisor Dr. Sohaib Ahmed who have given unfailing support. I would like to thanks my mother in law Dr. Mohammadi Sabra Nadeem, my encouraging uncle Dr. Kalim Qureshi, my wife, parents and my MS colleague Mr.Rehan Iqbal because of their prayers and support are always with me. I am also thankful to my organization “Lucky Group” specially my manager and colleagues who support me to pursue my research work as they always been supportive to me, even in delays of some organizational work. So, thank you all.

Abstract

With the advancement of technology, data has been exponentially increasing. For this purpose, there is a need to develop such expert systems which may have the capability to deal with the variety of the complex problems. This research proposes an expert system that assists employees in order to recognize the pattern of employee performance throughout his/her tenure. It further helps predicting learning path for such employees. This may also help in automation of the complete HR process and reduction of workload of HR department within the organization.

In the literature related to neural networks, error correction learning algorithm is one of the algorithms that may automate human resource management system for helping organizations in order to predict employees' performances. This predication can reduce time, provide accurate information, improvement in planning and program developments, remove language biasness and improve employees' retentions. These advantages can directly improve an organizational culture. This culture may provide a transparency to employees for their performance evaluations and also reduce communication gap between management and employees. This culture may affect an overall progress of an organizational success.

Hence, this research will evaluates the performance of an error correction learning algorithm in a human resource system. For the said purpose data set of 1470 employees have been taken from Kaggle. For this purpose, sigmoid function is used to select 123 employees for the particular criteria. This research concludes that 90% accuracy has been achieved through the use of error learning algorithm in a human resource management system. This research may facilitate management in order to identify top performers of any organization in more transparent way.

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