AN ARTIFICIAL IMMUNE SYSTEM MODEL AS TALENT PERFORMANCE PREDICTOR

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PROPOSED EXECUTIVE SUMMARY

In any organization, the management has to struggle effectively in terms of cost, quality, service or innovation. The success of these tasks depends on having enough right people with the right skills, employed in the appropriate locations at the appropriate point of time. Recently, among the challenges of Human Resource professionals has been managing an organization talent which involves a lot of managerial or human decisions, which sometimes are very uncertain and difficult. Prediction in data mining is among the popular machine learning techniques as a part of intelligent techniques, for example, Bayesian methods, neural network, support vector machine, association rule mining, k-nearest-neighbor, rough sets and fuzzy logic.

Soft computing techniques, such as bio-inspired algorithms, can be used for information processing by employing methods which are capable to deal with imprecision and uncertainty. However, limited studies were found in bio-inspired algorithms especially immune based algorithm in talent prediction. Immune based algorithm is part of bio-inspired algorithms elicits theories which can act as an inspiration for computer-based solutions. Most of the researchers used conventional techniques to compare the process by looking at the exact similarity; where the comparison process relies on distance value calculated. It is hoped that this will increase the accuracy of the result. The objective of this study is to propose a prediction model based on bio-inspired algorithm for talent knowledge discovery through some experiments. To achieve this objective, the research was divided into three phases, which consist of talent data identification and data preparation phase, algorithm development for prototype phase and testing and evaluation phase to identify the most suitable prediction model for talent prediction. From this research, some of the potential applications that can use this prediction model are employee recruitment planning in industry sectors and higher learning student enrollment.

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