Universiti Teknologi MARA

Immune-Based Technique for Undergraduate Programmes Recommendation

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ABSTRACT

The right determination of an undergraduate programme selection by applicants is not an easy task. Some applicants who enrolled for unsuitable programme ended up failed to progress or dropped out from the programme. This study proposed an immune-based technique to recommend suitable undergraduate programmes to support applicants in decision-making. The proposed technique is obtained by combining artificial immune network (aiNET) and clonal selection algorithm (CLONALG). Myers-Briggs Type Indicator is also used as a psychological assessment mechanism in the selection process to enhance the accuracy of the proposed technique. A framework for the immune-based technique is discovered in this study. Based on the framework, a prototype was implemented to evaluate the accuracy of the proposed technique. 52% is the highest accuracy obtained from the technique by using ten-fold cross validation. Future implementations of this technique should consider a higher amount of training data to produce a higher accuracy.

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