

Universiti Teknologi MARA

**Successor Selection for Ant Colony
Optimization Technique Algorithm**

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ABSTRACT

Successor selection is a process of searching and accessing internal staff who has potential successor in experiences and ability by replacing a position for a retiring staff. Selecting a successor is an important part within an organization to finding a replacement based on the position. Especially finding a leader to lead a company to be success. A successor with has highest value criteria such as experiences, skills, qualification are qualified to be a candidate replacement of leadership. Selecting a successor is used subjective criteria to evaluate in higher learning of successor based on the following factors. The problem occurred is the manual evaluation is not an optimized enough to making a result that is not accurate to determine. Therefore, this research will use ACO technique to optimize the problem to ensure the output more accurate and reach the requirement from the organization needs. ACO algorithm is the best solution because it included the optimization technique to optimized the result based on the data criteria needs. Therefore, in this research, will be use Ant Colony Optimization (ACO) algorithm as an optimize technique that provide a shortest path of defining a successor that is their highest value of criteria. In the future work, this research will discover more method related to ACO technique to make more optimize and develop a complete system for the organization used.

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