

A GENETIC APPROACH FOR A REASSIGNMENT PROBLEM OF HUMAN RESOURCES UNDER OBJECTIVE CONSTRAINT

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Abstract

This study problem consist to reassign the agents under objective constraint from one unit to another composed an enterprise, each agent realizes same activity and has a weight calculated using predefined criteria. The agents reassigned engender an overall weight considered as the performance. This objective constraint is parameterized by a tolerance coefficient to adjust the number of agents reassigned and the global weight engendered. In this paper, we have formalized the problem as a combinatorial optimization problem which has a dynamic aspect. The high complexity of this problem is justified firstly by the dynamic aspect wish the displacements are dependents and secondly is more complex than a generalized assignment problem (GAP). Our goal is to use a genetic approach to search the best solution of this complex problem to determine the correct values of this coefficient that ensures the improvement of performance for each unit. The implementation of this approach is particularly include the operators genetic witch give as encouraging results to solve the Traveled Salesman Problem (TSP) that is typical NP-complete problems.

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