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FACULTY COURSE ASSIGNMENT OPTIMIZATION

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Abstract

Faculty course assignment optimization optimizes the faculty-subject assignment by applying three models namely linear programming, binary integer programming and genetic algorithms. Linear programming has the highest rating but it is not feasible. Binary integer programming is the best model because its output is higher than genetic algorithms. For as long as formulation of the needed function and constraints is possible and the solver can process them, then the binary integer programming model can provide the feasible and optimal solution. Genetic algorithms is capable of giving feasible solutions even in very complicated scheduling conditions. The linear programming model can be used as a basis of the correctness of the output because the optimum value that it give is higher than those of the two models.

Keywords: Course assignment; optimization; linear programming; genetic algorithms; binary integer programming.

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