Two-Phase Great Deluge Algorithm for Course Timetabling Problem

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Abstract:

Academic course timetabling involve assigning resources such as lecturers, rooms and courses to a fixed time period, normally a week, while satisfying a number of problem-specific constraints. This study describes a Great Deluge Algorithm in two phases that creates timetables by heuristically minimizing penalties over infeasibilities. The algorithm is developed with special focus on the University of Dar-as-salaam and compares the results with a previous work on Tabu Search, and a manually generated solution. We conclude that Great Deluge gives a much more stable solution because it produces good solutions with less number of parameters for tuning compared to Tabu Search.

Keywords: Course Timetabling; Great Deluge; Tabu Search