

GENERATING LECTURE TIMETABLES IN A UNIVERSITY USING GENETIC ALGORITHM

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Abstract

Genetic algorithms (GA) are powerful general purpose optimization tools. This system presents for generating the lecture timetables by using GA to assist in timetable generating. In the implementation of the system pre-defined constraints are used to get the optimized solutions. Timetable generation for a university involves various challenging constraints of resources including lecturers, rooms, subjects, student groups etc. The generation of a population of solutions, finding the objective function and the application of genetic operators are the major steps of the system. A timetable with binary representation is applied with several operators with the aim of preventing the violation of the fundamental constraints. The data are collected from 2015-16 academic year of the National University of Arts and Culture in Yangon and are applied to generate lecture time tables in this system.