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A Survey on the Requirements of University Course Timetabling

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Abstract: Course timetabling problems occur every semester in a university which includes the allocation of resources (subjects, lecturers and students) to a number of fixed rooms and timeslots. The assignment is carried out in a way such that there are no conflicts within rooms, students and lecturers, as well as fulfilling a range of constraints. The constraints consist of rules and policies set up by the universities as well as lecturers' and students' preferences of courses to be allocated in specific timeslots. This paper specifically focuses on the preferences of the course timetabling problem in one of the public universities in Malaysia. The demands will be considered into our existing mathematical model to make it more generalized and can be used widely. We have distributed questionnaires to a number of lecturers and students of the university to investigate their demands and preferences for their desired course timetable. We classify the preferences thus converting them to construct one mathematical model that can produce such timetable.

Keywords: university course timetabling problem, integer programming, preferences, constraints

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