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By

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ABSTRACT

One of the problems that the university faces is the exams scheduling problem, this problem affects on both staffs and students. The efforts to solve this problem were started since long time, and it varies in use of the application and algorithms to solve this problem. In this study, the researcher exposed to this problem at Universiti Utara Malaysia (UUM). Because of the nature of the educational operation, students asked to register for elective and core courses, the elective courses are taken from other departments, which will make some conflict at the final exam schedule.

The other type of conflict is reserving the same room to conduct two or more exams at the at the same time, since the faculty or college rooms are shared among the departments, the researcher in this study will implement an automated way to help in solving the conflict and make it easier to arrange such.

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Chapter One

1.1 BACKGROUND

According to Shu-Chuan et al. (2006) the problem of timetabling is a problem of time-based planning and combinatorial optimization. The problems become good constructive issue for the critical points on some sectors such as examination, lecture and transportation time table. Therefore, further holistic research will be necessary needed to figure out the real problem and the causes so that the appropriate solutions can be formulated.

Each university has its own methods and regulations to arrange its internal matters, consequently. The university contains colleges or faculties which supervise some departments of management for the employees (academic department, student affair department, etc) and departments of study programs for the students (information technology, Artificial Intelligence, Communication Technology etc).

To enable each faculty to conduct their functions of leadership and management, a well-structured of staffs is implemented under the leadership of deanship. Dean as the highest leader in the faculty will arrange the staffs to undergo the daily activities and guide in the problem solving. But somehow since problems or conflicts are natural

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reserved at that time to another exam. The other factor in solving the problem was the student, so when the lecturer will determine an exam date and time, and there is at least one student has exam at the same time, so the lecturer will receive notification message with the number of students who have exam at the time and lecturer will be asked to change the due date for the exam.

5.3 SUMMARY

The automated systems allow the various institutions to avoid the conflict states. By linking the various departments and the people in these departments to a shred database among the system usage within the faculty, it allows the system to test the availability of the rooms and the student exams with regards the various subject that the student have, which lead to avoid the conflict state that may occur.

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