

**OPTIMIZING INVIGILATOR'S TIMETABLING USING
GENETIC ALGORITHM**

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DECLARATION

I hereby declare that this research report together with all of its contents is no other than those of my own work, except for some information taken and extracted from other sources that have been quoted respectively.

11th OCTOBER 2004

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ABSTRACT

Scheduling problems can be defined as process of assigning entities to a particular slot in the timetable and a particular room. Each scheduling problem is individual to the institution that creates it. In FITQS before the examination weeks, the examination timetable must be constructed first. This means that the examination timetable has been constructed and the courses that have examinations for certain date and session are known. The task that should be carried out is to assign the courses into rooms for examination and then assign invigilators to rooms given that invigilators cannot invigilate the rooms that he/she teaches the course(s) that have examination(s) in that room. The objective is to optimize the assignment of courses that will have final examination to rooms and optimize scheduling invigilators to rooms. The scope is all rooms that will be used as examination rooms in FITQS, all courses that have final examination in FITQS rooms and all lecturers who will be invigilators to examinations. This thesis presents work on scheduling courses and invigilators into rooms using GA for the optimization. The GA has been made some modification to yield good results in a reasonable time.