

## **Exam Timetabling**

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### **Abstract**

The aim of this project is to design a method to solve the midterm exam timetabling problem and implement it to schedule the exams for Mechanical and Industrial engineering department in Sultan Qaboos University. A mathematical model was developed and implemented in CPLEX OPL software with the aid of Visual Basic language. The objective of the model is to minimize number of students having two exams in two consecutive periods, number of students having two exams on the same day and number of students having two exams in two consecutive days. The mathematical model is tested for the midterm exams of the current semester and an optimal timetable is successfully generated. A survey is designed for the students to understand their preferences regarding the midterm timetable. The priorities of different objectives will be determined as a result of this survey. The model will be tested with different parameters and operational strategies such as completing the exams in 15 days instead of 21 days.

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### **Biographies**

**Aseel Sami Al-Zadjali**, is a 22 years old student from Sultanate of Oman. She is studying the bachelors in Sultan Qaboos University as industrial engineer and this is her fifth and last year in the university. And now she is working on her final year project which is scheduling exam and course timetabling with a decision support system.

**Razan Hamed AL-Fazari** is Omani. She is 22 years old. She is a fifth year Industrial Engineering student in Sultan Qaboos University, where she entered the university in August 2015. She will be graduated at end of this semester in May 2020 to be an industrial engineer.

**Zahra Hamed Al-Ishaqi** is a 22 years old student. She is Omani and lives in Nizwa. She study at Sultan Qaboos University since 2015 at the college of engineering and as an industrial engineering. If she fulfill all the requirements of the degree program, she will graduate in June 2020.