

## A scheduling problem for hospital operating theatre

### Abstract

This paper provides a classification of real scheduling problems. Various ways have been examined and described on the problem. Scheduling problem faces a tremendous challenges and difficulties in order to meet the preferences of the consumer. Dealing with scheduling problem is complicated, inefficient and time-consuming. This study aims to develop a mathematical model for scheduling the operating theatre during peak and off peak time. Scheduling problem is a well known optimization problem and the goal is to find the best possible optimal solution. In this paper, we used integer linear programming technique for scheduling problem in a high level of synthesis. In addition, time and resource constrained scheduling was used. An optimal result was fully obtained by using the software GLPK/AMPL. This model can be adopted to solve other scheduling problems, such as the Lecture Theatre, Cinemas and Work Shift.