SEARCHING SIMULATION OF THE EFFICIENT AIRCRAFT BOARDING STRATEGIES

Student’s Name : Antonius Malem Barus
Student’s ID : 5107 100 616
Department : Informatics, FTIF-ITS
First Advisor : Bilqis Amaliah, S. Kom, M. Kom
Second Advisor : Victor Hariadi, S. Si, M. Kom

Abstract

There are many factors that influence effectively and efficiency of airplane turnaround time. Some factors that determine turnaround time include passenger deplaning, baggage unloading, fueling, airplane maintenance and passenger boarding. This research is purpose to find boarding strategy to reduce boarding time. In this problem we use Airbus A320 or airplane type which has similarity of seat arrangement in cabin. Some factors that used to determine boarding strategy are rows, number of groups and size of each group in boarding schedule. This problem is modeled by mixed integer nonlinear programming. This model produces boarding strategy which reduces total interferences amount 57.1 percent and boarding time amount 6.82 percent.

Keyword : transportation, minlp, boarding strategy.