Abstract

Preparation of courses at every university is done by hand. This method has limitations that often cause collisions schedule. In lectures and lab scheduling frequent collision against the faculty member teaching schedule, collisions on the class schedule and student, college collision course with lab time, the allocation of the use of the rooms were not optimal. Heuristic method of genetic algorithm based on the mechanism of natural selection; it is a process of biological evolution. Genetic algorithms are used to obtain optimal schedule that consists of the initialization process of the population, fitness evaluation, selection, crossover, and mutation. Data used include the teaching of data, the data subjects, the room data and time data retrieved from the database of the Faculty of Computer Science, Universitas Pembangunan Panca Budi. The data in advance through the stages of the process of genetic algorithms to get optimal results. The results of this study in the form of a schedule of courses has been optimized so that no error occurred and gaps.

Index Terms

Computer Science

Algorithms

Keywords

Genetic Algorithm, Scheduling