

**IMPLEMENTATION OF GENETIC ALGORITHM
FOR SCHEDULING COURSE
STUDY PROGRAM IN INFORMATICS ENGINEERING
UNIVERSITY MUHAMMADIYAH JEMBER**

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ABSTRACT

Course scheduling is one of the activities in the university that requires a lot of time to complete. In general, the scheduling is done by hand. This method has poor accuracy and cause collisions schedule. In college scheduling frequent lecturer teaching schedule collision, collision in college, and the availability of enough space. In this paper described how the scheduling of lectures scheduled by using genetic algorithms. Genetic algorithm is a heuristic search algorithm based on the mechanism of natural selection, better known by the process of biological evolution. Genetic algorithms are used to obtain optimal schedule is to process initial population generation, fitness evaluation, selection, reproduction and mutation. Data in this paper the teacher form of data, the data subjects, the room data and time data retrieved from the database informatics engineering study program at the University of Muhammadiyah Jember odd semester of 2015/2016 academic year. The data in advance through the stages of the process of genetic algorithm to get the appropriate results. Based on testing and input the value of genetic parameters of the same or different, the scheduling process produces results and generation of different iterations this is because the random function. From the results obtained 100 generation program running average of 42.36 milliseconds and average fitness obtained by 0.0073804.

Keywords : scheduling of courses, genetic algorithms.