ABSTRACT

Lab work is one of the compulsory subjects in the Faculty of Industrial Engineering for Program Educational Industrial Engineering IT Telkom. Implementation began with the determination of lab work schedule for each group that have been listed as a laboratory students. In practice, the determination of the schedule's lab work obtained by searching empty schedule's student on the one semester that will be filled with empty schedule's assistant. On implementation, the schedule often conflicts between the schedule's student and the schedule's lab work for both assistant and student. This is because some of schedule's student are different with course that offered by college for their semester. In addition, in the process of creating schedule's lab work require a long time, this happened because the process is still manual.

At this research will be designed an information system scheduling lab work using the Waterfall method and Genetics Algorithm used for data processing to determine the schedule based on the schedule's student and schedule's assistant. The result of this process is lab work schedule for each group of lab work and schedule duty for assistant.

Based on the results of the design system can be concluded that information systems designed could reduce the occurrence of conflicts between the schedule's lab work with the schedule's student, besides that the system has an advantage that is consider student's schedule outside schedule that offered by the college which was followed by both student or assistant.

Keywords: lab work scheduling information system, waterfall, genetic algorithm.