ABSTRACT

In general, lectures conducted by face-to-face between lecturers and students. If not taken into account in determining the schedule properly, it will lead to a clash or rescheduled. Conflicting schedules led to students feeling confused and difficult to take care of clashing lecture schedule. This resulted in a lack of effective lectures at the beginning of the semester. In determining the lecture schedule is not easy, because it requires attention to both hard constraints and soft constraints constraint. Therefore, to minimize the problems in doing scheduling by considering all related factors needed a system using computer technology. Many methods are used to solve this scheduling problem and one of them is a Genetic Algorithm (GA)

One variation of the GA to resolve scheduling problem is asynchronous Island Models Informed GA. With this method, the genetic algorithm performed on some computers, thereby reducing the computational time. However, the existing methods are still shortcomings, namely the existence of a computer with a high specification finish first and occurs idle. Therefore do the Asynchronous Island Model Reinforced informed the GA. With Reinforced Asynchronous Island Model Informed GA, computers with high specifications and has completed the process of computing will help the other computers still do the computational work.

The experiments were performed using data lectures academic year 2010/2011 Telkom Engineering School, University of Telkom. The output of the system in the form of lectures scheduling arrangement in Microsoft Excel file format. Of 3 (three) tests on the parameters used, the result of hard constraints and soft constraints 0% 4.38%. Reinforced done so with asynchronous Island Models Informed GA, in addition to resolve scheduling problems, also will make the process faster computation compared with asynchronous Island Models Informed GA because all computers will work optimally.

***Keyword** : Timetabling, Genetic Algorithm, Island Model Genetic Algorithm, Constraint(Hard Constraint dan Soft Constraint)*