Abstract

Scheduling problem is a complex problem and occurs repeatedly as the administrative activities of this faculty each semester. Scheduling is complex because there are many conditions of its linkage constraint that must be solved. There is a hard constraint which is a condition that must be fully solved, and soft constraint schedule into a schedule with a good measure of the extent to which a schedule to meet that become satisfaction factor of scheduling problem. On this research, Scheduling problems solved by the method of data mining Hybrid Dimension Association Rules and use one of the swarm intelligence algorithms, namely Artificial Bee Colony Algorithm. Hybrid Dimension Association Rules allows the completion of the study the complexity of scheduling rules multidimensional with many recurring predicate. Artificial Bee Colony algorithm itself is used as the optimization algorithm of this scheduling problem lecture that will be transformed into a university course timetabling.

Keywords: Artificial *Bee* Colony, Hybrid Dimension Association Rules, Course Timetabling, *Hard Constraint*, *Soft Constraint*