

## ABSTRACT

Information about teaching schedule in a school is a very important thing to be able to conduct an effective teaching and learning activities and meet the targets of predetermined curriculum provisions. While the principle of scheduling itself is generally how to place a number of events into an existing time slot, therefore, there are no remaining resources. Scheduling at Senior High School 2 Sleman is how to place a number of teachers into existing learning hours for each class, thus, all teaching hours in all classes are filled without any clash between teachers and schedule requests can be fulfilled. The solution needed is how to put the teacher's schedule into the available slots by testing all existing criteria. This application does not have the level of accuracy as in the manual system, however, the purpose of making this system is for work automation to be fulfilled, thus, in the future the output of this application can be used as a medium of help in preparation, teacher, class, and time does not clash in scheduling at Senior High School 2 Sleman. This study aims to make the automatic subject - scheduling application at Senior High School 2 Sleman using the Genetic Algorithm method. The results obtained after this application is formed are the schedule of subjects which are appropriate and the best genes are obtained in the third individual from the number of iterations, namely 100 iterations and processing time of Genetic Algorithms an average of 500 to 600 seconds.

**Keywords:** Scheduling, Subjects , Genetic Algorithms.