

Abstract

University Timetabling is combinatorial problem of finding a schedule that does not violate the constraints criteria to feasible by adjusting a variety of major entities such as, lectures, classs group and class room. Hybrid Genetic Algorithm is suitable for complex combinatorial problems. This algorithm is a merger between Genetic Algorithm and Local Search [6]. Genetic Algorithm is used to perform global exploration among the population, while the Local Search procedures perform local exploitation around chromosomes.

This final project discusses about solving the university timetabling problem by Hybrids Genetic Algorithm. From the test results, Hybrid Genetic Algorithm is able to provide solutions that meet the criteria for lecturers teaching schedule does not clash and adequate space capacity, while the class group class schedules do not clash, no professors teaching schedule three times in a row, and the second meeting is scheduled for a course different days. In the student level, from 1957 students, 198 students are still having class schedules clashed.

Keywords: Hybrid Genetic Algorithm, Genetic Algorithm, Local Search, University Timetabling.