

ABSTRACT

Study timetable compilation is a complex problem that is faced by university. Compiled study timetable should concern on lecturers and students interests, and applied rules. If study timetable is compiled by someone, it would take much time, energy, and thought. Fair experiences are also needed. However, the timetable is not rarely optimum.

In this final assignment, information system that able to compile study timetable automatically according to data and applied rules has been build. To compile study timetable, artificial intelligence algorithm is applied so that compiled timetable would become optimum. Applied algorithms are rule based system, genetic, and both combination (hybrid).

Applied data and rules in the information system are adopted from STT Telkom condition.

Analysis that was done is capability of each algorithm to compile timetable, capability of information system to compile timetable with varied room occupancy level, and average lecturing hours per week. In addition, registration case study of compiled algorithm using the information system has been done. Case study is on STT Telkom S1 department of Teknik Elektro.

According to the analysis, developed information system and compiled timetable is could be implemented properly.

Keywords: information system, study timetable compilation, artificial intelligence, rule based system, genetic algorithm, hybrid algorithm.