ABSTRACT

This research aims to develop a mobile class schedule management system and enhance it as a complicated problem solution. This must take into consideration various conditions and factors.

For all educational institutions, the practice of scheduling classes is crucial. It is an open-ended program where classes must be scheduled around a specific time slot to satisfy certain requirements. It belongs to a class of challenging optimization issues without analytical solutions.

This software helps the management schedule classes conveniently and effectively. It can offer multiple instructors to arrange at once.

A schedule and other system-related documents can be checked and published online right away by both instructors and students. Additionally, the number of courses, the number of students, a timetable, the physical characteristics of each classroom, and regulations used in the class are in consideration.

Data collection from the current system is analyzed to create the definition of requirements for the enhanced scheduling system.

A literature review was conducted to determine the best approach that could assist in resolving the problem in the scheduling system. The genetic algorithm is embedded in the scheduling system because the genetic algorithm is capable of producing an implementable schedule system. Java, XML, and PHP programming languages are software to develop the solution. The MySQL database served as a back-end. The front-end solution is implemented into an Android mobile operating system to make it easier to access and closer to users.