

## ABSTRACT

---

*Subject Scheduling in SMA 8 Bandung is a very complex thing and often conflicting schedule one each other. This paper builds Scheduling Application Subjects Using Welch Powell algorithm that serves to automate the scheduling of subjects by the method of coloring of a graph, where the vertices which neighbors (the time the willingness of teachers to teach the same) have different colors from each other, resulting in a chromatic number (minimum number of colors). This application is built using programming language PHP with CodeIgniter framework, MySQL as the database server and Welch Powell algorithm to process the coloring graph. This application will produce a schedule of subjects that do not clash one each other where on the same day, at the same hour, and different class, there is no same color and,. the teacher can see and print the schedule.*

*Keywords : Welch Powell Algorithm , vertices, degrees, color*