

## **ABSTRACT**

### **INFORMATION SYSTEM OF DECISION SUPPORT FOR DETERMINING SENIOR HIGH SCHOOL MAJOR USING WATERFALL DEVELOPMENT SYSTEM METHOD**

**(Case Study: SMA Negeri 8 Bandung)**

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*Senior high school is secondary study in Indonesian formal education after graduating from junior high school. It takes 3 years study from X grade until XII. In second year which is XI grade, student should choose one of three majors that are available in school. Those are science, social, and language. Major has to be done in order student can explore their knowledge based on their interest and also ability. SMAN 8 Bandung is one of school that is choosing major for X grade student who continue to XI grade. They will be divided into 2 majors, science and social, it is based on their interest, psikotest result, quota for each class, and academy result. However data processing for deciding the major in SMAN 8 Bandung is still manually. It takes long time with low accuration and no responsible document. So it is needed computation method for doing the process.*

*Handling that problem, so it has been developed one system for major decision making in SMAN 8 Bandung that will help teachers for deciding major. Criteria for this system will be calculated using Fuzzy AHP method. Fuzzy AHP method will help in taking decision to few alternative that has been done based on criteria calculation. SPK SMAN 8 Bandung is using waterfall method, PHP programming and MYSQL database which will be implemented as website. This system gives information with high accuration with accuracy 92.58% because of using Fuzzy AHP method and it can make analysis and data processing automatically. Criteria such as science mark, social mark, interest, psikotest result, and quota in this system are expected as standard criteria of deciding major for student in SMAN 8 Bandung so there will not subjective deciding.*

*Keywords : major, SMAN 8 Bandung, Fuzzy AHP, SPK.*