

**SEARCH SYSTEM OF SOFTWARE ENGINEERING AND  
INTELLIGENT SYSTEMS POTENTIAL FIELD  
USING K-HARMONIC MEANS**

By

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**ABSTRACT**

Muhammadiyah University of Gresik as one of the academic community institution that has Informatics Major is expected to detect trend of the potential of every students. The problem is most of college students are less aware of their capabilities so we need a search system of potential college students.

This research is expected to recognize the college student potential earlier so as to facilitate college students to develop their potential, facilitate college students in making the topic of the final project, and to produce qualified graduates college students in the field who are able to apply their knowledge in the community.

System testing is done by taking the value of supporting courses Field of Software Engineering and Intelligent Systems. The data used for testing is the lecture value of the Informatics Engineering Major of UMG's 2010 students. Determination of K values have largely influence validity of the system. Based on the test results with the value  $K = 2$  clusters obtained the best validity value is 0.928 for the Field of Software Engineering and 0.96 for Intelligent Systems.

**Keywords:** *K-Harmonic Means, Software Engineering, Intelligent Systems, cluster, validity, Silhoutte Index.*

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