

Abstract

One of the issues in collaborative learning is forming groups based on criteria that have been determined before such as grades, learning style, free time, and others. Computer-Supported Group Formation (CSGF) is a research field which purpose is to automate this process so group formation can be done efficiently and effectively.

This final project makes a CSGF system that groups students based on the similiarity of the learning style according to Felder-Silverman model. The algorithm used for forming groups is Fuzzy C-Means Clustering. The clustering result is then validated using the method that calculates silhouette score. This system is tested to Telkom University students, specifically from class IF-07 and IF-11.

The CSGF system manages to group all students without anyone ungrouped, so it successfully avoids Orphan Students Problem. The system can produce a good division because the average silhouette score that has been calculated is above zero.

Keywords: *Computer-Supported Group Formation, Clustering, Fuzzy C-Means Clustering, E-Learning, Collaborative Learning, Silhouette Score, Learning Style*