

## Abstract

In Telkom Institute of Technology, there are two types of course can be taken by students. They are main courses and optional courses. Main courses must be taken, whereas optional courses can be picked as minimum of six courses by each student.

Students can see information about courses in academic guide book, but information about optional courses is too short. Therefore, mostly students don't know what they will learn and difficulty of optional course.

Every student who has taken courses will be assessed by lecturer. So they have courses grade after assessment. Courses grade describe student's understanding. In this research, recommendation of optional courses obtained from students who have similar grade with active user. Having similar grade means having similar ability.

Cloud Model and Cosine-Base Collaborative Filtering methods are used to get similarity ability between students. This methode observe profile user globally. But in this research accuration of Cloud Model and Cosine-Base Collaborative Filtering methods not much different with cosine-base collaborative filtering without cloud model that observe profile user detailly from grade of courses.

**Keyword:** optional courses, *recommender system*, *cloud model*, *cosine-base collaborative filtering*.