Abstract

Students usually have difficulties when they want to take elective courses which match their field of interests. This research will be discussing about implementation of hybrid recommender system for optional-course taking. This recommendation system will recommend elective courses based on the student rating given in previous optional courses and other student ratings or based on academic history of the students concerned.

This elective courses recommender system will using switching hybrid method, where there are two methods which will be used, collaborative filtering and content-based filtering.

In collaborative filtering method, recommendation will be generated through several steps; first the system will measuring similarities between items using the cosine similarity measure, then calculate rating prediction using weighted sum method.

In content-based filtering, recommendation will be generated using query which will be processed from student's academic history, which will be used to calculate the TF-IDF weight in each document of elective courses.

The result of recommendation process is a list contains elective courses which are recommended by system.

Keywords: recommender system, collaborative filtering, content based filtering, hybrid, switching hybrid.