

## Abstract

*Recommender system is an application which recommends items that users may prefer and match to their profile and widely used as an alternative of search engine*

*This journal implements and analyze item-based collaborative filtering recommender system, which implement semantic similarity. Semantic similarity information can be obtained from WordNet that will be used as a dictionary. This final project analyze & measure how accurate the prediction after augmented with semantic similarity. Parameters such as ratio between training and test set, neighborhood size, model size, and value of variable  $\alpha$  will be measured.*

*Prediction accuration resulted from semantic enhanced item similarity algorithm is lower (higher error value) compared to item-item similarity. This is caused by words that are excluded from WordNet. Moreover, the processing time in producing prediction using semantic similarity is time-consuming. Further development may employ multithreading to shorten computation time.*

**Keywords:** *recommender system, collaborative filtering, semantic similarity, recommendation*