

ABSTRACT

The access of information that is growing very rapidly, followed by the arising of millions of website makes the internet user face overloaded information. *Recommender system* is coming up as the solution in recommend such a appropriate item concentrate on user taste and characteristic, so that user will get the wanted information.

In this final assignment, it will implementate Fuzzy Multicriteria Bayesian Network collaborative *recommender system* method which recommend tourism destination information to user. Builded *recommender system*, which applicate Fuzzy Multicriteria Bayesian Network giving recommendation to user based on the other user similar probability to target user about tourism destination recommendation. Bayesian Network is applicated to represent the relationship between users and users, also users and items that have already been rated by those user. The recommended tourism destinations will be rated using 4 type of criteria which are attraction, accessibility, comfort, and safety. The rating result will be used as the input for recommended system in type of fuzzy set that change the rating poin given by user into the exact rating score.

This final assignment is purposed to analyze the accuracy of *recommender system* in giving recommendation and prediction. Base on the test result, the application of Fuzzy Bayesian Network in *recommender system* can increase accuracy showed by MAE parameter, Precision and Recall. The best MAE parameter score computed by Fuzzy Multicriteria Bayesian Network is 0.541675. Otherwise, the best F1-Measure parameter score computed by Fuzzy Multicriteria Bayesian Network is 0.8491911.

Kata Kunci : *Recommender system, User, Collaborative filtering, Bayesian Network, Multi criteria, Fuzzy, MAE, Precision, Recall, F1-Measure.*