

## **SMARTTRAVEL: A CONTENT-BASED RECOMMENDATION SYSTEM FOR TOURISTS USING FUZZY THEORETIC METHOD**

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### **ABSTRACT**

Recommendation system (RS) is a common word in the travel industry since technology improvement led to growing of RS application that helps tourists to select, compare and make decisions almost instantly. Planning a trip, both before and during the travel required a lot of time since choosing a tourist destination from the massive amount of information is one of the most complex tasks for tourists especially for people with a limited amount of budget. Thus, this project proposed is to develop a Content-based Recommendation System (CBRS) for tourists using Fuzzy Theoretic Method and Budget Constraints Algorithm. The second objective is to evaluate the user's acceptance of the SmartTravel system and the ability of it as a planning tool for traveling purpose. The system was developed using XAMPP and Notepad++ with MySQL as a database of the system. Programming languages such as JavaScript, PHP, and CSS was used to design the system. This system was evaluated by 30 respondents by using two types of testing namely functionality test and user acceptance test. The evaluation was divided into three sections which are demographic, user interface design, usefulness, and content. The result shows that 70% of users agreed that the System is a useful system since it can help the user to found the best travel destination and travel activities based on their preferences. While 88% of users strongly agreed that the system will reduce their time in searching for travel information and help them to travel based on their budget. Hence, the significance of this project is the system helps travelers to make a decision on where to travel and what type of activities suitable for them and it encourages people to do their favorite activities and visit many places in Perlis without worrying about travel expenses. In future research, the system will involve more module that improves the way the data outlined and given the user more features on budgeting their travel expenses including transportation, accommodation, and others.

**Keywords:** Tourism, Recommender system, Content-based filtering, Fuzzy theoretic method, web-based system, destination recommendation.