

## **A New Fuzzy Information Retrieval Method Based on Document Terms Reweighting Techniques**

*Yih-Jen Horng*

National Chiao Tung University

R.O.C.

*Shyi-Ming Chen*

National Taiwan University of

Science and Technology

R.O.C.

*Chia-Hoang Lee*

National Chiao Tung University

R.O.C.

### **Abstract**

In this paper, we present a new method for fuzzy information retrieval based on document terms reweighting techniques. The proposed method modifies the weights of document terms in document descriptor vectors based on the user's relevance feedback. After modifying the weights of terms in document descriptor vectors, the degrees of satisfaction of relevant documents with respect to the user's query will increase, and the degrees of satisfaction of irrelevant documents with respect to the user's query will decrease. Then, the modified document descriptor vectors can be used as personal profiles for future query processing. The proposed method can make fuzzy information retrieval systems more flexible and more intelligent to deal with documents retrieval. It can increase the retrieval effectiveness of the fuzzy information retrieval systems for document retrieval.

*Keywords:* Document Descriptor Vectors, Fuzzy Information Retrieval, Personal Profile, Relevance Feedback, Document Terms Reweighting.