Abstract

Information Retrieval (IR) *is a system which used for retrieving information and relevant for user from information collection based on user's query. In retrieving that information, performance in searching can be increased by using query modification technique like Query Expansion* (QE).

Query Expansion is a technique with adding new keywords to original user's query in order to increase performance in searching. Query Expansion can be improved using inference of fuzzy rules. These method uses membership functions and fuzzy rules to find Relevance Degree(RD) *from additional keyword candidate and then combine the additional keyword which have larger Relevance Degree into the original user's query. From the result, these method can increase the performance of Information Retrieval System* (IRS) *where the increasing performance show from the number of relevant documents can be retrieved and the position of the relevant documents in the ranking of document results.*

Keywords: *Information Retrieval, Query Expansion, fuzzy rules, keywords, and query.*