Abstract

The document retrieval is one of the fast growing and complex research area in the field of information retrieval. An effective Information retrieval can be obtained only under strong document retrieval algorithm. As compared to the information retrieval, document retrieval is also a tedious process. The accurate retrieval of a document needs highly precise and mathematically vibrant methods. A number of researches have been targeted for the document retrieval, which yielded expected result within their boundaries. In this paper, we proposed an ontology-based augmented method for document retrieval. The ontology defined in our proposed approach gives extra freedom to choose between the documents and thus give an accurate retrieval of the documents. The mutual association (MA) value specifies the interrelated documents in the problem space. The array index values, which we provide, give accurate distinction between each document. The results and analysis of our proposed method showed expected results and a comparative analysis was subjected for analyzing the proposed method with an existing algorithm. The F-measure comparison showed the performance improvement of the proposed method with respect to the existing method.


**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**

Information retrieval  
Document retrieval  
Ontology  
mutual association  
array  
index  
recall  
precision  
f-measure