Abstract

The process of searching and sorting documents on the web pages in search engine is divided into two parts, namely by using a text-based analysis and link-based analysis. The text-based analysis process is the ranking process of web page documents based on existing text in the documents. Search process by using this concept has some shortcomings such as to search for relevant documents in accordance with the user desires, the user is expected to enter a query as precisely as possible with the existing terms in the document.

Search by using the concept of link-based analysis tries to provide a solution by way of searches based not only on the contents of web page documents but also the recommendation from the authors of other web page documents. The more recommendations from other authors, the more relevant the web page document to the query given by user.

There are several types of algorithms that use the principles of links - based analysis. One of these algorithms is the SALSA algorithm. SALSA algorithm emphasizes the formation of a graph into bipartite graph, i.e. one for hub graph and the other for the authority graph. Hub is the value owned by a document for it addresses other document while the authority is the value owned by a document for it is addressed by other document. From the results of this final testing, SALSA algorithm gives good results based on the value of its precision and IAP. This can be seen that, on the average, web page documents that have a rather large number of backlinks will have the higher rank than those that have less number of backlinks.

Keyword : *authority, backlink,* document, *hub, link-based analysis, text-based analysis,* SALSA *algorithm*.