Abstract

The difficulty of finding documents that relevant to user's queries is a problem in information retrieval. The use of link-based analysis can help to solve the problem. Link structure can be exploited because in the link structure environment, a web page document would recommend other pages that have the same information within.

There are several popular link analysis algorithms that can be used in the search for relevant documents, one of which is the HITS (Hypertext - Induced Topic Search) algorithm, implemented in this thesis. HITS uses the root set as the initial data, the root set will be extended to a base set and from the base set form, it will be used in calculating the authority value and hub.

From conducted test based on backlink metric, the use of HITS on information retrieval provides a better influence towards IAP but not precision. The addition of crawling document and number of root sets do not always provide improved precision value, because it can be influenced by the number of Inlink and outlink document.

Keywords *: Link analysis*, HITS, *authority ,hub, crawler*