**AN EFFICIENT SEARCH METHOD USING FEATURES TO MATCH JOINT KEYWORDS ON ENCRYPTED CLOUD DATA**

**CHAPTER-1**

**ABSTRACT**

With the continuous improvement of the security of cloud storage, more users upload private data to the cloud. However, a large number of encrypted data using independent keywords to create indexes not only directly increase the storage overhead, but also lead to the decline of search efficiency. Therefore, this paper proposes an efficient search method using features to match joint keywords (FMJK) on encrypted cloud data. This method proposes that each keywords are randomly selected from the non-duplicated keywords, which are extracted from the documents of the data owner, to generate a joint keyword, and all joint keywords form a keyword dictionary. Each joint keyword is matched with the feature of the document and the query keyword respectively, and the result obtained by the former is regarded as a dimension of the document index, while the result obtained by the latter is regarded as a dimension of the query trapdoor. Finally, the BM25 algorithm is used to calculate the inner product of the document index and the trapdoor, and then sort them and the top k results are returned. Theoretical analysis and experimental results show that the proposed method is more feasible and more effective than the compared schemes.