Abstract

There are various string matching Algorithms which are software based but some are hardware based. The main factor of string matching algorithm is depending on searching efficiency. In this paper we have discussed about the hardware based string matching algorithms such as Brute Force, KMP, and Aho-Corasicks with their applications. There are different types of string matching algorithms which are software based solution and hardware based solution. Since software-based solutions are slower and less efficient, now a day, so the hardware-based solutions are highly preferred. Hardware based approaches are more efficient in terms of speed, memory size and power consumption than software based approaches. Hardware based solutions has great importance in the real life applications. This paper focus on the hardware based solutions and describes the hardware based implementation of string matching algorithms such as Brute Force, KMP and Aho-Corasicks.

References


Index Terms

Computer Science

Algorithms

Keywords

Exact and Approximate String Matching  Brute Force  KMP  Aho-Corasick  BWT  etc