Abstract

Sort is an algorithm that arranges all elements of an array, orderly. Sorting Technique is frequently used in a large variety of important applications to arrange the data in ascending or descending order. Several Sorting Algorithms of different time and space complexity are exist and used. This paper provides a novel sorting algorithm Counting Position sort which is based on counting the position of each element in array. We also compare Counting Position algorithm with Bubble sort and Selection sort. We have used the MATLAB for implementation and Analysis of CPU time taken for all the three sorting algorithms used. We have checked the algorithms with random input sequence of length 10, 100, 1000, 10000, 50000. Result shows that for the small length of input sequence the performance all the three techniques is all most same, but for the large input sequence Selection sort is faster than Bubble sort and Counting Position sort.

References

- Herbert Schildt Tata McGraw-Hill
A Novel Sorting Algorithm and Comparison with Bubble sort and Insertion sort

- "The Complete Reference C fourth Edition".

Index Terms

Computer Science

Algorithms

Keywords

Bubble Sort; Counting Position Sort; Selection Sort; Sorting