Abstract

Processor scheduling is one of the primary tasks of time-sharing operating systems. The main goal behind CPU scheduling algorithms is to identify the process and assign it to the CPU that will give the best possible system performance. In this report, a dynamic approach is presented for Round Robin CPU scheduling. Here, a modified concept of dynamic quantum for each round is designed to achieve lesser average waiting time, lesser average turnaround time, and lesser number of context switching as an improved feature to conventional Round Robin schemes and also a few number of existing schemes. The comparative study of processing performance clearly shows that the proposed scheme gives approximately 15-20% better results than a few related recent works.

References

1. Raja Ram Jaiswal, K. Geetha, R. Mohan, "An intelligent adaptive round robin (IARR) scheduling algorithm for performance improvement in real-time systems", Proc. of Int. Conf on
Advances in Mechanical Engineering ,AETAME (ELSEVIER,2013)

2. Manish Kumar Mishra and Dr. Faizur Rashid,“An improved round robin cpu scheduling algorithm with varying time quantum”,International Journal of Computer Science, Engineering and Applications (IJCSEA) Vol.4, No.4, August 2014


Index Terms

Computer Science

Algorithms

Keywords
Dynamic time quantum, average turnaround time, average waiting time, context switching