Comparison of Real Time Task Scheduling Algorithms

Authors:
Vijayshree Shinde, Seema C. Biday

Abstract
In a Real-Time System, the correctness of the system is not only depending on the logical result of the computation but also on the time at which result is produced is very important. In real time system, scheduling is effected using certain criteria that ensure processes complete their various tasks at a specific time of completion. The quality of real-time scheduling algorithm has a direct impact on real-time system's working. We studied popular scheduling algorithms mainly Earliest Deadline First, Rate Monotonic, Deadline Monotonic, Least laxity First, Group Earliest Deadline First and Group Priority Earliest Deadline First for periodic task. We observe that the choice of a scheduling algorithm is important in designing a real-time system. We conclude by discussing the results of the Real-Time scheduling algorithm survey.

References
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11. Zahereel Ishwar Abdul Khalib, Badlishah R. Ahmad and Ong Bi Lynn Ong, “High deadline meeting rate of non-preemptive dynamic soft real time scheduling algorithm”, 296301,DOI:10.1109/ICCSCE.2012.648715,2012 IEEE.

Index Terms

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Keywords

Real-Time system, Real-Time task scheduling, Deadline, Execution time, Period, EDF, RM, DM, GPEDF, GEDF, LLF.