Development of Scheduler for Real Time and Embedded System Domain

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ABSTRACT
We discuss scheduling techniques to be used for real-time, embedded systems. Though there are several scheduling policies, the preemptive scheduling policy holds promising results. In this research paper, the different approaches to design of a scheduler for real-time Linux kernel are discussed in detail. The comparison of different preemptive scheduling algorithms is performed. Hence, by extracting the positive characteristics of each of these preemptive scheduling policies, a new hierarchical scheduling policy is developed. The proposed hierarchical scheduling for real time and embedded system will be implemented for a prototype system, using C or C++ language. It is expected that the new scheduling algorithm will give better performance with respect to satisfy the needs, such as time, capturing and usage of resources of different applications.

INDEX TERMS
Linux, RTOS, round robin, fcfs, sjn, deadline, hrrn, rms, edf, preemption.

CITATION
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