Abstract

The Round Robin (RR) CPU scheduling algorithm is a fair scheduling algorithm that gives equal 
time quantum to all processes. The choice of the time quantum is critical as it affects the 
algorithm’s performance. This paper proposes a new algorithm that further improved on 
the Improved Round Robin CPU (IRR) scheduling algorithm by Manish and AbdulKadir. The 
proposed algorithm was implemented and benchmarked against five other algorithms available 
in the literature. The proposed algorithm compared with the other algorithms, produces minimal 
average waiting time (AWT), average turnaround time (ATAT), and number of context switches 
(NCS). Based on these results, the proposed algorithm should be preferred over other 
scheduling algorithms for systems that adopt RR CPU scheduling.
A New Improved Round Robin (NIRR) CPU Scheduling Algorithm


Index Terms
Computer Science
Algorithms

Keywords
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Real time systems