

## Incorporating Priority Round-Robin Scheduler to Sustain Indefinite Blocking Issue and Prioritized Processes in Operating System

**Authors :** Heng Chia Ying, Charmaine Tan Chai Nie, Burra Venkata Durga Kumar

**Abstract :** Process scheduling is the method of process management that determines which process the CPU will proceed with for the next task and how long it takes. Some issues were found in process management, particularly for Priority Scheduling (PS) and Round Robin Scheduling (RR). The proposed recommendations made for IPRRS are to combine the strengths of both into a combining algorithm while they draw on others to compensate for each weakness. A significant improvement on the combining technique of scheduler, Incorporating Priority Round-Robin Scheduler (IPRRS) address an algorithm for both high and low priority task to sustain the indefinite blocking issue faced in the priority scheduling algorithm and minimize the average turnaround time (ATT) and average waiting time (AWT) in RR scheduling algorithm. This paper will delve into the simple rules introduced by IPRRS and enhancements that both PS and RR bring to the execution of processes in the operating system. Furthermore, it incorporates the best aspects of each algorithm to build the optimum algorithm for a certain case in terms of prioritized processes, ATT, and AWT.

**Keywords :** round Robin scheduling, priority scheduling, indefinite blocking, process management, sustain, turnaround time

**Conference Title :** ICIOS 2023 : International Conference on Internet Operating Systems

**Conference Location :** Kuala Lumpur, Malaysia

**Conference Dates :** February 06-07, 2023