

# Dynamic Scheduling with real-time requirements

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**Abstract**—Now a days many applications require dynamic scheduling with a predictable performance to full fill their requirements [7]. Although there are many scheduling processes available for real time system but among them dynamic scheduling is one of the most effective scheduling processes to satisfied real-time requirements of users. This paper investigates the mechanism of dynamic scheduling algorithms and a heuristic approach for solving the problem of dynamically scheduling tasks in a real-time system that enhance resource allocation efficiency and ensure the timely execution of tasks in real-time systems

**Index Terms**—Real-Time, dynamic scheduling, requirements, simulations studies, multiprocessor

## I. INTRODUCTION

The purpose of real time computing system is performed certain tasks with exact accuracy. In such a system, "correctness depends not only on the logical result of the computation but also on the time at which the results are produced (Stankovic 1988). So, in real time system to finish tasks within specific frame of time is mandatory otherwise there has a possibility to occurs big problems. At the current time some import real time system is industrial automation, nuclear power plants, embedded system e.g. Such of those system all tasks much be finished by CPU within deadline for accurate results and avoiding system errors. In this case to full fill requirements of deadline CPU use scheduling process more specifically dynamic scheduling which basically use to organize tasks to run accordingly their deadline. In dynamic scheduling, many algorithms such as Earliest deadline first, Dynamic priority scheduling, Least laxity first e.g. applied for organize tasks and that's really effectively help to perform CPU to full fill their real time requirements.