Abstract

Lottery scheduling is one of the useful techniques for managing the process queue by the scheduler. The significant feature it has the random selection of jobs in a probability manner so that various existing probability models could be used to derive interesting results. One of possible applications incorporated herewith by using probability based sampling models to estimate total time required to process all the jobs in a ready queue. A new scheduling scheme is designed named as Group Lottery Scheduling (GLS) and using this the total possible ready queue processing time is predicted in multi-processor environment. There are two variants involved in GLS as Type-I allocation and Type-II allocation of jobs to the multi-processors whose variabilities are compared. A numerical example is incorporated to support the theoretical findings.
Reference


Index Terms

Computer Science Operating Systems

Key words

Scheduling Lottery Scheduling Group Lottery

Estimator and Sampling
Estimation of Ready Queue Processing Time under Usual Group Lottery Scheduling (GLS) in Multiprocessor Environment