Abstract

Task-processor allocation in multiprocessors can be accomplished efficiently for reducing the required number of processors for the given task set, accounting reduced power consumption with maximum processor utilization. This work is based on next fit algorithm using Rate Monotonic Algorithm (RMA) for a fixed priority system. The work proposes a minimal task allocation algorithm for multiprocessor environment. The proposed method reduces the number of processors required for a given task set using improved next fit algorithm and the same has been evaluated and tested. The proposed algorithm gives better results when there is large number of tasks in the system.

References

Communications (ADCOM 2000), India, 2000.

Index Terms

Computer Science  Embedded

Keywords

Multiprocessor Systems  Task-processor Allocation Algorithm  Multiprocessor Allocation
Rate Monotonic Algorithm
Next Fit Algorithm
Improved Next-fit Algorithm