Abstract

The distributed real-time system [DRTS] is the great platform for parallel application. Multiple tasks will be formed of the parallel application, which are to be allocated over the nodes available in DRTS. Numbers of tasks are much more than available nodes in the system. The tasks should be grouped or clustered in a very efficient manner and allocated over the nodes of the system efficiently for the minimization of overall system cost and maximization of system performance. Task allocation is NP-hard problem. A model based on k-mean clustering has been proposed in this paper. In the suggested model, the limitation of memory and the number of tasks allowed over the processor has been considered. MATLAB 7. 11. 0 has been used to simulate the proposed model.
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**Index Terms**

Computer Science Distributed Systems

**Keywords**

Distributed Real Time System  k-mean cluster  NP-hard  Parallel Application  Task Allocation.