

عنوان مقاله:

Dynamic Task Scheduling Algorithm with Minimum Communication Cost and Processor Ready Time in Heterogeneous Systems

محل انتشار:

دوازدهمین کنفرانس سالانه انجمن کامپیوتر ایران (سال: 1385)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Hadi Shahriar Shahhoseini - *Electrical Engineering Department, Iran University of Science and Technology, Tehran, Iran*

Hamidreza Abed Masroorkhah - *Faculty of Electrical & Computer Engineering, Shahid Beheshti University, Tehran, Iran*

خلاصه مقاله:

Task scheduling is an NP-complete problem. A large number of heuristic approaches for finding the best result have been presented in the literatures. Most of the algorithms are proposed for the homogeneous systems and a few ones can be applied for the heterogeneous systems. In this paper, a synchronous task scheduling for heterogeneous systems called Dynamic Task Scheduling with Minimum Communication Cost and Processor Ready Time (DMCR) is proposed. DMCR can obtain exact values of communication cost and processors ready times by task selection synchronously with machine selection. Using exact values instead of conjectural values that used in the other scheduling approaches provides better results in heterogeneous systems. Simulation shows 5-10% improvement comparing HEFT and 12-18% improvement comparing HCPT.

کلمات کلیدی:

Task scheduling, Heuristic, Heterogeneous system, Parallelism

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/44744>

