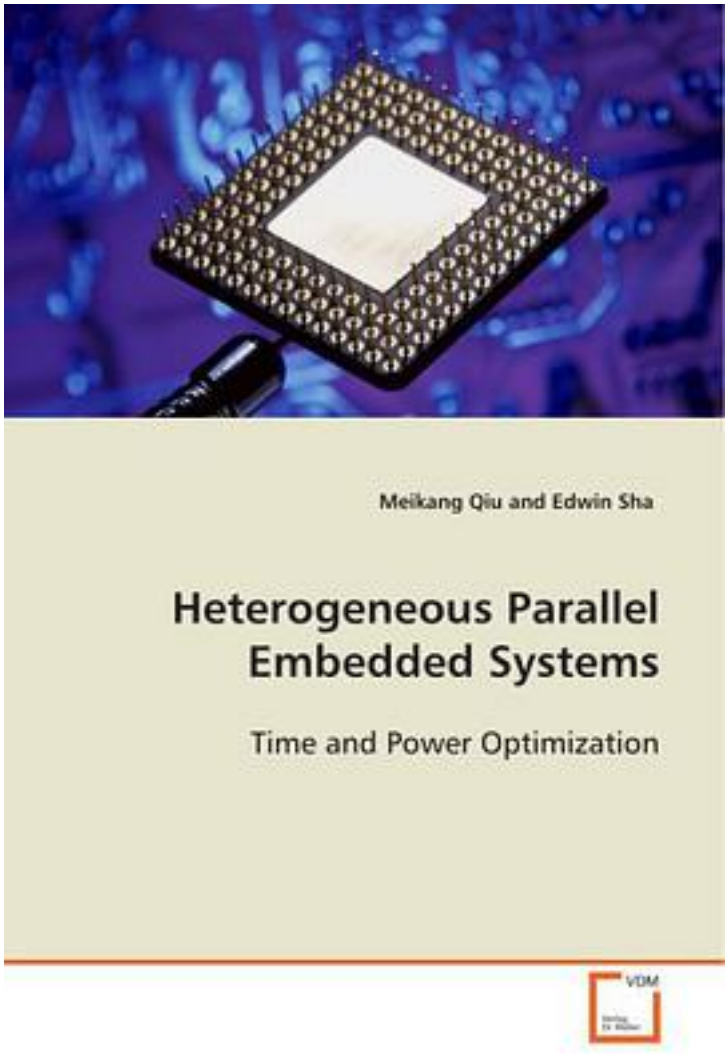
Heterogeneous Parallel Embedded Systems



Heterogeneous Parallel Embedded Systems_下载链接1_

著者:Sha, Edwin

出版者:

出版时间:

装帧:

isbn:9783639096194

Embedded systems are driving an information revolution with their pervasion in our everyday lives. With more and more different types of FUs available, same type of operations can be processed by heterogeneous FUs with different costs, where the cost may relate to power, reliability, etc. Due to conditional operations, some tasks may not have fixed execution time. Therefore, how to assign a proper FU type to each operation of a system and generate a schedule that minimize the total costs while satisfying timing constraints with guaranteed confidence probabilities becomes a critical issue. This book, 1) proposed several efficient algorithms to solve the problem; 2) combined Dynamic Voltage Scaling (DVS) and soft real-time to solve the Voltage Assignment with Probability (VAP) Problem. 3) applied our efficient algorithms to dynamic adjust the working mode of sensors to save energy for sensor networks; 4) designed rotation scheduling algorithms for real-time applications that produce schedules consuming minimal energy; 5) combined data mining and prefetching to reduce energy consumptions; 6) improved performance and energy consumption for processors with multi-bank memory.

作者介绍:

目录:

标签

评论

Heterogeneous Parallel Embedded Systems_下载链接1_

书评

Heterogeneous Parallel Embedded Systems_下载链接1_