<<现代处理器设计>>

图书基本信息

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内容概要

本书是关于处理器设计的最新、最权威教材，主要论述了：（1）处理器的设计方法和原理；（2）流水线技术；（3）主存与I/O系统；（4）超标量组织与技术；（5）POWerPC 620和IntCl P6等示例；（6）超标量处理器设计；（7）先进的指令流技术、存储器数据流技术；（8）多线程技术等。

本书适合作为计算机及相关专业的“处理器设计”课程的教材，也是有关专业人员很有价值的参考用书。

作者简介：　　John Paul Shen is the Director of Intel's Microarchitecture Research Lab (MRL), providing leadership to about two-dozen highly skilled researchers located in Santa Clara, CA; Hillsboro, OR; and Austin, TX. MRL is responsible for de- veloping innovative microarchitecture techniques that can potentially be used in future microprocessor products from Intel. MRL researchers collaborate closely with microarchi-tects from product teams in joint advanced-development efforts. MRL frequently hosts visiting faculty and Ph.D.interns and conducts joint research projects with academic research groups.　Prior to joining Intel in 2000, John was a professor in the electrical and computer engineering department of Carnegie Mellon University, where he headed up the CMU Microarchitecture Research Team (CMuART). He has supervised a total of 16 Ph.D. students during his years at CMU.Seven are currently with Intel, and five have faculty positions in academia. He won multiple teaching awards at CMU. He was an NSF Presidential Young Investigator.He is an IEEE Fellow and has served on the program committees of ISCA, MICRO,HPCA, ASPLOS, PACT, ICCD, ITC, and FFCS.　He has published over 100 research papers in diverse areas, including fault-tolerant computing, built-in self-test, process defect and fault analysis, concurrenterror detection, application-specific processors, performance evaluation, compila-tion for instruction-level parallelism, value locality and prediction, analytical mod-eling of superscalar processors, systematic microarchitecture test generation, per-formance simulator validation, precomputation-based prefetching, database workload analysis, and user-level helper threads.　John received his M.S. and Ph.D. degrees from the University of Southern California, and his B.S. degree from the University of Michigan, all in electrical engineering. He attended Kimball High School in Royal Oak, Michigan. He is happily married and has three daughters. His family enjoys camping, road trips, and reading The Lord of the Rings.

作者简介

作者：(美国)谢 等

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