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Nota di contenuto	Keynote Address I -- Processor Architecture for Trustworthy Computers -- Session 1A: Energy Efficient and Power Aware Techniques -- Efficient Voltage Scheduling and Energy-Aware Co-synthesis for Real-Time Embedded Systems -- Energy-Effective

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-- Exploring Design Space Using Transaction Level Models -- Increasing Embedding Probabilities of RPRPs in RIN Based BIST -- A Practical Test Scheduling Using Network-Based TAM in Network on Chip Architecture -- Session 6A: Architectures for Secured Computing -- DRIL-- A Flexible Architecture for Blowfish Encryption Using Dynamic Reconfiguration, Replication, Inner-Loop Pipelining, Loop Folding Techniques -- Efficient Architectural Support for Secure Bus-Based Shared Memory Multiprocessor -- Covert Channel Analysis of the Password-Capability System -- Session 6B: Simulation and Performance Evaluation -- Comparing Low-Level Behavior of SPEC CPU and Java Workloads -- Application of Real-Time Object-Oriented Modeling Technique for Real-Time Computer Control -- VLSI Performance Evaluation and Analysis of Systolic and Semisystolic Finite Field Multipliers -- Session 7: Architectures for Emerging Technologies and Applications I -- Analysis of Real-Time Communication System with Queuing Priority -- FPGA Implementation and Analyses of Cluster Maintenance Algorithms in Mobile Ad-Hoc Networks -- A Study on the Performance Evaluation of Forward Link in CDMA Mobile Communication Systems -- Session 8: Memory Systems Hierarchy and Management -- Cache Leakage Management for Multi-programming Workloads -- A Memory Bandwidth Effective Cache Store Miss Policy -- Application-SpecificHardware-Driven Prefetching to Improve Data Cache Performance -- Targeted Data Prefetching -- Session 9: Architectures for Emerging Technologies and Applications II -- Area-Time Efficient Systolic Architecture for the DCT -- Efficient VLSI Architectures for Convolution and Lifting Based 2-D Discrete Wavelet Transform -- A Novel Reversible TSG Gate and Its Application for Designing Reversible Carry Look-Ahead and Other Adder Architectures -- Implementation and Analysis of TCP/IP Offload Engine and RDMA Transfer Mechanisms on an Embedded System.

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#### Sommario/riassunto

On behalf of the ProgramCommittee, we are pleased to present the proceedings of the 2005 Asia-Paci?c Computer Systems Architecture Conference (ACSAC 2005) held in the beautiful and dynamic country of Singapore. This conference was the tenth in its series, one of the leading forums for sharing the emerging research ?ndings in this ?eld. In consultation with the ACSAC Steering Committee, we selected a - member Program Committee. This Program Committee represented a broad spectrum of research expertise to ensure a good balance of research areas, - stitutions and experience while maintaining the high quality of this conference series. This year's committee was of the same size as last year but had 19 new faces. We received a total of 173 submissions which is 14% more than last year. Each paper was assigned to at least three and in some cases four ProgramC- mittee members for review. Wherever necessary, the committee members called upon the expertise of their colleagues to ensure the highest possible quality in the reviewing process. As a result, we received 415 reviews from the Program Committee members and their 105 co-reviewers whose names are acknowledged inthe proceedings. Theconferencecommitteeadopteda systematicblind review process to provide a fair assessment of all submissions. In the end, we accepted 65 papers on a broad range of topics giving an acceptance rate of 37.5%. We are grateful to all the Program Committee members and the co-reviewers for their e?orts in completing the reviews within a tight schedule.

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