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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Keynotes -- Reconfigurable Platform for Digital Convergence Terminals -- European Research in Embedded Systems -- System Design and Modeling -- Interface Overheads in Embedded Multimedia Software -- A UML Profile for Asynchronous Hardware Design -- Automated Distribution of UML 2.0 Designed Applications to a Configurable Multiprocessor Platform -- Towards a Transformation Chain Modeling Language -- Key Research Challenges for Successfully Applying MDD

Within Real-Time Embedded Software Development -- Domain-Specific Modeling of Power Aware Distributed Real-Time Embedded Systems -- Mining Dynamic Document Spaces with Massively Parallel Embedded Processors -- Efficient Automated Clock Gating Using CoDeL -- An Optimization Methodology for Memory Allocation and Task Scheduling in SoCs Via Linear Programming -- Wireless Sensor Networks -- Designing Wireless Sensor Nodes -- Design, Implementation, and Experiments on Outdoor Deployment of Wireless Sensor Network for Environmental Monitoring -- LATONA: An Advanced Server Architecture for Ubiquitous Sensor Network -- An Approach for the Reduction of Power Consumption in Sensor Nodes of Wireless Sensor Networks: Case Analysis of Mica2 -- Energy-Driven Partitioning of Signal Processing Algorithms in Sensor Networks -- Preamble Sense Multiple Access (PSMA) for Impulse Radio Ultra Wideband Sensor Networks -- Security in Wireless Sensor Networks: Considerations and Experiments -- On Security of PAN Wireless Systems -- Processor Design -- Code Size Reduction by Compiler Tuning -- Energy Optimization of a Multi-bank Main Memory -- Probabilistic Modelling and Evaluation of Soft Real-Time Embedded Systems -- Hybrid Functional and Instruction Level Power Modeling for Embedded Processors -- Low-Power, High-Performance TTA Processor for 1024-Point Fast Fourier Transform -- Software Pipelining Support for Transport Triggered Architecture Processors -- SAD Prefetching for MPEG4 Using Flux Caches -- Effects of Program Compression -- Integrated Instruction Scheduling and Fine-Grain Register Allocation for Embedded Processors -- Compilation and Simulation Tool Chain for Memory Aware Energy Optimizations -- A Scalable, Multi-thread, Multi-issue Array Processor Architecture for DSP Applications Based on Extended Tomasulo Scheme -- Reducing Execution Unit Leakage Power in Embedded Processors -- Memory Architecture Evaluation for Video Encoding on Enhanced Embedded Processors -- Advantages of Java Processors in Cache Performance and Power for Embedded Applications -- Dependable Computing -- CARROT -- A Tool for Fast and Accurate Soft Error Rate Estimation -- A Scheduling Strategy for a Real-Time Dependable Organic Middleware -- Autonomous Construction Technology of Community for Achieving High Assurance Service -- Preventing Denial-of-Service Attacks in Shared CMP Caches -- Architectures and Implementations -- A Method for Router Table Compression for Application Specific Routing in Mesh Topology NoC Architectures -- Real-Time Embedded System for Rear-View Mirror Overtaking Car Monitoring -- Design of Asynchronous Embedded Processor with New Ternary Data Encoding Scheme -- Hardware-Based IP Lookup Using n-Way Set Associative Memory and LPM Comparator -- A Flash File System to Support Fast Mounting for NAND Flash Memory Based Embedded Systems -- Rescheduling for Optimized SHA-1 Calculation -- Software Implementation of WiMAX on the Sandbridge SandBlaster Platform -- High-Radix Addition and Multiplication in the Electron Counting Paradigm Using Single Electron Tunneling Technology -- Area, Delay, and Power Characteristics of Standard-Cell Implementations of the AESS-Box -- Embedded Sensor Systems -- Integrated Microsystems in Industrial Applications -- A Solid-State 2-D Wind Sensor -- Fault-Tolerant Bus System for Airbag Sensors and Actuators.

Sommario/riassunto

This book constitutes the refereed proceedings of the 6th International Workshop on Systems, Architectures, Modeling, and Simulation, SAMOS 2006, held in Samos, Greece on July 2006. The 47 revised full papers presented together with 2 keynote talks were thoroughly reviewed and selected from 130 submissions. The papers are organized in topical sections on system design and modeling, wireless sensor networks,

processor design, dependable computing, architectures and implementations, and embedded sensor systems.
