Are lessons learnt in mobile ad hoc networks useful for wireless sensor networks? p. 1

Compiler-directed scratchpad memory management p. 2

Heterogeneous multi-processor SoC: an emerging paradigm of embedded system design and its challenges p. 3

Trace-based runtime instruction rescheduling for architecture extension p. 4

Bioinformatics on embedded systems: a case study of computational biology applications on VLIW architecture p. 16

The design space of CMP vs. SMT for high performance embedded processor management SoC platform p. 30

Reconfigurable microarchitecture based system-level dynamic power management SoC platform p. 39

A methodology for software synthesis of embedded real-time systems based on TPN and LSC p. 50

Ahead of time deployment in ROM of a Java-OS p. 63

The research on how to reduce the number of EEPROM writing to improve speed of Java card p. 71

A packet property-based task scheduling policy for control plane OS in NP-based applications p. 85

RBLS: a role based context storage scheme for sensor net p. 96

CDP: component development platform for communication protocols p. 107

TrieC: a high-speed IPv6 lookup with fast updates using network processor p. 117

Separate compilation for synchronous modules p. 129

Implementation of hardware and embedded software for stream gateway interface supporting media stream transmissions with heterogeneous home networks p. 141

On using locking caches in embedded real-time systems p. 150

Trace acquirement from real-time systems based on WCET analysis p. 160

Elimination of non-deterministic delays in a real-time database system p. 172

Solving real-time scheduling problems with model-checking p. 186

Efficient FPGA implementation of a knowledge-based automatic speech classifier p. 198

A topology control method for multi-path wireless sensor networks p. 210

Dynamic threshold scheme used in directed diffusion p. 220

Compiler-directed energy-aware prefetching optimization for embedded applications p. 230

A dynamic energy conservation scheme for clusters in computing centers p. 244

Realization of video object plane decoder on on-chip network architecture p. 256

Network on chip for parallel DSP architectures p. 265

A new methodology of integrating high level synthesis and floorplan for SoC design p. 275

Designing on-chip network based on optimal latency criteria p. 287

Microprocessor based self schedule and parallel BIST for system-on-a-chip p. 299

Self-correction of FPGA-based control units p. 310

Detecting memory access errors with flow-sensitive conditional range analysis p. 320
Deductive probabilistic verification methods of safety, liveness and nonzenoness for distributed real-time systems p. 332

Specification and verification techniques of embedded systems using probabilistic linear hybrid automata p. 346

Formalization of fFSM model and its verification p. 361

Dynamic co-allocation of level one caches p. 373

Jaguar : a compiler infrastructure for Java reconfigurable computing p. 386

CCD camera-based range sensing with FPGA for real-time processing p. 398

Best Web service selection based on the decision making between QoS criteria of service p. 408

Data storage in sensor networks for multi-dimensional range queries p. 420

An OSEK COM compliant communication model for smart vehicle environment p. 430

Resource allocation based on traffic load over relayed wireless access networks p. 441

An adaptive cross layer unequal protection method for video transmission over wireless communication channels p. 452

Power-efficient packet scheduling method for IEEE 802.15.3 WPAN p. 462

Two energy-efficient, timesaving improvement mechanisms of network reprogramming in wireless sensor network p. 473

On location-free node scheduling scheme for random wireless sensor networks p. 484

Leading causes of TCP performance degradation over wireless links p. 494

The study and implementation of wireless network router NPU-1 p. 506

Performance evaluation of air indexing schemes for multi-attribute data broadcast p. 512

Hierarchical route optimization in mobile network and performance evaluation p. 522

Swarm based sensor deployment optimization in ad hoc sensor networks p. 533

Weighted localized clustering : a coverage-aware reader collision arbitration protocol in RFID networks p. 542

A kind of context-aware approach based on fuzzy-neural for proactive service of pervasive computing p. 554

A novel block-based motion estimation algorithm and VLSI architecture based on cluster parallelism p. 564

Software-based video codec for mobile devices p. 576

Real-time expression mapping with ratio image p. 586

Power consumption analysis of embedded multimedia application p. 596

A dynamic threshold and subsection control TCP slow-start algorithm p. 608

An improved DRR packet scheduling algorithm based on even service sequence p. 618

An improvement on strong-password authentication protocols p. 629

Two-step hierarchical protocols for establishing session keys in wireless sensor networks p. 638

A revenue-aware bandwidth allocation model and algorithm in IP networks p. 650
Control flow error checking with ISIS p. 659
Support industrial hard real-time traffic with switched ethernet p. 671
Integer factorization by a parallel GNFS algorithm for public key cryptosystems p. 683
Localized energy-aware broadcast protocol for wireless networks with directional antennas p. 696
The optimal profile-guided greedy dynamic voltage scaling in real-time applications p. 708
A parallelizing compiler approach based on IXA p. 720
The design of firewall based on intel IXP2350 and autopartitioning mode C p. 726
AMT6 : end-to-end active measurement tool for IPv6 network p. 732
Semantic Web based knowledge searching system in mobile environment p. 741
A general-purpose, intelligent RAID-based object storage device p. 747
The design and implement of remote mirroring based on iSCSI p. 757
Improvement of space utilization in NAND flash memory storages p. 766
Smart u-things and ubiquitous intelligence p. 776

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.