

## about the book . . .

Ranging from low-level application and architecture optimizations to high-level modeling and exploration concerns, this text/reference compiles essential research on various levels of abstraction appearing in embedded systems and software design—promoting platform-based design for improved system implementation and modeling and enhanced performance and cost analyses.

*Relies upon notions of concurrency and parallelism to satisfy performance and cost constraints resulting from increasingly complex applications and architectures.*

Addressing concepts in specification, simulation, and verification in embedded systems and software design, **Domain-Specific Processors** introduces parameterized architectures and templates for control of design space...applies new VHDL generation tools to investigate the use of truncated multipliers in FIR filter implementations...develops several architectures for discrete wavelet transforms based on their flowgraph representation...details techniques for capturing intra-task parallelism during simulation in the Sesame environment for exploration of design space...describes approaches for power modeling and energy estimation of piecewise regular processor arrays...offers a programming model for single-chip multiprocessing with high power/performance efficiency...and examines an algorithm for computing energy-optimal space-time mappings.

## about the editors . . .

SHUVRA S. BHATTACHARYYA is Associate Professor, Department of Electrical and Computer Engineering and Institute of Advanced Computer Studies, and Affiliate Associate Professor, Department of Computer Science, University of Maryland, College Park. The author or coauthor of 2 books and more than 60 technical articles, Dr. Bhattacharyya is the recipient of the NSF Career Award (1998). Dr. Bhattacharyya received the B.S. degree from the University of Wisconsin–Madison, and the Ph.D. degree from the University of California, Berkeley.

ED F. DEPRETTERE is Professor, Department of Mathematics and Natural Sciences, and Head of the Leiden Embedded Research Center, Leiden University, The Netherlands. The coeditor of 4 books and the author or coauthor of more than 200 technical articles, his research interests focus on system-level modeling, design of embedded systems, and signal processing applications. He received the M.Sc. degree from the University of Ghent, Belgium, and the Ph.D. degree from the Delft University of Technology, The Netherlands.

JÜRGEN TEICH is Full Professor, University of Erlangen-Nuremberg, Germany. A member of multiple program committees of well-known conferences and workshops, he is a member of the Institute of Electrical and Electronics Engineers. His research interests are massive parallelism, embedded systems, codesign, and computer architecture. He received the Masters Diploma from the University of Kaiserslautern, Germany, and the Ph.D. degree from the University of Saarland, Saarbrücken, Germany.

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