LITERATURE WATCH

EMBEDDED

SH-5: the 64-bit SuperH architecture. The latest SuperH microprocessor provides a platform for a wide range of multimedia applications. Its SIMD extensions provide the parallelism required for efficient execution of these applications. Prasenjit Biswas, Hitachi Semiconductor (America), et al.; *IEEE Micro*, 8/00, p. 28, 12 pp.

2001 buyer's guide. Eighteen categories featuring over 1,200 products for embedded systems development. *Embedded Systems Programming*, 9/00.

IC DESIGN

Quantum transistors: toward nanoelectronics. Electrons that tunnel through insulating barriers and hop on and off minuscule dots are at the heart of future transistor generations. Linda Geppert, *IEEE Spectrum*, 9/00, p. 46, 6 pp.

IC PROCESSES

Copper, low-*k *metrology: scale the learning curve. New materials and processes defy us to measure conditions about which we are unsure, and, when confronting yield problems of unknown origins, manufacturers expect metrology to respond. Alexander Braun, *Semiconductor International*, 6/00, p. 128, 7 pp.

MARKET

Getting in line at the fab. Customers of all sizes are rethinking supply strategies as demand for foundry services outstrips supply. Russ Arensman, *Electronic Business*, 8/00, p. 118, 6 pp.

How the mighty have fallen… quietly. Stop and think about those companies and individuals who made the advances and cut the path for others to follow, even though in the end they may have lost the battles and wars. Bill Schweber, *EDN*, 7/6/00, p. 39, 1 p.

NETWORKING

The next-generation Internet: unsafe at any speed? Speed alone will not make future Internet applications secure. Software-based virtual networks layered atop physical networks may provide the isolation that critical applications need. Kenneth Birman, Cornell Univ.; *Computer*, 8/00, p. 54, 7 pp.

Why WAP may never get off the ground. The Wireless Access Protocol's once-bright future looks dim unless the digital wireless infrastructure it depends on can co-evolve with it. Ted Lewis, DaimlerChrysler Research & Technology; *Computer*, 8/00, p. 112, 3 pp.

The cost of quality in Internet-style networks. The ability to deliver quality of service will separate the winners from the losers in the packet-switched future. Amitava Dutta-Roy, *IEEE Spectrum*, 9/00, p. 57, 6 pp.

MULTIMEDIA

Visualizing with VTK: a tutorial. Targets researchers of any discipline who have 2D or 3D data and want more control over the visualization process than a turnkey system can provide. William Schroeder et al., Kitware; *IEEE Computer Graphics*, 10/00, p. 20, 8 pp.

NETWORKING

Networking home entertainment devices with HAVi. Use HAVi architecture to write portable applications for consumer electronics devices. Rodger Lea et al., Sony Distributed Systems Laboratory; *Computer*, 9/00, p. 35, 9 pp.

PACKAGING

Getting a better grip on CompactPCI insert/eject handles. A new design for Compact-PCI handles slams the door on little annoyances and major problems alike. George Ross, Pentair Electronic Packaging; *RTC*, 7/00, p. 103, 5 pp.

PROCESSORS

21st-century microprocessors. In the 21st century, microprocessors will be used in unforeseen applications in many fields. Ken Sakamura, *IEEE Micro*, 8/00, p.10, 2 pp.

Predicting the future. Nick Tredennick and Steven Wallach offer comments on what to expect of microprocessors in the 21st century. *IEEE Micro*, 8/00, p. 88, 2 pp.

PROGRAMMABLE LOGIC

EDN's first annual programmable logic directory. EDN's directory highlights the architectures available for your next design. Brian Dipert, *EDN*, 8/17/00, p. 54, 20 pp.

RESEARCH

EB 300. Top electronics makers redouble their efforts to establish networks of R&D centers around the world. John Thackray, *Electronic Business*, 8/00, p. 63, 5 pp.

SOFTWARE

Is embedded Linux ready for real time? Developers are eager to embrace Linux but express reservations about its ability to address real-time performance requirements. Bill Weinberg, MontaVista Software; *RTC*, 7/00, p. 19, 4 pp.

SYSTEM DESIGN

Bringing high availability to the masses. A standards-based approach makes high availability much more realistic. Fred Rehhausser, *ISD*, 8/00, p. 27, 5 pp.

Integrated USB 2.0 chip extends its reach to high-speed peripherals. This chip promises designers time-to-market and other advantages when implementing the new 480-Mb/s standard. Joseph Desposito, *Electronic Design*, 7/10/00, p. 76, 4 pp.

Coping with SCSI at gigahertz speeds. Optimize your next SCSI-board design with high-speed transmission-line techniques. Barry Caldwell, LSI Logic, and Don Getty, Texas Instruments; *EDN*, 7/6/00, p. 93, 5 pp.

TEST

New debug strategies combine on-chip and off-chip tools. The integration of complex cores on a single die and the integration of a chip on a PC board create new challenges for design verification. Bob Garrett and Martin Won, Altera; *EDN*, 8/17/00, p. 105, 4 pp.