



## **1992 INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING**

(ICASSP-92) recorded in San Francisco, CA

### **Implementation and Synthesis of VLSI Signal Processing Systems**

*Presented by Keshab K. Parhi, University of Minnesota,  
and Jan Rabaey, University of California, Berkeley, CA*

This tutorial addresses techniques for dedicated implementations and high-level hardware synthesis of signal processing algorithms. Architectures for implementation of arithmetic functional units (including multiplication, rotation, division, and square-root) are described. See how high-level hardware synthesis algorithms and systems can be used. Examples of synthesis systems (such as Lager and Cathedral) are also discussed. HV0264-2, ISBN 0-7803-0341-5. 3 hours, 2 tapes. \$95.95 Member, \$155.95 Non-member.

### **An Introduction to Adaptive Digital Filtering**

*Presented by John R. Treichler, Applied Signal Technology, Inc., Sunnyvale, CA*

This short course is an introduction to the field of adaptive digital filtering. It presumes some background in digital signal processing. Several practical examples are examined which require filter adaptivity to solve the problem at hand. Several popularly used adaptive algorithms (e.g., LMS and RLS) are developed, followed by extensions to non-FIR filters and other performance criteria. Running examples are used to illustrate the concepts presented and to demonstrate their practical application. HV0265-9, ISBN 0-7803-0340-7. 3 hours, 2 tapes. \$95.95 Member, \$155.95 Non-member.

### **Articulatory Speech Analysis/Synthesis**

*Presented by M. Mohan Sondhi, Juergen Schroeter, AT&T Bell Laboratories, Murray Hill, NJ*

In this tutorial a description of speech in terms of the physiology of the human vocal apparatus will be reviewed. Current models will be described as well as their application to what we call a "speech mimic," that is, a complete speech analysis-synthesis system. Examples of speech produced by such a system are demonstrated in this video. HV0266-7, ISBN 0-7803-0339-3. 3 hours, 2 tapes. \$95.95 Member, \$155.95 Non-member.

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