ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING

An International Journal

SPECIAL ISSUE

ON

SENSORS AND SENSOR SIGNAL CONDITIONING CIRCUITS

Because sensors are taking on an increasingly important role in a variety of application areas there is a clear need for analog and mixed analog/digital circuits which support sensor signal conditioning. To address this important and growing area, a special issue will be published as a forum for original papers which emphasize various aspects of sensor signal conditioning circuits. Topics of interest include, but are not limited to, the following:

- · Analog Sensor Models
- Amplifiers with Imbedded Sensors
- Oscillators and Multivibrator with Sensor Controlled Oscillation Parameters
- Analog-to-Digital Conversion of Sensor Signals
- Noise in Sensors

To be considered for the Special Issue on Sensors and Sensor Signal Conditioning Circuits, prospective authors should submit five copies of their complete manuscript by **January 15, 1992** to one of the Guest Editors:

Prof. Dr. H. Baltes or Dr. I.M. Filanovsky Institute of Quantum Electronics Physical Electronics Laboratory ETH-Hoenggerberg HPT 8093, Zurich, SWITZERLAND

Phone: +41-1-377-20-90 or: +41-1-377-22-74 FAX: +41-1-371-07-21

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ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING

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SPECIAL ISSUE

ON

SYMBOLIC ANALYSIS: TECHNIQUES AND APPLICATIONS

The symbolic analysis of analog circuits is becoming increasingly important in the analog design community. Expressions generated by symbolic analysis programs provide closed-form literal results for circuit characteristics such as gain, impedance and noise. These results are useful as design tools to evaluate complicated second-order phenomena such as PSRR and harmonic distortion. Without symbolic tools, these effects are especially difficult to evaluate at higher frequencies and in the presence of mismatches. Symbolic analysis is also very important in analog CAD. Here the symbolic simulator can provide a basic tool which may be applied to the creation of an open analog design system in which the designer can easily introduce new circuit schematics to be sized and laid out. The symbolic simulation then provides the analytic models necessary for circuit optimization. Other applications of these techniques are in statistical analysis and behavioral simulation and modeling.

The purpose of this special issue is to report on recent advances made in techniques of symbolic analysis, programs for symbolic analysis, and applications of symbolic methodology. Topics of interest for this special issue include, but are not limited to:

- Approximation and Simplification Techniques
- Methods for Symbolically Analyzing Large Circuits
- Symbolic Distortion Analysis of Nonlinear Circuits
- Active and Passive Filter Synthesis Applications
- Analog Design and CAD Applications
- Statistical Analysis and Yield Applications
- Behavioral Simulation and Modeling Applications
- Undergraduate Engineering Education Applications
- Techniques and Algorithms for the Symbolic Analysis of Continuous-Time, Discrete-Time, and Mixed Analog Systems
- Circuit Theory and Graph Theory Applications

To be considered for this Special Issue of *Analog Integrated Circuits and Signal Processing*, prospective authors should submit five copies of their complete manuscript by **January 31**, 1992. All manuscript are subject to review and should be submitted to one of the two Guest Editors:

Dr. Lawrence P. Huelsman Dept. of Electrical & Computer Engineering University of Arizona Tucson, Arizona 85721, USA

Tel: 1-602-621-2434 Fax: 1-602-621-8076

Email: huelsman@ece.arizona.edu

Dr. Georges G.E. Gielen Dept. of Electrical Engr. MICAS Division Katholieke Universiteit Leuven Kardinaal Mercierlaan 94 B-3001 Heverlee, BELGIUM

Tel: +32-16-22-0931 Fax: +32-16-22-1855

Email: gielen@esat.kuleuven.ac.bc

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ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING

An International Journal

SPECIAL ISSUE ON ANALOG DESIGN-FOR-TEST

Papers are solicited for a special issue of the Journal of Analog Integrated Circuits and Signal Processing (AICSP) covering the broad field of Analog Design-for-Test. Topics of interest include but are not limited to the following:

- Testable designs of analog circuits and systems
- Computer-aided tools to assist analog test developments
- · Analog testability analysis and impact on designs
- · Applications of digital design-for-test approaches to analog circuits
- Design methodologies and framework for testable analog circuits

To be considered for this Special Issue on Analog Design-for-Test, prospective authors should submit six copies of their complete manuscript by May 15, 1992 to the Guest Editor:

Professor Mani Soma Department of Electrical Engineering, FT-10 University of Washington Seattle, WA 98195, USA

Phone: 206-685-3810 FAX: 206:543-3842

Email: soma@ee.washington.edu

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ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING

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SPECIAL ISSUE

HIGH SPEED INTERCONNECTS

Analysis and design of interconnections in high-speed VLSI chips and printed circuit boards are gaining importance because of the rapid increase in operating frequency and decrease in feature size. To address this important and growing area, a special issue of the Journal *Analog Integrated Circuits and Signal Processing (AICSP)* will be published as a forum for original papers which emphasize various aspects of high speed circuits and interconnects. The special issue is scheduled to be published in June, 1993. Topics of interests include, but are not limited to:

- Modeling of high speed interconnects
- Simulation of VLSI circuits including interconnects
- Modeling and simulation of high speed circuits
- · Multichip modules
- · Design and optimization of high speed interconnects
- · Interconnects and packaging structures
- Simulation and measurements of EMC/EMI effects
- Optical interconnects
- CAD systems for high speed interconnects

Prospective authors should submit five copies of their complete manuscript before October 1, 1992. All manuscripts are subject to review and should be submitted to one of the two Guest Editors:

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