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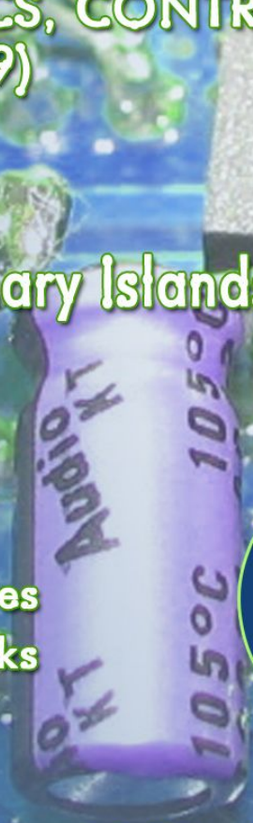
RECENT ADVANCES IN CIRCUITS, SYSTEMS, ELECTRONICS, CONTROL AND SIGNAL PROCESSING

Proceedings of the 8th WSEAS International Conference on CIRCUITS, SYSTEMS, ELECTRONICS, CONTROL & SIGNAL PROCESSING (CSECS '09)

Puerto De La Cruz, Tenerife, Canary Islands, Spain,
December 14-16, 2009



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ISBN: 978-960-474-139-7
ISSN: 1790-5117

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All papers of the present volume were peer reviewed by two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.
See also: http://www.worldses.org/review/index.html

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World Scientific and Engineering Academy and Society

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Preface

This year the 8th WSEAS International Conference on CIRCUITS, SYSTEMS, ELECTRONICS, CONTROL & SIGNAL PROCESSING (CSECS '09) was held at Puerto De La Cruz, Tenerife, Canary Islands, Spain, December 14-16, 2009. The conference remains faithful to its original idea of providing a platform to discuss nanostructures and nanotechnologies, molecular electronics, molecular computing, dna computing, microelectronics, microcircuits, laser and optical systems, sensors, neural networks, fuzzy logic and circuits design, robotics, artificial intelligence, aerospace systems, telecommunication systems, speech and image processing systems, human-machine systems, supercomputing, video technologies, genetic algorithms and evolutionary control, cybernetics, chemical processes control, automation in biology, medicine, chemical engineering, time-frequency analysis, psychoacoustics, broadband audio coding, signal processing for music, computed imaging, programmable signal processors, radar, sonar, signal processing for robotics, satellite signals processing etc. with participants from all over the world, both from academia and from industry.

Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of this conference are published in this Book that will be indexed by ISI. Please, check it: www.worldses.org/indexes as well as in the CD-ROM Proceedings. They will be also available in the E-Library of the WSEAS. The best papers will be also promoted in many Journals for further evaluation.

A Conference such as this can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors

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Plenary Lecture 1

Improving Productivity on Working with CNC Machine Tools

Associate Professor Badea Lepadatescu
Faculty of Technological Engineering
Manufacturing Technology Department
Transilvania University of Brasov
Romania
E-mail: danlep2000@yahoo.com

Abstract: The paper presents as a mathematic support the relationship which are used at machining with CNC lathes when is changing the carbide insert. It is showing the corrections that must be done direct on the machine tool panel and the modifications of the machine programme when the deviations are bigger than the part tolerance.

Brief Biography of the Speaker:
Badea Lepadatescu
Date of birth: 22 March 1951
Work experience: 1998 to present – Assoc. Prof at Transilvania University of Brasov
1982-1998 - Research engineer at transilvania University of Brasov
1976-1982 – Design engineer at ROMAN truck factory in Brasov.

Plenary Lecture 2

Want to Save Energy? - Put Intelligence into Systems

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Abstract: Due to extensive use of electric and electronic appliances, energy bills make a significant part of family budget spending. Reducing the cost requires lowering energy consumption of devices in use, which means not only turning unnecessary devices off but also more efficient operation of active appliances. In this talk we discuss new technologies that allow systems to monitor their users for energy saving. We already implemented some technologies in software and hardware and present the results of their experimental evaluation.

Brief Biography of the Speaker:
Vasily Moshnyaga received Computer Engineering Degree with Honors from Technical State University, Sevastopol, USSR in 1980 and Ph.D. in computer engineering from Moscow Aviation Institute in 1986. Till 1992 he was a faculty of Technical University of Moldova, Chisinau, Moldova. From 1992 to 1998 he was a lecture at the Department of Electronics and Communication of Kyoto University, Japan. Since 1998 he has been with Fukuoka University, Japan, where he is currently a Professor at the Department of Electronics Engineering and Computer Science. In 2005-2006 he was a visiting scientist of Computer Science Department, UCLA. His research interests are in the areas of computer architecture, video processing, VLSI design and design methodologies with a particular emphasis on energy-efficient design techniques. He has authored or co-authored over 150 referred journal and conference publications and holds five patents. Dr. Moshnyaga is a member of organizing committees of the Asia-Pacific Design Automation Conference, Asia Pacific Conference on Chip Design Languages, and a technical program committee member of several conferences including IEEE International Symposium on Circuits and Systems, ACM/IEE International Symposium on Low-Power Electronics and Design, IEEE System on Chip Conference, etc. He is a member of IEEE CAS Technical Committee on VLSI and an Associate Editor of the IEICE Transactions on Fundamentals of Electronics, Communication and Computer Sciences. Dr. Moshnyaga is a senior member of IEEE, Computer System Society and Circuits and System Society, a member of Information Processing Society of Japan, and Engineering Sciences Society of Japan.