IEEE Crosstalk

The Monthly Newsletter of the Mid-Hudson Section of the IEEE

Volume XLI, No 1, March 2002

Chairman's Corner

While we are getting off to a slow start for this season with general meetings, we have enjoyed the February activities related to National Engineers Week. Our **Women in Engineering** Affinity Group led by Visda Vokhshoori arranged a tour and presentation of IBM servers for SUNY students. Special thanks to Charles Webb and Tom Morris Jr. for putting on the presentation.

In March, the student branch at **SUNY New Paltz** has arranged for a co-sponsored general meeting on the topic of "Autonomic Computing". Details are below.

Following in April, will be a co-sponsored meeting with the Electron Devices Society led by Mike Hargrove. Details are also in this newsletter.

Also, don't forget the Annual Dutchess County Science Fair coming up in April.

There are several more upcoming topics that are in the works for general meetings and we also welcome any suggestions for programs and presentations for future meetings.

William F. McCarthy, Chair
wfmcc@ieee.org

Mid-Hudson Section Website

http://www.ewh.ieee.org/r1/mid-hudson/index.htm

Members in the News

Our current Mid-Hudson Section IEEE secretary Dr. Casimer DeCusatis has been awarded the prestigious 2002 IEEE Kiyo Tomiyasu Award which is presented annually to recognize individuals for technology contributions which hold the promise of innovative applications in all fields of interest to the IEEE, made during early to mid-career. This award is to be presented "For contributions to optical technologies and fiber optic communications, holding the promise of innovative applications for computer networks".

Congratulations Casimer!

Mid-Hudson Section Leadership

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Electron Devices Society: Michael Hargrove
Computer Society: Paul S. Basile
Education Society:

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Contact Information

General: wfmcc@ieee.org **(845) 297-7738**

blair@exmail.usma.edu

April Meeting: Microelectromechanical Systems for Wireless Communications: Reality or Science Fiction?

Co-Sponsored with Mid-Hudson Chapter Electron Devices Society

CONTACT: **Michael Hargrove**
Electron Devices Society Chair,
Mid-Hudson Section
mailto:mrhargrove@erd.epson.com

DATE: **Thursday, April 25th, 2002**

TIME: **TBD: check for details**

LOCATION: **IBM Semiconductor Research and Development Center**
Rt. 52 Bldg. 600
check for details

SPEAKER: Dr. Lili Deligianni
IBM Research Thomas J. Watson Research Center

ABSTRACT: With wireless communications becoming an important technology and growth engine for the semiconductor industry, many semiconductor companies are developing technologies that differentiate themselves in this space. One means of accomplishing this goal is to find a way to integrate passive components, which currently make up over 70% of the discrete components in a wireless handset today, directly on-chip thereby greatly simplifying handsets. While a number of technologies are being investigated to allow on-chip integration, microelectromechanical systems (MEMS) technologies are an important part of this development effort. These have been used to create switches, filters, local oscillators, variable capacitors and high quality factor inductors to name a few examples. In this talk, we will discuss recent progress in the research and development of micromachined Microelectromechanical Devices for Wireless Applications and will get a feeling about the maturity of the field and its readiness for commercialization.

SPEAKER BIO: **Lili Deligianni** is currently with the *IBM Research Division, Thomas J. Watson Research Center, P.O. Box 218, Yorktown Heigths, New York, 10598. Email: lili@us.ibm.com*
Dr. Deligianni received a B.S. degree in chemical engineering from Aristotelion University, Thessaloniki, Greece in 1982 and Master of Science and Doctor of Philosophy degrees from the University of Illinois in Urbana-Champaign in 1986 and 1988 respectively. Since joining IBM in 1988, she has worked on the application of electrochemical processes in C4 technology where she played a key role in developing and transfering the process to manufacturing. In copper metalization for on-chip interconnects she has developed developing mathematical models for the design and operation of electrodeposition tools and process models of feature filling during copper electroplating for on-chip interconnects. Dr. Deligianni has received an IBM Corporate Technical Excellence Award, an IBM Outstanding Innovation Award, and an IBM award for a top 5% patent. More recently, Dr. Deligianni is working to develop processes for on-chip integration of MEMS RF Passive Components, a multidisciplinary project, with applications in wireless telecommunications. Dr. Deligianni holds 17 patents, 34 publications in technical journals and conference proceedings and is a member of the Electrochemical Society, a senior member of the American Institute of Chemical Engineers and a member of IEEE.

The Public is Invited

March Meeting: Autonomic Computing

Co-Sponsored with Mid-Hudson Chapter Electron Devices Society

CONTACT: **Rich Oppedisano**
Stucent Chapter President,
Suny New Paltz IEEE Chapter
mailto:RichNewPaltzIEEE@yahoo.com

DATE: **Wednesday, March 27th, 2002**

TIME: **6:30 PM**

LOCATION: **CSB (Computer Science Building) auditorium on the New Paltz campus.**

SPEAKER: **Guru Rao, IBM Poughkeepsie**

TOPIC: **Autonomic Computing**

This new model of computing is called autonomic computing. The good news is that some components of this technology are already up and running. However, complete autonomic systems do not yet exist. This is not a proprietary solution. It's a radical change in the way businesses, academia, and even the government design, develop, manage and maintain computer systems.
Autonomic computing calls for a whole new area of study and a whole new way of conducting business.

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42nd ANNUAL DUTCHESS COUNTY REGIONAL SCIENCE FAIR

www.dcsciencefair.org

Where and when:

FALCON HALL DUTCHESS COMMUNITY COLLEGE POUGHKEEPSIE, NEW YORK APRIL 6, 2002

DEFINITION AND PURPOSE

The Dutchess County Regional Science Fair is affiliated with the International Science and Engineering Fair to be held in Louisville, Kentucky, May 12-18, 2002.

The purpose of the fair is threefold: to stimulate in young people an active interest in science and engineering; to provide an educational experience through being exposed to the judges and other exhibits; and to give public recognition to talented students for the work they have done.

It is a competition based on the quality of projects done by the students, the results of which are reported through exhibits and oral presentations.

ELEGIBILITY AND CATEGORIES

The Dutchess County Regional Science Fair is open to all qualified students from fifth through 12th grades attending any public, private, parochial or home school in Dutchess County.

In schools or school districts holding their own local fairs, winners of these events will qualify for the Regional Science Fair.

REGISTRATION

All official entry forms and registration fees must be received before noon on Monday, March 25, 2002 at the following address: Terry Brusco Registration Chairperson
Dutchess County Regional Science Fair
P.O. Box 3157
Poughkeepsie, N.Y. 12603
Phone: 845/471-5291 E-Mail: the3bees2002@yahoo.com

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