The Beacon

The Monthly Publication of the Maine Section, IEEE **www.ewh.ieee.org/r1/maine/**

Let's All Get Excited About a New Section Year!

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In This Issue

Chairman's Message
Changes ....
by Brian Conroy, Acting Chair

Hello. My name is Brian Conroy and I'm your acting Maine Section IEEE chairman for the rest of the year. Our past chair, Ron Osgood, has taken a job in New Mexico and has stepped down as Maine Section chair. This is just the first of a bunch of changes that took place since we last gathered at our annual meeting at the Grand Summit Hotel on Sugarloaf Mountain.

There are also a lot of other changes in the Maine Section. Nate March, our Senior Member-at-Large and GOLD representative, has taken a sabbatical to St. Joseph's Abbey and will not be returning to his past positions. John Andrews, a long time volunteer in the Computer Society, Maine Section, and Central New England Council, has decided to retire from IEEE for the full time pursuit of his passion to see the Eastern Trails become a reality. John has been a leader in the Computer Society and an IEEE Millennium Medal recipient. I wish to extend a heartfelt thank you to Ron, Nate, and John for their volunteer service to the IEEE and we wish them the best in their future endeavors. We will certainly miss them here in the Maine Section.

On the plus side, we have new chapter chairs for our Communications Society and our joint Power Engineering Society/ Industrial Applications Society. Andy Perkins will be at the helm of the Communications Chapter. Andy retired from Bangor Hydro several years ago and is the proprietor of Perkins Engineering. Dave Conroy, my brother, will be running the PES/ IAS Chapter. Dave is a 22-year veteran of transmission planning at Central Maine Power and is a past Maine Section Chairman. I look forward to the fresh ideas and new programs that the leadership in these chapters will come up with.

And if these changes are not enough, we have more coming soon. As of the year 2000, the Maine Section has converted from fiscal years ending June 30 to calendar years. This means that as soon as the summer break is over and we get back to business (and the academic year), it's time to elect a new slate of officers.

So stay tuned for an upcoming Beacon announcing the nominees for officers in 2001. If you would like to get involved with the section's activities and plans, please let me know. I can be reached at 791-1023 or brian.conroy@cmpco.com.

Important Notice Regarding the IEEE President Elections

The Maine Section IEEE Executive Committee, at its September 7 meeting, voted unanimously to present the following resolution to its Section Members:

The Maine IEEE Executive Committee recommends that all IEEE members vote for Arthur Winston for IEEE President.

Please be sure to exercise your right to vote in the upcoming IEEE elections.

The Maine IEEE Computer and Electron Device Chapter is pleased to announce the following talk featuring an EDS Distinguished Lecturer:

SOI TECHNOLOGIES and DEVICES: Present and Future Trends

Dr. Sorin Cristoloveanu
Laboratoire de Physique des Composants à Semiconducteurs
Centre de Projets en Microélectronique Avancée

Monday, October 2, 2000

Silicon On Insulator (SOI) technology was originally developed for the niche of radiation-hard circuits. Three decades of continuous improvement allowed SOI to enter the microelectronics roadmap. SOI circuits are attractive on the commercial market because of their clearly enhanced capabilities in terms of performance and scalability.

The aim of this talk is to provide a synthetic view of the present status and future developments in SOI technologies and devices. Fabrication methods will be reviewed by focusing on Unibond, SIMOX, and wafer bonding. The typical defects and electrical properties of SOI materials will briefly be outlined. The family of SOI devices includes: state-of-the-art circuits for mainstream applications, including low-power/low-voltage, high-frequency (RF), and high-temperature CMOS, high-voltage components, sensors, etc. The assets and peculiar SOI constrains will be critically discussed.

The operation of fully- and partially-depleted SOI MOSFETs will be addressed with attention to the special SOI mechanisms: floating body, parasitic bipolar action, interface coupling, volume inversion, drain current transients, and self-heating.

About the Speaker:

Sorin Cristoloveanu received the M.Sc. and Ph.D. degrees in electronics in 1974 and 1976, respectively, and the French Doctorat es--Sciences degree in physics (1981) from the National Polytechnique Institute, Grenoble, France. From 1993 to 1999, he served as the director of the Laboratoire de Physique des Composants à Semiconducteurs (LPCS). Since 1999, he has been in charge of the new Center for Advanced Projects in Microelectronics (CPMA Grenoble). Dr. Cristoloveanu, is the author/co-author of over 140 journal papers and 250 conference presentations (including 40 invited presentations).

Location: **Moosehead Room, McBride Building, National Semiconductor,** South Portland, ME
Schedule : 11:00 AM - **Gather/Social**
11:15 AM - **Box Lunch**
11:45 AM - **Presentation**
12:45 AM - **Discussion**
Cost: $10.00 per person for Box Lunch. ($2 full-time students) No cost for talk **only**, but you must still register to ensure a chair is saved for you and that you have access to the building

To make reservations:

You may register online at the Maine IEEE Computer/Electron Devise web site at **http://www.ewh.ieee.org/r1/maine/calendar/cseds/02oct00.html.** If necessary, you may contact **Dave Potts** at potts@ieee.org or (207) 775-4633.

Directions:

From Maine Turnpike: take exit 7A towards airport. Turn right at light onto Route 9/Western Ave. At the second light, turn left onto Foden Road. Follow Foden Road to its end. The McBride Building will be right in front of you. Turn left and then right into the parking lot. Parking is available beside and behind the building.

From Southbound I-295: take Exit 3, turning right at the light onto Route 9/Westbrook St. Bear right at the second light onto Route 9/Western Ave (towards airport). Turn right at the next light onto Foden Road. Follow Foden Road to its end. The McBride Building will be right in front of you. Turn left and then right into the parking lot. Parking is available beside and behind the building.

Magic of Christmas
Annual Concert and Dinner Social
Saturday, December 9

For 20 years, the Portland Symphony's "Magic of Christmas" concerts have been the brightest events of the holiday season. Make it part of yours. Enjoy festive Yuletide music performed by the full symphony orchestra, organist Ray Cornils, the 100-voice Magic of Christmas Chorus, and special guest stars. It's the most wonderful time of the year! As always, everyone is welcome to this event.

4:00 PM: ***Social at F. Parker Reidy's***
5:00 PM: ***Dinner at F. Parker Reidy's***
6:30 PM: ***Kotzschmar Organ Concert***
7:30 PM: ***Magic of Christmas with Portland Symphony Orchestra***

F. Parker Reidy's is located at 83 Exchange St., Portland (5 min walk to City Hall, park on street or in city lot). ***Registration is required by the early date of October 15 to guarantee group rates and seats***. Dinner choices can be made at the restaurant, but reservation must be paid by 15 October. Complete meals with tax and tip will include choices of: Haddock, Chicken, Sirloin, and Scallops.

A variety of children's meals will be available for those under 12 year old for $10 all inclusive.

Total adult dinner and ticket cost: $42.00
Total child dinner and ticket cost $30.00

Dinner prices will include dinner, tax, and tip. A cash bar will be available. Tickets will be distributed during dinner. To register, please make checks payable to Maine IEEE for the total cost of tickets and meals and mail to:

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2 Partridge Lane
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Don't delay, order today! Group rate tickets will be purchased only with confirmed and paid reservations. After October 15, tickets may be available to purchase through the PortTix ticket office (842-0812) or the PSO website at ***www.portlandsymphony.com/***. Dinner reservations may be made after Oct. 15 on a space available basis.

PES/IAS Chapter Meeting
Electrostatic Motors and Artificial Muscles
Dr. Richard Elco, formally with Westinghouse
Thursday, October 19, 2000

Dr.Elco will explain the fundamentals of electrostatic motors. As opposed to electromagnetic motors, these motors primarily utilize electric field coupling instead of magnetic field coupling. As a result, they are well suited for bio-engineering applications. Dr. Elco will explain their application in artificial muscle applications. He will also present an analogy between electromagnetic and electrostatic motors to help understand their operation. The talk should be very interesting to many Section members. The meeting will be held in Augusta, but the details on the time and location have not been settled at this time. Please check out the calendar area of the Maine Section web site at ***www.ewh.ieee.org/r1/maine/*** to get the finals details on the meeting schedule.

Beacon Publishing

The Beacon is published on a monthly schedule based upon the need to advertise upcoming meetings. All material submitted for the Beacon must be received by the editor no later than the 15th of the month preceding the issue in which it should be included. Sorry, NO EXCEPTIONS!!

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