

the Beacon

Welcome Back
from Summer!

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Chapter:

David Conroy

Chair's Note

by *Dan Martin, Section Chair*

As I write this, it is the last Friday of the summer – a cool, sunny day finishing off a week of lovely weather in the state of Maine. With Labor Day weekend is coming up next, it looks like the summer hiatus is over, and it is time to return to the exciting activities of the IEEE Maine Section.

In this issue of the Beacon, you can expect to see meeting announcements from our Chapters – particularly the CS/EDS chapter, which has been very active the past few years. I'd also like to publicize an upcoming series of tutorials from the PES/IAS chapter, since I will be personally involved. Supported by Dave Conroy and Paul Lerley, the PES/IAS chapter will be offering a tutorial on the control and stability of power systems. We expect that there will be about four lectures all together running in November and December. I'm looking forward to presenting the concepts and theory of control systems, and Dave will discuss power-specific topics, such as modeling power generating systems. Look for the formal announcement of this tutorial on the section website in October.

Just before the summer began, Prof. Scott Dunning of the University of Maine organized an enjoyable and informative Annual Meeting. The meeting took place on May 9th at the Tugboat Inn in Boothbay. We learned of a fascinating feat of nautical engineering from Bob Seegmiller and Parker Dresser of Cianbro Corporation. Bob is the superintendent of the Amethyst oil drilling rig construction project, the semi-submersible oil rigs that now tower over Portland's Old Port.

Dr. Bruce Segee, Professor of Electrical Engineering at the University of Maine and director of the Instrumentation Research Laboratory discussed the topic of high-tech business development in Maine. He told us about the Target Technology Incubator in Orono, and its role in promoting new technology start-ups in Maine. He also described the development of a supercomputer at one of the partners of the Target Technology Incubator. A

collaborative effort of the University of Maine and Applied Thermal Sciences with government sponsorship, the supercomputer comprises a cluster of low cost machines that have a combined performance that have placed it, at least momentarily, on the list of the 500 fastest computers in the world.

After a sightseeing cruise around Boothbay Harbor, we listened to Dr. William Ward of MIT's Lincoln Laboratory. An IEEE Distinguished Lecturer, Dr. Ward described the engineering challenges faced by the planetary exploration program, in particular, the Pioneer and Voyager series of spacecraft. His presentation was interesting not only for the insights into the engineering problems that were faced, but also for the insights into the human and societal issues that surround planetary exploration.

We finished the meeting off with a dinner at the Tugboat Inn, as the sun broke out at the end of the day. The following day my family enjoyed a sunny (but a bit blustery) tour of the Boothbay area. Thanks again to Scott Dunning for organizing a great meeting.

Prior to the Annual meeting, our nominating committee (David Potts and Brian Conroy) selected the following slate of officers:

Chair: **David Kotecki**
Vice Chair: **Ian Goepfert**
Treasurer: **Merlin Smith**
Secretary: **Scott Dunning**

I'm afraid I was remiss in not publicizing this in time to formally vote on the slate of officers at the annual meeting, so I would like to steal a few minutes from an upcoming CS/EDS meeting to have a vote on the officers for the Section. So – please attend the October 22nd CS/EDS meeting to support both the CS/EDS chapter, and the Maine Section (meeting currently planned to be held in the Moosehead Room at National Semiconductor in South Portland - check the October Beacon or the Section web page in a few weeks for final arrangements).

*The Computer Science and Electron Device Society
of the Institute of Electrical and Electronic Engineers proudly presents:*

Globalization and Outsourcing in Engineering

Presented by Dr. Ron Hira , P.E.

Chair of the R&D Policy Committee of IEEE-USA

Lecture Summary: The lecture will be on current business trends in globalization and outsourcing. Over the past year, this process has accelerated. This has a major pact on high technology companies and employees. Information technology[IT] jobs and engineering jobs are currently a major concern. Is this an "irreversible mega trend." as the Gartner Inc., an information technology research firm, calls the movement of tech-related jobs? Ron has testified before Congress and done many presentations and interviews on the subject. Ron Hira is an Assistant Professor of Public Policy at Rochester Institute of Technology. He recently completed a Post- Doctoral Fellowship at Columbia University's Center for Science, Policy, and Outcomes. Ron has a Ph.D. in Public Policy from George Mason University, M.S. in Electrical Engineering also from GMU, and a B.S. in Electrical Engineering from Carnegie-Mellon University. Ron's research interests include technology policy and industrial policy. Ron was previously a program manager at NIST and has consulted with the RAND Corporation, General Motors Research Labs, Deloitte and Touche, and the National Research Council. He has testified before Congress twice and has appeared on CNN Moneyline and PBS' Now and has been quoted in Business Week, the San Francisco Chronicle, and Newsweek. Ron is a licensed professional engineer, and is currently Chair of the R&D Policy Committee of IEEE-USA.

When: *Thursday, September 25*
Where: *Moosehead Room, NSC
McBride Building
National Semiconductor
5 Foden Road
South Portland, ME. 04106*

Cost: *\$10 /person
\$5 / student*

Agenda: *5:30 PM - 6:30 PM So:30 Social/Light Dinner
6:30 PM - 6:40 PM IEEE Announcements
6:40 PM - 7:25 PM Lecture/Questions
7:25 PM - 8:00 PM Post Lecture Disc.*

Please assist the chapter in pre registering for this event. Same day registration and walk-ins are still welcome. To pre-register send email with contact info to either:

Steve Leibiger (steven.leibiger@fairchildsemi.com)

or

Steve Adler (steven.j.adler@nsc.com)

Continuing Education is Now a Requirement for Professional Registration

According to Section member Brent Hill, Governor Baldacci has signed into law a bill which requires that anyone in Maine who seeks to renew their professional Engineer license must complete at least 30 continuing professional education hours within the two-year period their present license is valid. This new requirement starts on December 31, 2005. Thus, before engineers could have their licenses renewed for the 2007/9 time period, they would have to show evidence that they had completed 30 continuing professional education hours during the previous two years, 2005/7. Listed below are the new continuing education requirements as contained in the bill.

1. Requirement for renewal: Beginning with registrations that expire in December 2005, every person seeking renewal under section 1357 must provide evidence satisfactory to the board that the person has completed 30 continuing professional education hours within the period for which the registration was issued.

2. Failure to meet requirement: The board may not renew a registration to an applicant who fails to meet the continuing professional education requirement under subsection 1. If an applicant subsequently fulfills the requirement after the registration has expired, the board may renew the registration for the remainder of the 2-year period for which a renewal would have been valid but for the applicant's failure to meet the continuing professional education requirement.

H-1B and L-1 Visas Continue to Jeopardize U.S. Engineering Jobs

The H-1B and L-1 temporary worker visa programs appear to be two very effective ways for U.S. companies to replace their technical staff people with much lower-cost technical talent from overseas. And to make matters worse, the two programs are apparently being used to accelerate the transfer of high-tech work and jobs to overseas locations—a practice known as outsourcing.

The H-1B visa program allows U.S. companies to hire skilled foreign workers to fill engineering and other technical jobs for which supposedly there is no American worker available to perform the same job. The trouble is, this safeguard, along with several others, only applies to companies employing more than 15 percent H-1Bs—a number which is seldom reached. The bottom line is that the H-1B visa program can be and is used by American companies to replace skilled workers, including engineers, with lower-cost foreign workers. And this has been occurring during a time of record high engineering unemployment!

The L-1 visa program allows American multi-national companies to transfer foreign employees into domestic divisions.

The only restrictions in the L-1 program are that the employees must have worked for the company for at least one year out of the last three prior to the transfer and that they are qualified by education and experience to fill intended the positions. The lack of safeguards in the L-1 visa program makes it a greater threat to American jobs than the H-1B program. For example, companies do not have to pledge that they are not replacing an American worker with a foreign worker. There is also no requirement that the foreign worker be paid prevailing wages and benefits for the duration of their employment and there is no restriction on the number of L-1 visas.

In addition to permitting the displacement of American workers at home, both visa programs pave the way for off-shore outsourcing of jobs. This a quote from the online CIO Magazine which is devoted to IT matters: "Foreign outsourcing companies— today, mostly Indian companies— establish a local U.S. presence and apply for H-1B and or L-1 visas to bring employees into their offices. Most are immediately farmed out to U.S. outsourcing clients where they are trained in the jobs they will do before returning home, according to Hira. Others—typically 10 percent to 30 percent of the total staff remain here for a longer term and act as liaisons between the U.S. client and the employees doing the coding back in the foreign country. If those liaisons are brought in on L-1 visas, they can be paid prevailing wages for an IT project manager back home, which in India can be anywhere from \$10,000 to \$25,000, according to various estimates. "

A bill has been introduced in Congress by Congresswoman Nancy Johnson (R-CT) and Senator Chris Dodd (D-CT) to correct the abuses of the H-1B and L-1 visas program and Congresswoman Rosa DeLauro has introduced a bill to provide essential worker protections in the L-1 visa program. Let's hope a good version of those bills passes!

If you want to learn a lot more about outsourcing as it effects engineering and technical jobs and learn more about what is happening with the H-1B and L-1 visas programs, be sure to hear Ron Hira's talk on September 25, **Globalization and Outsourcing in Engineering**. He's a real expert in these areas.

New Senior Members

The following Maine Section members have recently been elevated to Senior Member status:

**Steven M. Leibiger
Timothy J. McCoy**

Congratulations!

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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