



IEEE Utah Section Newsletter

www.ewh.ieee.org/r6/utah

January 2005



**Utah Engineers Council
Engineers Week Banquet 2005
Thursday February 24, 2005
Exhibit Reception and Cash Bar: 6:00 pm
Dinner: 6:30 pm**

**Regular Admission, IEEE members: \$10
(\$35.00 w/o IEEE subsidy)
Student and Senior Admission, IEEE members: \$5
(\$17.50 w/o IEEE subsidy)**

**The Grand Hall, Union Pacific Depot at the Gateway
90 South 400 West, Salt Lake City, Utah**

The Utah Section of the IEEE would like to invite its members to attend the annual Utah Engineers Council (UEC) Engineers Week (E-week) Banquet 2005. We will be celebrating excellence

in engineering in Utah by awarding the annual UEC Engineer of the Year, UEC Engineering Educator of the Year, Fresh Faces in Engineering Awards, Outstanding MESA Teacher and the University Student Scholarship Award. Additionally, ACEC-Utah will present awards for Engineering Excellence. Ronald D. Dittmore, President of ATK Thiokol, will be our Keynote Speaker.

Please join us in supporting our IEEE award nominees. W. Cleon Anderson has been nominated for Engineer of the Year. Doran K. Wilde has been nominated for Engineering Educator of the Year. The Utah Section of the IEEE is subsidizing the cost for its members who attend. After subsidy, regular tickets are \$10, student and retired seniors (65+) are \$5. A limited number of tickets are available from the Utah Section's UEC Representative, Paul C. Oestreich, 801-478-0071, Oestreich@UtahPatents.com. If you have any questions about the E-week Banquet, or would like to reserve tickets, please contact Mr. Oestreich. For additional information about the UEC, please visit the UEC web site, www.utahengineerscouncil.org.

CALENDAR OF EVENTS *

FEBRUARY 20TH TO 26TH - E-WEEK

FEBRUARY 24TH - UEC BANQUET

APRIL 19TH - JOB FAIR AT SALT PALACE

Congratulations!

New IEEE Fellow and Senior Members

We would like to recognize:

David Comer	IEEE Fellow
Aaron R. Hawkins	Senior Member
Michael W. Tompkins	Senior Member

Congratulations on your advancement in IEEE membership! To see what you need to do to qualify for advancement in membership, go to: www.ieee.org/organizations/rab/md/keyurls.html

Job Fair

Hosted by the IEEE Utah Section

Salt Palace Ballroom

Tuesday, April 19, 2005

6:30 to 9:00 p.m.

Employment for engineers is down from previous years. In an IEEE report the national unemployment level for Electrical Engineers was 6.4% in 2003. This year at the IEEE Region 6 Conference in Los Angeles, it was reported that Silicon Valley had unemployment of 9%. In contrast, Business magazine (Sep 2003) reported that there is a coming "Job Boom" because of the impending retirement of the Baby Boom generation. They project a shortage of 14 million skilled workers in the United States by the year 2020. While future trends look encouraging, our current situation is tenuous.

We would like to do more to encourage the employment of skilled engineers. To this end we are proposing a gathering of engineers and employers. Dress for business, bring your resume and come to network with company leaders. Your IEEE Utah Section is sponsoring this event at no cost to you. This event will be at the ballroom of the Salt Palace in Salt Lake City on Tuesday 19 April from 6:30PM to 9:00PM. It will be a social gathering with appetizers.

We have selected this time and place to take advantage of the Systems and Software Technology Conference (SSTC) held at the Salt Palace in Salt Lake City the week of 17 April 2005. Each year Hill Air Force base sponsors this national software conference and invites industry to support the event. There will be a national audience of companies who employ engineers. To learn more about the SSTC go to WWW.STSC.Hill.af.mil and click on SSTC 2005.

Many of you prefer to stay employed in Utah. To support your desire, we are also inviting local businesses to this event. This will give you an opportunity to get to know local businesses and build your personal contact network. If you desire to improve your employment options this is a great way to get to know what is available. Attendance is not limited to IEEE members.

Details have not all solidified. Please watch for updates and further information in a future Section newsletter or on the Section web site (<http://www.ewh.ieee.org/r6/utah/>).

Volunteers Needed Your input requested

The IEEE Utah Section would appreciate your support. We are looking for volunteers for a number of activities to provide value to our IEEE members.

One of our concerns is the loss of jobs that has impacted our profession. Nationally the unemployment rate was 6.4% for 2003. At the Region 6 meeting this past August, Silicon Valley IEEE members indicated that unemployment was 9% in their area. In response, we are planning a local Job Fair of local companies. We request volunteers to help us contact local businesses that hire engineers and invite them to participate. The student branches at our universities are committed to help set this up.

If you do not have the time to volunteer, then please provide HR contact information for the company you work for.

In addition to the Job Fair, we request volunteers to oversee one technical Section meeting. This would involve selecting a topic of interest, finding (or being) a speaker, and making arrangements. If you do not have the time to do this, then tell us what topics you would attend meetings on. Utah is an air transpiration hub. We have many technical experts who travel thought this area who we could get to speak on almost any topic for the cost of a hotel night stay. So send us your topics of interest.

If you would like to be a part of the Utah Section leadership, we are in need of a Computer Chapter Chair, as well as people to fill other important volunteer positions and assignments.

You may respond to:

Reuel S. Alder
IEEE Utah Section Chair
ralder@IEEE.org
801-586-3028

Utah Computer Society Chapter

New Chapter Chair Needed

The Utah Chapter of the IEEE Computer Society is in need of a new chair for the 2005 year. The current chair, Russell Hunter, has moved to Orange County, California. Anyone who is interested in becoming the Computer Chapter Chair, please e-mail RussellH@Computer.org or contact the Utah Section Chair, Rudy Alder, at ralder@IEEE.org.

If you have no idea what to do, but are willing to help, we will give you direction in your duties as Chair. If we fail to seat a new Chair (no pun intended), the Utah Computer Chapter will have to be disbanded. We'd hate to see that happen.

Russell Hunter

Newsletter Listserv

In order to avoid any complications with unwanted SPAM e-mails of the newsletter, we have set up a listserv with IEEE. Once you subscribe to this list, you will receive the newsletter via e-mail (you can unsubscribe at any time).

To subscribe, the directions are as follows:

Send an e-mail to rharker@xmission.com with the following in the body of the message:

subscribe utah-section <*your email address*>

You will also continue to receive the newsletter by regular mail. This list will also be used to inform members of short notice upcoming events and other IEEE correspondence that has traditionally just been posted on our web site.

Utah Section Plays Influential Role in H-1B/L-1 Visa Reforms

By Brent G. Hunsaker, 16 December 2004

As reported in some detail in our April 2004 newsletter, six of our IEEE Utah Section members met with Senator Orrin Hatch on 8 January 2004, in his Salt Lake City office, to discuss the severe difficulties in the engineering community brought on by the abuse of the H-1B and L-1 visa programs (briefly: temporary work visas which allow foreign professionals [e.g., scientists, engineers, etc] to work in the US, which are often abused to displace US workers, and to create a situation akin to indentured servitude). That discussion influenced Sen. Hatch enough that he blocked renewal of the 195,000 (per year) visa limit on the H-1B program, forcing it to drop to its original limit of 65,000 visas (per year). Prior to the limit drop, IEEE estimated that about 440,000 H-1B visas were in force. Meanwhile, US IEEE members and other US engineers were losing their jobs in droves due to the economic slowdown, eventually reaching record high unemployment rates for most technology professionals.

On 19 May 2004, five of our Section members (Gordon Young, David Henry, Roberta Young, Brent Hunsaker, and Scott Carter – see photo below with Senator Bennett) flew back to Washington DC as part of an IEEE-USA “Congressional Fly-in”. We joined 19 other IEEE members from eight other states, who met with their respective Congressmen (29 in all). Utah had the most delegates, and only one other state visited as many Congressmen as we did.

One of the things we learned in DC is that IEEE was the first, and still one of the few professional engineering societies to take on the temporary work visa issues. Our IEEE-USA office in DC had been working with other societies, and at the time of our visit, had garnered only meager support of only one or two. Nonetheless, this isn’t just an EE issue – it affects most engineers, as well as other professionals. We encourage each of you to make other engineers (in and out of IEEE, EE or otherwise) aware of it, and encourage their

involvement, at the society level, as well as the grass-roots level.

An amusing aside: as we traveled from our hotel to the office buildings of our elected representatives, Roberta and myself brought up the rear of the



Utah delegation riding the escalator up from the subway to street level on Capital Hill. The adjacent escalator was torn down, with the internal mechanism exposed. We observed the other members of the delegation stretched as far as they could over the railing to view and discuss the internal workings of this disemboweled monster, ignoring for the moment, the history-rich surroundings into which we were ascending. But what would you expect? We are, after all, engineers!

We met with Sen. Bennett and Rep. Bishop personally, and with staff members in Sen. Hatch's and Rep. Matheson's offices. Since none of us were from Rep. Cannon's district, we were unable to meet with him. In each case, we expressed our concerns over the visa situation, and illustrated them with first-hand experiences. We asked for their support for reforms favoring US workers impacted by the H-1B and L-1 visa programs.

Due in part to these visits, in the closing days (early December 2004) of the 108th Congress, House and Senate leaders added important H-1B and L-1 visa reforms into a \$388 billion Federal agency funding bill. Because the Judiciary Committee has jurisdiction over temporary visa programs, Sen. Hatch played a pivotal role in the negotiations that led to final Congressional approval of these reforms, which are intended to benefit US workers. They include:

- Employers must pay H-1B workers 100% of the prevailing wage, rather than 95%, with "prevailing wage" now defined by the Department of Labor, not the employer.
- New limits on the outsourcing of L-1 visa holders.
- A substantial increase in the H-1B visa application fee.
- A new \$500 fraud detection and prevention fee for both H-1B and L visas.
- Expanded H-1B compliance investigation provisions.

- A "No displacement" attestation requirement for "H-1B dependent" employers.
- Better collection and reporting of statistics on the use of H-1B and L visas.
- Increased funding for Low-Income scholarships in science and engineering.

One disappointing change to the H-1B visa program was the creation of a new exemption to the visa cap. Currently, only 65,000 new visas are available each year, although visas used by educational institutions and non-profit organizations are exempt from the cap. Responding to pressure from high tech and other industry "big business" groups, Congress effectively raised the cap by establishing an additional exemption – capped at 20,000 per year – for foreign professionals with advanced degrees from US colleges and universities.

It remains to be seen just what effect these changes will have on engineering education and employment in the United States. On one hand, the new reforms should help to limit abuses of both the H-1B and the L temporary visa programs. On the other hand, the addition of 20,000 foreign professionals per year to already crowded domestic labor markets is also likely to exert downward pressures on job opportunities, wages, and working conditions for US citizens and legal permanent residents, including electrical, electronics, computer, and other engineers.

Over the years, Sen. Hatch has played a critical role in legislative matters of special concern to IEEE members, including intellectual property and immigration reform. After six years at the helm, Sen. Hatch will step down as Chair of the powerful Senate Judiciary Committee when the new 109th Congress convenes in January 2005. This important position will be filled next by Sen. Arlen Specter (R-PA).

My fellow engineers, we must become aware of and active in the political arena. Our jobs depend on it. Take political science classes. Become involved in public speaking and debate (even though some of us may be challenged in this area). Build relationships with political leaders within your local, state and national governments. Become technology advisors to them. Let's banish the idea and image that we are all "Dilberts" cloistered in our cubicles, unwilling to poke our heads out. Let's be involved in making policy reform (not distracted by the guts of an escalator, as it were, while ignoring the world it operates in).

Here's a good place to start: write to your Congressmen. Express your opinion. Ask for and/or thank them for their support. This is easily done on the Internet. Go to <http://www.congress.org>. Under "Write elected officials", enter your zip code. You'll get a page showing your Senators and Representative, with links to their respective home pages. On this page, and/or their home pages, you'll find means to send them a message electronically. To keep abreast of political issues being pursued by IEEE-USA, visit <http://www.ieeeusa.org>, and click on "legislative action center", or any of several other links.

Another idea – get involved with the new electronic election process. Many of the polling judges are computer illiterate and would like the help you would bring with the new technology on Election Day. Technology made our society of today and we can help improve it and mitigate some of the problems.

For those of you who teach in engineering, I would recommend developing a class in "Law and Politics in Science and Engineering". This class would look at the charged political issues facing the engineering community today. It would tie that into how politics can scuttle high tech business sectors. The heuristics "if the politics don't fly, the hardware never will", or "Politics, not technology, sets the limits of what technology is allowed to achieve" become powerful phrases. This class would also include the history of technology politics.

For this article, I have borrowed liberally from a letter written (for this purpose) by IEEE-USA staffers Vin O'Neill and Russ Harrison. Thanks to all who visited and worked with our Congressmen, we made a difference. And many thanks to our elected representatives for hearing our stories and working with IEEE on this and many other issues.