

IEEE-USA 2005 Leadership Workshop

Q&A WITH THE IEEE-USA VICE PRESIDENTS

Career & Member Activities

1. Can IEEE-USA take back job site and make it effective again?

The IEEE-USA Board of Directors has been working diligently with the IEEE Publications Board to help improve the IEEE Job Listing Service. One of IEEE-USA's concerns was that the current IEEE Job Listing service did not offer enough job opportunities on a monthly basis. To enhance the offering, IEEE-USA has recently negotiated an arrangement with a company who will provide IEEE-USA with a tool that will allow U.S. members to access tens of thousands of engineering jobs, build resumes and allow their resumes to be searched by employers if they so choose. This service will cost members \$50 for a 6-month subscription and utilizes a technology and very powerful search engine that captures job openings from thousands of corporate websites. This will compliment the current IEEE Job Listing Service. More information can be found at <http://www.ieeeusa.org/careers/catalog/JobNavigator.pdf>.

2. Intellectual property – with so much offshore outsourcing isn't this a lost cause?

While the lack of intellectual property (IP) enforcement in some countries is a major problem, it doesn't mean that it is a lost cause. Multinational corporations are well aware of the problems of counterfeiting and piracy and have been working hard with the US government and through the World Trade Organization to address them. As a result of lax IP enforcement, many companies are reluctant to take the latest technologies to certain countries for fear of them being copied. When appropriate, IEEE-USA has worked with companies supporting better IP enforcement abroad.

One trend working to our advantage is that developing countries are starting to understand that if they want to build their own industries, they will have to improve their treatment of intellectual property. The United States is working with those countries, but more importantly officials from those countries are attending conferences and visiting the United States to better understand the importance of intellectual property in their development. But more needs to be done to ensure protection during the transition.

3. There are more than 15,000 unemployed EE's, mostly over 40 and largely obsolete in skills. To compete with the tens of thousands of new graduates, they need retraining at the MS level, while earning funding for living. How can the IEEE-USA help this segment of our membership in 2005?

There is no question that engineers at any age must continue their education or their skills do become obsolete. The IEEE has approached this issue with a three pronged approach: 1) IEEE-USA provides on line resources and workshops throughout the country assisting members with employment and career development skills (interviewing skills, networking and resume writing and will be providing on line professional development workshops this fall). 2) IEEE-USA interacts with the U.S. Congress and U.S. government agencies to seek funding for retraining and tax credits for continuing education; and 3) IEEE EAB has partnered with several educational institutions to provide members with a 10% discount on tuition for continuing education opportunities. Such partners are: Capitol College, Drexel University, National Technological University, New Jersey Institute of Technology, PACE University, Stevens Institute of Technology,

and University of Washington. For more information concerning: 1) **Employment and Careers** go to: www.ieeeusa.org/careers and <https://www.ieeecommunities.org/ecs>; 2) **Public Policy** issues relating to Educational Tax Credits please visit: <http://www.ieeeusa.org/policy/positions/continuingeducation.asp>; and 3) **Continuing Technical Education** please visit [IEEE Educational Activities](#).

4. How are you helping unemployed members?

We hope that some of the sessions at the workshop helped to answer this question but please visit our comprehensive employment and careers website located at: www.ieeeusa.org/careers (Comprehensive website for Employment & Career Development Issues) www.ieeeusa.org/careers/help (Assistance for Unemployed Members) <https://www.ieeecommunities.org/ecs> (Employment & Careers Virtual Community)

5. What is the relationship between the precollege education committees of IEEE-USA and EAB? Are they covering the same territory or supporting each other's activity?

In 1996, the EAB Precollege Committee was asked to serve as the IEEE's coordinating committee since EAB deals with non U.S. members as well. The IEEE-USA Precollege Committee, established in the mid-1970s, deals with precollege issues relating to the U.S., administers a precollege Teacher-Engineer Award, assists local sections and chapters with precollege education projects and programs and interacts with JETS (Junior Engineering Technical Society). Also, each committee includes a liaison from the other so that their efforts are coordinated rather than conflicting. A current concern for the IEEE-USA Pre-college Education Committee is the preparation of students in the areas of math and science for college courses in engineering.

6. Licensure & Registration: What good is the PE distinction if it is not needed for the entire community?

Engineers in all states who offer their services to the public are required by law to have a PE license. There is usually an exemption for those engineers who work for a company that produces a product that is sold to the public. As more IEEE members explore career options such as consulting, it is important to note that in most states, practitioners cannot refer to themselves on their business cards or marketing materials as an engineer or a consultant without the PE designation. We have also seen that the PE enhances a resume in the eyes of many employers. Continuing education requirements associated with maintaining licensure also help working engineers stay current with changes in technology.

7. Licensure & Registration: IEEE-USA's virtual community talks about the PE license and how important it is. How can it help engineers stay employed in later years of their career? If this is the case, why does academia not promote it?

The PE license is promoted by some of our IEEE-USA members in academia. Most electrical engineering graduates do not need a license because they do not plan to offer their services (directly) to the public but to work for a company that builds and sells a product. A PE license is a valuable thing to have even if you never plan to be a consultant. Especially as one gets older, one has the ability to work for one's self. It may be that an employer would take advantage of an employee in bad economic times if that employer knew that the employee had no other option for income. However, a PE license gives one another possibility for employment--self employment.

8. Licensure & Registration: What are you doing about Licensure issues?

IEEE-USA's Licensure and Registration Committee plays an active role with National Council of Examiners on Engineering and Surveying (NCEES) and the National Society of Professional Engineers (NSPE) in an effort to make the examination process more relevant to IEEE's technical disciplines. The Committee interacts with state licensing boards and state legislatures on state licensing laws. IEEE-USA provides a series of video review courses to prepare exam takers, and makes available a licensure and registration Powerpoint presentation for use at local section and chapter meetings. Recently, IEEE-USA has participated in and supports the recommendations of the NCEES Engineering Licensure Qualifications Task Force (ELQTF). A copy of the report can be found at http://www.ncees.org/introduction/about_ncees/2003_elqtf_report.pdf. If these recommendations are adopted by the states, more electrical and computer engineers will be able to participate in the licensure process and claim the title of "engineer."

Professional Activities/PACE

9. What can PACE/IEEE-USA do to help student members become full active members after graduation?

This is the age old membership development and retention question. There is not one simple answer or fix. Communications, Communications and more communications is one of the keys. It is important for the PACE network to encourage, mentor and network with student members. Show students why IEEE is relevant to them. Deliver products and services to them that have meaning and in a way that they can relate to. If nothing else mentoring and networking are key services that the PACE network can offer its students and very well may lead to them getting jobs after graduation. Once they have graduated the PACE Network should continue mentoring these members and providing them with information and resources that will assist them with their careers and employment opportunities. If this happens it is likely that recently graduating engineering students will remain members.

Public Policy & Government Relations

10. What is the status of current legislation with regard to H1B/L1 and Offshore outsourcing?

Under current law, the H-1B visa cap is set at 65,000 visas per year, down from 195,000 in 2002. An unlimited exemption is provided for employees of higher education institutions and government or non-profit research organizations. A second limited exemption (up to 20K visas) is provided for skilled foreign workers who graduated from U.S. educational institutions with a Masters or higher degree.

As of April 2005, IEEE-USA is working with Rep. Pascrell (D-NJ) on a proposed H-1B reform bill designed to enhance related workforce protections and enforcement. The Senate Judiciary Committee is expected to consider H-1B-related provisions in a streamlined immigration bill that would address the issues arising from the issuance of 10,000 visas in excess of the 2005 quota by the Bureau of Immigration Services. Industry regularly lobbies Congress in support of an increase in the H-1B visa quota (and/or the cap on the quota exemption for foreign graduate students), but key committee leaders prefer to address these issues as part of broader immigration legislation expected in 2006.

In 2004, Congress passed and the President signed into law several reforms proposed by Sen. Saxby Chambliss (R-GA) to restrict misuse of the L-1 visa. The reforms include a prohibition on hiring an L-1 visa worker out to another company to provide labor and an

extension of the “work-abroad” eligibility requirement for L-1 workers from 6 months to 1 year. IEEE-USA supported the Chambliss reforms, but continues to monitor for news of L-1 abuses to ensure that the reforms have the desired effect.

There is no significant federal legislation introduced or anticipated this year on the subject of offshoring. The House Government Reform Committee has postponed scheduled hearings on offshoring trends and implications. The National Academy is expected to provide Congress with a report on offshoring of R&D this fall.

Off-shoring bills have been introduced in 38 state legislatures in 2004-2005. The typical bill restricts state-funded contract work from being performed outside of the U.S., requires that work be contracted only to U.S. citizens, and/or requires public disclosure of off-shored contracts. Four states have adopted off-shoring-related measures to date (Alabama, Illinois, New Jersey, & Tennessee).

11. Did the recent congressional fly-in have any impact?

Unless/until an H-1B/L-1 bill or amendment is introduced and Congress votes, it is impossible to measure our impact on actual legislation. Visiting with Congress on these issues now, however, makes sure that we will have better access to Congress and more influence later when such legislation is introduced.

There were two direct and obvious payoffs from the fly-in on March 8-9 not directly related to legislation. First, IEEE-USA learned that the Department of Citizenship and Immigration Services (CIS) distributed at least 10,000 too many H-1B visas last year. We are using this information to work with Sen. Grassley's office to heighten awareness of the situation and to use CIS's mistake to call attention to other problems with the H-1B system. One related outcome was an interview on CNN's Lou Dobb's Show. Second, as part of the fly-in, IEEE-USA held a 30 minute meeting with Congressman Sensenbrenner, chair of the House Judiciary Committee who is responsible for steering all immigration legislation in the House. This longer-than-normal meeting helped improve our relationship with Sensenbrenner's office, provided important information on the congressman's thinking on immigration reform, and gave us the best possible venue to discuss our concerns over the H-1B and L-1 visa programs. Either of the above two payoffs alone would have made the entire event worthwhile.

In addition to these immediate pay-offs, we expect the fly-in to pay dividends for years. For example, we used the fly-in to identify several new volunteer advocates, including a member who lives in Speaker Hastert's district. We also found good advocates in Texas, New York, Indiana and Minority Leader Nancy Pelosi's district in California. IEEE-USA had not had contact with these members previously, but will now be able to tap into their skills for other advocacy efforts, and perhaps as volunteer leaders within IEEE.

Finally, the importance of the relationships established and reinforced during the fly-in between legislators and engineers cannot be overstated. Only about one-third of our participants had ever met with a legislator before. Most of the legislators and staff we met with had never met with one of our members. Fly-ins offer the single best opportunity to build bridges between our members and their elected representatives. We can't say where exactly these bridges will take us, but we need to identify, educate and engage our membership as grassroots advocates in order to enhance the voice and influence of our profession in Washington.

11. What is IEEE-USA policy on social security reform?

IEEE-USA doesn't currently have an approved position on the subject of social security reform. Because of the importance of social security to our members and their retirement security, IEEE-USA's Career and Workforce Policy Committee is in the process of collecting member feedback on the proposed options for social security reform with a view toward developing such a position. Any IEEE-USA position will focus on maintaining the viability of the social security system in the future. How to best do that is not clear. Because of widespread differences of opinion among policy-makers, financial experts and the population at large, about the immediacy of the problem and the accuracy of the assumptions underlying each of the proposed solutions, developing a consensus position among our own members may be difficult. It appears, however, that Congress is unlikely to move quickly on this subject, so we have some time to do our work.

12. Electric System reliability? Will IEEE become more active in the North American Electric Reliability Council (NERC) standards process

The IEEE-USA is cooperating with many others in the industry supporting essential legislation that empowers FERC to create a self-regulating reliability organization, the Electric Reliability Organization (ERO) with enforcement authority. The current President of NERC, Mike Gent, is an IEEE member and an active member of IEEE-USA's Energy Policy Committee.

Many of NERC's current standards can be described as accepted or best business practices that have as their objective the maintenance of reliability and essential cooperation of competing business entities. They take into account business, social, political and societal issues, as well as the technical issues where IEEE and other engineering groups have primary expertise.

Once this new ERO is established, IEEE's relationship to an ERO standards process will need to be worked out. We expect that IEEE's relation to an ERC would be similar to IEEE's current relationship with NERC. IEEE, and in particular the IEEE Standards Association, routinely develops and updates technical standards that provide the foundation of many aspects of NERC standards. IEEE's role is similar to that of other technical organizations, for example generator performance depends on many standards that are under the oversight of ASME and ASCE.

13. With energy, what about global warming? Dependence on non-renewable resources?

IEEE-USA has not taken a direct position on the global climate issue to date, but has consistently advocated the development and utilization of a diverse set of electric generation, transmission and end-use technology options needed to provide an adequate, reliable, economical and environmentally-responsible supply of electricity, including renewables, increased efficiency, nuclear and fusion. IEEE-USA's current energy-related positions are available at:
<http://www.ieeeusa.org/policy/positions/index.html>

IEEE-USA is becoming increasingly active and visible on these important issues. On March 17th of this year, IEEE-USA sponsored a Congressional forum on Capitol Hill for an audience of members of Congress and their staff in which representatives of Congress, and industry and environmental organizations laid out a strategy for reducing dependency on foreign oil, and stressed the need for the United States to proactively ensure energy independency. In addition, the IEEE-USA Energy Policy Committee (EPC)

has created a Renewable Energy Task Force to develop a position statement and legislative strategy to promote renewable energy options. Also, the EPC has existing position statements advocating research and development into renewable energy and alternative sources of fuel, improving energy efficiency, promoting electric and hybrid vehicles, and photovoltaic technology development.

14. What is Intellectual Property?

Intellectual property is a body of law that protects the rights of authors and inventors to control the use of their creations. It was developed to provide individual incentives for creative work, in order to advance the arts and sciences and benefit society as a whole. Typically intellectual property rights include copyrights over printed/published materials, patents for machines, devices and processes, and trademarks for product names, commercial slogans and graphical logos. For more information on U.S. intellectual property law, see the U.S. Patent and Trademark Office (<http://www.uspto.org>) and the Congressional Copyright Office (<http://www.copyright.gov/>). IEEE-USA has an Intellectual Property Committee, whose mission is to focus on intellectual property issues that affect engineers and their careers. See: <http://www.ieeeusa.org/volunteers/committees/ipc/>

Other Organizational Issues

15. Has there been any decision on the AAES?

IEEE is a founding member of the American Association of Engineering Societies (<http://www.aes.org>), a not-for-profit association of U.S. engineering societies established in 1979 to advance the knowledge, understanding, and practice of engineering. In recent years, AAES has gone through two downsizings resulting in significant reductions in its size and capabilities. These downsizings reflect in part a steady decline in AAES membership, which is down to 10 voting societies in 2005 including only three of the original five Founder Societies. This in turn, coupled with failure of AAES to meet other revenue goals, has caused serious financial challenges for AAES, which has minimal cash reserves and is currently projected to finish 2005 with a negative net worth. Due to these financial constraints, AAES is currently operating with a staff of two full time staff and a part-time executive director. Its priority interests include the Engineering Workforce Commission (which publishes annual surveys on engineering degrees, enrollments, and salaries), international affairs, public awareness, and workforce diversity. AAES does not currently engage in public policy activities or legislative advocacy. ASME has given notice of intent to withdraw from its AAES membership effective January 2006, and the IEEE-USA Board has unanimously recommended that IEEE give notice of an intent to withdraw effective July 2006, which will be considered by the IEEE Board of Directors in June 2005. These financial and membership trends have prompted AAES to consider redefining itself again in 2005, which is anticipated to result in a substantial downsizing.

IEEE-USA supports these efforts to redefine AAES as a streamlined organization capable of operating within its financial constraints, with a new membership model that will expand participation, and with a refocused mission on facilitating collaborations between its member societies. If a leaner and more cost-effective AAES emerges, then IEEE-USA is prepared to recommend that we rescind the notice to withdraw and continue as an active member of the new AAES.

16. Given that copying is becoming essentially free, and anyone can publish anything; how does the IEEE expect to maintain the funding for the valuable editorial functions it performs? (Note: the music industry has exactly the same problems).

While this is an issue that IEEE Publications handles -- we do know that IEEE feels that this is a very important long term strategic issue. IEEE is currently monitoring and looking for ways to protect its on-line intellectual property. As technology advances it becomes easier and easier for on-line intellectual property to be stolen. IEEE Publications is focusing on a plan to protect IEEE's intellectual property and enhance the quality and value added services of its intellectual property. Meanwhile the IEEE-USA deals with intellectual property policy and tries to reach a balance between strong protection without stifling innovation.