

AICN Newsletter

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AICNCC Committee Chair Report:

2014 IEEE-USA Annual Meeting & InnoTek Conference Review

BY HERMANN AMAYA



IEEE-USA's Annual Meeting & Innovations in Technology (InnoTek 2014) Conference in Warwick, R.I. was a time for all members to come together, review 2014 IEEE-USA activities, and plan for the upcoming 2015 session. Everyone had an opportunity to acquire new information, share new activities and developments in their chapters, reconnect with old friends, meet new ones, and contribute to our organization's success— by supporting all IEEE Section activities. For my part, I was elated to run into Dr. Charles P. Rubenstein, an old professor of mine when I was IEEE Chapter Chair at Polytechnic Institute of Brooklyn. I had not seen him since the last century— what a treat!

Held at the Crowne Royal Hotel in Warwick (near the airport), where a large, beautiful, fair-like tent was installed as the Garden Pavilion. Participants had a chance to gather here, and to see and talk to IEEE-USA volunteer leaders. Dr. Gary Blank, the 2014 IEEE-USA President, spoke passionately during his opening remarks, about what it means to be part of IEEE-USA, how this organization has contributed in shaping the professional lives of its members, and about the importance of membership growth. We also listened to speeches by the 2015 IEEE and IEEE-USA presidential candidates: IEEE-USA President-Elect candidates Pete Eckstein and Keith Grzelak; and IEEE President-Elect candidates F. Mintzer and B. Shoop—all with very impressive credentials. Each candidate told us why their position will be the best for IEEE, and I am sure that our members will know the right person for the

job. So, when the time comes, I urge you to vote for the candidate of your choosing.

Organizers set the conference up into three tracks. Ed Perkins chaired Track 1; Will Kassebaum, Track 2; and Keith Grzelak, Track 3. Each track had many interesting topics and themes. I participated in a Panel with some of the Alliance of IEEE Consultants Networks Coordinating Committee (AICNCC) members. The panel topics was Using *Consultant Networks, Employment Networks and Entrepreneurs to Engage Members in Your Section*. Will Kassebaum moderated the panel, and it was well attended and well received. Annual Meeting participants were very interested in this topic, because opportunities for competent engineers, in diverse areas of expertise are out there!

Larry Nelson, an AICNCC member, gave a great presentation on Consulting: Networks and Services Available to Support the Professional Consultant. He educated attendees about the value of networking, and how joining a local consultants' network can help keep your consulting practice growing. For those without a local network, [the AICN can help get one started in your area](#). For national exposure, subscribing to the [IEEE Consultants Network Membership Premium](#) gets you a listing in the [IEEE-USA Consultants Database](#). If you are not ready for that level, as an IEEE member, you can subscribe to the [IEEE Consultants Network](#) for free—just as you would subscriber to any other IEEE publication.

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For questions, comments or submissions
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IEEE★USA

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Because this Annual Meeting held a very deep message about membership and its growth, I would like to leave you with a thought from Dr. Blank: *What if we all went out, and got one member now?* When you do, make sure to give this new prospect the membership card with your member number, so you can receive credit for your efforts. Recruiting would certainly increase our new membership, and bring back members who have let their membership's lapse. Let's help promote membership in our organization—the largest professional society in the world—the IEEE.

Hermann Amaya is chair of the Alliance of IEEE Consultants Networks Coordinating Committee (AICNCC). He is director of engineering at AMHER Corp. in Tampa, Fla. He is also the chair and founder of the the IEEE Florida West Coast Consultants Network Affinity Group.

Larry Nelson's War Stories — Part IV: Sometimes a Success Can Be a Failure

BY LARRY G. NELSON, SR.

Some clients will want to hire you for a project they feel has no chance for success. They expect you to fail, and they will often become irate, if you actually have the audacity to succeed.

A customer asked me to develop a miniature electronic temperature controller in a strange form factor, to replace a mechanical device this client was building in high volumes. It needed to be form, fit and function compatible. Later, I found out the history of this project was such that, every year for the previous five or six years, the client gave a new engineer this task. And every engineer had failed, due to the constraints of the design, and the level of current technology.

But I combined some innovative techniques, and had the client's model shop fabricate four prototypes. These prototypes fit the stated goals, and functioned comparable to the existing product. The initial cost was slightly higher, but in volume would have become cost effective. The component cost would have declined, as more vendors had them available, so I had solved this tough problem. Seemingly, I gave the client exactly what they wanted.

WRONG!

It seems this exercise was meant to fail. The client wanted to show their customer that they were constantly attempting

to bring better technology to solve the problems, but the high-volume use of the existing part was lowering the costs for the entire product line, and increasing profits from other sales. My new design would have caused major problems to the rest of their line—and they couldn't have that. My success had to be hidden from the end customer, or it could have shaken the entire company. Sometimes even when you win ... you lose.

Be sure you understand the parameters of your project as fully as possible. At the beginning, ask your clients what they need as an end goal. If the project is like the example, your client may not be forthcoming with you. Get as much history as possible. Who did the client assign to do this project before you? What are the priorities—lower cost, more reliability, or improved features? Are they trying to solve an obsolescence problem? Sometimes you need to be a bit of a detective to know their real needs and wants, as opposed to what they are saying. I could have given them exactly what they really wanted for a lot less cost—as well as a lot less effort on my part.

Larry G. Nelson, Sr. can be contacted at L.Nelson@ieee.org; or at Nelson Research at <http://www.mchipguru.com/>.

Great Success in Los Angeles: AICNCC and Los Angeles Area Consultants Networks Hold Another Joint Workshop

BY FRANK FREYNE, FOOTHILL SECTION CHAIR, AND BILL GRIST, AICNCC & FOOTHILL SECTION CS CHAIR

IEEE consultants: Did you know that you could bring an official Alliance of IEEE Consultant's Network Coordinating Committee (AICNCC) workshop on building up your consulting business and improving your consulting skills to your own local area? When AICNCC put the word out last winter that they wanted to partner with local consultants networks to hold joint workshops, the Orange County Consultants Network (OCCN) Chair, Wes Masenten, jumped at this opportunity. He pulled his team together to project manage the event, so it would be successful. OCCN connected with the Los Angeles Area Consultants Network (LAACN) to pull the workshop off—without a hitch.

DeVry University, Pomona, CA campus, offered IEEE its excellent facilities for the day, and helped with logistics, IT and onsite coordination. On 12 April, more than 60 southern California consultants and prospective consultants, some coming from as far away as San Diego, converged at DeVry University for this full-day workshop. Thanks goes out to our IEEE Los Angeles, Foothill, and Orange County Section members, who spent several months arranging this workshop.

LAACN used IEEE vTools to promote and register members for the workshop. Two local speakers came from the LAACN and Foothill sections, and IEEE-USA's AICNCC provided the other speakers. The Committee flew in to hold their regularly scheduled meeting, and also assist with the workshop.



Local OCCN Chair, Wes Masenten, and AICNCC Chair, Hermann Amaya delivered the welcome speeches—with both encouraging the large group to learn, but also to network with, and get to know one another.

Speaker and AICNCC member Bob Krause addressed the networking aspect right away. He got everyone out of their seats and moving, with a series of exercises focused on meeting other engineers; and establishing a common ground for networking with each other, as the day progressed. The group participated fully in this exercise, and many people commented that they hadn't seen that much IEEE interaction at any other engineering event. We don't want to give away any trade secrets, so you'll just have to attend one of these workshops, and see first-hand how Bob performs his magic.

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Gary Blank, Ph.D., the current IEEE-USA President, gave a talk on *How to Start and Expand a Successful Consulting Practice*. According to Dr. Blank, every IEEE engineer's consulting practice is a successful one—the right tone for the day's activities. Success was on everyone's mind. Dr. Blank also spoke about all of the benefits that an IEEE member can gain through the IEEE website, and various insurance programs offered to IEEE members. He cited specific examples from individual members who saved far more in insurance premium fees than they paid for their IEEE membership. Visit the IEEE.org website for more details on membership benefits, insurance and discounts from partners.

Don't think that the day's talks were a straightforward motivational pitch for the uninitiated. The amount of technical and professional experience in the DeVry University building was impressive. All attendees wanted to hear about real situations in consulting. All the speakers had a wealth of information, learned from experiences they wanted to share.

Dr. Kip Haggerty gave a thorough review of the situations he has faced, in his 15+ years as an independent consultant. Some participants thought that Dr. Haggerty gave a negative prognosis about the future of consulting during his remarks. However, others thought it was good he brought up potential stumbling blocks to a robust consulting practice.

Dr. Haggerty made note of two business areas that are looming stumbling blocks in consulting. One is the rising cost of health insurance, and the other related to the IRS definitions for an *independent contractor*. The *Affordable Care Act* has either eliminated, or greatly restructured, most prior health insurance coverage; and driven up a consultant's costs to unaffordable and unsustainable levels. In addition, since 2009, the IRS has developed new criteria, as listed on IRS Form SS-8, that seek detailed explanations of the work situation, in terms of behavioral control, financial control, and type of relationship, etc.

Further, Dr. Haggerty prompted an excellent discussion about fee setting (estimating 25 working hours per week, 48 weeks of activity per year). He discussed the tradeoff between general liability insurance versus professional liability insurance (and how to get this insurance expeditiously in California). Dr. Haggerty also pointed out that in many aerospace consulting efforts, consultants need security clearances, and he described how they can keep their clearances active.

Ray Roberts shared some of his patent lawyer experience, made more relevant by his past industrial machinery engineering experience as an electrical engineer (EE). Some of his thoughts on intellectual property were provocative. In the United States, we expect that the law is the law; but in much of the international community, that expectation is not so common. In our current, post-*Leahy-Smith America Invents Act* enactment era, the question of *First to Invent* versus *First to File* is an important new issue. And we may have too much faith in Non-Disclosure Agreements (NDA), when you talk to potential investors. These NDAs may not be worthwhile, so engineers looking at their intellectual property may need to be cautious with someone not yet deemed trustworthy. For example, you have developed some valuable and innovative software. How could you obtain a record of its existence, while protecting it from disclosure? Should you consider filing a patent? Or should you keep your intellectual property private—as a trade secret? Should you use a copyright for your documents? Or just use as a trademark? Perhaps the best summary for Ray Robert's talk is his suggestion that you locate and consult with a good intellectual property lawyer in your IEEE Section, when intellectual property issues arise in your consulting practice.

As the day moved on, workshop speaker Will Kassebaum educated attendees on how to set up a start-up company. Formerly a consultant, now an entrepreneur, Kassebaum discussed his experiences in the growth cycle of his Indiana company, Algaeon. His start-up grows algae for human and animal uses.

One significant concept Kassebaum recommended is to find three advisors. One would be an older, seasoned executive-type, with an entrepreneurial mindset and skills. A second would be someone of your age—no more than five years older. This person could relate to your personal trials as a consultant; one who could see 100 yards down the road. A third would be one with a different business skill set, say CPA or JD, or whatever. Meet with them, and buy them lunch from time to time—so that you can graciously ask them to be sounding boards for your questions. Every aspiring or practicing IEEE consultant should consider that no one is a lone wolf, especially when looking for work clients. A sounding board for your consultancy work is a good idea.

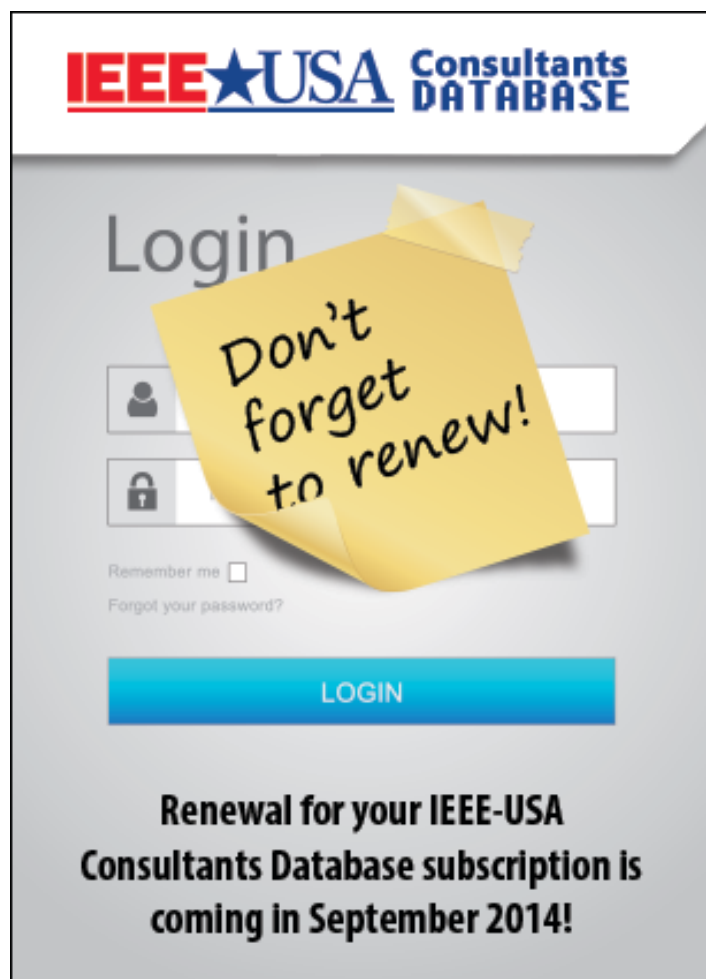
Kassebaum also shared with attendees the difference between an S-Business (or service business) and a B-Business (a money-making business); a concept every IEEE consultant needs to understand. Grasping this insight in depth is probably the most significant factor in how successful your consultancy will be over time.

He covered several other important points directly applicable to all consulting engineering situations. One is to maintain integrity in your financial reporting—billable hours, work expenses incurred, etc. If you are fortunate enough to hear Will Kassebaum speak at another AICN forum, you should definitely ask him one question. Ask him how he finds his “Generals.” Kassebaum described building a team at the beginning of a start-up that has some “Generals” willing to lead the new venture. For example, a few IEEE consultants wish to work together on a larger technical project, bringing different sets of technical expertise together. Who would the generals be on your team?

Finally, Gary Blank returned to center stage, plunging into the topic of how to find clients, in detail. Not surprisingly, 65 percent of the time, you can find clients by networking with other engineers—through IEEE meetings, IEEE volunteer activities, or other engineering meeting and trade shows that you attend. Dr. Blank also covered the online IEEE-USA Consultants Database, and demonstrated

how to navigate through it. He said many consulting jobs are found through this service.

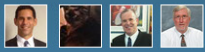
This workshop covered much more than what was outlined in the meeting prospectus, and based on feedback from IEEE members, it delivered real value to consultants. At the end of the day, attendees had a better understanding of the avenues to pursue for consulting success.



The image shows a screenshot of the IEEE-USA Consultants Database login page. At the top, the logo reads "IEEE★USA Consultants DATABASE". Below the logo, the word "Login" is displayed. There are two input fields: the first has a person icon and the second has a lock icon. Below these fields are the options "Remember me" with a checkbox and "Forgot your password?". A large yellow sticky note is placed over the login fields with the handwritten text "Don't forget to renew!". At the bottom of the login area is a blue button labeled "LOGIN". Below the login area, a bold message states: "Renewal for your IEEE-USA Consultants Database subscription is coming in September 2014!"

IEEE-USA Careers & Employment Issues

Tech Careers



By Scott D. Grayson, Jeanette Barott, wt_hayes, Don Herres, David Iams and 1 other

921 readers

15,596 page flips

201 articles

Checkout IEEE-USA's New *Flipboard Magazine!*

IEEE-USA is using another entry point into the world of social media—our new [IEEE-USA Career and Employment Issues Flipboard Magazine](#). What is Flipboard? Some have described it as one of those annoying apps that comes with your new smart phone that you never use. If you had this thought—think again... The Flipboard is a very useful piece of social media that IEEE-USA is now using to keep its members up-to-date on the latest articles on employment and career issues.

Wikipedia describes “Flipboard” as magazine format application software that collects content from social media and other websites, and presents it in a magazine format. The software app allows users to “flip” through their social-networking feeds, and feeds from other websites, to find articles of interest to them.

Within the past six months, IEEE members and staff have been populating this magazine with articles on career management, employment issues, leadership and consulting. Some of the more recent articles are *How To Become a Home-Based Freelance Consultant*, and *How the Internet of Things Will Affect Consulting Engineers*. IEEE-USA staff will continue perusing the Internet to find you the latest “flips” for this new social media app.

from **today's engineer**

Career Focus: How to Get Started as a Consultant

BY JOHN R. PLATT

I'll never forget the first time my company hired a consultant. Our division needed to fill in certain gaps in our operations but we had a lot of anxiety about what would happen when he arrived. We spoke of him in whispers for days before the dreaded day. When he finally came to our offices, we noticed the graying hair at his temples, the wisdom in his eyes and the calm smile on his lips. “Let's make things better,” he said.

And things did, indeed, get better.

Consultants fill a unique role in the business landscape. They come in when they are needed, put their unique skills to use solving problems for a day or a week or a year, and then disappear back into the night (or the local airport). Sometimes we never see them again. Other times they return a few months or a couple of years later when the situation calls for the use of their unique skills.

But where do these consultants come from? Can anyone become one? Is it easy to work as a consultant? Why do some people fail as consultants? To get these answers, we turned to the experts themselves.

Read the full article at: <http://www.todaysengineer.org/2014/May/career-focus.asp>

Sections Congress

Ignite Your Interest in Consultants Networks at the 2014 Sections Congress

The IEEE Member and Geographic Activities (MGA) Board will partner with Region 8 in hosting IEEE Sections Congress 2014 (SC2014) in Amsterdam, Netherlands, at the Rai Convention Center, from 22 to 24 August. Since 1984, the IEEE Sections Congress has been held every three years, and provides IEEE Section leaders with a priceless opportunity to impact IEEE's future.

This venue provides an ideal place to network, and share knowledge with other IEEE leaders. It also an excellent place to express opinions and concerns through recommendations for action the IEEE Board of Directors will use your formally presented thoughts to guide IEEE into the future.

A highlight of this year's Sections Congress will be the **ignite** talks, educating attendees about IEEE Affinity Groups—including consultants networks. IEEE is introducing these talks at the Congress to give attendees an opportunity to get information on specific topics, such as consultants' networks, not covered in breakout sessions. These talks are intended to raise awareness and *ignite* interest for attendees, and promote IEEE volunteer and staff follow-up.

IEEE-USA President Gary Blank will be giving the *ignite* talk on Consultants Networks. This rapid-fire presentation will take place on stage in the Conference Exhibit Hall. If you're attending the IEEE Sections Congress, and interested in starting a local Consultants Network, be sure to attend this talk.

Last Chance to Sign Up for the IEEE-USA Consultants Database at a Reduced Rate

Independent consultants who are IEEE members now have a chance to place their resume/profile in the **IEEE-USA Consultants Database**—for **half** of the normal \$99 cost. Until 15 August, IEEE members can subscribe for \$49.50 to the **IEEE Consultants Network Membership Premium**, which includes allowing members to place their profile in the IEEE-USA Consultants Database.

The IEEE-USA Consultants Database allows national companies to find consultants wherever they are. With an annual listing fee of only \$99, now half price at \$49.50, a single referral will pay for the listing.

Along with your database listing, the IEEE Consultants Network Membership Premium subscription includes a free subscription to the IEEE-USA Consultants Newsletter; a free IEEE-USA E-Book on consulting; and access to a free, exclusive training webinar.

Subscribe today and take advantage of this half-price offer! *(Please note that if you take advantage of the half-price offer, the subscription runs only until the end of 2014. Additionally, the IEEE member renewal period starts in September. At that time, you will receive reminder notices to renew your Premium subscription—at the full price of \$99.00 for 2015.)*