AICN Fall 2009 newsletter

Chair's Corner by Dr. Gary Blank

Updating You on AICN Activities & Networking

The AICN is planning a face-to-face meeting on Saturday, 21 November, in New Brunswick, N.J., on the heels of the IEEE Organization Units Meetings. We will be working on some exciting plans for 2010 which will include debating story ideas for future newsletter pieces and finalizing details for a "Consulting 102" webinar.

Keeping In Touch & Networking

Keeping in touch: To keep in touch we are reaching out again this month to every Network to see how each one is doing and asking if there is anything we can do to help the Network. If we do not have the answers we will try to find them. If we do not contact your Network it is possible that you are not on our list and not on our website www.ieeeusa.org/business/localnetwork.asp. Also a reminder that if your Network has active affinity group status (which is true of most networks, regardless of size) there is an annual rebate to your Section. Sections love to have Networks.

Networking: We are experiencing how valuable it is to network beyond our local Networks. There are times in the consulting arena when geographical considerations require us to reach out to fellow consultants in other IEEE Consultants Networks. Sometimes it is necessary to help a client to find a consultant close to the client's facility. We are going to be seeing more of this inter-network activity. Participation in our Alliance of IEEE Consultants Networks will be beneficial for all of us.

I will report to you the results of our meeting in New Brunswick in the next newsletter. ■

Consultants Fee Survey Underway

Check your e-mail in-box for your invitation to the 2009 IEEE-USA Salary and Fee Survey. For the first time, the Salary and Fringe Benefits Survey and the Consultants Fee Survey have been combined into one questionnaire. All respondents will get five free uses of the IEEE-USA Salary Calculator; in addition, those respondents primarily practicing as consultants will be eligible to get a free copy of the Consultants Fee Survey report.

Third Quarter Engineering Unemployment Data Show Mixed Trends

The unemployment rate for U.S. electrical and electronics engineers (EEs), which had jumped to a record high in the second quarter, has eased, according to third quarter data just released by the Department of Labor's Bureau of Labor Statistics. For the engineering profession as a whole, the rate continued to climb, but more slowly.

The jobless rate for EEs dropped from 8.6 percent in the second quarter to 7.3 percent in the third. Quarter to quarter, the EE work force grew by 26,000. For civil engineers, the unemployment rate dropped from 4.7 percent to 3.6 percent, but for mechanical engineers, it rose from 5.6 percent to 9.5 percent. Overall, engineering joblessness rose to 5.9 percent, a 0.4 percentage point increase compared to a 1.6 percentage point increase in the second quarter.

The unemployment rate for computer professionals went from 5.4 percent in the second quarter to 6 percent in the third quarter. Software engineers showed a slight decline (4.7 percent vs. 5 percent), while computer scientists and systems analysts experienced an increase (7.3 percent vs. 6.4 percent).

"These mixed data suggest that the worst may be passing, but we are still a long way from the levels of engineering unemployment we would expect to see in a strong economy," IEEE-USA President Gordon Day said. "We are also encouraged that announcements of layoffs in the high-tech sector appear to have subsided, after peaking early in the year. A clear turnaround in engineering unemployment would be a very positive sign for the general work force, since engineers create new jobs in many categories."

Career enhancement resources are available for IEEE members at www.ieeeusa.org/careers/. Help is available for unemployed and at-risk members at www.ieeeusa.org/careers/help/.

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 210,000 engineers, scientists and allied professionals who are U.S. members of IEEE. IEEE-USA is part of IEEE, the world's largest technical professional society with 375,000 members in 160 countries. See www.ieeeusa.org. ■

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www.ieeeusa.org/business

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Becoming Your Own Boss **By Carl Selinger**

Most of us dream of being our own boss, answering only to ourselves, choosing what we'll do and when, and accomplishing great things on our own. Many of us have already accomplished this goal. Some of my former engineering students started their own consulting firms soon out of college. I started my own business eight years ago, after a 30-year career at a public agency. And we all know of the famous bosses of technology — the Steve Jobses of the world, who go out on their own to develop the megaproducts of our age.

But alas, most of us have to deal with the challenges of getting a steady income, putting food on the table, and gaining experience in our chosen field — supported by our employers, before we can consider breaking away. So how do you know when you're ready to branch out on your own? Here are some things to consider on the "if" and the "when" of becoming your own boss.

Identify where you are already your own boss. In your current job, what activities are you responsible for; how many people do you supervise; what budget level responsibility do you have? These areas are all measures that show you are accountable for results, with some degree of independence. Don't forget to include your membership in voluntary organizations, like professional societies. Being chair of a professional committee, or a scout leader, gives you some measure of taking responsibility for running things.

Ask yourself what you like and dislike about having responsibility. Are you comfortable when other people depend on you to make decisions, or would you rather not have the added pressures? Are you willing to work harder and longer hours to get a job done, or do you place a higher value on being able to leave work at a regular time each day? Your answers to these quesitons indicate whether or not you have the inner drive and motivation to be successful on your own.

If you're looking for more opportunity and autonomy, here's something you can do right away: try "managing your boss." You can exert more control over your work than you think by helping your boss. Don't wait to be told what to do all the time; take more initiative under your general guidelines; keep your boss at least as well informed as he or she would normally expect; and see whether you get more support. Treat your job as if it were your own "candy store"—as if you were running your own business. This attitude will probably make you more effective, and also give you a sense of how you would operate, if you became the boss.

Start a side project at work or a home business. Some companies will allow their professionals to take some time (say, 10 percent) to pursue a pet project along with their assigned responsibilities. A side project may be a great opportunity to show your entrepreneurial skills, while staying in your current position. Similarly, developing an outside business in your spare time may be the perfect opportunity to see if you have what it takes. This business could be the kind that you would start on your own full time, or it could involve turning a hobby into a business. But be careful: don't quit your "day job" until you have established a track record that makes you confident that you can strike off on your own.

Assess the skills that you would need to be a boss. All these skills are necessary to be an effective professional, but they are especially critical in helping you succeed in your own enterprise:

Are you willing to work long hours? Face it, the days of the 9:00 a.m. to 5:00 p.m. job is probably gone forever. Do you have enough "fire in the belly" to put in the time and effort required to succeed?

Do you know how to delegate effectively, so that you can leverage your goals through your staff? You can't be everywhere and do everything, so your people will need clear direction and the appropriate degree of autonomy to get things done right.

Do you understand business planning and finance and the need for sufficient working capital? You need a fundamental knowledge of business management, so you can develop your business as well as work with accountants and lawyers.

Are you well organized? You'll need to find important things quickly, and keep track of appointments and deadlines.

Are you able to set priorities and adhere to them? Are you able to judge what's important on your to-do list? There's a difference between doing things and getting things done.

Do you have good interpersonal skills? It's not just the technical know-how that makes for success. You need to deal with all sorts of people — customers, suppliers, and, of course, employees.

Do you know how to market? Do you even like to do it? You must understand the need for your product or service — and be able to target specific markets. Apply the four "P"s of successful marketing: product/service, price, promotion, and the place where you sell it.

Are you decisive? People will look to you to make decisions, from strategic choices to where to take a customer to lunch.

Are you comfortable taking on a heavy load of responsibility? If you're the boss: tag, you're it. The buck stops on your desk. Ready or not, you're in charge.

And, perhaps most significant, can you manage increased stress in your life? Stress is a fact of life for all of us, but learning how to manage higher stress levels — like finding time to relax — will help you stay healthier while you're in charge.

When should you consider going on your own? The timing will depend on your career attainments, family commitments and financial situation. But engineers at any age can contemplate doing this type of move: you can be right out of school, at midcareer, or approaching retirement. You need to develop realistic strategies that deal with your obligations, especially those to your family.

Begin preparing your strategy by projecting scenarios three to five years into the future. Envision several approaches. What product or service would you provide? What skills would you need? What income would it take? Learn what you need to know, take business or technical courses, get certified in key skills, and build financial reserves.

Now that I've given you some food for thought about becoming your own boss, let me ask you another question. Do you want to become a chief engineer or a chief executive officer some day? Be honest. It's not a trick question; I'm not trying to test your level of ambition — only surprise you a bit. You are already a CEO…the CEO of you! Although you may have to get advice and support from others, such as your spouse or your boss, you are ultimately accountable for your own actions. In this sense, you are already your own boss.

You owe it to yourself to seriously consider becoming your own corporate boss. Whether this means gaining more responsibility in your current position or planning for the day when you're truly in charge of your own enterprise, look into it carefully. Assess your abilities, do your homework, and challenge yourself to make your career more satisfying and rewarding by going out on your own…or by happily staying put. ■

About the Author

Carl Selinger is an aviation and transportation consultant, author and professor. His series of professional development seminars is called "Stuff You Don't Learn in Engineering School." His book of the same title was published by Wiley-IEEE Press in the United States, and by Science Press in China. Visit www.carlselinger.com.

They are available free to download You can also find this list at www.carlselinger.com/IEEE%20Spectrum%20Careers%20articles.htm.

Also an engineer, consultant and seminar leader, Carl has written more than 30 articles for the Spectrum magazine in the past few years. Many of the Spectrum *articles apply directly to what we need to learn and know as consultants. So, we bring you this article, and will be featuring many more articles from Carl in future AICN newsletters.*

Homeland Security to Hire Up to 1,000 Cyber Security Experts

The Department of Homeland Security (DHS) will hire up to 1,000 cyber security experts over the next three years, to help protect U.S. computer networks, according to an Obama administration official.

"Cyber security is one of our most urgent priorities," said Homeland Security Secretary Janet Napolitano in early October 2009.

She unveiled the plans at an event marking the beginning of National Cyber Security Awareness Month.

"This new hiring authority will enable DHS to recruit the best cyber analysts, developers and engineers in the world to serve their country, by leading the nation's defenses against cyber threats," according to Napolitano.

U.S. officials are mindful that both government and private sector computer sites have been targeted, and consequences can be dire. The Internet, Napolitano said, is "a critical part of our everyday lives, and how our society and our economy operate."

She added, "We rely on cyber networks to control and manage transportation, electricity, and banking."

Department officials could not say precisely how many cyber experts now work at DHS and its various component agencies, such as the Secret Service and Immigration and Customs Enforcement. Napolitano said she doubts it will be necessary to fill all 1,000 authorized positions, but she is focused on making DHS a "world-class cyber organization."

The Obama administration has set cyber security as a top priority but has yet to hire a cyber czar to head up its efforts. Chris Painter, the White House National Security Staff's acting senior director for cyber security, said the president remains committed to finding someone for the post. Source: CNN.com, 10/2/09 ■

How Can You Fill the Gaps between Consulting Jobs?

The team that administers the IEEE-USA's Consultants Database fields a variety of consulting-related questions on a daily basis. Recently, a member asked if we could clarify the intent or purpose of the field "*Available for Contract Engineering*" contained in our Consultants Database. Our response was that the purpose of the this field is to indicate that a consultant is open to taking a position with a firm (most likely an employment agency that provides temporary workers to engineering companies) to work on a temporary or contract basis. AICN Chair Gary Blank elaborated that most consultants are self-employed, but to fill in those gaps when business is slow, many consultants are willing to accept temporary assignments as "contract" engineers.

In light of our current economic times, the following bullets are activities engineers can engage in to provide short term work, or provide leads to new business opportunities:

- A quick Google search (temp jobs for engineers) will help you find a number of temp companies providing various types of temporary positions/assignments for engineers.
- Some engineering consultants also work as adjunct professors. Adjunct professors generally do not hold a permanent position at the academic institution, and only teach courses in a specialized field. They are also generally part-time positions, with a teaching load below the minimum required to earn benefits (health care, life insurance, etc.). Adjunct professors generally are not required to participate in the administrative responsibilities at the institution expected of other full-time professors, nor are they generally assigned any research responsibilities.
- Many engineers serve as mentors. Mentoring young engineers provides a way for most engineers to pass on knowledge not only about engineering, but also point students down a different career path — to possibly becoming a consultant.
- Participating in voluntary assignments is another way consultants fill gaps between assignments. Many humanitarian projects needing engineering expertise have begun to sprout up, such as the National Academy of Engineering (NAE) *Grand Challenges for Engineering*. Working on such projects allows consultants another venue to mentor young engineers, as well as expose consultants to upcoming technological advances.
- In addition to taking on voluntary assignments, many consultants are highly involved with their industry association. Becoming involved is a way consultants use to keep or maintain contacts, and also expand their professional network. Maintaining this network increases your chances of landing that next client or consulting assignment. ■

IEEE-USA Consultants Database Member Profile: Timothy L. Johnson, Ph.D.

In this newsletter, we have heavily promoted the benefits of joining IEEE-USA's Consultants Database (an exclusive, online database available to U.S. IEEE member independent consultants or members in good standing with their local IEEE Consultants Network). Prospective clients, fellow consultants and engineering industry partners search this database on a daily basis for consultants with relevant qualifications to provide expertise for their projects.

In addition, consulting assignments are posted on its Assignment Board, so database members can pick and choose assignment to pursue. The annual fee for a listing in IEEE-USA's Consultants Database is only $79 for IEEE Members. Starting with this fall newsletter, we will highlight one consultant profile each issue. These profiles will showcase the wealth of information potential clients have available when searching our database, to choose the right consultant for their assignments.

Listing/Contact Information (address, phone & email omitted)
Timothy L. Johnson, Ph.D.
President Johnson Dependability Services, LLC

Key (searchable) Phrases
Controls Reliability
Diagnostic Technical Services
Automation Dependability
Fault Tolerant Systems Design

Technical Categories (drop down menu provided)
Automation
Process Controls
Diagnostic Software
Electrical Power Quality, Reliability and Safety
Instrumentation and Controls
Failure Analysis
Embedded Systems, Hardware, Software and Controls
Servo/Control Systems

A 200 or 1600 characters maximum description of your consulting specialty:
Dependability of automated systems involves a combination of reliability, fault tolerance, survivability, availability and repair ability, among other factors. When feedback is involved, embedded computer systems can be very complex to evaluate and to certify. Johnson Dependability Services, LLC offers the ability to analyze, design, or develop service strategies for automated equipment, including aerospace, medical, or industrial power distribution, or process control applications.

200 word or 1600 characters maximum description of your software tool expertise:
Expert in controls, embedded software, fault tolerance, diagnostics and associated analysis methods, including FMEA, FMECA, DO-178B, UML, Reliability Engineering (Reliasoft tools), and control design tool sets.

Available for contract engineering: No

Languages other than English in which you have a technical proficiency: Some German, French. Not proficient.

Are actively seeking international assignments? No

If you are a member of a local IEEE Consultants Network, please indicate which one: No

Disability Insurance: The "Forgotten" Safety Net

When most people talk about having "enough" insurance, they're usually referring to life insurance. But if your family relies on your paycheck to make ends meet, your loved ones could find themselves in a worse financial situation if you become disabled than if you were to die.

Why?

Because a disability that keeps you from working can generally bring even greater financial pressures in the form of extra bills to pay for your care. If you cannot work, where will your family find the money to pay additional medical bills, on top of regular household expenses?

That's why many financial experts refer to disability coverage as a "forgotten" safety net. While many Americans help protect their family's financial future with life insurance, only a small fraction of today's workers have set up a similar level of protection for their income — their most valuable asset.

Who needs disability coverage?

If you need your income to pay the bills at the end of the month, chances are you also need disability insurance. Here are just a few common situations:

- **You're single.** Your need for disability insurance may be significant, because you don't have a spouse's paycheck to fall back on, if a disability keeps you from working.
- **You're married and are the sole breadwinner. You should consider** disability insurance a "must-have" in this situation, especially if your spouse has been out of the work force for a few years. It may be extremely difficult (particularly in today's job market) for a spouse to quickly find employment at a salary level that adequately replaces your income.
- **You're married and both of you work.** Many dual-income families can't imagine making ends meet on one salary, when it seems like they can barely get by on two paychecks. Disability coverage for both spouses is often recommended.
- **You own your own business.** How would your business keep going … and your income continue … if you weren't able to work at your business? For many business owners, disability insurance is a key component of their financial plan.

Scenarios like the ones above are just a few of the reasons Graham Fuller, Marsh Affinity's assistant vice president of IEEE Member Group Insurance Plans, urges all technology professionals to give strong consideration to adding disability coverage to their financial portfolio.

"We all insure our homes and our cars. But when it comes to our biggest asset — our ability to earn an income — too many of us have simply overlooked a significant risk," says Fuller. "It's important to make sure you have a strong disability plan in place to help your family make ends meet, in case an accident or illness keeps you from working and earning a paycheck."

Why many employer disability programs may <u>not</u> be enough

Perhaps you haven't thought much about disability coverage, because you have disability insurance through work. Now may be the time to reconsider that decision.

Fuller points to three important reasons to add an additional disability plan to your financial portfolio … even if you already have coverage through work:

1. **Benefits may not be high enough. Many group plans offered through employers only cover up to 60 percent of your income. (Disability plans generally don't replace 100% of your salary because many people would have very little incentive to return to work in that situation.)**

   However, the benefits you may receive may be even lower than the 60 percent benefit limit. That's because group plans often cap benefits as low as $5,000 a month, and do not include overtime or bonuses in your income equation.

2. **Benefits may not be paid for long enough.** Group plans may also limit the amount of time they'll pay benefits for your disability claim. Six months is a common benefit limitation. If your disability keeps you from earning an income for longer than that, you may find yourself without an income <u>and</u> without disability benefits.

3. **Benefits may not be tied to your own occupation.** Many disability programs only pay benefits if you're unable to work in any occupation. But as a technology professional, your education and training have prepared you for more demanding and more financially rewarding career options. As a result, it is important to make sure your disability insurance matches your training, with provisions that pay benefits if you're unable to work in your own occupation†.

How does the IRS fit into the disability benefit picture?

Another potential pitfall for employer-provided disability benefits is taxes. In a nutshell: Current tax laws say that if your employer pays the premiums for your disability insurance, then you owe taxes on any benefits received. If, on the other hand, you pay the premiums for your disability insurance, then any disability benefits are tax-free.

Here's an example to show you how this works:

- Let's say Jason Curtis makes $100,000 a year. His disability coverage pays up to 60 percent of his salary or $60,000 a year. So, his monthly benefit would be $5,000.
- If Jason paid his own premiums for his disability as an individual policy, Jason would receive the full $5,000 benefit amount, if an accident or injury left him disabled and unable to earn an income.

But what if Jason's employer paid the premiums instead? Jason would owe taxes on his benefits. That means instead of a $5,000 monthly benefit, Jason would only receive $3,600, because 28 percent of his disability benefit would go to pay taxes to the IRS.

"It's critical to plan for the impact taxes may have on your disability benefits," adds Fuller. "If paying your own premiums is not an option in your company's disability plan, you should give strong consideration to association group insurance instead."

"A disability that keeps you from working is bad enough. But being forced to pay taxes on your disability benefits simply add insult to injury," says Fuller.

An exclusive option for IEEE members

IEEE sponsors a Group Disability Income Insurance Plan benefit to members interested in adding disability coverage to their financial portfolio. This portable benefit option gives you the advantage of solid coverage protection that can follow you throughout your career.

In addition, monthly benefit amounts up to $6,500 with a wide range of benefit waiting periods give you the flexibility to tailor your level of protection to your family's unique financial needs. ■

For more information* on the IEEE Member Group Disability Income Insurance Plan, you can call toll-free **1-800-493-IEEE (4333)** or visit www.ieeeinsurance.com.

† The IEEE Sponsored Group Disability Income Insurance Plan is designed to cover disabilities that prevent you from performing your occupation, provided you are not otherwise working for pay or profit.

*Features, costs, eligibility, renewability, limitations and exclusions

Programs, Services, Benefits and Products

By Gary Blank

As a self-employed IEEE member, I'm always interested in exploring and learning what the IEEE and IEEE-USA have made available for its members in the areas of programs, services, benefits and products. Do you have any idea of what such a list would look like? How many items would you guess there are? I have asked other members and the range of guesses varies from 10 to 25. How many of these are you aware of? Here is a list I have compiled. I counted 100+. I hope you find it as useful as I have. Details can be found at the IEEE website using the search engine there. www.ieee.org

- Annual Meeting
- AskIEEE
- Association with IEEE Brand
- Awards
- Career Asset Manager
- Career Checkup
- Career Development Courses
- Career Navigator
- Careers In Engineering
- Careers Webinars
- Competitions (IEEE Xtreme, Robotics, etc)
- Consultants Database
- Consultants Services Website
- Contact Center – Internet
- Contact Center – Phone
- Discounts on IEEE Publications
- Education Partners Program
- Employment & Career Strategies Communities
- Employment Navigator
- Entrepreneurs Village
- eWeek - includes Future City Competition
- Expert Now
- Eye on Washington
- Financial Services College Parents of America
- Financial Services Educational Financial Services
- Financial Services Grogan Advisory Services
- Financial Services Simple Tuition
- Government Fellowships
- Home & Office Services - DHL Express
- Home & Office Services - MyHomeBenefits
- Home & Office Services - Office Supplies and Furniture
- Humanitarian Programs
- IEEE Conference
- IEEE e-mail Alias
- IEEE Job Site
- IEEE Member Digital Library (Access to)
- IEEE memberNet
- IEEE Mentoring Connection
- IEEE Potentials Magazine – Digital
- IEEE Potentials Magazine – Print
- IEEE Societies
- IEEE Spectrum Magazine
- IEEE Standards
- IEEE Women in Engineering
- IEEE Xplore Abstracts
- IEEE.tv
- IEEE-USA Career Alert
- IEEE-USA Career Asset Manager
- IEEE-USA Career Checkup
- IEEE-USA Career Enhancement Courses
- IEEE-USA Career Navigator
- IEEE-USA E-books
- IEEE-USA Entrepreneurs Village
- IEEE-USA Salary Service Innovation Institute
- Innovation Styles Profile
- Insurance Services (Access to) - Cancer Expense
- Insurance Services (Access to) - Catastrophe Major Medical
- Insurance Services (Access to) - Catastrophic Disability Income
- Insurance Services (Access to) – Dental
- Insurance Services (Access to) - Group 10-Year Level term
- Insurance Services (Access to) - Group 20-Year Level Term
- Insurance Services (Access to) - Group Disability Income
- Insurance Services (Access to) - Group Level Term Life to Age 65
- Insurance Services (Access to) - Group Term Life
- Insurance Services (Access to) - High Limit Accident
- Insurance Services (Access to) - Liberty Mutual – Auto
- Insurance Services (Access to) - Long Term Care
- Insurance Services (Access to) - Medicare Supplement
- Insurance Services (Access to) - Professional Liabilities
- Insurance Services (Access to) - RxAmerica Prescription Plan
- Insurance Services (Access to) - Short Term Medical
- Insurance Services (Access to) - Short Term Recovery
- Insurance Services (Access to) - Small Employer Group
- Insurance Services (Access to) - Travel and Accident Insurance
- Insurance Services (Access to) - Travelers - Auto & Home
- Mass Media Fellow Program
- Membership Card
- Merchandise
- Microsoft Software Offer for IEEE Students
- myIEEE
- Online Communities
- P.E. Exam Review Courses
- Participate in Local Technical Forums
- Participation in Local Meetings
- Participation in Pre-University Activities
- Participation with LinkedIn Group
- Proceedings of the IEEE
- Public Policy Awareness
- Public Policy Awareness - Press Releases
- Salary Service - Employer Version
- Salary Service - Member Version
- Scholarships
- ShopIEEE
- SPACs
- Student Video Competition
- The Beyond Job Satisfaction Fieldbook
- The Institute Newsletter
- Todays Engineer - Online and print
- Travel Services
- Virtual Communities
- Volunteering
- Voting
- Website
- What's New @ IEEE