

# AICN Newsletter

The Quarterly Publication of the Alliance of IEEE Consultants Networks

2<sup>nd</sup> QUARTER 2017



*AICNCC Chair's Message*

## The Chair's Ramblings

BY LARRY G. NELSON SR., P.E.

So many of my colleagues tell me they want more work, or that they need a reasonably priced place to get insurance. Some want business tips to help them be better organized, or to save them on taxes. Others want training on a variety of topics. Some even want help screen out potential problem clients.

We all want to get paid for the work that we do. So, the AICN has started some initiatives to help get the word out to AICN members about the many benefits IEEE already offers — that you may not be aware of. .

I have requested links be placed prominently on our AICN web page that point to the things IEEE offers members as an organization. Look at the left hand column of the page at <https://www.ieeeusa.org/business/> under member discounts and insurance links at the bottom. IEEE offers members insurance rates lower than what we can get as individuals. Even Errors and Omissions insurance, as well as discounts on shipping services through [UPS are available](#).

## Jump to Consulting

BY DARYL GERKE, P.E.



Thinking about consulting, but not sure where to start? Already consulting, but need some advice? Hop over to [www.jumptoconsulting.com](http://www.jumptoconsulting.com) for answers and encouragement from a 40-year consulting veteran.

Hi. I'm Daryl Gerke (P.E.), a corporate misfit, who with his late business partner, Bill Kimmel (P.E.), started and ran a successful consulting engineering practice for almost 40 years (30 years' full-time.) It was a blast!

The Jump to Consulting Project

At age 70, I decided to slow down, leaving time for other interests, like the Jump to Consulting (JTC) project. It includes a blog (200+ posts), a newsletter, a white paper, and a presentation given at several technical shows, with more on the horizon.

One major service AICN has been providing for a couple of years now is an outreach to your local consultant networks. AICN has a seminar that it will bring to your group to train members on key things consultants need to know. We include sessions on networking, benefits, life as a consultant, transitioning to a larger (product-oriented) business with investors, along with needed business skills. We will fly in our team and provide presenters. Your group needs to furnish a location to hold the seminar; as well as local logistics, such as refreshments for breaks and lunch, and advertising to attract attendees. We will help you with each step along the way. This is a proven model that works very well, to help you recruit new members, and provides a service to existing members. Several groups have seen a profit from these sessions, while charging only a very minimal fee. If you think you may be interested in having AICN provide this service to your network, please contact Daryll Griffin ([d.r.griffin@ieee.org](mailto:d.r.griffin@ieee.org)) as soon as possible — as we are planning out our year right now. ■

A secret goal is to help my fellow engineers (or anyone else interested in consulting) enjoy the consulting life as I have.

The project began in 2010. My older son said, "Dad, we should talk about consulting." As an accountant, he had contracted the itch to consult. I encouraged him, and offered him my fatherly advice.

At the same time, blogging intrigued me, and I thought it might be fun to share hard-earned lessons with others. For years, engineering colleagues had asked, "How did you do it?" So...I started a blog.

The blog now has over 200 posts, with more to come. Posts are tagged in several business categories — sales, marketing, finance and administration.

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[www.ieeeusa.org/business](http://www.ieeeusa.org/business)

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Other categories include resources reviews and success stories. The latter includes many engineers (men and women/young and old) who have made their own [Jump to Consulting](#).

As a young engineer, I had no idea my career would follow this path. And I have absolutely no regrets. My consulting background starts in 1977. Two young engineers (Bill and Daryl) started moonlighting by teaching at a technical college. When the school asked for help to clean up their evening program, we submitted a proposal. We got the job, and Kimmel Gerke Associates (KGA) was born.

We continued to teach and develop classes. It worked really well — as we both enjoyed teaching, and there was no conflict of interest with our day jobs, always an important consideration. A few years later, the school asked us to bid on a project to develop a two-year training program on printed circuit board layout. It was a good fit, due to our backgrounds in EMI/EMC (electromagnetic interference and compatibility.) We thought it was a long shot, but when the contract was awarded, there was enough money to set one of us free. With kids in school, however, we decided to do this part-time. And the extra money was always welcome. The second phase of KGA commenced.

As novice consultants, we had tasted serious blood — and it tasted good. That lit the fire, and we started planning our ultimate escape from the cubicles. We continued with part-time consulting gigs, but by 1987 the pressure to consult full time was so great, we could hardly stand it. I stepped out first in October — the day the market crashed. We often mused, "The first day in business was the worst day in business." Bill joined me a couple of months later. Thanks to all the pre-

marketing we had done (technical articles, training, trade shows, and more), things actually went pretty well.

Marketing your practice is key, even if only part-time. We decided to focus on EMI/EMC design issues. Focus is important when starting out, and we had a lot of EMI/EMC experience. Besides, most engineers didn't really want to do EMI/EMC — always a good place to consult. Since that fateful day in 1987, we solved hundreds of problems for hundreds of clients around the world. Leveraging our training experience, we also taught more than 10,000 engineers how to design better for EMC, through our public and in-house classes.

Looking back, consulting has been a grand adventure, and I would do it again in a minute. Sadly, Bill Kimmel passed away in 2015, after a brief battle with cancer. I then decided to slow down, and spend more time with JTC.

So, if you have any interest in consulting, visit [www.jumptoconsulting.com](http://www.jumptoconsulting.com), where I share what I've learned over the past forty years.

**A Consulting Tip:** Never cut price! Cut scope, instead. If the client is truly budget limited, reducing the scope may win the project — and help the client. If not budget limited, let your client know there is no fat in the proposal. Bid projects at the lowest price you will accept. That way, if you lose it, you won't feel bad. And don't be afraid to walk. Bad business is worse than no business at all. ■

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*Daryl Gerke, P.E., is the co-founder and surviving partner of Kimmel Gerke Associates, an electrical engineering consulting firm focused on EMI/EMC (electromagnetic interference and compatibility) design issues. Gerke is an IEEE Senior Life Member, and a long-time member of the IEEE EMC Society. Daryl can be reached at [daryl@jumptoconsulting.com](mailto:daryl@jumptoconsulting.com). You can visit his consulting site at [www.emiguru.com](http://www.emiguru.com).*



## Professional & Forensic Engineering and Expert Witness Career Progression

BY ROBERT O. PERUZZI, PH.D., P.E., IEEE SENIOR MEMBER

### Career Progression

Engineers of any engineering discipline can and should enhance their careers by obtaining their P.E. license, whether or not required by their present employers. Those well-established in engineering careers may see expert witness cases fall into their laps, without any effort. To seriously pursue this path, search online for "Expert Witness Training." Licensed P.E.s with some expert witness experience may apply for NAFE membership, to further establish their careers as Forensic Engineers and Expert Witnesses.

### Professional Engineers, and the National Society of Professional Engineers (NSPE)

In 1907, Wyoming was the first state to enact an engineering licensure law. Now every state, through licensing, grants only Professional Engineers (P.E.s) the authority to offer their services to the public, or to sign and seal engineering plans. Exemptions for engineering licensure for employees do exist in certain situations, but obtaining a P.E. license is a legal requirement to practice as an engineering consultant in certain states. However, an engineering consultant providing services to the public as an engineer must hold a P.E. license.

To become a licensed P.E. requires several steps. First, earn an engineering degree from an accredited engineering program. Second, pass the Fundamentals of Engineering (FE) exam — earning the title, Engineer in Training (EIT). The best time to take the FE exam is during your senior year of undergraduate Engineering study. The second best time to take the FE exam is now.

One must have four years of progressive engineering experience taking the Principles and Practice of Engineering exam. Upon passing, you may obtain a P.E. license. Beyond obtaining a license, continuing education is a requirement in most states. See [www.NSPE.org](http://www.NSPE.org) for further information on licensing.

### Forensic Engineers, and the National Academy of Forensic Engineers (NAFE)

NAFE defines forensic engineering as "the application of the art and science of engineering in matters which are in, or may possibly relate to, the jurisprudence system, inclusive of alternative dispute resolution." A chartered affinity group of NSPE, NAFE and its members and associate members must be licensed P.E.s and have experience in forensic engineering case preparation. Full members must have

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## Professional & Forensic Engineering and Expert Witness Career Progression (Continued from page 3)

testified as an expert witness in at least two cases. NAFE has similar continuing education requirements as NSPE. And NAFE membership enhances one's credibility as an expert witness. See [www.NAFE.org](http://www.NAFE.org)

### Expert Witnesses

Rule 702 [[https://www.law.cornell.edu/rules/fre/rule\\_702](https://www.law.cornell.edu/rules/fre/rule_702)].

Testimony by Expert Witnesses:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion, or otherwise, if:

- A. The expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence, or to determine a fact in issue
  - B. The testimony is based on sufficient facts, or data
  - C. The testimony is the product of reliable principles and methods
  - D. The expert has reliably applied the principles and methods to the facts of the case
- In addition to engineering, expert witnesses practice in such areas as medical, business/financial, human resources, family/custody, insurance, police/penal, real estate, and more. No defined requirement for declaring oneself an expert exists; however, experts and their retaining attorneys must convince the court of their expertise. ■

## IEEE vTools Training Webinar

For local IEEE Consultants Network officials interested in vTools training — in November 2016, IEEE held a “vTools Training Summit” webinar. If interested, officials can access the recorded webinar, and receive the training, using [this link](#). ■



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Write  
An Article  
For IEEE-USA  
InSight?**

### CALL FOR AUTHORS

**IEEE-USA InSight** is a free online newsletter featuring timely and informative articles, essays and opinion pieces on the career and public policy issues affecting the careers and lives of U.S. IEEE members, as well as the issues shaping the modern technology professional's workplace. Article submissions are welcome in four categories:

**CAREERS, PUBLIC POLICY, @IEEEUSA and VIEWS**

For more info, visit: [INSIGHT.IEEEUSA.ORG](http://INSIGHT.IEEEUSA.ORG)







## IEEE Chicago-Rockford Consultants Network Discusses Youth Issues Relating to Consulting

Recently, the IEEE Chicago/Rockford Consultants Network shared their meeting notes with IEEE-USA staff, and were gracious enough to allow IEEE-USA to share some discussion highlights with you. Their meeting's main topic focused on what a young person should do to be successful as a consultant, later in life.

Attracting young people to associations, and concentrating on their needs are the same issues that IEEE and other U.S. associations are trying to address on a daily basis. It is clear that the Chicago-Rockford Network sees this issue as one needing time and planning to tackle successfully. The network consensus was that young professionals (engineers) are not joining organizations (church, IEEE, etc.). They believe that it might be an effect of Age of the Internet, plus other factors. Members noted that when they look around in their meetings, they see mostly older consultants.

One of the ways network members are looking to combat this issue is to devote time to going to where young people are (schools, etc.), especially when students and young professional are thinking about their futures, or participating in career-related activities and events.

IEEE Chicago-Rockford Consultants Network Chair Roy Leventhal said network members believe young people do have some concern for their futures. But it is clear that young people won't only be able to get good

information from the internet, on how to deal with such problems as:

- The constant churn and turnover in high-technology industries
- How to win friends and influence co-workers on the job
- Technological obsolescence
- Networking

He added that these kinds of learning experiences need interaction, storytelling, testimonies, handouts, etc. ; and that older consultants are a good source of that kind of information and mentoring. "But," Leventhal said, "we need to go to our potential audiences, and let this networking and discussion begin."

In the meeting, network members also discussed how the network can help (budding and struggling) consultants find clients. They addressed meetings, possible speaker topics, Illinois P.E. license renewal, and creating programs to help consultants meet PDH requirements.

IEEE-USA thanks the IEEE Chicago-Rockford Consultants Network for allowing us to share their meeting highlights with you.

Share what your network is doing, so others can piggyback off the good works in progress. ■

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## STAYING SHARP

VOLUME 2

**TIPS FOR STAYING SHARP  
OUTSIDE YOUR COMPANY**

### Free May E-Book Guides Readers on Staying Sharp – Outside Their Companies

In today's world, staying sharp "outside" your company is just as important as staying sharp "inside" your company. One of the ways you can enhance your non-technical skills for career success is through volunteering in your community.

In May, IEEE-USA E-BOOKS is offering the award-winning *Staying Sharp - Volume 2: Tips for Staying Sharp Outside Your Company* free to IEEE members.

An active IEEE member for many years, author Harry T. Roman also advocates volunteering in IEEE and other

professional societies as an ideal way to enhance your professional experience. For example, participating in your local IEEE section is a great way to meet people. Additions to your personal network can benefit you when you need advice, assistance, or are looking for work.

Now through 15 June, IEEE members can get a free download of this e-book by going to: <http://shop.ieeeusa.org/usashop/product/careers/138629>. Log in with your IEEE Web account, add the book to your cart and use promo code MAYFREE17 at checkout. ■

### IEEE-USA Is on Social Media!

As more and more people get their news and information from social media posts and tweets, IEEE-USA wants you to know that we're on these platforms. IEEE-USA has been aggressive in establishing our social media profile, by hiring staff dedicated to providing information through these channels. We hope that all consultants give IEEE-USA social media pages, [Instagram](#), [Facebook](#) and [Twitter](#) a "like" or a "Follow." Staff will be working hard to push stories and items that consultants will find useful:

IEEE-USA Facebook: <http://bit.ly/2knmkpx>

IEEE-USA Twitter: <http://bit.ly/2kt9FxQ>

IEEE-USA Instagram: <http://bit.ly/2jV3jX7>

### Now Hear This: Free Audio E-Book

Based on the popularity of its e-books, IEEE-USA has released its first audio e-book — *Staying Sharp - Volume 1: Tips for Staying Sharp Inside Your Company* — free for a limited time only. The first in a two-part series, *Staying Sharp - Vol. 1* provides more than a dozen proven strategies engineers can easily put to work on the job. [Download now](#) (88 MB mp3)

