



AICNCC Chair's Message

Bill Grist's Two-Year Term as AICNCC Chair Comes to an End

As my term as Chair of the Alliance of IEEE Consultants Networks Coordinating Committee (AICNCC) comes to an end, I just wanted say thank you and provide a brief reflection on these past two years. My thank you(s) go out to the IEEE-USA Board of Directors, my fellow AICNCC Committee members, and the local networks--for allowing me to serve you. I have continued the work set forth by my predecessor to lead the Committee to go out and meet consultants across the country. The Committee has accomplished this mission by partnering with local networks to hold one-day consultant workshops, in such places as New York City, Detroit and Minneapolis. In addition, AICN has helped start the "Consultants Exchange" in IEEE's Collabratec. Most recently, AICNCC held a joint meeting with the [Consultants Network of Silicon Valley](#), to learn from one another how to best serve IEEE independent consultants. It has been a pleasure serving as AICNCC Chair for the past two years. I plan to continue working on this committee, as it goes forward to continue serving IEEE independent consultants. ■

Renew Your IEEE Consultants Network Membership Premium Subscription Today!

For IEEE Consultants Network Membership Premium (i.e., IEEE-USA Consultants Database) subscribers you still have time to renew your subscriptions to this valuable asset. The main component of this subscription is being able to place your consultant profile in the [IEEE-USA Consultants Database](#). The profile provides you the opportunity for consultants to list their contact information, engineering expertise and keywords words, so potential clients can search and locate them. IEEE-USA does a lot to promote the value of this service to IEEE members; however, we also believe IEEE members should know its history--and some key statistics about this service.

The IEEE-USA Consultants Database evolved from what was the Directory of Electrotechnology & Information Technology Consultants. IEEE consultants had a profile listing their names, contact information and expertise in this very popular print directory. Member consultants have often relayed to IEEE-USA staff that members would carry this directory with them to initial client meeting, to show that they were a member of a larger society of independent consultants.

From that directory the IEEE-USA Alliance of IEEE Consultants Networks Coordinating Committee (AICNCC) moved to put this, successful product into an electronic format where clients could search for independent consultants via the web. To create an income stream, IEEE-USA charged IEEE members a minor fee to list their profile, in what we now call the IEEE-USA Consultants Database. IEEE-USA's annual charge is currently \$99.00 per subscriber.

IEEE-USA does a lot to market this product to IEEE members. Marketing to those that hire consultants does present a challenge. We've learned over time from our annual Consultants Fee Survey Report that about 58% of all consultant business comes from repeat clients. Another 24% of consultants get their clients through personal networking, or referrals from clients or friends. From this trend, we can see most clients look to people they know, as opposed to searching online, if they are in need of a consultant. IEEE-USA will always look for different ways to market this product, so subscribers can be exposed to clients in need of engineering consultants.

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Renew Your IEEE Consultants Network Membership Premium Subscription Today! (Continued from page 1)

The good news is that clients are definitely looking at subscriber profiles. When we upgraded the database a few years ago, we created a method where subscribers can see how many times their profiles has been viewed. We provide monthly data on how many times a subscriber's profile came up in a broad consultant search, and how

many times their profile has been viewed. We believe it's a great feature of this service.

With these new details about the IEEE-USA Consultants Database, we hope consultants are more ready than ever to subscribe to, or renew their [IEEE Consultants Network Membership Premium](#). Subscribe today! ■



For Members Only: Free February eBook Offers *Tips for Staying Sharp Inside Your Company*

Staying Sharp—Vol. 1: Tips for Staying Sharp Inside Your Company, provides more than a dozen proven strategies engineers can easily put to work on the job. In this award-winning IEEE-USA eBook, veteran engineering professional and educator, Harry T. Roman, shares his thoughts about how engineers can enhance and hone their non-technical skills for career success.

Volume 1 is filled with tips about mentoring, starting project teams, working with schools and continuing education, among many other topics. In one section,

Roman encourages readers to “do their R&D...a process that converts uncertainty into risk,” for many companies. But he recommends getting involved with it, explaining that if you know the risk associated with a technological path, you can make educated investments for the future.

Now through 15 March, IEEE members can get a free download of this eBook by going to: <http://shop.ieeeusa.org/usashop/product/careers/125999>. Log in with your IEEE Web account, add the book to your cart and use promo code **FEBFREE17** at checkout. ■

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](#). ■





War Stories #9: Can You Be an Expert Witness?

BY LARRY G. NELSON SR.

If you are a subject matter expert, you may want to look at doing expert witness work.

There are many opportunities for consultants to do expert witness work. The type of work most are familiar with involves working with legal professionals--as a subject matter expert. I have done this type of work; and in some cases, it can result in doing depositions--and even testimony, in court. Not all expert witness types of work involve testifying. In many cases, once you examine all the evidence, you can present a theory on what happened. Then, the lawyers go into settlement talks, often closing the case early.

Insurance Investigations

Insurance companies have sometimes retained me to examine damaged electronics--to determine repair strategies versus replacement. In some cases, equipment was old and no longer made. Such instances often resulted in evaluating alternatives. How can the problem be solved today, with currently available equipment, instead of repairing or replacing the custom-built equipment from 10 years ago.

In some cases, there were damage claims from equipment failures--and the insurance company needed to have an expert determine the root cause; then work with them to recover damages from the equipment manufacturer.

These types of cases can involve a wide variety of equipment needing a wide variety of expertise. I have taken on cases involving freezers, dehumidifiers, battery chargers, computers, fish-tank heaters, temperature controllers, coating machines, wheelchairs, church organs, and store displays--to name just a few. These cases can involve injuries, property damage, business losses, or a combination.

Some of these projects involve examining the damaged equipment, and providing a verbal or written report. These reports can result in a deposition, and sometimes result in litigation--resulting in working with lawyers and testifying in court.

Estimating Damages

In some instances, I have investigated equipment that was exposed to smoke or water in a fire. What can be repaired and what should be replaced? For older equipment, can it be replaced by current equipment? Or will that be more expensive than buying older equipment from surplus equipment dealers? I have even had some companies pile everything that was in the lab together--claiming it all needed to be replaced. In one case, they piled two cases of expensive thermal paper with everything else; but during my investigation, I found out they had discarded the thermal printer months earlier--when it failed--but never discarded the paper.

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Determining suitability of a design or implementation

In some cases a design is not suitable for use. It may be designed without sufficient margins, or not properly using the components to insure proper function. In some cases, the design may simply be poor. Sometimes, the results are unsafe...and should never be used.

In other cases, the design is adequate but the implementation is bad. I have seen cases of poor workmanship in the assembly of electronics boards that will result in failure of a product over time. For example, a power supply was not as labeled or presented--and not safe for use in the intended application. In addition, the

workmanship was so poor, that I found solder balls on the circuit board large enough to short between the IC pins. If this short took place, it could result in a fire, or an explosion.

I have also seen instances where the testing process will not insure the product was built properly, or is even functional. This failure often occurs in consumer products, where the testing is done only on samples of a lot of the product. While such testing can be an acceptable process, it must be implemented properly to be effective. Your manufacturing process needs to be consistent and repeatable, for sample testing to make any sense. ■

Formation of the Malaysia Section Consultants Network Affinity Group

The Alliance of IEEE Consultants Networks Coordinating Committee (AICNCC) congratulates Ramakrishna Kappagantu, and the IEEE Malaysia Section Consultants Network Affinity Group, on forming their network. This newest Consultants Network became official on 1 November 2016. If fellow consultants would like to give a personal welcome to this new network, please check the IEEE-USA Web site for the contact information. If other IEEE members would like to form a consultants network, the



IEEE-USA Web site also contains step-by-step instructions about how to start a formal network. We encourage new consultants networks to register as Affinity Groups. After a group forms a network, it can take advantage of IEEE's branding and resources, and also qualify for funding through IEEE Section rebates. If you don't see your consultants network's contact information listed on our Web site, contact Daryll Griffin at d.r.griffin@ieee.org. ■

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