



Chair's Corner: Where Do You Want to Go?



BY CHARLES J. LORD, P.E.

As we kick off the first quarter of 2024, it is a good time to assess our goals: for your consulting practice; in our Consultants Committee; and in IEEE-USA, as a whole. As your IEEE-USA Consultants Committee Chair, I have been busy this quarter with a number of activities to help promote your practice and your local consultants networks.

In January, I attended the [DesignCon](#) conference in Santa Clara, Calif., with 2024 IEEE President Tom Coughlin and Consultants Committee member, Mohammad Billoo. We hosted a consultants panel promoting local IEEE consultants networks and other services IEEE-USA provides to consultants. An appreciative audience received the presentation very well (the Q&A ran 20 minutes after the session was over)!

In February, I presented an online talk to the brand-new IEEE Egypt Section Consultants Network. Along with working on improvements to the [IEEE-USA Consultants Finder](#) (a bargain for now \$49.50 for the remainder of

[2024](#)), the IEEE-USA Consultants Committee is also working on an all-day workshop, tentatively scheduled for June in Charlotte, N.C (more info to come), as well as some continuing education workshops for the fall.

But enough about me — I want to hear from you! What are you and your local consultants networks planning for this year? How is the market in your area for your area(s) of expertise? The growth in so many sectors of our tech areas is phenomenal so far; and it looks like this year will be an excellent year for so many of us. What areas can we help you with? What types of workshops or classes would be of most benefit to you and your practice? Or what other services would you like to see to help you succeed? We are committed to your growth! And together we can make this year, and the years to come, the best yet!

As always, you can reach me at c.j.lord@ieee.org. Let's talk! ■



AROUND THE WEB

WHITE HOUSE TOUTS \$11 BILLION US SEMICONDUCTOR R&D PROGRAM

The White House is touting the U.S. Government's plan to spend \$11 billion on semiconductor-related research and development; and said it was launching the \$5 billion National Semiconductor Technology Center.

In August 2022, Congress approved the landmark *Chips and Science Act*. The law provides that \$52.7 billion, including \$39 billion in subsidies for semiconductor production, and \$11 billion for research and development. The Act also creates a 25% investment tax credit for building chip plants, estimated to be worth \$24 billion. Source: <https://www.reuters.com/technology/us-announces-over-5-bl-in-investments-semiconductor-related-research-development-2024-02-09/>

EU GIG WORKERS RULE FAILS AGAIN, AFTER INDUSTRY OPPOSES IT

Bloomberg reported that the European Union's years-long effort to regulate workers' rights in the gig economy faced a member countries' key vote in early February, that could derail legislation many in the industry oppose. The European Union has been seeking to define the employment status of millions of people who get work from online platforms, an issue businesses and unions battle (and have battled) in courts around the world. The gig economy can include food delivery workers, taxi drivers, cleaners and freelancers. *Reuters* later reported the [vote failed](#) — after France and three other countries abstained from voting on the political deal. Failure to pass the bill will likely set this effort back years.

BECOMING AN INDEPENDENT ENGINEERING CONSULTANT

In this *IEEE-USA Consultants Newsletter*, we've published [many stories](#) about starting your consultant practice. In addition, IEEE-USA's Consultants Committee has hosted and offered [numerous webinars](#) to help educate newcomers to independent consulting. However, we're always looking for new sources of information to assist consultants, especially newcomers to the field. The Consultants Committee has recently come across, "[Field Engineer](#)," a website with some well-written articles geared toward independent consulting beginners. Check out its article, "[Best Engineering Consultants Jobs at a Glance](#)," for a succinct overview on being an engineering consultant.

FROM THE INSTITUTE

IEEE offers free PDH certificates to sponsored webinar attendees, as credits for Personal Development Hours:

[Enabling Next Level of Autonomous Driving With Advanced Object Generation](#)

[High-Performance Data Acquisition for DFOS](#) (Insightful webinar on high-speed data acquisition, in the context of Distributed Fiber Optic Sensing)

[Multiphysics Modeling of Electrical Motors](#) (Attend this webinar to learn how multiphysics modeling and simulation can be used in the design and development of electrical motors)

Remember to attend some of the upcoming [IEEE-USA Webinars](#). Register today for our next webinar on 20 March, [Blockchain Technology](#).



ADD YOUR OPINION ON JOINING A CONSULTANT FIRM OR BECOMING AN INDEPENDENT CONSULTANT

LinkedIn has an online article where you can contribute your opinion to colleagues — to help them determine if they should pursue a career as an independent consultant. The article, “[What are the pros and cons of being an independent consultant?](#)” Is broken down into six items:

- Independent Consulting
- Consulting Firm
- Factors to Consider
- Pros and Cons Summary
- How to Choose
- Here’s what else to consider

In addition to the short description of each of the topics, the meat of the articles are the comments consultants provide — both independent and firm based. The

story provides interesting commentary from both perspectives. [Check it out!](#)

UPWORK DOES A STUDY ON GENERATIVE AI’S IMPACT ON WORK

Over the course of 2023, [Upwork](#) looked at its own platform data, to determine the causal impact of generative AI on freelancers’ work opportunities and earnings. They outline three basic conclusions from the study worth examining. Check out “[Study on Generative AI’s Impact on Work.](#)”

FINAL INDEPENDENT CONTRACTOR RULE RELEASED BY DOL

On 10 January, the U.S. Department of Labor released the [final rule](#) on *Employee or Independent Contractor Classification Under the Fair Labor Standards Act*. The Labor Department has said that the rule is designed to clarify the standard for determining worker classification, and crack down on low-paying industries (where misclassification is common), including construction, healthcare, retail sales and security and janitorial services. You can follow this [link](#) for a full summary of

the rule. The new *Final Rule* went into effect on 11 March. However, the rule is facing [some legal challenges](#). IEEE-USA has done an initial analysis and determined that this final rule will have little to no impact on technical independent consultants. The rule is geared more toward Uber drivers, and similar professions. IEEE-USA will keep you posted, if any further developments arise, regarding this issue. ■

YOUR PROFESSIONAL LIABILITY RISK MANAGEMENT REFRESHER

BY COLLEEN M. PALMER, ESQ. - THE BEAZLEY GROUP

It's time to get your risk management house in order; and ensure your firm is embracing sound risk management practices. With that in mind, we offer some key tips to help you manage risk on projects.

Stress the importance of risk management in your firm culture: Successful engineering firms that consistently have superior claims history, as compared to their peers, have robust risk management programs all employees embrace. An effective program is embedded into corporate culture, emphasizing risk management as a priority. Successful firms are not necessarily completely risk averse, but they carefully assess the risk vs. reward balance for each project and client.

Evaluate clients and projects carefully: Despite the excitement and potential fee associated with a new project, it is critical to objectively assess the client and project. Some project types and some clients are inherently risky or difficult. Use a formalized “go/no-go” process to evaluate the potential risk and reward for each project.

Assure your firm is prepared: Before you proceed with any project, confirm you have the proper skill set and necessary workforce. If your staff is stretched too thin to devote the appropriate resources; or if inexperienced staff takes on services without the necessary knowledge and experience, problems may arise. Insufficient time to dedicate to a project and/or lack of knowledge increases the chance of technical errors; in turn, increasing the chance of claims. If you anticipate the need to retain consultants, discuss the plan with your client — and ensure your contract allows you to retain them, as necessary.

State your scope of services with detail and clarity: Your scope of services should be well defined; clearly detailing what services constitute basic, additional,

and (to the extent known), excluded services. Do not incorporate the client's request for proposal, or your proposal, to avoid the possibility of conflicting language that might lead to disagreement, regarding your required scope.

Offer and seek mentoring opportunities: Have a formalized process to ensure junior staff receive guidance from senior practitioners. Mentoring reinforces firm processes and culture, helping new professionals develop the “soft skills” necessary to communicate with clients and construction team members.

Negotiate your contract: Have a written, executed agreement prior to performing services on every project. In addition to defining the parties' responsibilities and rights, the negotiation process lets you assess and manage the client's expectations, and educate the client regarding your customary role and value of services.

Give news to the client timely: Keep the client informed about the project's progress; and at a minimum, comply with contractual obligations to provide status reports. If you must deliver a disappointing update, offer recommendations and discuss client concerns. Armed with a possible solution, a proactive engineering technologist can help avoid client disappointment, and manage client expectations going forward.

Establish and follow a document retention policy: Have a formal, written policy that addresses how long to keep each type of document, including electronic documents. A well-documented project file may help avoid claims, and provide legal defenses, in the event of a claim situation. Generally, documents not kept permanently should be retained for the longer period of 10 years after substantial project completion, or the applicable Statute of Repose, or any longer period specified in your professional services agreement.

Examine your insurance policy: Have the types and limits of insurance required by law, and your professional services agreement. Pay careful attention to how long your contract requires you to maintain the policies; and if you are required to maintain the full limits of insurance, even if a claim impacts the amount of insurance available. Professional liability insurance is a depleting limits policy; therefore, if a claim unrelated to the project diminishes the available insurance, but your contract requires you to maintain full limits, you would be required to purchase additional insurance to satisfy your contract. Require any consultants you retain to have appropriate insurance policies in place, including professional liability insurance.

Trust your instincts: Far too often, design professionals involved in a claim “knew they shouldn’t have taken the project,” but they decided to proceed despite their reservations. Don’t ignore your instincts: if your research of a potential project or client gives you a bad “gut feeling,” carefully consider whether to proceed, or walk away. If you take the project, ensure your contract is appropriately negotiated with protections (such as limitation of liability, and waiver of consequential damages, provisions) and that you vigorously document the project.

Investigate your jurisdiction: Understand the jurisdictions in which you practice, since states vary as to how they treat various contract provisions (e.g., the enforceability of limitation of liability provisions and indemnity obligations). In addition to contractual issues, the location may present unique issues with respect to sub-surface conditions or climate that may be regulated by applicable codes and regulations — of which you must be aware.

Never admit liability to your client: Even if it’s obvious you made a mistake on a project, do not admit liability. Mistakes do not necessarily equate to legal liability,

and admissions may resurface in litigation, as evidence against you. Under common law (and hopefully in an appropriately drafted standard of care provision in your contract), you are required only to perform in a manner consistent with the generally accepted professional standard of care ordinarily exercised by reasonably prudent professionals. Since you are not required to perform perfectly, the existence of an error or omission in your services does not necessarily mean you breached the standard of care. Rather than conceding liability, tell the client you will investigate the issue; report the matter to the appropriate person in your firm; and contact your professional liability insurance broker to develop a plan to handle the matter further.

Stay out of jobsite safety issues: Engineering technologists are not responsible for jobsite safety; should delete any contract language suggesting otherwise; and add language explicitly disclaiming responsibility for jobsite safety programs and precautions, since such responsibility lies solely with the contractor. If you see an obvious and dangerous condition that threatens life safety, alert the person in charge of the jobsite of the condition; but stick to the facts, and do not provide any recommendation regarding remedying the condition. Follow up with written communication reporting your observation, but do not make any recommendations and do not check to see if the condition has been corrected.

IEEE consulting members, and those considering the opportunity to become self-employed; or even those considering undertaking a single consulting project, should learn more about their exposure to risk and ways to mitigate exposures with contracts and insurance, in addition to prudent business practices. The [IEEE Risk Management Hub](#) has resources for your reference. Information about professional liability insurance, and related policies — as well as the online application for coverage are at [IEEEinsurance.com](#). ■