



T&S Division Newsletter

Gene Fricks, Editor

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Chair's Message

It's a new year, and we are already rolling on some projects. Here is an overview of the Technology & Society Division. Because I have a papal name, I will start in a somewhat catechismal and formal style, and then quickly degenerate to the practical. Here goes.

Why are we here? The Technology & Society Division is here to connect your technical background to the fabric of our society and create a better world for us all. In other words, our charter is to save the free world while maintaining a sense of humor and sanity.

How can we do that? We can't. Not exactly or as fully as we would like. But there is a lot that we are doing and that we can do with the ideas and enthusiasm we have.

What can we do for you? We can help you take your skills as an engineer and use them more effectively in the worlds of business, law, politics, family, and leisure.

Anything specific and practical? We continue to present programs on a wide variety of practical subjects, for example: how to protect your ideas and make money with patents; how to avoid product liability and infringement issues; how to license technology; and how to use your engineering training and experience to take on new challenges by serving as experts in legal disputes. We connect up with other professional associations and share ideas. We look at ethical issues. And more.

"What about improving my current job?" you ask. We can help bring your issues to the attention of the right people. For example, we are working to develop a series of programs for top managers of technology companies to provide them with information they can use, to get them more involved in ASME, and to make them more attuned to the needs of their engineers. We also plan to provide them with networking opportunities so they can share and develop ideas on how to make your job better for you and your company.

We need to hear from you. Let us know how we can help you. What are your big issues as an engineer in today's society? What do you need most? More time? More collegiality? More money? More fun? More opportunities? More diversity? More freedom? More education? More involvement in decision-making? More credit for your ideas?

Get involved in some small way! Come to a meeting. Bring a friend. Add some ideas. And some humor. Send your ideas by fax to John Paul at (202) 408-4400. I look forward to receiving them. And take the rest of the day off. You've earned it.

John C. Paul

ASME → ASME International → ?

How many of our 125,000+ worldwide members noticed that the venerable name of the American Society of Mechanical Engineers was changed to ASME International in 1994? What hath this change wrought? Has it made a difference?

To a chapter within the United States, it meant a change in letterhead. In newly formed Region XIII, consisting of all the associated entities outside the United States, it meant belonging to a prestigious society of mechanical engineers. This inclusion in the engineering profession can bring great respect and honor.

Name recognition is important in creating a stable identity. Yet, in my opinion, we cannot be completely described by a static label. Since 1994 I have wondered whether we might someday become the International Society of Mechanical Engineers (or a similar name) as our membership grows even more diversified and international.

In the meantime, ASME International can be very proud of the world-class leadership we have shown in creating the ASMEnet and our award-winning web site. These new tools will help disseminate technical information throughout the world. With the new millennium before us, it will be exciting for us to observe the changes in our profession and to continue shaping our responses to them.

Gene Fricks

Society for Technology and Technology for Society

Editor's Note: Mehdi Farzpourmachiani, an engineer who lives and works in Iran, recently sent us his thoughts on the subject of international technical cooperation. An excerpt is presented here in the hope of stimulating discussion.

To better understand the relationship between technology and society, we can divide the principles of cooperation into two categories: Society for Technology and Technology for Society.

Society for Technology involves promoting the absorption of technology into a culture. One way to do this is to establish specialized research centers and branches of production throughout the world. Then, to manufacture a gearbox, for example, we can benefit from specialized design and analyses of gears in country A; manufacturing in country B; test, analysis, manufacturing, and production in country C; and assembly in country D. An important advantage of this approach is that different societies adopt the same way of obtaining a certain technology, and this similarity becomes a turning point for the formation of "technological commonwealth communities."

In the case of production, such communities are almost always successful and are always waiting for a new discovery or invention, which may occur anywhere in the world. These communities conduct their work independently. If one member leaves the group or a new member joins, these communities face minimal difficulties in adjusting their operations.

For the research and development organizations that try to make the new discoveries, success may be more difficult to achieve, but forming a technological community can reduce the risks and costs associated with development. Such a community fosters sufficient financial support to carry on the work and allow the exchange of scientific materials, while preserving the interests of each of the international partners. In the case of failures, the international community can support the survival of a research group.

One way to recognize the accomplishments of technology students and workers throughout the world would involve organizing international "Olympiads." These would assess the work of the most successful engineers each year across the world. Recognition could be given by awarding an international prize for technology, analogous to the Nobel Prize.

When considering Technology for Society, we observe that engineers, the

creators of technology, are among those who work to improve the well-being and comfort of humans. This important work extends beyond national borders. If engineers in an aircraft manufacturing company develop a new technology that significantly enhances public safety, this necessary technology should be promptly promoted throughout the world. Other aircraft manufacturing companies should be persuaded to apply this kind of technology in manufacturing their products, raising world standards.

One of the most discussed issues among young engineers and students in developing countries is how to present their work in updated scientific language. Lacking familiarity with updated scientific language, they must engage translators, who may not adequately convey the main idea of the research. This can lead to a delay in presentation of a great work or the presentation of an incomprehensible text. With the development of the Internet, engineers in developing countries can introduce their work in their own scientific language throughout the world with confidence.

*Mehdi Farzpourmachiani
Rasht, Iran*

Want a Permanent E-Mail Address? You Already Have One on ASME.net!

Did you know that all members of ASME have a permanent e-mail address? Many of you are already participating in discussion groups and interacting with the ASME web site www.asme.org. As a member of the ASME.net committee, where I represent the Technology & Society Division and the Council on Engineering, I certainly hope that you like the set-up. Please send any comments or suggestions to the webmaster's address on the web site. We appreciate your input.

Why should you register your address? Doing so will give you a permanent e-mail address. Then, no matter how many times your work or home address changes, your correspondents can maintain contact with you electronically.

Here's how it works. Access ASME.net and scan the opening screen until you find the e-mail registration box. When you click on it, a second-tier screen will appear and ask you to fill in some information. Using your ASME member ID number should cause all the current information from the latest dues statement to appear. At this point, you can correct any information. Your corrections

will be forwarded to the membership record database to update previous information.

Once you have registered, you will be given your permanent e-mail address, which consists of your last name and first initial followed by @asme.org (for example, inglek@asme.org).

ASME charges no fees for registering or accessing your permanent e-mail address, and does not assess an Internet service provider (ISP) charge. Of course, you must have an electronic account somewhere to receive any messages. Your ASME address is an e-mail alias only. Anytime that you alter your true address, you can edit your input while keeping the same e-mail address in the outside world. ASME.net has no storage capacity, only a permanent forwarding address.

Every Technology & Society Division member should take advantage of this membership benefit. You need never lose e-mail while changing your address. E-mail opens up lines of communication we never had before, and there is still so much to learn.

Katheryn A. Ingle, P.E.

Technology & Society Division Organizes Sessions for IMECE

The Technology & Society Division will sponsor four panel discussions of interest to attendees of the 1998 International Mechanical Engineering Congress and Exposition. The IMECE will be held November 29 to December 2 in Anaheim, Calif.

"Protecting Inventions with Patents" (T&S-1, Tuesday, December 1, 9:30-11 a.m.) will discuss how to cope with the unique issues that arise from development of technologies in a university, including questions of ownership, licensing, and arrangements for collaboration and transfer of technology rights to industry. The panel will be chaired by Technology & Society Division Chair J.C. Paul, and panelists will include R. Burns and J. Schwartz of the firm Finnegan, Henderson. Shortly after this session, the same chair and panel will consider "Developing, Protecting, and Transferring Technology Rights at Universities" (T&S-2, Tuesday, December 1, 11:15-12:30 p.m.). This session will deal with how best to prevent your rights from being lost and to avoid infringing other patents.

"Electric Utility Deregulation: State, Federal, and Industry Perspectives," (T&S-3, Tuesday, December 1, 2:00-3:30

p.m.), will be chaired by K.A. Ingle and will include panelists F. Kreith of the University of Colorado at Boulder, and B. Walter.

The role of engineers in the public policy-making process will be discussed in "Engineering and Public Policy" (T&S-4, Tuesday, December 1, 3:45-5:15 p.m.). Chaired by K.A. Ingle, this panel will include J. Ahlen; J. Madison; and M. Reischman of the University of South Carolina.

Gene Fricks

Should A State P.E. Board Enter an *Amicus Curiae* Brief in a Wrongful Discharge Case?

Note: The following is an edited excerpt of an article written for an IEEE Member Forum by Walter L. Elden, P.E. (retired). Elden is an IEEE Life Senior Member and serves on the IEEE Member Conduct and Ethics Committees. He can be reached by e-mail at w.elden@ieee.org. The views expressed in IEEE-USA's Member Forum are those of the author and not necessarily those of the IEEE-USA, its committees, volunteers, or staff.

For nearly 20 years IEEE has had a policy of offering ethical support and providing an *amicus curiae* brief when an engineer has brought suit against an employer for alleged wrongful discharge when termination has resulted from the engineer's engaging in actions aimed at protecting the public from the improper application of engineering design or technology. In January 1975, IEEE entered its first and only *amicus curiae* brief, in a wrongful discharge ethics matter, in the Bay Area Rapid Transit (BART) case. This involved three IEEE engineers who brought suit against the BART District for their wrongful discharge for actions they took to protect the public in matters of engineering design of the automated train control system.

Essentially, the IEEE legal brief made these statements of law to the court, in this case:

In any charge to the jury herein, this court should instruct the jury that if it finds, based upon the evidence, that an engineer has been discharged solely or in substantial part because of his bona fide efforts to conform to recognized ethics of his profession involving his duty to protect the public safety, then such discharge was in breach of an implied term of his contract of employment.

The IEEE brief said that not only should this apply to public employment bodies, but to private employers too.

WHAT ABOUT NATIONAL/STATE P.E. LICENSING BOARDS?

What are the policy and history of national and state P.E. licensing boards in cases similar to the BART case? I recently conducted a survey of all state P.E. boards in the United States that had e-mail addresses listed for them, asking if they had ever had been requested to or actually did enter an *amicus curiae* in alleged wrongful discharge cases involving licensed P.E.s. Many replies were received from these contacted P.E. boards. Of those who responded, not one had ever entered an *amicus curiae* in such cases. Several contacted their state attorney general's office to find out the answer to this question.

One reply was of particular interest to me. The P.E. board official said that it was not the purpose of the state P.E. board to protect the P.E. but rather to protect the public, and therefore, the board did not deem it appropriate to enter an *amicus curiae* in such cases brought by the P.E. licensed by the board.

After giving this considerable thought, I responded with the following argument: The state P.E. board licenses an engineer as a P.E. to protect the public. The P.E. is held legally accountable to know the P.E. law, its Code of Professional Conduct, and to practice in accordance with that code, to protect the public. Further, if the P.E.'s actions happen to conflict with the P.E. law or its Code of Professional Conduct, the state may bring charges against the P.E. and discipline him or her. This is done for the sole purpose of protecting the public from the improper practice of engineering. Now, when a P.E. is terminated from employment for practicing in accordance with his or her state P.E. law or Code of Professional Conduct, and brings suit against the former employer, the state P.E. board should enter an *amicus curiae* legal brief in this case to advise the court that such actions of the P.E. as alleged, if provable, were done for the purpose of protecting the public and as such, the proper and ethical practice of engineering by a P.E. should be afforded the protection of the law. The reasoning here is that by protecting the proper practice of engineering by a licensed P.E., this action would result directly in the state P.E. board and the court acting to protecting the public. It is true that by taking such protective actions, the court and the P.E. board may benefit the P.E. in a favorable outcome of his or her suit. But this would not be the primary reason for the P.E. board or the

court to take such action. After conveying this argument to the state P.E. board official, I have not, as yet, received a reply.

CONCLUSION

While the IEEE has had for nearly 20 years a policy to enter an *amicus curiae* in alleged wrongful discharge cases, the current practice of state P.E. licensing boards in the United States appears not to be the same. National and state P.E. licensing boards ought to rethink their practice in this area and move towards a more proactive position of applying legal protections to the practice of engineering, thus achieving the sole purpose for such regulatory boards, that being to protect the public.

Walter L. Elden, P.E.

The 1998 International Mechanical Engineering Congress & Exposition detailed program is now available on the ASME web page at <http://www.asme.org/conf>. The file is a PDF and should be downloaded and printed. If you are unable to download, please contact June Leach-Barnaby, Meetings Manager, T. 212-591-7795, F. 212-591-7856, email: leachj@asme.org.

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