

The Black Belt in Engineering

By David W. Hillery, P.E.

When a person trains in martial arts long enough and acquires sufficient skill, he receives a black belt to wear with his uniform. Once he obtains this belt, he does not declare that he *has* a black belt; he does not claim that he *owns* the black belt, nor even that he *wears* the black belt. What he says is that he *is* a black belt. The training that earned him the new belt color has changed his entire identity, and symbolizes much more than just a reward or medal of achievement in the martial arts.

Engineers should be the same. We do not merely *act as* Engineers only during the times when we are working on a project or only in the office; but the title of Engineer remains with us on the weekend at home, and in bowling alleys, restaurants and churches as well. We have had our very identities changed by the training that we have received, and we do not want to separate ourselves from the title that we use: *Engineer* with a capital E.

I might state the fact that I am an Engineer upon meeting another person for the first time. Most of us consider this line of work as something to be proud of, and something that defines our very being and purpose. The title *Engineer* is a role that defines us just as the color of the belt defines the martial artist.

I agree with Richard G. Weingardt, P.E., who has written at least eight books and numerous articles for STRUCTURE® magazine, about Engineers doing non-engineering things to promote our profession to non-engineers. He inspired me to believe that if I accomplish something like earning a black belt in martial arts or writing a novel – more on that in a moment – I should tell people that I have done so, and make sure that they know that I am an Engineer. I should strive to call attention to the fact that Engineers make a difference; if I am asked to speak to any audience, even for a non-engineering reason, they ought to know that I am an Engineer. By doing so, I can enhance their knowledge and change the way they define the role of an Engineer in their own minds. I can, and should, make a difference to them, as a way of promoting my profession. It will help all

of us if I am successful in other areas of life besides Engineering.

Not only am I a 5th degree black belt in Taekwon-Do, I have also recently published a science fiction novel called *The First Degree*. It is the story of an Engineer who is a student of Taekwon-Do, and who has some surprising adventures involving space and time travel, alien life forms, deadly weapons, amazing computer technology, and interesting characters doing interesting things. Of course, in order for me to be successful as a new author, my publisher must sell enough books to make money; and the more copies we sell, the more success I will have in promoting what we as Engineers do. Becoming a successful Author, with a capital A, will provide me with more opportunities to speak to audiences who will listen as I tell them about what we do as Engineers. I can tell stories and explain things in a way that they might enjoy, as they learn to understand better who we Engineers really are. I want to make them more *aware* of us, just as Mr. Weingardt has suggested.

I will probably never get called by a reporter about the fact that I am an Engineer. However, now that I have written a novel, someone at a newspaper or television station might want to interview me. Then, when I mention that I am also a black belt in martial arts, that will probably find its way into the story as an entertaining bonus for the audience. I know that in such an interview, I will also mention that I am an Engineer and present this fact in a way that will be perceived as a bonus as well. Perhaps I will tell the audience something that they did not know about bridges or buildings. This exposure of the world of engineering would be possible because I had accomplished something supposedly unrelated to engineering.

What opportunities do *you* have to connect your hobbies, interests, and non-professional accomplishments to engineering? It could be said that writing fiction, doing martial



arts and inspecting bridges are all separate and unrelated activities, but I beg to differ – because I am an Engineer who does all three of these, they are inter-related as far as I am concerned. I encourage all Engineers to try, when you assemble with non-engineers, to let the audience know that your identity includes engineering as well as the activities that brought you together.

Finally, we need to be more interesting. I love to hear about Engineers standing in front of an audience, or writing articles or books that get read by many people, and effectively communicating about engineering subjects in a way that truly interests the audience. Maybe you can become such a person yourself. Too often, brilliant Engineers are lacking in presentation and communication skills, as smart as we may be in our various fields of expertise. The audience may get bored if we fail to entertain. I think that we *should* strive to find ways to entertain people and, in the process, make sure that they know that we are Engineers.■

David W. Hillery, P.E. (david.hillery@gmail.com) is a structural engineer with Jacobs in Houston, Texas. His book, The First Degree, is available online at www.DorranceBookstore.com.

Structural Forum is intended to stimulate thoughtful dialogue and debate among structural engineers and other participants in the design and construction process. Any opinions expressed in Structural Forum are those of the author(s) and do not necessarily reflect the views of NCSEA, CASE, SEI, C³ Ink, or the STRUCTURE® magazine Editorial Board.