

## ENGINEERS

## Would You Let Your Kid Marry One?

by Jerry Woodall

use advanced mathematical techniques/computer modeling in our research and teaching? Of course we do. None of these issues are at the core of the problem. Rather, it is more like the relationship between Salieri and Mozart as portrayed in the movie, *Amadeus*.

As was the situation between Salieri and Mozart, our humanities and even some science colleagues are jealous of what we

shut down the engineering program it was they who arose to our defense and save our jobs. Well, whoop-de-do! If they were so all-fired benevolent, how come they did not re-establish our independence while they were at it? Simple. If they must have an engineering program, it is obviously best run

by those who know best — the humanities, units, including lawyers and economists.

And so the beat goes on. They run the show and we engineering professors scurry around like the Impossible Mission Force\* trying to maintain professional worth and dignity. Is there no common ground that will appease them and satisfy us? I think there is.

I have a plan whose goal is to make everyone happy. In a nutshell, we make our engineering program the location and partner of a real engineering or technology institution.

For example, when someone who is interested in

both engineering and the humanities applies to my place, and also at the famous institute, say, on the Charles River in Cambridge, we could offer them a joint degree from both places. I would suggest that the student spend two years at my place to bathe in the humanities and take some introductory science and engineering courses, then spend the last two years at the Institute to become a B.S. engineering jock.

Talk about being a whole person. Can you imagine how potent this kind of "humangeering" grad would be? This person would be able to read, write and speak the King's English with ease and grace, and also be able to use Green's Functions on demand. These folks, if they so desired, could be practicing engineers for the first part of their careers and then move into positions where they

\* The Impossible Mission Force (IMF) was the group of agents who were secretly assigned to carry covert government activities deemed too risky from an overt political point of view. Fictitious stories of their exploits formed the basis of the TV series and subsequent movies known as *Mission: Impossible*.

I'm on a mission. As some of you might already know, I am currently a professor in the EE department of a very prestigious Ivy League university.

That is to say, I am an engineering academician less than optimally employed. So what? Well, I have discovered that even though my institution publicly affirms that engineering is needed here, they refuse to embrace the engineering faculty as professionally and socially equal members of the community. They won't even let the engineering faculty have their own school, let alone a college of engineering. Therefore, we really cannot manage our own affairs.

Again, so what? Being able to control one's organizational destiny is, in fact, a big deal. Just ask any engineering faculty member or administrator at say, a Big Ten university. If you asked them if they would feel comfortable if, say, the humanities unit were in charge of their destiny, their collective and deafening reply would be, "Hell no." And why? Because the engineering and humanities cultures are different. For example, suppose my administratively responsible Dean was a history professor and that I needed his or her support to increase institutional support of the semiconductor device processing infrastructure. I am quite certain that the first response would not be, "Sure. Tell me what you need. Will \$10 million be enough?"

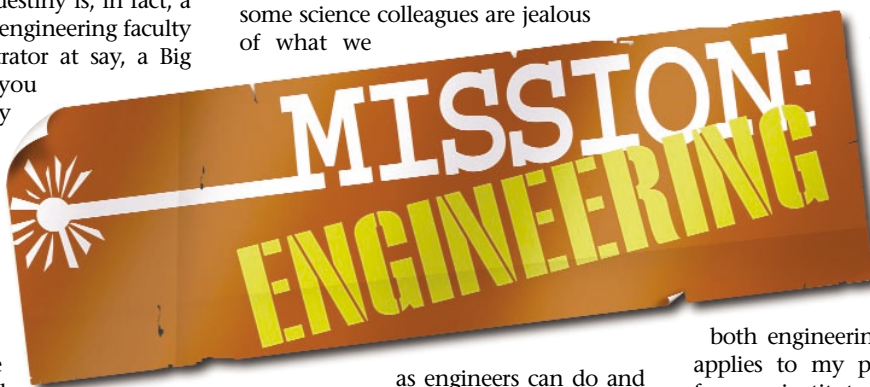
This is not a hypothetical issue. Currently, the very top level and most powerful administrators at most, if not all, top Ivy schools are neither scientists nor engineers. The result is that the engineering faculty is relegated to second or even third class status both professionally and socially. Hence, most, but not all, of my colleagues are either bitter or emotionally distressed by this situation; but oddly, not to the point where they would unite and throw the bums out.

So, what is so socially and professionally unacceptable about engineering professors at the Ivies? Do we not bathe? Do we not seek and enjoy the good life? Are not we socially compatible? Do we not

as engineers can do and have so visibly done for society. And then they unreasonably worry that their relative value to society is not as great, even though society and the various media have continuously re-affirmed the notion that a broad based education is the key to the future welfare of our country.

So, like Salieri, they neurotically seek positions of power so they can control what we little Mozarts can and cannot do. And boy, do they do it well, especially at most of the Ivies. So, my question is why cannot governance boards of the Ivies do what state universities have already done so successfully — appoint presidents who are or were practicing engineering academicians?

Here again, it's a matter of power, power to control what looks like a threat to the history and status quo of the institution. But just try to confront your colleagues in the humanities units about this issue. They will vigorously and vociferously deny any conspiracy to keep us in our place. Why, at my place they will smugly point out that when one of its recent presidents tried to completely



could skillfully and knowledgeably manage technology! Wow! It doesn't get any better than this.

And what's in it for the Ivy engineering professors? They would be gratified being able to teach the best and brightest undergraduate engineering students on the planet. Why would my place and the Institute want to do this jointly? There are at least two simple reasons. First, this program would not threaten my peers in the humanities units and would certainly not threaten my colleagues at the Institute. Second, both my place and the Institute would jointly solve an important on-going curriculum issue — how to provide a broad academic experience for their undergraduate students. By having a joint program, my place would have a

world class virtual engineering school and the Institute would have a world class virtual humanities school without having to have a real world class one in their own institutions!

So, everyone wins! In the meantime we hang tough and do good things. ■

#### About the Author

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