

Update Shows Increasing Number of Women in Control

Thanks to all of you for the response to our last article (February 1995 issue). We had a good meeting in Orlando. Let me update what is going on with "Women in Control." Most of the women who attended the meeting were new to me. I promised last time that we would investigate whether the number of women in control is correct. An update follows.

Molly Shor has been compiling a list, and we now have 117 women's names! Of course, not all of them work in or study control (though many work or study in related areas), but all would like to exchange information of interest. This list includes women from around the world who work in academia or industry, though most are graduate students.

Our numbers indicate there are six or seven tenured faculty in the United States, among them two or three full professors, but that has changed. Since writing the first article, I have learned there have been some promotions, so now nine or 10 tenured faculty have been identified. Among them, four or five are full professors. (The reason my number is not exact is that I am aware of two more full professors who are not yet identified as women in control, but who work in related areas.)

Let me share an interesting observation. These full professors working in control are faculty members in mathematics departments! Being a mathematician by education and a member of the Association of Women in Mathematics, I know that you can meet some women faculty holding some of the highest ranks in mathematics departments. We know that the number of women in control is low, especially at top universities in the United

States, but women in control are not easily found in departments of engineering.

As a woman in the area of control, let me share my experience with you. When I came to this country 11 years ago and visited MIT and the University of California-Berkeley, I asked, "How many women faculty in control do you have?" I was very surprised that I hadn't seen any. That's because the number was zero at that time.

When I organized the 1991 Kansas Workshop on "Stochastic Theory-Adaptive Control," I wanted to invite some women. I looked desperately for established women in stochastic control, but I was not lucky. I invited three determined women. When my chairman opened the conference of about 100 participants, he was concerned about Affirmative Action's reaction. He asked desperately, "Where are the women?" He thought I had discriminated against them. He learned that there are not many women at higher levels of the control area. I hope to get permission from those four or five women to write about their difficult career experiences. I believe that sharing difficult experiences can only affect others in a positive way.

We need to be recognized, appreciated, and promoted like everyone else. I strongly believe that what we need is to be aware of our ability, and do the things that make us feel good about ourselves.

Thanks go to Kishan Baheti and Jack Lagnese for the NSF's support of women in control, and to Mike Masten for his letter to Linda Bushnell about her outstanding session at the last CDC (see the article by Linda in the June 1995 issue).

Thanks also go to John Baillieul and Michael Peshkin for their letters complimenting our work as associate editors. Thanks to Eduardo Sontag for producing outstanding female control Ph.D. students, and for passing on his enthusiasm for control. Thanks also to Pravin Varaiya for making me "keep fighting." It is impossible to mention everyone who has taken time to remember us. Most of you are very supportive, and we need your continued support.

Our hope lies among those of you working as control engineers (even for those of us who are in mathematics departments). As you know, control theory is the wave of the future, so let us do all those small things to support and encourage good female students and young faculty to continue their work in this area. Let us pass our enthusiasm on to them. I was pleased to see women from Italy at our Orlando meeting who are full professors. If you can identify others working in engineering departments, let me know.

I would like to express my appreciation to Herbert Rauch and the Board of Governors for initiating this movement. At the end of our first year, we have seen that it is very important for us and for the whole Society.

Next time, following my sabbatical in Europe, I will share my observations about "Women in Control" around the world.

*Bozenna Pasik-Duncan
University of Kansas
bozenna@kuhub.cc.ukans.edu*