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1. Editor's Note

Dear colleagues,

This newsletter summarizes recent contributions I have received. The goal of this newsletter is to integrate more and more women in control theory/applications development and to keep everybody posted on events, so if you come across interesting articles, useful information on web, that you think might be useful for our community, please feel free to contribute. As well please don't forget about job openings in your schools, companies, new books, journals, software releases, conferences, workshops, etc. Just drop me a line following my references below:

Naira Hovakimyan, Ph.D. Associate Professor Department of Aerospace and Ocean Engineering Virginia Polytechnic Institute and State University 215 Randolph Hall Blacksburg, VA 24061-0203 e-mail: nhovakim@vt.edu Phone: (540) 231 7989 office, Fax: (540) 231 9632 2. CDC03 Women in Control meeting, contributed by WiC Chair Annamaria Perdon

Dear colleagues,

HAPPY NEW YEAR to YOU and YOUR FAMILY!

The CDC03 Women in Control Luncheon was held Wednesday, December 10, at the Spats Trattoria, Hyatt Regency, Maui, during the First NSF Workshop for Women in Control: After Graduation: Women in Control Taking a Leadership Role, organized by Bozenna Pasik-Duncan, 2003 CDC VP of Control Education Activities. It has been a big success and very memorable event. Cheryl Schrader ,2003 CSS President, Kishan Baheti, Program Director and Frank Lewis, 2003 CDC General Chair welcomed the partecipants. Several important issues concerning the Challenges, Opportunities and Rewards for women in Academics from the point of view of Deans or Chairs of Departments have been discussed by John Baillieul (Chair, Department of Aerospace and Mechanical Engineering, Boston, Chris Byrnes (Dean, Engineering School and Applied Science, Washington University, St. Louis), Peter Crouch (Dean, Ira A. Fulton School of Engineering, Arizona State University), Pramod Khargonekar (Dean, Engineering School, University of Florida), Belinda King (Chair, Department of Mechanical Engineering, Oregon State University) and Cheryl Schrader (Dean, College of Engineering, Boise State University). Anuradha Annaswamy (MIT), Lucy Pao (University of Colorado at Boulder), Jing Sun (University of Michigan), Dawn Tilbury (University of Michigan) and myself have discussed their experience from faculty perspectives in a panel chaired by Molly Shor. The attendance was large and the room barely sufficient (more then 40 people!!), in particular when other collegues joined for the lunch or passed by and could not be the whole time with us, since they were attending other sessions. Much more on the Workshop will be written by Bozenna and/or Molly.

a) New mailing list coordinator: Laurie Ricker, Department of Mathematics & Computer Science, Mount Allison University, Sackville, NB Canada will take care of our mailing list. Thanks to Dawn Tilbury that hold this position since 1995.

Welcome Laurie!

Short Vitae: Laurie Ricker finished her Ph.D. in 1999 under the supervision of Karen Rudie. After post-doctoral studies in France and the Netherlands, she accepted a position at Mount Allison University (located in a tiny town on the east coast of Canada) in the Department of Mathematics and Computer Science, where she has been an Assistant Professor since January 2001.

b) Things to celebrate:

Elena Valcher has been elected to the Control Systems Society Board of Governors for the period January 1, 2004, through December 31, 2006. Congratulations Elena!

Jing Sun has been nominated IEEE FELLOW.

• Sophir Tarbouriech has been nominated AE of the IEEE Transactions on Automatic Control. Congratulations Sophie!

c) There will be a special session on the interview process: Winning that academic job(tentative title organized by Karlene Hoo, Eduardo Misawa of Oklahoma State (also the special sessions chair for ACC 2004), and Cheryl Schrader.(For those who cannot attend the session, we will have a (short) second session that will be part of the WIC lunch "hour". To better prepare these events, please send a few lines to Karlene (Karlene.Hoo@coe.ttu.edu) about memorable interviews that you wish to share in an open forum and/or what you wished you had known about the academic/industry interview process before you went through it.

d) Augment the number of female senior members !! All of you who could apply for senior membership, please do. You can find all information at this address http://www.ieee.org/organizations/rab/md/smupdates.html

If you need recommendation letters, or a nomination letter let us know. We must have the largest possible number of senior female members!!!!

All the best Annamaria

3. Congratulations to Bozenna Pasik-Duncan on Louise Hay Award, contributed by Linda Bushnell

Bozenna Pasik-Duncan, professor of mathematics at KU has received a major national teaching award. The national organization of the Association for Women in Mathematics has selected .Bozenna Pasik-Duncan as the recipient of the 14th Annual Louise Hay Award for Contributions to Mathematics Education. This national teaching award from the AWM will be presented to Bozenna Pasik-Duncan at the Joint Mathematics Meetings in Phoenix, Arizona on Thursday, January 8, 2004 at 4:25 p.m. during the Joint Prize Session. Bozenna Pasik-Duncan will deliver the 2004 AWM-MAA Louise Hay Lecture entitled " Mathematics Education of Tomorrow". The Louise Hay Lecture is presented each year at the summer Mathfest by a woman who has made sustained contributions in the area of mathematics education. This year the Mathfest will be held in Providence, Rhode Island, August 12-14, 2004 By the Louise Hay Award, AWM honored Bozenna Pasik-Duncan for "her broad and inspiring vision of mathematics as a discipline and as a profession, and for her remarkable skill and commitment in carrying out the role of a professional mathematician in a wide variety of communities and settings".

4. Call for Nominations for Speakers, Panelists, Moderators and Chairs of Sessions for the Second NSF Workshop for Women in Control at the 2004 CDC in Bahamas, Bozenna Pasik- Duncan

Dear Friends,

The First NSF Workshop for Women in Control was a big success. Thanks to all of you who attended, thanks to the panelists, moderators, chairs of sessions and all of you who helped before, during and after the Workshop including Molly who wrote the article to the CSM during the Holiday Break!. I was invited to organize the Second NSF Workshop at 2004 CDC in December. I am in the process of preparing the proposal to the US National Science Foundation for travel support for participants this time. I am preparing the program which will consist of lectures (research), panels (including research, teaching, leadership, balancing career and family), poster session for graduate students and several discussion sessions. The Workshop will last a full day this time. I need your help and involvement in this project. Please send me your nominations ( you are welcome to nominate yourself) for lecturers, panelists, moderators or chairs of sessions. Please send me your suggestions for the day of the workshop, before the CDC, during the CDC or after the CDC. Please send me all your comments, suggestions, new ideas, etc. I want to make this Workshop a truly international event, so friends from outside USA, I need your help and involvement! This Workshop needs to be a collaborative effort of all of us. Please respond to my call now. Thank you! Please send me your nominations and recommendations by FEBRUARY 21. Thank you! THANK you !! THANK YOU !!!

With my very best wishes for the Best Semester - Bozenna

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5. Big Thanks go to Women in Control in "Response to Receiving the 14th Louise Hay Award for Contributions to Mathematics Education from the Association for Women in mathematics", Bozenna Pasik- Duncan

Dear Friends,

It is never too late to wish each of you and all of you HAPPY NEW YEAR!

There were many situations and opportunities for me to express my gratitude and be thankful to you as Women in Control Group. One of them was the recent event that took a place in Phoenix, Arizona on January 8, where in the presence of over 3,000 mathematicians I was honored by AWM with the Award. I was asked for written and oral response and today I would like to share with you my response in which the first words of thanks went to "my entire control community that includes women in control for giving me so many opportunities to integrate research, teaching, and learning in science, engineering and math"...

I would like to take the opportunity to thank you again, for your support, for your inspiration, for being role models for me. I learned a lot from you by listening to you, by observing you and by working with you.

During that very emotional moment in Phoenix, I thought about you and about my beloved Poland. I mentioned this in my response and there was a Polish mathematician in audience listening to me and he has found it as very special. He called his niece, a great, young journalist in Poland and brought to her attention my love for Poland.

During my two weeks ago a short visit to Poland she had an interview with me. That interview appeared in last weekend edition of a national newspaper with a huge photo of me. My 92 year old mother had almost...a heart attack from that joyful sensation generated by my Polish family, mother's friends and dear neighbors. I had to call her 10 times last Friday to make her calm down...On this occasion I have found that I can never expressed myself in English in the same way as in Polish so I said again with sadness, to my husband who is an American, " you don't know me..." and I am so so happy that I can speak Polish with my daughter!, I consider this as a treasure.

So one more time, thank you, thank you for giving me the opportunity to serve for a few of you either as the nominator or reference for an 2005 IEEE Fellow! I had never dreamed 10 years ago that a few women would be nominated at the same time for a IEEE Fellow and several others are fully qualified to be nominated shortly after...10 years ago we had just 3 female Fellows only!!!!!!!

and one more time, thank you from the bottom of my heart for being so so special and for doing so so well, I am VERY PROUD OF YOU, the same way as I am proud of my daughter, a first year student of math at the University of Chicago who came last, snowy, cold, weekend as a surprise to be with me at the Basketball Game when I was recognized as "a calendar girl", I have a privilege to be included in " KU Women of Distinction" calendar, which also features Kansas University undergraduates, graduates, faculty, administrators and the governor ( a female governor), 25 all together.

You can view the calendar in

## OREAD

KU's faculty and staff newsletter January 23, 2004 \* Vol. 28 Issue 9 HOME PAGE: <u>http://www.oread.ku.edu</u>

## TOP STORIES

\* Women of Distinction

A new campus calendar aims to do more than help students plot their days and plan for spring break. The hope is that "KU Women of Distinction," a calendar in poster form, will remind the community of the accomplishments made by students and faculty-and highlight the university's leading role in women's issues.

http://www.oread.ku.edu/Oread04/Jan23/women.html

With my warmest greetings and wishes from the coldest Kansas - Bozenna

## Response to receiving the 14th Louise Hay Award, Bozenna Pasik-Duncan

## January 8, 2004

I am very honored and proud to have been selected by the Association for Women in Mathematics for its Fourteenth Annual Louise Hay Award for Contributions to Mathematics Education. Professor Louise Hays outstanding achievements as a teacher, scholar, administrator, and human being have inspired many of us.

It was over forty years ago when I became involved in real teaching as a teenager in a small village in Poland where we would spend lovely summer vacations. Every Sunday during those summers local kids walked to my school for math. It was during that time when I was also asked by a university math professor to tutor his daughter in math and science. One day when she was taking her oral exam in chemistry in the presence of the whole class she looked at me, her teacher, with desperation in her eyes help me, I cannot do it. I answered with the utmost confidence Yes, you can and she did. From that moment on I knew that I can be a good math teacher who will take good care of all those students who need math and science. The long list includes my first students while I was in high school, my family, friends, neighbors, their children and grandchildren, etc&I have developed a reputation of being a math teacher who has time for everyone who needed help in math and science.

I have taught at the University of Kansas since 1984 after teaching in Poland for thirteen years, where I received the excellent teaching experience. Balancing two cultures in teaching fascinates me the most. When my daughter, Dominique, was a fourth grader we took her to Poland and France and enrolled her in the local schools. She was an outstanding student in Lawrence, but about two grade levels behind the French and Polish students in math. When we returned to Lawrence I said, We need to work. I offered to share the tutoring with Dominiques class. It was the best teaching and learning experience. I used French, Polish and American books so the students also learned some Polish and French. A year later Dominique was up to speed with her French and Polish classmates. My fourth grade students scored the highest in the state at mathematical problem solving. I taught them for three more years and this year they graduated from high school with a few being National Merit Scholars. Dominique is a first-year math student at the University of Chicago with almost 100 credit hours from the University of Kansas.

It was over thirty-five years ago when I became involved in a real world project for the Polish Central Planning Committee. Stochastic modeling and forecasting were my first major research areas. Shortly after that I became the director of the Applied Mathematics Center of the Polish Mathematical Society, with some fascinating work. I had taught for thirteen years at Warsaw School of Economics where I was lucky to have the outstanding mentor in teaching. I came to Kansas to work with Tyrone E. Duncan. His research in stochastic control, coupled with my own studies in stochastic processes and mathematical statistics made the best partnership. We wrote over 100 papers together and solved some long standing stochastic adaptive control problems. We built the program in stochastic theory and control that has put Kansas on the world map.

Most of my mastersand Ph.D. students have gone on to work in industry. Some of them quickly took leadership positions: they work with the University of Kansas Medical Center on the analysis of epilepsy, for Sprint Corporation on the intricacies of telecommunication networks, for actuarial companies, for investment banks, for graphic design companies, and for various other industries. All of these former students are applying knowledge they acquired from research performed at KU. From freshmen to Ph.D. candidates, all of my students participate in research, and most of their research has been supported by the National Science Foundation. Several of my undergraduate students have received NSF fellowships for graduate study in the best programs in their fields of interest. Several undergraduate and graduate students are involved in research each summer. The NSF has also supported several national workshops for teachers and students on research and teaching, making a commitment to support K-12 school teachers who want to become involved in research.

I attended my high schools 35th year reunion and gave a talk entitled From the Polish Space to the Land of Oz Acceptance and Tolerance. I spoke about my students in Kansas, the people of Kansas, and about Kansas itself. I had never realized that I feel very much at home and can speak so enthusiastically and passionately about Kansas. I am grateful to all in Kansas for making me feel free from the stress of speaking with an accent. I can now joke, You dont recognize my Kansas accent?when asked, Where are you from?

I would like to thank my entire control community that includes women in control for giving me so many opportunities to integrate research, teaching and learning in science, engineering and math. I would like to thank many KU and Kansas people for beautiful acceptance and tolerance, for countless help and assistance, and for recognizing my love for math, music, science, engineering, and for people. I am proud of being a Kansan and an American and this is the reason why I have enjoyed giving back to the Kansas community by being involved in outreach programs. Teaching Lawrence school students, bringing them to KU for math: these activities which make me so, so happy are most rewarding. I would also like to thank my students and all students for making me happy in Kansas and in this country. I would like to thank Professor Jack Porter, my chairman for nominating me for this award and Professor Judy Roitman, who is the 1996 recipient of this award and who has shared with me her success stories in mathematics education over many years. Last, but not least, I would like to thank my mother, my husband and my daughter for their most beautiful support.

From the bottom of my heart I thank the selection committee and the AWM for making me feel the happiest person on the earth. I cannot find English words to express my feelings, but now I cannot even find Polish words to express my feelings. I will be even a better teacher now.

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6. A report on workshop entitled "After Graduation: Women in Control Taking a Leadership Role" in CDc03, contributed by Molly Shor

A workshop entitled "After Graduation: Women in Control Taking a Leadership Role" was held on Wednesday, December 10, 2003, at the IEEE CDC in Maui, Hawaii. There were seventy-five participants. The workshop was organized by Bozenna Pasik-Duncan (University of Kansas), with help from Linda Bushnell (University of Washington). The workshop celebrated a decade and a half of progress in the inclusion of women in the control field, and initiated a dialogue on the remaining challenges facing the female members of our society.

Welcoming remarks were provided by Bozenna Pasik-Duncan (Chair, 2003 CDC Control Education Activities), Frank Lewis (2003 CDC General Chair), Anna Maria Perdon (Chair, CSS Standing Committee on Women in Control), Cheryl Schrader (2003 CSS President), and Kishan Baheti (program director, Electrical & Communications Systems Division, USA NSF).

The keynote speaker was Vasundara Varadan, division director for electrical and communications systems at the USA National Science Foundation, on "Women in Engineering - Are We There Yet?"

Two panel discussions took place on "Women in Control as Leaders - Challenges, Opportunities and Rewards", the first from the perspectives of deans and department chairs, and the second from the perspectives of successful women in academia. The panelists in the first panel were John Baillieul (Boston University), Chris Byrnes (Washington University, St. Louis), Peter Crouch (Arizona State University), Pramod Khargonekar (University of Florida), Belinda King (Oregon State University), and Cheryl Schrader (Boise State University). The panelists in the second panel were Anuradha Annaswamy (MIT), Lucy Pao (University of Colorado at Boulder), Anna Maria Perdon (Universita di Ancona), Jing Sun (University of Michigan), and Dawn Tilbury (University of Michigan). Suzanne Lenhart (University of Tennessee, Past President of Association for Women in Mathematics) spoke on Association for Women in Mathematics and Society for Mathematical Biology activities that support women. Topics discussed included the need for more women engineering faculty and leaders, how to mentor women faculty and improve the climate for them, advice for faculty members on balancing career and family, the diverse pathways that women enter academia and leadership positions, and general advice for new faculty. Related issues affecting women were also discussed, including recent legal rulings that affect admissions policies that support student diversity, and concerns about the challenges faced by our daughters and when and why they get discouraged from pursuing a technical career. Advice was offered on how to develop programs to support women graduate students and new faculty in mathematics, engineering and control systems. My full report on this workshop will appear in the June 2004 issue of the IEEE Control Systems Magazine and will be posted on the IEEE CSS Women in Control web pages in the near future.

We invite ideas and participation from all members of the IEEE Control Systems Society. Specifically, we welcome our international members to participate in this on-going dialogue. Bozenna Pasik-Duncan will organize a second workshop in the Bahamas at IEEE CDC 2004 to continue this dialogue. She will apply for USA NSF travel support for female graduate students and postdoctoral fellows to attend this next workshop.

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