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1. Editor's Note

Dear colleagues,

During CDC Dec.3-7 we had certain changes in our structure that I would like to share with you.

Our special thanks go to Fahmida Chowdhury, who chaired our society throughout the past years. In particular, I would like to express my special thanks to her for the wonderful job that she did - it is through her efforts that I was introduced to the society, which I think was very rewarding experience for me. I hope that you all will join me in wishing her the best for future.

We have new chair for our society, Anna-Maria Perdon, that I would like to welcome with this newsletter. Her welcoming message is followed by her CV. I challenge you all to support her in this new endeavor.

I feel truly honored to edit this newsletter that avails me the opportunity to share the good news with you - congratulations go to Bozenna Pasik-Duncan for receiving the IEEE Fellow Award

Please read carefully Linda Bushnell's, Bozenna Pasik-Duncan's and Alison Flatau's messages

below on IEEE CSS and NSF's opportunities. Both messages convey messages about our opportunities that we may not want to miss.

As a reminder, 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:

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2. Farewell message from former WiC Chair Fahmida Chowdhury

Dear Colleagues and Friends,

Please join me in congratulating our new Chair, Dr. Anna Maria Perdon.

This year at the CDC I officially stepped down from the chair position of WiC. My last activity as the chair was to conduct the WiC luncheon meeting.

I am happy to report that our luncheon meeting on Dec 04, 2001 at the CDC was very well-attended; we planned for 30, but had 37 people. It was a wonderful gathering. There were a number of newcomers, and some of our younger members raised a few important questions, such as: "What is the benefit of being an IEEE CSS member? What is the benefit of upgrading to Senior Member?". At this meeting, we started the process of re-formulating our goals. There is a general feeling that the initial goal of increasing the visibility of women within IEEE CSS has been accomplished; note that Cheryl is now President-elect of CSS, and there are many other women involved in CSS activities. However, if we see the statistics of the women-to-men ratio distribution broken down by ranks (associate member, member, senior member, life member, fellow), it becomes clear that the proportion of women in the higher ranks is much lower than it should be. Thus, one of our continuing goals is the retention and upgrading of membership. Another goal is to increase the number of women CSS members from non-US countries, for which our new chair Anna Maria Perdon will be very helpful. Yet another goal is to integrate more and more women members from all over the world into all the CSS activities. Anna Maria will take a strong leadership role in accomplishing these goals, and with you input and help, she will make our group even more successful than before!

Please welcome, Anna Maria, as our new chair.

Thank you, all WiC members, for the wonderful time I have had as the past chair. It has been a very pleasant, satisfying, and enriching experience for me, both professionally and personally. I have made many friends through my involvement in this group. In particular, I want to name Bozenna, who was the original inspiration behind my joining this group; Molly, Cheryl and Dawn, who have been involved in WiC activities from the beginning; Naira, who graciously volunteered to edit our newsletter when it felt too much for me to handle both jobs; Dawn Roberson, who has been maintaining our web site; and Ulle Kotta, Ruth Bars, Shirkka-Liisa, Sabine Mondie, all of whom I met through WiC.

It has been really great, my friends, my fellow WiC members. Happy New Year to all of you!

Fahmida

3. Welcome message from new WiC Chair Anna-Maria Perdon

### Dear colleagues,

Unfortunately I could not be in Orlando and attend the meeting of the Women in Control 37 people attended it. This is great I hope there will soon be other occasions to meet you all. I attended the first "luncheon of WiC" organized by Bozenna many years ago and was captured by her enthusiasm. I joined the society only after that meeting, even if I had been attending IEEE conferences since many years. In fact, I had never realized before that becoming visible inside the society could be so important for women. In fact, to join the society, to meet the colleagues and to support those who work to make the role of women more relevant is effective in overcoming some of the difficulties women face in their career. Year after year, due to the tireless dedication of Bozenna, Cheryl, Linda, Fahmida and many others, I have seen the number of women in the society growing as well as the feminine presence in the technical sessions. I'm very honored to have been chosen as Chair of our Committee and I will do my best to follow the example of Bozenna, Cheryl and Fahmida.

To make our group more and more active and large, we should continue in the future along the lines that have already proved to be effective, suggesting to young students and researcher to join the society as soon as possible, to be active in the society, to apply for the senior membership as soon as they qualify. In organizing a workshop or a conference we should chose, if possible, women as invited speaker, organizer of invited sessions, chairpersons or reviewer

Each of you, can add to any new action what your experience suggests. I don't think of big programs or spectacular actions, but practical ideas that we can put into action in the everyday life. Here are a few on which I would like to know your opinion:

- Those of us who are Editors of some journal should share their list of women reviewer and/or in the WiC website there should be a page where those willing to be considered as reviewer can list, describing briefly the topics they are interested in.
- To try and recruit more WiC members from the European, Asian and African countries each of us should get in touch with at least one foreign colleague with whom she shares research interest, describing our group and asking to join us.
- We should organize a "WiC luncheon" at the XV IFAC World Congress to be held in Barcelona July 21-26, 2002 sending an email invitation to all women authors in the conference.

At this point, because of time, I must end my letter.

I hope you will have nice holidays and enjoy time with your families and friends. Let's all together look forward to a new year .

Best whishes, Anna Maria

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#### Curriculum of Anna Maria Perdon

Anna Maria Perdon got the Doctoral Degree in Mathematics at the University of Padua, Italy, in 1972. She held various teaching and research positions at the University of Padova, at the University of Genova and the University of Ancona; she was Associated Professor of Numerical Analysis at University of Padova and at the University of Ancona from 1987 to 2000. From October 2000 she is Professor of System Theory at the University of Ancona. A.M. Perdon is - appointed member of the Board of Governors of the IEEE CSS for 2001; - member of the IFAC Technical Committee "Linear systems" from 1997.- Chairman of the Electronic Engineering Curriculum Evaluation Committee of the University of Ancona - Senior Member of the IEEE, member of the UMI (Society of Italian Mathematicians) and member of SIMAI (Italian Society of Applied and Industrial Mathematics).

A.M. Perdon is Associated Editor of SIAM Journal on Control and Optimisation from 1997 and has been Associated Editor of Systems & Control Letters from 1993 to 1998.

A. M. Perdon is editor of three books, author of one book and of about 100 scientific papers, published internationally.

The leitmotif of the research in System and Control Theory is the use of mathematical tools, coming from algebraic geometry, module theory, analytic function theory and differential algebra, in the study of linear and non linear systems. The subjects considered include: realizations problems, representations in canonical forms, poles/zeros behaviour in composite systems, matching and factorisation problems, decoupling problems.

Current research subjects are: Systems over rings, Delay differential systems, Algebraic and Algebraic-Differential techniques for non linear dynamical systems.

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4. Congratulations to Bozenna Pasik-Duncan for receiving the IEEE Fellow Award Contributed by Linda Bushnell, IEEE Secretary-Administrator

Please join me in congratulating Bozenna for receiving the IEEE Fellow Award "for contributions to identification and stochastic adaptive control." She is the fifth woman in the CSS to become an IEEE Fellow. A short bio for Bozenna follows.

Bozenna Pasik-Duncan received her Master's degree from the Mathematics Department of Warsaw University in 1970, and her Ph.D. and Habilitation degrees from the Mathematics Department of Warsaw School of Economics in 1978 and 1986 respectively. She was a staff member of the Mathematics Department of Warsaw School of Economics from 1970 until 1983. In 1984 she moved to the University of Kansas, where she is currently a Professor of Mathematics.

Dr. Pasik-Duncan's current research interests are primarily in stochastic adaptive control of distributed parameter systems, stochastic adaptive control of partially observed systems, computational aspects of stochastic control, and stochastic analysis with its applications to mathematics of finance, medicine, and telecommunications. Her other current interests include mathematics and science education at K-12 schools, control education, and mathematics education for women in science and engineering. She is a member of KU Women in Science and Engineering Group. She is the author of over 120 technical articles and 3 books. She is

chair of the Stochastic Adaptive Control Seminar at KU.

Dr. Pasik-Duncan is a recipient of the NSF Career Advancement Award, an Excellence in Teaching Award from the Ministry of Higher Education and Sciences in Poland and several Chancellor's Awards from the Warsaw School of Economics for her research and teaching. She was an IREX Scholar to the United States in 1982 visiting several universities. She is a recent recipient of the Kemper Fellowship for Teaching Excellence and Advising in Public Outreach and a recipient of the G. Baley Price Award for Excellence in Teaching. She has held several visiting appointments in Poland, Hungary, Czech Republic, France, Italy, Japan and China. She served as Vice President of the Warsaw Chapter of the Polish Mathematical Society in 1972-82 and as Chair of the Center of Applied Mathematics of the Polish Mathematical Society. She was Program Director of SIAM Activity Group on Control and Systems Theory from 1992-1995 and was a member of SIAM Master Program Committee and Steering Committee. She has been a member of the Organizing and Program Committees of many international conferences on Control and she was the co-organizer of three international symposia on Control and Adaptive Control. In June of 2000 Dr. Pasik-Duncan organized the first NSF workshop for the high school teachers of Math and Science on Ideas and Technology of Control and Systems. She has been recognized as a guest speaker at various professional functions. She is an Associate Editor of 4 professional journals. Dr. Pasik-Duncan has been awarded research funding from the National Science Foundation and Sprint Company. Dr. Pasik-Duncan was the leader of the Control Delegation to People's Republic of China sponsored by the People to the People Ambassador Program. Dr. Pasik-Duncan has been actively involved in the IEEE Control Systems Society in a number of capacities, such as Associate Editor of IEEE Transactions on Automatic Control from 1990-1997, an appointed member of the Board of Governors of IEEE Control System Society from 1991-1992, as Chair of the standing committees on Assistance of Engineers at Risk and "Women in Control", as Associate Editor at Large of IEEE Transactions on Automatic Control. She is also an elected member of the Board of Governors of the IEEE Control Systems Society, Chair of the Standing Committee on International Affairs, Chair of the 1999 Task Force on Globalization, and she was Vice-President of the IEEE Control Systems Society from 1998-1999, she has been appointed as the education chair for 2003CDC. She received the Third Millennium Medal in 2000 for outstanding achievements and contributions in control systems field and the IEEE Control Systems Society Distinguished Member Award for significant technical contributions and outstanding longterm service to the CSS.

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5. Message from IEEE Secretary-Administrator Linda Bushnell (<br/>
// dushnell@ee.washington.edu>)

If you are an IEEE Fellow, now is the time to consider whether you wish to nominate someone.

At

http://www.ieee.org/about/awards/fellows/fellows.htm

you can find instructions, plus the Fellows Nominations kit, etc. There is a March 15 deadline, but this includes getting all recommendation letters together, etc. If you are currently an IEEE Senior Member, and are considering becoming a fellow, now is the time to find a nominator. If you are not a Senior Member but have been active in the field for long enough, you should consider becoming one. Please see the web site <a href="http://www.ieee.org/membership/upgrade.html">http://www.ieee.org/membership/upgrade.html</a>

for information and forms.

In addition, at the IEEE Awards page there are several other higher level awards and medals. Please take a look at

## http://www.ieee.org/about/awards/

if you would like to nominate someone.

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6. Message from Bozenna Pasik-Duncan on IEEE Control Education activities (bozenna@math.ukans.edu)

Would you like to be involved in Control Education?

Let me share with you the following information.

I challenged myself by taking new positions in the CSS for 2002 and 2003. I will be the chair of the CSS Technical Committee on Control Education (big thanks to Bonnie, past chair of this committee, for her outstanding work) and the chair of the Education Activities at 2003 CDC in Hawaii ( this is a new position). Soon I will start making appointments to serve as a member of these two committees. If you are interested in education activities in math, science and engineering related to control and if you would like to join one of these committees or both because you believe that you can contribute a lot and you can "make a change", please send me your name, affiliation, short bio and describe your experience and interest in education activities.

I would like to take the opportunity and wish you and your family a beautiful Holiday Season and a very Happy new Year . With my very best wishes to each of you and all of you - Bozenna

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# 7. Message from Alison Flatau on NSF opportunities

I'd like to encourage all of you who might want to learn more about the NSF to participate in the proposal review process. In addition to review of technical proposals, we often seek faculty to participate in review of equipment proposals, proposals for "Research Experience for Undergraduates Summer Sites", and a large variety of proposals with an emphasis on curriculum development. For contacts within CMS, please go to our web page at <a href="http://www.eng.nsf.gov/cms/">http://www.eng.nsf.gov/cms/</a> and for contacts within ECS such as Kisan Baheti, go to <a href="http://www.eng.nsf.gov/ecs/">http://www.eng.nsf.gov/ecs/</a> <a href="http://www.eng.nsf.gov/ecs/">http://www.eng.nsf.gov/ecs/</a> <a href="http://www.eng.nsf.gov/ecs/">http://www.eng.nsf.gov/ecs/</a>

I'm always interested in identifying new qualified reviewers for the Dynamics and Control and Sensor Technologies for Civil & Mechanical Systems Programs. If this is your area, please send an email with a brief bio so I can keep you in mind when I'm seeking reviewers. Similarly, to volunteer to assist Kishan Baheti and his Program, email him at rbaheti@nsf.gov <mailto:rbaheti@nsf.gov>

For those of you in other areas or with interests in the education and curriculum development programs, ways to learn whom to contact include going to www.nsf.gov <a href="http://www.nsf.gov">www.nsf.gov</a> and clicking on "search" at the top of the page. Then, you will find links to the following two pages:

List of Awards by Program:

<a href="https://www.fastlane.nsf.gov/servlet/A6QueryPgm">https://www.fastlane.nsf.gov/servlet/A6QueryPgm</a> <a href="https://www.fastlane.nsf.gov/servlet/A6QueryPgm">https://www.fastlane.nsf.gov/servlet/A6QueryPgm</a>

enter program name keywords (like Sensor, material, struct, or dynamic) and choose from the different program names that show up to see lists of awards

made in those programs. Click on awards numbers (in gray to left of screen) to see a brief abstract and which Program and Program Director support work similar to what you might propose or might be qualified to review.

Full Text Search:

https://www.fastlane.nsf.gov/a6/A6AwardSearch.htm <a href="https://www.fastlane.nsf.gov/a6/A6AwardSearch.htm">https://www.fastlane.nsf.gov/a6/A6AwardSearch.htm</a>

Enter keywords like "conjugated polymers" or "active noise cancellation" and then click on award numbers (in gray to left of screen) to see abstracts and which Program and Program Directors support work similar to what you would propose or might be qualified to review.

A third suggestion is that you sign up for email notification of release of NSF program announcements by subscribing to the NSF "Custom News Service." Sign up for this from the link at the lower left of the NSF homepage (www.nsf.gov <a href="http://www.nsf.gov">www.nsf.gov</a>) and providing responses to subscribe that indicate what type of info you'd like to receive (i.e. engineering initiatives, education related info, etc.).

Most Program Director email addresses are first initial of name and up to seven letters of the last name @nsf.gov, and we very often do get emails from folks with questions about all aspects of the NSF and/or just indicating they'd like to participate in the proposal review process, so don't be shy! :-).

Best regards,

Alison Flatau

Alison Flatau, Ph.D., P.E.

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