

IEEE Women in Engineering Newsletter – May 2006

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WIE ANNOUNCES WIE AFFINITY GROUP OF THE YEAR AWARD RECIPIENTS

The Women in Engineering Committee (WIEC) is pleased to announce the recipients of the second annual WIE Affinity Group of the Year Award.

The Affinity Group of the Year Award was established by the IEEE Women in Engineering Committee to recognize affinity groups based on quality programs, outreach to young women, communication to affinity group members, membership growth and website presence (if available). First place recipients receive US\$250 to support future activities and a certificate of recognition.

For the Section Affinity Group category, first place was awarded to the IEEE Delhi WIE Affinity Group (India). This Affinity Group (AG) was selected because of the breadth of their activities and the high degree of collaboration between the Section AG, the Student Branch AG and the Section itself. They had eleven meetings in all including three technical, one educational, five professional, and two administrative. They have a strong focus on highlighting women in engineering in their outreach to secondary schools, to the Student Branches, to the Section, and in the programming for their members. They formed three new Student Branch WIE Affinity Groups.

For the Student Branch Affinity Group category, first place was awarded to the IEEE Jamia Milia Islamia WIE Student Branch Affinity Group (India). This Student Branch WIE Affinity Group was

selected due to the breadth of its activities, communications with its members, and the degree of its collaboration with the Section WIE AG and the Delhi Section. Their programs included network security, distributed substation automation implementation, speech & image processing, entrepreneurship, intellectual property rights, self defense, leadership, socio-economic status of women, soft skills and career counseling sessions, and several industrial visits.

This year the WIEC awarded a Special Outstanding Project Award to the Instituto Tecnológico de Veracruz (Mexico) WIE Student Branch Affinity Group for their "Feria de Empresas" or "Fair of Companies". This event brought 20 companies to the campus to give technical and professional presentations, host exhibits with equipment and personnel, and interact with the students. The event drew over 400 attendees each day of the fair and received much praise from the participating companies. They will receive a certificate and \$250 US.

For more information on the award visit the WIE website at www.ieee.org/women

Announcements

IEEE STUDENT MEMBERS: GRADUATING? UPDATE YOUR ADDRESS

If you're about to graduate, update your IEEE membership record now with your post-graduate or continuing education information to ensure your membership benefits continue without interruption. Visit: www.ieee.org/graduate

WIE LOGO DESIGN CONTEST DEADLINE IS 24 MAY 2006

IEEE Women in Engineering are seeking a new LOGO to be a symbol of our identity in IEEE now and in the future. The contest is open to anyone. The winner will receive a plaque and one year IEEE and WIE membership. All entries should be mailed or e-mailed to:

Keyana N. Tennant
Administrator, Women in Engineering
IEEE Corporate Activities, Governance
445 Hoes Lane
Piscataway, NJ 08854
E-mail: women@ieee.org

Design Criteria:

1. The logo may be hand drawn or digital
2. The logo must look good when reduced in size to 0.5 cm high
3. It may be multicolored
4. It may incorporate words or just be a symbol
5. It may be a symbol followed by the words "IEEE Women in Engineering"

The winning design will be decided on by the WIE subcommittee on LOGO Design with final approval of the WIE Committee. The winning design may be graphically enhanced and rendered in a digital form for reproduction by a professional graphic designer. The winning design may be registered and thus will be submitted to IEEE Intellectual Property to review for compliance with the [IEEE Identity Standards](#) and to conduct a search to ensure that the logo is not similar to another logo already registered.

Good Luck in your efforts to provide IEEE WIE with a recognizable identity symbol!

Region News

Region 8- IEEE WIE BALQA'A APPLIED UNIVERSITY (JORDAN) STUDENT BRANCH AFFINITY GROUP

IEEE WIE Balqa'a Applied University (BAU) Student Branch Affinity Group (Jordan) has hosted an ambitious program of activities since their formation in 2006.

In March 2006, they hosted the Women in Engineering Orientation Conference for female engineers and doctors at the university. The conference featured presentations on IEEE, Women in Engineering (WIE), communication, and team building. The conference was attended by the Chair of Jordan's WIE Affinity Group, Bushra Zakaria Al-Habashneh. Also, in March 2006, WIE Student Members staffed an IEEE booth at the 6th Jordanian International Electrical & Electronics Engineering Conference.

In February 2006, they sent a team of twenty members to a workshop hosted by WIE's Jordan Affinity Group. On campus, they have organized a party for students who passed the Flash training course that hosted weekly English-speaking practices, and organized a trip to the headquarters of the Jordanian Telecommunications Company.

Region 9- IEEE WIE Ecuador Affinity Group Establishes Educational Outreach Program

The WIE Ecuador Affinity Group has recently started an IEEE STAR program in Ecuador in conjunction with the Student Branch of IEEE ESPOL. The IEEE STAR (Student-Teacher and Research Engineer/Scientist) Program is an educational outreach program, administered by the IEEE Women in Engineering Committee, to promote a positive image of engineering careers by involving IEEE members with local junior and high schools. STAR was developed to address the growing concern that girls are discouraged from careers in mathematics, science, and engineering at a young age. The goal of STAR is to create a technical support network for teachers and a mentoring program for the students.

To meet these goals, in April, the WIE Ecuador Affinity Group held a workshop for high school girls in robotics using Lego MindStorms. They also offered full scholarships to ten distinguished female students in public high schools in Guayaquil, Ecuador.

More information on the IEEE STAR program is available at <http://www.ieee.org/portal/pages/committee/women/star.html>

Society News

INDUSTRIAL ELECTRONICS SOCIETY (IES): Meet the woman leaders of the IEEE Industrial Electronics Society

By Michaela Ulieru, PhD
IES Advisory Committee Member Canada Research Chair
Professor, Faculty of Computer Science
Director, Adaptive Risk Management Laboratory
The University of New Brunswick

In the male-dominated world of industrial electronics, a few daring and talented women have made it to the top. From IES's beginnings in 1951 until the mid 90ies, no woman served on its governing board - but since the pioneering work of Evangelia Micheli-Tzanakou our first AdCom member, IES has four female IES-Advisory Committee (AdCom) members whose exemplary

careers and major contributions are featured in this article. Their profiles below appear in the order of seniority in the IES AdCom:

María Inés Valla (AdCom member since 1996) received her degrees of Electronics Engineer and Doctor in Engineering from Universidad Nacional de La Plata (UNLP), Argentina in 1980 and 1994, respectively. Currently, she leads one of the few engineering research groups in Argentina that has international-level recognition. During her 26-year career, Professor Valla has made significant contributions to Power Electronics, in the fields of electric drives and power converters.

During 2005, she served as Chair of the Engineering Board within CONICET (National Research Council of Argentina). Also in 2004 she was a member of the selection committee for an Argentine national award which recognizes the best scientific production in 4 major areas; she represented the area of Engineering and Agricultural Sciences.

Within IEEE, she has served on the IES Industrial Drives Committee, the CSS International Affairs Committee, the CSS Women in Control Committee, and the IES AdCom. During 2001 and 2002 she was the Vice-Chair of IEEE Argentina Section. Within IES, she has been Coordinator of Membership Activities for Region 9 and Chair of the Student Activities Committee. She has participated in the organization of various IES related conferences.

In 2000 she was honored with the IEEE Third Millennium Medal; in 2002 she received the 2002 PES Chapter Outstanding Engineer Award, for her "Outstanding contributions in the development of graduate studies in Electrical Engineering and her leadership in IEEE activities."

Presently she is an IES Senior AdCom Member (since 2005) and member of the IEEE Ethics & Member Conduct Committee.

Seta Bogosyan (IES AdCom Member since 2002) received her BSc and MSc degrees from Istanbul Technical University (ITU) in 1981 and 1983, respectively. She received her PhD degree in 1991 from the University of California-Santa Barbara (UCSB), with her thesis on the high performance control of permanent magnet synchronous motors and torque ripple minimization.

After working as researcher and lecturer at UCSB, she continued her academic life as an assistant professor at ITU, where she became associate professor in 1993. Currently, she is a faculty member at the University of Alaska-Fairbanks (UAF), in the department of Electrical and Computer Engineering, where she joined as associate professor in 2003. Her research interests are motion control, high performance control of robots and underactuated systems, applications of adaptive and robust control and observer methods to electromechanical systems, sensorless velocity and position control of induction motors and more recently, remote mechatronics laboratories and data fusion of multisensor arrays. She is the co-author of over 60 articles, as well as a book, titled Induction Motors and Controls. She is associate editor of the International Journal of Intelligent Automation and Soft Computing, has been serving as reviewer to several IEEE transactions and referee to DoD projects.

Her involvement with IEEE-IES started in 1999, when she served as Chair of Robotics and Automation and IES joint chapters in Turkey. She has been the Chair of the Education in Engineering and Information Technologies Technical Committee and Chair of the Education Committee since January 2005. She has been special sessions organizer and chair in various IES related conferences. Currently, she is serving IES as Vice-President of Membership Activities.

Mihaela Ulieru (IES AdCom Member since 2004) is a Professor of Computer Science and holds the NSERC Canada Research Chair in Adaptive Information Infrastructures for the e-Society. She chairs and is on the board of several international R&D initiatives as co-founder and is a strong promoter of and contributor to the emerging area of Industrial Informatics.

Dr. Ulieru earned her PhD in 1995 in computational intelligence applied to systems diagnostics, under the illustrious supervision of Prof. Rolf Isermann at Darmstadt University of Technology, Germany. Dr. Ulieru started her academic career as Lecturer in Computer Science and Information Systems at Brunel University, London, UK. A postdoctoral fellowship (1997) in the Intelligent Manufacturing and Robotics Group at Simon Fraser University brought her to Canada, where she was awarded the Junior Nortel Chair at the University of Calgary in 1998.

In 2001, Dr. Ulieru founded (under NSERC – National Science and Engineering Research Council International Opportunity Fund) the Canadian GAIN (Global Agents Integration Network) that joined the research efforts of 19 universities and research institutes across the country to develop intelligent web services for collaborative virtual organizations. In 2002, under a contract of international cooperation with the Berkeley Initiative in Soft Computing, she founded the Emergent Information Systems Laboratory at the University of Calgary, which she led until she left Calgary for the Canada Research Chair award. Her extensive work with the industry earned her the Chairmanship of the 1st IEEE International Conference on Industrial Informatics in 2003 and in the same year she founded the IEEE Technical Sub-Committee on Industrial Agents.

Since July 1, 2005, Professor Ulieru has been directing the Adaptive Risk Management Laboratory funded by the Canada Foundation for Innovation at the University of New Brunswick to support her work related to the Canada Research Chair award. Her current research is focused on distributed intelligent environments (coined as 'ambient intelligence', which involves synergistic hardware software integration, e.g. sensor networks and distributed artificial intelligence/multi-agent systems) and their applications to e-Health, emergency response management and intelligent manufacturing. For details see: <http://www.cs.unb.ca/~ulieru/>

Elizabeth Chang (AdCom Member since 2006) is a research Professor and Director of Curtin's Research Centre of Excellence - Centre for Extended Enterprise and Business Intelligence (CEEBI) at Curtin University of Technology, Australia. She is also a Director for Area of Research Excellence on Frontier Technologies for E-Enterprises. She has been awarded the Vice Chancellor's Outstanding Performance Award for 2005, and the Dean's Best Researcher of Year Award for 2004. She has co-authored 3 books and has published over 200 scientific papers and book chapters in international journals and at refereed conferences, as well as numerous invited keynote papers and tutorials.

All her research and development work has been in the areas of IT Applications and Software Engineering. She is currently supervising and co-supervising 12 PhD students. Her recent PhD student, Dr. Rahayu, won the Australian Computer Science Society's Best Thesis Award in 2001, and her current PhD students have achieved over 10 best paper and best presentation awards in internationally reputed conferences in 2004 and 2005.

Professor Chang has extensive industrial background, including being Head of IT for Seapower Resources International, incorporating 40 warehouses, a multi-national logistics company operator in China where she successfully delivered a large scale e-Warehouse and e-Logistics within strict time and budget limitations during 2001. She has also been a contract Project Manager, Senior Software Engineer for Philips Public Communication Limited on the CableTV and Modem projects. She has also worked with Animal Research Institute to develop the Sheep Farm software package, and with Australian Airlines in an exchange and interest rate monitor system.

Professor Chang has a PhD and MSc in Software Engineering from La Trobe University, Australia.

CALLING ALL WOMEN!

Let's Nominate, Let's Promote, Let's get Recognized!

Have you applied for Senior Membership? Do you need endorsements and do not know how to find them? Ask WIE, we can help you! Contact WIE Staff at women@ieee.org.

For information on how to become an IEEE Senior Member, visit the IEEE Senior Member Program website. <http://www.ieee.org/organizations/rab/md/smprogram.html>

WIE MEMBERSHIP CONTINUES TO GROW

As of April 2006, WIE membership is up (4.5%) from April 2005. Students remain the largest membership segment, making up 80% of WIE's membership.

Grade	April 05	April-06
Fellow	24	30
Life Members	57	94
Associates	106	129
Member	1201	1314
Senior Member	144	195
Student	7015	7167
Total	8547	8929

Region	April 05	April 06
US	3601	3403
Canada	484	464
Europe, Africa & Middle East	1794	2082
Latin America	883	15323
Asia & Pacific	1785	1457
Total	8547	8929

Gender	April 05	April 06
Female	6297	5973
Male	2217	2593
Not Provided	33	363
Total	8547	8929

The WIE now has 107 Affinity Groups throughout the world.

WIE AFFINITY GROUPS BY REGION

Region	Regular	Student	Total
R1	3	0	3
R2	3	0	3
R3	2	1	3
R4	2	2	4
R5	3	0	3
R6	2	0	2
R7	5	6	11
R8	8	21	29
R9	3	24	27
R10	9	13	22
TOTAL	40	63	107

WIE WELCOMES NEW AFFINITY GROUPS.

Since January 2006, the following new Affinity Groups have been established:

WIE Al-Balqa Applied University Student Branch Affinity Group, Jordan (Region 8)

WIE Erciyes University Student Branch Affinity Group, Turkey (Region 8)

WIE Escuela Tec Sup de Ing Tele- Valencia Student Branch Affinity Group, Spain (Region 8)

WIE United Arab Emirates University Student Branch Affinity Group, Dubai (Region 8)

CALL FOR WIE NEWSLETTER CONTRIBUTIONS

Please send your article submissions and contributions for the newsletter to women@ieee.org.
Deadline for submissions is the 10th of the month for the following month's edition.

WIE Newsletter Archive

Past issues of the WIE Newsletter are available at: <http://www.ieee.org/committee/women/archive.xml>