The Analog Signal Processing (ASP) Technical Committee serves to foster research, development, education and industrial dissemination of knowledge relating to the theory, analysis, design, and practical implementation of analog circuits. The committee’s scope spans basic scientific theory to industrial application. More information on this committee can be found on the world-wide web at http://ewh.ieee.org/soc/icss/committees/asptc.

Committee members are experts in analog signal processing areas and are committed to and are active within this field. The committee currently has 70 members. In 2009, Shahriar Mirabbasi took over from Hanspeter Schmid as the Chair of the committee. Alyssa Apsel served as the chair-elect and Viktor Gruev served as the secretary and web coordinator.

The following summarizes CASS-related activity by the ASP committee and its members during the year 2009-2010.

1. **ISCAS 2010**

The Analog Signal Processing (ASP) track once again played an important role in ISCAS 2010 (http://www.iscas2010.org), and a great majority of ASPTC members assisted in the preparation of the technical program as well as paper evaluations. During the last ASPTC meeting in Taipei, Taiwan at ISCAS 2009, Viktor Gruev was nominated and elected by the committee as the new secretary and web coordinator. For 2009-2010, Shahriar Mirabbasi served as the chair, and Alyssa Apsel served as the chair-elect. Mohamad Sawan is nominated and elected as the new secretary at ASPTC meeting in Paris, France at ISCAS 2010.

As we have done in the past, once again for ISCAS 2010, current ASPTC chair, Shahriar Mirabbasi, chair-elect Alyssa Apsel, and last year’s chair Hanspeter Schmid acted as Analog Signal Processing track co-chairs. These three coordinated the review process of all papers submitted to this track. The total number of papers submitted to the Analog Signal Processing track was 413, representing 20% of all papers submitted to ISCAS 2010. Of this total, 185 papers were selected for the final program (130 lecture presentations and 55 poster presentations), for a 44.8% total acceptance rate.

The ISCAS 2010 review process for the ASP track went smoothly, primarily due to the tremendous service of the Review Committee Member (RCM) volunteers listed below:

**Analog Signal Processing RCMs:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyssa Apsel</td>
<td>Cornell University, USA</td>
</tr>
<tr>
<td>Gert Cauwenberghs</td>
<td>University of California at San Diego, USA</td>
</tr>
<tr>
<td>Joseph Sylvester Chang</td>
<td>Nanyang Technological University, Singapore</td>
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<tr>
<td>Degang Chen</td>
<td>Iowa State University, USA</td>
</tr>
<tr>
<td>Jose M. de la Rosa</td>
<td>Institute of Microelectronics of Seville, Spain</td>
</tr>
<tr>
<td>Andreas Demosthenous</td>
<td>University College London, UK</td>
</tr>
<tr>
<td>William R. Eisenstadt</td>
<td>University of Florida, USA</td>
</tr>
<tr>
<td>Mourad N. El-Gamal</td>
<td>McGill University, Canada</td>
</tr>
<tr>
<td>Jorge Fernandes</td>
<td>INESC-ID/Instituto Superior Técnico, Portugal</td>
</tr>
<tr>
<td>Igor Filanovsky</td>
<td>University of Alberta, Canada</td>
</tr>
<tr>
<td>Robert Fox</td>
<td>University of Florida, USA</td>
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<tr>
<td>Randall Geiger</td>
<td>Iowa State University, USA</td>
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<tr>
<td>Maysam Ghovanloo</td>
<td>Georgia Institute of Technology, USA</td>
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<tr>
<td>Srikanth Gondi</td>
<td>K-micro, USA</td>
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<tr>
<td>Chair Name</td>
<td>University/Company</td>
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<tr>
<td>Viktor Gruev</td>
<td>Washington University, USA</td>
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<tr>
<td>Anas Hamoui</td>
<td>McGill University, Canada</td>
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<tr>
<td>Pavan Kumar Hanumolu</td>
<td>Oregon State University, USA</td>
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<td>Ramesh Harjani</td>
<td>University of Minnesota, USA</td>
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<tr>
<td>Markus Helfenstein</td>
<td>NXP, Switzerland</td>
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<tr>
<td>Luis Hernandez Corporales</td>
<td>Carlos III University, Spain</td>
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<tr>
<td>Shu-Chuan Huang</td>
<td>Tatung University, Taiwan</td>
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<tr>
<td>Vadim Ivanov</td>
<td>Texas Instruments, USA</td>
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<tr>
<td>Byunghoo Jung</td>
<td>Purdue University, USA</td>
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<tr>
<td>Tor Sverre Lande</td>
<td>University of Oslo, Norway</td>
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<tr>
<td>Dimitrios Loizos</td>
<td>NetLogic Microsystems, USA</td>
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<tr>
<td>Felix Lustenberger</td>
<td>Espros Photonics Corporation, Switzerland</td>
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<td>Dongsheng Brian Ma</td>
<td>University of Arizona, USA</td>
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<tr>
<td>Bradley A. Minch</td>
<td>Olin College, USA</td>
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<tr>
<td>Shahriar Mirabbasi</td>
<td>University of British Columbia, Canada</td>
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<tr>
<td>Pedram Mohseni</td>
<td>Case Western Reserve University, USA</td>
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<tr>
<td>Un-Ku Moon</td>
<td>Oregon State University, USA</td>
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<tr>
<td>P. R. Mukund</td>
<td>Rochester Institute of Technology, USA</td>
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<tr>
<td>Luis Oliveira</td>
<td>Universidade Nova de Lisboa, Portugal</td>
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<tr>
<td>Gaetano Palumbo</td>
<td>University of Catania, Italy</td>
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<tr>
<td>Shanthi Pavan</td>
<td>Indian Institute of Technology-Madras, India</td>
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<tr>
<td>Salvatore Pennisi</td>
<td>Universitry of Catania, Italy</td>
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<tr>
<td>Jaime Ramirez-Angulo</td>
<td>New México State University, USA</td>
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<tr>
<td>Gordon Roberts</td>
<td>McGill University, Canada</td>
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<tr>
<td>Mohamad Sawan</td>
<td>Ecole Polytechnique Montreal, Canada</td>
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<tr>
<td>Hanspeter Schmid</td>
<td>University of Applied Sciences NW Switzerland</td>
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<tr>
<td>Jose Silva-Martinez</td>
<td>Texas A&amp;M University, USA</td>
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<tr>
<td>Robert Sobot</td>
<td>University of Western Ontario, Canada</td>
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<tr>
<td>Sameer Sonkusale</td>
<td>Tufts University, USA</td>
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<tr>
<td>Paul Sotiriadis</td>
<td>Johns Hopkins University, USA</td>
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<tr>
<td>Tuna Tarim</td>
<td>Texas Instruments, USA</td>
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<tr>
<td>Thierry Taris</td>
<td>University of Bordeaux, France</td>
</tr>
<tr>
<td>Albert Wang</td>
<td>University of California at Riverside, USA</td>
</tr>
<tr>
<td>Dag Wisland</td>
<td>University of Oslo, Norway</td>
</tr>
<tr>
<td>Apisak Worapishet</td>
<td>Mahanakorn University of Technology, Thailand</td>
</tr>
<tr>
<td>George Jie Yuan</td>
<td>Hong Kong University of Science and Technology, Hong Kong</td>
</tr>
</tbody>
</table>

A total of 37 technical sessions were chaired by ASPTC members at ISCAS 2010, as listed below:

**Sessions sponsored by Analog Signal Processing:**

<table>
<thead>
<tr>
<th>Session Name</th>
<th>Chair Name</th>
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</thead>
<tbody>
<tr>
<td>Continuous-Time Sigma-Delta Converters (Lecture)</td>
<td>Luis Hernandez</td>
</tr>
<tr>
<td>Basic Amplifiers (Lecture)</td>
<td>Jorge Fernandes</td>
</tr>
<tr>
<td>Sigma-Delta: Filters &amp; DACs (Lecture)</td>
<td>Robert Sobot</td>
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<tr>
<td>Circuits for Wireless Systems (Lecture)</td>
<td>Luis Oliveira</td>
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<tr>
<td>Calibration Techniques for Data Converters (Lecture)</td>
<td>Jose Silva-Martinez</td>
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<tr>
<td>Switching Amplifiers &amp; Feedback Techniques (Lecture)</td>
<td>Gregorio Cappuccino</td>
</tr>
<tr>
<td>Regulators &amp; Amplifiers (Lecture)</td>
<td>Mohamad Sawan</td>
</tr>
<tr>
<td>Special &amp; Current-Mode Filters (Lecture)</td>
<td>Viktor Gruev</td>
</tr>
<tr>
<td>Specialty Amplifiers (Poster)</td>
<td>Igor Filanovsky</td>
</tr>
<tr>
<td>Continuous-Time Signal Processing (Poster)</td>
<td>Albert Wang</td>
</tr>
</tbody>
</table>
Amplifiers, Filters & Sensor Interfaces (Poster) Maysam Ghovanloo
Analog Techniques (Poster) Shahriar Mirabbasi
Successive Approximation ADCs (Lecture) Randall Geiger
Analog Building Blocks (Lecture) Salvatore Pennisi
References & Power Converter Circuits (Lecture) Vadim Ivanov
Pipelined & Flash ADCs (Lecture) Tony Chan Carusone
Analog Circuits & IC Technology (Lecture) George Yuan
Mixed-Signal Test I (Lecture) Tuna Tarim, Non-member co-chair: Rajeev Dokania
Oscillators for Wireless Applications (Lecture) Alyssa Apsel
Sigma-Delta Systems & Techniques (Lecture) Gabor Temes
Wireless Circuits & Systems (Lecture) Thierry Taris
Circuit Theory & Techniques (Lecture) Paul Sotiriadis
Sigma-Delta Applications (Lecture) Anas Hamoui
Complex Amplifiers (Lecture) Gaetano Palumbo
Data Converter Techniques (Lecture) Degang Chen
Interfaces for Wireless Sensor Networks (Lecture) Byunghoo Jung
MEMS Interfaces (Lecture) Hanspeter Schmid
Digital to Analog Conversion Techniques (Lecture) Joseph Chang
Mixed-Signal Test II (Lecture) P.R. Mukund Non-member co-chairs: Mustansir Mukadam and Xuan Zhang
Gm-C & Active-RC Filters (Lecture) Robert Sobot
Sigma-Delta Conversion I (Poster) Tor Lande
Sigma-Delta Conversion II (Poster) Shahriar Mirabbasi
Pipelined ADCs (Poster) Randall Geiger
High Performance Data Converters (Poster) Jose M. de la Rosa
References & Converter Circuits (Poster) Gabriel Rincon-Mora
Oscillators & Time/Phase-Domain Circuits (Poster) Igor Filanovsky
High-Speed Circuits (Poster) Gregorio Cappuccino

Our committee members also contributed to ISCAS 2010 as:

Technical Program Co-Chair: Wouter Serdijn
ASP Track Chairs: Alyssa Apsel, Viktor Gruev, and Shahriar Mirabbasi
Special Sessions organizers: Paul Sotiriadis, Jorge Fernandes, Luis Hernandez
Tutorial Presenters: Jose M. de la Rosa, Gabriel Rincon-Mora

2. CASS-sponsored and/or Other conferences, meetings and committees
Members of ASPTC are active in organizing and coordinating many other conferences and meetings in the CAS field. These activities are summarized in the following list:

IEEE CASS Board of Governors
Mohamad Sawan
Wouter Serdijn
Tuna Tarim
Tony Chan Carusone (Solid-State Circuit Society Representative to CASS)

IEEE CASS Administrative Vice President
Tuna Tarim

IEEE Circuits and Systems Society Mac Van Valkenburg Award Subcommittee
Gabor Temes (Chair)

IEEE Circuits and Systems Society Meritorious Service Award Subcommittee
Tor Sverre Lande
IEEE Circuits and Systems Society Vitold Belevitch Award Subcommittee  
Gabor Temes

Guillemin-Cauer and Darlington Awards Committee  
Wouter A. Serdijn (EIC TCAS-I), Chair  
Mohamad Sawan (DEIC TCAS-II)  
Un-Ku Moon (Expert nominated by VP Pubs)

IEEE CASS Nominations Committee  
Wouter A. Serdijn

TBioCAS Best Paper Award Committee  
Tor Sverre Lande (TBioCAS EIC)  
Andreas Demosthenous (Expert nominated by VP Pubs)

Young Author Award Committee  
Wouter A. Serdijn (EIC TCAS-I)  
Tor Sverre Lande (TBioCAS EIC)

Budget Committee  
Tuna Tarim

Fellows Evaluating Committee  
Ramesh Harjani  
Randy L Geiger  
Gaetano Palumbo

IEEE CASS Conference Division  
Wouter A. Serdijn

IEEE CASS Publication Activities  
Mohamad Sawan

IEEE CASS ExCom  
Tuna Tarim

IEEE Biomedical Circuits and Systems Conference (BioCAS)  
Mohamad Sawan, Technical Program Co-Chair  
Ralph Etienne-Cummings, Tutorial Presenter  
Paul Sotiriadis, Technical Program Committee  
Pedram Mohseni, Technical Program Committee  
Viktor Gruev, Technical Program Committee  
Sameer Sonkusale, Technical Program Committee  
Andreas Demosthenous, Technical Program Committee  
Wouter A. Serdijn, Technical Program Chair

IEEE International Conference on Electronics, Circuits and Systems (ICECS)  
Jose M. de la Rosa, Technical Program Committee  
Mohamad Sawan, Tutorial Presenter  
Wouter A. Serdijn, Special Session Co-Chair  
Anas Hamoui, Technical Program Chair

IEEE International NEWCAS Conference  
Mohamad Sawan, General Chair  
Anas Hamoui, Special Sessions Chair

IEEE Custom Integrated Circuits Conference (CICC)  
Ramesh Harjani, Technical Program Committee  
Ramesh Harjani, Educational Sessions Chair  
Shahriar Mirabbasi, Technical Program Committee  
Tony Chan Carusone, Technical Program Committee
Symposium on Integrated Circuits and Systems Design
Paul Sotiriadis, Technical Program Committee

Nano-Nets - Fourth International ICST Conference on Nano-Networks
Paul Sotiriadis, Technical Program Committee

IEEE High Speed Workshop 2010
Valencia Joyner, Technical Program Committee
IEEE Workshop on Optical Wireless Communications - GLOBECOM
Valencia Joyner, Technical Program Committee

IEEE Sensors Conference
Sameer Sonkusale, Technical Program Committee
Viktor Gruev, Technical Program Committee

International System on Chip Conference
Sameer Sonkusale, Technical Program Committee

Great Lakes Symposium on VLSI Circuit
Sameer Sonkusale, Technical Program Committee

Midwest Symposium on Circuits and Systems
Jose Silva Martinez, Track Chair of “Analog Circuits and Signal Processing, 2010

Symposium on Integrated Circuits and Systems Design
Jose Silva Martinez, Technical Program Committee

IEEE International Conference on Portable Information Devices
Ramesh Harjani, Technical Program Committee

IEEE Circuits & Systems for Medical & Environmental Applications Workshop
Ramesh Harjani, Technical Program Committee

The International Symposium on Quality Electronic Design (ISQED)
Dongsheng Brian Ma, Technical Program Committee

The Applied Power Electronics Conference and Exposition (APEC)
Dongsheng Brian Ma, Technical Program Committee

IEEE International Solid-State Circuits Conference (ISSCC)
Un-Ku Moon, Technical Program Committee
Ralph Etienne-Cummings, Technical Program Committee

VLSI Circuits Symposium
Un-Ku Moon, Technical Program Committee

IEEE International Mixed-Signals, Sensors, and Systems Test Workshop
Viktor Griev, Technical Program Committee

IEEE/NIH LiSSA 2009 special session on Circuits and Systems activity in Life science area
Viktor Griev,

IEEE International Conference on Computer Design (ICCD)
Andreas Demosthenous, Technical Program Committee
Conference on Ph.D. Research in Microelectronics & Electronics (PRIME)
   Andreas Demosthenous, Review Committee Member

VLSI Circuits Symposium
   Un-Ku Moon, Technical Program Committee

IEEE European Solid-State Circuits Conference (ESSCIRC)
   Andreas Demosthenous, Technical Program Committee

IEEE NORCHIP Conference
   D.T. Wisland, Technical Program Committee

Symposium on Integrated Circuits and Systems Design
   D.T. Wisland, Technical Program Committee

Solid-State Systems Symposium
   D.T. Wisland, Technical Program Committee

Second Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics
   (PrimeAsia2010)
   Wouter A. Serdijn, International Advisor

Workshop on Intelligent Solutions in Embedded Systems
   Gaetano Palumbo, Program Committee

IEEE Solid-State Circuits Adcom
   Tony Chan Carusone (Solid-State Circuit Society Representative to CASS)

3. Editorial boards and Publications (Books, Book Chapters, and Journals)

Members of the ASPTC were active on the editorial boards of IEEE and CAS-related journals and transactions, and in promoting ASP and CAS in other publications generally, as summarized below:

Editorial boards

IEEE Transactions on Circuits and Systems I
   Editor-in-Chief: Wouter A. Serdijn (2010 and 2011)
   Deputy Editor-in-Chief: Wouter A. Serdijn (2008 and 2009)
   Associate Editors: Joseph Sylvester Chang, Andreas Demosthenous, Felix Lustenberger, Shahriar Mirabbasi, Hanspeter Schmid, Igor Filanovsky, Gaetano Palumbo, Shanthi Pavan, Anas Hamoui, Jose Silva-Martinez
   Guest Editor: Shahriar Mirabbasi, Wouter A. Serdijn

IEEE Transactions on Circuits and Systems II
   Deputy-Editor-in-Chief (2010): Mohamad Sawan
   Editor-in-Chief (2009): Tony Chan Carusone
   Deputy-Editor-in-Chief (2009): Un-Ku Moon
   Associate Editors: Pedram Mohseni, Alyssa Apsel, Gabriel A. Rincón-Mora, Maysam Ghovanloo, Joseph Sylvester Chang (2009), Deuk Heo, Pavan Kumar Hanumolu (2009), Salvatore Pennisi (2009), Paul Sotiriadis (2009), Salvatore Pennisi (2009)

IEEE Transactions on Biomedical Circuits and Systems
   Steering Committee: Mohamad Sawan
   Associate Editor: Pedram Mohseni, Mohamad Sawan, Ralph Etienne-Cummings, Anas Hamoui
IEEE CASS Electronics Newsletter
Andreas Demosthenous, Associate Editor

IEEE Journal of Solid-State Circuits
Guest Editor: Ramesh Harjani
Guest Editor: Tony Chan Carusone
Associate Editor: Un-Ku Moon

IEEE Sensors Journal
Senior Associate Editor: Ralph Etienne-Cummings
Journal of Applied Research and Technology Member of editorial board: Jose Silva-Martinez

Journal of Physiological Measurement, IOP
Andreas Demosthenous, International Advisory Board

Journal Analog Integrated Circuits and Signal Processing
Associate Editor: Gabor Temes
Editorial Board: Anas Hamoui

Journal of Healthcare Engineering
International Editorial Board: Mohamad Sawan

International Journal of Circuit Theory and Applications
Editorial Board: Mohamad Sawan

Springer Publisher in the field of Analog and biomedical books
Advisor: Mohamad Sawan

Journal of Electrical and Computer Engineering, Hindawi Publishing Corporation
Member of the Editorial Board: Jose Silva-Martinez

Micro-electronics Journal
Member of the Editorial Board: Jose Silva-Martinez

International Science & Technology Transactions
Member of the Editorial Board: Jose Silva-Martinez

Research Letters in Electronics, Hindawi Publishing Corporation
Member of the Editorial Board: Jose Silva-Martinez

Recent Patents on Electrical Engineering
Member of the Editorial Board: Jose Silva-Martinez

Journal of Applied Research and Technology
Member of the Editorial Board: Jose Silva-Martinez

Books and book chapters
Journal publications


appear.


[54] Mahmoud Reza Ahmadi, Amir Amirkhany, and Ramesh Harjani, "A 5Gbps 0.13um CMOS
Pilot-Based Clock and Data Recovery Scheme for High-Speed Links”, (invited) CICC special issue in IEEE Journal of Solid State Circuits, August 2010


**Invited Talks/Lectures**

6. Ralph Ettienne-Cummings, Hong Kong University of Science and Technology, Hong Kong, P.R. China, May 2009.
9. Ralph Ettienne-Cummings, Bodian Lecture, Mind-Brain Institute, JHU, Baltimore, MD, November 2009.
10. Ralph Ettienne-Cummings, Morgan State University, Baltimore, MD, November 2009.
15. Wouter A. Serdijn, ISCAS 2010 PhD/GOLD Special Session "How to Have a Successful Academic Career", 31 May 2010

4. Other professional recognitions

IEEE Fellow
Albert Wang (2009)
Un-Ku Moon (2009)
Robert Bogdan Staszewski (2009)
Tor Sverre Lande (2010)
Jose Silva-Martinez (2010)

2009 Mac Van Valkenburg Award from CASS
Gabor Temes

NSF Faculty Early Career Development (CAREER) Award
Valencia Joyner
Pedram Mohseni
Sameer Sonkusale
Dongsheng Brian Ma

IEEE Circuits and Systems Society Darlington Outstanding Paper Award
Shanthi Pavan

Swarnajayanthi Fellowship Award from the Department of Science and Technology, Govt. of India, 2009. (This is given to researchers below 40 years of age - one award in all branches of engineering, all over India)
Shanthi Pavan

Young Faculty Recognition Award from Indian Institute of Technology - Madras, for excellence in teaching and research.
Shanthi Pavan

“Technomentor Award” - given by the India Semiconductor Association, for outstanding contributions to the area of Micro/Nano Electronics and VLSI.
Shanithi Pavan

Frontier Trends in Microelectronics, Best Poster Award, 2009
Sameer Sonkusale
International Semiconductor Device Research Symposium, Best Poster Award, 2009
Sameer Sonkusale

2009, Best Graduate Thesis Award, College of Engineering, The University of Arizona, (as thesis advisor of Ms. Ling Su);
Dongsheng Brian Ma

2009, Nominated for University of Arizona Accolades Outstanding Faculty Award;
Dongsheng Brian Ma

2009, 1st Place Winner in 52nd IEEE International Midwest Symposium on Circuits & Systems Student Paper Contest (as student advisor of Rajdeep Bondade)
Dongsheng Brian Ma

IEEE CASS Distinguished Lecturer
Ralph Etienne-Cummings

IEEE Solid-State Circuits Society Distinguished Lecturer
Un-Ku Moon

Outstanding Paper Award, International Conference on Mixed Design of Integrated Circuits and Systems (MIXDES’09)
Luis Oliveira

National Semiconductor VL Distinguished Faculty, National Semiconductor University
Wouter A. Serdijn

5. **2009-2010 planned activities**
ASPTC remains strongly committed to promote CAS interests in the ASP field, and assist with organizing and coordinating CASS-sponsored activities, such as ISCAS 2011. We will continue to seek close working relationships with other CASS technical committees in co-organizing events of inter-disciplinary nature, as we have done for special sessions and tutorials at ISCAS and MWSCAS in recent years. We will also maintain a broader influence in other societies such IEEE-CS and IEEE-SSCS. Finally, we hope to continue with an annual special section devoted to excellent papers in the area of analog signal processing in TCAS-I.

*Sharhia Mirabbasi, Chair, June 29, 2010*