Sensor Array and Multichannel Technical Committee Newsletter

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SAM TC Chair Kristine Bell

SAM TC Vice-Chair Mats Viberg

Newsletter Editor Marco Lops

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- <u>Distinguished Lecturers</u>
- Awards

- IEEE

- Fellows

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Message from the Chair

Welcome to the first edition of the Sensor Array and Multichannel (SAM) Technical Committee (TC) newsletter. In this issue there are articles on Elections, Workshops, and Honors and Awards; a listing of Calls-for-Papers/Proposals and Calls for Nominations; TC committee assignments; and a calendar of duties and events. There are many useful links in the panel to the left and on page three.

The newsletter is one of several new developments of our TC in response to new Policies and Procedures (P&P) adopted by the Signal Processing Society (SPS) in December 2009. All the SPS TCs are now governed under a common set of policies that reflect best practices among the TCs. SAM TC policies and procedures were already mostly in line with the new SPS P&P, however there are a few provisions that bring some changes and new initiatives to our TC.

First, TC size limits have been increased from 30 members to 40 members, and we will be increasing the size of the TC gradually over the next three years. Three new positions were filled in a special election in March 2010 (see Elections article).

Second, formal committees have been

recommended to conduct TC business, and we have formed several new committees. Every TC member is now assigned to a committee or representative position. Committee assignments are listed on page two.

Third, two new classes of non-voting TC members have been created: Associate Members and Affiliate Members. Associate Members are appointed by the Chair and assist the TC in a variety of ways including reviewing ICASSP papers, making nominations for awards, and organizing workshops. This formalizes and expands upon our practice of using Associate Members for ICASSP reviews. A list of our Associate Members can be found on the Management and Membership page of our website. Affiliate membership is open to anyone interested in the activities of the TC and there is a separate class of Affiliate membership for students. A list of our Affiliate Members and a link for new members to sign up can be found on the Affiliate Members page of our website.

Finally, increased communication and outreach to SPS members has been encouraged. This newsletter is our first effort in this area. I hope you find it interesting and informative.

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Committees

Awards

Dominic Ho, Chair Fulvio Gini Brian Sadler

Nominations and Elections

Olivier Besson, Chair Biao Chen Aleksandar Dogandzic

Technical Directions

Rick Blum, Chair Erik Larsson Mats Viberg

Workshops

Arye Nehorai, Chair Ananthram Swami Joseph Tabrikian Sergiy Vorobyov

Newsletter

Marco Lops, Chair Kristine Bell

Webmaster

Peter Willett, Chair Alle-Jan van der Veen

Membership

Dan Fuhrmann, Chair Abdelhak Zoubir

Industry/Government

Raghuveer Rao, Chair Muralidhar Rangaswamy

Education

Maria Sabrina Greco, Chair Randy Moses

Area Chairs

Sensor Array Processing Hongbin Li

Beamforming and Space-Time Adaptive Processing Jian Li

Multi-Antenna and Multi-Channel Communications Visa Koivunen

Detection, Estimation, and Source Separation Lee Swindlehurst

Sensor Networks Yingbo Hua

Applications of SAM Processing Steven Smith

Regional Reps

1-6: USA Lang Tong

7/9: Canada/Latin America Shahram Shahbazpanahi

8: Europe/Mid-East/Africa Andreas Jakobsson

10: Asia/Pacific
Yuri Abramovich

Elections

In December 2009, three new TC members were elected: Yingbo Hua, Marco Lops, and Lee Swindlehurst; and seven TC members were elected for a second term: Biao Chen, Alexandar Dogandzic, Erik Larsson, Hongbin Li, Sergiy Vorobyov, Peter Willett, and Abdelhak Zoubir. In March 2010, we held a special election to elect three additional new members: Maria Sabrina Greco, Steven Smith, and Joseph

Tabrikian. Also in March 2010, Mats Viberg (Vice-Chair) was approved to succeed to the Chair position in 2011, in accordance with the new P&P.

The TC wishes to thank retiring members Alex Gershman, Ivars Kirsteins, Hagit Messer-Yaron, Chong-Meng Samson See, Nikos Sidiropoulos, and Xiang-Gen Xia for their many years of dedicated service on the TC.

Awards and Honors

SAM TC members and nominees received many awards and honors in 2010.

Abdelhak Zoubir was selected as a Distinguished Lecturer for 2010-2011, and the SAM TC also successfully nominated Venu Veeravalli as a Distinguished Lecturer for 2010-2011. Arye Nehorai was chosen to receive a 2010 Meritorious Service Award, and Dan Fuhrmann and Randy Moses were elevated to IEEE Fellow.

The SAM TC submitted successful nominations for:

2010 Best Paper Award (Spencer, Q.H.; Swindlehurst, A.L.; Haardt, M., "Zeroforcing methods for downlink spatial multiplexing in multiuser MIMO channels," IEEE Trans. SP, Feb. 2004)

SP Magazine Best Paper Award (Patwari, N.; Ash, J.N.; Kyperountas, S.; Hero, A.O., III; Moses, R.L.; Correal, N.S., "Locating the nodes: cooperative localization in wireless sensor networks," July 2005)

SP Magazine Best Column Award (Baraniuk, R.G., "Compressive Sensing [Lecture Notes]," July 2007).

Workshops

In December 2009, the SAM TC sponsored the 3rd IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2009) in Aruba, Dutch Antilles, co-chaired by Yonina Eldar and Daniel Palomar. This was the third CAMSAP workshop (previous workshops were held in 2007 and 2005). The workshop featured 6 plenary talks, and 91 papers organized into 12 invited and 5 regular sessions. Paper submissions and

attendance were considerably higher this year, indicating that it has now become an established and increasingly popular workshop.

Upcoming SAM TC workshops include SAM 2010 in Israel in October 2010 and CAMSAP 2011 in Puerto Rico in December 2011. More information can be found on the Conferences page of our website.

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Calendar

June 2010

- SAM 2010 Reviews
- SPS Awards Nominations

July 2010

- ICASSP EDICS
- SPS Awards Nominations

August 2010

- SPS Awards Nominations

September 2010

- SAM TC Member Nominations
- SAM TC Vice-Chair Nominations

October 2010

- SAM 2010
- SAM TC Member Election
- SAM TC Vice-Chair Election

November 2010

- ICASSP Reviews

December 2010

- ICASSP Sessions

January 2011

- SAM TC Committee Reports
- DL, Awards, Fellow Announcements

February 2011

- IEEE Fellow Nominations

March 2011

- SAM 2012 Proposals

April 2011

- DL Nominations

May 2011

- ICASSP 2011

Calls for Papers/Proposals

Conference/Journal	Topic/Link	Deadline
ICASSP 2011	Special Session and Tutorial Proposals	Sept. 1, 2010
ICASSP 2011	<u>Papers</u>	Oct. 20, 2010
<u>JSTSP</u>	Special Issue Proposals	ongoing
<u>JSTSP</u>	Special Issue on Signal Processing in Gossiping Algorithms Design and Applications	July 30, 2010
JSTSP	Special Issue on Adaptive Sparse Representation of Data and Applications in Signal and Image Processing	Sept. 15, 2010

Calls for Nominations

Nomination/Position	Submit to	Deadline
SAM TC Vice-Chair (info/forms)	SAM TC Nominations and Elections Committee	September 10, 2010 (starting August,1 2010)
SAM TC Member (info/forms)	SAM TC Nominations and Elections Committee	September 10, 2010 (starting August,1 2010)
SPS Awards 2011 (info/forms)	SAM TC Awards Committee	August 15, 2010
IEEE Fellow Class of 2012 (info/form)	IEEE Fellow Program	March 1, 2011

About the SAM TC

The SAM TC addresses the areas of sensor array and multi-channel statistical signal processing. Our technical interests span the areas of signal detection and estimation, direction-of-arrival estimation, beamforming, blind source separation, source localization and tracking, multiple-input multiple-output (MIMO) systems and space-time

coding, sensor networks, and multichannel signal processing.

Our main application areas are focused on radar, sonar, navigation, seismology, radio astronomy, wireless communications, microphone arrays, and biomedicine.