IEEE SPS Webinar Program
Genova, Italy November 18 2011

- 14.30-15.00
- 15.00-15.30
  - IEEE SPS Chapters activities and their relationships with IEEE SPS Technical Committees Carlo Regazzoni, IEEE SPS RDaL
- 15.30-16.15 SPS Technical Committees TC presentations
  - Andrea Cavallaro (QMUL, London, UK)
    - TC: Image, video, and multidimensional signal processing (TC Chair: Gaurav Sharma)
  - Francesco De Natale (Univ. of Trento, Italy)
    - TC: Multimedia SP (TC Chair: Philip Chou)
  - Teddy Furon (Inria rennes, France)
    - TC: Information forensics and security (TC Chair: Mauro Barni)
- 16.15-17.00 Open discussion and further initiatives
- 17.00 Conclusions
IEEE SPS Webinar Program
Genova, Italy November 18 2011

- Thanks for contributions to organization to:
  - Steve Welch (IEEE Region 8)
  - Saurabh Sinha (IEEE Region 8)
  - Lucio Marcenaro (Univ. Genova)
  - Francesca Grasso (Univ. Genova)
In addition to other people mentioned in the slides
A Brief Overview of the IEEE Signal Processing Society

Regional Directors-at-Large perspective

(thanks to
Mos Kaveh, President SPS,
John Treichler SPS VP Awards and Membership, Min Wu SPS VP Finance,
Roxana Saint-Nom (Regions 7-9),
Theresa Argiropoulos, Darlene Beverley, IEEE SPS Offices)
Table of Contents

- Overview of IEEE and SP Society
- Overview of SPS governance structure
- SPS’s field of interest, mission statement, vision statement
- SPS’s activities
- Chapters Support
- Regional Directors-at-Large mission
IEEE is the parent organization. The Signal Processing Society reports directly to the Technical Activities Board. The Vice President-Technical Activities represents the Societies/Council on the IEEE Board of Directors.
TAB
Technical Activities Board

- Represents the Societies and Councils to the IEEE Board of Directors
- Develops policy for Societies and Councils
- Reviews and approves society/council bylaw changes
- Provides support and guidance to Societies and Councils
- Monitors operation of Societies and Councils:
  - Society and publication reviews
  - Approves Society budgets
  - Approves Society field of interest statements
  - Approves new publications
  - Approves changes in publications (title, FOI, etc.)
- Voting members of TAB include:
  - 44 society and council presidents
  - 10 division directors
  - 7 other officers/committee chairs
SPS as Part of TAB and IEEE

- **SPS is in Division IX (Al Hero, Director)**
  - SP, AES, GRS, IT, ITS, OCE, VT

- **SPS has high stature in TAB**
  - 1st Society (SP-01)
  - 4th largest Society in membership
  - 2nd largest Society in # publications
  - 2nd largest Society in # meetings
MGA
Member & Geographic Activities Board

- Region 1: Northeastern U.S
- Region 2: Eastern U.S.
- Region 3: Southeastern U.S.
- Region 4: Central U.S.
- Region 5: Southwestern U.S.
- Region 6: Western U.S.

- Region 7: Canada
- Region 8: Europe, the Middle East, Africa
- Region 9: Latin America
- Region 10: Asia and the Pacific Rim

Approximately 50% of all IEEE SPS members are outside Regions 1-6.
IEEE Signal Processing Society Structure and Governance

SPS BoG

SPS ExCom

SPS Staff Support
Society’s Goals, Volunteers and Operations

SPS Publications Board
EIC EIC EIC

SPS Conference Board
GC GC TDB

SPS Technical Directions Board
TCC TCC TCC

SPS Membership Board
RD DMS DIR

SPS Awards Board

IEEE Signal Processing Society
IEEE Signal Processing Society
Governance – the Officers

- President (Mos Kaveh) – 2 year term
  - chairs BoG and ExCom, a member of TAB
- President-Elect (Ray Liu) – 2 year term
  - chairs Long Range Planning and Implementation Committee and TC Review Committee
- VP-Awards and Membership (John Treichler) – 3 year term
  - chairs Awards Board and Membership Board
- VP-Conferences (V. John Mathews) – 3 year term
  - chairs Conference Board
- VP-Finance (Min Wu) – 3 year term
  - prepares budgets and serves as BoG Secretary
- VP-Publications (Ali Sayed) – 3 year term
  - chairs Publications Board
- VP-Technical Directions (Ahmed Tewfik) – 3 year term
  - chairs Technical Directions Board and interfaces with our TC’s
IEEE Signal Processing Society
SP Society – BoG Members-at-Large (MAL)

- Are elected by the membership
- Attend BoG meetings and participate
- General expectations include:
  - Represent the membership of the SP Society
  - Think long term
  - Think strategic
  - Accept volunteer involvements beyond MAL

- Current MAL (end-of-term)
  - Charles A Bouman (2011)
  - Sheila S. Hemami (2011)
  - Mari Ostendorf (2011)
  - Alex Acero (2012)
  - Antonia Papandreou-Suppappola (2012)
  - Mats Viberg (2012)
  - Petar M. Djuric (2013)
  - William Clem Karl (2013)
  - Sergios Theodoridis (2013)
IEEE Signal Processing Society
SP Society – BoG Directors-at-Large (RDAL)

- Current Regional Directors-at-Large, Non-voting Members (end-of-term)

  - Yun-Qing Shi  
    Regions 1-6 (2012)
  - Roxana Saint-Nom  
    Regions 7-9 (2012)
  - Carlo Regazzoni  
    Region 8 (2012)
  - Ta-Sung Lee  
    Region 10 (2012)
SPS Finances
Revenue Streams

• Products
  • Periodicals
    ▪ Transactions (5 sole + 4 co-sponsored)
    ▪ Magazine (1) augmented by e-newsletter
    ▪ Letters (1)
  • Meetings
    ▪ Conferences/Symposia (2 sole + 6 co-sponsored)
    ▪ Workshops (13 sole + 1 co-sponsored)
  • Electronic media
    ▪ SPEL

• Investment returns
SPS Finances
Expense Streams

- Providing services to larger community
  - SPS Web pages
  - SPS Distinguished Lecture Program
  - SPS support of IEEE History Center
  - SPS sponsorship of Society and IEEE awards

- Funding SPS initiatives
  - Launching new publications
  - Streamlining conference organization
  - Expanding our membership

- Operational and administrative expenses
  - SPS Staff Office
  - Travel assistance for volunteers on major SPS Boards

- TAB Infrastructure costs
IEEE SPS Field of Interest

Signal processing is the enabling technology for the generation, transformation, extraction, and interpretation of information. It comprises the theory, algorithms with associated architectures and implementations, and applications related to processing information contained in many different formats broadly designated as signals.

Signal processing uses mathematical, statistical, computational, heuristic, and/or linguistic representations, formalisms, modeling techniques and algorithms for generating, transforming, transmitting, and learning from signals.

(Approved by TAB in 2010)
IEEE Signal Processing Society
What We Are

- **Volunteer Organization**

  Serve our members and the community at large:

  - Meetings – high quality, provide networking opportunities.
  - Publications – high quality and fast publication.
  - Make our technical area visible.
  - Educate our members in technical matters related to SPS
IEEE Signal Processing Society
The First IEEE Society *

Early History of Society 01

- 1948  began as the IRE Professional Group on Audio
- 1953  IRE Transactions on Audio
- 1963  IEEE formed from IRE and AIEE, Professional Group on Audio becomes part of the IEEE
- 1965  renamed the Group on Audio and Electroacoustics
- 1974  renamed Acoustics, Speech and Signal Processing Group
- 1976  first IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)
- 1984  first publication of IEEE ASSP Magazine

* Sixty Years of Signal Processing, May 2008
IEEE Signal Processing Society
The First IEEE Society *

Later History of Society 01

- 1992  ASSP Society becomes the Signal Processing Society
- 1992  first publication of IEEE Trans. on Image Processing
- 1993  first publication of IEEE Trans. on Speech and Audio Processing
- 1993  Society Executive Office established
- 1994  first International Conference on Image Processing (ICIP)
- 2005  first publication of IEEE Trans. on Information Forensics and Security
- 2006  launch of IEEE Journal of Selected Topics in Signal Processing

* Sixty Years of Signal Processing, May 2008
IEEE SPS Mission Statement

The Signal Processing Society is an international organization whose purpose is to:

- advance and disseminate state-of-the-art scientific information and resources
- educate the signal processing community
- provide a venue for people to interact and exchange ideas

(Adopted by SPS Board of Governors 11 September 2003)
IEEE SPS Vision Statement

The Signal Processing Society is a dynamic organization that is the preeminent source of signal processing information and resources to a global community. We do this by:

- being a one-stop source of signal processing resources
- providing a variety of high quality resources to a variety of users in formats customized to their interests
- adapting to a rapidly changing technical community
- being intimately involved in the education of signal processing professionals at all levels

(Adopted by SPS Board of Governors 11 September 2003)
Wholly-owned Publications of the Signal Processing Society:

- IEEE Journal of Selected Topics in Signal Processing
- IEEE Signal Processing Magazine
- IEEE Signal Processing Letters
- IEEE Transactions on Signal Processing
- IEEE Transactions on Image Processing
- IEEE Transactions on Audio, Speech, and Language Processing
- IEEE Transactions on Information Forensics and Security
- Signal Processing electronic Library (SPeL)
SPS Publications
Co-Sponsored Publications

Financially co-sponsored publications of the Signal Processing Society:
- IEEE Transactions on Medical Imaging (17%)
- IEEE Transactions on Mobile Computing (20%)
- IEEE Transactions on Multimedia (25%)
- IEEE Trans. on Wireless Communications (25%)
- Biometrics Compendium

Technically co-sponsored publications of the Signal Processing Society:
- IEEE Applications and Practice Magazine
- IEEE Computing in Science and Engineering Magazine
- IEEE Engineering Management Review
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing
- IEEE Multimedia Magazine
- IEEE Review on Biomedical Engineering
- IEEE Security and Privacy Magazine
- IEEE Technology Management Package
- IEEE Transactions on Smart Grid
- IEEE Transactions on Affective Computing
- IEEE Transactions on Engineering Management
Wholly-Owned Conferences of the Signal Processing Society:
- IEEE International Conference on Acoustics, Speech, and Signal Processing
- IEEE International Conference on Image Processing

Co-sponsored Conferences of the Signal Processing Society:
- IEEE International Conference on Multimedia & Expo (25%)
- IEEE International Conference on Advanced Video and Signal Based Surveillance (50%)
- IEEE International Symposium on Biomedical Imaging (50%)
- IEEE International Conference on Information Processing in Sensor Networks (50%)
- IEEE International Symposium on Signal Processing and Information Technology (50%)
- IEEE International Conference on Natural Language Processing and Knowledge Engineering (25%)
- IEEE International Conference on Signal and Image Processing (50%)

Note: Because IEEE is a not-for-profit, 501(c)(3) organization, it cannot enter into shared business arrangements with for-profit entities. This prohibition extends to the relationships of the Societies with for-profit companies or other types of for-profit entities.
SPS Conferences
Workshops

Workshops of the Signal Processing Society:
- IEEE Workshop on Applications of Signal Processing to Audio and Acoustics
- IEEE Workshop on Automatic Speech Recognition
- IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing
- IEEE Workshop on Genomic Signal Processing and Statistics
- IEEE Workshop on Information Forensics
- IEEE Workshop on Machine Learning for Signal Processing
- IEEE Workshop on Multimedia Signal Processing
- IEEE Sensor Array and Multichannel Signal Processing Workshop
- IEEE Workshop on Signal Processing Advances in Wireless Communications
- IEEE Speaker and Language Recognition Workshop
- IEEE Spoken Language Technology Workshop
- IEEE Workshop on Statistical Signal Processing

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SPS Conferences
Workshops

Co-sponsored workshops of the Signal Processing Society:
- IEEE Workshop on Signal Processing Systems (50%)

Technical Co-sponsorship of the Signal Processing Society:
- The Society technically co-sponsors various conferences and workshops each year.

Note: Because IEEE is a not-for-profit, 501(c)(3) organization, it cannot enter into shared business arrangements with for-profit entities. This prohibition extends to the relationships of the Societies with for-profit companies or other types of for-profit entities.
SPS Technical Committees
http://www.signalprocessingsociety.org/technical-committees/list/

Year 1976
- Digital signal processing
- Digital measurement of noise
- Electroacoustic transducers
  - Speech processing
  - Underwater acoustics

Year 1987
- Audio and electroacoustics
- Digital signal processing
- Multidimensional signal processing
- Spectral estimation and modeling
  - Speech processing
  - Underwater acoustics
- VLSI for signal processing

Year 2011
- Audio and electroacoustics
- Bio imaging and signal processing
- Design and implementation of signal processing and systems
- Image, video, and multidimensional signal processing
- Information forensics and security
  - Machine learning for SP
  - Multimedia SP
- Sensor array and multichannel
- SP for communication and networking
  - SP theory and methods
- Speech and language processing
  - Industry DSP technology
  - Signal processing education
SPS Awards

- IEEE James A. Flanagan Speech and Audio Processing Technical Field Award (est. 2002)
- IEEE W.R.G. Baker Prize Paper Award

- Meritorious Service Award
- Society Award
- Technical Achievement Award
- Best Paper Award
- Signal Processing Magazine Best Paper Award
- Signal Processing Magazine Best Column Award
- Young Author Best Paper Award
- Education Award
# SPS Membership

<table>
<thead>
<tr>
<th>Year</th>
<th>Members</th>
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<tbody>
<tr>
<td>1950</td>
<td>1,126</td>
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<td>1960</td>
<td>4,451</td>
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<td>1970</td>
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<td>1980</td>
<td>8,619</td>
</tr>
<tr>
<td>1990</td>
<td>15,925</td>
</tr>
<tr>
<td>2011</td>
<td>15,000 (approx.)</td>
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