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IEEE Signal Processing Magazine

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Inside Signal Processing E-Newsletter

May 2009

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Highlights

- [Society News](#): IEEE celebrates 125th anniversary; BoG elected new SPS officers
- [Conference News](#): ICASSP'09 brought a grand celebration of SP advances & achievements
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- [TC News](#): Exclusive reports from Industry DSP Technology SC and Bio Imaging & SP TC
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From the E-Newsletter Team:

Following the call for **E-News Correspondents** in March 2009, we are pleased to engage graduate student members for the first time to report SPS events for the Inside Signal Processing E-Newsletter. Learn more about ICASSP 2009 from an [exclusive report](#) by a Student Correspondent and the Conference Chair.

The Inside Signal Processing E-Newsletter invites nominations and applications to serve as E-News Correspondents and contribute timely and stimulating articles on SPS conference/workshop and chapter events. Graduate students are welcome! Application for reporting major SPS conference/workshop is due a month before the corresponding event, and should include name, affiliation, contact information, and a list of technical interests; links to writing samples, such as web blogs and articles, are encouraged. Please email applications in plain text to Associate Editor Prof. Huaiyu Dai at <huaiyu_dai AT ncsu.edu> -- no attachments please.

Please share the Inside Signal Processing E-Newsletter with your colleagues by emailing and bookmarking <<http://enews.ieee-spm.org>> for current and archived issues. IEEE members may manage their subscription to email notification of the Inside Signal Processing E-Newsletter at [this link](#).

1. Society News

Happy 125th Anniversary, IEEE!

As the world's largest technical professional society, IEEE celebrated its official 125th anniversary day on 13 May 2009 with announcing a global "Engineering the Future Day" initiative. The "[IEEE Engineering the Future Day](#)" recognizes the contributions and impact that IEEE members and engineering and technology professionals have made for the benefit of humanity, and is designed to raise public awareness of the diverse opportunities in different technology fields. On the same day, IEEE launched the "[Engineering Your World Competition](#)", which invites contestants to submit videos of their inventions. The contest is through 7 August 2009 and is open to everyone.

IEEE traces its beginning to the founding of the American Institute of Electrical Engineers (AIEE) on 13 May 1884; AIEE merged with the Institute of Radio Engineers in 1963 to form IEEE. In 2009, IEEE is commemorating 125 years of ingenuity and innovation in engineering and technology with events and activities supporting the anniversary theme "[Celebrating 125 Years of Engineering the Future](#)." The year-long IEEE celebration includes local and global member events; the first IEEE Presidents' Change the World Competition for students; a global media roundtable and webcast featuring emerging, world-changing technologies (see [March 2009 E-News](#) for featured SP technologies and members); IEEE Engineering the Future Day on 13 May 2009; and much more. For more information on the IEEE 125th Anniversary and opportunities on how to take part in the celebration, visit www.ieee125.org.

Board of Governors Elected New Officers

The Board of Governors of the IEEE Signal Processing Society (SPS) elected three new officers who will start their terms on 1 January 2010:

K. J. Ray Liu (University of Maryland) will serve as 2010-2011 SPS President-Elect. He succeeds Mos Kaveh (University of Minnesota), who has held the post of President-Elect since January 2008 and will

become 2010-2011 SPS President.

Min Wu (University of Maryland) will serve as 2010-2012 SPS Vice President-Finance. She succeeds Petar Djuric (SUNY Stony Brook), who has held the post of Vice President-Finance since January 2006.

Ahmed Tewfik (University of Minnesota) will serve as 2010-2012 SPS Vice President-Technical Directions. He succeeds Alex Acero (Microsoft Research), who has held the post of Vice President-Technical Directions since January 2007.

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2. Conference News

ICASSP 2009 - A Grand Celebration of SP Advances and Achievements with an Oriental Touch

The 34th IEEE International Conference on Acoustics, Speech and Signal Processing ([ICASSP](#)) was held in Taipei, Taiwan on April 19-24, 2009. ICASSP is the flagship conference of the IEEE Signal Processing Society (SPS) and is the premier venue for showcasing research in signal processing and related areas. This year's conference was the second time that ICASSP was physically held in Asia and was attended by over 1700 participants from over 40 different countries. The organizing team brought a number of innovative features and oriental touches to ICASSP 2009, making it a memorable grand celebration of signal processing advances and achievements.

Adding to the "firsts" is the first time that a graduate student attendee/member participates in the reporting of SPS events for the Inside Signal Processing E-Newsletter. We invite you to learn more about ICASSP 2009 from this [exclusive in-depth report](#) by a Student Correspondent and the Conference Chair.

Signal Proc. Conferences: Call for Papers	Location	Date	Tutorial/Special Session	Submission Deadline
11th International Conference on Multimodal Interfaces and Workshop on Machine Learning for Multi-modal Interaction (ICMI-MLMI'09)	Cambridge, MA	Nov. 2-6, 2009		May 29, 2009 (extended)
First IEEE International Workshop on Information Forensics and Security (WIFS'09)	London, UK	Dec. 6-9, 2009		May 31, 2009 (extended)
43rd Annual Asilomar Conference on Signals, Systems, and Computers (Asilomar'09)	Pacific Grove, CA	Nov. 1-4, 2009		June 1, 2009
IEEE International Conference on Signal & Image Processing Applications (ICSIPA'09)	Kuala Lumpur, Malaysia	Nov. 18-19, 2009		June 15, 2009
IEEE Workshop on Computational Advances in Multi-Channel Sensor Array Processing (CAMSAP'09)	Aruba, Dutch Antilles	Dec. 13-16, 2009		June 19, 2009
9th IEEE International Symposium on Signal Processing and Information Technology (ISSPIT'09)	Ajman and United Arab Emirates	Dec. 14-17, 2009	July 1, 2009 (tutorial)	July 1, 2009
IEEE Workshop on Automatic Speech Recognition and Understanding (ASRU'09)	Merano, Italy	Dec. 13-17, 2009	Sept. 24, 2009 (demo proposal)	July 15, 2009
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2010)	Dallas, TX	March 15-19, 2010	July 31, 2009	September 14, 2009

International Symposium on Communications, Control and Signal Processing (ISCCSP 2010)	Limassol, Cyprus	March 3-5, 2010		October 9, 2009
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Upcoming Signal Processing Conferences	Location	Advanced Registration	Conference Dates
10th IEEE International Workshop on Signal Processing Advances for Wireless Communications (SPAWC'09)	Perugia, Italy		June 21-24, 2009
6th IEEE International Symposium on Biomedical Imaging (ISBI'09) => see also BISP TC article in this issue	Boston, MA		June 28-July 1, 2009
IEEE International Conference on Multimedia and Expo (ICME'09)	New York, NY		June 28-July 3, 2009
16th International Conference on Digital Signal Processing (DSP'09)	Santorini, Greece		July 5-7, 2009
IEEE Workshop on Statistical Signal Processing (SSP'09)	Cardiff, UK	June 29, 2009	Aug. 31 - Sep. 3, 2009
6th IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS)	Genova, Italy	June 1, 2009	Sept. 2-4, 2009
IEEE International Workshop on Machine Learning for Signal Processing (MLSP'09)	Grenoble, France	July 5, 2009	Sept. 2-4, 2009
IEEE International Conference on Ultra-Wideband (ICUWB'09)	Vancouver, CA	TBA	Sept. 9-11, 2009
IEEE International Workshop on Multimedia Signal Processing (MMSP'09)	Rio de Janeiro, Brazil	TBA	Oct. 5-7, 2009
IEEE Workshop on Signal Processing Systems (SiPS'09)	Tampere, Finland	TBA	Oct. 7-9, 2009
IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA'09)	New Paltz, NY	Sept. 1, 2009	Oct. 18-21, 2009
IEEE Conference on Sensors (SENSORS'09)	Christchurch, New Zealand	July 31, 2009	Oct. 25-28, 2009
IEEE International Conference on Image Processing (ICIP'09)	Cairo, Egypt	TBA	Nov. 7-11, 2009

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3. Publication News

Signal Processing Magazine Deadlines ([Magazine website](#))

- [Special Issue on Medical Imaging](#) - Whitepaper Due **1 June 2009**
- [Special Issue on Video Analytics for Surveillance: Theory and Practice](#) - Whitepaper Due **1 July 2009**
- [Special Issue on Immersive Communication](#) – Whitepaper Due **1 August 2009**
- [Graphical Models in Signal Processing](#) – Whitepaper Due **1 August 2009**

- [Columns/Forums](#) rolling submission deadlines

Special Issue Deadlines

Journal of Selected Topics in Signal Processing ([website](#))

- [Speech Processing for Natural Interaction with Intelligent Environments](#) - Deadline: **3 July 2009**
- [Statistical Learning Methods for Speech and Language Processing](#) - Deadline: **7 August 2009**

IEEE Transactions on Audio, Speech, and Language Processing ([website](#))

- [Processing Reverberant Speech: Methodologies and Applications](#) – Deadline: **30 October 2009**

IEEE Transactions on Image Processing ([website](#))

- [Distributed Camera Networks: Sensing, Processing, Communication and Computing](#) – Deadline: **30 August 2009**

Recent Issues of SPS Sponsored and Co-sponsored Publications

Journal Title	Latest Issue	Contents (in PDF)	Xplore Link
IEEE Signal Processing Magazine <ul style="list-style-type: none"> • Feature articles on "Curious Science"; "Reproducible Research in Signal Processing"; and "Beyond Bandlimited Sampling" 	vol. 26, no. 3	PDF	Html
IEEE Transactions on Audio, Speech, and Language Processing	vol. 17, no. 4	PDF	Html
IEEE Transactions on Image Processing	vol. 18, no. 6	PDF	Html
IEEE Transactions on Information Forensics and Security	vol. 4, no. 1	PDF	Html
IEEE Transactions on Signal Processing	vol. 57, no. 5	PDF	Html
IEEE Signal Processing Letters	vol. 16	Recent Articles Html , PDF	Html
IEEE Journal of Selected Topics in Signal Processing <ul style="list-style-type: none"> • Visual Media Quality Assessment 	vol. 3, no. 2	PDF	Html
Journal Title	Latest Issue	Contents (in PDF)	Xplore Link
IEEE Transactions on Medical Imaging	vol. 28, no. 5	PDF	Html
IEEE Transactions on Mobile Computing	vol. 8, no. 6	PDF	Html
IEEE Transactions on Multimedia	vol. 11, no. 3	PDF	Html
IEEE Sensors Journal	vol. 9, no. 5		Html
IEEE Transactions on Wireless Communications	vol. 8, no. 4	PDF	Html
Computing in Science & Engineering Magazine	vol. 11, no. 3	PDF	Html
IEEE MultiMedia	vol. 16, no. 1	PDF	Html

4. TC News

This month we are pleased to bring to you exclusive reports from two of the IEEE Signal Processing Society's Technical Committees:

- **Industry Digital Signal Processing Technology (IDSP) Standing Committee**

The Industry Digital Signal Processing Technology (IDSP) Standing Committee promotes industry participation in the IEEE Signal Processing Society. One of the major IDSP activities is to organize the Industry Technology Track at ICASSP, including a successful event at this year's ICASSP. The committee is inviting volunteers and ideas for promoting industry participation in SPS events. Learn more from this [in-depth report](#).

- **Bio Imaging and Signal Processing (BISP) Technical Committee**

The Bio Imaging and Signal Processing Technical Committee (BISP TC) has recently elected a new chair and a vice-chair. The TC is actively involved in the organization of International Symposium on Biomedical Imaging ([ISBI](#)), to be held in Boston this year from June 28 to July 1, 2009. Learn more from this [in-depth report](#).

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5. Chapter News and Distinguished Lectures

IEEE Signal Processing DIET Student Branch Chapter Established in India

In March 2009, Dadi Institute of Engineering and Technology ([DIET](#)) of India celebrated the establishment of the IEEE Signal Processing DIET Student Branch Chapter. An [IEEE Student Branch Chapter](#) (SBC) is a technical sub-unit of a Student Branch established by petition to the parent Student Branch and Society concerned to represent and fulfill the needs of the members and the missions of IEEE.

The inauguration of the Signal Processing SBC at DIET was accompanied by a successful National Workshop on Signal Processing Evolutionary Computation and Modeling and a one-day workshop on mentoring future managers. The two-day technical workshop comprised invited talks by experts in computing and signal processing, covering a broad range of topics including artificial neural networks, evolutionary algorithms, particle swarm optimization, ant colony optimization, adaptive signal processing, radar/sonar signal processing, intelligent instrumentation and financial forecasting. Attendees also took part in hands-on lab practice in MATLAB.

The workshop events and the establishment of the IEEE Signal Processing SBC received strong support from the DIET college management and faculty, and active involvement of students and guests. Visit the [DIET SBC web site](#) for event photos and more information about its vision and activities.

Do you know? IEEE SPS provides travel support for local chapters to invite **SPS Distinguished Lecturers**. See a list of SPS [2008 and 2009 Distinguished Lecturers](#), and check each issue of the E-News for upcoming SPS Distinguished Lectures near you.

Chapter	Dates	SPS Distinguished Lectures
Denver, CO	25-September-2009	Prof. Petar M. Djuric (SUNY Stony Brook): "The particle filtering methodology in signal processing". See the announcement for more information.
Japan	4-June-2009	Prof. Sergios Theodoridis (University of Athens, Greece): "Adaptive Learning in a World of Projections". At 11am, Rm. 201, bldg. S3, Tokyo Institute of Technology. See announcement for details, or contact Chapter Chair Akihiko K. Sugiyama <a.sugiyama AT ieee.org>.
Santa Clara Valley	22-June-2009	Prof. Sergios Theodoridis (University of Athens, Greece): "Adaptive Learning in a World of Projections". See chapter web site for details.
Santa Clara Valley	21-September-2009	by Dr. Amy Reibman (AT&T Labs-Research). Details to be announced. See chapter web site for updates.
Santa Clara Valley	12-October-2009	by Prof. Lang Tong (Cornell University). Details to be announced. See chapter web site for updates.
Spain	9-June-2009	Prof. Lang Tong (Cornell University): "Distributed sensing and inference in random information fusion networks." At 10am, Salón de Grados - Edificio Departamental, Campus de Fuenlabrada de la Universidad Rey Juan Carlos. Contact Chapter Chair Prof. Figueiras-Vidal <arfv AT tsc.uc3m.es> for more information.
Chapter	Dates	Other Upcoming Events
Greece	17-October-2009	Joint EURASIP-IEEE/SPS Greek Signal Processing Day . Full day event features SPS Distinguished Lecturers Profs. Renato De Mori, Sergios Theodoridis and Nikos Sidiropoulos, and other speakers.
Santa Clara Valley	9-November-2009	Dr. Parastoo Nikaeen (Netlogic Microsystems): "Digital Compensation of Dynamic Acquisition Errors at the Front-End of High-Performance A/D Converters." See chapter web site for more information.

If you are interested in organizing a new SPS chapter, or participating in activities in a SPS local chapter near you, please check out [Local Chapter Resources](#). Additional questions and comments can be addressed to the [SPS Chapters Committee](#).

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6. Technical Initiatives, Trends, and Standards

Perceptual Video Quality Standards

The need to access accurate and reliable objective video metrics has become more pressing with the advent of new video applications and services such as mobile broadcasting, Internet video, and Internet Protocol television (IPTV). The Video Quality Experts Group (VQEG) is the primary forum for validation testing of objective perceptual quality models. The work of VQEG has resulted in International Telecommunication Union (ITU) standardization of objective quality models designed for standard-definition television and for multimedia applications. Learn more from the "**Standards in a Nutshell**" Column by K. Brunnstrom, D. Hands, F. Speranza, and A. Webster in the [May 2009](#) issues of the IEEE Signal Processing Magazine.

The U.S. Digital Television Broadcasting Transition

The United States is in the midst of switching the broadcasting of TV signals from the analog National

Television System Committee (NTSC) system, which has been in use for over half a century, to the digital Advanced Television Systems Committee (ATSC) standard. The "**In the Spotlight**" Column of the [May 2009](#) issues of the IEEE Signal Processing Magazine featured an article by J. M. Boyce to provide an overview about the transition to the U.S. digital TV broadcasting system.

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7. SP Education and Resources

Speech Recognition Resources on the Web

Automatic speech recognition turns spoken audio into a sequence of words. It is an extraordinarily broad and multidisciplinary field, drawing primarily from statistical signal processing, machine learning, and linguistics. Check out useful web resources for a beginning apprentice to build a system that will turn sounds into words from the "[Best of the Web](#)" column by P. Nguyen in the May 2009 issue of the IEEE Signal Processing Magazine.

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8. New Ph.D. Thesis

Angela D'Angelo (University of Siena, Italy):

"Characterization and Quality Evaluation of Geometric Distortions in Images with Application to Digital Watermarking," May 2009. Advised by Prof. Mauro Barni.

The work of this thesis can be seen as a first step towards the characterization and quality evaluation of the class of local geometric distortions. A first step to solve the problems with geometric attacks is the characterization of the class of perceptually admissible distortions. This requires the development of models to treat the distortions from a mathematical point of view. In this context, the first part of the thesis focuses on modeling local geometric transformations from a mathematical point of view. Watermarking is not the only field where an analysis of geometric distortion in images would be useful. In all the applications dealing with geometric distortions, the availability of an objective quality metric capable of dealing with this kind of distortions would be of invaluable help. Thus, in the second part of the thesis, two objective quality metrics for the perceptual evaluation of geometrically distorted images have been introduced.

Click [here](#) to access the thesis by the author.

Interested in submitting or recommending a recent Ph.D. thesis?

Please prepare the following material and visit the [web submission site](#) to provide your input. Contact Associate Editor Prof. Alessandro Piva at <alessandro.piva AT unifi.it> if you have any questions.

- (1) thesis author's information (full name, contact, current affiliation, URL if available), Ph.D. granting institution, thesis advisor's name and contact information;
- (2) title, URL, and a short summary of the thesis (100-150 words); and
- (3) an email from the thesis advisor to Associate Editor at <alessandro.piva AT unifi.it>, confirming that the author has already successfully defended the Ph.D. thesis and that a final version of the thesis has officially been submitted according to the Ph.D. degree requirements of the author's institution.

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9. New Books and Book Reviews

Fundamentals of Radar Signal Processing,

by Mark Richards, McGraw-Hill, 2005.

[Description from the publisher:](#) This rigorous text provides in-depth coverage of radar signal processing from a DSP perspective, filling a gap in the literature. There are a number of good books on general radar systems: Skolnik and Nathanson are the most popular. There are also good monographs on advanced and specialty topics like synthetic aperture imaging. But there is a large, practical gap between the qualitative system books and the advanced DSP titles, and that is the slot this book fills.

See an in-depth [book review](#) in the IEEE Signal Processing Magazine (May 2009). Visit the book's [website](#) for more information.

Books Featured in Previous Issues [\[details\]](#)

ORD-RLS Adaptive Filtering,

Edited by Jose Antonio Apolinario Jr., Springer, 2009.

Bayesian Signal Processing: Classical, Modern and Particle Filtering Methods,

By James V. Candy, John Wiley/IEEE Press, 2009.

Mobile Multimedia Broadcasting Standards: Technology and Practice,

Edited by Fa-Long Luo, Springer, 2008.

Pattern Recognition, 4th Edition,

by Sergios Theodoridis and Konstantinos Koutroumbas, Elsevier, 2009.

Handbook of Biosensors and Biochips,

Edited by R.S. Marks, D.C. Cullen, I. Karube, C.R. Lowe, and H.H. Weetall, Wiley, 2007.

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10. Research Opportunities

Graduate Research Assistants and Postdoc Positions in Signal/Info./Multimedia Processing, Ryerson University, Canada

The Communications and Signal Processing Applications Laboratory (CASPAL) in the Department of Electrical and Computer Engineering, Ryerson University (Toronto, Canada), is looking for motivated graduate research assistants (at Ph.D. and M.A.Sc levels) and postdoctoral researchers to work on the theory and applications in information/signal/multimedia processing, pattern classification, machine learning, search and retrieval. Please visit this [web site](#) for details of the positions and application procedures. Inquiries can be addressed to the supervisor of these positions, Prof. Xiao-Ping Zhang at [xzhang AT ee.ryerson.ca].

Post-Doc Position on Psychovisual Video Coding at Simon Fraser University, Canada

The Multimedia Communications Laboratory at Simon Fraser University (British Columbia, Canada) is

seeking a Postdoctoral Research Fellow to work on a project related to psychovisual video coding. The candidate must have (or be close to obtaining) a Ph.D. in electrical engineering or a closely related field, and must have prior experience in image and/or video coding, with a record of international publications. The position is available immediately. Applications will be reviewed until a suitable candidate is found. Further information is can be found at [this link](#). To apply, please send a CV, list of publications, and names and contact details of at least three referees to [ibajic AT encs.sfu.ca].

Simon Fraser University is located in the greater Vancouver area, in the southwest part of British Columbia. The University is consistently ranked as one of the top comprehensive universities in Canada, and offers excellent research environment. Vancouver's breathtaking scenery, mild climate, opportunities for outdoor activities, and cultural diversity, are the qualities that make it one of the most desirable places in the world to live and work. Simply Google "Vancouver photos" to see why.

PhD Studentship in Trinity College, Dublin, Ireland

A three-year PhD studentship is available in the Department of Electronic and Electrical Engineering at Trinity College, Dublin, Ireland. The research topic is Variational Bayesian (VB) filtering for telecommunications. There will be a strong emphasis on mathematical methodology, particularly Bayesian modelling. The position is expected to be filled as soon as possible this spring/summer. A full description of this research opportunity, and its attractive terms, may be found at this [announcement](#). Inquiries can be directed to Dr. Anthony Quinn at [aquinn AT tcd.ie].

Research Position Featured in Previous Issue [\[details\]](#)

- Two-Year Post-Doc position at NICTA Canberra Research Laboratory, Australia
- PhD Scholarship on Neuroimaging based Brain Network Comparison at The University of Groningen, The Netherlands
- Two Postdoctoral Research Fellowships in Signal Processing/Communications at The University of Newcastle, Australia

Job Posting Portals

<http://careers.ieee.org/>

<http://jobs.phds.org/jobs/engineering/>

http://engineering.academickeys.com/seeker_job.php

Interested in advertising graduate scholarship, post-doc positions, or funding opportunities?

Please prepare a short text of the announcement (150-200 words) and visit the [web submission site](#) to enter your input. It is recommended to include the deadline or valid period of the announcement, and an URL for more information such as group/research description and detailed qualification expectation in English. Contact Associate Editor Prof. Alessandro Piva at <alessandro.piva AT unifi.it> if you have any questions. Note that advertisements on faculty and other full-time position are in the domain of IEEE job advertisement (<http://careers.ieee.org/g/>); the IEEE Signal Processing Magazine also provides opportunities for paid advertisement.

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Lin-shan Lee (ICASSP 2009), Jon McElvain (IDSP SC), Pathipati Srihari (DIET SBC), Christopher Wyatt (BISP TC), and Avinash L. Varna (Student Correspondent).

About the Inside Signal Processing E-Newsletter

Since April 2007, the IEEE Signal Processing Magazine has introduced a new form of publication - the Inside Signal Processing E-Newsletter. This monthly electronic newsletter will complement the bi-monthly Magazine to serve the members in the IEEE Signal Processing Society (SPS). Through email notification and expanded coverage on its website, the E-Newsletter will provide members with timely updates on:

- society and technical committee news,
- conference and publication opportunities, new books, and Ph.D. theses,
- signal processing related research opportunities, and
- activities in industry consortiums, local chapters, and government programs.

The Inside Signal Processing E-Newsletter is a gateway to reach out to signal processing professionals around the world. We invite you to contribute and share your news with tens of thousands of SPS members through this monthly electronic publication with fast turn-around cycle. IEEE members may manage their subscription of the email notification of the E-Newsletter and related SPS announcements at [this page](#). Please bookmark <<http://enews.ieee-spm.org>> for current and archived issues of the Inside Signal Processing E-Newsletter.

Submission Instructions - Contribution for the next issue is due June 5, 2009

Visit the [web submission site](#) to provide your input. Make sure that you include your name, affiliation, email and phone contact information. Contributions submitted by **June 5, 2009** will be considered for inclusion in the **next issue** of the Inside Signal Processing E-Newsletter. Please contact the Associate Editors of the corresponding sections as listed below if you have questions. Your comments and suggestions on the new submission system are welcome.

Contact Information of the E-Newsletter Team

Min Wu, *SPM Area Editor for E-Newsletter*, University of Maryland, College Park, USA (minwu AT umd.edu)

Huaiyu Dai, *Associate Editor*, North Carolina State University, Raleigh, USA (huaiyu_dai AT ncsu.edu)
Conference and publication news (including new books)

Pascal Frossard, *Associate Editor*, EPFL, Switzerland (pascal.frossard AT epfl.ch)
News and activities of SPS Technical Committees, industry consortiums and international standards

Alessandro Piva, *Associate Editor*, University of Florence, Italy (alessandro.piva AT unifi.it)
News and activities in local chapters and research groups (including new Ph.D. theses & research opportunities)

Nitin Chandrachoodan, *Digital Production Editor*, Indian Institute of Technology – Madras (nitin AT ee.iitm.ac.in)
Online submission and production system

Li Deng, *SPM Editor-in-Chief*, Microsoft Research, Redmond, WA, USA (deng AT microsoft.com)

* Please replace "AT" in the email addresses with @.

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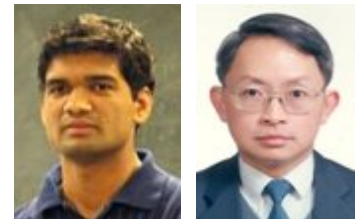
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In-Depth E-News Article

Exclusive In-Depth Report on ICASSP 2009: A Grand Celebration of SP Advances and Achievements with an Oriental Touch

by Avinash L. Varna (Student Correspondent)
Lin-shan Lee (General Chair - ICASSP 2009)



The 34th IEEE International Conference on Acoustics, Speech and Signal Processing ([ICASSP](#)) was held in Taipei, Taiwan on April 19-24, 2009. ICASSP is the flagship conference of the IEEE Signal Processing Society (SPS) and is the premier venue for showcasing research in signal processing and related areas. This year's conference was the second time that ICASSP was physically held in Asia and was attended by over 1700 participants from over 40 different countries.

The conference venue was the Taipei International Convention Center located close to Taipei 101, the current official holder of the title "The Tallest Building in the World". ICASSP 2009 featured 1261 papers selected from 2703 submissions through a peer review process. The technical program featured diverse topics including 4 plenary sessions, 12 special sessions, 60 lecture sessions, 72 poster sessions, 4 panel discussions, 4 overview talk sessions, 2 show and tell sessions, and 17 tutorials. The four plenary talks highlighted emerging research areas, industrial views, and new trends in signal processing.

A new feature at ICASSP 2009 was the creation of [Thematic Symposia](#) consisting of a group of multiple technical sessions of different types (tutorials, plenaries, panels, special and regular sessions) sharing a common theme. An overview talk session was also added to each Thematic Symposium to make it more accessible to a general audience and promote cross-disciplinary collaboration. Four Thematic Symposia on the topics of "Signal Processing for 4G Wireless", "Network Distributed Signal Processing", "Immersive Communication", and "Multimedia Search and Retrieval" were organized and were very well received.

Another important new effort for the technical program is the Online Presentation Service. All plenary sessions and most of the overview talks and special sessions were recorded and made available online, password protected, to conference participants until 3 weeks after the conference, so that attendees can view the presentations which they could not listen to in real time, or they wished to listen to again. Three weeks after the conference, the total access count was close to 4800 with a total access duration of approximately 815 hours.

The conference was inaugurated with a traditional Taiwanese welcome song and a concurrent presentation that highlighted the cultural richness and natural beauty of Taiwan, also called Formosa - "the beautiful island". The opening and awards ceremony held on April 21 honored winners of major SPS awards and SPS members who were elevated to the status of IEEE Fellow Class of 2009. Winners and finalists of the student paper contest were recognized in the welcome reception on the previous day, which also presented lanterns of butterflies and Taiwanese rare birds, a martial arts demonstration (including Chinese Kung-Fu) and a Taiwanese puppet show. Traditional oriental dishes highlighting the local cuisine were served as part of the welcome reception and the lavish daily complimentary breakfast. The latter was the first time in ICASSPs offering to all attendees.

The conference [banquet](#) was held in the iconic "Grand Hotel", famous for its distinctive Chinese architecture. The vermilion columns, imposing roof and prominent location contribute to the grandeur of the "Grand Hotel" making it one of the most recognized landmarks in Taipei. The cultural performance or entertainment during the banquet was also unique. Music from all parts of the world were produced by oriental instruments. A brief film entitled "Adventures in the National Palace Museum" was played, which personified some 50 famous treasured items housed at the museum as cartoon characters using real images of the treasures and computer graphics technology, and was the recipient of the Grand Prize at the Tokyo International Anime Fair 2008. A ribbon dance then demonstrated the beauty of traditional Chinese culture. The diabolo masters finally showed their unbelievable skills of flying, spinning and tossing the diabolos between the stage and the banquet tables. The performance was ended with a toast by the general chairs of four Asian ICASSPs (Tokyo 1986, Hong Kong 2003, Taipei 2009, Kyoto 2012) and leaders of the signal processing community on the stage.

This year was the first time that the ICASSP proceedings was stored and distributed in an USB, which was further integrated in a 3-in-1 USB/Laser Pointer/Pen. A [photo gallery](#) has also been established on the ICASSP 2009 website capturing some of the memorable moments of the conference.

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Activity Updates from Industry Digital Signal Processing Technology (IDSP)

Standing Committee

by Jon McElvain (IDSP Chair)



The Industry Digital Signal Processing Technology Standing Committee ([IDSP SC](#)) was formed in 1999 to promote industry participation in the IEEE Signal Processing Society (SPS). Fields of interest span those covered by the Technical Committees of the SPS but special emphasis is placed on practical industry applications of signal and image processing. For specific areas of interests, readers may check out the ICASSP Industry Technology Track (ITT) [EDICS](#), which cover 10 broad categories and 36 subcategories.

The IDSP SC is organized similarly to a technical committee. Committee members are elected from SPS membership in industry, government, or academia (with strong industry involvement). The Chair and Vice Chair are elected from among the membership for one year terms. Currently, Jon McElvain (Digital Imaging Systems) chairs the IDSP Standing Committee, and Fa-Long Luo (Element CXI) serves as Vice Chair; there are 12 active members, all of whom are from industry. Since January 1, 2009, two new members have joined the committee, Alexandr Kuziminskiy (Alcatel-Lucent, UK) and Rajesh Narashimha (Texas Instruments). Although most members are from the US, nominations are being actively sought from other geographies. Member responsibilities include reviewing for conferences (including ICASSP ITT and others),

organizing and advocating SPS activities related to industry, promoting papers with strong content on industrial application, and organizing special sessions and workshops on industrial DSP technologies.

The IDSP SC recently organized the Industry Technology Track at ICASSP 2009, held in April 2009 in Taipei, Taiwan. Selected from 48 submitted papers, the Industry Technology Track at ICASSP 2009 consisted of 1 lecture session and 2 poster sessions. The IDSP SC also administered "[Show & Tell](#)" sessions at ICASSP 2009, where a total of 39 proposals were reviewed and 30 were accepted to showcase their technologies; these "Show & Tell" sessions provided ICASSP participants a unique opportunity to see new SP technologies in an interactive environment. In addition, since its inception, the IDSP SC has organized two special industry-related issues for the IEEE Signal Processing Magazine.

If you would like to get involved in the work of the IDSP SC, want to contribute ideas, suggestions, or would like to learn more about IDSP activities, please contact Jon McElvain at <[jon.mcelvain AT disimage.com](mailto:jon.mcelvain@disimage.com)>.

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Activity Report from Bio Imaging and Signal Processing (BISP)

Technical Committee

by Christopher Wyatt (BISP TC Liaison to E-Newsletter)



The Bio Imaging and Signal Processing Technical Committee ([BISP TC](#)) of the IEEE Signal Processing Society (SPS) promotes activities within the broad technical areas of biomedical and biological signal and image processing. Specific fields of interest include but are not limited to: molecular and medical imaging, microscopy, signal processing in computational biology and biological networks, signal processing of physiological signals, and bioinformatics.

In December 2008, Jean-Christophe Olivo-Marin of Institut Pasteur, France, was elected Chair of the BISP TC, succeeding Jelena Kovačević of Carnegie Mellon University; Clem Karl of Boston University was elected Vice-Chair. Four new associate members were also elected to the BISP TC: Amina Chebira, Gowri Srinivasa, Deniz Erdogmus, and Tolga Tasdizen.

The BISP TC is cosponsoring (with the IEEE Engineering in Medicine and Biology Society) the upcoming 2009 International Symposium on Biomedical Imaging ([ISBI](#)), to be held in Boston from June 28 to July 1, 2009. The meeting will feature three outstanding plenary speakers: Thomas Miller, CEO, Siemens Workflow and Solutions Division; Ralph Weissleder, Director of the Center for Molecular Imaging Research and the Center for Systems Biology, Harvard Medical School; and Xiaowei Zhuang, Professor of Chemistry and Chemical Biology and Physics at Harvard University. There will also be six invited special sessions on topics of great current interest, a special clinical workshop on Current and Future Challenges in Clinical Imaging featuring three clinical research leaders from Massachusetts General Hospital, and four tutorial short courses taught by area experts in emerging technologies across the spectrum of biomedical imaging, along with an outstanding program of oral and poster papers from leading international authors. Register now for this exciting meeting!

A BISP related education activity to highlight is a new Master in Computational Biology by Nice Sophia Antipolis University on the French Riviera, including several image processing courses. All the courses will be given in English and some funding is available for outstanding international students. Interested readers can visit [this page](#) for more information.

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