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From the E-Newsletter Team:

The E-Newsletter Team would like to thank all readers for their contribution and feedback in the past year and we look forward to your participation in the new year. 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 <http://ewh.ieee.org/enotice/options.php?LN=SP001>.

1. Society News

2008 IEEE Signal Processing Society Awards Announced

The IEEE Signal Processing Society congratulates the following SPS members who will receive the Society's prestigious awards during ICASSP 2009 in Taipei, Taiwan.

SOCIETY AWARD: **Edward J. Delp**, "for technical contributions to the areas of multimedia security and image and video coding."

TECHNICAL ACHIEVEMENT AWARD

- **Harry L. Van Trees**, "for fundamental contributions to detection, estimation, and modulation theory, sensor array processing, and Bayesian bounds," and
- **Michael Unser**, "for the contributions to the theory and practice of splines and their applications in signal and image processing."

MERITORIOUS SERVICE AWARD: **Frederick C. Mintzer**, "for service to the IEEE Signal Processing Society."

EDUCATION AWARD: **Bede Liu**, "for outstanding contributions to graduate and undergraduate education and mentoring in signal processing."

IEEE SIGNAL PROCESSING MAGAZINE BEST PAPER AWARD:
Ralf Koetter, Andrew C. Singer, and **Michael Tüchler**, for the paper entitled "Turbo Equalization," published in the IEEE Signal Processing Magazine, Volume 21, Number 1, January 2004.

IEEE SIGNAL PROCESSING MAGAZINE BEST COLUMN AWARD:
Mauro Barni, for the forum article entitled "What is the Future of Watermarking? – Part I," published in the IEEE Signal Processing Magazine, Volume 20, Number 5, September 2003, and Part II, Volume 20, Number 6, November 2003.

BEST PAPER AWARD RECIPIENTS -- Click here for details of award-winning papers

- **Javier Portilla**, **Vasily Strela**, **Martin J. Wainwright**, and **Eero P. Simoncelli**,
- **Wei Yu** and **Tian Lan**,
- **Jingdong Chen**, **Jacob Benesty**, **Yiteng Huang**, and **Simon Doclo**,

  ○ **Giuseppe Riccardi** and **Dilek Hakkani-Tür**.

YOUNG AUTHOR BEST PAPER AWARD RECIPIENTS -- Click here for details of award-winning papers

  ○ **Minh N. Do**, for the paper co-authored with Martin Vetterli,
  ○ **H. Vicky Zhao**, for the paper co-authored with K. J. Ray Liu,
  ○ **Hirokazu Kameoka**, for the paper co-authored with Takuya Nishimoto and Shigeki Sagayama,
  ○ **Animashree Anandkumar**, for the paper co-authored with Lang Tong.

Burrus to Receive the 2008 IEEE Jack S. Kilby Signal Processing Medal

The IEEE Jack S. Kilby Signal Processing Medal is being presented to Charles Sydney Burrus, Dean (Emeritus) of College of Engineering at Rice University (Houston, TX, USA). IEEE selected Dr. Burrus to receive the medal, "for contributions to Fast Fourier Transform algorithms, digital filter design, and signal processing education." The Medal itself will be presented to Dr. Burrus at the IEEE Honors Ceremonies. He will receive a special recognition plaque from the IEEE Signal Processing Society during ICASSP 2009 in Taipei, Taiwan.

The IEEE Jack S. Kilby Signal Processing Medal was established in 1995 and may be presented "for outstanding achievements in signal processing." The achievement may be theoretical, technological or commercial. The Medal is named in honor of Jack S. Kilby. His innovation was a monumental precursor to the development of the signal processor and digital signal processing. The award consists of a gold medal, bronze replica, certificate and honorarium.

Makhoul Selected for the 2008 IEEE James L. Flanagan Speech and Audio Processing Award

The 2008 IEEE James L. Flanagan Speech and Audio Processing Technical Field Award is being presented to John Makhoul, Chief Scientist of BBN Technologies (Cambridge, MA, USA). IEEE selected Dr. Makhoul to receive the award, "for pioneering contributions to speech modeling." Dr. Makhoul will receive the award at the Society's flagship conference, the International Conference on Acoustics, Speech, and Signal Processing (ICASSP), held in Taipei, Taiwan, in April 2009.

The IEEE James L. Flanagan Speech and Audio Processing Award was established in 2002. It is presented for an outstanding contribution to the advancement of speech and/or audio signal processing to an individual or a team of not more than three. The award was founded and is sponsored by the IEEE Signal Processing Society, and is administered through the Technical Field Awards Council of the IEEE Awards Board. The award consists of a bronze medal, certificate and honorarium.

	Deadlines Approaching	Links
Nomination of IEEE Fellows Class of 2010: Senior Members can be nominated in one of four categories: application engineer/practitioner, educator, research engineer/ scientist, or technical leader.	**1 March 2009**	Nomination information can be found online
Nomination of Members-at-Large of SPS Board of Governors	**20 March 2009**	Read more about BoG from January 2009 eNews

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2. Conference News

Inaugural IEEE Workshop on Information Forensics and Security (WIFS)
6-9 December 2009, London, UK - http://www.wifs09.org/

Led by the IEEE Signal Processing Society (SPS) and in cooperation with other sister societies, the IEEE Transactions on Information Forensics and Security (T-IFS) was created in 2005, and the Information Forensics and Security Technical Committee (IFS TC) was established shortly afterward (see the TC news article in this issue). The SPS and IFS TC are now building upon these activities with the creation of an IEEE International Workshop on Information Forensics and Security (WIFS). Conditional on the success of this Workshop and close cooperation with the IEEE Computer Society, it is envisioned that the Workshop will evolve into a flagship IEEE Conference on Information Forensics and Security.

The inaugural WIFS workshop will be held in December 2009 in London, UK. The WIFS workshop differentiates itself from other annual events on information security by reaching out to, and encompassing a much broader range of disciplines associated with information forensics and security. It is intended to provide a forum for the exchange of ideas between the various disparate communities that constitute information forensics and security. By doing so, the Workshop provides a platform to help researchers identify new opportunities for collaboration across disciplines and gain new perspectives.

The deadlines for WIFS 2009 are approaching: tutorial proposals are due **6 March 2009** and paper submissions are due **22 May 2009**. Topics of interest include, but are not limited to biometrics, computer security, cryptography for multimedia content, data hiding, digital rights management, forensic analysis, network security, non-technical aspects of security, (video) surveillance, and secure applications in e-voting and e-commerce. Visit the WIFS website for more information.

IEEE/ACM IPSN'09 Call for Participation: 13-16 April 2009, San Francisco, CA, USA

The International Conference on Information Processing in Sensor Networks (IPSN) is a leading, single-track, annual forum that brings together researchers from academia, industry, and government to present and discuss recent advances in sensor network research and applications.

The conference covers both theoretical and experimental research, as it pertains to sensor networks, in a broad range of disciplines including signal and image processing, information and coding theory, databases and information management, distributed algorithms, networks and protocols, wireless communications, machine learning, and embedded systems design. Visit the conference website for more information.

Signal Proc. Conferences: Call for Papers	Location	Date	Tutorial/Special Session	Submission Deadline
IEEE International Conference on Ultra-Wideband (ICUWB'09)	Vancouver, CA	Sep. 9-11, 2009		February 23, 2009
6th IEEE International Conference on Advanced Video and Signal based Surveillance (AVSS)	Genova, Italy	Sep. 2-4, 2009		March 1, 2009
IEEE Conference on Sensors (SENSORS'09)	Christchurch, New Zealand	Oct. 25-28, 2009	April 30, 2009 (Tutorial)	March 31, 2009
IEEE Workshop on Signal Processing Systems (SiPS'09)	Tampere, Finland	Oct. 7-9, 2009		April 1, 2009
IEEE International Workshop on Machine Learning for Signal Processing (MLSP'09)	Grenoble, France	Sep. 2-4, 2009		April 3, 2009
IEEE Workshop on Statistical Signal Processing (SSP'09)	Cardiff, UK	Aug. 31 - Sep. 3, 2009		April 14, 2009

IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA'09)	New Paltz, NY	Oct. 18-21, 2009		April 15, 2009
IEEE International Workshop on Multimedia Signal Processing (MMSP'09)	Rio de Janeiro, Brazil	Oct. 5-7, 2009	March 9, 2009	April 17, 2009
First IEEE International Workshop on Information Forensics and Security (WIFS'09)	London, UK	Dec. 6-9, 2009	March 6, 2009 (tutorial)	May 22, 2009
IEEE Workshop on Automatic Speech Recognition and Understanding (ASRU'09)	Merano, Italy	Dec. 13-17, 2009		July 15, 2009

Upcoming Signal Processing Conferences	Location	Advanced Registration	Conference Dates
8th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN'09)	San Francisco, CA	TBA	April 13-16, 2009
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP'09)	Taipei, Taiwan		April 19-24, 2009
27th Picture Coding Symposium (PCS'09)	Chicago, IL	TBA	May 6-8, 2009
IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS'09)	Minneapolis, Minnesota	TBA	May 17-21, 2009
2nd International Conference on Immersive Telecommunications (IMMERCOM'09)	Berkeley, CA	April 1, 2009	May 27-29, 2009
10th IEEE International Workshop on Signal Processing Advances for Wireless Communications (SPAWC'09)	Perugia, Italy	TBA	June 21-24, 2009
6th IEEE International Symposium on Biomedical Imaging (ISBI'09)	Boston, MA	May 1, 2009	June 28-July 1, 2009
IEEE International Conference on Multimedia and Expo (ICME'09)	Cancún, Mexico	TBA	June 28-July 3, 2009
16th International Conference on Digital Signal Processing (DSP'09)	Santorini, Greece	May 15, 2009	July 5-7, 2009
IEEE International Conference on Image Processing (ICIP'09)	Cairo, Egypt	TBA	Nov. 7-11, 2009

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3. Publication News

Do you know? The **IEEE SPS Best Paper Awards** honor the author(s) of a paper of exceptional merit dealing with a subject related to the Society's technical scope, and appearing in one of the Society's transactions. Eligibility is based on a five-year window preceding the year of election, and judging is based on general quality, originality, subject matter, and timeliness. Up to six awards may be presented each year. Click **here** to learn more about the publications that are honored by the 2008 SPS Best Paper Awards.

Signal Processing Magazine Deadlines: http://www.ieee-spm.org/?i=cfp

- Special Issue on Signal Processing on Platforms with Multiple Cores: Part 2 -- Design and Applications -

Whitepaper Due 1 March 2009

- [Special Issue on Convex Optimization for Signal Processing](#) - Whitepaper Due 5 May 2009

- [Medical Imaging](#) - Whitepaper Due 1 June 2009

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

Special Issue Deadlines

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

- [Model Order Selection in Signal Processing Systems](#) – Deadline: 20 April 2009
- [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](#))

- [Virtual Analog Audio Effects and Musical Instruments](#) – Deadline: 15 March 2009
- [Voice Transformation](#) - Deadline: 1 April 2009

IEEE Transactions on Information Forensics and Security ([website](#))

- [Electronic Voting](#) - Deadline: 22 February 2009 (extended)

IEEE MultiMedia Magazine ([website](#))

- [Mobile and Ubiquitous Multimedia](#) – Deadline: 15 May 2009

Recent Issues of SPS Sponsored and Co-sponsored Publications

Journal Title	Latest Issue	Contents (in PDF)	Xplore Link
IEEE Signal Processing Magazine • Special Section: Waveform-Agile Sensing and Processing • Feature articles on reverse engineering gene regulatory networks, signal fidelity measures beyond MSE, and behavior modeling and forensics.	vol. 26, no. 1	[PDF](#)	[Html](#)
IEEE Transactions on Audio, Speech, and Language Processing	vol. 17, no. 3	[PDF](#)	[Html](#)
IEEE Transactions on Image Processing	vol. 18, no. 3	[PDF](#)	[Html](#)
IEEE Transactions on Information Forensics and Security	vol. 4, no. 1	[PDF](#)	[Html](#)
IEEE Transactions on Signal Processing	vol. 57, no. 3	[PDF](#)	[Html](#)
IEEE Signal Processing Letters	vol. 16	Recent Articles [Html](#), [PDF](#)	[Html](#)

IEEE Journal of Selected Topics in Signal Processing • fMRI Analysis for Human Brain Mapping	vol. 2, no. 6	PDF	Html

Journal Title	Latest Issue	Contents (in PDF)	Xplore Link
IEEE Transactions on Medical Imaging	vol. 28, no. 2	PDF	Html
IEEE Transactions on Mobile Computing	vol. 8, no. 3	PDF	Html
IEEE Transactions on Multimedia	vol. 11, no. 2	PDF	Html
IEEE Sensors Journal	vol. 9, no. 3		Html
IEEE Transactions on Wireless Communications	vol. 7, no. 12	Part-1 Part-2	Html
Computing in Science & Engineering Magazine	vol. 11, no. 2	PDF	Html
IEEE MultiMedia	vol. 15, no. 4		Html

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4. TC News

This month we are pleased to feature updates from the IEEE Signal Processing Society's newest TC and from one of its well established TCs.

Information Forensics and Security (IFS) Technical Committee

Information security is probably one of the last barriers to our "connected, anytime, anywhere with any device world." The IEEE Signal Processing Society (SPS) is very much interested in addressing the problems associated with protecting content in this environment. The Information Forensics and Security Technical Committee (IFS TC) is one of the newest TCs in SPS. The IFS TC addresses broad technical areas of information forensics and security and promote the advancement of science and technology in information security and forensics. The TC cooperates closely with the IEEE Transactions on Information Forensics and Security.

The TC is pleased to announce that the First IEEE International Workshop on Information Forensics and Security (WIFS) will be held in London, UK, on December 6-9, 2009. Learn more about the Workshop from the Conference News section of this issue of the E-Newsletter.

A roster of the current IFS TC members can be found at the IFS TC website. Contact Edward Delp (TC Chair, <ace AT ecn.purdue.edu>) and Mauro Barni (Vice Chair, <barni AT dii.unisi.it>) for more information about the TC activities and opportunities to be involved in.

Signal Processing for Communications and Networking (SPCOM) Technical Committee

The Signal Processing for Communications and Networking (SPCOM) Technical Committee is dedicated to exploring and illuminating the connections between SPS and the rapidly growing fields of communication networks. The technical interests of the SPCOM TC include coding, data compression, and information theory; network-distributed signal processing; channel modeling, estimation, and equalization; multiuser, multicarrier, and multiple-access communications; antenna arrays for wireless communications; and cross-layer aspects.

Through the member election for term 2009-2011, the SPCOM TC welcomed three new members: Shuguang Cui, Dirk Slock, and Luc Vandendorpe; and approved the renewal for three members: Athanasios Liavas, Zhi-Quan (Tom) Luo, and Qing Zhao. Beginning from January 2009, the new TC Chair is Geert Leus from Delft University of Technology, The Netherlands, and the new Vice Chair is Zhi-Quan (Tom) Luo from University of Minnesota, USA.

The IEEE International Workshop on Signal Processing Advances for Wireless Communications (SPAWC), the flagship conference of the SPCOM-TC, will this year be held on 21-24 June 2009 in Perugia, Italy. Located within the central region known to be the "green heart of Italy," Perugia is a charming walled medieval hilly town and provides an excellent setting for a closely interactive workshop like SPAWC 2009. More information can be found on the SPAWC 2009 website.

5. Chapter News and Distinguished Lectures

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
Argentina	6-April-2009	**Prof. Petar M. Djuric** (SUNY Stony Brook): "Simulation and Stochastic Analysis of Complex Biochemical Systems" and "The particle filtering methodology in signal processing", in Buenos Aires, at ITBA (Buenos Aires Institute of Technology) . Contact Chapter Chair Roxana Saint-Nom [saintnom AT gmail.com] for more information.
Central New England	18-March-2009	by **Dr. Amy Rebman** (AT&T Labs-Research). Details to be announced. Contact Chapter Chair Dr. Joe Yeh [jyeh724 AT gmail.com] for more information.
Chicago, IL	13-March-2009	by **Prof. Vikram Krishnamurthy** (University of British Columbia, Cananda). Details to be announced. Contact Chapter Chair Dr. Dan Schonfeld [dans AT uic.edu] for more information.
Chicago, IL	10-April-2009	by **Prof. Lang Tong** (Cornell University). Details to be announced. Contact Chapter Chair Dr. Dan Schonfeld [dans AT uic.edu] for more information.
Dallas, TX	25-March-2009	**Prof. Rama Chellappa** (University of Maryland, College Park): "Recent Advances in Face Recognition". See the announcement for more information.
Denver, CO	25-March-2009	**Prof. Petar M. Djuric** (SUNY Stony Brook): "The particle filtering methodology in signal processing". See the announcement for more information.
Japan	April 2009	by **Prof. Walter Kellermann** (University of Erlangen-Nuremberg, Germany). Details to be announced. Contact Akihiko Ken Sugiyama [aks@ak.jp.nec.com] for more information.
Northern Virginia	13-March-2009	**Dr. Amy Rebman** (AT&T Labs-Research): "Image and Video Quality Assessment: The Truth About PSNR". At 3:30pm, University of Virginia, Thornton Hall, Room E 316. See the announcement for event details.
Princeton/ Central Jersey	2-April-2009	by **Prof. Charles Bouman** (Purdue University). Details to be announced. Contact Chapter Chair Dr. Hui Cheng [h.cheng AT ieee.org] for more information.
Washington	3-April-2009	**Prof. Charles Bouman** (Purdue University): "Model Based Imaging: In Search of the Free Lunch." At 2pm, University of Maryland, College Park. See the announcement for event details.
Chapter	**Dates**	**Other Upcoming Events**

Baltimore, MD	19-Feb-2009	**Dr. Hualiang Li** (University of Maryland at Baltimore County): "Complex-Valued Adaptive Signal Processing using Wirtinger Calculus and its Application to Independent Component Analysis ". See chapter web site for more information.
Central Texas	19-Feb-2009	**Casey King** (LifeSize Inc.): "HD Video Communication & Telepresence: Trends & Underlying Technology." See chapter web site for more information.
Central Texas	19-March-2009	**Tom Cuthbert** (ClickForensics Inc.): "Click Quality: Ensuring Value for Growing Online Market." See chapter web site for more information.
Chicago, IL	27-Feb-2009	**Prof. Shih-Fu Chang** (Columbia University): "Large-Scale Image/Video Classification and Search." See chapter web site for more information.
Dallas, TX	17-Feb-2009	**Prof. Murali Varanasi** (University of North Texas): "A Design and Project-Oriented Innovative Electrical Engineering Program at the University of North Texas." See the announcement for more information.
Northern Virginia	25-March-2009	**Prof. Joseph Picone** (Mississippi State University): "Nonlinear Statistical Modeling of Speech." See the announcement 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

The MPEG Surround Audio Coding Standard

A data-rate efficient coding scheme for high-quality multichannel sound using novel parametric coding techniques has been standardized by the Moving Pictures Expert Group (MPEG). This new "MPEG Surround" standard is backward compatible to existing mono- or stereophonic audio equipment. The technology of MPEG Surround is based on the spatial audio coding (SAC) principle: in the encoder, a mono- or stereophonic downmix is generated from the multichannel input signal, and additional parametric side information is extracted to guide the subsequent up-mix procedure in the decoder.

An overview of the history, technology, and performance of the MPEG Surround Audio Coding Standard by J. Hilpert and S. Disch is featured in the **Standards in a Nutshell** column of the January 2009 issue of the IEEE Signal Processing Magazine.

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7. SP Education and Resources

Social Network Analysis and Visualization

In the popular press, the term social network commonly refers to online communities such as Facebook and MySpace. In the broader scientific literature, a social network may represent any form of relation between any type of social actors, potentially through mediating entities. The term was coined in a 1950s article to signify a perspective different from those focusing on individuals in sociometric research. Today, social network analysis has matured into a paradigm, combining structural theories of social interaction with corresponding methods for its analysis.

The November 2008 issue of the IEEE Signal Processing Magazine featured a **column article** by U. Brandes to provide a short introduction and an overview on the methods and foundations of this field.

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8. New Ph.D. Theses

Ashwin Swaminathan (University of Maryland, College Park):
"**Multimedia Forensics via Intrinsic and Extrinsic Fingerprints**," September 2008.
Advised by Prof. Min Wu.

Accompanying the advances in electronic imaging and processing, the integrity of digital image content can no longer be taken for granted. A number of forensic and provenance questions arise, including how an image was generated; from where an image was from; what has been done on the image since its creation, by whom, when and how. This thesis presents two classes of techniques to address the problem via intrinsic and extrinsic fingerprints. Intrinsic fingerprints refer to the inherent traces left behind on the final output image by the various modules in the imaging device. The first part of the thesis shows that these intrinsic traces can be robustly identified via component forensic analysis, and employed to verify the integrity of digital data. The second part of the thesis focuses on extrinsic fingerprints and image hashes to authenticate images after they have been captured by the device. Through detailed simulations and theoretical studies, the thesis demonstrates the effectiveness and advantages of the proposed techniques for digital image forensics.

Click here to access the thesis and contact the author at <ashwins AT gmail.com> for more information.

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

Microscope Image Processing,
by Qiang Wu, Fatima Merchant and Kenneth Castleman, Elsevier, 2008.

Description from the publisher: Digital image processing, an integral part of microscopy, is increasingly important to the fields of medicine and scientific research. This book provides a unique one-stop reference on the theory, technique, and applications of this technology. The book presents a unique practical perspective of state-of-the-art microscope image processing and the development of specialized algorithms. It contains in-depth analysis of methods coupled with the results of specific real-world experiments. The book covers image digitization and display, object measurement and classification, autofocusing, and structured illumination.

Visit the book's website for more information.

Partial-Update Adaptive Signal Processing,
by Kutluyil Dogancay, Elsevier, 2009.

Description from the publisher: Partial-update adaptive signal processing algorithms not only permit significant complexity reduction in adaptive filter implementations, but can also improve adaptive filter performance in telecommunications applications. This book gives state-of-the-art methods for the design and development of partial-update adaptive signal processing algorithms for use in systems development. The book provides a comprehensive coverage of key partial updating schemes, giving detailed information on the theory and applications of acoustic and network echo cancellation, channel equalization and multiuser detection. It also examines convergence and stability issues for partial update algorithms, providing detailed complexity analysis and a unifying treatment of partial-update techniques.

Visit the book's website for more information.

Books Featured in Previous Issues [details]

Advanced FPGA Design: Architecture, Implementation, and Optimization,
by Steve Kilts, Wiley-IEEE Press, 2007.

Image Fusion: Algorithms and Applications,
by Tania Stathaki, Elsevier, 2008.

A Wavelet Tour of Signal Processing: The Sparse Way, 3rd Edition
by Stephane Mallat, Elsevier, 2009.

Resource Allocation for Wireless Networks: Basics, Techniques, and Applications,
by Zhu Han and K.J. Ray Liu, Cambridge University Press, 2008.

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10. Research Opportunities

**Two Postdoctoral Research Fellowships in Signal Processing/Communications
at The University of Newcastle, Australia**

The School of Electrical Engineering and Computer Science of the University of Newcastle, Australia, is seeking two Postdoctoral Research Fellows to support research projects in signal processing and communications funded by the Australian Research Council. A brief summary of these projects is available online.

Applicants must have a Ph.D. (or be close to completion) in electrical engineering or a related field (such as mathematics or statistics), with a proven capacity for high-quality research and an international publication record. Previous research experience in digital communications or statistical signal processing is desirable. Remuneration will be competitive, and commensurate with the applicant's qualifications and experience. The positions are available immediately for a term of up to three years. Review of applications will begin immediately and continue until suitable candidates are found. To apply, please email a CV, including list of publications, and the names and contact details for two referees, to [Peter.Schreier AT newcastle.edu.au].

Research Position Featured in Previous Issue [details]

- Post-doctoral / Research Associate position in inverse imaging for semiconductor manufacturing at University of Hong Kong

- Ph.D. position in mathematical statistics - reliable detection of explosives and narcotics at Lund University, Sweden

- Post-doctoral research fellow on image quality assessment at University of Nantes, France

- Postdoctoral Research Fellow for Statistical Signal Processing - Synthetic Aperture Sonar at TU Darmstadt, Germany

- Postdoctoral Positions on MIMO Radar and Sensor Networks for Detection/Estimation at Lehigh University, USA

- EPSRC Industrial CASE PhD Studentship in Statistical Signal Processing at Heriot-Watt University, UK

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.

Contributors of articles in this issue:

Ed Delp (IFS TC), Gwenaël Doërr (WIFS 2009), Geert Leus (SPCOM TC), and Ying Zhang (IPSN 2009).

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 March 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 **March 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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In-Depth E-News Article

List of Publications Receiving 2008 SPS Paper Awards

BEST PAPER AWARDS

Javier Portilla, **Vasily Strela**, **Martin J. Wainwright**, and **Eero P. Simoncelli**, for the paper entitled, "Image Denoising Using Scale Mixtures of Gaussians in the Wavelet Domain," published in the *IEEE Transactions on Image Processing*, Volume 12, Number 11, November 2003.

Wei Yu and **Tian Lan**, for the paper entitled, "Transmitter Optimization for the Multi-Antenna Downlink With Per-Antenna Power Constraints," published in the *IEEE Transactions on Signal Processing*, Volume 55, Number 6, June 2007.

Jingdong Chen, **Jacob Benesty**, **Yiteng Huang**, and **Simon Doclo**, for the paper entitled, "New Insights Into the Noise Reduction Wiener Filter," published in the *IEEE Transactions on Audio, Speech, and Language Processing*, Volume 14, Number 4, July 2006.

Giuseppe Riccardi and **Dilek Hakkani-Tür** for the paper entitled, "Active Learning: Theory and Applications to Automatic Speech Recognition," published in the *IEEE Transactions on Speech and Audio Processing*, Volume 13, Number 4, July 2005.

YOUNG AUTHOR BEST PAPER AWARDS

Minh N. Do, for the paper co-authored with Martin Vetterli entitled, "The Contourlet Transform: An Efficient Directional Multiresolution Image Representation," published in the *IEEE Transactions on Image Processing*, Volume 14, Number 12, December 2005.

H. Vicky Zhao, for the paper co-authored with K. J. Ray Liu entitled, "Behavior Forensics for Scalable Multiuser Collusion: Fairness Versus Effectiveness," published in the *IEEE Transactions on Information Forensics and Security*, Volume 1, Number 3, September 2006.

Hirokazu Kameoka, for the paper co-authored with Takuya Nishimoto and Shigeki Sagayama entitled, "A Multipitch Analyzer Based on Harmonic Temporal Structured Clustering," published in the IEEE Transactions on Audio, Speech, and Language Processing, Volume 15, Number 3, March 2007.

Animashree Anandkumar, for the paper co-authored with Lang Tong entitled, "Type-Based Random Access for Distributed Detection Over Multiaccess Fading Channels," published in the *IEEE Transactions on Signal Processing*, Volume 55, Number 10, October 2007.

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