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January 2009

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From the E-Newsletter Team:

Happy New Year! 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]()>.

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1. Society News

Society Welcomes New Officers and Members-at-Large

Beginning January 2009, the Board of Governors of the IEEE Signal Processing Society (SPS) welcomes new Officers and Members-at-Large. **V. John Mathews**, Professor, University of Utah, will serve as 2009-2011 Vice President-Conferences. He succeeds Athina Petropulu, who completed her term as 2006-2008 Vice President-Conferences. **Ali H. Sayed**, Professor, University of California, Los Angeles, will serve as 2009-2011 Vice President-Publications. He succeeds K. J. Ray Liu, who completed his term as 2006-2008 Vice President-Publications.

Three new Members-at-Large, **Charles A. Bouman** (Purdue University, West Lafayette, IN); **Sheila S. Hemami** (Cornell University, Ithaca, NY); and **Mari Ostendorf** (University of Washington, Seattle, WA), take their seats and will serve until December 2011. Ali H. Sayed vacated his Member-at-Large post to become the Vice President-Publications and Ananthram Swami has accepted to fill Prof. Sayed's vacant Member-at-Large post for 2009. See [Oct. 2008 eNews]() for more information.

Other society-level updates featured in this issue include new Editors-in-Chief for five SPS publications beginning January 2009 (see [Publication News]() section), and five members named for the 2009 Class of SPS Distinguished Lecturers (see [Chapter and Distinguished Lecture]() section).

Member-at-Large Election: Call for Nominations

In accordance with the Bylaws of the IEEE Signal Processing Society, the membership will elect, by direct ballot, THREE Members-at-Large to the Board of Governors (BoG) for three-year terms commencing 1 January 2010 and ending 31 December 2012.

Please provide nominations for Member-at-Large to Past President Alfred O. Hero via e-mail to <sp.info AT ieee.org> or via fax to 732-235-1627. Please provide the name, address, phone, fax, e-mail or other contact information of the nominee, along with a brief background on the individual (no more than 100 words) and any information about the individual's current activities in the Signal Processing Society, the IEEE, or other professional societies. Nominations must be received no later than **20 March 2009**.

Additional information can be found at this link.

Call for Nominations for Editors-in-Chief

The IEEE Signal Processing Society (SPS) invites nominations for the positions of Editor-in-Chief for IEEE Transactions on Image Processing and IEEE Journal of Selected Topics in Signal Processing.

Nominations should be submitted to Ali H. Sayed, SPS Vice President-Publications, via <sayed AT ee.ucla.edu>. Nominations must include a brief biography of no more than one page. The biography should include a web address that contains the candidate's CV (do not send complete curricula vitae with the nomination). Also include a statement of the candidate's experience as an associate editor or other publication management position. Should the nominee so desire, a statement of interest of up to 500 words may be included stating the nominee's interest and special qualifications for the position. Nominations must be received no later than **2 February 2009**. The complete call for nominations can be found at this page.

Deadline Approaching: Nominations for the IEEE James L. Flanagan Speech and Audio Processing Technical Field Award and other IEEE Technical Field Awards are due by **2 February 2009**.

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2. Conference News

IEEE SENSORS 2009 Call for Participation – October 25-28, 2009, Christchurch, New Zealand

IEEE SENSORS conference, the flagship conference of IEEE Sensors Council, is the world's premier conference focusing on sensors, sensing technologies and their applications. The conference features internationally reputed speakers, tutorials, exhibits, and over 36 lectures and poster sessions, including several special oral sessions.

The SENSORS 2009 conference will be held in the second largest city of New Zealand, Christchurch. This marks the first time that the SENSORS conference is organized in Oceania. New Zealand has been chosen to host many significant international events (including the next Rugby World Cup in 2011). Christchurch is a vibrant, sophisticated city and proudly sits as the urban, international gateway to the coastal and alpine tourist playgrounds of New Zealand's South Island. Christchurch and the surrounding region of Canterbury maintains a superb reputation as New Zealand's leading convention destination. The time of conference is during the spring with an expected temperature ranging between 50ºF to 65ºF, the best time for travel.

The deadlines for SENSORS 2009 are approaching: special session proposals are due **31 January 2009**; paper abstracts are due **31 March 2009**; and tutorial proposals are due **30 April 2009**. Visit the conference website for more information.

Signal Proc. Conferences: Call for Papers	Location	Date	Tutorial/Special Session	Submission Deadline
6th IEEE International Symposium on Biomedical Imaging (ISBI'09)	Boston, MA	June 28-July 1, 2009		January 26, 2009
IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS'09)	Minneapolis, Minnesota	May 17-21, 2009		January 30, 2009

10th IEEE International Workshop on Signal Processing Advances for Wireless Communications (SPAWC'09)	Perugia, Italy	June 21-24, 2009		January 30, 2009
IEEE International Conference on Image Processing (ICIP'09)	Cairo, Egypt	Nov. 7-11, 2009		January 30, 2009
IEEE International Conference on Ultra-Wideband (ICUWB'09)	Vancouver, CA	Sep. 9-11, 2009		February 23, 2009
IEEE Conference on Sensors (SENSORS'09)	Christchurch, New Zealand	Oct. 25-28, 2009	January 31 (Special Session); April 30 (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	February 9, 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
NEW 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
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP'09)	Taipei, Taiwan	February 2, 2009	April 19-24, 2009
27th Picture Coding Symposium (PCS'09)	Chicago, IL	TBA	May 6-8, 2009
2nd International Conference on Immersive Telecommunications (IMMERCOM'09)	Berkeley, CA	April 1, 2009	May 27-29, 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

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3. Publication News

New Editors-in-Chief for SPS Publications

Five publications of the IEEE Signal Processing Society welcome new Editors-in-Chief beginning January 2009 for the term that will run until 31 December 2011. These new Editors-in-Chief are: **Konstantinos N. Plataniotis** (University of Toronto, Ontario, Canada) for the *IEEE Signal Processing Letters*, succeeding Dr. Alex B. Gershman (Darmstadt University of Technology, Darmstadt, Germany); **Li Deng** (Microsoft Research, Redmond, WA) for *IEEE Signal Processing Magazine*, succeeding Dr. Shih-Fu Chang (Columbia University, New York, NY); **Helen Meng** (The Chinese University of Hong Kong, China) for the *IEEE Transactions on Audio, Speech, and Language Processing*, succeeding Dr. Mari Ostendorf (University of Washington, Seattle, WA); **Nasir Memon** (Polytechnic University, Brooklyn, NY) has been named Editor-in-Chief for the *IEEE Transactions on Information Forensics and Security*, succeeding Dr. Pierre Moulin (University of Illinois-Urbana, Urbana, IL); and **Athina Petropulu** (Drexel University, Philadelphia, PA) has been named Editor-in-Chief for the *IEEE Transactions on Signal Processing*, succeeding Dr. Alle-Jan van der Veen (Delft University of Technology, Delft, The Netherlands).

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

- Columns/Forums rolling submission deadlines

- Proposals invited for special issues and feature articles (details)

- Special Issue on Convex Optimization for Signal Processing - Whitepaper Due 5 May 2009

Special Issue Deadlines

Journal of Selected Topics in Signal Processing (website)

- MIMO Radar and its Applications - Deadline (extended): 3 February 2009
- Compressive Sensing - Deadline: 20 February 2009
- Model Order Selection in Signal Processing Systems – Deadline: 20 April 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: 15 February 2009

IEEE MultiMedia Magazine (website)

- Multimedia-Metadata and Semantic Management - Deadline: 15 January 2009
- 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 Issue on Cognitive Radio Technology	vol. 25, no. 6	PDF	Html
IEEE Transactions on Audio, Speech, and Language Processing	vol. 17, no. 2	PDF	Html

IEEE Transactions on Image Processing	vol. 18, no. 2	PDF	Html
IEEE Transactions on Information Forensics and Security	vol. 3, no. 4	PDF	Html
IEEE Transactions on Signal Processing	vol. 57, no. 1	PDF	Html
IEEE Signal Processing Letters	vol. 15	Recent Articles Html, PDF	Html
IEEE Journal of Selected Topics in Signal Processing • Signal Processing for Space Research and Astronomy	vol. 2, no. 5	PDF	Html

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

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4. TC News

IMDSP TC Renamed as Image, Video, and Multidimensional Signal Processing TC

The former Image and MultiDimensional Signal Processing (IMDSP) TC recently revised its name to add the term "video" and updated its acronym accordingly as IVMSP -- Image, Video, and Multidimensional Signal Processing (IVMSP) TC . The motivation for the name change was to make it clear to the technical community that the TC coverage includes video signal processing. Learn more about this change and major TC activities from this exclusive report.

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5. Chapter News and Distinguished Lectures

2009 Class of Distinguished Lecturers

The IEEE Signal Processing Society's (SPS's) Distinguished Lecturer (DL) Program provides the means for Chapters to have access to well-known educators and authors in the fields of signal processing to lecture at Chapter meetings. Distinguished Lecturers are appointed for a term of two calendar years. The 2009 Class of SPS Distinguished Lecturers includes:

CHARLES A. BOUMAN, Purdue University, West Lafayette, Indiana. Prof. Bouman's lecture topics include:

model based imaging: in search of the free lunch; intelligent enhancement and restoration in imaging pipelines; iterative reconstruction without the iterations; and grand challenge problems in digital imaging.

VIKRAM KRISHNAMURTHY, University of British Columbia, Vancouver, BC, Canada. Prof. Krishnamurthy's lecture topics include: adaptive filtering games for designing reconfigurable sensor networks; statistical signal processing for protein dynamics and protein-based–from macro to sub-nano scales; and radar resource management and integrated tracking.

SHOJI MAKINO, NTT Communication Science Labs, Kyoto, Japan. Dr. Makino's lecture topics include: blind audio source separation based on independent component analysis and underdetermined blind source separation based on sparseness.

SERGIOS THEODORIDIS, University of Athens, Athens, Greece. Prof. Theodoridis' lecture topics include: adaptive kernel methods; support vector machines; and music information retrieval (MIR).

LANG TONG, Cornell University, Ithaca, New York. Prof. Tong's lecture topics include: distributed sensing and inference in random information fusion networks; detection of information flow and anonymous networking; and cognitive spectrum sharing: sensing, access, and networking.

While many IEEE Societies have similar programs, the SPS provides financial support for the Chapters to take advantage of this service. Chapters interested in arranging lectures by the Distinguished Lecturers can obtain information from the Society's DL web page. Interested members may check each issue of the E-News for upcoming SPS Distinguished Lectures near you.

Chapter Activities at A Glance: IEEE Signal Processing Coastal Los Angeles Chapter

As of 2008, the IEEE Signal Processing Coastal Los Angeles Chapter becomes part of the Coastal Los Angeles Section, instead of the Los Angeles Council. It is a joint chapter in the Coastal Los Angeles area for the Communications, Signal Processing and Vehicular Technology societies. The 2009 officers are Ron Smith and Charles Wang as Co-Chairs and Paul Anderson as Treasurer and Membership Development. Two excellent technical meetings have been held last year, presented by Fred Harris from the San Diego State University on "DSP Based Corrections of Analog Components in Digital Receivers", and by Rick Wesel from University of California - Los Angeles on "New Results in Coding and Communication Theory". The presentation charts are available at the Chapter Website.

Chapter	Dates	SPS Distinguished Lectures
United Kingdom & Republic of Ireland	26-29 January 2009	By **Prof. Sergios Theodoridis** (University of Athens, Greece). - January 26: Lecture at the University of Bristol; - January 27: Lecture at Queen Mary, Univ. of London; - January 28: Lecture at Imperial College; - January 29: Lecture at the University of Surrey. Contact Chapter Chair Prof. Marwan Al-Akaidi at <MMA AT dmu.ac.uk> for more information.
Princeton & Central Jersey	2-Apr-2009	By **Prof. Charles Bouman** (Purdue University, IN). Details to be announced. Contact Chapter Chair Dr. Hui Cheng at <HCheng AT Sarnoff.com> for more information.
Washington	3-Apr-2009	By **Prof. Charles Bouman** (Purdue University, IN). Details to be announced. Contact Chapter Chair Prof. Min Wu at <washington.sps AT ieee.org> for more information.
Chapter	Dates	Other Chapter Events
Baltimore, MD	20-Jan-2009	**Dr. Brian M. Sadler** (Army Research Laboratory), "Solar Blind Non-Line-of-Sight Ultraviolet Communications". See chapter web site for more information.
Dallas, TX	27-Jan-2009	**Prof. Murali Varanasi** (University of North Texas), "A Design and Project-Oriented Innovative Electrical Engineering Program at the University of North Texas. See detailed 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. New Initiatives and Trends

LASeR: The Lightweight Rich Media Representation Standard

Rich media services and interfaces typically offer increased user experience by the dynamic combination of video, audio, images, graphics or text. The rich media representation is defined by the LASeR standard for mobile devices. It is based on reusing simple MPEG-4 Systems tools and the MPEG-4 decoder model and addresses rich media services on a wide range of devices and delivery situations.

Learn more about the LASeR standard from the **Standards in a Nutshell** article by J.-C. Durfourd in the November 2008 issue of the IEEE Signal Processing Magazine.

Swarm Intelligence and Signal Processing

Swarm intelligence deals with the behavior of natural or artificial swarms. Swarms are systems that consist of many individuals that are organized and coordinated by principles of decentralized control, indirect communication, and self-organization. Examples of natural swarms are social insect colonies, flocks of birds, schools of fish, or herds of land animals. Examples of artificial swarms include groups of robots, intelligent mobile devices that can communicate with each other, or virtual swarms in the form of a computer program. An interesting phenomenon of swarms is that collective swarm behavior can emerge on a global scale, even when all individuals have only a restricted view of the system and interactions between individuals and their environment occur only on a local scale.

The **DSP Exploratory column** of the November 2008 issue of the IEEE Signal Processing Magazine features an article by D. Merkle and M. Middendorf on optimization methods developed in swarm intelligence that have found an increasing number of applications in diverse fields, including signal processing.

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7. SP Education and Resources

Web resources on Adaptive Filtering

The area of adaptive signal processing has had a significant impact on a wide variety of signal processing applications. These include inverse filtering, signal modeling, prediction, channel equalization, echo cancellation, noise cancellation, system identification and control, line enhancement, adaptive notch filtering, and beam forming. These developments have been crucial to the practical and commercial success of many types of communications systems.

The "**Best of the Web**" column by M. H. Hayes and J. Treichier in the November 2008 issue of the IEEE Signal Processing Magazine presents an interesting list of web resources on adaptive filtering. It also includes a set of tutorials, course, software and demos, and applications that are publicly available.

8. New Ph.D. Theses

Manav R. Bhatnagar (University of Oslo, Norway):
"**Differential Coding for MIMO and Cooperative Communications**," October 2008.
Advised by Prof. Are Hjørungnes.

In this thesis, we implement precoded differential modulation for non-orthogonal and orthogonal space-time blocks codes (STBCs) over arbitrarily correlated channels. We design precoders based on pair-wise error probability (PEP) and approximate symbol error rate (SER) for differential MIMO system. The carrier offsets make the flat fading channel behave as a time varying channel and the differential systems break down. We propose a precoded double-differential coding for full-rank and square orthogonal space-time block codes (OSTBC) with M-PSK constellation over arbitrarily correlated MIMO channels. We also propose double-differential modulation for cooperative communication systems to avoid the need of the knowledge of carrier offset and channel gain at the cooperating nodes (relays) and the destination. We derive a few useful SER and bit error rate (BER) expressions for double-differential cooperative communication systems using decode-and-forward and amplify-and-forward protocols. Based on these SER/BER expressions, power allocations are also proposed to further improve the performance of these systems.

Click here to access the thesis.

Thomas Stockhammer (Munich University of Technology, Germany):
"**System and Cross-Layer Design for Mobile Video Transmission**," November 2008.
Advised by Prof. Joachim Hagenauer.

This work investigates system designs and optimizations for the application of video services in mobile communication systems. Special focus is put on the cooperation and optimization of functions in different layers of a transmission system taking into account the service requirements of different video applications. Based on channel models that are derived from state-of-the-art and emerging mobile communication systems, we introduce suitable transmission and video coding methods. In particular, the co-developed H.264/AVC video coding standard as well as a proprietary scalable extension are intensively analyzed for their applicability in mobile and Internet communication environments. Innovative error protection tools are designed which enable adaptation to the varying reception conditions in mobile communication environments and enable the cross-layer optimization with the proposed video coding tools. The selection of video coding and error protection options as well as their cooperation is supported by the development of quality-optimizing selection and rate allocation schemes. The findings in this work are verified by information-theoretic justifications, practically relevant system designs, as well as extensive simulation results. The benefits of the proposed methods with respect to existing systems are shown and the realizable gains are quantified.

Click here to access the thesis.

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.

9. New Books

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

Description from the publisher: This book provides the advanced issues of FPGA design as the underlying theme of the work. In practice, an engineer typically needs to be mentored for several years before these principles are appropriately utilized. The topics that will be discussed in this book are essential to designing FPGA's beyond moderate complexity. The goal of the book is to present practical design techniques that are otherwise only available through mentorship and real-world experience.

Visit the book's website for more information.

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

Description from the publisher: The growth in the use of sensor technology has led to the demand for image fusion: signal processing techniques that can combine information received from different sensors into a single composite image in an efficient and reliable manner. This book brings together classical and modern algorithms and design architectures, demonstrating through applications how these can be implemented. *Image Fusion: Algorithms and Applications* provides a representative collection of the recent advances in research and development in the field of image fusion, demonstrating both spatial domain and transform domain fusion methods including Bayesian methods, statistical approaches, ICA and wavelet domain techniques. It also includes valuable material on image mosaics, remote sensing applications and performance evaluation.

Visit the book's website for more information.

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

Description from the publisher: The new edition of this classic book gives all the major concepts, techniques and applications of sparse representation, reflecting the key role the subject plays in today's signal processing. The book clearly presents the standard representations with Fourier, wavelet and time-frequency transforms, and the construction of orthogonal bases with fast algorithms. The central concept of sparsity is explained and applied to signal compression, noise reduction, and inverse problems, while coverage is given to sparse representations in redundant dictionaries, super-resolution and compressive sensing applications.

Visit the book's website for more information.

Books Featured in Previous Issues [details]

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

Ultra Wideband Signals and Systems in Communication Engineering,
by Mohammad Ghavami, Lachlan Michael, and Ryuji Kohno, Wiley, 2nd edition, 2007.

Mathematics of Digital Images: Creation, Compression, Restoration, Recognition,
by S.G. Hoggar, Cambridge University Press, 2006.

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10. Research Opportunities

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

The [Electrical and Electronic Engineering Department](#) at the University of Hong Kong has an opening for a post-doc/research associate position in optical lithography research, tenable from as soon as possible. The candidate will work on a research project (funded by the Research Grant Council of Hong Kong) that develops inverse imaging techniques for photomask designs in semiconductor manufacturing, and explores issues such as robustness and imaging limits.

Candidate should have a Ph.D. in electrical and electronic engineering, or equivalent (such as applied mathematics), and should have an established record in imaging system modeling and solving inverse problems for imaging. Initial contract will be one-year, with possibility of renewal up to three years. Candidates without Ph.D. will be considered at the Research Associate level. Interested candidates should send their CVs to <isl AT eee.hku.hk>, with the subject "Application for post-doctoral/research associate position 2008-09". Inquiries about the post should be addressed to the project leader and Director of Imaging Systems Laboratory, Professor Edmund Lam, at <elam AT eee.hku.hk>. Remuneration package is competitive and commensurate with qualifications and experience, with medical and dental benefits.

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

Applications are invited for a PhD position in mathematical statistics aimed at developing robust and reliable detection algorithms for concealed explosives and narcotics using spectroscopic techniques, such as nuclear quadrupole resonance, nuclear magnetic resonance and resonant Raman spectroscopy. These techniques allow for efficient, but complementary, methods to reliably detect, at close-range, both solid-state and liquid explosives and narcotics, as well as vapour-traces of such substances at a distance of 45-60 m. The project also includes examining pharmaceutical applications of the techniques as well as analysis of the developed techniques. Some further details on the current project can be found [here](#).

Exceptional applicants are invited to contact [Prof. Andreas Jakobsson](#) at <andreas.jakobsson AT matstat.lu.se> for further information about the project. Applicants should have a strong background in statistical signal processing and mathematical statistics, and should have a M.Sc. degree in Engineering, Mathematics, or a related discipline. Proficiency in English is a requirement. Last day for application is 13th February 2009. Please see [this page](#) for the complete announcement.

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

The Image and Video-Communication team at the [IRCCyN lab](#), University of Nantes France, is currently recruiting a post-doctoral research fellow to work on quality assessment of watermarked images and JND masks. Candidates should have a strong research record and a number of years research experience in digital watermarking and/or human vision modeling. The successful candidate will be expected to carry out novel research in HVS based watermarking (JND masks) and objective/subjective quality assessment of watermarked images. Full time position for one year starts in January/February 2009. Experience in software development using C/C++ and Matlab is highly desirable. Depending on experience and background, annual salary for a post-doctoral researcher is about 35000 Euros. Applicants should email a detailed Curriculum Vitae along with a publication list to <Florent.Autrusseau AT polytech.univ-nantes.fr>. Further information on the lab's research fields can be found [here](#).

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

- 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

- PhD Position on Secure Identification and Authentication Codes at the University of Geneva, Switzerland

- PhD Scholarship in Cochlear Signal Detection and Modelling at Victoria University of Wellington, New Zealand

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. 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/); the IEEE Signal Processing Magazine also provides opportunities for paid advertisement.

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Contributors of articles in this issue:

John Apostolopoulos (IVMSP TC) and Subhas Mukhopadhyay (SENSORS 2009 Conference).

About the Inside Signal Processing E-Newsletterr

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 February 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 **February 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

Update from Image, Video, and Multidimensional Signal Processing (IVMSP)

Technical Committee

by John Apostolopoulos (TC Chair)

Some of you may feel that the IVMSP TC name seems familiar, but something seems different. If you have this feeling, then you are correct. This is the former Image and MultiDimensional Signal Processing (IMDSP) TC -- one of SPS oldest TC's -- which recently revised its name to add the term "video". The motivation for the name change was to make it clear to our SP community that the TC coverage includes video signal processing. For example, while video is a type of imagery and a multidimensional signal, a text search for "video" on the SPS website would not return the IMDSP TC. Therefore, explicitly adding "video" to the TC name both helps to clarify that video is within the TC's scope, and also better reflects the increasing importance of video research activities and technology advances in our SP community.

The purpose of the Image, Video, and Multidimensional Signal Processing Technical Committee (IVMSP TC) is to promote and guide the advancement of the field of image, video, and multidimensional signal processing. This includes those areas listed under all EDICS categories of the IEEE Transactions on Image Processing and under the EDICS subcategory Multidimensional Signal Processing of IEEE Transactions on Signal Processing.

One of the TC's most important responsibilities is overseeing the organization and the technical program, and serving as core reviewers, for the IEEE International Conference on Image Processing (ICIP), which is the largest and premiere IEEE conference on image and video. Topic areas include image/video coding and transmission; image/video processing; image formation for biomedical imaging and remote sensing; image scanning, display, and printing; image/video storage, retrieval, and authentication; and applications in biomedical sciences, geosciences and remote sensing, document image processing and analysis, and other imaging applications. The TC recently finished contributing to ICIP 2008 which was held in San Diego this past October, and work is ramping up for ICIP 2009 which will be held in Cairo, Egypt, in November 2009. The TC was also heavily involved in reviewing about 400 papers submitted to the ICASSP 2009 paper in the IVMSP area.

The TC would also like to thank the following TC members who have just finished their six-year terms: Shih-Fu Chang, Vivek Goyal, Benoit Macq, Aleksandra Mojsilovic, Kenneth Rose, and Michael Unser. We would also like to welcome the following new TC members: Rashid Ansari, Oscar C. Au, Prakash Ishwar, Qibin Sun, Jean-Philippe Thiran, Trac D. Tran, and Patrick J. Wolfe.

Additional information about the IVMSP TC's activities is available at the TC website.

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Inside Signal Processing E-Newsletter Hosted by the Communications and Signal Processing Labs at University of Maryland