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## IEEE Signal Processing Magazine

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### Inside Signal Processing E-Newsletter

January-February 2008

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### Highlights of This Issue

- [Society News](#): New Officers & Members-at-large; Gray and Reddy honored with IEEE Awards
- [Conference News](#): Check out deadlines of upcoming SPS conferences and workshops
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**From the E-News Team:** Welcome to the first issue of Year 2008!

We 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>>.

We would also like to invite you to [preview](#) a new integrated system that will be formally launched later this year to host the Inside Signal Processing E-Newsletter; advanced features such as content search and RSS feed will be incorporated. Your feedback is very welcome. Best wishes for a prosperous 2008!

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## 1. Society News

### Society's New Officers and Members-at-Large

Beginning January 2008, the Board of Governors of the IEEE Signal Processing Society (SPS) welcomes new officers and members-at-large. [José M. F. Moura](#), Professor of Carnegie Mellon University, will serve as 2008-2009 SPS President. Moura's first [President's Message](#) to members can be found in the January 2008 issue of the IEEE Signal Processing Magazine. He succeeds Alfred Hero, who completed his term as 2006-2007 SPS President (see [Past President's Message](#)).

Other new officers include Mos Kaveh, 2008-2009 President-Elect, and Michael Zoltowski, Vice President - Award and Membership. Three new members-at-large, Li Deng, Alex B. Gershman, and Rabab K. Ward, also take their seats and will serve until December 2010 (see [Oct. 2007 eNews](#)).

More information about the SPS Board of Governors can be found at the [SPS webpage](#).

### Robert M. Gray to Receive the 2008 IEEE Jack S. Kilby Signal Processing Medal

The IEEE Jack S. Kilby Signal Processing Medal is being presented to [Robert M. Gray](#), Lucent Technologies Professor of Engineering at Stanford University. IEEE selected Dr. Gray to receive the medal, "for contributions to vector quantization and signal compression techniques." The Medal itself will be presented to Dr. Gray at the IEEE Honors Ceremonies. The award consists of a gold medal, bronze replica, certificate and honorarium.

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.

### Raj Reddy Selected as the 2008 IEEE James L. Flanagan Speech and Audio Processing Award

The IEEE James L. Flanagan Speech and Audio Processing Technical Field Award is being presented to [Raj Reddy](#), University Professor of Computer Science and Robotics at Carnegie Mellon University. IEEE selected Dr. Reddy to receive the award, "for leadership and pioneering contributions to speech recognition, natural language understanding, and machine intelligence." Dr. Reddy will receive the award at the Society's flagship conference, the International Conference on Acoustics, Speech, and Signal Processing (ICASSP), held in Las Vegas, Nevada, in April 2008.

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.

## Society Launched Its New Website at [www.signalprocessingsociety.org](http://www.signalprocessingsociety.org)

The Society's website has a new look and feel. Please bookmark the new address <[www.signalprocessingsociety.org](http://www.signalprocessingsociety.org)> and check out exciting new features that are available. A new section on "Community" has been created under the new website to provide online forums and new avenues for signal processing professionals to network.

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## 2. Conference News

Signal Proc. Conferences: Call for Papers	Location	Date	Tutorial/Special Session	Submission Deadline
<a href="#">Fifth IEEE Workshop on Sensor Array and Multi-Channel Signal Processing (SAM'08)</a>	Darmstadt, Germany	July 21-23, 2008		<b>Feb. 3, 2008</b>
<a href="#">IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC'08)</a>	Recife, Brazil	July 6-9, 2008		<b>Feb. 11, 2008</b>
<a href="#">International Symposium on Image/Video Communications (ISIVC'08)</a>	Bilbao, Spain	July 9-11, 2008		<b>March 1, 2008</b>
<a href="#">International Workshop on Multimedia Security in Communication (MUSIC'08) in conjunction with CHINACOM 2008</a>	Hangzhou, China	Aug. 25-27, 2008		March 31, 2008
<a href="#">Tenth International Workshop on Signal Processing for Space Communications (SPSC'08)</a>	Rhodes Island, Greece	Oct. 6-8, 2008		March 30, 2008
<a href="#">IEEE Workshop on Signal Processing Systems (SIPS'08)</a>	Washington, DC	Oct. 8-10, 2008		April 2, 2008
<a href="#">IEEE Workshop on Multimedia Signal Processing (MMSP'08)</a>	Cairns, Queensland, Australia	Oct. 8-10, 2008	<b>March 8, 2008</b>	April 18, 2008
<a href="#">IEEE Workshops on Machine Learning for Signal Processing (MLSP'08)</a>	Cancún, Mexico	Oct. 16-19, 2008		May 5, 2008

Upcoming Signal Processing Conferences	Location	Advanced Registration	Conference Dates
<a href="#">International Symposium on Communications, Control and Signal Processing (ISCCSP'08)</a>	St. Julians, Malta		March 12-14, 2008
<a href="#">IEEE Southwest Symposium on Image Analysis and Interpretation (SSIAI'08)</a>	Santa Fe, New Mexico	<b>March 1, 2008</b>	Mar. 24-26, 2008

<a href="#">IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP'08)</a>	Las Vegas, NV	<b>Feb. 25, 2008</b>	Mar. 31 - April 4, 2008
<a href="#">IEEE/ACM Information Processing in Sensor Networks (IPSN'08)</a>	St. Louis, MO		April 22-24, 2008
<a href="#">Symposium in Signal and Multimedia Processing (SMP) at 21st IEEE Canadian Conference on Electrical and Computer Engineering (CCECE)</a>	Niagara Falls, Canada	<b>March 7, 2008</b>	May 4-7, 2008
<a href="#">IEEE International Symposium on Biomedical Imaging (ISBI'08)</a>	Paris, France	<b>March 14, 2008</b>	May 14-17, 2008
<a href="#">1st IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS'08)</a>	Phoenix, Arizona	TBA	June 8-10, 2008
<a href="#">1st International Workshop on Cognitive Information Processing</a>	Santorini, Greece	TBA	June 9-10, 2008
<a href="#">IEEE International Conference on Multimedia &amp; Expo (ICME'08)</a>	Hanover, Germany	TBA	June 23-26, 2008
<a href="#">IEEE International Conference on Image Processing (ICIP'08)</a>	San Diego, CA	TBA	Oct. 12-15, 2008

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### 3. Publication News

Upcoming Deadlines for **Signal Processing Magazine**: <http://www.ieee-spm.org/?i=cfp>

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

**Special Issue Deadlines** of SPS Publications - Journal of Selected Topics in Signal Processing

- [fMRI Analysis for Human Brain Mapping](#) - Deadline: **15 March 2008**
- [Digital Image Processing Techniques for Oncology](#) - Deadline: 15 April 2008
- [Visual Media Quality Assessment](#) - Deadline: 30 April 2008
- [DSP Techniques for RF/Analog Circuit Impairments](#) - Deadline: 1 June 2008

**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"> <li>• Special Section on Brain-Computer Interfaces</li> <li>• Feature Article on MIMO Radar with Widely Separated Antennas</li> </ul>	vol. 25, no. 1	<a href="#">PDF</a>	<a href="#">Html</a>
IEEE Transactions on Audio, Speech, and Language Processing	vol. 16, no. 1 vol. 16, no. 2	<a href="#">PDF</a> <a href="#">PDF</a>	<a href="#">Html</a>

IEEE Transactions on Image Processing	vol. 17, no. 1 vol. 17, no. 2	<a href="#">PDF</a> <a href="#">PDF</a>	<a href="#">Html</a>
IEEE Transactions on Information Forensics and Security	vol. 2, no. 4	<a href="#">PDF</a>	<a href="#">Html</a>
IEEE Transactions on Signal Processing	vol. 56, no. 1 vol. 56, no. 2	<a href="#">PDF</a> <a href="#">PDF</a>	<a href="#">Html</a>
IEEE Signal Processing Letters	vol. 15		<a href="#">Html</a>
IEEE Journal of Selected Topics in Signal Processing	vol. 1, no. 4	<a href="#">PDF</a>	<a href="#">Html</a>
<ul style="list-style-type: none"> <li>Convex Optimization Methods for Signal Processing</li> </ul>			
<b>Journal Title</b>	<b>Latest Issue</b>	<b>Contents (in PDF)</b>	<b>Xplore Link</b>
IEEE Transactions on Medical Imaging	vol. 27, no. 2	<a href="#">PDF</a>	<a href="#">Html</a>
IEEE Transactions on Mobile Computing	vol. 7, no. 3	<a href="#">PDF</a>	<a href="#">Html</a>
IEEE Transactions on Multimedia	vol. 10, no. 2	<a href="#">PDF</a>	<a href="#">Html</a>
IEEE Sensors Journal	vol. 8, no. 3		<a href="#">Html</a>
IEEE Transactions on Wireless Communications	vol. 7, no. 1	<a href="#">PDF</a>	<a href="#">Html</a>
Computing in Science & Engineering Magazine	vol. 10, no. 1	<a href="#">PDF</a>	<a href="#">Html</a>
IEEE MultiMedia	vol. 14, no. 4	<a href="#">PDF</a>	<a href="#">Html</a>

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## 4. TC News

### New Chairs Elected for Technical Committees

Beginning January 2008, several of the Society's Technical Committees (TCs) have new Chairs taking leadership roles. Links and more information about the 13 TCs in the Society can be found at this [web link](#).

Technical Committee	Chair
Audio and Electroacoustics TC	Walter Kellermann
Design and Implementation of Signal Processing Systems TC	Shuvra Bhattacharyya
Image and Multidimensional Signal Processing TC	John Apostolopoulos
Multimedia Signal Processing TC	Anthony Vetro
Information Forensics and Security TC	Ed Delp
Signal Processing Theory and Methods TC	Ali H. Sayed

### Activity Update from MMSP TC

The IEEE Multimedia Signal Processing (MMSP) Technical Committee promotes the advancement of multimedia signal processing technology with special emphasis on the interaction, coordination, synchronization, and joint processing of multimodal signals (read more about the TC in [May'07 eNews](#)).

Since January 2008, Anthony Vetro has begun a two-year term as Chair of MMSP-TC, while Ingemar Cox continues his service in 2008 as Past Chair.

The MMSP TC thanks Adriana Dumitras, Pascal Frossard, Jay Kuo, Shipeng Li, and Mark Liao, whose terms expired at the end of 2007, for their service. Based on the recent election, the MMSP TC welcomes Jeffrey A. Bloom, Yen-Kuang Chen, Touradj Ebrahimi, Carlo Regazzoni and Eckehard Steinbach, as new members of the TC.

This year's International Workshop on Multimedia Signal Processing (MMSP 2008) will be held on in Cairns, Australia, home of the beautiful Great Barrier Reef. The paper submission deadline is **April 18**, and special session proposal is due **March 8, 2008**. Further details are available online at: <http://mmsp08.org/>. The MMSP TC is also pleased to announce that Rio de Janeiro, Brazil has been selected as the venue for MMSP 2009. Further details will be at <http://mmsp09.org/>.

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## 5. Chapter News and Distinguished Lectures

### Chapters Congress to be Held in March 2008

A Signal Processing Society Chapters "Congress" will be held on 31 March 2008 in conjunction with ICASSP 2008 at Caesar's Palace Hotel in Las Vegas, Nevada, USA. The Chapters Congress is open to all SPS Chapter Chairs, and will be held from 12:00–17:00. The Chapters Congress will focus on how to encourage more active chapters and how to increase membership worldwide. If you are a current SPS Chapter Chair and are interested in attending the event, please contact Alex Kot, Chair of SPS Chapters Committee, at <eackot AT ntu.edu.sg>.

### Activity Report from Signal Processing Toronto Chapter

The Signal Processing (SP) chapter of the IEEE Toronto Section became a standalone chapter in August 2005. In the past two years, the Chapter held around 24 technical meetings, with topics covering a wide spectrum of signal processing theory and practices in communication systems, medical technologies, multimedia systems, biometrics, and nanotechnologies. Learn more from this exclusive [in-depth report](#).

**Do you know?** IEEE SPS provides travel support for local chapters to invite **SPS Distinguished Lecturers**. See a list of SPS [2007 and 2008 Distinguished Lecturers](#), and check each issue of the E-News for upcoming SPS Distinguished Lectures near you.

Chapter	Dates	SPS Distinguished Lectures
<b>Central Texas</b>	7-Feb-2008	<b>Prof. Rama Chellappa</b> (University of Maryland, College Park): "Recent Advances in Face Recognition," 1pm at ACES Auditorium (ACES 2.302), University of Texas - Austin. See the <a href="#">announcement</a> for more information.
<b>Houston</b>	8-Feb-2008	<b>Prof. Rama Chellappa</b> (University of Maryland, College Park): "Looking for Patterns in Video," 11am at 1064 Duncan Hall, Rice University. See the <a href="#">announcement</a> . Contact: Chapter Chair Prof. Richard Baraniuk [richb AT rice.edu].
<b>Japan</b>	20-Mar-2008	<b>Prof. Lin-Shan Lee</b> (National Taiwan University): "Voice-based Information Retrieval: how far are we from the text-based retrieval?" at Sanjo (Hill-top) Conference Hall, University of Tokyo - Hongo Campus, Japan. Contact: SPS Japan Chapter Chair, Keikichi Hirose [hirose AT gavo.t.u-tokyo.ac.jp] for more details.

<b>Washington</b>	11-Apr-2008	<b>Prof. Petar M. Djuri</b> • (SUNY Stony Brook): "The Particle Filtering Methodology in Signal Processing," 2pm at 1110 Kim Bldg, University of Maryland, College Park. See the <a href="#">announcement</a> or contact [washington.sps AT ieee.org].
<b>Central Texas</b>	16-Apr-2008	<b>Prof. Tsuhan Chen</b> (Carnegie Mellon University): title to be announced. See the <a href="#">chapter website</a> or contact Chapter Chair Hanan Potash [potash AT flash.net] for more information.
Chapter	Dates	Other Upcoming Events
<b>Santa Clara Valley</b>	11-Feb-2008	<b>Dr. Nam Ling</b> , IEEE Fellow & IEEE Distinguished Lecturer: "Simplified Fast Motion Estimation: Simplified and Unified Multi-Hexagon Search (SUMH) with Context Adaptive Lagrange Multiplier (CALM)," at National Semiconductor (2900 Semiconductor Dr., Santa Clara, CA 95051). Details at <a href="#">chapter website</a> .
<b>Northern Virginia</b>	16-Feb-2008	<b>"Discover Engineering Family Day,"</b> 10:00 am to 4:30 pm, at National Building Museum, 401 F Street NW, Washington, DC; See <a href="#">detailed announcement</a>
<b>Central Texas</b>	21-Feb-2008	<b>Prof. Sos Agaian:</b> "Multimedia Communication Security," 7pm at BSE 2.102, UTSA. See <a href="#">detailed announcement</a> .

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

Explore Signal Processing for [Life Sciences](#) from SPM January 2008 on "**Digital Brain Atlases for Biomedicine**" by J.C. Gee.

Learn [Standards in a Nutshell](#) from the latest issue of SPM on "**OpenCable Application Platform**" by A. Gordon and D. Hooley (January 2008).

Explore the [In-the-Spotlight](#) topic on "**Buddha's Brain: Neuroplasticity and Meditation**" by R.J. Davidson and A. Lutz (January 2008).

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## 7. New PhD Theses

**Matei Mancas** (Engineering Faculty of Mons, Belgium):  
**"Computational Attention: Modelisation & Application to Image and Audio Processing,"** Sept. 2007.  
 Advised by Prof. Bernard Gosselin

Consciously or unconsciously, humans always pay attention to a wide variety of stimuli. This thesis deals with a computational approach to human attention and its possible applications.

First, the thesis introduces a rarity-based three-level attention model handling mono-dimensional signals as well as images or video sequences. The concept of attention is defined as the transformation of a huge acquired unstructured data set into a smaller structured one while preserving the information: the

attentional mechanism turns rough data into intelligence.

Afterwards, several applications are described in the fields of machine vision, signal coding and enhancement, medical imaging, event detection and so on. These applications not only show the applicability of the proposed computational attention method, but also support the idea that similar to the fact that attention is the beginning of intelligence in humans, computational attention may be the starting point of artificial intelligence.

Click [here](#) for more information about the thesis.

**Ahmed K. Sadek** (University of Maryland, College Park):

**"Cross-Layer Design For Cooperative Communications and Networking,"** April 2007.

Advised by Prof. K. J. Ray Liu

Cooperative communications is a new communication paradigm in which different terminals in the wireless network share their antennas and resources for distributed transmission and processing. Recent studies have shown that cooperative communications can yield significant performance improvement due to spatial diversity gains. The theory of cooperative communications is however still immature to fully understand its broader impacts on the design of future wireless networks.

This thesis contributes to the advancement of cooperative communications by developing and analyzing cooperation protocols at different network levels, with the goal to provide significant improvements in signal reliability, coverage area, network throughput, and energy efficiency with respect to other existing alternatives.

Click [here](#) to download the thesis or contact the author <aksadek 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 <piva AT lci.det.unifi.it> if you have any question.

(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 <piva AT lci.det.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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## **8. New Books**

### ***Embedded Signal Processing with the Micro Signal Architecture,***

by Woon-Seng Gan and Sen M Kuo, Wiley-IEEE, February 2007.

Description from the publisher: This is a real-time digital signal processing textbook using the latest embedded Blackfin processor Analog Devices, Inc (ADI). 20% of the text is dedicated to general real-time signal processing principles. The remaining text provides an overview of the Blackfin processor, its programming, applications, and hands-on exercises for users. With all the practical examples given to expedite the learning development of Blackfin processors, the textbook doubles as a ready-to-use user's guide. The book is based on a step-by-step approach in which readers are first introduced to the DSP systems and concepts. Although, basic DSP concepts are introduced to allow easy referencing, readers are recommended to complete a basic course on "Signals and Systems" before attempting to use this book. This is also the first textbook that illustrates graphical programming for embedded processor using the latest LabVIEW Embedded Module for the ADI Blackfin Processors.

Visit the book's [website](#) for more information.

***Linear Estimation and Detection in Krylov Subspaces***, by G. K. E. Dietl, Springer, Sep 2007.

Description from the publisher: This book focuses on the foundations of linear estimation theory which is essential for effective signal processing. In its first part, it gives a comprehensive overview of several key methods like reduced-rank signal processing and Krylov subspace methods of numerical mathematics. Based on the derivation of the multistage Wiener filter in its most general form, the relationship between statistical signal processing and numerical mathematics is presented. In the second part, the theory is applied to iterative multiuser detection receivers (Turbo equalization) which are typically desired in wireless communications systems. The investigations include exact computational complexity considerations and performance analysis based on extrinsic information transfer charts as well as Monte-Carlo simulations.

Visit the book's [website](#) for more information.

***Robust Signal Processing for Wireless Communications***, by F. A. Dietrich, Springer, Nov 2007.

Description from the publisher: This book treats the robust design of signal processing algorithms for wireless communications which are based on an incomplete model of the propagation channel. The systematic treatment of this practical problem focuses on signal processing tasks in the physical layer with multiple antennas and relies on a description of the errors and uncertainties in the system's model. It applies principles of modern estimation, optimization, and information theory. Tutorial introductions to relevant literature and mathematical foundations provide the necessary background and context to the reader. The book contains detailed derivations and enlightening insights on a number of [topics](#).

Visit the book's [website](#) for more information.

***Resource Allocation in Multiuser Multicarrier Wireless Systems***,  
by Ian C. Wong and Brian L. Evans, Springer, Nov 2007.

Description from the publisher: Many algorithms have already been proposed in the past to solve the problem of allocating resources in a multi-user multicarrier wireless system. Due to the difficulty of the problem, most of the previous work in this area has focused on developing suboptimal heuristics without performance guarantees. This book proposes a unified algorithmic framework based on dual optimization techniques that have complexities that are linear in the number of subcarriers and users, and that achieve negligible optimality gaps in standards-based numerical simulations. Adaptive algorithms based on stochastic approximation techniques are also proposed, which are shown to achieve similar performance with even much lower complexity.

Visit the book's [website](#) for more information.

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

*Computer Graphics Using OpenGL*, by Francis S. Hill, Jr. and Stephen M. Kelley,  
3rd Edition, Prentice Hall, 2006.

*Principles of Embedded Networked Systems Design*,  
by Gregory Pottie and William Kaiser, Cambridge University Press, 2005.

*Model-Based Signal Processing*, by James V. Candy, John Wiley/IEEE Press, 2006.

*Streamlining Digital Signal Processing: A Tricks of the Trade Guidebook*,  
edited by Richard Lyons, John Wiley/IEEE Press, 2007.

*Algorithmic Information Theory: Mathematics of Digital Information Processing*,  
by Peter Seibt, Springer Press, 2006.

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## 9. Research Opportunities

### Postdoctoral Position in digital forensics at Dartmouth College

The Image Science Group at Dartmouth is searching for a postdoc with skills and interest in digital forensics. The desired start date is May or June of 2008.

The candidate must have finished their Ph.D. and have some experience in digital forensics, digital image processing, and have strong mathematical and programming skills (Matlab and Java a plus). The postdoc will work with Professor Hany Farid and his group in the area of digital forensics.

Interested candidates should send their vita (pdf) to Hany Farid at <farid AT cs.dartmouth.edu>. More information about the position can be found [online](#).

### Overseas Job Search Made Easier

The IEEE Job Site now lets job seekers conduct searches by geographic regions, such as Africa, Latin America, and countries that make up the European Union. Interested members can check out available positions by using the [IEEE Job Site Quick Search option](#).

### Job Posting Portals

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

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

[http://engineering.academickeys.com/seeker\\_job.php](http://engineering.academickeys.com/seeker_job.php)

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### Contributors of articles in this issue:

Sri Krishnan and Anthony Vetro.

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## About the Inside Signal Processing E-Newsletterer

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.

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## Submission Instructions - Contribution for the March '08 Issue Due February 20, 2008

Visit the [web submission site](#) to provide your input. Make sure that you include your name, affiliation, and email and phone contact information. Contributions submitted by **February 20, 2008** 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.

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## Contact Information of the E-Newsletter Team

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*Conference and publication news (including new books)*

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

Mihaela van der Schaar, *Associate Editor*, University of California, Los Angeles, USA (mihaela AT ee.ucla.edu)  
*News and activities of SPS Technical Committees, industry consortiums and international standards*

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

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

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## In-Depth E-News Articles

### Exclusive Activity Report from Signal Processing Toronto Chapter



Contributor: Dr. Sri Krishnan, Chapter Chair

The Signal Processing (SP) chapter of the IEEE Toronto Section became a standalone chapter in August 2005. As one of the five such SP chapters in Canada (Region 7), the SPS Toronto Chapter currently has around 120 members.

In the past two years, the Chapter held about 24 technical meetings, with topics covering a wide spectrum of signal processing theory and practices in communication systems, medical technologies, multimedia systems, biometrics, and nanotechnologies. The speakers were from a diversified background, and included a good mix of leading academic and industrial researchers and practitioners. The Chapter also hosted two recent SPS Distinguished Lectures: Dr. C.-C. Jay Kuo from University of Southern California, and Dr. Aggelos K. Katsaggelos from Northwestern University. The topics and speakers of the Chapter's 2006-2007 seminar series include:

- "Cognitive Dynamic Systems," by Prof. Simon Haykin (McMaster University).
- "Statistical Signal Processing for Misbehavior and Attack Detection in Wireless Networks," by Prof. Xiaodong Wang (Columbia University).
- "Recent Advances in Image and Video Recovery," an IEEE Signal Processing Society Distinguished Lecture by Prof. Aggelos K. Katsaggelos (Northwestern University).
- "Distributed Source Coding: Theory and Algorithms," by Prof. En-hui Yang (University of Waterloo).
- "Estimating Roadway Traffic Conditions Via Anonymous Tracking of Cell Phones," by Prof. Bruce Hellinga (University of Waterloo).
- Panel Discussion on "Future Research Trends in Energy, Micro, and Multimedia Systems," by Profs. Ling Guan, Bin Wu and Fei Yuan, and Mr. Valeri Kirischian of Ryerson University, and Ms. April Khademi of University of Toronto.
- "Statistical Signal Processing for MIMO Communication Channels," by Dr. Sander Stepanov (Broadcom).
- "Segmentation and Quantitative Analysis of the Tissue Content of the Tumor Mass in Neuroblastoma," by Prof. Raj Rangayyan (University of Calgary).
- "Ubiquitous Multimedia Computing and Communication: Challenges and Future Trends," an IEEE Signal Processing Society Distinguished Lecture by Prof. C.-C. Jay Kuo (University of Southern California).
- "Security in Black and White," a co-sponsored IEEE Circuits and Systems Society Distinguished Lecture by Prof. Alex Kot (Nanyang Technological University, Singapore).

The Chapter is currently chaired by Dr. Sri Krishnan of Ryerson University. He was chosen by IEEE Toronto Section to receive the 2006 "Chapter Chair of the Year" award in recognition of his exemplary service. Dr. Krishnan also serves as the Region 7 representative in the SPS Chapters Committee. Other chapter officers include Mr. Karl Martin of University of Toronto as Vice Chapter and Dr. Lian Zhao of Ryerson University as Chapter Secretary. More details about the chapter and upcoming events can be found at the chapter's [webpage](#).

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