from the **EDITOR**

Abdelhak Zoubir Editor-in-Chief zoubir@spg.tu-darmstadt.de http://signalprocessingsociety.org/ publications/periodicals/spm



Dissemination of Research Findings: What Role Can We Play?

ndoubtedly, those who do research in signal processing and many of us who use this powerful technology appreciate its importance and its huge impact on societal development. Signal processing has revolutionized numerous areas in the society in which we live today, and there is much more to come. Is this the view of any user of this technology? What about those young people who walk while wearing headphones, listening to music from their mobile device, or the elderly patient using hearing aids? Do they know what signal

Digital Object Identifier 10.1109/MSP.2013.2246715 Date of publication: 5 April 2013

processing is and what role it plays in that device? The fundamental question that arises is to know whose role it is to inform the public about the research we conduct.

The challenge facing politicians, as well as researchers, has always been to expand the frontiers of knowledge and to serve the community. There are research foundations worldwide, such as the National Science Foundation (NSF), established in 1950, or the German Research Foundation (Deutsche Forschungsgemeinschaft, also known as DFG), established as the Notgemeinschaft der Deutschen Wissenschaft in 1920, that use public money to fund research and education in science and engineering. Most of us enjoy the generosity of these

foundations that enable us to conduct cutting-edge research today. In addition to the regular programs of these foundations, there also exist special initiatives to support timely research. For example, the European Commission (EC) announced quite recently the funding of two large research projects, each amounting to €1 billion to conduct research in the human brain and graphene, respectively. I am confident that your reaction is or was similar to mine: what wonderful news! Maybe we need more of this! However, is this the reaction we would expect from any other individual from one of the users of the signal processing

(continued on page 8)

IEEE SIGNAL PROCESSING MAGAZINE

Abdelhak Zoubir, Editor-in-Chief - Technische Universität Darmstadt, Germany

AREA EDITORS

Feature Articles - Marc Moonen, KU Leuven, Belgium

Columns and Forum -- Andrea Cavallaro, Queen Mary, University of London, UK and Andres Kwasinski, Rochester Institute of Technology

 Fulvio Gini, University of Pisa, Special Issues -Italy

e-Newsletter -- Z. Jane Wang, University of British Columbia

EDITORIAL BOARD

Moeness G. Amin — Villanova University Sergio Barbarossa — University of Rome "La Sapienza," Italy

Mauro Barni — Università di Siena, Italy Helmut Bölcskei - ETH Zürich, Switzerland A. Enis Cetin - Bilkent University, Turkey Yen-Kuang Chen — Intel Corporation Bernd Girod — Stanford University Michael Jordan — University of California, Berkeley

Bastiaan Kleijn -- Victoria University of Wellington, New Zealand

Visa Koivunen — Aalto University, Finland Ying-Chang Liang — Institute for Infocomm Research, Singapore

- National Chiao-Tung University, Mark Liao -Taiwan

Hongwei Liu - Xidian University, China V. John Mathews — University of Utah

Digital Object Identifier 10.1109/MSP.2013.2252092

Satoshi Nakamura — Nara Institute of Science and Technology, Japan

Kuldip Paliwal — Griffith University, Australia Béatrice Pesquet-Popescu — Télécom ParisTech, France

H. Vincent Poor — Princeton University Eli Saber Rochester Institute of Technology Ali Sayed -– University of California, Los Angeles Victor Solo -- University of New South Wales, Australia

Sergios Theodoridis — University of Athens Greece

Michail K. Tsatsanis — Entropic Communications Min Wu — University of Maryland

ASSOCIATE EDITORS-

COLUMNS AND FORUM

Rodrigo Capobianco Guido — University of Sao Paulo, Brazil Aleksandra Mojsilovic — IBM T.J. Watson

Research Center Douglas O'Shaughnessy — INRS, Canada

Gene Cheung -- National Institute of Informatics

Alessandro Vinciarelli — IDIAP-EPFL Michael Gormish — Ricoh Innovations, Inc. Xiaodong He - Microsoft Research Fatih Porikli — MERL

Stefan Winkler — UIUC/ADSC, Singapore Carlos Óscar Sánchez Sorzano — UAM, Spain Azadeh Vosoughi — University of Rochester Danilo Mandic — Imperial College, UK

Roberto Togneri — The University of Western Australia Lina Karam — Arizona State University

IEEE SIGNAL PROCESSING SOCIETY K.J. Ray Liu — President

- President-Elect Alex Acero -John Treichler — Vice Presid Awards and Membership - Vice President, Wan-Chi Siu-Vice President, Conferences Min Wu — Vice President, Finance Mari Ostendorf — Vice President, Publications Ahmed Tewfik — Vice President, Technical Directions

ASSOCIATE EDITORS—E-NEWSLETTER

Gwenael Doerr - Technicolor, France Vítor Nascimento - University of São Paulo, Brazil

Shantanu Rane — MERL Yan Lindsay Sun — University of Rhode Island

IEEE PERIODICALS MAGAZINES DEPARTMENT

Jessica Barragué -- Managing Editor

Geraldine Krolin-Taylor — Senior Managing Editor

Susan Schneiderman — Business Development Manager +1 732 562 3946 Fax: +1 732 981 1855

Felicia Spagnoli — Advertising Production Mgr. Janet Dudar - Senior Art Director Gail A. Schnitzer — Assistant Art Director Theresa L. Smith — Production Coordinate - Production Coordinator Dawn M. Melley --Editorial Director Production Director Peter M. Tuohy -Fran Zappulla -- Staff Director, Publishing

IEEE prohibits discrimination, harassment, and bullying. For more information, visit http://www.ieee.org/web/aboutus/whatis/policies/p9-26.html.

- David P. Wipf and Bhaskar D. Rao, "An Empirical Bayesian Strategy for Solving the Simultaneous Sparse Approximation Problem," IEEE Transactions on Signal Processing, vol. 55, no. 7, July 2007.
- Robert Wilson, David Tse, and Robert A. Scholtz, "Channel Identification: Secret Sharing Using Reciprocity in Ultrawideband Channels," IEEE Transactions on Information Forensics and Security, vol. 2, no. 3, Sept. 2007.
- Yagiz Sutcu, Qiming Li, and Nasir Memon, "Protecting Biometric Templates with Sketch: Theory and Practice," IEEE Transactions on Information Forensics and Security, vol. 2, no. 3, Sept. 2007.
- Zhi Quan, Shuguang Cui, and Ali H. Sayed, "Optimal Linear Cooperation for Spectrum Sensing in Cognitive Radio Networks," IEEE Journal of Selected Topics in Signal Processing, vol. 2, no. 1, Feb. 2008.

The Young Author Best Paper Award honors the author(s) of an especially meritorious paper dealing with a subject

- related to the Society's technical scope and appearing in one of the Society's transactions and who, upon date of submission of the paper, is under 30 years of age. The prize is US\$500 per author (up to a maximum of US\$1,500 per award) and a certificate. Eligibility is based on a three-year window preceding the year of election, and judging is based on general quality, originality, subject matter, and timeliness. Four Young Author Best Paper Awards are being presented this year:
 - Deanna Needell, for the paper coauthored with Roman Vershynin, "Signal Recovery from Incomplete and Inaccurate Measurements via Regularized Orthogonal Matching Pursuit," IEEE Journal of Selected Topics in Signal Processing, vol. 4, no. 2, Apr. 2010.
 - David Ramírez, for the paper coauthored with Javier Vía, Ignacio Santamaría, and Louis L. Scharf, "Detection of Spatially Correlated Gaussian Time Series," IEEE Transactions on Signal Processing, vol. 58, no. 10, Oct. 2010.
 - Najim Dehak, for the paper coauthored with Patrick J. Kenny, Réda

- Dehak, Pierre Dumouchel, and Pierre Ouellet, "Front-End Factor Analysis for Speaker Verification," IEEE Transactions on Audio, Speech, and Language Processing, vol. 19, no. 4, May 2011.
- Ngoc Q. K. Duong, for the paper coauthored with Emmanuel Vincent and Rémi Gribonval, "Under-Determined Reverberant Audio Source Separation Using a Full-Rank Spatial Covariance Model," IEEE Transactions on Audio, Speech, and Language Processing, vol. 18, no. 7, Sept. 2010.

SPS MEMBER RECEIVES 2013 IEEE JAMES L. FLANAGAN AWARD

Victor Zue (Massachusetts Institute of Technology, Cambridge) will be presented with the IEEE James L. Flanagan Speech and Audio Processing Technical Field Award "for pioneering contributions to acoustic phonetics and conversational spoken-language systems." The IEEE James L. Flanagan Speech and Audio Processing Award was established in 2002 and was founded and is sponsored by the IEEE SPS. SP

from the **EDITOR** continued from page 2

technology mentioned previously? I guess that the reaction might be controversial. If it weren't, then I think that we are "safe" and can expect this wonderful support to continue or even increase. Politicians as well as the economic sector/industrialists, who also play an important role in innovation and the competitiveness of a nation, will have an easier task in persuading their peers and the public at large to increase research funding without fearing cuts in research budgets in the future.

What role can we, the signal processing research leaders and the stakeholders, play to influence decisions made by politicians? My personal view is that we have to be more active in disseminating success stories of signal processing, not only to the decision makers, but also to the public at large. Surely, if we had the public on our side it would not be so easy for politicians to reduce the research budget, even during an economic crisis.

What role does IEEE Signal Processing Magazine (SPM) play in this enterprise? The highest mandate of SPM is to publish articles of high tutorial value while maintaining high quality for feature articles, special issues, or columns and forum. Past and present editorial teams of SPM have diligently strived to identify and develop key areas for future research that have had a significant impact on the scientific community and the society at large. The special issues of SPM have been particularly enlightening and motivating for new research endeavors. The dissemination of these publications and the new research findings will be instrumental to achieving our goal of sustainable research funding since they will also serve the public in general.

The selection of committed and experienced professionals will no doubt always be of utmost importance. It gives me great pleasure to introduce new additions to the editorial team. I wish to welcome Mauro Barni, A. Enis Cetin, Bastiaan Kleijn, Ying Chang Liang, Eli Saber, and Michail Tsatsanis, who are energetic and dedicated professionals with whom we shall move SPM to an even higher level. They will certainly contribute to more innovations that will make their mark in the future.

I encourage you to get more involved and to actively participate in submitting feature articles, special issue proposals, and articles for SPM columns and forum.

(Hallhah Dontaic