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Das Sekretariat der IFAC befindet sich seit 1978 aufgrund eines Übereinkommens mit der Österreichischen Bundesregierung und mit der Österreichischen Akademie der Wissenschaften in Laxenburg und wird derzeit aus Mitteln des Bundesministeriums für Verkehr, Innovation und Technologie „BMVIT“ gefordert.

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Introducing the 2011-2014 IFAC Fellows

Continuation in a series

Ian R. Petersen

Ian R. Petersen was born in Victoria, Australia. He received a Ph.D in Electrical Engineering in 1984 from the University of Rochester (Rochester, New York, USA.)

From 1983 to 1985 Petersen was a Postdoctoral Fellow at the Australian National University. In 1985 he joined the University of New South Wales at the Australian Defence Force Academy where he is currently Scientia Professor and an Australian Research Council Laureate Fellow in the School of Engineering and Information Technology.

He was the Australian Research Council Executive Director for Mathematics, Information and Communications in 2002 and 2003. He was Acting Deputy Vice-Chancellor of Research for the University of New South Wales in 2004 and 2005. He held an Australian Research Council Professorial Fellowship from 2005 to 2007 and an Australian Research Council Federation Fellowship from 2007 to 2012. Petersen has served as an associate editor for the IEEE Transactions on Automatic Control, Systems and Control Letters, Automatica, and SIAM Journal on Control and Optimization. Currently he is an editor for the IFAC journal Automatica in the area of control and estimation theory.

In addition to being an IFAC Fellow, Petersen is a fellow of the IEEE and the Australian Academy of Science. His main research interests are in robust control theory, quantum control theory and stochastic control theory.

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2014 IFAC World Congress Update

The preliminary technical programme for the 2014 IFAC World Congress is now available at

https://ifac.papercept.net/conferences/conferences/IFAC14/program/.

The preliminary programme shows the plenary lectures, and regular, invited and interactive sessions along with the author index.

Registration has already started and participants are encouraged to make use of the early-bird discounts that are on offer. The registration details can be found on the

www.ifac2014.org

website which will also provide details of the pre-congress tutorials, technical tours and social events as they are finalised.

We are looking forward to welcoming the IFAC community to Cape Town in August!

Ed Boje, IFAC 2014 IPC Chair

ALCOSP 2013 and PSYCO 2013

Caen, France
July 3 – 5, 2013

The 11th IFAC International Workshop on Adaptation and Learning in Control and Signal Processing (ALCOSP 2013) and the 5th IFAC International Workshop on Periodic Control Systems (PSYCO 2013) were conjunctly held at the University of Caen Basse-Normandie, Caen, France, on 3-5 July, 2013.

Both ALCOSP 2013 and PSYCO 2013 were organized by the GREYC Lab, a French research laboratory affiliated to the University of Caen Basse-Normandie, the Ecole Nationale Supérieure d'Ingénieurs de Caen, and the Centre National de la Recherche Scientifique (CNRS). The organization was placed under the auspices of the SEE (the French IFAC NMO) and the GDR MACS (CNRS).

ALCOSP 2013 and PSYCO 2013 enjoyed the technical sponsorship of the International Federation of Automatic Control (IFAC) Technical Committee 1.2 'Adaptive and Learning Systems' and the co-sponsorship of the TC 1.1 'Modelling, Identification and Signal Processing', the TC 2.1 'Control Design', the TC 3.2 'Computational Intelligence in Control', and the TC 6.3 'Power and Energy Systems'.

The IFAC TC 1.2 'Adaptive and Learning Systems' focuses on the study of dynamical systems and phenomena in which one faces estimation and control issues under conditions of uncertainty and lack of information. Then, adaptation and learning turn out to be natural tools to cope with these issues which are generally the consequence of real-time changes in the dynamical behaviour of signals and systems. The area of adaptive and learning control has achieved maturity. During the last decades several new powerful design and analysis methods and computationally intelligent tools became available.

The ALCOSP meeting has the goal of bringing together researchers and practitioners interested in adaptation and learning, providing them with a forum for presentation of recent developments and assessment of the most promising trends for future research. It is one of the rare regular IFAC events gathering potential actors from both the control and the signal-processing communities. It is rooted in a long standing IFAC activity as ALCOSP 2013 is the 11th in a series originated in San Francisco (1983) and continued in Lund (1986), Glasgow (1989), Grenoble (1992), Budapest (1995), Glasgow (1998), Cernobbio-Come (2001), Katayama (2004), Saint-Petersburg (2007) and Antalya (2010).

PSYCO 2013 is the 5th in an IFAC series originated in Cernobbio-Come (2001) and continued in Katayama (2004), Saint-Petersburg (2007) and Antalya (2010).

ALCOSP 2013 and PSYCO 2013 are the first IFAC events to be held in the historic Normandie Region (now administratively split in two regions).

Out of nearly 200 papers that were submitted to ALCOSP 2013 and PSYCO 2013, the International Program Committee selected 148 papers for inclusion in the final program. The selection was based on a minimum of two independent evaluations per paper.

The final program comprised 6 plenary sessions, 7 invited sessions and 24 regular sessions. The relatively large number of presentations has led us to construct a program with 4 to 5 parallel sessions which provided ample opportunity for anyone attending the workshops to satisfy their own personal interests.

Nearly 175 participants from 28 countries attended the meetings and enjoyed the technical program as well as the three social events including the Wine & Cheese Welcome Reception offered by the mayor of the city of Caen on his premises (a medieval monastery), the conference banquet organized within the medieval Ducal Castle, and the guided tour of the World War II D-Day landing beaches.

The 6 plenary lectures were presented by distinguished professors and constituted highlight moments of the meeting. The first lecture, entitled '**What Can Regularization Offer For Estimation of Dynamical Systems?**', was presented by Professor Lennart Ljung (Linköping University, Linköping, Sweden), who outlined the beneficial role of regularization for general inverse problems of which system identification is an example. New results were reviewed and their meaning for the theory and practice of dynamical model estimation was discussed.

The second plenary lecture, entitled '**Adaptive Attenuation of Unknown and Time Varying Disturbances**', was presented by Professor Ioan D. Landau (GIPSA-LAB, Control Dept, Grenoble, France) who outlined the problem of adaptive regulation in presence of unknown and time varying disturbances. A number of recent developments for adaptive feedback compensation of multiple unknown and time varying narrowband disturbances and for adaptive feed-forward compensation of broad band disturbances in the presence of the inherent internal positive feedback caused by the coupling between the compensator system and the measurement of the image of the disturbance.

The third plenary lecture, entitled **'The Shooting Approach to Optimal Control Problems'**, was delivered by Professor J. Frédéric Bonnans (INRIA-Saclay and Ecole Polytechnique, Palaiseau, France). It overviewed the shooting technique in deterministic optimal control problems and illustrated its application to state constrained problems and affine control systems. Extensions to the optimal control of a parabolic equation are discussed.

The fourth plenary lecture, entitled **'Adaptive Control of Anti-stable Wave PDE Systems: Theory and Applications in Oil Drilling**', was delivered by Professor Miroslav Krstic (University of California, San Diego, USA). The problems in oil drilling give rise to wave PDE models, which are not only unstable, but have all of their infinitely many eigenvalues at uncertain locations in the right half plane (anti-stable). The lecture presented a recently invented

special adaptive control design yielding stabilizing controllers. The design is performed using infinite-dimensional backstepping transformations and Lyapunov functionals constructed with such transformations.

The fifth plenary lecture, entitled '**High-Gain Observers in Nonlinear Feedback Control'**, was given by Professor Hassan K. Khalil (Michigan State University, USA). It outlined the theoretical development of the high-gain observers, over the last twenty years with emphasis on the peaking phenomenon and the role of control saturation in dealing with it. The talk surveyed results on the nonlinear separation principle, extended high-gain observers, performance in the presence of measurement noise, and experimental testbeds.

The sixth lecture, entitled **'Sparsity-Aware Adaptive Learning: A Set Theoretic Estimation Approach'**, was presented by Professor Sergios Theodoridis (University of Athens, Greece). It reviewed the theoretical developments, which rendered the Adaptive Projection Subgradient Method (APSM) capable of dealing with sparse parameter vector estimation tasks. Advanced sparsity promoting constraints are incorporated via properly defined non-expansive mappings, which are shown to have not only convex but also non-convex fixed point sets.

Although ALCOSP 2013 and PSYCO 2013 correspond together to an average size meeting, their organization has still needed the dedicated efforts of many people, almost as much as like a large conference. We would like to take this opportunity to thank everybody involved in the committees. Special thanks goto the IFAC TC1.2 Chair Alexander Fradkov and the event Publication Chair Vincent Van Assche who edited the preprints and the final program. Thanks to all IPC members, all associate editors, and all 480 reviewers for their important work during the evaluation process. Many thanks to the plenary speakers: their outstanding lectures were highlights of the meeting. Our thanks also go to all authors, session organizers and chairs for contributing to the meeting success. We are grateful to the administrative and technical staff of the Caen University and the CNRS and to all volunteers who made this meeting a memorable event for all participants. Last but not least, special thanks go to the NOC member: the good job they did and the great ambiance they created during the preparation period were decisive in making this IFAC meeting a great success.

Fouad Giri, General Chair
Anuradha Annaswamy IPC co-Chair

Introducing the IFAC Fellows

(continued from page 1)

Youxian Sun

Youxian Sun graduated from Zhejiang University, Hangzhou, China, in 1964. Since then, he has been working in Zhejiang University, where he was promoted as Associate Professor in 1982 and Professor in 1988, respectively. From 1984 to 1987, he was awarded with Humboldt Fellowship to be a visiting professor at Stuttgart University, Germany. Currently,

Youxian Sun

he is Director of Institute of Industrial Process Control and Director of National Engineering Research Center of Industrial Automation. He also serves as President of Chinese Association of Automation, Vice-President of China Instrument and Control Society. He previously served as Vice-chairman of IFAC Pulp and Paper Committee.

For well over 20 years, he played a key leadership role in developing control and automation technology in paper and pulp, oil refinery, chemical and biopharmaceutical industries in China. He has led a number of large-scale national projects addressing the nation's imminent challenges facing the industries. He founded and served as the founding Director of the first Chinese national engineering research center, National Research Center for Industrial Automation (NERCIA). He co-founded SUPCON Scientific and Technological Group Co., Ltd.

Sun has made basic contributions to the theory of automatic control, among which he discovered effective solutions to optimal control, robust control problems of production lines, control and scheduling codesign for networked control systems. For his distinguished contributions to automatic control technology and industrial automation, he was elected as Member of Chinese Academy of Engineering in 1995.

Since 1995, he has been twice awarded the Second Grade and once the Third Grade National Prize for Progress in Science and Technology, and 12 times the First Grade or Second Grade Provincial or Ministerial Prizes for Progress in Science and Technology. He has won the Prize for Scientific and Technology Progress from Ho Leung Ho Lee Foundation and the Outstanding Award for Contribution to Science and Technology of Zhejiang Province, both in 2007. He has authored, co-authored 6 books and published more than 400 papers.

FORTHCOMING EVENTS

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Title	2014	Place	Further Information
12th IFAC/IEEE Workshop on Discrete Event Systems WODES 2014	May 14 – 16	Paris France	http://wodes2014.lurpa.ens-cachan.fr/ e-mail: jean-marc.faure@lurpa.ens-cachan.fr
American Control Conference (ACC) in cooperation with IFAC	June 04 – 06	Portland, OR USA	http://a2c2.org/conferences/acc2014/ e-mail: tilbury@umich.edu
19th IFAC World Congress	**August 24 – 29**	**Cape Town South Africa**	**http://www.ifac2014.org/ email: info@ifac2014.org**
Title	**2015**	**Place**	**Further Information**
8th TU Vienna/IFAC Conference on Mathematical Modelling MATHMOD 2015	February 18 – 20	Vienna Austria	http://www.mathmod.at/index.php?id=228 e-mail: not yet available
15th IFAC/IEEE/IFIP/IFORS Symposium on Information Control Problems in Manufacturing INCOM 2015	May 11 – 13	Ottawa Canada	http://incom2015.org/ e-mail: secr@incom2015.org
3nd IFAC/IEEE Workshop on Multivehicle Systems MVS 2015	May 18	Genova Italy	http://not yet available e-mail: not yet available
2nd IFAC Workshop on Automatic Control in Offshore Oil and Gas Production OOGP 2015	May 27 – 29	Florianopolis Brazil	http://www.ifac-oilfield.ufsc.br/ e-mail: not yet available
9th IFAC Symposium on Advanced Control of Chemical Processes ADCHEM 2015	June 07 – 10	Whistler Canada	http://www.adchem2015.ca/ e-mail: adchem.2015@ualberta.ca
IFAC Workshop on Advanced Control and Navigation for Autonomous Aerospace Vehicles ACNAAV 2015	June 10 – 12	Seville Spain	http://www.aero.us.es/acnaav15 e-mail: rvazquez1@us.es
1st IFAC Conference on Modelling, Identification and Control of Nonlinear Systems MICNON 2015	June 24 – 26	St. Petersburg Russian Federation	http://not yet available e-mail: not yet available
12nd IFAC Workshop on Time Delay Systems TDS 2015	June 28 – 30	Ann Arbor, MI USA	http://me.engin.umich.edu/dirifac/ e-mail: not yet available
8th IFAC Symposium on Robust Control Design ROCOND 2015	July 08 – 11	Bratislava Slovakia	http://www.rocond15.sk e-mail: info@rocond15.sk
9th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes SAFEPROCESS 2015	September 02 – 04	Paris France	http://not yet available e-mail: not yet available
5th IFAC Conference on Nonlinear Model Predictive Control NMPC 2015	September 17 – 20	Seville Spain	http://not yet available e-mail: not yet available
16th IFAC Conference on Technology, Culture and International Stability TECIS 2015	September 24 – 27	Sozopol Bulgaria	http://www.tecis.tu-plovdiv.bg/ e-mail: tecis@tu-plovdiv.bg
17th IFAC/IEEE/CSS Symposium on System Identification SYSID 2015	October 19 – 21	Beijing China	http://sysid2015.info/index.html e-mail: secretariat@sysid2015.info
9th IFAC Symposium on Control of Power and Energy Systems CPES 2015	December 09 – 11	New Delhi India	http://not yet available e-mail: not yet available
Title	**2016**	**Place**	
10th IFAC Symposium on Non-Linear Control Systems NOLCOS 2016	August 23 – 25	Monterey, CA USA	http://not yet available e-mail: not yet available