# New IFAC Journal

## Nonlinear Analysis: Hybrid Systems: Addition to the IFAC Publications Portfolio

# No.6

December 2014

I am very pleased to announce that the journal Nonlinear Analysis: Hybrid Systems (NAHS), published by Elsevier, will become an IFAC journal in January 2015.

NAHS was created in 2007, as on offspring of the mathematical journal Nonlinear Analysis by the initiative of V. Lakshmikantham (Univ. of Florida, USA) and of Janan Zaytoon (Univ. of Reims, France). The new publication aimed to provide a service to the mathematical and control theory communities, in recognition of the fact that recent technological innovations are generating a considerable interest in the study of dynamical processes characterized by a complex interplay of data and signals generated by sources of heterogeneous nature. These processes, termed hybrid systems, are described by the interaction of time-driven evolutions governed by differential or difference equations and of discrete event evolutions.

The journal became IFAC-affiliated in 2008 at the request of the IFAC Technical Committee 1.3 on Discrete Event and Hybrid Systems. During the years 2010-13, under the leadership of Janan Zaytoon, the journal has seen important changes, first shifting its focus towards control theory, then being indexed in Web of Science and finally receiving its first Impact Factor in 2012.

In 2013 the journal was listed in Web of Science under two subjects: Automation & Control Systems where it ranks 24/59 (Q2) and Mathematics, Applied where it ranks 24/250 (Q1). It was also listed in Scopus under three subjects: Control and Systems Engineering, where it ranks 39/216 (Q1); Computer Science Applications, where it ranks 101/496 (Q1) and Mathematics: Analysis, where it ranks 39/115 (Q2).

A new Editorial Board was appointed in early 2014. In my role of Editor-in-Chief I am supported by three Senior Editors that are leading experts in the domain of hybrid systems. They are: Peter Caines (McGill Univ., Canada), Patrizio Colaneri (Polytechnic of Milan, Italy), and Magnus Egerstedt (Georgia Tech, USA). A board of 29 Associate Editors, all prominent

researchers in the field, is fundamental in maintaining the journal's high standards for acceptance and providing valuable expert feedback.

Currently the journal publishes four issues per year. As the only international journal devoted to hybrid dynamical systems, NAHS aims to become a reference archival publication and an aggregation point for all researchers working in this multidisciplinary area, whether they come from a control, mathematics, or computer science background.

Please visit the journal homepage at:
http://www.journals.elsevier.com/nonlinear-analysis-hybrid-systems/

Submitted by Alessandro Giua, Univ. of Cagliari, Italy and Aix-Marseille Univ., France, Editor-in-Chief, Nonlinear Analysis: Hybrid Systems

## IN THIS ISSUE:

*To all readers of the Newsletter we extend Season's Greetings and Best Wishes for the Year 2015*

**NEWSLETTER**

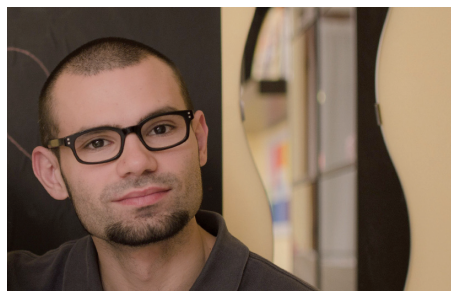INTERNATIONAL FEDERATION
OF AUTOMATIC CONTROL

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# Prize Winners at 2014 IFAC World Congress
## Cape Town, South Africa, 24-29 August 2014

## Interactive Paper Prize

The IFAC Council (Incoming) voted at their meeting on 30 August 2014 to convert the IPP (formerly known as the Best Poster Prize) from a Congress-based prize into an IFAC award run through the IFAC Awards Committee, with the IPP chair being a member of the Awards Committee. This change takes effect with the 2014-2017 triennium. Michael Sebek (CZ) has been appointed and has accepted to act as the chair for the current triennium.

This prize is awarded at IFAC World Congresses for the best interactive paper/ poster. Candidates for this prize are nominated by a selection committee appointed by IFAC. The prize consists of a monetary prize and a certificate.

*IPP Winner- Matteo Corno*

Matteo Corno jointly received the Master of Science in Computer and Electrical Engineering from the University of Illinois at Chicago and the „Laurea" Degree cum laude from the Politecnico di Milano in 2005. In 2006, he joined the Ph.D. program in Control Engineering at Politecnico di Milano where he graduated in 2009 cum laude.

From 2009 to 2011 he was Assistant Professor at the Delft University of Technology (Delft Center for Systems and Control). In 2011, he moved back to Italy, joining the Politecnico of Milan as an assistant professor.

Corno's current research interests include dynamics and control of vehicles, in particular human powered-electric hybrid vehicles, lithium-ion battery modeling, estimation and control, LPV system modeling and control. He held research positions at Thales Alenia Space, Harley Davidson, University of Minnesota, and Johannes Kepler University in Linz.

## Young Author Prize

The prize is for the best paper at an IFAC Congress of an author (in exceptional cases authors) younger than 35 years. If a paper has more than one author all authors must meet the age requirement.

*YAP Winner- Pontus Giselsson*

Pontus Giselsson received his MSc degree in Engineering Physics and his PhD degree in Control from Lund University, Lund, Sweden, in 2006 and 2012, respectively. In 2013, he was a postdoctoral researcher at the Department of Automatic Control at Lund University, Lund, Sweden. Since 2013 he has been a postdoctoral researcher at Stanford University, CA, USA.

Giselsson has received the Young Author Prize at an IFAC symposium in 2012, and has been a finalist for the Best Student Paper Award at the 2013 American Control Conference. His main research interests include embedded and distributed optimization with applications in control.

## Harold Chestnut Control Engineering Textbook Prize

This award is presented at IFAC World Congresses for the best Control Engineering textbook in one of the official IFAC languages (English, French, German, Russian, and Spanish, as set out in the IFAC Constitution), preferably in English, for which the first edition(s) occurred not later than the Congress just prior to the one at which the award is presented. It recognizes the author(s) of the textbook(s) judged to have most contributed to the education of control engineers.

The candidates for the prize are nominated by a selection committee, chaired ex officio by the Control Education Committee Chair. The books under consideration come before the committee through recommendation of the control engineering community. The prize consists of a monetary prize and a certificate and is named for Harold Chestnut, the first president of IFAC.

The winners of the 2014 prize were Miroslav Krstic and Andrey Smyshlyaev.

*HCCETP Winner- Miroslav Krstic*

Miroslav Krstic holds the Daniel L. Alspach endowed chair and is the founding director of the Cymer Center for Control Systems and Dynamics at UC San Diego. He also serves as Associate Vice Chancellor for Research at UCSD. As a graduate student, Krstic won the UC Santa Barbara best dissertation award and student best paper awards at both CDC and ACC.

Krstic is a Fellow of IEEE, IFAC, ASME, and IET (UK), and a Distinguished Visiting Fellow of the Royal Academy of Engineering. He has received the PECASE, NSF Career, and ONR Young Investigator awards, the Axelby and Schuck paper prizes, the Chestnut textbook prize, and the first UCSD Research Award given to an engineer. Krstic has held the Springer Visiting Professorship at UC Berkeley. He serves as Senior Editor in IEEE Transactions on Automatic Control and Automatica, as editor of two Springer book series, and has served as Vice President for Technical Activities of the IEEE Control Systems Society and as chair of the IEEE CSS Fellow Committee. Krstic has co-authored ten books on adaptive, nonlinear, and stochastic control, extremum seeking, control of PDE systems including turbulent flows, and control of delay systems.

*HCCETP Winner- Andrey Smyshlyaev*

Andrey Smyshlyaev received B.S. and M.S. degrees in Applied Mathematics and Physics from Moscow Institute of Physics and Technology in 1999 and 2001, respectively, and the Ph.D. degree in Mechanical Engineering from the University of California, San Diego in 2006.

In 2006-2010, he worked as a research scientist at UCSD, focusing on control of distributed parameter systems. Currently, he is a data scientist in the financial industry at Altisource Portfolio Solutions in the US.

# Applications Paper Prize

The prize is given for outstanding technical contributions at an IFAC Congress in the area of control applications. This includes, but is not limited to, case studies, design and implementation of control systems and optimization of operations in a process, but generally excludes work of a simulation or laboratory scale nature that does not embrace work on an actual full-scale process.

The prize and a certificate are awarded at each trennial IFAC World Congress.

In 2014 the APP was won by a team of six. Their bios and photos follow.



*APP Winner- Denis Dochain*

Denis Dochain received his degree in electrical engineering in 1982 from the Université Catholique de Louvain, Belgium. He completed his Ph.D. thesis and a « thèse d'agrégation de l'enseignement supérieur » in 1986 and 1994, respectively, also at the Université Catholique de Louvain, Belgium.

Dochain has been a CNRS associate researcher at the LAAS (Toulouse, France) in 1989, and professor at the Ecole Polytechnique de Montréal, Canada in 1987-88 and 1990-92. He has been with the FNRS (Fonds National de la Recherche Scientifique, National Fund for Scientific Research), Belgium since 1990. Since September 1999 he is Professor at the CESAME (Center for Systems Engineering and Applied Mechanics), Université Catholique de Louvain, Belgium, and Honorary Research Director of the FNRS. He has been invited professor at Queen's University, Kingston, Canada between 2002 and 2004. Since 2005 Dochain has been a full professor at the UCL. He is associate editor of the IEEE Transactions of Automatic Control and of Automatica, and the Editor-in-Chief of the IFAC Journal Journal of Process Control.

Dochain has been active in IFAC since 1999 (Council member, Technical Board member, TC and CC chair, Publications Committee chair, Publications Committee member, and IPC vice-chair of the forthcoming World Congress in Toulouse, 2017). He received the IFAC outstanding service award in 2008 and is an IFAC fellow since 2010.
Dochain's main research interests are in the fields of nonlinear systems, thermodynamics based control, parameter and state estimation, adaptive extremum seeking control and distributed parameter systems, with application to microbial ecology, environmental, biological and chemical systemspulp and paper processes, polymerisation reactors, and electric systems.

Dochain is the (co-)author of four books, more than 110 papers in refereed journals and 200 international conference papers.



*APP Winner- Céline Casenave*

Céline Casenave was born in Corbeil-Essonnes, France in 1982. She received her B.S. and M.S degrees in Applied Mathematics from the University of Toulouse (France) in 2003 and 2004. She graduated in Engineering Sciences from the Ecole Nationale Supérieure de l'Aéronautique et de l'Espace (SUPAERO) in 2006 and received a M.S degree in Control Theoryin in that same year. Working at the Laboratory for Analysis and Architecture of Systems (LAAS-CNRS), she obtained a Ph.D. degree in Control Theory from the University of Toulouse in 2009.

Then, from 2010 to 2011, she was a postdoctoral fellow at the Centre for Systems Engineering and Applied Mechanics (CESAME, Université Catholique deLouvain-la-Neuve, Belgium).
Casenave is a permanent researcher at the French National Institute of Research in Agriculture (INRA) in the Department of Applied Mathematics and Informatics, where she has been since September 2011. She is a member of the INRA/INRIA project team MODEMIC (Modelling and Optimisation of the Dynamics of Ecosystems with Micro-organisms).

Casenave's research interests include the study of distributed delay systems; the control of bioprocesses; and the modelling, the simulation and the mathematical study of microbial ecosystems.



*APP Winner- Alain Rapaport*

Alain Rapaport is a researcher at the INRA-Sup Agro research laboratory ‚MISTEA' (Mathematics, Informatics and Statistics for Environment and Agronomics) in Montpellier, France. He is presently the head of the INRA-INRIA team ‚MODEMIC' (Modelling and Optimisation of the Dynamics of Ecosystems with Micro-organisms).

Rapaport received his Ph.D. in control science from Ecole des Mines de Paris in 1994, and his „habilitation a diriger des recherches" in applied mathematics from the University of Montpellier in 2003. His research interests include optimal control and observation of nonlinear systems, with applications to the modelling and management of natural and renewable resources, such as microbial ecosystems.



*APP Winner- Jerome Harmand*

Jérôme Harmand is a senior researcher in automatic control at the Environmental Bio-technological Lab from the French National Institute in Agronomic Research in Narbonne, France.

His research expertise includes the modeling and the control of bioprocesses and microbial ecosystems for environmental purposes. He is the author of around 70 journal papers and 150 conference papers.

*APP Winner- Marc Perez*

Marc Perez holds an engineering degree in agro-food biochemistry from Conservatoire National des Arts et Métiers in 2001. He is an assistant engineer in Unity Science for Oenology at the INRA National Institute of Agronomical Research in Montpellier, France.

Perez's activities are focused on the design of new fermentation control strategies in order to optimize fermentation kinetics and to enhance organoleptic characteristics of the final product. He is also involved in adapting and developing chromatography (HPLC, IC and CPG) analytic methods for analyzing main oenological fermentation products and by-products, as well as yeast intracellular metabolites.

# Introducing the 2011-2014 IFAC Fellows: Continuation in a series

## Mengchu Zhou

Mengchu Zhou received his B.S. degree in Control Engineering from Nanjing University of Science and Technology, Nanjing, China in 1983, M.S. degree in Automatic Control from Beijing Institute of Technology, Beijing, China in 1986, and Ph. D. degree in Computer and Systems Engineering from Rensselaer Polytechnic Institute (Troy, NY, USA) in 1990.

He joined New Jersey Institute of Technology (NJIT), Newark, NJ in 1990, and is now a Distinguished Professor of Electrical and



*IFAC Fellow Mengchu Zhou*

Computer Engineering. He is presently a professor at Tongji University, Shanghai, China. His research interests are in Petri nets, automation, sensor networks, web services, semiconductor manufacturing, transportation and energy systems.

Zhou has over 500 publications including 11 books, 240+ journal papers (majority in IEEE Transactions), and 21 book-chapters. He is the founding Editor of IEEE Press Book Series on Systems Science and Engineering, Editor of IEEE Transactions on Automation Science and Engineering, and Associate Editor of IEEE Transactions on Systems, Man and Cybernetics: Systems, IEEE Transactions on Intelligent Transportation Systems and IEEE Transactions on Industrial Informatics.

Zhou is a life member of Chinese Association for Science and Technology-USA and served as its President in 1999. He is a Fellow of IEEE and American Association for the Advancement of Science (AAAS). He has over 12,000 Google scholar citations and was ranked as the top of 2012 most cited scholars in the field of engineering by Web of Science/Thomson-Reuters.

## Albert Benveniste

Albert Benveniste graduated in 1971 from Ecole des Mines de Paris (France.) He performed his These d'Etat in Mathematics, probability theory, in 1975, under the supervision of Paul-André Meyer. From 1976 to 1979 he was associate professor in mathematics at Université de Rennes I. Since 1979 through the present he is Directeur de Recherche at INRIA.

In 1980 Albert Benveniste was co-winner of the IEEE Trans. on Automatic Control Best Transaction Paper Award for his paper on blind deconvolution in data communications. In 1990 he received the CNRS silver medal and in 1991 he has been elected IEEE fellow. In 2008 he was winner of the Grand Prix France Telecom of the French Academy of Sciences. From 1986 to 1990 he was vice-chairman of the IFAC committee on Theory and was chairman of this committee for 1991-1993. He has been or is Associate Editor (at Large) for IEEE Transactions on Automatic Control, Associate Editor for Int. J. of Adaptive Control and Signal Processing, and Int. J. of Discrete Event Dynamical Systems. He is currently member of the Editorial Board of the Proceedings of the IEEE.

From 1994 to 1996 he was Directeur Scientifique at Inria. From 1997 to 2001, he was chairman of the „software chapter" of the RNRT funding programme of the French ministeries for research and telecommunications, for



*IFAC Fellow Albert Benveniste*

telecommunications (Réseau National de la Recherche en Télécommunications). Since 1997, he has been responsible for INRIA of the joint Alcatel-INRIA research programme and is now chief scientist of the joint Bell Labs-INRIA research lab. He is member of the scientific board of INRIA, in charge of the embedded systems.

Benveniste has been a member of the advisory board of T-Source, a venture capitalist specialist in seed capital for the telecommunications sector. He is a member of the scientific advisory boards of SAFRAN Group and France Telecom. Since June 2011 he is co-heading the Center of Excellence (Labex) CominLabs in the area of telecommunications and Information systems. He has been elected to the Académie des Technologies in december 2011.

Benveniste's competences include:

- System Identification and Change Detection and Diagnosis in signal processing and control (until 1995). He coauthored in 1990 with M. Metivier and P. Priouret the book „Adaptive Algorithms and Stochastic Approximations", and has been an editor, jointly with Michèle Basseville of the collective monograph „Detection of abrupt changes in signals and systems" in 1982. He co-invented, jointly with Michèle Basseville, the asymptotic normal approach to change detection and failure diagnosis.

- Vibration mechanics (until 2010). He developed techniques for operational modal analysis and monitoring of systems subject to natural excitation.

- Reactive, real-time, and embedded systems design in computer science. He has been co-inventor, jointly with Paul Le Guernic, of the synchronous language Signal for reactive systems design in computer science. He is a recognized contributor to the topic of formal methods for heterogeneous distributed reactive systems in computer engineering and for the broader area of systems design. His current interests are: contracts and interface theories for system design, and the

design of hybrid systems modelers based on non-standard analysis semantics.

• Network and service management in tele-communications and the management of Web services, with emphazis on distributed systems aspects. Since 1996, he has been active in distributed algorithms for network and service management in telecommunications, where he has contributed to distributed fault diagnosis. His current interests include Quality of Service aware management of Web services and document based workflows.

### Applications Paper Prize Winner Jean-Marie Sablayrolles

Jean-Marie Sablayrolles was born in 1957. He received his engineering degree in Biochemical and Food Engineering and his DEA degree in Food Science in 1980, his PhD degree in 1982 at the INSA, Toulouse, France, and his 'Habilitation à Diriger des Recherches' (HDR) from the Université de Montpellier II in 1998.

He is 1st class Research Director (DR1) of the INRA since 2008. He has been with the INRA since 1984. He is the head of the UMR 'Sciences for Oenology' at the INRA, Montpellier, France since 2011. His main research interests are in the field of monitoring and control of alcoholic fermentation, mainly in oenological conditions.

## Transitions: Manfred Thoma

**IFAC received the news that IFAC Advisor Manfred Thoma (IFAC President 1984-1987, Germany) passed away in Germany on 10 November 2014.**

**An obituary is planned to be published in the February 2015 issue of this Newsletter.**

## Transitions: J.H. Westcott 1920–2014

Professor John Westcott passed away in his home at Oxshott, Surrey on October 10, 2014 shortly before his 94th birthday. John Westcott was one of 30 founding members of IFAC. As he recalled: "In September, 1956, I went to the Heidelberg Conference where Oldenberger suggested we form an International Federation for Automatic Control, so we all signed an imposing looking petition (not really expecting anything would come of it!). That was the opening chapter of IFAC".

John Westcott was delighted with the formation of IFAC. He presented papers at the first World Congress in Moscow (1960) as well as the subsequent 5 Congresses. He was Vice Chair of the Technical Committee on Theory from 1960 until 1966, and Chair from 1966 until 1969. He was Program Chair for the third IFAC World Congress in London in 1966 and a member of the Executive Council for the period 1969 until 1975. He attended, in 2006, the 50th anniversary of the 1956 foundation meeting in Heidelberg; Petar Kokotovic remembers that "in his talk John recalled how the first personal contacts with Soviet scientists helped develop mutual understanding. He modestly avoided mentioning how much he contributed to this understanding and, hence, to IFAC".

John also played an important role in the UK. He was Chairman of the the Division of Control and Automation, Institute of Electrical Engineers (IEE) for the year 1969 to 1969 and President of the Institute for Measurement and Control for the year 1979 to 1980.

John's early career was unusual. Having won a university scholarship, he elected to serve a 5 year apprenticeship at BTH (British Thomson Houston), a large electrical company in Rugby, UK during which he obtained his first degree. In 1942, at the end of his apprenticeship, he worked in a small team at a research establishment that successfully developed 3 cm radar for use in coastal gunnery. At war's end, he won a scholarship that he took up at Imperial College London.

In 1951, after obtaining his Ph.D degree, he joined the Department of Electrical Engineering at Imperial College as a lecturer. There followed a veritable whirlwind of activity. In short order he established the Control Group that still exists, secured further academic appointments, created a set of teaching laboratories, founded three companies one of which, Feedback Ltd, developed and supplied equipment for the teaching of Control, and acquired a large number (22) of research contracts; the

*John Westcott*

contracts were used to support students who later contributed to the control revolution of the 1950's and 1960's. Subsequently John Westcott won support for, and successfully directed, large projects on adaptive control, industrial automation, compiler construction and control of the UK economy, the latter lasting an unprecedented 20 years. He played a major role in establishing Imperial College's Department of Computing and served 9 years as its Head.

All who knew John Westcott will remember him for his substantial contributions to Control through IFAC, the IEE, the Institute of Measurement and Control and the strong group at Imperial College he founded and nurtured. He will also be remembered for his kind and gentle nature and for the help and encouragement he provided to so many.

Submitted by Prof. David Mayne, Imperial College London

### The Tables of Contents of the IFAC Journals can be found respectively at

**Automatica**
http://www.elsevier.com/locate/automatica

**Control Engineering Practice**
http://www.elsevier.com/locate/conengprac

**Engineering Applications of Artificial Intelligence**
http://www.elsevier.com/locate/engappai

**Journal of Process Control**
http://www.elsevier.com/locate/jprocont

**Annual Reviews in Control**
http://www.elsevier.com/locate/arcontrol

**Journal on Mechatronics**
http://www.elsevier.com/locate/mechatronics

**Nonlinear Analysis: Hybrid Systems**
http://www.elsevier.com/locate/nahs
(IFAC Journal as of January 2015)

# American Control Conference (ACC) 2014

## 4 – 6 June 2014 Portland, OR, USA

The 2014 American Control Conference was held June 4-6 in Portland, Oregon, US. More than 1200 registrants enjoyed the technical and social programs. Most conference activities were held at the Hilton Portland and Executive Tower Hotel in downtown Portland, one of the most walking- and biking-friendly cities in the US. The opening reception at the hotel featured a "beer tasting" including several of Portland's famous micro-brews. The closing reception was held off-site at the World Forestry Center, a short ride on the MAX light rail (public transportation) from the Hilton. Participants viewed exhibits about forests both in the Pacific Northwest and around the globe, while enjoying food and drinks under sunny skies.

Professor Keith Glover of Cambridge University (UK) gave the plenary talk on Wednesday morning, discussing the symbiotic relationship between theory and practise. Thursday and Friday morning each featured two semi-plenary speakers. University of Michigan Professor Anna Stefanopoulou presented the control of powertrain systems at the high efficiency limit, including internal combustion engines as well as batteries and fuel cells. Professor Vijay Gupta of the University of Notre Dame talked about recent results and challenges in the control of cyber-physical systems. University of California-Santa Barbara Professor Bassam Bamieh discussed new directions in networked and distributed parameter systems. Dr. Juan de Bedout of General Electric presented a vision for a merging of controls and big data over the industrial internet, enabling controls to shape the business landscape.

The American Automatic Control Council (AACC), the US National Member Organization of IFAC, held its annual Awards Ceremony on Thursday, June 5th, in one of the Hilton Skyline rooms overlooking the city of Portland. The Richard E. Bellman Control Heritage Award was given to Professor Dimitri Bertsekas of MIT, for contributions to the foundations of deterministic and stochastic optimization-based methods in systems and control. Professor Roger Brockett of Harvard received the John R. Ragazzini Educational Award, for inspirational mentorship of generations of graduate students who have participated in defining the field of control engineering. The Donald P. Eckman Award, recognizing an outstanding young engineer in the field of automatic control, was given to Professor Hamsa Balakrishnan of MIT, for excellence in the control design, analysis, implementation, and evaluation of practical algorithms to improve the efficiency and environmental performance of air transportation systems.

Finally, the two O. Hugo Schuck Awards, recognizing the best two papers presented at the previous ACC (one for contributions to theory and the other for significant or innovative applications) were given to Konstantinos Gatsis, Alejandro Ribeiro, and George J. Pappas for "Optimal Power Management in Wireless Control Systems" and Davood Babaei Pourkargar and Antonios Armaou for "Control of dissipative partial differential equation systems using APOD based dynamic observer designs".

Industry participation included 8 Gold and 13 Silver Sponsors, four of which hosted lunchtime special sessions describing their products or introducing opportunities at their companies. Many of the sponsors also had booths in the exhibit hall, enabling them to interact with the attendees on an informal basis during the conference. Several evening special sessions featured industry engagement, including sessions on industry job-hunting, connected and automated vehicles, the power grid, venture-capital based start-ups, and complex electrical systems.

Four finalists for the Best Student Paper competition presented their papers on Wednesday; the winner was announced during the AACC Awards Ceremony on Thursday just before the conference banquet. The winning paper "Chordal Sparsity, Decomposing SDPs and the Lyapunov Equation", was co-authored by Richard P. Mason with his advisor Antonis



*Former IFAC President Ian Craig (South Africa) and current IFAC President-Elect Frank Allgöwer (Germany) attended the American Control Conference*



*IFAC Fellow Bassam Bamieh (USA), semi-plenary speaker at the 2014 American Control Conference*

Papachristodoulou. All finalists for the student best paper award received full travel support to attend the ACC. In addition, 96 students received partial travel support thanks to the generosity of the AACC, ASME, and IEEE. Special sessions on job-hunting (one for academia and another for industry) were well-attended by student attendees.

Submitted by Prof. Dawn Tilbury,
University of Michigan, ACC 2014 General Chair
IFAC Policy Committee Chair

# Rebranding Update

Dear IFAC Friends and Colleagues,

This is the first issue of the IFAC Newsletter that sports the new IFAC logo. The layout has also been revised as part of a rebranding strategy that was approved by the IFAC Council at its meeting in Cape Town in August 2014. The new logo will shortly also be visible on the main IFAC website, the websites of our events, the IFAC Journals, our award certificates, and anywhere else the IFAC logo is used. The purpose of this exercise is to create a single, unified visual identity for our Federation.

During the past triennium we conducted a comprehensive review of the activities of IFAC, with the aim of ensuring that what we do is optimally aligned with the current and anticipated future requirements of our stakeholders. This strategic planning process included the adoption of a formal vision and mission for IFAC, 11 task force reports, a stakeholder survey, and a proposed new brand identity and website for IFAC. Janan Zaytoon, the new IFAC President, and his team are hard at work to implement many of the recommendations that arose from the strategic planning process (please see the October 2014 IFAC Newsletter for more details), of which the rebranding strategy as evident in this Newsletter, is one.

Our vision is for IFAC "to be the worldwide federation for promoting automatic control for the benefit of humankind". In order to achieve our vision and to maximize the impact that IFAC has on our community, it is very important for the new IFAC brand to be applied consistently wherever it is used. I therefore call on you to please help us in ensuring that the new IFAC logo is correctly applied – the new IFAC Brand Guidelines and the necessary artwork are available from the IFAC Secretariat.

Kind Regards,

Ian Craig, IFAC Immediate Past President

INTERNATIONAL FEDERATION
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# Calendar of IFAC Events

| Title | 2015 | Place | Further Information |
|---|---|---|---|
| 8th TU Vienna/IFAC Conference on Mathematical Modelling MATHMOD 2015 | February 18 – 20 | Vienna Austria | http://www.mathmod.at e-mail: info@mathmod.at |
| IEEE/IFAC Workshop on Recent Advances in Sliding Modes RASM 2015 | April 09 – 11 | Istanbul Turkey | http://www.rasm.boun.edu.tr e-mail: not yet available |
| 4th IFAC/SUT/ONR Workshop on Navigation, Guidance and Control of Underwater Vehicles NGCUV 2015 | April 15 – 17 | Girona Spain | http://ngcuv.udg.edu/ e-mail: mvs2015@unisalento.it |
| 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 |
| 13th IFAC/IEEE Conference on Programmable Devices and Embedded Systems PDES 2015 | May 13 – 15 | Cracow Poland | http://pdes.polsl.pl/ e-mail: pdes@polsl.pl |
| 3nd IFAC/IEEE Workshop on Multivehicle Systems MVS 2015 | May 18 | Genova Italy | http://mvs2015.unisalento.it/ e-mail: mvs2015@unisalento.it |
| 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 |
| 5th IFAC Workshop on Dependable Control of Discrete Systems DCDS 2015 | May 27 – 29 | Cancun Mexico | http://not yet available e-mail: not yet available |
| Asian Control Conference (ASCC) in cooperation with IFAC | May – June 31 – 03 | Kota Kinabalu Malaysia | http://ascc2015.com/ e-mail: secretariat@ascc2015.com |
| 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 |
| 2nd IFAC Conference on Embedded Systems, Computer Intelligence and Telematics CESCIT 2015 | June 22 – 24 | Maribor Slovenia | http://cescit2015.um.si/ e-mail: cescit2015@um.si |
| 1st IFAC Conference on Modelling, Identification and Control of Nonlinear Systems MICNON 2015 | June 24 – 26 | St. Petersburg Russian Federation | http://micnon2015.org/ 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: timedelay2015@umich.edu |
| American Control Conference (ACC) in cooperation with IFAC | July 01 – 03 | Chicago, IL USA | http://www.a2c2.org/conferences/acc2015 e-mail: braatz@mit.edu |
| 5th IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control LHMNC 2015 | July 04 – 07 | Lyon France | http://www.lhmnlc15.org/ e-mail: not yet available |
| 10th IEEE, IEEE CSS, IFAC Workshop on Robot Motion and Control RoMoCo 2015 | July 06 – 08 | Poznan Poland | http://romoco.put.poznan.pl/ e-mail: piotr.mieszala@put.poznan.pl |

# Calendar of IFAC Events

| Title | 2015 | Place | Further Information |
|---|---|---|---|
| 8th IFAC Symposium on Robust Control Design ROCOND 2015 | July 08 – 11 | Bratislava Slovakia | http://www.rocond15.sk e-mail: info@rocond15.sk |
| European Control Conference (ECC) in cooperation with IFAC | July 15 – 17 | Linz Austria | http://www.ecc15.at/ e-mail: secretariat@ecc15.at |
| 12th INSTICC Conference on Informatics in Control, Automation and Robotics ICINCO 2015 | July 21 – 23 | Colmar, Alsace France | http://www.icinco.org/ e-mail: icinco.secretariat@insticc.org |
| AIChE's, PD2M Meeting on Foundations of Systems Biology in Engineering - FOSBE 2015 in cooperation with IFAC | August 09 – 12 | Boston, MA USA | http://fosbe.org/ e-mail: rcraven@fosbe.org |
| 4th IFAC Workshop on Engine and Powertrain Control, Simulation and Modeling E-COSM 2015 | August 23 – 26 | Columbus, OH USA | https://e-cosm2015.engineering.osu.edu/ e-mail: not yet available |
| 10th IFAC Conference on Manoeuvring and Control of Marine Craft MCMC 2015 | August 24 – 26 | Copenhagen Denmark | http://www.conferencemanager.dk/mcmc2015/ e-mail: secretariat@mcmc2015.dk |
| 4th IFAC Workshop on Mining, Mineral and Metal Processing MMM 2015 | August 25 – 27 | Oulu Finland | http://ifacmmm2015.automaatioseura.fi/ e-mail: office@automaatioseura.fi |
| 4th IFAC Conference on Analysis and Control of Chaotic Systems CHAOS 2015 | August 26 – 28 | Tokyo Japan | http://ctrl.mech.se.tmu.ac.jp/chaos2015 e-mail: not yet available |
| 11th IFAC Symposium on Robot Control SYROCO 2015 | August 26 – 28 | Salvador, BA Brazil | http://www.syroco2015.org/ e-mail: syroco2015@ece.ufrgs.br |
| 9th IFAC Symposium on Biological and Medical Systems BMS 2015 | Aug. – Sept. 31 – 02 | Berlin Germany | http://www.bms2015.org e-mail: info@bms2015.org |
| 9th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes SAFEPROCESS 2015 | September 02 – 04 | Paris France | http://safeprocess15.sciencesconf.org/ e-mail: contact@safeprocess2015.fr |
| SAFER, IFAC, IEEE, ITSC Symposium on Future Active Safety Technology Towards zero traffic accidents FAST-zero 2015 | September 09 – 11 | Gotheburg Sweden | http://fastzero15.net/ e-mail: info@fastzero15.net |
| 5th IFAC Workshop on Distributed Estimation and Control in Networked Systems NecSys 2015 | September 10 – 11 | Philadelphia USA | 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://disa.us.es/nmpc15/ e-mail: dlm@us.es |
| IEEE IFAC Multi-Conference on Systems and Control MSC 2015 | September 21 – 23 | Sydney Australia | http://www.msc2015.org/ e-mail: info@msc2015.org |
| 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 |
| 16th IFAC Workshop on Control Applications of Optimization CAO 2015 | October 06 – 09 | Garmisch-Partenk. Germany | http://not yet available e-mail: not yet available |

INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL

# Calendar of IFAC Events

| Title | 2015 | Place | Further Information |
|---|---|---|---|
| 1st IFAC Workshop on Linear Parameter Varying systems LPVS 2015 | October 07 – 09 | Grenoble France | http://www.gipsa-lab.fr/LPVS2015/ e-mail: sssc2013@gipsa-lab.grenoble-inp.fr |
| 5th IFAC Conference on Analysis and Design of Hybrid Systems ADHS 2015 | October 14 – 16 | Atlanta, Georgia USA | http://adhs15.gatech.edu/ e-mail: magnus@gatech.edu |
| 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://www.cpes2015.org/ e-mail: info@cpes2015.org |
| **Title** | **2016** | **Place** | **Further Information** |
| 7th IFAC Conference on Management and Control of Production and Logistics MCPL 2016 | February 22 – 24 | Bremen Germany | http://www.ldic-conference.org/ e-mail: not yet available |
| 11th IFAC Symposium on Dynamics and Control of Process Systems, including Biosystems DYCOPS 2016 | June 06 – 08 | Trondheim Norway | http://not yet available e-mail: not yet available |
| 3rd IFAC/IEEE CSS Workshop on Control of Systems Governed by Partial Differential Equations CPDE 2016 | June 13 – 15 | Bertinoro Italy | http://www.cpde2016.org/ e-mail: cpde2016@gmail.com |
| 8th IFAC Symposium on Advances in Automotive Control AAC 2016 | June 20 – 23 | Kolmården Wildlife R. Sweden | http://not yet available e-mail: not yet available |
| 8th IFAC/IEEE and others Conference on Manufacturing Modelling, Management and Control MIM 2016 | June 28 – 30 | Troyes France | http://mim2016.utt.fr/ e-mail: mim2016@utt.fr |
| 20th IFAC Symposium on Automatic Control in Aerospace ACA 2016 | August 21 – 25 | Sherbrooke, Québec Canada | http://aca2016.ngcaerospace.com/ e-mail: aca2016@ngcaerospace.com |
| 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 |
| 17th IFAC and others Symposium on Mining, Mineral and Metal Processing MMM 2016 | Aug. – Sept. 31 – 02 | Vienna Austria | http://www.ifacmmm2016.org/ e-mail: not yet available |
| **Title** | **2017** | **Place** | **Further Information** |
| 20th IFAC World Congress | July 09 – 14 | Toulouse France | http://www.ifac2017.org/ e-mail: contact@ifac2017.org |

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