



International Federation of Automatic Control

Secretariat: Schlossplatz 12, A-2361 Laxenburg, Austria

Phone (+43 2236) 71 4 47, Fax (+43 2236) 72 8 59, E-mail: secretariat@ifac-control.org – URL: <http://www.ifac-control.org>

2012  
No. 6  
Dec.

# Newsletter

## IFAC Council- and Related Meetings 2012

**The 2012 IFAC Council and Related Meetings were held from in Gifu, Japan from 10-12 September at the invitation of the Japanese NMO in conjunction with the IFAC Workshop on Mining, Mineral and Metal Processing.**

Contents:

IFAC Council- and Related Meetings 2012
*
Automation in the Mining, Mineral and Metal Industries, Japan, September 2012
*
A Great Loss to the IFAC Community Vladimir Andreevich Yakubovich 1926- 2012
*
Forthcoming Events
*
<b>Call for Nominations</b>
<b>Quazza Medal</b>
<b>Nichols Medal</b>
<b>Industrial Achievement Award</b>
<b>High Impact Paper Award</b>
*
Enterprise Integration, Interoperability and Networking EI2N Italy, September 2012
*
Who is Who in IFAC

**This Newsletter may be re-produced in whole or in part. We encourage reprinting in national and local automatic control periodicals.**

**Acknowledgement to IFAC would be appreciated.**

*To all readers of the Newsletter we extend  
Season's Greetings and  
Best Wishes for the  
Year 2013*

Besides the Council, both the Technical Board and Executive Board met, and there were also meetings of the executive committees, the Cape Town World Congress IPC, the IFAC Foundation, as well as the Technical Committee on Mining, Mineral and Metal Processing (TC 6.2). There was also a brainstorming and feedback session held regarding the ongoing strategic planning happening throughout IFAC.

At the Council meeting seven NMOs presented their initial bids for the 2020 IFAC World Congress and the IFAC presidency for the 2017-2020 triennium. During a closed session of Council the bids were narrowed down to three. The three NMOs—Germany, Japan, and the USA, will give a second presentation at the 2013 Council meeting in Zurich, Switzerland. The Council will make the final decision at that time.

In addition to the Congress bids, many other issues were discussed at the Council meeting. IFAC currently has 52 NMOs and is always seeking suitable organizations in countries which are not represented in IFAC to join the Federation. To see if your country is represented go to the list of IFAC NMOs on the IFAC website at

<http://www.ifac-control.org/about/structure/nmo>

IFAC PapersOnLine is fully operational and must be used by all IFAC main-sponsored events approved on or later than 1 January 2012. A more detailed article on PapersOn-

Line will be published in one of the next issues of the IFAC Newsletter.

On the Technical Board side it may be said that the number of IFAC events is on track to meet and even exceed the last triennium. Papers from IFAC proceedings and journals are already quoted in some very renowned citation indices. However, IFAC is following up with a Task Force to promote IFAC further to be included also in other renowned indices.

At the Secretariat, the transition from the two longtime staff members to the two newer staff members has been smoothly managed.

The Executive Board has been looking at many issues, including open access and policies relating to PapersOnLine. The Policy Committee, which has Juergen Hahn as a new Chair, made a survey amongst IFAC's affiliates to solicit opinions and find trends with regard to IFAC. A report on the results and the possible conclusions to be drawn has been prepared, and various strategies and possible changes are being discussed. Issues related to Strategic Planning will be taken up at the 2013 IFAC Council meeting. Some of the decisions may require amendments to the IFAC Constitution, thus needing a vote by the General Assembly.

The meetings came to a conclusion with a festive dinner for the IFAC Council members, hosted by the Japanese NMO at a traditional Gifu restaurant.



Workshop on Strategic Planning, President Ian Craig reporting

**Automation in the  
Mining, Mineral and  
Metal Industries  
MMM2012  
IFAC Workshop  
Gifu, Japan  
10 – 12 September 2012**

The IFAC Workshop on Automation in the Mining, Mineral and Metal Industries was held at the Nagarakawa Convention Center, Gifu, in Japan, 10-12 September 2012. The workshop was organized and hosted by the Iron and Steel Institute of Japan (ISIJ) in cooperation with the Society of Instrumental and Control Engineers (SICE).

IFAC MMM2012 was sponsored by the IFAC Technical Committee 6.2 Mining, Minerals and Metal Processing and co-sponsored by the IFAC Technical Committee 6.1 Chemical Process Control and the IFAC Technical Committee 6.4 Fault Detection, Supervision & Safety of Technical Processes.

The Workshop attracted 102 participants from Austria, Belgium, Canada, Chile, Finland, France, Germany, India, Italy, Japan, Korea, Mexico, South Africa, Switzerland and the United States of America. Two thirds of the participants came from Japan. 49 participants came from companies, while 53 participants came from universities.

There were over 70 submitted papers, out of which 62 papers were accepted for presentation at the workshop, after a rigorous peer review process. Overall 62 papers were presented at the workshop, with zero no-shows. 23 of the papers came from industry and 32 papers came from Japanese authors. The technical program consisted of three plenary lectures and two parallel sessions on Monday and Tuesday, and one session on Wednesday. In addition to the technical sessions, a pre-workshop on Future Directions in Systems and Control was organized by SICE (Society for Instrument and Control Engineers) the day previous to the workshop. The program is available at: <https://ifac.papercept.net/conferences/conferences/MMM12/program/>

The keynote speeches were focused on the urban mining, the wide quality control in steel industry and the PID controller designed by PSO. Technical papers, on flotation and smelting, rolling, crushing and grinding, sintering, coking and melting, metal forming and processing, reheating and cooling, electric arc furnace and steel making and casting, were included.

The annual IFAC Council and Related Meetings were held in conjunction with MMM2012 and we had the social events together. The workshop was a great success, as confirmed by delegates who complimented the technical and social programs.

Prof. Luis G. Bergh  
IFAC TC 6.2 MMM chair

**Impressum:**

Medieninhaber und Herausgeber:  
International Federation of Automatic Control (IFAC),  
Zürich  
Schlossplatz 12, 2361 Laxenburg, Austria

Verlagsort und Redaktion:  
Univ.Prof. Dr. tech. K. Schlacher,  
Schlossplatz 12, A 2361 Laxenburg

Hersteller:  
Artur Scheffzik & Sohn  
August-Reuss-Gasse, A 1130 Wien

Editor: Kurt Schlacher  
Layout: Elske Haberl  
published bimonthly

**A Great Loss to the Control Community  
Vladimir Andreevich Yakubovich  
21 October 1926 – 17 August 2012**



Vladimir Andreevich Yakubovich was born in Novosibirsk on October 21, 1926. In 1949 he graduated from the Faculty of Mechanics and Mathematics of the Moscow State University. In 1956 he joined the Faculty of Mathematics and Mechanics of Leningrad University where he was the founder and chair of the Department of Theoretical Cybernetics. As a researcher, Yakubovich had a very wide range of scientific interests. He first concentrated on linear periodic Hamiltonian systems where he obtained some profound results in studies of the structure of functional space of Hamiltonians, the construction of various criteria for stability and instability, the establishment of a new geometrical approach to the theory of oscillations of linear Hamiltonian systems. Yakubovich made some important findings in the theory of parametric resonance. He demonstrated that the method of constructing the boundaries of the dynamic instability domains that was used in the practice of engineering calculations may result in the loss of some instability domains and proposed a method enabling identification of all domains of dynamic instability. His theory was used to analyze the wreck of the Tacoma Bridge (USA, 1940) and substantiate the hypothesis that an active role in this disaster was played by the parametric resonance.

Yakubovich ranks among one of the main contributors to modern control theory. His paper of 1962 [39] "Containing the Frequency Theorem" was reprinted in a special volume Twenty-Five Seminal Papers in Control (Wiley-IEEE Press) consisting of papers which, by the opinion of an international panel, exerted the greatest impact on the development of the control theory in the last century. This result, which was extended in 1963 by the American mathematician R. Kalman, is known now as the – Yakubovich-Kalman lemma." It relates frequency-domain methods of control theory to methods of Lyapunov functions and finds use in diverse areas such as stability, adaptation, optimal control, or strange attractors. This lemma enabled determination of various frequency criteria for absolute stability which gave a second wind to the method of Lyapunov functions. Additionally, since various properties of control systems are naturally expressed in terms of the Lyapunov functions, for one or another type of behavior of solutions, this lemma enabled the development of frequency-domain conditions comprising all conditions that can be obtained using Lyapunov functions from some multiparametric classes such as "quadratic form," "quadratic form plus the integral of nonlinearity," etc.

In a series of papers Yakubovich developed his celebrated "Method of Matrix Inequalities." This method enables determination of frequency domain criteria for a whole range of diverse properties of the nonlinear systems – global stability and instability, existence of globally stable periodic and almost periodic modes, auto-oscillations. He constructed an abstract theory of absolute stability generalizing existing results and enabling their extension to new types of equations such as inte-

gral equations with delayed argument, equations in Hilbert space, and so on. The works of Yakubovich on the method of matrix inequalities won recognition of experts and got numerous followers in Russia and abroad. In the book Linear Matrix Inequalities in System and Control Theory (S. Boyd et al., SIAM Studies in Applied Mathematics, vol. 15, Philadelphia, 1994) Yakubovich was called the father of studies on linear matrix inequalities in a honorary company of Lyapunov who was called there the "grandfather of the field." The optimal control theory was another field of scientific interests of Yakubovich. He constructed a variant of the abstract theory of optimal control which allows one to determine for various classes of equations the necessary—and sometimes sufficient – optimality conditions like Pontryagin's Maximum Principle. In his recent studies Yakubovich found a new approach to nonconvex global optimization. Its efficiency is corroborated by solving many particular problems of stochastic and deterministic optimal control. In his works on optimal damping of oscillations and optimal tracking the concept of "universal controller" maintaining optimality of control under unknown noise and unknown in advance reference signals is developed. Universal controller also provides invariance of the system output relative to external perturbations. A characteristic feature of Yakubovich's research style is the combination of fruitful research in abstract mathematical fields and successful studies of applied problems. He possessed a wonderful ability to pose conceptual mathematical problems based on the analysis of practical needs. Yakubovich is one of founders of the mathematical theory of learning pattern recognition systems. His approximation method enabled solution of quite a number of problems in the development of algorithms for new technical products. In the theory of adaptive systems for control and information processing Yakubovich created the popular method of recursive (recurrent) finitely-converging algorithms for solution of the goal inequalities which helped in working out a wide range of problems. He was the founder and the leader of the Leningrad (St. Petersburg) school of the adaptive systems theory.

Yakubovich spent a lot of time on his pedagogical activities. Three new specializations of cybernetic profile were opened at his initiative at the Faculty of Mathematics and Mechanics. He developed an original cycle of lecture courses under the general title Theoretical Cybernetics. More than 40 of his postgraduates became candidates of science and more than ten later became doctors of science. Owing to the efforts of Yakubovich, the group constituting the Department and the Laboratory of Theoretical Cybernetics was established, which enjoys a well-deserved recognition in the scientific community. The scientific product of the group is counted in hundreds and hundreds of publications, among which there are more than forty books. The graduates of the department work successfully at many Russian and foreign research and educational institutions. It is possible to state with certainty that there exists the Yakubovich's scientific school whose range of interests covers the most important areas of theoretical cybernetics and control theory. The scientific community highly appreciates the scientific and pedagogical activity of Yakubovich. He was awarded the prize of the Leningrad University for pedagogical mastery in 1986, as well as the prize of the St. Petersburg University for the series of works on optimal control in 1996. In 1995 he received the prize of the international academic publishing company Nauka for the best publication in its journals, and in 1996 he was awarded the main annual IEEE Control Systems Award and a medal with the citation "For pioneering and fundamental contributions to stability analysis and optimal control." In 1998 Yakubovich received the title of the "Honored Scientist of the Russian Federation," and in 2005 he was awarded the "Order of Honor" by the Russian Government. Yakubovich was Corresponding Member of the Russian Academy of Sciences

Gennady Leonov  
Alexander Kurzhanski

# Call for Nominations

## Giorgio Quazza Medal, Nathaniel B. Nichols Medal, Industrial Achievement Award, High Impact Paper Award

According to the provisions as outlined for the Giorgio Quazza Medal, for the Nathaniel B. Nichols Medal, the Industrial Achievement Award and the High Impact Paper Award (Statutes see below), the IFAC NMOs and the IFAC Technical Committee Chairs as well as other individuals are invited to nominate a candidate (candidates) for one or more of these awards and to send these nominations to the IFAC Secretariat (mailto: [secretariat@ifac-control.org](mailto:secretariat@ifac-control.org)) until

**March 15, 2013**

The nominations should contain a curriculum vitae for the candidates, a summary of his/her major contributions and a proposed citation. Submission by e-mail is requested to: [secretariat@ifac-control.org](mailto:secretariat@ifac-control.org)

It may be useful to have a look at the list of past winners in the IFAC Homepage, at

[http://www.ifac-control.org/Past\\_Award\\_Winners.pdf](http://www.ifac-control.org/Past_Award_Winners.pdf)

Please note that it is possible to resubmit a nomination that was made in the past.

The Selection Committees, with Graham Goodwin (Quazza Medal), Karl Hedrick (Nichols Medal), Tariq Samad (Industrial Achievement Award) and Paul van den Hof (High Impact Paper Award) as Chairs will give a report on potential awardees at the forthcoming Council meeting, to take place in Zurich, Switzerland, mid-July, 2013.

To make a clear distinction between these awards, find below the history of each award and the nomination and selection criteria to be applied:

### **GIORGIO QUAZZA MEDAL: (Created 1979)**

This is an IFAC award to a distinguished control engineer as a memorial to the late Giorgio Quazza, a leading Italian electrical and control engineer who served IFAC in many capacities in a most distinguished manner. The medal is presented by the President at each IFAC Triennial Congress at the Opening Ceremony. The award includes a cash prize and a certificate that is presented to the recipient by the President at each IFAC Congress. Financing is provided by IFAC.

#### **Selection Criteria for the Quazza Medal**

The award is given in technical fields covered by IFAC. The contributions should be manifested in technical publications. A nominee should have served IFAC in some capacity, formally or informally. IFAC Officers are not eligible. The Selection Committee and the Council may add further suitable candidates for consideration. The selection is based on:

- Quality of publications
- Impact of publications
- Engineering significance
- Service to IFAC
- International recognition

#### **Nominations should contain:**

- Summary of the contributions
- a Curriculum Vitae
- List of publications
- Supporting letters
- Suggested citation

### **NATHANIEL B. NICHOLS MEDAL: (Created 1996)**

This is an IFAC award that recognizes industrial leadership, outstanding contributions of an individual to design methods, software tools and instrumentation, or significant projects in major applications and advancement of control engineering. The medal is presented by the President at each IFAC Triennial Congress at the Opening Ceremony. The award includes a cash prize and a certificate that is presented to the recipient by the President at each IFAC Congress. Financing is provided by IFAC.

#### **Selection Criteria for the Nichols Medal**

The award is given in technical fields covered by IFAC. The contributions should be manifested in technical publications, patents or reports documenting completed projects or developed products. IFAC Officers are not eligible. The Selection Committee and the Council may add further suitable candidates for consideration. The selection is based on:

- Quality of publications
- Impact of publications
- Innovation level of patents
- Impact of patents
- Engineering significance of products and projects
- International recognition

#### **Nominations should contain:**

- Summary of the contributions
- a Curriculum Vitae
- List of publications
- Supporting letters
- Suggested citation

### **INDUSTRIAL ACHIEVEMENT AWARD (Created 2000)**

The IFAC Industrial Achievement Award is given to an individual, or a team of individuals, who has made significant contributions to industrial applications of control. The award includes a cash prize and a certificate that is presented to the recipient by the President at each IFAC Congress. Financing is provided by IFAC.

#### **Selection Criteria for the Industrial Achievement Award:**

The selection is based on industrial achievements in technical fields covered by IFAC, measured in terms of:

- Inventions in the control area
- Engineering significance of products and projects
- Industrial leadership
- Promotion of control technology in industry
- Impact of patents
- International recognition

The award may be given to a team of engineers for joint achievements. IFAC Officers are not eligible. There is no requirement that the nominated candidates must have been involved in IFAC. The award can be given to a single achievement (an invention or a leadership of a major project) or a record of achievements over a period of time.

#### **Nominations should contain:**

Nominators should include the following in their submissions of Industrial Achievement Award candidates:

- Summary of the contributions by the individual or team addressing the criteria above
- Brief curriculum vitae (curricula vitae of all members in case of a team nomination)
- Supporting letters
- A suggested citation for the award

ctd. p. 6

ctd. from p. 5

#### HIGH IMPACT PAPER AWARD (created 2009)

Nominations are now open for the IFAC High Impact Paper Award 2014, one of IFAC's major awards. This award is to acknowledge the impact of a paper published in any of the official IFAC journals on the broad areas of Automatic Control theory and applications. At most two such awards will be made in any triennium and will be presented by the President at the Opening of each IFAC Triennial Congress. The award includes a cash prize and a certificate that is presented to the recipient(s) by the President at each IFAC Congress. Financing is provided by IFAC. The next award will be made at the IFAC World Congress in Cape Town in 2014.

#### Eligibility Criteria

Eligible papers must have been published in any of the official IFAC Journals (Automatica, Control Engineering Practice, Annual Reviews in Control, Journal of Process Control, Engineering Applications of Artificial Intelligence, Mechatronics). For the award(s) to be given at the 2014 Congress, only papers published within the time period 1 January 1984 through 31 December 2005 are eligible. Papers authored or co-authored by IFAC Officers (President, Past President, President-elect, Vice Presidents, Treasurer, Secretary) are not eligible.

#### Selection Criteria

The award(s) are given in all technical fields covered by IFAC and should acknowledge impact upon the progress of control science as well as upon the practice of control engineering. The High Impact Selection Committee (HISC) will evaluate and rate the impact of the proposed papers on the basis of the following information, to be provided by the nominator:

1. Evidence of high number of citations, as obtainable from either (or both) the engineering databases: Thompson ISI's Web of Science and Elsevier's SCOPUS.
2. Evidence that the work under consideration has been actually used by others in their research/professional activity, consisting of a detailed description of all research and/or industrial achievements made possible by the prior contributions of the nominated paper.

3. Opinions expressed by (no more than three) references from internationally reputed experts in the field who are personally aware of the contributions of the nominated paper.

#### Nominator

Any person is eligible to serve as a nominator with the exception of members of the High Impact Selection Committee (HISC), and IFAC Council Members. Self-nominations are not allowed. The nominator is responsible for supplying full and accurate information.

#### Guidelines for Nominators

Interested nominators are invited to send a nomination package to the IFAC Secretariat consisting of a nomination letter accompanied by the following attachments:

- 1) A statement specifying the number of citations, as obtainable from either (or both) the engineering databases: Thompson ISI's Web of Science and Elsevier's SCOPUS.
- 2) Excerpts of technical papers documenting work and progress made possible because the prior contributions of the nominated paper. Papers (co)authored by one of the authors of the nominated paper cannot be used for this purpose.
- 3) A description (if appropriate) of industrial achievements made possible because the prior contributions of the nominated paper.
- 4) Up to three letters of reference.

## Enterprise Integration, Interoperability and Networking EI2N'2012

### IFAC Workshop Rome, Italy, 12 – 13 September 2012

The 7th Workshop on Enterprise Integration, Interoperability and Networking (EI2N'2012) was held in Rome (Italy), on 12 – 13 September, as Part of the OnTheMove Federated Conferences.

The Workshop was scientifically co-sponsored by IFAC TC 5.3 together with 5 other IFAC Technical Committees TC 5.2, 5.4, 3.1, 3.2 and 3.3. The workshop was also supported by IFIP WG8.1, by the French CNRS GDR MACS and by the INTEROP Grande-Région and the INTEROP VLab.IT Scientific Interest Groups.

The main conferences gathered 177 attendees. 22 attendees participated in the EI2N workshop. EI2N invited Ed Parsons (Google) as an OTM plenary keynote with a talk on "The Coming Age of Ambient Information." EI2N received 19 sub-

missions and, after peer-reviewing, accepted eight papers presented in two sessions. The main concept of this workshop is on the organisation of two brainstorming sessions, in small groups, on hot research topics. This year, the attendees discussed on 1) Enterprise Interoperability and Sustainability: What and How? And 2) IoT and Enterprise Sensing: What is future? Many research perspectives came out from these sessions to strengthen future research. The next EI2N'2013 workshop will be held in Graz (Austria), on 11 – 12 September 2013, as part of on the Move 2013. For downloading the presentations and the results of the brainstorming sessions, connect to the IFAC TC 5.3 web site:

<http://www.ifac-tc53.org>

Hervé Panetto

## WHO IS WHO IN IFAC

### Carlos Eduardo Pereira



IFAC Council member

Carlos E. Pereira received the Dr.-Ing. degree in electrical engineering from the University of Stuttgart (Germany) in 1995, the MSc degree in computer science in 1990 and the B.S. degree in electrical engineering in 1987, both from the Federal University of Rio Grande do Sul (UFRGS) in Brazil. He is a 2011-2014 IFAC Council member and served as the chair of the IFAC Technical Committee on Manufacturing Plant Control (TC 5.1) from 2005-2011. Pereira is the past president of the Brazilian Automation Society (2009-2010) and the current president of the SBA Council. He acted as technical director for CETA, an applied research center, whose goal it is to promote collaborative research work between academia and industry, focusing on the areas of industrial automation, information and communication technologies, and optimization of production processes, following the Fraunhofer operation model. From 2000 to 2001 he was a visiting researcher at the United Technologies Research Center (UTRC) in Hartford, CT (USA), where he acted as group leader of the Embedded Information Devices Group and has coordinated a group of 15 research engineers involved with research projects for United Technologies companies, such as Carrier, Otis, Pratt and Whitney, Sikorsky and UT Fuel Cells. At UTRC he worked on a building automation project for new facilities at MIT Media Lab, upon which a framework for integrating appliances such as elevators and air conditioners was proposed.

Prof. Pereira is also a Level 1 Researcher of CNPQ, a Brazilian research agency. His research focuses on methodologies and tool support for the development of distributed real-time embedded systems, with special emphasis on industrial automation applications and the use of distributed objects over industrial communication protocols. He has worked on several research projects in collaboration with industry, mostly dealing with the development of real-time computer-based systems. He is also an associate editor of the IFAC journal Control Engineering Practice. He has published more than 250 technical publications in conferences and journals and has acted as a member of international program committees for several conferences in the fields of industrial automation, manufacturing, industrial protocols, and real-time distributed object computing. He has received the Friedrich Wilhelm Bessel Research Award from the Alexander von Humboldt Foundation (Germany) in 2012 for his outstanding research record.

At the General Assembly of IFAC at the World Congress in Milan, Carlos Pereira was elected Council member for the 2011 – 2014 Triennium.



## FORTHCOMING EVENTS

2012  
No.6  
Dec.

Title	2013	Place	Further Information
IFAC Symposium System Structure and Control	February 04 – 06	Grenoble France	<a href="http://www.gipsa-lab.grenoble-inp.fr/colloque/sssc2013/">http://www.gipsa-lab.grenoble-inp.fr/colloque/sssc2013/</a> e-mail: <a href="mailto:sssc2013@gipsa-lab.grenoble-inp.fr">sssc2013@gipsa-lab.grenoble-inp.fr</a>
IFAC Conference Biorobotics	March 27 – 29	Sakai Japan	<a href="http://ifac2013.shita.jp/index.html">http://ifac2013.shita.jp/index.html</a> e-mail: not yet available
IFAC Symposium Mechatronic Systems	April 10 – 12	Hangzhou China	<a href="http://sklofp.zju.edu.cn/ifac2013/">http://sklofp.zju.edu.cn/ifac2013/</a> e-mail: not yet available
IFAC Workshop Convergence of Information Technologies and Control Methods with Power Systems	May 22 – 24	Cluj-Napoca Romania	<a href="http://icps13.conference.utcluj.ro/">http://icps13.conference.utcluj.ro/</a> e-mail: <a href="mailto:icps13@conference.utcluj.ro">icps13@conference.utcluj.ro</a>
IFAC Workshop Workshop on Intelligent Manufacturing Systems (IMS 2013)	May 22 – 24	São Paulo Brazil	<a href="http://www.ims2013.poli.usp.br/">http://www.ims2013.poli.usp.br/</a> e-mail: not yet available
IFAC Workshop International Stability, Technology and Culture (SWIIS 2013)	June 06 – 08	Prishtina Kosovo	<a href="http://www.ubt-uni.net/swiis2013">http://www.ubt-uni.net/swiis2013</a> e-mail: <a href="mailto:kopacek@ihrt.tuwien.ac.at">kopacek@ihrt.tuwien.ac.at</a>
American Control Conference - in cooperation with IFAC	June 17 – 19	Washington, DC USA	<a href="http://a2c2.org/conferences/acc2013/">http://a2c2.org/conferences/acc2013/</a>
IFAC Conference Manufacturing Modelling, Management, And Control (MIM 2013)	June 19 – 21	St. Petersburg Russian Fed.	<a href="http://mim2013.org/">http://mim2013.org/</a> e-mail: <a href="mailto:noc@mim2013.org">noc@mim2013.org</a>
IFAC Symposium Intelligent Autonomous Vehicles - IFAC-IAV 2013	June 26 – 28	Gold Coast City Australia	<a href="http://www.iav2013.org/">http://www.iav2013.org/</a> e-mail: <a href="mailto:l.vlacic@griffith.edu.au">l.vlacic@griffith.edu.au</a>
IFAC Workshop Periodic Control Systems- (PSYCO'2013)	July 03 – 05	Caen France	<a href="http://psyco-2013.sciencesconf.org/">http://psyco-2013.sciencesconf.org/</a> e-mail: <a href="mailto:psyco-2013@sciencesconf.org">psyco-2013@sciencesconf.org</a>
IFAC Workshop Adaptation and Learning in Control and Signal Processing (ALCOSP 2013)	July 06 – 08	Caen France	<a href="http://www.ibt-uni.net/swiis2013">http://www.ibt-uni.net/swiis2013</a> e-mail: <a href="mailto:alcosp-2013@sciencesconf.org">alcosp-2013@sciencesconf.org</a>
IFAC IFORS, IMACS, IFIP Symposium Large Scale Complex Systems: Theory and Applications - 13th	July 07 – 10	Shanghai China	<a href="http://lss2013.sjtu.edu.cn">http://lss2013.sjtu.edu.cn</a> e-mail: <a href="mailto:lss2013@sjtu.edu.cn">lss2013@sjtu.edu.cn</a>
IFAC Workshop Thermodynamic Foundations of Mathematical Systems Theory	July 14 – 16	Lyon France	<a href="http://">http://</a> not yet available e-mail: not yet available
European Control Conference (ECC 13) - in cooperation with IFAC	July 17 – 19	Zürich Swiss	<a href="http://www.ecc13.ch/">http://www.ecc13.ch/</a> e-mail: <a href="mailto:secretariat@ecc13.ch">secretariat@ecc13.ch</a>
IFAC Conference Modelling and Control in Agriculture, - Horticulture and Post Harvest Industry (AGRICONTROL 2013)	August 06 – 08	Espoo Finland	<a href="http://agricontrol2013.automaatioseura.com/">http://agricontrol2013.automaatioseura.com/</a> e-mail: <a href="mailto:office@atu.fi">office@atu.fi</a>
IFAC/(IFIP/IFROS/IEA) Symposium Analysis, Design, and Evaluation of Human-Machine Systems – HMS 2013	August 11 – 15	Las Vegas USA	<a href="http://www.cs.wright.edu/ifac/">http://www.cs.wright.edu/ifac/</a> e-mail: not yet available
IFAC Symposium Mining, Mineral and Metal Processing (MMM 2013)	August 25 – 27	San Diego, California USA	<a href="http://www.flogen.org/MMM2013/">http://www.flogen.org/MMM2013/</a> e-mail: <a href="mailto:fkongoli@flogen.com">fkongoli@flogen.com</a>

## FORTHCOMING EVENTS (ctd.)

IFAC Symposium Advances in Control Education - ACE 2013	August 28 – 30	Sheffield UK	<a href="http://ace2013.group.shef.ac.uk/">http://ace2013.group.shef.ac.uk/</a> e-mail: <a href="mailto:ace2013@shef.ac.uk">ace2013@shef.ac.uk</a>
IFAC Symposium Automatic Control in Aerospace - ACA 2013	September 02 – 06	Wuerzburg Germany	<a href="http://www7.informatik.uni-wuerzburg.de/aca2013">http://www7.informatik.uni-wuerzburg.de/aca2013</a> e-mail: <a href="mailto:aca2013@informatik.uni-wuerzburg.de">aca2013@informatik.uni-wuerzburg.de</a>
IFAC Conference Intelligent Control and Automation Science ICONS 2013	September 02 – 04	Chengdu China	<a href="http://risit.org/icons2013">http://risit.org/icons2013</a> e-mail: <a href="mailto:sec.icons@gmail.com">sec.icons@gmail.com</a>
IFAC Symposium Nonlinear Control Systems - NOLCOS	September 04 – 06	Toulouse France	<a href="http://www.laas.fr/NOLCOS2013">http://www.laas.fr/NOLCOS2013</a> e-mail: <a href="mailto:nolcos2013@laas.fr">nolcos2013@laas.fr</a>
IFAC Workshop Dependable Control of Discrete Systems (DCDS 4th)	September 04 – 06	York United Kingdom	<a href="http://dcds13.net.dcs.hull.ac.uk/">http://dcds13.net.dcs.hull.ac.uk/</a> e-mail: not yet available
IFAC Symposium Advances in Automotive Control AAC 2013	September 04 – 07	Tokyo Japan	<a href="http://www.sice.or.jp/IFAC-AAC2013">http://www.sice.or.jp/IFAC-AAC2013</a> e-mail: <a href="mailto:ifac-aac2013@c-linkage.co.jp">ifac-aac2013@c-linkage.co.jp</a>
IFAC Conference Management and Control of Production and Logistics – MCPL 2013	September 12 – 14	Fortaleza Brazil	<a href="http://">http://</a> not yet available e-mail: not yet available
IFAC Workshop Distributed Estimation and Control in Networked Systems (NecSys 4th)	September 25 – 26	Koblenz Germany	<a href="http://www.necsys2013.rub.de">http://www.necsys2013.rub.de</a> e-mail: <a href="mailto:necsys2013@atp.rub.de">necsys2013@atp.rub.de</a>
IFAC Conference Programmable Devices and Embedded Systems PDeS 2013	September 25 – 27	Velké Karlovice Czech Republic	<a href="http://pdes-conference.eu">http://pdes-conference.eu</a> e-mail: <a href="mailto:noc@pdes-conference.eu">noc@pdes-conference.eu</a>
IFAC/IEEE CSS Workshop Control of Systems Modeled by Partial Differential Equations (CPDE)	September 25 – 27	Paris France	<a href="http://www.cpde2013.fr">http://www.cpde2013.fr</a> e-mail: not yet available
IFAC Symposium Computer Applications in Biotechnology (CAB 2013)	December 16 – 18	Mumbai India	<a href="http://">http://</a> not yet available e-mail: not yet available
IFAC Symposium Dynamics and Control of Process Systems (DYCOPS 2013)	December 18 – 20	Mumbai India	<a href="http://">http://</a> not yet available e-mail: not yet available
<b>Title</b>	<b>2014</b>	<b>Place</b>	<b>Further Information</b>
<b>19th IFAC World Congress</b>	<b>August 25 – 29</b>	<b>Cape Town South Africa</b>	<b><a href="http://www.ifac2014.org/">http://www.ifac2014.org/</a> email: not yet available</b>
<b>Title</b>	<b>2015</b>	<b>Place</b>	<b>Further Information</b>
IFAC Symposium System Identification – SYSID 2015	October 19 – 21	Beijing China	<a href="http://">http://</a> not yet available e-mail: not yet available