IFAC 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

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Newsletter

Contents:

IFAC Council and Related Meetings Gifu, Japan, 10-12 September 2012 in conjunction with IFAC Workshop on Mining, Mineral and Metal Processing

The annual Council and Related Meetings are scheduled to take place in Gifu, Japan from 10-12 September 2012, in conjunction with the IFAC Workshop in the Mining, Mineral and Metal Industries (MMM 2012.)

In addition to the usual matters of business, issues to be discussed at the Council meeting include the Strategic Planning Reports. A survey was sent out via e-mail to all active IFAC affiliates in June 2012 and several task forces have been studying various IFAC issues.

Also on the agenda are the preliminary Congress bids. Seven NMOs submitted qualified bids for the 2020 IFAC World Congress by the deadline of 6 April 2012. These NMOs will present their bids.

After the presentations the Council will take a vote to narrow down the number of applicants who will then give a more comprehensive presentation at the 2013 Council meeting in Zurich, Switzerland, (the locations for the 2012 and 2013 Council meetings were decided at the 2011 Incoming Council meeting in Milan, Italy) where a final decision will be taken.

Decisions and actions taken at the September meetings will be reported on in a future issue of this Newsletter.

Technical Committee on Distributed Parameter Systems (2.6) Reinstated

Professor Thomas Meurer (AT)
TC 2.6 Chair

The IFAC Technical Board approved the revival of the Technical Committee on Distributed Parameter Systems during the IFAC World Congress in Milan under the coordinating committee CC 2 Design Methods. During the last ten years, the control community has experienced increasing activity on this topic in research, (industrial) applications, and the organization of international workshops, schools, and webinars.

The distributed parameter system description becomes an essential ingredient of the modeling, analysis, identification, optimization, and design process if the spatial-temporal distribution of the system variables has to be taken into account. Typical examples arise in chemical engineering, energy production, smart and vibrating structures, and fluid mechanics.

Their dynamic operation essentially relies on the incorporation of suitable control and observer strategies, which have to address the spatial-temporal system dynamics. This particularly requires integrating concepts from control theory and control systems engineering with sophisticated mathematical tools from functional analysis, operator theory, differential geometry, and numerical analysis. The multi-disciplinary nature of the field hence poses significant research challenges and provides numerous research opportunities both at the level of basic science and applications.

The new IFAC TC 2.6 on Distributed Parameter Systems aims at fostering the methodological development for modeling, analysis, identification, optimization, and control of distributed parameter systems described by linear and nonlinear partial differential equations. Moreover, it will focus on linking and integrating these results with classical and emerging application areas covering, for example, energy generation, distribution and storage, process intensification and chemical engineering, adaptive optics and flexible micro-structures, quantum systems, distributed cooperative systems, modern embedded actuators and sensors, as well as traffic and network congestion.

For this, the TC will enhance and stimulate the scientific interaction between engineers, mathematicians, and computer scientists to approach the arising challenges in theory and application.

Assoc. Prof. Thomas Meurer from the Automation and Control Institute, Vienna University of Technology (Austria) has been nominated as Chair for the new IFAC Technical Committee. Prof. Yann Le Gorrec from FEMTO-ST, Besancon (France) serves as vice-chair.

A workshop of the TC is scheduled for 2013. For more information please consult the TC website at

http://tc.ifac-control.org/2/6

Advances in PID Control – PID´12
IFAC Conference
Brescia, Italy 28-30 March 2012

The IFAC Conference on Advances in PID Control (PID´12) was held in Brescia, Italy, from 28 – 30 March 2012, organized by the University of Brescia (Italy) in cooperation with Multisector Service and Technological Centre (CSMT), Brescia. PID´12 has been sponsored by the IFAC Technical Committee on Control Design (TC 2.1) and co-sponsored by the IFAC Technical Committee on Chemical Process Control (TC 6.1) and the IFAC Technical Committee on Control Education (TC9.4) The IFAC Conference on Advances in PID Controllers PID´12 aimed at gathering academic and industrial experts in the field in order to present the recent research developments in the design of PID controllers and to provide a perspective of the future requirements for PID controllers in industry.

Proportional-Integral-Derivative (PID) controllers are undoubtedly the most employed controllers in industry. The last meeting dedicated to PID controllers was organized by IFAC in 2000 in Terrassa (Spain) with the title: "IFAC Workshop on Digital Control: Past, Present and Future of PID Control". That workshop was a great success and it has given a significant impulse in the research in PID controllers, as witnessed by the large number of papers published in the last ten years on this subject.

PID´12 was supported by a large IPC with about 50 members from 22 countries. The core of the conference were the 124 papers which were presented by their authors in fourteen oral sessions (six of them invited sessions) and three poster sessions. These contributions covered all technical areas of PID control, and provided an accurate picture of the state of the field at the present time. These sessions covered the following topics: PID Tuning and Automatic Tuning Methodologies, PID-based Control Structures, Applications of PID Control, Industrial Products for PID Control Design, Adaptive and Robust PID Control, Multivariable PID Control, Identification Methods for PID Control Design, Stabilising PID Parameters, Event-Based PID Control, Fractional-Order PID Controllers, PID Control Performance Assessment, CACSD Tools for PID Control Design, PID Control Education and Fault Detection Techniques for PID Control

The number of papers submitted to the Conference was 164 papers, meaning that the ratio of rejected papers in the reviewing process was 25%. The number of no show papers was only two, representing less than two percent of the conference program.

The technical program of the Symposium included three plenary lectures given by prominent professors and technical leaders very well known in our field. The first one, entitled "Signal Filtering in PID Control" presented by Prof. Tore Hagglund, from Lund University (Sweden) outlined interesting issues about the filtering of the setpoint, the process output, and measurable load disturbances that are the major input signals entering to the PID controller. The second lecture "The SIMC Method for PID Controller Tuning" presented by Prof. Sigurd Skogestad, from the Norwegian University of Science and Technology (Norway) described a critical reviewing of the SIMC method for PID Controller Tuning proposed by Skogestad in 2003. This tuning method has already found widespread industrial usage. The third lecture "PID Advances in Industrial Control" given by Mr. Terry Blevins from Emerson, addressed the impact that international standards have on control implementation and the tools utilized in industry for monitoring and commissioning PID control.

There was also a panel discussion on "Future Perspectives of PID Controllers" chaired by Prof. K. J. Astrom, from Lund University (Sweden.) The participants in this panel were: Haruo Takatsu (Yokogawa Electric Corporation), Alf Isaksson (ABB), Willy Wojsznis (Emerson), Adriano Chinello (Gefran SpA), Jason Wright (Rockwell Automation), Rafael González (Repsol-YPF) and Emre Kuzu (Tupras). This panel provoked stimulating discussion on numerous challenging questions that will influence the ways in which we will do our research on PID control in the future.

The organization of the conference has made discussions more interesting and very fruitful. The participants appreciated the technical program as well as the social one and were very happy with the quality of the presentations, the technical visits and the friendly atmosphere.

To conclude, it can be said that the IFAC Conference on Advances in PID Control (PID´12) has had a very high level of attendance, with a very active participation in most technical activities and the general feeling we have got from attendees' comments has been very positive. Of course, the success of the PID´12 technical program is the result of the effort of many people. On behalf of the NOC and IPC, we would like to thank all the authors, IPC members, NOC members, reviewers, and participants for their contributions, and also the session chairs and co-chairs for conducting the technical sessions and providing valuable feedback on their development. We are also grateful to the many volunteers who have contributed to the organization.

Antonio Visioli, NOC Chair
Sebastian Dormido, IPC Chair

Conference Dinner. From left to right: T. Hägglund (Lund Univ.), A. Isaksson (ABB), S. Skogestad (Trondheim Univ), K. Åström (Lund Univ.), R. Gonzalez (Repsol-YPF), A. Visioli (Brescia Univ), E. Kuzu (Tupras), G. Finzi (Brescia Univ), R. Vilanova (UAB, Barcelona), S. Dormido (UNED, Madrid), H. Takatsu (Yokogawa), M. Veronesi (Yokogawa Italia)

New Staff Member at IFAC Secretariat

Katharina Willixhofer

Katharina Willixhofer joined the staff of the IFAC Secretariat on 1 December 2012. She worked alongside Barbara Aumann and Ernestine Rudas, as well as Elske Haberl to learn about IFAC and the duties and responsibilities in the Secretariat. Since May she has been IFAC's contact person for IFAC events and the Technical Board.

Katharina met the IFAC Officers, as well as many of IFAC's past presidents at the April 2012 Informal Officer's Meeting and the President's Dinner in honor of the retirements of Barbara and Ernestine. "I am quite impressed by the work of the professionals and professors who work so hard and with so much joy and vigor as volunteers for IFAC."

Katharina completed her studies with honors in Business and Human Resources Education at the University of Economics in Vienna. Her thesis covered "Locus of Control", a comparison of Austrian, Czech, Hungarian, and Polish business students. Before coming to IFAC Katharina was a Training and Development Consultant for a management development institute where she was responsible for developing, and organizing many kinds of programs, seminars, and workshops in many countries.

Scholarship, continuing education (she is looking forward to a seminar week in Malta this summer) and research are some of Katharina's interests. She likes good food (especially Italian cuisine), operettas and carefully selected operas, and dance, as well as sports such as golf, skiing, and equestrianism, and loves nothing better than to enjoy nature and enjoy works of art presented in artists' quarters.

Automatic Control in Offshore Oil and Gas Production
IFAC Workshop
Trondheim, Norway, 31 May – 1 June 2012

The first IFAC Workshop on Automatic Control in Offshore Oil and Gas Production (ACOOG) took place in Trondheim, at the campus of the Norwegian University of Science and Technology (NTNU), May 31 – June 1 2012. It was organized by the Norwegian Society of Automatic Control, the Norwegian IFAC NMO, with strong involvement from NTNU and the Department of Engineering Cybernetics.

The background for establishing this new workshop is the importance of oil and gas for the world's energy supply, coupled with the fact that a steadily increasing amount of the known remaining oil and gas reserves are located in offshore reservoirs.

As the more easily accessible reservoirs are being drained, there is a shift towards exploitation of reservoirs that are harder to access such as increasing sea-depths, remote locations, (the Arctic), reservoirs with tighter economical margins, and reservoirs that are harder to drill. Given this background, the industry is seeing an increased focus on technologies that imply higher levels of automation, optimization and autonomous operation. At the same time, environmental and safety issues are becoming more important.

It may be worth mentioning that already in 1976 an IFAC/IFIP Symposium on Automation in Offshore Oil Field Operation, was arranged in Bergen, Norway. That symposium had 300 participants from 17 nations, with a somewhat broader scope than the new workshop. It is perhaps unfortunate that it should take 36 years before a follow-up IFAC event was to take place, but better late than never!

Professor Paul M. J. Van den Hof, Eindhoven University of Technology, during his plenary presentation Friday morning

The presentations at the ACOOG workshop bore witness of an impressing breadth in the application of control theory in offshore oil and gas production. Some examples illustrating this are the sessions on reservoir optimization, automation in drilling, process control, and autonomous systems/robotics.

The workshop had 117 registered participants, of which approximately 50% were from industry. In all there were 15 different nations were represented, with the largest delegations being from the countries of Norway, Brazil, USA, UK, Denmark, the Netherlands, Germany and Russia.

The workshop had 48 regular and invited papers presented in 10 sessions, laid out in two parallel tracks. In addition, we had three plenary sessions:

Invited industry presentationswere held on Thursday morning. They were:

The Role of Automation in Future Offshore operations, Karl Johnny Hersvik (Senior Vice President R&D, Statoil ASA) and All subsea solutions, technology to move the platform to the seabed, Christina M. Johansen (Technology Center Director, FMC.)

Invited keynote presentations were held on Friday morning. They were:

Recent Developments in Model-Based Optimization and Control of Subsurface Flow in Oil Reservoirs, given by Paul M. J. Van den Hof (Delft University of Technology, The Netherlands), as well as Challenges of Modeling Drilling Systems for the Purposes of Automation and Control, given by Geoff Downton (Schlumberger, Gloucester, UK)

The panel discussion, entitled „What Have We Learnt, Where Should We Go?" was on Friday afternoon and was chaired by Bjarne Foss, NTNU and consisted of Michael Nikolaou, University of Houston, USA, Geoff Downton, Schlumberger, UK, and Gunleiv Skofteland, Statoil ASA, Norway.

In conclusion, I think it is safe to say that the workshop was a success, with good international and industrial attendance, and the feedback from attendees' has been very positive. Plans for a 2nd workshop are being discussed, and this is likely to be arranged by the Federal University of Santa Catarina, Florianopolis, Brazil.

We would like to thank all the workshop participants, and in particular authors, IPC members and reviewers for their contributions to a very interesting program, and making the event a success.

Professor Bjarne Foss, NTNU, Geoff Downton, Schlumberger, Professor Michael Nikolaou, University of Houston (also IPC chair), and Gunleiv Skofteland, Statoil, during the Friday afternoon panel session

Information Control Problems in Manufacturing
IFAC Symposium
Bucharest, Romania, 23-25 May 2012

The 14th Triennial IFAC Symposium on Information Control Problems in Manufacturing (INCOM'12) was held in the Conference Centre of the Hilton Hotel in Bucharest, Romania from May 23–25, 2012. The event was organized by the University Politehnica of Bucharest and the Centre of Research in CIM and Robotics CIMR of Bucharest (General Scientific Chair Professor Laszlo Monostori from the Hungarian Academy of Sciences and Chair of IPC Professor Alexandre Dolgui from Ecole des Mines de Saint-Etienne, France). This INCOM'12 Symposium was again scientifically supported by IFAC CC5-Manufacturing & Logistics Systems with main scientific sponsor the TC5.1 - Manufacturing Plant Control, and by other 9 IFAC Technical Committees: TC1.3, TC2.4, TC4.2, TC4.3, TC4.5, TC5.2, TC5.3, TC5.4 and TC9.2.

Other scientific worldwide or national organizations scientifically co-sponsored INCOM'12: IFIP, IFORS, IMACS, IFToMM, the French organization GdR-MACS (and its IMS2 group) and the IEEE Romanian section. The local partnership for INCOM'12 organization was provided by national public institutions and organizations: the National Authority for Scientific Research (ANCS), the Romanian Academy, the General Association of Engineers in Romania (AGIR), the Romanian Society for Automation and Industrial Informatics (SRAIT - representing the IFAC NMO Romania), the Robotics Society of Romania (SRR) and the General Confederation of the Romanian Employers (UGIR 1903).

The main sponsor of INCOM'12 was IBM Romania. Other private companies financially co-sponsored the event: East Electric, Microsoft Romania, Net Brinel, TeamNet International Romania, ASTI Control, SIS, ElectroSoft, Computer Sharing Bucharest, and S_IND Process Control.

INCOM'12 gathered 436 participants (including 61 industrial representatives) from 41 countries (47 countries were represented via authors and participants). The Symposium emphasized the challenges arising from new paradigms of Distributed Intelligence in Manufacturing, Manufacturing Integration Framework, Metaheuristics for Production Line Design and Optimization, Service Oriented Enterprise Architectures, Intelligent Integrated Maintenance and Quality Strategies, Cognitive and Collaborative IT for Robot Integration in Manufacturing and Services. New frameworks, design methods and implementing solutions for agile, interoperable production structures which can be integrated in networks were approached for the perspective of the Intelligent Factory of the Future. INCOM'2012 covered three main scientific areas: (i) Control, Information Systems and Interoperability, (ii) Operational Research and (iii) Industrial Engineering. The Symposium was both a scientific and industrial success; 36 firms presented their solutions and services linked to INCOM key issues in industry-oriented technical sessions and a three-day „Industry and Service Innovation" exhibition.

The INCOM'12 IFAC Symposium offered a high-quality technical program to the participants. The technical program was structured in 15 main Scientific Tracks with 64 Special Sessions, 6 plenary talks, 6 keynote talks, one Industry Track with 6 Innovation Sessions, and one TC5.1 MES Benchmarking Workshop. The plenary speakers were: Prof. Stephen C. Graves from the Massachusetts Institute of Technology (USA), Prof. Andrew Kusiak from the University of Iowa (USA), Prof. Ronald Askin from Arizona State Univer-

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sity (USA), Prof. Duncan McFarlane from the University of Cambridge (UK), Dr. Pavel Vrba from Rockwell Automation (Czech Rep.), and Prof. George Chryssolouris from the University of Patras (Greece.) The keynote speakers were: Prof. Benoit Montreuil from Laval University (Canada), Dr. Cristina Morariu from IBM Romania, Dr. Hector David Puyosa Piña from SABIC Cartagena (Spain), Prof. Marco Ceccarelli from LARM-- University of Cassino (Italy), Christoph Legat from Siemens AG (Germany) and Prof. Alexandre Dolgui from Ecole des Mines de Saint-Etienne (France.)

INCOM 2012 by the numbers:

- 93 leading scientists from 30 countries in the IPC;
- 492 received papers;
- 550 reviewers participated in the peer review process;
- 1650 reviews received (with a minimum of three reviews per paper);
- 344 papers accepted after the peer review process (acceptance rate: 69.9%);
- 12 invited plenary and keynote speakers;
- 38 industrial presentations and 24 industrial exhibitors;
- 2186 pages of the preprints;
- 19 prizes for the best track paper (16) and the best industrial papers (three) presented;
- 299 selected papers and 9 keynote papers will be published by IFAC Papers OnLine

The main objective for the organizers of INCOM'12 was to put in evidence industrial problems and major needs and invite all representative actors in Automatic Control, Computer Science, Management Science, Operational Research and Industrial Engineering to propose approaches, methods, solutions and tools. This collaborative philosophy, which bridges the gaps between theory, design, implementing and deployment in an interdisciplinary approach, makes INCOM12 the major scientific and industrial event in manufacturing sciences this year. More information can be found at:

http://www.incom12.ro

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

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Advances in Control Education- ACE 2012

IFAC Symposium

Nizhny Novgorod, Russia

19 to 21 June 2012

The ninth IFAC Symposium on Advances in Control Education (ACE2012) dedicated to the 120 year anniversary of the Lyapunov stability theory was held at the Automobilist resort in Nizhny Novgorod, Russia from 19 to 21 June 2012. The Symposium was organized by the Arzamas Polytechnic Institute (API), R.E. Alekseev Nizhny Novgorod State Technical University (NSTU), the Nizhny Novgorod Branch of All-Russian A.S. Popov Radio Engineering, Electronics and Communication Society (REECS), Nizhny Novgorod Scientific and Information Center, Laboratory of Algorithms and Technologies for Networks Analysis (LATNA) and TECOM Group Inc. The Symposium was also supported by the Russian Foundation for Basic Research.

The Symposium, sponsored by the IFAC TC 9.4 on Control Education and co-sponsored by IFAC TC 9.2 on Social Impact of Automation and by IFAC TC 9.3 on Developing Countries is held every three years. The previous symposium in this series, took place in Kumamoto (Japan) in 2009. Traditionally the ACE Symposia provide a marketplace for discussions on new ideas on teaching aids for control engineering, new control related software, new laboratory experiments, new paradigms of virtual and remote labs experimentation as well as continuing education, university-industry cooperation, cultural, historical and social issues of control education. ACE2012 Symposium was not an exception.

ACE2012 International Program Committee included about 60 members from 21 countries. 111 papers were submitted and 87 of them were included into the program and the preprints on USB memory stick. All the papers were reviewed via the Papercept system. 84 papers were presented covering main directions in control education. The technical program provides a broad picture of the current state of the field. It is seen from the titles of 15 oral sessions:

- History of Control
- Mathematics and Mechanics in Control Education,
- Control Engineering Education
- LEGO Robots for Control Education
- Aerospace Control Education
- Virtual Laboratories
- Laboratory Experiments
- Teaching Aids
- Virtual and Remote Laboratories
- Postgraduate Education on Automatic Control in Aerospace (invited)
- Robotics in Education
- Industrial Hardware for Education
- New Education Technologies and Applications
- Simple Controllers in Education
- LMI in Control Education

The technical program of the Symposium included three plenary lectures given by distinguished professors recognized in the field of control education. The opening address entitled "120 Years of Lyapunov's Methods" was presented by Prof. Stephen Boyd, from Stanford University (USA.) In the talk the history of the direct Lyapunov method was traced, from its inception in 1892 to current work on linear matrix inequalities and sum-of-squares methods. It was demonstrated that Lyapunov's original idea of an energy-like quantity that dissipates along the trajectories of a dynamical system, even one for which we cannot write down an explicit solution, has been going strong for 120 years now, aided by many extensions and variations on the idea, and new methods for computing Lyapunov functions, with research and innovations continuing to the present.

The second lecture "Control at the Speed of Light: Setpoint Regulation of Gene Expression in the Living Cell" presented by Prof. Mustafa Khammash from Swiss Federal Institute of Technology, (Switzerland.) In this talk a stochastic modeling paradigm for gene networks was presented and some of the key tools for the modeling and analysis of stochasticity inside living cells was described. An understanding of the stochastic nature of gene expression leads naturally to developing methods for feedback control of genetic circuits. A novel analytical and experimental work was described that demonstrates how light can be used in combination with single cell measurement technology to achieve precise and robust set point regulation of gene expression in the noisy environment of the living cell.

The third lecture "Some Motivation for Studying Basic Nonlinear and Adaptive Control Theory" was given by Prof. Alexey Bobtsov from National Research University of Information Technologies, Mechanics & Optics, Saint Petersburg, Russia. In this talk some approaches to motivation of students to study nonlinear and adaptive control were considered. A number of laboratory set-ups based on LEGO Mindstorms NXT technology including mobile robots (track, wheel and walking ones) and reaction-wheel pendulum-cart systems and their use for both research and educational purposes were described.

Many participants enjoyed the panel session "Rethinking Control Education in the Modern World," which was organized and moderated by Sebastian Dormido, IFAC TC 9.4 Vice-Chair. Eight panelists from seven countries presented original and fruitful ideas: Sebastian Dormido (Spain), Bozenna Pasik-Duncan (USA), Antonio Dourado (Portugal), Ruth Bars (Hungary), Subbaram Naidu (USA), Yasuhiro Ohyama (Japan), Anthony Rossiter (UK), and Alexander Fradkov (Russia). Panelists identified a number of current and future ways to teach control.

On behalf of the NOC and IPC we would like to thank all the authors, IPC members, reviewers, and participants for their contributions, and also the session chairs and co-chairs for conducting the technical sessions and providing valuable feedback on their development. We are also grateful to the many volunteers who have contributed to the Symposium organization.

FORTHCOMING EVENTS

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Title	2012	Place	Further Information
IFAC Conference Nonlinear Model Predictive Control - NMPC 12	August 23 – 27	Noordwijkerhout Netherlands	http://www.nmpc12.tue.nl/ e-mail: nmpc12@tue.nl
17th Intl. Conference (cosponsored by IFAC) Methods and Models in Automation and Robotics – MMAR 2012	August 27 – 30	Miedzyzdroje Poland	http:// http://www.mmar.edu.pl/ e-mail: mmar@mmar.edu.pl
IFAC Symposium Fault Detection, Supervision and Safety for Technical Processes – - SAFEPROCESS	August 29 – 31	Mexico City Mexico	http://safeprocess2012.unam.mx/ e-mail: SafeProcess12@iingen.unam.mx
IFAC Symposium Modelling and Control in Biomedical Systems – BMS 2012	August 29 – 31	Budapest Hungary	http://bms.iit.bme.hu/ e-mail: bms@iit.bme.hu
IFAC Workshop Lagrangian and Hamiltonian Methods for Nonlinear Control LHMNLC'12	August 29 – 31	Bertinoro (Bologna) Italy	http://www.lhmnlc12.deis.unibo.it e-mail: not yet available
IFAC Symposium Power Plants and Power Systems Control	September 02 – 05	Toulouse France	http://www.pppsc2012.org/ e-mail: pppsc2012@inp-toulouse.fr
IFAC Symposium Robot Control – SYROCO 2012	September 05 – 09	Dubrovnik Croatia	http://www.syroco2012.org/ e-mail: syroco2012@syroco2012.org
KSAE/IFAC Symposium Advanced Vehicle Control - AVEC 12	September 09 – 12	Seoul Korea	http://avec12.ksae.org/ e-mail: avec12@ksae.org
IFAC Workshop Automation in Mining, Mineral and Metal Industries – IFAC MMM12	September 10 – 12	Gifu Japan	http://www.ifacmmm2012.org/ e-mail: info@ifacmmm12.org
IFAC Symposium Control in Transportation Systems - CTS'12	September 12 – 14	Sofia Bulgaria	http://hs27.iccs.bas.bg/ email: not yet available
7th Intl. Workshop (cosponsored by IFAC) on Enterprise Integration, Interoperability and Networking – EI2N'201	September 12 – 13	Rome Italy	http://www.onthemove-conferences.org/ e-mail: not yet availiable
IFAC Workshop Control Applications of Optimization - CAO'12	September 13 – 16	Rimini Italy	http://cao2012.imm.uran.ru e-mail: not yet available
IFAC Workshop Distributed Estimation and Control of Networked Systems – NecSys2012	September 14 – 15	Santa Barbara CA,USA	http://necsys2012.engr.ucsb.edu/ e-mail: not yet available
IFAC Symposium Manoeuvring and Control of Marine Craft - MCMC'2012	September 19 – 21	Arenzano Italy	www.mcmc2012.issia.cnr.it email: info@mcmc.issia.cnr.it
IFAC Workshop Generalized Statements and Solutions of Control Problems - GSSCP	September 24 – 30	Gelendzhik Russia	https://sites.google.com/site/gsscp2012/international-workshop e-mail: gsscp-2012@yandex.ru
IFAC Workshop Discrete Event Systems – WODES	October 01 – 03	Guadalajara Mexico	http://www.gdl.cinvestav.mx/wodes-12 e-mail: wodes2012@gdl.cinvestav.mx
IFAC Workshop Multi Vehicle Systems – MVS	October 03 – 05	Espoo Finland	http://mvs2012.aalto.fi/ e-mail: mvs2012@aalto.fi
IFAC Workshop on Engine and Powertrain Control Simulation and Modelling	October 23 – 25	Paris France	http://www.ecosm12.org e-mail: not yet available
Latin American Control Conference – LACC-- in cooperation with IFAC	October 23 – 26	Lima Peru	http://congreso.pucp.edu.pe/clca-2012/ e-mail: not yet available
IFAC Workshop Maintenance for Dependability, Asset Management and PHM - A-MEST	November 22 – 23	Seville Spain	http://www.amest2012.com/ e-mail: adolfo@us.es
IEEE Int. Conf. (cosponsored by IFAC) on Connected Vehicles and Expo (ICCVE)	December 05 – 09	Beijing China	http//:www.iccve.org e-mail: not yet availiable

FORTHCOMING EVENTS (ctd.)

Title	2013	Place	Further Information
IFAC Symposium System Structure and Control	February 04 – 06	Grenoble France	http://www.gipsa-lab.grenoble-inp.fr/colloque/sssc2013/ e-mail: sssc2013@gipsa-lab.grenoble-inp.fr
IFAC Conference Biorobotics	March 27 – 29	Sakai Japan	http:// not yet available e-mail: not yet available
IFAC Symposium Mechatronic Systems	April 10 – 12	Hangzhou China	http:// not yet available e-mail: not yet available
IFAC Workshop International Stability, Technology and Culture (SWIIS 2013)	June 06 – 08	Prishtina Kosovo	http://www.ubt-uni.net/swiis2013 e-mail: not yet available
IFAC Conference Manufacturing Modelling, Management, And Control (MIM 2013)	June 19 – 21	St. Petersburg Russian Fed.	http://mim2013.org/ e-mail: noc@mim2013.org
IFAC Symposium Intelligent Autonomous Vehicles - IFAC-IAV 2013	June 26 – 28	Gold Coast City Australia	http://www.iav2013.org/ e-mail: l.vlacic@griffith.edu.au
IFAC Workshop Periodic Control Systems- (PSYCO‘2013)	July 03 – 05	Caen France	http://psyco-2013.sciencesconf.org/ e-mail: psyco-2013@sciencesconf.org
IFAC Workshop Adaptation and Learning in Control and Signal Processing (ALCOSP 2013)	July 06 – 08	Caen France	http://www.ubt-uni.net/swiis2013 e-mail: alcosp-2013@sciencesconf.org
IFAC/IFORS/IMACS/IFIP Symposium Large Scale Complex Systems: Theory and Applications - 13th	July 07 – 10	Shanghai China	http://lss2013.sjtu.edu.cn e-mail: lss2013@sjtu.edu.cn
American Control Conference - in cooperation with IFAC	June 17 – 19	Washington USA	http://a2c2.org/conferences/acc2013/ email: not yet available
IFAC Conference Modelling and Control in Agriculture, - Horticulture and Post Harvest Industry (AGRICONTROL 2013)	August 06 – 08	Espoo Finland	http://not yet available e-mail: not yet available
IFAC/IFIP/IFROS/IEA Symposium Analysis, Design, and Evaluation of Human-Machine Systems – HMS 201	August 11 – 15	Las Vegas USA	http://not yet available e-mail: not yet available
IFAC Symposium Advances in Control Education - ACE 2013	August 28 – 30	Sheffield UK	http://ace2013.group.shef.ac.uk/ e-mail: not yet available
IFAC Symposium Automatic Control in Aerospace - ACA 2013	September 02 – 06	Wuerzburg Germany	http://www7.informatik.uni-wuerzburg.de/aca2013 e-mail: aca2013@informatik.uni-wuerzburg.de
IFAC Conference Intelligent Control and Automation Science ICONS 2013	September 02 – 04	Chengdu China	http:// not yet available e-mail: not yet availalbe
IFAC Symposium Nonlinear Control Systems - NOLCOS	September 04 – 06	Toulouse France	http://www.laas.fr/NOLCOS2013 e-mail: nolcos2013@laas.fr
IFAC Conference Management and Control of Production and Logistics – MCPL 2013	September 12 – 14	Fortaleza Brazil	http:// not yet available e-mail: not yet availalbe
Title	**2014**	**Place**	**Further Information**
19th IFAC World Congress	**August 25 – 29**	**Cape Town South Africa**	**http://www.ifac2014.org/ email: not yet available**
Title	**2015**	**Place**	**Further Information**
IFAC Symposium System Identification – SYSID 2015	October 19 – 21	Beijing China	http://not yet available e-mail: not yet available