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Newsletter

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Transition

IFAC mourns the loss of two outstanding persons who have contributed towards shaping the Federation from the very beginning.

Jens Balchen (Norway)
Antti Niemi (Finland)

To properly acknowledge the achievements of both scientists, there will be an obituary in the next Issue of the IFAC Newsletter

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

IFAC Fellows 2009 Elected

IFAC is proud to announce that, following a rigorous procedure, nine distinguished persons have been elected IFAC Fellows 2009. The Fellows are elected by the IFAC Council, based on a suggestion by the Fellow Selection Committee, which scrutinizes the nominations received. The criteria and procedure of this committee are described in some detail in the June 2008 Newsletter.
There is only a limited number of Fellowships that can be awarded each year, and there were many excellent nominations that could not be recognized.
Below find some information about the distinguished scientists who were elected IFAC Fellow this year.

Dr. **Francis J. DOYLE III** is the Associate Dean for Research in the College of Engineering at UC, Santa Barbara and he is the Associate Director of the Army Institute for Collaborative Biotechnologies. He holds the Duncan and Suzanne Mellichamp Chair in Process Control in the Department of Chemical Engineering, as well as appointments in the Electrical Engineering Department, and the Biomolecular Science and Engineering Program.
He is the recipient of several research awards as well as teaching awards. He is currently the editor-in-chief of the IEEE Transactions on Control Systems Technology, and holds Associate Editor positions with the Journal of Process Control, the SIAM Journal on Applied Dynamical Systems, and Royal Society's Interface. In 2005, he was awarded the Computing in Chemical Engineering Award from the American Institute of Chemical Engineers for his innovative work in systems biology. His research interests are in systems biology, network science, modeling and analysis of circadian rhythms, drug delivery for diabetes, model-based control, and control of particulate processes.

In May 2009 he was elected IFAC Fellow with the following citation:

For outstanding contributions to nonlinear process control and analysis with applications to systems biology and biomedical engineering, leadership in the profession, and outstanding service as an educator.

Peter FLEMING is Professor of Industrial Systems and Control and Director of the Rolls-Royce University Technology Centre in Control and Systems Engineering at the University of Sheffield, UK. His control and systems engineering research interests include control system design, health monitoring, multi-criteria decision-making, optimisation and scheduling, grid computing and real-time control and instrumentation.
His research interests have led to the development of close links with a variety of industries in sectors such as aerospace, power generation, food processing, pharmaceuticals and manufacturing. He is a Fellow of the Royal Academy of Engineering, a Fellow of the Institution of Engineering and Technology and a Fellow of the Institute of Measurement and Control. He is an enthusiastic supporter of IFAC and has served in a number of capacities, most recently as Vice-President (2002-2008). He is currently an IFAC Adviser.

In May 2009 he was elected IFAC Fellow with the following citation:

For pioneering research contributions to evolutionary multi-objective optimisation and its application to industrial control design, and for technical and administrative leadership within IFAC.

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Lino GUZZELLA was born in Zurich, Switzerland in 1957. He received the diploma in Mechanical Engineering in 1981 and the Dr. sc. techn. degree in control engineering in 1986 from the Swiss Federal Institute of Technology (ETH), Zurich.
From 1987 to 1989 he was with the R&D department of Sulzer Bros. in Winterthur, Switzerland. From 1989 to 1991 he was an assistant professor for automatic control in the electrical engineering department of ETH. He then joined Hilti R&D, Liechtenstein where he was the head of the mechatronics department from 1992 to 1993.
He is currently professor for thermotronics in the mechanical engineering department of ETH. His research interests are modelling of dynamic systems, nonlinear and robust control and applications of these ideas to thermal and especially automotive systems.

In May 2009, he was elected IFAC Fellow with the following citation:

For contributions in modeling, control and optimization of vehicle propulsion systems

Jie HUANG, joined the Department of Mechanical and Automation Engineering, the Chinese University of Hong Kong in September 1995. He is now a professor and also the director of the Applied Control and Computing Laboratory there. He has been advisory/guest professors at several universities. He holds a chair professor position at the South China University of Technology and is the director of the Joint Research Center for Automation Science and Engineering, Chinese University of Hong Kong and South China University of Technology. His research interests include control theory and applications, robotics and automation, neural networks and scientific computing, and guidance and control of flight vehicles. He is the author of the book "Nonlinear Output Regulation: Theory and Applications" (SIAM, 2004), and the co-author of the book "Nonlinear H2/H-infinity Constrained Feedback Control, A Practical Design Approach Using Neural Networks" (Springer, 2006). He received the Croucher Senior Research Fellowship award in 2006, IEEE Fellow award in 2004, and the best paper award (with Zhiyong Chen) of the Eighth International Conference on Control, Automation, Robotics, and Vision in 2004.
Jie Huang is an Editor-at-Large of Communications in Information and Systems, Editor-at-Large of the International Journal of Control Theory and Applications, Advisory Editor for Asia of Transactions of the U.K. Institute of Measurement and Control, Subject Editor of the International Journal of Robust and Nonlinear Control, Associate Editor of Journal of Control Science and Engineering, and ACTA Automatica Sinica. He served as an Associate Editor of IEEE Transactions on Automatic Control from 2002 to 2004, and an Associate Editor of the Asian Journal of Control from 1999 to 2001. He served in organizing committees or operating committees of several major international Conferences. He is the Vice-Chair of the Technical Committee on Control Theory, Chinese Association of Automation.

In May 2009 he was elected IFAC Fellow with the following citation:

For contributions in teaching and research on nonlinear control theory and design, and its applications to flight control and guidance, electro-mechanical systems, and neural systems

George IRWIN obtained a BSc (1st hons.) in Electrical and Electronic Engineering in 1969 and a PhD in Control Mathematics in 1976, both from Queen's University Belfast. Following 5 years lecturing in Engineering Mathematics at Loughborough University of Technology, he returned to his alma mater in 1980, where he progressed to a personal Chair in Control Engineering in 1988. He subsequently received a DSc degree from Queens in 1998. Prof Irwin initiated, and led the University Virtual Engineering Centre 2001-2006 and is now Research Director of Intelligent Systems and Control. He has been elected Fellow of the UK Royal Academy of Engineering and Member of the Royal Irish Academy and is a Chartered Engineer, an IEEE Fellow, a Fellow of the IEE and a Fellow of the Institute of Measurement and Control.
Prof Irwin's research covers identification, fault monitoring, and control, including neural networks, fuzzy neural systems and multivariate statistics, much of which has involved industrial collaboration in the defence, chemical manufacture, automotive and electrical energy sectors. He has authored 120 journal- and 200 peer-reviewed conference publications. His current interests include wireless networked control systems, fault diagnosis of internal combustion engines and novel techniques for fast temperature measurement.
For the past 20 years he has served and chaired a number of IFAC Technical Committees (Algorithms and Architectures for Real-time Control, Fuzzy and Neural Control, Cognition and Control, Computational Intelligence in Control and Networked Control Systems), has been a former Editor-in-Chief of Control Engineering Practice, immediate past Chair of the Publications Committee and now Chair of the Awards Committee for all of which he was given an Outstanding Service Award by IFAC in 2008.

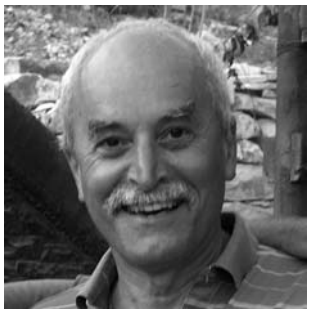
In May 2009 he was elected IFAC Fellow with the following citation:

For outstanding research contributions in modern, parallel, neural and wireless control and identification

Tohru KATAYAMA received his B.E., M.E., and Ph.D. degrees from Kyoto University, Japan, in 1964, 1966, and 1969, respectively. He was Professor at the Department of Applied Mathematics and Physics, Kyoto University from 1986 to 2005, and became Emeritus Professor of Kyoto University in 2005. He is now Professor at the Faculty of Culture and Information Science, Doshisha University.
He had visiting positions at UCLA (1974 -1975) and the University of Padova (1997). He was Chair of the IFAC Technical Committee of Stochastic Systems (1999 - 2002), and Chair of the IFAC Coordinating Committee of Systems and Signals (2002 - 2005), and has been Vice Chair of the IFAC Technical Board since 2005.
His research interests include estimation, stochastic realization, subspace methods and identification of linear and nonlinear systems. He is a member SICE, ISCIE, Japan SIAM and IEEE. He is the author of Subspace Methods of System Identification, Springer, 2005.

He was elected IFAC Fellow in May 2009 with the following citation:

For contributions to estimation of stochastic systems, control of descriptor systems and subspace system identification, and control engineering education



Giorgio PICCI has been full professor with the University of Padova, Italy, Department of Information Engineering, since 1980. He graduated (cum laude) from the University of Padova in 1967 and since then has held several visiting professorships and long-term research appointments with various American and European universities among which are Brown University, M.I.T., the University of Kentucky, Arizona State University, the Center for Mathematics and Computer Sciences (C.W.I.) in Amsterdam, the Royal Institute of Technology, Stockholm Sweden, Kyoto University and Washington University, St. Louis, Mo.
He has been contributing to Systems and Control theory mostly in the area of modeling, estimation and identification of stochastic systems and published over 100 refereed papers in this area. He has been project manager and team leader of the Italian team for the European Research Network

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of Excellence System Identification (ERNSI), funded by the Commission of the European Communities from 1997 to 2003, and general coordinator of the European Community IST project named Real-time Embedded Control of Mobile Systems with Distributed Sensing (RECSYS), in the Vth Framework Programme, 2002-2005.
Prof. Picci is a Life Fellow of IEEE. He is also a foreign member of the Royal Swedish Academy of Engineering Sciences.

In May 2009, he was elected IFAC Fellow with the following citation:

For outstanding contributions to stochastic system theory

Bruno SICILIANO was born in Naples, Italy, on October 27, 1959. He received the Laurea degree and the Research Doctorate degree in Electronic Engineering from the University of Naples in 1982 and 1987, respectively. He is Professor of Control and Robotics, and Director of the PRISMA Lab in the Department of Computer and Systems Engineering at the University of Naples. His research interests include: identification and adaptive control, impedance and force control, visual tracking and servoing, redundant and cooperative manipulators, lightweight flexible arms, space robots, human-centered and service robotics. His book Robotics: Modelling, Planning and Control is one of the most widely adopted textbooks world-wide. He is a Fellow of IEEE and ASME. He is Co-Editor of the Springer Tracts in Advanced Robotics series, and has served on the Editorial Boards of several journals as well as Chair or Co-Chair for numerous international conferences. He co-edited the Springer Handbook of Robotics, which has recently received the PROSE Award for Excellence in Physical Sciences & Mathematics and was also the winner in the category Engineering & Technology. He is the coordinator of the large-scale integrating project DEXMART on dexterous and autonomous dual-arm/hand manipulation, funded by the European Commission in the 7th Framework Programme. He has served the IEEE Robotics and Automation Society as Vice-President for Technical Activities and Vice-President for Publications, as a member of the AdCom, and as a Distinguished Lecturer. Currently he is the Society President.

In May 2009, he was elected IFAC Fellow with the following citation:

For outstanding contributions to research and education on theory and application of automatic control to robotic systems, and for professional leadership in the field

Professor **T.J. TARN** is currently a Professor in the Department of Electrical and Systems Engineering and the Director of the Center for Robotics and Automation at Washington University. He also is the visiting director of the Center for Quantum Information Science and Technology at Tsinghua University in Beijing, China.
Professor Tarn has contributed to seminal works in several fields including controllability of quantum mechanical systems, robotics and automation, nanotechnology and systems theory. Currently he is concentrating his research efforts in the control of quantum mechanical systems and the control and automation of drug delivery. He has been invited to give plenary and invited presentations for his research work at many national and international conferences and universities.

In May 2009, Professor Tarn was elected IFAC Fellow with the following citation:

For innovative application of systems theory to quantum mechanical and robotic systems

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Young Author Prize 2008

IFAC has a particular and strong focus on young scientists and their achievements. For this purpose it awards a "Young Author Prize" at every IFAC World Congress. The criteria for this award are: 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. The winner is then selected at a Young Author Prize committee meeting at the Congress, after all presentations that have made it into the group of finalists have been heard, taking the quality of the presentation into account.

Also last year, at the IFAC World Congress in Seoul, Korea a Young Author Prize was awarded. It was given to the paper:

Recursive Sparse Estimation using a Gaussian Sum Filter, by Lachlan Blackhall and Michael Rotkowitz

Lachlan Blackhall was born in Sydney, Australia in 1984. He received a Bachelor of Engineering (Aerospace) with first class honours and the University Medal and a Bachelor of Science from the University of Sydney in 2006. He has previously worked for the Australian Centre for Field Robotics at Sydney University and as an electric propulsion engineer for Alta Space in Pisa, Italy. He is currently a PhD student in the Systems and Control Group in the Research School of Information Sciences and Engineering at the Australian National University.

Michael Rotkowitz is with the University of Melbourne as the Future Generation Fellow in the Department of Electrical and Electronic Engineering, and an Honorary Fellow in the Department of Mathematics and Statistics. He obtained his PhD from Stanford University in 2005, and has also held positions at the Royal Institute of Technology in Stockholm and the Australian National University in Canberra. His awards include the 2005 CDC Best Student-Paper Award, and the 2007 Axelby Award.

Abstract of the Prize-Winning Paper

We develop a recursive estimator that systematically arrives at sparse parameter estimates.

The algorithm is computationally feasible for moderate parameter estimation problems and leverages the Gaussian sum filter to provide both sparse parameter estimates and credible Bayesian intervals for non-zero parameters in a recursive fashion. Simulations show extremely promising accuracy, as well as a robustness not enjoyed by other sparse estimators.

Informal Meeting of the IFAC Officers
Laxenburg, Austria, 23 - 25 April, 2009

As has been a longstanding tradition ever since the IFAC Secretariat came to Laxenburg, Austria, the Informal Meeting of the IFAC Officers was held at the Secretariat from 23 – 25 April, 2009. Alberto Isidori, President of IFAC, Wook Hyun Kwon, Past President, Ian Craig, Incoming President, Iven Mareels, Vice-President (Technical Board), Roger Goodall, Vice-President (Executive Board), Lino Guzzella, Treasurer convened in this period to discuss aspects of general importance for the Federation. As is usual at these meetings, no decisions are taken, but work is done to prepare for the Council- and Related meetings, which will, this year, be held in London, UK, from 24 – 26 June, 2009. This meeting is also important to have face-to-face meetings with the Secretariat staff and the Secretary at the only permanent location of IFAC, housing decades of knowledge and expertise about IFAC.

As the permanent Secretariat is co-financed by Austrian authorities, it is also important to use this meeting to strengthen the ties of the Federation to the Austrian Academy of Sciences, the Austrian Ministry of Transport, Innovation and Technology, the Austrian Technical Universities and the Austrian National Member Organization of IFAC. Thus, the opportunity of the presence of the IFAC Officers was also used to invite the Austrian scientific community to a lecture, this year given by Professor Roger Goodall. The lecture was held at Vienna Technical University and attracted a large number of scientists and students.

Lecture

Mechatronics for Railway Systems: Trends, Opportunities and Challenges

Abstract

A number of developments have been taking place over the last three or four decades through which railway vehicles have changed away from being principally mechanical engineering systems due to the introduction of mechatronic technologies. Control engineers therefore increasingly have a major part to play in their design. These developments started during the 1970s when Maglev technology was being promoted to rival railways, but at the same time railway engineers were working on the development of tilting trains. Since that time Maglev has struggled to find its place whereas tilting has become a mature technology, but Maglev arguably remains the ultimate mechatronic solution and there are strong synergies with conventional railways from a control viewpoint. The lecture explores the control engineering issues underpinning these trends, in particular to identify the main research challenges and develop a vision for the future of these technologies.

The first day of the meetings started with a visit to office of the Mayor of Laxenburg at the townhall of the community, where the Secretariat has had its offices for over 40 years.

From left to right: K. Schlacher, R. Goodall, I. Craig, A. Isidori, R. Dienst (Mayor of Laxenburg), W.H. Kwon, I. Mareels

The ensuing meetings at the Secretariat office then dealt with general policy issues. These included, among others: the development of IFAC PapersOnLine, the influence of the international financial crisis on IFAC, with a view to the number of participants at IFAC events, the financial situation of IFAC in general which is, thankfully, still positive, thanks to the careful and circumspect financial management by the IFAC Treasurer.

Membership in IFAC

Another issue was IFAC membership in the form of its National Member Organizations. There are two forms of participation in IFAC activities. For the individual this can be as an IFAC Affiliate, which is accomplished by simply submitting the Affiliate Registration Form at

http://www.ifac-control.org/forms/Affiliate-RegistrationForm/

For active involvement in IFAC activities in the form of organizing IFAC events, shaping the policies of IFAC it is, however, necessary to do this through participation as a National Member Organization. Currently, IFAC has 49 members worldwide. However, it is the intention of the Federation to have as many control engineers as possible spread over the whole globe as members of IFAC through a National Member Organizations in the respective country. On the IFAC website, at

http://www.ifac-control.org/about/structure/ifac_list?call=nmomember.htm

our readers can see which countries are currently represented in IFAC. Many countries with a strong control engineering community are listed there, but there are also some blank spots – countries which do not have a representation in IFAC. What are now the conditions and prerequisites for such a membership in IFAC. The most essential statement on this is given in the IFAC Constitution, where Article 5 reads:

"For each country, one scientific or professional engineering organization, having a strong interest in automatic control and a sound professional background, or one council formed by two or more such organizations, shall be eligible for membership of IFAC. Such organizations, after admission to IFAC, will be known as National Member Organizations (NMOs) and shall have a responsibility for furthering the aims and objectives of IFAC within their respective countries"

If you wish to know more about membership in IFAC as a National Member Organization, have a look at the IFAC Constitution at

http://www.ifac-control.org/about/constitution-and-by-laws

To get more detailed information. you can also contact the IFAC Secretariat at

secretariat@ifac-control.org

FORTHCOMING EVENTS

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Title	2009	Place	Further Information
IEEE/IFAC Intl. Workshop Robot Motion and Control - RoMoCo'09	June 01 – 03	Czerniejewo Poland	http://romoco.put.poznan.pl/ e-mail: krzysztof.kozlowski@put.poznan.pl
IFAC Symposium Information Control Problems in Manufacturing - INCOM 2009	June 03 – 05	Moscow Russia	http://incom09.org/ e-mail: noc@incom09.org
IFAC Workshop 2nd Dependable Control of Discrete Systems -DCDS'09	June 10 – 12	Bari Italy	http://dcds09.poliba.it e-mail: dcds09@deemail.poliba.it
IFAC Symposium Robust Control Design – ROCOND	June 16 – 18	Haifa Israel	http://www.technion.ac.il/~rocond09 e-mail: rocond09@technion.ac.il
IFAC Conference Analysis and Control of Chaotic Systems -CHAOS 2009	June 22 – 24	London UK	http://www.elec.qmul.ac.uk/chaos09 e-mail: chaos09@qmul.ac.uk
ICE/IFAC Conference Interoperability and Next Generation Enterprise Architecture	June 24 – 25	Leiden Netherlands	http://www.ice-conference.org/apps/pub.asp? Q=3090&T=About%20ICE%202009
IFAC Workshop Aerospace Guidance, Navigation and Flight Control Systems - AGNFCS	June 30 – July 2	Samara Russia	http://www.ssc.smr.ru/agnfcs09.html e-mail: agnfcs09@ssc.smr.ru
IFAC Symposium Fault Detection, Supervision and Safety for Technical Processes – SAFEPROCESS	June 30 – July 3	Barcelona Spain	http://safeprocess09.upc.es/ e-mail joseba.quevedo@upc.edu
IFAC/CIGRE Symposium Power Plants und Power Systems	July 05 – 08	Tampere Finland	http://pppsc09.automaatioseura.fi/ e-mail: office@atu.fi
IFAC Symposium Identification and System Parameter Estimation- SYSID'09	July 06 – 08	St. Malo France	http://www.sysid2009.org/ e-mail: secretariat@sysid2009.org
IFAC Symposium Advanced Control of Chemical Processes - ADCHEM 2009	July 12 – 15	Istanbul Turkey	http://www.adchem09.ku.edu.tr/ e-mail: dburak@ku.edu.tr
IFAC Workshop Control of Distributed Parameter Systems	July 20 – 24	Toulouse France	http: www.laas.fr/CDPS09 e-mail: denis.matignon@isae.fr
IFAC Symposium Modelling and Control in Biological and Medical Systems – -MCBMS 09	August 12 – 14	Aalborg Denmark	http://www..mcbms09.hst.aau.dk/ e-mail: mcbms09@hst.aau.dk
14th Intl. IEEE/IFAC Conference Methods and Models in Automation and Robotics – MMAR-09	August 19 – 21	Miedzyzdroje Poland	http://mmar.edu.pl e-mail: mmar@ps.pl
European Control Conference - in cooperation with IFAC -	August 23 – 26	Budapest Hungary	http://www.conferences.hu/ecc09/ e-mail: ecc09@conferences.hu
IFAC Workshop Time Delay Systems (8th)	September 01 – 03	Sinaia Romania	http://www.automation.ucv.ro/tds2009/ e-mail: vrasvan@automation.ucv.ro
IFAC Symposium Control in Transportation Systems - CTS 2009	September 02 – 04	Redondo Beach CA, USA	http://ee.usc.edu/CTS09/ e-mail: ioannou@usc.edu
IFAC Workshop Information Technology and Intelligent Control for Bioproduction System - BioRob	September 10 – 11	Champaign IL, USA	http://www.conferences.uiuc.edu/bioroboticsIV/ e-mail: kcting@illinois.edu
IFAC Symposium Robot Control. – SYROCO 2009	September 10 – 12	Gifu Japan	http://www.syroco2009.org/ e-mail: syroco2009_office@syroco2009.org
EWICS/IFAC Intl. Conference Computer Safety, Reliability and Security – SAFECOMP	September 15 – 19	Hamburg Germany	http://www.safecomp.org e-mail: safecomp2009@informatik.haw-hamburg.de
IFAC Conference Analysis and Design of Hybrid Systems -ADHS 09	September 16 – 19	Zaragosa Spain	http://diisconf.cps.unizar.es/adhs09/web/ e-mail: adhs09@unizar.es
IFAC Conference Manoeuvring and Control of Marine Craft (MCMC'2009)	September 16 – 18	Guaruja Brazil	http:// www.mecanica-poliusp.org.br/07even/cont/mcmc/home.html e-mail: mcmc2009@poli.usp.br
IFAC Conference 2nd Intelligent Control Systems and Signal Processing – ICONS '09	September 21 – 23	Istanbul Turkey	http://www.icons2009.org e-mail: icons09@boun.edu.tr

FORTHCOMING EVENTS (ctd.)

IFAC Workshop Estimation and Control of Networked Systems	September 24 – 26	Vencie Italy	http://www.necsys.org e-mail: zampi@dei.unipd.it
IFAC Workshop Knowledge and Technology Transfer in Developing Countries	September 26 – 29	Ohrid Macedonia, FYROM	http://decom09.feit.ukim.edu.mk/ e-mail: gdimirovski@dogus.edu.tr
IFAC Workshop Discrete Event System Design – DesDes'09	October 06 – 08	Gandia, Valencia Spain	http://www.desdes.uz.zgora.pl e-mail: DESDes@iie.uz.zgora.pl
IFAC/(IEEE) Workshop Networked Robotics	October 06 – 08	Golden CO, USA	http://control.mines.edu/netrob09/ e-mail: kmoore@mines.edu
IFAC/IFIP/IEEE Workshop Real Time Programming (30th) Jointly organized with IFAC Workshop Real Time Software (4th)	October 12 – 14	Mragowo Poland	http://wrtp-rts.imcsit.org/ e-mail: wrtp-rts2009@imcsit.org
IFAC Workshop Mining, Mineral and Metal Industry	October 14 – 16	Viña del Mar Chile	http://www.ifacmmm2009.com/ e-mail: info@ifacmmm2009.com
IFAC Symposium Advances in Control Education	October 21 – 23	Kumamoto Japan	www.ace2009.cs.kumamoto-u.ac.jp e-mail: to be announced
IFAC Workshop Supplemental Ways for Improving International Stability – SWIIS	October 28 – 30	Bucharest Romanio	http://swiis09.srait.ro/ e-mail: noc@swiis09.srait.ro
IFAC Workshop Engine and Powertrain Control and Modeling (E-COSM'09)	November 30 – December 2	Rueil-Malmaison, Paris France	http://events.ifp.fr/ECOSM09 e-mail: clanglois@le-public-systeme.fr
Title	**2010**	**Place**	**Further Information**
IFAC Conference Control Methodologies and Technology For Energy Efficiency (IFAC CMTEE 2010)	March 29 – 31	Vilamoura Portugal	http://www.cmtee.org/ e-mail: info@cmtee.org
IFAC Workshop Time Delay Systems	June 07 – 09	Prague Czech Rep.	http://www.tds2010.fs.cvut.cz/ e-mail: to be announced
American Control Conference - in cooperation with IFAC -	June 30 – July 02	Baltimore MD, USA	http://www.a2c2.org/conferences/acc2010/ e-mail: to be announced
IFAC Workshop Intelligent Manufacturing Systems – IMS	July 01 – 02	Lisbon Portugal	http://www.ims10.ipb.pt/ e-mail: to be announced
IFAC Symposium DYnamics and COntrol of Process Systems - DYCOPS	July 05 – 07	Leuven Belgium	http://www.cab2010.org/ e-mail: to be announced
IFAC/(EFB) Symposium Computer Applications in Biotechnology - CAB	July 07 – 09	Leuven Belgium	http://to be announced http://to be announced
IFAC Symposium Large Scale Systems: Theory and Applications – LSS 2010	July 11 – 14	Villeneuve d'Ascq France	http://lss2010.ulbsibiu.ro/ e-mail: p.borne@ec-lille.fr
IFAC Symposium Advances in Automotive Control - AAC	July 12 – 14	Munich Germany	http:// www.vdi.de/aac2010. e-mail: ringelmann@vdi.de
IFAC Symposium Mining, Mineral and Metal Processing	August 02 – 04	Cape Town South Africa	http:// to be announced e-mail: to be announced
IFAC Symposium Analysis, Design, and Evaluation of Human-Machine Systems- HMS	August 31 – Sept. 03	Valenciennes France	http://www.univ-valenciennes.fr/IFACHMS2010/ e-mail: contact-ifachms2010@univ-valenciennes.fr
IFAC Symposium Nonlinear Control Systems - NOLCOS 2010	September 01 – 03	Bologna Italy	http://www.nolcos2010.unibo.it/ e-mail: lmarconi@deis.unibo.it
IFAC Symposium Intelligent Autonomous Vehicles -IAV	September 06 – 08	Lecce Italy	http://iav2010.unile.it/ e-mail: iav2010@unile.it
IFAC Symposium Automatic Control in Aerospace	September 06 – 10	Nara Japan	www.space.t.u-tokyo.ac.jp/aca2010 e-mail: to be announced
IFAC Conference Management and Control of Production and Logistics – MCPL-2010	September 08 – 10	Coimbra Portugal	http://www.dei.uc.pt/MCPL2010 e-mail: to be announced
IFAC Symposium Mechatronic Systems	September 13 – 15	Boston, MA USA	http:// to be announced e-mail: to be announced
IFAC Symposium System Structure and Control	September 15 – 17	Ancona Italy	http://leibniz.diiga.univpm.it/SSSC10/ e-mail: to be announced
IFAC Symposium Telematics Applications – TA'2010	October 05 – 08	Timisoara Romania	http:// www.upt.ro/ta2010 e-mail: to be announced