



Contents:

Confirmation of
Affiliate Membership

*

Update on the IFAC World
Congress, Milan, Italy, August 29 -
September 2, 2011

*

IFAC Fellows 2010 (continued from
issue 6/2010)

*

Tables of Contents of the IFAC
Journals

*

Analysis, Design, and Evaluation
of Human-Machine Systems
11th IFAC/IFIPIFORS/IEA
Symposium, Sept. 2010,
Valenciennes, France

*

Forthcoming Events

Confirmation of Affiliate Membership

The IFAC Newsletter has always been a means of reaching out to the control engineering community worldwide.

Affiliate membership continues to be free of charge and entitles you to the following benefits:

- Free subscription to the IFAC Newsletter
- A reduced personal subscription rate for the IFAC Journals (forms available upon request)
- Receipt of Calls for Papers in your fields of interest (for this purpose please mark your areas of interest)

To be able to continue to provide good service to our community, it is necessary from time to time to update your data. To do so, we ask all our readers who receive the Newsletter by hard copy mail, to use the link below to validate their subscription to the Newsletter and to allow us to check, amend and complement the data we already have.

Please go to the IFAC website at

<http://www.ifac-control.org/forms/affiliateconfirmation>

and fill in and submit the Confirmation of Affiliate Membership Form, to renew your Affiliate Membership.

Please do so even if you have recently registered.

We apologize for any inconvenience this may cause.

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.

Update on the IFAC World Congress Milan, Italy, August 29 - September 2, 2011

Preparations for the IFAC World Congress in Milan are well under way. Paper submission has been completed and resulted in the following sum total of submitted papers:

Papers 3596 (regular: 2931, invited: 665)
Invited session proposals: 119
Tutorial/Workshops: 21
Total: 3736

Notification of acceptance is planned for mid February.

CONGRESS SCHEDULE

Sunday, August 28, 2011

Opening of the Congress

Monday, 29 August, 2011 to Wednesday, 31 August, 2011:

In the mornings of Monday to Wednesday there will be a plenary from 8:30 to 9:30 followed by a technical session from 10:00 to 12:00. After lunch there will be a technical session from 13:30 to 15:30, and a second technical session from 16:00 to 18:00. This will be followed by the evening plenary from 18:00 to 19:00.

Thursday, September 1, 2011

The banquet is scheduled for Thursday evening. Therefore there will not be an evening plenary. Otherwise the program is the same as on the previous days.

Friday, September 2, 2011

A historical plenary session is scheduled from 14:30 to 16:00. Therefore the morning will consist of two technical sessions, one from 8:30 to 10:30 and one from 11:00 to 13:00.

PLENARY AND PARALLEL PLENARY LECTURES

Many suggestions for plenary lectures have been received. Although all of them were very interesting, we regretfully had to focus on a limited number of them to be able to accommodate them within the weekly program.

PLENARY LECTURES

Paul K. Houp

GE Global Research, Automation and Controls Laboratory, USA
Smart grid and renewables integration: controls challenges and opportunities

Shinzo Kobuki

Toyota Motor Corporation, JP
Energy management of Toyota Hybrid System

Anders Lindquist

Royal Institute of Technology, SE
On moment problems in robust control, spectral estimation, image processing and system identification

Carsten Scherer

University of Stuttgart, DE
Dissipation-based controller synthesis: successes and challenges

Peter Terwiesch

ABB Ltd, CH
Closing the loop: an industrialists' perspective on the present and future impact of control

PARALLEL PLENARY LECTURES

David B. Doman

United States Air Force Research Laboratory, USA
Towards insect-like maneuverability of flapping-micro air vehicles

Alexander Kurzhanski

Lomonosov Moscow State University, RU
Closed-loop control under realistic information

Brett Ninness

The University of Newcastle, AU
Computational System Identification

Laurent Praly

MINES ParisTech, FR
On observers, a meeting of many view points and applications

Please note that the time allocations of the plenaries have yet to be decided.

HISTORICAL PLENARY SESSION

On Friday, September 2 from 14:30 to 16:00 we will have the historical plenary session

PLUGGING INTO THE ORIGINS OF IFAC: THE IFAC WORLD CONGRESS OF 1960

This lecture evokes the origins of IFAC by the accounts of a team of distinguished scholars.

Invited speakers:

S. Kahne

R. E. Kalman

M. Thoma

T. Vamos

J. Westcott

Chairperson:

A. Kurzhanski

THE MANIFESTO OF MILANO 2011

A first edition of the Manifesto of Milano 2011 was presented at the second IPC meeting in Baltimore. The new edition of the Manifesto is ready and has been distributed to the participants at various congresses and events, in particular at the CDC 2010 in Atlanta.

We thank all of you for your contribution in the organization of the Congress, requiring an immense effort worldwide, and we would like to convey our best regards together with Season's Greetings.

See you all in Milano!

Sergio Bittanti and Alberto Isidori

IFAC Fellows 2010 continued from December 2010 issue of the Newsletter

Panos Antsaklis



Panos Antsaklis is the H. Clifford and Evelyn A. Brosey Professor of Electrical Engineering and Concurrent Professor of Computer Science and Engineering at the University of Notre Dame. He served as the Director of the Center for Applied Mathematics of the University of Notre Dame from 1999 to 2005. He is a graduate of the National Technical University of Athens (NTUA), Greece, and holds MS and PhD degrees from Brown University. He has authored over four hundred publications in journals, conference proceedings and books, and he has co-edited six books on Intelligent Autonomous Control, Hybrid Systems and on Networked Embedded Control Systems. In addition, he has co-authored two research monographs on the Supervisory Control of Discrete Event Systems Using Petri Nets, and two graduate textbooks „Linear Systems“ and in 2007 „A Linear Systems Primer.“ He has served as program chair and general chair of major systems and control conferences including the Conference on Decision and Control and he was the 1997 President of the IEEE Control Systems Society (CSS). He has been plenary and keynote speaker in a number of conferences and research workshops. He is the Editor-in-Chief of the IEEE Transactions of Automatic Control (IEEE TAC). He serves as the president of the Mediterranean Control Association and chairs the Scientific Advisory Board for the Max-Planck-Institut für Dynamik Komplexer Technischer Systeme, Magdeburg. In 2006-07 he was member of the subcommittee on Networking and Information Technology of the USA President's Council of Advisors for Science and Technology (PCAST). He is an IEEE Fellow (1989), a Distinguished Lecturer of the IEEE Control Systems Society, a recipient of the IEEE Distinguished Member Award of the Control Systems Society, and an IEEE Third Millennium Medal recipient. He is the 2006 recipient of Brown University's Engineering Alumni Medal.

Mustafa Khammash



Mustafa Khammash is the Director of the Center for Control, Dynamical Systems, and Computations (CCDC) at the University of California at Santa Barbara (UCSB). He also holds a Professor appointment in Mechanical Engineering at

UCSB. He received his B.S. degree from Texas A&M University in 1986 and his Ph.D. from Rice University in 1990, both in electrical engineering. In 1990 he joined the Electrical Engineering Department at Iowa State University. Khammash's research interests are in the area of control theory and its applications to engineering and biology. His current work focuses on using control theory for the quantitative analysis of biological networks. He is currently developing theoretical and computational methods for the analysis of stochastic dynamics and their applications in the area of Systems Biology. Khammash is a Fellow of the IEEE. He is the recipient of the National Science Foundation Young Investigator Award, the Japan Society for the Promotion of Science (JSPS) Fellowship, the Iowa State University Foundation Early Achievement in Research and Scholarship Award, the ISU College of Engineering Young Faculty Research Award, and the Ralph Budd Best Engineering PhD Thesis Award.

Li Qiu



Li Qiu received his Ph.D. degree in electrical engineering from the University of Toronto, Toronto, Ont., Canada, in 1990. He joined Hong Kong University of Science and Technology, Hong Kong SAR, China, in 1993, where he is now a professor of Electronic and Computer Engineering. Prof. Qiu's research interests include system, control, information theory, and mathematics for information technology. He is also interested in control education and coauthored together with Kemin Zhou an undergraduate textbook „Introduction to Feedback Control“ which was published by Prentice-Hall in 2009. He served as an associate editor of the IEEE Transactions on Automatic Control and an associate editor of Automatica. He was the general chair of the 7th Asian Control Conference, which was held in Hong Kong in 2009. He is a Distinguished Lecturer of IEEE Control Systems Society from 2007 to 2010. He is a fellow of IEEE.

Masayoshi Tomizuka



Masayoshi Tomizuka was born in Tokyo, Japan in 1946. He received his B.S. and M.S. degrees in Mechanical Engineering from Keio University, Tokyo, Japan and his Ph. D. degree in Mechanical Engineering from the Massachusetts Institute of Technology in February 1974. In 1974, he joined the faculty of the Department of Mechanical Engineering at the University of California at Berkeley, where he currently holds the Cheryl and John Neerhout, Jr., Distinguished Professorship Chair and serves as Executive Associate Dean of Engineering. He teaches courses in dynamic systems and controls. His current research interests are optimal and adaptive control, digital control, signal processing, motion control, and control problems related to robotics, vehicles and mechatronic systems. He served as Program Director of the Dynamic Systems and Control Program of the National Science Foundation (2002-2004). He has supervised more than 90 PhD students to completion. He has published over 550 articles in professional journals and conference proceedings.

He served as Technical Editor of the ASME Journal of Dynamic Systems, Measurement and Control, J-DSMC (1988-93), Editor-in-Chief of the IEEE/ASME Transactions on Mechatronics (1997-99), and Associate Editor of the Journal Automatica. He served as President of the American Automatic Control Council (AACC) (1998-99). He chaired the IFAC Award Committee and currently chairs the IFAC Publication Committee and the IFAC Technical Committee on Mechatronic Systems. He is a Fellow of the ASME, the Institute of Electric and Electronics Engineers (IEEE) and the Society of Manufacturing Engineers. He is the recipient of the J-DSMC Best Paper Award (1995, 2010), the DSCD Outstanding Investigator Award (1996), the Charles Russ Richards Memorial Award (ASME, 1997), the Rufus Oldenburger Medal (ASME, 2002) and the John R. Ragazzini Award (AACC, 2006).

Analysis, Design, and Evaluation of Human-Machine Systems

11th IFAC/IFIP/IFORS/IEA Symposium

31st Aug. - 3rd Sept., 2010
Valenciennes, France

Scope and Aim:

The 11th Symposium IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design, and Evaluation of Human-Machine systems was held successfully at the Théâtre le Phénix - Valenciennes, France from 31st of August to the 3rd of September, 2010.

This international event for scholars and experts is prestigious and continues a tradition started in 1982: Seoul (Korea in 2007), Atlanta (USA, 2004), Kassel (Germany, 2001), Kyoto (Japan, 1998), Boston (USA, 1995), The Hague (Netherlands, 1992), Xi'an (China, 1989), Oulu (Finland, 1988), Varese (Italy, 1985) and Baden-Baden (Germany, 1982). The objective of this symposium is to exchange ideas and further understanding in the areas of Human-Machine Systems, Human-Computer Interaction (HCI), Intelligent and Autonomous Systems and Decision Support Systems. The symposium especially highlights the paradigm shifts in research and practice and the gathered academic and industrial communities related to the human-machine systems based researches and applications.

Participants, Program and Papers

The program of this 11th symposium was very rich and proposed new advances of technology designed for human and interacting with human. It concerned new theoretical contributions such as human automation, human-centered design, human reliability, cooperative system, remote control, resilience engineering, cybernetics, cognitive system engineering, and decision support system. The applications focused mainly on transportation, but other domains such as medical engineering, manufacturing system, robotics or agriculture are also treated.

143 researchers and industrialists from 18 countries attended this symposium. From 123 papers that were received, 90 were accepted as regular papers but 88 were included into the final program. Most of the papers were reviewed by three referees. Another 17 additional papers were presented and discussed during workshops or round tables.

The program included five interesting plenary sessions:

- Prof. Y. Sankai, University of Tuskuba, Japan: "Leading edge of Cybernetics: Robotics that suit you"
- Prof. C. Jonker, TU Delft, Netherlands: "The challenges of creating a negotiation support system for bilateral multi-issue bargaining"
- Prof. D. Gillet, EPFL, Switzerland: "Engineering Education 2.0: At the intersection of the Web of People and the Internet of Things"
- Prof. K. Bengler, TU München, Germany: "Have It or Test It. On the Necessity of Valid Digital Human Models for Ergonomics of Future Products"
- Dir. D. Miglianico, ALSTOM, France: "Human factors and the design of railway system"

Due to the excellent quality of the selection and of the papers, several awards were distributed:

- The best contributing teams on Human-Human Systems based research (i.e., The "Human-Machine Systems" team of Valenciennes and the "Control and Simulation" team of Delft).

Offenlegung:

Das Medienwerk 'IFAC Newsletter' wird als Organ der 'International Federation of Automatic Control' (IFAC) verlegt und ist Eigentum dieser Internationalen Föderation, deren Tätigkeit der Förderung von Wissenschaft und Technik automatischer Regelung und Steuerung dient. Die Föderation hat ihren Sitz in Zürich und ist nach Schweizer Recht als gemeinnütziger Verein angemeldet. Sie verfolgt weder wirtschaftliche noch praktische Ziele.

Das Sekretariat der IFAC befindet sich seit 1978 aufgrund eines Übereinkommens mit der Österreichischen Bundesregierung mit der Österreichischen Akademie der Wissenschaften in Laxenburg.

Der 'IFAC Newsletter' erscheint sechsmal jährlich in englischer Sprache unter der Redaktion des Generalsekretärs der IFAC, Univ. Professor Kurt Schlacher. Die Zeitschrift dient der Information über die Aktivitäten der IFAC. Sie wird kostenlos an Abonnenten in 50 Länder versandt. Die Kosten werden von der IFAC aus Beiträgen der derzeit 52 Mitgliedsländer getragen.

Präsident der IFAC für 2008-2011 ist Prof. Alberto Isidori (Italien), Vizepräsidenten sind Prof. Iven Mareels (Australien) und Prof. Roger Goodall (Grossbritannien). Alle Funktionen werden ehrenamtlich ausgeübt.

(To our readers: To comply with the **Austrian Media Act**, every publication must contain a declaration once a year concerning ownership and purpose, as above.)

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/jprocontrol>

Annual Reviews in Control

<http://www.elsevier.com/locate/arcontrol>

Journal on Mechatronics

<http://www.elsevier.com/locate/mechatronics>

- The best young researcher paper award allocated to: "A Semiotic Characterization of the Process of Teaching and Learning a Skilled Motion Taking Wok Handling as an Example", H. Mizuyama, K. Yamada, A Maki, K. Tanaka.
- The best theoretical paper award allocated to: "Revolutionizing the way people work with medical technology", A. Freudenthal, M. van Stuijvenberg, J.B. van Goudoever.
- The best applicative paper award allocated to: "Suitability of multiple correspondence analysis for a database exploration before inference analysis", P. Simon, P. Loslever, J.-C. Popieul, M. Rötting, A. Todoskoff.

Several social events were organized to allow for scientific discussions in a more relaxed and in-

formal atmosphere (welcoming session cocktail, visit of the mining history center of Lewarde, gala dinner, bowling party, visits of the LAMIH).

The next important meeting for the Human-Machine Systems community will be the 12th symposium planned in the USA in 2013. It will be organized by Dean S. Narayanan from Wright University, Dayton, Ohio. The location has yet to be decided upon and announced. The current contenders are Las Vegas, Hawaii or Chicago.

See you soon at another interesting and excellent symposium!

Frédéric VANDERHAEGEN, NOC Chair
Peter WIERINGA, IPC Chair

Impressum:

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

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

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

Editor: Kurt Schlacher
Layout: Ernestine Rudas
published bimonthly



FORTHCOMING EVENTS

2011
No. 1
February

Title	2011	Place	Further Information
Intl..Conference on Computer Aided Systems Theory - EUROCAST 2011	February 06 – 11	Las Palmas de G.C Spain	http://www.iucte.ulpgc.es/spain/eurocast2011/ e-mail: eurocast@iucte.ulpgc.es
American Control Conference - in co-operation with IFAC -	June 29 – July 01	San Francisco CA, USA	http://a2c2.org/conferences/acc2011/
IFAC WORLD CONGRESS – 18th Milano 2011	August 28 – Sept. 02	Milan Italy	http://www.ifac2011.org/ e-mail: info@ifac2011.org
SAE/IFAC Intl. Symposium Future Active Safety Technology towards zero-traffic-accident - FAST-zero'11	September 05 – 08	Tokyo Japan	http://www.fast-zero11.info/ e-mail: fast-zero11@ics-inc.co.jp
Title	2012	Place	Further Information
IFAC Conference Advances in PID Control	March 28 – 30	Brescia Italy	http://pid12.ing.unibs.it e-mail: pid12@ing.unibs.it
IFAC Symposium Information Control Problems in Manufacturing – INCOM 2012	May 23 – 25	Bucharest Romania	http://incom12.org (not yet operative)
IFAC Workshop Automatic Control in Offshore Oil and Gas Production	May 31 – June 1	Trondheim Norway	http://www.ifac-oilfield.no/ e-mail: to be announced
IFAC Conference Analysis and Design of Hybrid Systems - ADHS 2012	June 06 – 08	Eindhoven Netherlands	http://adhs12.org/ e-mail: info@adhs12.org
IFAC Workshop Dynamics and Control in Agriculture and Food Processing – DYCAF	June 13 – 16	Plovdiv Bulgaria	http:// to be announced e-mail: to be announced
IFAC Symposium Advances in Control Education - ACE 2012	June 19 – 21	Nizhny Novgorod Russia	http:// to be announced e-mail: to be announced
IFAC Symposium Advanced Control of Chemical Processes - ADCHEM-2012	July 10 – 13	Singapore Singapore	http://www.adchem2012.org/ e-mail: ivan@adchem2012.org
IFAC Symposium System Identification – SYSID 2012	July 11 – 13	Brussels Belgium	http://www.sysid2012.org/ e-mail: secretariat@sysid2012.org
IFAC Symposium Robot Control – SYROCO 2012	September 05 – 09	Dubrovnik Croatia	http:// to be announced e-mail: to be announced
IFAC Symposium Control in Transportation Systems - CTS'12	September 12 – 14	Sofia Bulgaria	http://hs27.iccs.bas.bg/ e-mail: to be announced
Title	2013	Place	Further Information
IFAC Symposium Advances in Control Education	August 28 – 30	Sheffield UK	http:// to be announced e-mail: to be announced
IFAC Symposium Nonlinear Control Systems - NOLCOS	September 04 – 06	Toulouse France	http:// to be announced e-mail: to be announced