IFAC NEWSLETTER

INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL

Automatica: Recent Editorial Changes

No.2

April 2015

At the beginning of the second half-century of *Automatica*, on January 1, 2015, Roberto Tempo started serving the journal as Editor-in-Chief. Further details about the transition are available in Automatica, Vol. 51, pp. A1, January 2015, as well as in the February 2015 issue of this Newsletter available in the Newsletter archives at: http://www.ifac-control.org/newsletter_archive/IFAC_Newsletter_2015_1_February.pdf

The attentive *Automatica* readers have probably noticed several recent changes in the list of subject editors, as well as in the description of various editorial areas. These significant changes have been made to reflect current research activities and trends, and observing an increasing number of submissions.

On January 1, 2015, Richard H. Middleton, who is with the University of Newcastle, Australia, and Yutaka Yamamoto, who is with Kyoto University, Japan have joined the team of Editors. Rick took over the editorship of the subject area "System and Control Theory", which includes "systems with uncertainty, and control system design".

Yutaka Yamamoto is in charge of the editorial area of "Book Reviews" in all areas of interest related to systems and control.

On March 1, 2015, a new editorial area with the title "Networks in Systems and Control" was established. The editor for this new area is Christos G. Cassandras, who is with Boston University (USA.) He will handle all papers dealing with "multi-agent and networked systems, cooperative control, and discrete event systems".

Other significant editorial changes have also occurred at this time. The editor Frank Allgöwer, in charge of the area "Computer and Process Control", is stepping down due to major responsibilities as President-Elect of IFAC. I would like to warmly thank him for serving *Automatica* as Editor since 2002 and for handling a very large number of papers on various topics during his term.

The editorial area "Computer and Process Control" is hence discontinued. Papers in this domain should be submitted to the most appropriate editor based on the topic and on the descriptions available in Automatica and in the Pampus system.

To cover a broader scope, the editorial area of Ian Petersen has the revised title "Optimization in Systems and Control," and includes "optimal control, stochastic control, model predictive control, and games".

Torsten Söderström's area is expanded to "System Identification and Filtering", and includes "parameter and state estimation, fault detection, experiment design, model validation, learning systems, and statistical analysis."

The editorial area of Toshiharu Sugie is still "Control System Applications", but its scope is broader and includes "control applications in mechanical, electrical and aerospace engineering, process control, and systems biology."

No changes are being made in the other editorial areas.

Submitted by Roberto Tempo,
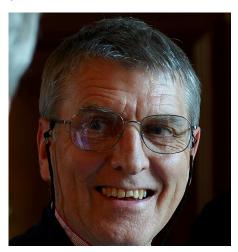Editor-in-chief, *Automatica*

Introducing the 2011 – 2014 IFAC Fellows
Continuation in a series

Jan Maciejowski

Jan Maciejowski graduated from Sussex University (UK) in 1971 with a B.Sc degree in Automatic Control, and from Cambridge University in 1978 with a Ph.D degree in Control Engineering. From 1971 to 1974 he was a systems engineer with Marconi Space and Defence Systems Ltd, working mostly on attitude control of spacecraft and high-altitude balloon platforms.

He is a professor of Control Engineering at Cambridge University, where he has spent most of his career. He is also the President and a Fellow of Pembroke College, Cambridge. From 2009 to 2014 he was the head of the Information Engineering Division at Cambridge. He was the president of the European Union Control Association from 2003 to 2005, and was president of the Institute of Measurement and Control for 2002. He is a chartered engineer and a Fellow of the Institution of Engineering and Technology (IET), the Institute of Electrical and Electronic Engineers (IEEE), and of the Institute of Measurement and Control (InstMC). He was a Distinguished Lecturer of the IEEE Control Systems Society from 2001 to 2007. He was a member of the IET's Policy Panel for Innovation and Emerging Technologies until 2011.

Maciejovski's research has covered multivariable feedback systems, system identification, model predictive control and fault-tolerant control. He has investigated a number of applications of control, mostly in aerospace.

Maciejowski currently has an interest in applying model predictive control to electrical power generation and distribution systems, especially smart microgrids.

Lin Huang

Professor Lin Huang graduated from the Department of Mathematics and Mechanics, Peking University in 1957 and 1961 as a post-graduate, respectively. Currently he is a Taipu Chair Professor in College of Engineering, Peking University, and is a Member of Chinese Academy of Science. He is an honorary/adjunct professor at many universities including Beihang University, Zhejiang University, Northeastern University, Nanjing University of Aeronautics & Astronautics, South China Institute of Technology, Center South University.

His book Multivariable Feedback Systems (Addison-Wesley, 1989) was awarded the IFAC Control Textbook Prize. His more recent book Predictive Control with Constraints (Prentice-Hall, 2002) has been translated into Japanese (by Shuichi Adachi and Masaaki Kanno) and was awarded the Best Textbook prize by the Japanese Society of Instrumentation and Control Engineering. He has held a number of visiting professorships at various universities in Europe, the USA and Australia, and is currently a visiting professor at Nanyang Technological University, Singapore.

Professor Huang has been working in the areas of system stability analysis and control theory. From 1959 to 1966 he took part in the research work on the stability of the aircraft and the inertial navigation of the submarine successively. In 1964 he obtained basic results in modern control theory and stability theory, such as pole assignment theorem for single input systems, the existence and uniqueness of quadratic optimal control, linear control law and an iterative method.

In 1986 he turned his research interests to modern robust analysis of control systems and obtained important results such as edge theorem, boundary theorem. He authored three

monographs that have great influence upon researchers and students on the area of control theory and mathematics. His current research interests include complex motion control in aeronautics and astronautics, analysis and control of nonlinear mechanical systems.

Professor Huang is one of the pioneers of modern control science in China. Since 1980 he was been selected as a director and an executive director of the Chinese Association of Automation (CAA) several times. He was also a member of the Technical Committee of Control Theory (TCCT) in China from its beginning in 1961 through 2002, and now sits on their advisory board. Since the establishment of the Guan Zhaozhi Award of the Chinese Control Conference in 1994, he was the chairman of the Evaluation Committee through 2002. Professor Huang has made important contributions to the development of automatic science, especially on control theory and its applications in China.

Professor Huang received many awards, including the Progress Award on Science and Technology of the National Committee of Education (China) in 1995 and 2011, National Natural Science Prize of China in 1999, the first TCCT Outstanding Contribution Award in 2010, the first CAA Outstanding Contribution Award in 2011, as well as the Cai Yuanpei Award of Peking University in 2013.

Bijoy Ghosh

Bijoy K. Ghosh received the B. Tech and M. Tech degrees in Electrical and Electronics Engineering from BITS Pilani and the Indian Institute of Technology, Kanpur, India, and the Ph.D. degree in Engineering Sciences from the Decision and Control Group of the Division of Applied Sciences, Harvard University, Cambridge, MA, in 1977, 1979 and 1983, respectively.

From 1983 to 2007 Ghosh was with the Department of Electrical and Systems Engineering, Washington University, St. Louis, MO, USA, where he was a Professor and Director of the Center for BioCybernetics and Intelligent Systems. Currently he is the Dick and Martha Brooks Regents Professor of Mathematics and Statistics at Texas Tech University, Lubbock, TX (USA.)

In addition to being an IFAC Fellow Ghosh received the Donald P. Eckmann award in 1988 from the American Automatic Control Council (the US IFAC NMO), the Japan Society for the Promotion of Sciences Invitation Fellowship in 1997, and became a Fellow of the IEEE in 2000.

Ghosh was a member of the Board of Gover-

nors of the IEEE Control Systems Society from 2004 to 2006. He is a past committee chair for the technical committee on Sensor Guided Manipulation in Automation under IEEE Robotics and Automation Society and a past committee chair for the technical committee on BioSystems and Control under IEEE Control Systems Society.

Currently Ghosh is the IEEE Control Systems Society Representative to the IEEE-USA's Medical Technology Policy Committee and a member of the Editorial Board of the IEEE Trans. on Computational Biology and BioInformatics.

Ghosh has held visiting positions at Tokyo Institute of Technology and Tokyo Denki University, Japan, University of Padova in Italy, Royal Institute of Technology and Institut Mittag-Leffler, Stockholm, Sweden, Yale University, New Haven, CT, USA, Technical University of Munich, Germany and Indian Institute of Technology, Kharagpur, India.

Ghosh's main research interests are in Control Theory, Neuroscience and BioInformatics.

A note to Newsletter readers concerning IFAC Fellows

Several members of the control community have contacted the IFAC Secretariat to request nomination material for the IFAC Award. The IFAC Fellows, which were previously structured on an yearly basis, are now awarded on a triennial basis. At this time it is planned that the Call for Nominations for 2014-2017 IFAC Fellows will be available in late 2015 and will be published in this Newsletter, as well as on the IFAC website:

IFAC's New Website and YouTube Channel

IFAC is proud to present its new website to the control community worldwide. Though the name of IFAC is ubiquitous in the automation and control society, the new website supports and emboldens IFAC's web presence. The new website presents content in a fresh and visually appealing manner, makes important content readily and easily accessible.

Initiated by IFAC's immediate past president, Prof. Ian Craig (ZA), IFAC began the development of a long term strategic plan to ensure that IFAC's activities remain optimally aligned with the current and future requirements of the control community. In-depth analyses of IFAC's surroundings informed the strategic plan and a number of task forces were created to implement the plan. One of these task forces investigated the promotion and marketing of IFAC, specifically its position in cyberspace. The new website forms a solid basis from where it can engage young and experienced control engineers in industry and academia, while articulating IFAC's goal of promoting automatic control for the benefit of humankind.

The development of the new website started with the revision of the information architecture and involved the restructuring of the sitemap to make the organization of content transparent to the user. The new sitemap makes it possible for the user to reach all content within 2-clicks or less from anywhere in the website. Although most of the content of the previous website was transferred to the new website, rigorous revision of content was done to reduce unnecessary repetition between pages, clean old irrelevant information, and update content with the latest information. The frameworks completed by the designer was sent to a web-development company to implement within the content management system (The Plone® Open Source CMS/WCM) IFAC uses.

The website has a number of new features. The sitemap of the website is shown in an enlarged footer to make important information quickly accessible to the user.

The IFAC events are presented in a new manner with a sorting feature available to sort events according to month and year, and an improved author and organizer guide is available. A link to PaperCept was included as this was absent in the past. The awards section was restructured to clarify the awards structure within IFAC.

A frequently asked questions page was created to assist the Secretariat in distributing information to anyone new to IFAC.

In addition a link to the newly-launched IFAC YouTube channel, which is overseen by IFAC Video Editor Paolo Bolzern, is available from the front page of the new IFAC website. To access the chanel click on the YouTube icon, which is available both in the top right and botton left of the IFAC homepage.

A word of thanks is given to the following team led by Frank Doyle (US) for completing the website: Kurt Schlacher (AT), Harald Albrecht (AT), Jakob Stoustrup (US), Juergen Hahn (US), Sergio Bittanti (IT), Paolo Bolzern (IT), Diego Pareschi (IT) and Derik le Roux (ZA). Thanks is also given to Elske Haberl (AT) and Katharina Willixhofer (AT) from the Secretariat for their assistance in this endeavour.

As in the past the IFAC website can be found at:

http://www.ifac-control.org

Submitted by Website Task Force Member Derik le Roux (ZA)

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Calendar of IFAC Events

Title	2015	Place	Further information
15th IFAC/IEEE/IFIP/IFORS Symposium on Information Control Problems in Manufacturing INCOM 2015	May 11 – 13	Ottawa Canada	http://incom2015.org/ e-mail: secr@incom2015.org
13th IFAC/IEEE Conference on Programmable Devices and Embedded Systems PDES 2015	May 13 –15	Cracow Poland	http://pdes.polsl.pl/ e-mail: pdes@polsl.pl
3nd IFAC Workshop on Multivehicle Systems MVS 2015	May 18	Genova Italy	http://mvs2015.unisalento.it/ e-mail: mvs2015@unisalento.it
2nd IFAC Workshop on Automatic Control in Offshore Oil and Gas Production OOGP 2015	May 27 – 29	Florianopolis, Santa Catarina Brazil	http://www.ifac-oilfield.ufsc.br e-mail: not yet available
5th IFAC Workshop on Dependable Control of Discrete Systems DCDS 2015	May 27 – 29	Cancun Mexico	http://www.gdl.cinvestav.mx/dcds2015/index.html e-mail: dcds@gdl.cinvestav.mx
Asian Control Conference (in cooperation with IFAC) ASCC 2015	May – June 31 – 03	Kota Kinabalu Malaysia	http://ascc2015.com/ e-mail: secretariat@ascc2015.com
9th IFAC Symposium on Advanced Control of Chemical Processes ADCHEM 2015	June 07 –10	Whistler Canada	http://www.adchem2015.ca/ e-mail: adchem.2015@ualberta.ca
IFAC Workshop on Advanced Control and Navigation for Autonomous Aerospace Vehicles ACNAAV 2015	June 10 – 12	Seville Spain	http://www.aero.us.es/acnaav15 e-mail: rvazquez1@us.es
2nd IFAC Conference on Embedded Systems, Computer Intelligence and Telematics CESCIT 2015	June 22 – 24	Maribor Slovenia	http://cescit2015.um.si/ e-mail: cescit2015@um.si
1st IFAC Conference on Modelling, Identification and Control of Nonlinear Systems MICNON 2015	June 24 – 26	Saint Petersburg Russian Federation	http://micnon2015.org/ e-mail: not yet available
12nd IFAC Workshop on Time Delay Systems TDS 2015	June 28 – 30	Ann Arbor, MI USA	http://me.engin.umich.edu/dirifac/ e-mail: timedelay2015@umich.edu
American Control Conference (in cooperation with IFAC) ACC 2015	July 01 – 03	Chicago, IL USA	http://www.a2c2.org/conferences/acc2015/ e-mail: braatz@mit.edu
5th IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control LHMNC 2015	July 04 – 07	Lyon France	http://www.lhmnlc15.org/ e-mail: not yet available
10th IEEE, IEEE CSS, IFAC Workshop on Robot Motion and Control RoMoCo 2015	July 06 – 08	Poznan Poland	http://romoco.put.poznan.pl/ e-mail: piotr.mieszala@put.poznan.pl
8th IFAC Symposium on Robust Control Design ROCOND 2015	July 08 – 11	Bratislava Slovakia	http://www.rocond15.sk e-mail: info@rocond15.sk
European Control Conference (in cooperation with IFAC) ECC 2015	July 15 – 17	Linz Austria	http://www.ecc15.at/ e-mail: secretariat@ecc15.at
12th INSTICC Conference on Informatics in Control, Automation and Robotics (in cooperation with IFAC) ICINCO 2015	July 21 – 23	Colmar, Alsace France	http://www.icinco.org/ e-mail: icinco.secretariat@insticc.org

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Title	2015	Place	Further information
CACHE Meeting on Foundations of Systems Biology in Engineering (in cooperation with IFAC) FOSBE 2015	August 09 – 12	Boston, MA USA	http://fosbe.org/ e-mail: rcraven@fosbe.org
4th IFAC Workshop on Engine and Powertrain Control, Simulation and Modeling E-COSM 2015	August 23 – 26	Columbus, OH USA	https://e-cosm2015.engineering.osu.edu/ e-mail: not yet available
10th IFAC Conference on Manoeuvring and Control of Marine Craft MCMC 2015	August 24 – 26	Copenhagen Denmark	http://www.conferencemanager.dk/ mcmc2015/ e-mail: secretariat@mcmc2015.dk
4th IFAC Workshop on Mining, Mineral and Metal Processing MMM 2015	August 25 – 27	Oulu Finland	http://ifacmmm2015.automaatioseura.fi/ e-mail: office@automaatioseura.fi
4th IFAC Conference on Analysis and Control of Chaotic Systems CHAOS 2015	August 26 – 28	Tokyo Japan	http://ctrl.mech.se.tmu.ac.jp/chaos2015 e-mail: not yet available
11th IFAC Symposium on Robot Control SYROCO 2015	August 26 – 28	Salvador, BA Brazil	http://www.syroco2015.org/ e-mail: syroco2015@ece.ufrgs.br
9th IFAC Symposium on Biological and Medical Systems BMS 2015	Aug. – Sept. 31 – 02	Berlin Germany	http://www.bms2015.org e-mail: info@bms2015.org
9th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes SAFEPROCESS 2015	September 02 – 04	Paris France	http://safeprocess15.sciencesconf.org/ e-mail: contact@safeprocess2015.fr
SAFER, IFAC, IEEE, ITSC Symposium on Future Active Safety Technology Towards zero traffic accidents FAST-zero	September 09 – 11	Gothenburg Seden	http://fastzero15.net/ e-mail: info@fastzero15.net
5th IFAC Workshop on Distributed Estimation and Control in Networked Systems NecSys 2015	September 10 – 11	Philadelphia USA	http://necsys2015.seas.upenn.edu/index. html e-mail: not yet available
5th IFAC Conference on Nonlinear Model Predictive Control NMPC 2015	September 17 – 20	Sevilla Spain	http://disa.us.es/nmpc15/ e-mail: dlm@us.es
IEEE IFAC Multi-Conference on Systems and Control MSC 2015	September 21 – 23	Sydney Australia	http://www.msc2015.org/ e-mail: info@msc2015.org
16th IFAC Conference on Technology, Culture and International Stability TECIS 2015	September 24 – 27	Sozopol Bulgaria	http://www.tecis.tu-plovdiv.bg/ e-mail: tecis@tu-plovdiv.bg
16th IFAC Workshop on Control Applications of Optimization CAO 2015	October 06 – 09	Garmisch-Partenkirchen Germany	http://cao2015.de/ e-mail: Stefan.pickl@unibw.de
1st IFAC Workshop on Linear Parameter Varying systems LPVS 2015	October 07 – 09	Grenoble France	http://www.gipsa-lab.fr/LPVS2015/ e-mail: lpvs2015@gipsa-lab.grenoble-inp.fr
5th IFAC Conference on Analysis and Design of Hybrid Systems ADHS 2015	October 14 – 16	Atlanta, Georgia USA	http://adhs15.gatech.edu/ e-mail: magnus@gatech.edu

Calendar of IFAC Events

Title	2016	Place	Further information
7th IFAC Conference on Management and Control of Production and Logistics MCPL 2016	February 22 – 24	Bremen Germany	http://www.ldic-conference.org/ e-mail: not yet available
4th IFAC Conference on Intelligent Control and Automation Sciences ICONS 2016	June 01 – 03	Reims France	http://not yet available e-mail: not yet available
11th IFAC Symposium on Dynamics and control of process systems, including biosystems DYCOPS 2016	June 06 – 08	Trondheim Norway	http://dycops2016.org/ e-mail: dycops2016@itk.ntnu.no
2nd IFAC/IEEE CSS Workshop on Control of Systems Governed by Partial Differential Equations CPDE 2016	June 13 – 15	Bertinoro Italy	http://www.cpde2016.org/ e-mail: cpde2016@gmail.com
8th IFAC Symposium on Advances in Automotive Control AAC 2016	June 20 – 23	Kolmården Wildlife R. Sweden	http://not yet available e-mail: not yet available
8th IFAC/IEEE and others Conference on Manufacturing Modelling, Management and Control MIM 2016	June 28 – 30	Troyes France	http://mim2016.utt.fr/ e-mail: mim2016@utt.fr
12th IFAC Workshop on Adaptation and Learning in Control and Signal Processing ALCOPS 2016	June – July 29 – 01	Eindhoven Netherlands	http://not yet available e-mail: not yet available
6th IFAC Workshop on Periodic Control Systems PSYCO 2016	June – July 29 – 01	Eindhoven Netherlands	http://not yet available e-mail: not yet available
20th IFAC Symposium on Automatic Control in Aerospace ACA 2016	August 21 – 25	Sherbrooke, Québec Canada	http://aca2016.ngcaerospace.com/ e-mail: aca2016@ngcaerospace.com
10th IFAC Symposium on Non-Linear Control Systems NOLCOS 2016	August 23 – 25	Monterey, CA USA	https://www.math.ucdavis.edu/static/conferences/nolcos_2016/ e-mail: not yet available
17th IFAC and others Symposium on Mining, Mineral and Metal Processing MMM 2016	Aug. – Sept. 31 – 02	Vienna Austria	http://www.ifacmmm2016.org/ e-mail: not yet available
20th IFAC World Congress 2017	July 09 – 14	Toulouse France	http://www.ifac2017.org/ e-mail:contact@ifac2017.org

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