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2008
No. 3
June

# Newsletter

Contents:



**New e-mail Address for the IFAC Secretariat:**

**secretariat@ifac-control.org**

e-mails which are sent to the old e-mail address will be rerouted for a certain period, but we would appreciate if you could forthwith use the new address

## IFAC FELLOWS – SOME REFLECTIONS

**The Beginnings**

During the 2002 – 2005 triennium, and with the then Immediate Past President Pedro Albertos playing a key role, the IFAC Council approved the creation of an award, IFAC Fellow, intended to honour those individuals who had made exceptional contributions to the discipline and practice of automatic control. Such an honour was intended to be completely distinct from other IFAC honours, namely the IFAC Outstanding Service Award, IFAC Advisor award, or the award of a medal, such as the Quazza Medal.

How could the initial conditions be appropriately set?

The Council made two significant decisions:

- It determined that the initial corpus of IFAC Fellows would be made up of the IFAC Advisors, and past major medal winners, making a total of 21 individuals.
- It appointed a special committee, a Fellow Selection Committee, of five individuals drawn from the above list to make recommendations to the Council for the election of further IFAC Fellows.

It is worth recording the criteria which the Council asked the Committee to use for the identification of these individuals:

"This Committee (FSC) shall consider:

1. Outstanding and extraordinary individual contributions in the fields of interest of IFAC as Engineers/Scientist, Technical Leader or Educator.
2. These achievements shall be recorded as technical publications, patents, reports, systems products and applications, services or proved teaching activities.
3. Service to the IFAC in the promotion of the field.
4. Opinions of Fellow references."

In 2005, on the recommendation of the Fellow Selection Committee, a further 10 individuals were elected as IFAC Fellows.

**The 2005-2008 Triennium**

A new selection committee was appointed for the 2005-2008 triennium, under the Chairmanship of Brian D O Anderson. Its members were all themselves IFAC Fellows. The IFAC President, Professor Kwon, invited the chair in his appointment letter to work with the selection committee members to set up the working procedures of the committee.

A number of key decisions were taken, or confirmed:

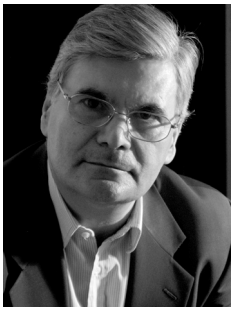
- There would be an annual election round.
- A formal nomination together with references would be required; for the time being, the referees would not have to be IFAC Fellows themselves.
- Council members and Fellow Selection Committee members could not serve as referees.
- Council members were ineligible for nomination, but in the course of the triennium, this was changed to disqualify only the President and the President Elect.

The selection committee debated what weight

ctd. p. 5

## IFAC Fellows 2008 Elected

**Sergio Bittanti,** Politecnico di Milano



For contributions to control and optimization of periodic dynamic systems, and inspiring activity as an educator

**Richard D. Braatz**, University of Ilinois

For contributions to the robust control of industrial systems

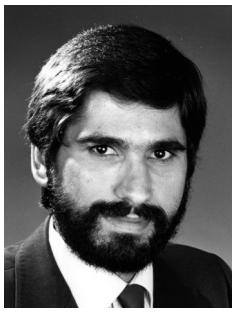
**Eduardo Camacho,** University of Seville

For contributions in model predictive control and advanced control of solar systems

**Xi-Ren Cao,** Hong Kong University of Science and Technology

For contributions to the analysis of discrete event systems, stochastic learning and optimization theory, and their application

**Christos Cassandras,** Boston University



For pioneering contributions to discrete event systems and the theory of perturbation analysis and its applications, and contributions to optimization methods for hybrid systems

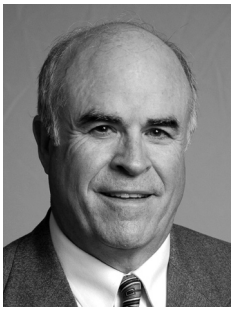
**Tian-You Chai,** Northeastern University

For contributions to theory, technology and applications of adaptive and intelligent decoupling control and integrated automation of complex industrial processes

**Dai-Zhan Cheng,** Northeastern University

For contributions to nonlinear control theory, numerical realization of controls, and their applications

**Thomas Edgar,** University of Texas

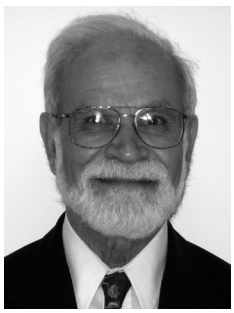


For outstanding contributions to the fields of mathematical modeling, optimization, and automatic control of chemical and microelectronics processes and professional leadership

**Eveline Gottzein,** University of Stuttgart

For outstanding engineering achievements in the development and implementation of advanced satellite guidance and control systems, including levitation and guidance systems of MAGLEV-trains

**Abraham Haddad,** Northwestern University



For contributions to analysis, optimization and control of stochastic systems with applications to vehicle guidance and communications networks

**Miroslav Krstic,** Univesrity of California - San Diego

For pioneering contributions to adaptive nonlinear control, extremum seeking, boundary control of distributed parameter systems, and control of turbulent fluid flows

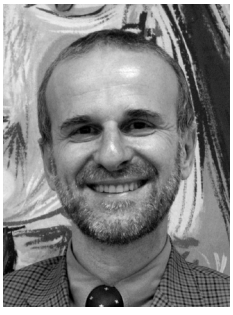
**Alexander Kurzhanski** Moscow State University

For important contributions to mathematical theory of control and estimation under uncertainty

**Frank Lewis,** The University of Texas at Arlington

For contributions in neural network control, systems structure, and control systems education.

**Manfred Morari,** ETH Zurich



For pioneering contributions to the theory and application of robust process control, model predictive control, and hybrid systems control

# FORTHCOMING EVENTS

**2008**
**No. 3**
**June**

| Title | 2008 | Place | Further Information |
|---|---|---|---|
| 10th IEEE/IFAC Workshop<br>Variable Structure Systems – VSS'08 | June<br>08 – 10 | Antalya<br>Turkey | http://www.mecha.ee.boun.edu.tr/VSS2008/<br>e-mail: okyay.kaynak@boun.edu.tr |
| American Control Conference<br>- in cooperation with IFAC | June<br>11 – 13 | Seattle, WA<br>USA | http://www.a2c2.org/conferences/acc2008/<br>e-mail: : aanna@mit.edu |
| 17th IFAC WORLD CONGRESS | July<br>06 – 11 | Seoul<br>Korea | http://www.ifac2008.org<br>e-mail: Secretariat@ifac2008.org |
| 4th IPME/IFAC Conference<br>Structural Control – 4ECSC | September<br>08 - 12 | St. Petersburg<br>Russia | http://www.ipme.ru/ipme/conf/4ecsc<br>e-mail: 4ecsc@director.ipme.ru |
| Ewics/IFAC Conference<br>Computer Safety, Reliability and Security<br>- SAFECOMP 2008 | September<br>22 – 25 | Newcastle upon Tyne<br>UK | http://safecomp2008.org/<br>e-mail: M-A.Sujan@warwick.ac.uk |
| IFAC Workshop 9th<br>Intelligent Manufacturing Systems<br>- IMS 2008 | October<br>09 – 10 | Szczecin<br>Poland | http://ims08.ps.pl<br>e-mail: ims08@ps.pl |
| IFAC Workshop 3rd<br>Fractional Differentiation and its<br>Applications – FDA'08 | November<br>05 – 07 | Ankara<br>Turkey | http://www.cankaya.edu.tr/fda08<br>e-mail: fda08@cankaya.edu.tr |
| IFAC Workshop<br>Logistics | December<br>05 – 06 | Santiago<br>Chile | http:// to be announced<br>e-mail: to be announced |
| **Title** | **2009** | **Place** | **Further Information** |
| IFAC Workshop<br>Programmable Devices and Embedded<br>Systems – PDeS 2009 | February<br>10 – 12 | Roznov<br>Czech Rep. | http://pdes2009.vsb.cz<br>e-mail: to be announced |
| IMACS/IFAC Conference<br>Mathematical Modelling – MATHMOD 09 | February<br>11 – 13 | Vienna<br>Austria | http://www.mathmod.at/<br>e-mail: inge.troch@stadtkirche.at |
| IFAC Symposium<br>Information Control Problems in<br>Manufacturing - INCOM 2009 | June<br>03 – 05 | Moscow<br>Russia | http://incom09.org/<br>e-mail: noc@incom09.org |
| IFAC Workshop 2nd<br>Dependable Control of Discrete Systems<br>-DCDS'09 | June<br>10 – 12 | Bari<br>Italy | http://dcds09.poliba.it<br>e-mail: dcds09@deemail.poliba.it |
| IFAC Symposium<br>Robust Control Design – ROCOND | June<br>16 – 18 | Haifa<br>Israel | http://www.technion.ac.il/~rocond09<br>e-mail: rocond09@technion.ac.il |
| IFAC/CIGRE Symposium<br>Power Plants und Power Systems | June 28<br>July 01 | Tampere<br>Finland | http.// to be announced<br>e-mail: to be announced |
| IFAC Symposium<br>Fault Detection, Supervision and Safety<br>for Technical Processes – SAFEPROCESS | June 30<br>- July 3 | Barcelona<br>Spain | http://safeprocess09.upc.es/<br>e-mail joseba.quevedo@upc.edu |
| IFAC Symposium<br>Identification and System Parameter<br>Estimation- SYSID'09 | July<br>06 - 08 | St. Malo<br>France | http://www.sysid2009.org/<br>e-mail: secretariat@sysid2009.org |
| IFAC Symposium<br>Advanced Control of Chemical Processes -<br>ADCHEM 2009 | July<br>12 - 15 | Istanbul<br>Turkey | http://www.adchem09.ku.edu.tr/<br>e-mail: dburak@ku.edu.tr |
| IFAC Symposium<br>Modelling and Control in<br>Biological and Medical Systems –<br>- MCBMS 09) | August<br>12 – 14 | Aalborg<br>Denmark | http://www..mcbms09.hst.aau.dk/<br>e-mail: mcbms09@hst.aau.dk |

# FORTHCOMING EVENTS (ctd)

| | | | |
|---|---|---|---|
| IFAC Symposium<br>Control in Transportation Systems<br>- CTS 2009 | September<br>02 – 04 | Redondo Beach<br>CA, USA | http:// to be announced<br>e-mail: to be announced |
| IFAC Symposium<br>Robot Control. – SYROCO 2009 | September<br>10 – 12 | Gifu<br>Japan | http://www.syroco2009.org/<br>e-mail: syroco2009_office@syroco2009.org |
| IFAC Conference<br>Analysis and Design of Hybrid Systems<br>- ADHS 09 | September<br>16 – 19 | Zaragosa<br>Spain | http:// to be announced<br>e-mail: to be announced |
| **Title** | **2010** | **Place** | **Further Information** |
| IFAC Symposium<br>Large Scale Systems: Theory and<br>Applications – LSS 2010 | July<br>11 – 14 | Villeneuve<br>d'Ascq<br>France | http:// to be announced<br>e-mail: to be announced |
| IFAC Symposium<br>Mining, Mineral and Metal Processing | August<br>02 – 04 | Cape Town<br>South Africa | http:// to be announced<br>e-mail: to be announced |
| IFAC Symposium<br>Nonlinear Control Systems<br>–NOLCOS 2010 | September<br>01 - 03 | Bologna<br>Italy | http://www.nolcos2010.unibo.it/<br>e-mail: lmarconi@deis.unibo.it |
| IFAC Conference<br>Management and Control of Producation<br>And Logistics – MCPL-2010 | September<br>08 – 10 | Coimbra<br>Portugal | http://www.dei.uc.pt/MCPL2010 to be opened<br>e-mail: to be announced |
| IFAC Symposium<br>Mechatronic Systems | September<br>13 – 15 | Boston, MA<br>USA | http:// to be announced<br>e-mail: to be announced |

# Computer Applications in Biotechnology (CAB)
# 10th IFAC Symposium – Cancun, Mexico, June 4-6 2007
# and
# Dynamics and Control of Process Systems (DYCOPS)
# 8th IFAC Symposium – Cancun, Mexico, June 6-8 2007

The 10th International Symposium on Computer Applications in Biotechnology (CAB) and the 8th International Symposium on Dynamics and Control of Process Systems (DYCOPS) were held from June 4-6 (CAB) and 6-8 (DYCOPS) respectively in Cancun, Mexico, under the auspices of the International Federation of Automatic Control (IFAC).

**CAB 2007 Symposium**
The CAB Symposium is organized every three years and aims at stimulating contacts between specialists active in academic research and industrial development in all major areas in biotechnology, including bioprocess design, supervision, diagnosis, operation, optimization and control. The CAB 2007 Symposium continues a 34 year uninterrupted tradition: Dijon-FR 1973 International Conference on Computer Applications in Fermentation Technology (ICCAFT) 1, Philadelphia-USA 1978 (ICCAFT2), Manchester-UK 1981 (ICCAFT 3), Noordwijkerhout 1985 IFAC-Modeling and Control of Biotechnical Processes Symposia (BIO) 1, Cambridge-UK 1988 (ICCAFT 4), Keystone-AS 1992 (ICCAFT 5 - IFAC-BIO2), Garmisch-Partenkirchen-D (CAB 6), Osaka-JPN, 1998 (CAB 7), Québec-CA, 2001 (CAB 8), Nancy-FR, 2004 (CAB 9).

The scope of the CAB 2007 Symposium was to stimulate contacts between specialists active in academic research and industrial development in all major areas in biotechnology, where computers are used to aid bioprocess design, supervision, diagnosis, operation, optimization and control. The CAB 2007 topics were:

• Systems Biology • Metabolic engineering • Modeling and identification • Parameter and state estimation • Fault diagnosis and monitoring • Data mining tools • Downstream processing • Integrated bioprocessing • Scheduling, coordination, optimization • Life cycle analysis • Applications on microbial technology, mammalian, insect and plant cell technology, gene therapy, pharmaceutical processes, food engineering, bulk chemicals production, environmental processes (wastewater, bioremediation, etc.).

**DYCOPS 2007 Symposium**
The DYCOPS symposia focus on advances in methods for control and modeling for all types of chemical processes and are part of a three-year rotation of IFAC meetings in process control, which also include the IFAC ADCHEM series. The DYCOPS 2007 Symposium continues a 21-year uninterrupted tradition: Bournemouth-UK Symposium on Dynamics and Control of Chemical Reactors, Distillation Columns and Batch Processes 1986 (DYCORD+'86), Maastricht, The Netherlands (DYCORD+'89), College Park-Maryland-USA (DYCORD+95), Corfu-Greece (DYCOPS-5) 1998, Jejudo Island-Korea 2001 (DYCOPS-6), Boston Massachusetts-USA, 2004 (DYCOPS-7).

The scope of the DYCOPS 2007 Symposium was to bring together scientists and engineers from universities, R & D laboratories, vendor companies and the process industries to focus attention on new methodologies and challenging applications within Process Systems Engineering in the light of industrial contexts and trends. Contributions aiming at reducing the gap between theory and practice were encouraged. The DYCOPS 2007 topics were:

• Interaction Between Design and Control • Modeling and Identification • Batch Process Modeling and Control • Process and Performance Monitoring • Fault Detection, Supervision and Safety of Technological Processes • Integration between Scheduling and Control • Process Optimization • Sensor development • Emerging New Approaches to Dynamics and Control • Biochemical and Materials Processing System Modeling and Control • Process Control Application, including the areas of chemical, biological, environmental, petrochemical, pharmaceutical, pulp and paper, refineries, and others.

**Joint CAB+DYCOPS 2007 organization**
For the first time the CAB and DYCOPS symposia were jointly organized and held together in the same facilities, with a program designed to meet scope and time table requirements for each Symposium, and a one-day overlap with joint sessions as well as Plenary and Keynote lectures.

Under the auspices of the IFAC Technical Areas 6 on Power and Process Systems (headed by Denis Dochain) and 8 on Bio- and Ecological Systems (headed by Ewart R. Carson), the IFAC Techni-

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**Michael Safonov,** University of Southern California

For founding contributions to robust control

**Antonio Vicino,** University of Siena

For contributions to system identification and robust control

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should be given to the different criteria. Having in mind the existence of an IFAC Outstanding Service Award and the nature of the Council debate giving rise to the Fellow concept, the Committee ended by putting nearly all of the weight on the scientific and technical contributions, especially those which were documentable. Service to IFAC simply had to reach a threshold level, and the level was indeed rather low; extensive service to IFAC could not be used to 'offset' lesser scientific or technical contributions. The selection committee also debated the numbers of electees that might be reasonable. Key factors here were that the award was new and thus initially, there was a large pool of qualified candidates, and secondly, IFAC's reputation would not be helped if, on the one hand, the standard for attaining IFAC Fellow was significantly below that for attaining, for example, IEEE Fellow, nor if on the other hand, the standard was so high that very few individuals could ever be elected.

The committee's internal procedures reflected their conclusions on these matters. The number of electees each year has not been the same number, and over the triennium about 50 new Fellows have been elected. It is unlikely that this number will increase in future triennia, but it might go down.

So far as the Committee can discern, the names of those elected have generated general approbation in the control community, which is a good sign. Of course, there are always disappointed individuals. In some cases, some presumably deserving individuals have been badly served by their nominators, who have submitted defective nominations, for example through failing to secure referees' reports. Sometimes also the chosen referees have little familiarity with the technical contributions of the candidate, and fall back on recording a litany of offices which the candidate held. At other times, a candidate may just be insufficiently competitive. Certainly, some candidates have been elected who have been nominated more than once.

**The Future**

Doubtless the procedures will evolve, but the concept of election as an IFAC Fellow will remain, and be seen as a recognition of clear distinction on the basis of personal technical contributions in the field of automatic control.

Brian D.O. Anderson
Fellow Selection Committee Chair

# Informal Meeting of the IFAC Officers
## Laxenburg, Austria, April 10 - 12, 2008

The year in which the IFAC World Congress takes place usually is a very busy time, full of preparations for the Congress, but also of preparations for the General Assembly meeting, which takes place at the time of the Congress.
The Informal Meeting of the IFAC Officers therefore is an ideal opportunity for those persons, who are proposed as new leaders within IFAC to get a close look at the administrative activities of the Federation, to visit the IFAC Secretariat and its staff. This provides an insight in the day-to-day activities of those who keep the wheels well oiled, by providing information, disseminating material, sending out circulars. etc. In addition, the meeting is also used to discuss the general policy of the Federation, without, however, taking any decisions that would prejudice a Council- or General Assembly vote.

In the franework of this year's Informal Meeting of the IFAC Officers. the IFAC President, Professor Wook Hyun Kwon gave a lecture at Vienna technical University, with the following subject:

**Receding Horizon Approaches for Control, Estimation, and Optimization**

Abstract
This presentation provides some recent developments on the receding horizon approaches for various fields. Receding horizon approaches will be applied to various mathematical models such as state space models of continuous variable systems and controlled Markov chains (CMC) of discrete event systems (DES).

In this presentation, we focus on the approaches based on the receding horizon performance criteria and its advantages are discussed and compared with conventional approaches. Receding horizon approaches are introduced for both minimization and mini-maximization performance criteria. In the case of state space models, we first start from a general nonlinear system and move to a linear system. Specially, we first introduce the state feedback control. Then receding horizon estimators are discussed and applied to implement the output feedback receding horizon controls. A linear time delay and I/O systems are also discussed for applicability of the receding horizon approach. For controlled Markov chains of discrete event systems, we also introduce receding horizon policies for optimization problems of average reward criteria and two person zero sum games.

Kurt Schlacher

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cal Committees 6.1 on Chemical Process Control (headed by Wolfgang Marquardt, GE), and 8.4 on Biosystems and Bioprocesses (headed by Marie Noelle Pons, FR) approved the coordinated execution of the CAB+DYCOPS 2007 symposia in Cancun, Mexico, and the corresponding IPCs (Bjarne Foss for DYCOPS, and M Perrier for CAB) and NOCs (Jesus Alvarez for DYCOPS, and Jaime Moreno for CAB) chairs.

The DYCOPS and CAB IPCs and NOCs worked in close coordination, under the following premises: (i) the DYCOPS and CAB communities had to feel adequately represented and accounted for in the light of their own traditions and compositions, and (ii) space and means had to be set to enable a complementary and fruitful interaction between the chemical and biotechnology process systems engineering communities.

Accordingly, the CAB+DYCOPS event technical and logistic concepts and developments were characterized by a common strategy that included the same submission-revision-publishing procedure, separate two-day activities for each Symposium, and one overlapping day with shared activities.

**CAB, DYCOPS and CAB+DYCOPS program and presentations**
The CAB program included 133 presentations: 3 plenary lectures, 8 keynote talks, 69 presentations in14 oral sessions, and 53 presentations in 3 poster sessions.

The DYCOPS program included 173 presentations: 3 plenary lectures, 8 keynote talks, 100 presentations in 21 oral sessions, and 62 presentations in 2 poster sessions.

The CAB and DYCOPS shared 63 presentations: 1 plenary lecture, 4 keynote talks, 27 presentations in 6 oral sessions, and 31 presentations in 1 poster session.

**Participation**
The choice of a well communicated location and a medium size hotel with a room-meal package favored active participation and enabled formal and informal exchange of scientific ideas, as well as an enriching cross-cultural experience due to the diversity of the participant nationalities. The participants were given the options of single or two-event registration, with the latter option being encouraged by an attractive fee. The communities responded as follows: about 50 % of the participants registered for both events, meaning that the communities themselves accepted the blending.

The participation statistics were as follows: there were 233 (54 CAB, 124 DYCOPS and 55 CAB+DYCOPS) participants from 4 continents (America, Asia, Oceania and Europe) and 36 countries, 30 percent of the participants were students.

**Paper revision and publication**
DYCOPS: 225 papers submitted, 175 presented and published in the preprints. On the average, each paper underwent 2.6 reviews,
CAB: 106 papers submitted, 83 presented and published in the preprints. On the average, each paper underwent 2.3 reviews.

Each participant received hardcopy of CAB, DYCOPS or CAB+DYCOPS preprints, depending on registration. All participants received CD preprints with the material of both Symposia.

On the basis of the review process and in-situ feedback, the CAB and DYCOPS IPC chairs selected 16 papers (12 DYCOPS and 6 CAB) to be considered for publication, after upgrade and further revision, in a Special Issue of the Journal of Process Control or in Annual Reviews in Control.
Next joint CAB+DYCOPS meeting: Brussels, Belgium, in 2010

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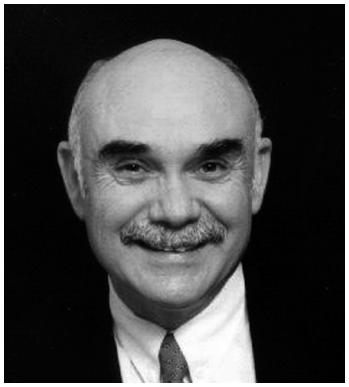
# Who is Who in IFAC

## Graham Goodwin
## Winner of the 2008
## Giorgio Quazza Medal



Graham C. Goodwin obtained a B.Sc (Physics), B.E (Electrical Engineering), and Ph.D from the University of New South Wales. From 1970 until 1974 he was a lecturer in the Department of Computing and Control, Imperial College, London. Since 1974 he has been with the Department of Electrical and Computer Engineering, The University of Newcastle, Australia. He is the co-author of seven monographs: Control Theory, Oliver and Boyd (1970), Dynamic System Identification, Academic Press (1977), Adaptive Filtering, Prediction and Control, Prentice Hall (1984), Digital Control and Estimation, Prentice Hall (1989), Sampling in Digital Signal Processing and Control, Birkhauser (1996), Fundamental Limitations in Filtering and Control, Springer (1997), Control System Design, Prentice Hall, (2001); four edited volumes, and several hundred technical papers.
Graham Goodwin is the recipient of several international prizes including the USA Control Systems Society 1999 Hendrik Bode Lecture Prize, a Best Paper award by IEEE Transactions on Automatic Control, a Best Paper award by Asian Journal of Control, and two Best Engineering Text Book awards from the International Federation of Automatic Control in 1984 and 2005. He is currently Laureate Professor of Electrical Engineering and Director of an ARC Centre of Excellence for Complex Dynamic Systems and Control at the University of Newcastle, Australia.
Graham Goodwin is the recipient of an ARC Federation Fellowship; a Fellow of IEEE; an Honorary Fellow of Institute of Engineers, Australia; a Fellow of the Australian Academy of Science; a Fellow of the Australian Academy of Technology, Science and Engineering; a Member of the International Statistical Institute; and a Fellow of the Royal Society, London and a Foreign Member of the Royal Swedish Academy of Sciences.

## Gerd Hirzinger
## Winner of the 2008
## Nathaniel Nichols Medal

Prof. Dr. Ing. Gerd Hirzinger received his Dipl.-Ing. degree and the doctor's degree from the Technical University of Munich, in 1969 and 1974 respectively. In 1969 he joined DLR (the German Aerospace Center) where he first worked on fast digital control systems. 1976 he became head of the automation and robotics laboratory of DLR, where he and his co-workers soon got several awards for innovative technology transfer from robotics research to applications. In 1991 he received a joint professorship from the Technical University of Munich, and in 2003 a honorary professorship at the Harbin Institute of Technology in China.

Since 1992 he has been director at DLR's institute for „Robotics and Mechatronics", which is one of the biggest and most acknowledged Institutes in the field worldwide, including not only robot development for space and terrestrial applications, but also aircraft control and optimization, vehicle technology (x by wire components and systems) and medical technology (artificial hearts and surgical robots). He has published more than 600 papers in robotics, mainly on robot sensing, sensory feedback, mechatronics, man-machine interfaces, telerobotics and space robotics. He was prime investigator of the space robot technology experiment ROTEX, the first real robot in space, which flew onboard shuttle COLUMBIA in April 93. He was vice-program chairman of the IEEE Conferences on Robotics and Automation 1994 and 1995, program chairman of IROS (Intelligent Robot Systems Conference) 1994 and organizer of the 7th International Symposium on Robotics Research in 1995. In a large number of other international robot conferences he was program committee member or invited plenary speaker. For many years he has been chairman of the German council on robot control and administrative committee member of the IEEE Society on Robotics and Automation. He is now member of the IEEE fellow award committee.

He rejected a number of chairs offered to him by different European Universities and received numerous national and international awards, e.g. in 1994 the Joseph-Engelberger-Award for achievements in robotic science and in 1995 the Leibniz-Award, the highest scientific award in Germany and the JARA (Japan robotics association) Award. In 1996 he received the Karl-Heinz-Beckurts-Award, Germany's most important award for outstanding promotion of the partnership between science and industry, and in 1997 the IEEE-Fellow Award. In 2004 he got the order of merit of the Federal Republic of Germany and became member of the "wall of fame" of the Heinz Nixdorf Computer Museum. In 2005 he received the IEEE Pioneer Award of the Robotics and Automation Society and the "honorary citizenship" of Budapest Tech, and in 2007 the IEEE Field Award "Robotics and Automation".

## Transition

### Dr. Jiri Benes
1921 - 2008

It is with great sadness that we have to inform you of the passing of Dr. Jiri Benes, IFAC Advisor, on May 3, 2008.

Dr. Benes was active in IFAC already in the late sixties, when he was Vice-President of the Federation. He was among the first IFAC Officers to be appointed IFAC Advisor by the President and he has remained in close contact with the automatic control community long after his official retirement.

In the letter informing IFAC of his passing, his daughter wrote: „He left peacefully, and all the way to the end maintained his love and respect for science. He kept up with the news and direction of IFAC and other scientific advancements with pride and dedication.

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During the CAB+DYCOPS 2007 Symposium, the IFAC Technical Committees 6.1 on Chemical Process Control (headed by Wolfgang Marquardt, DE, and 8.4 on Biosystems and Bioprocesses (headed by Marie Noelle Pons, FR) held a joint meeting that, in view of the positive outcome of the joint Cancun meeting and the willingness to keep moving in the same direction, approved: (i) the coordinated organization of the CAB+DYCOPS 2007 symposia in Brussels, Belgium, in 2010, and (ii) the corresponding IPCs (Antonio Alonso for DYCOPS, and Denis Dochain for CAB) and NOCs (Alain vande Wouwer for DYCOPS, and Ilse Smets for CAB) chairpersons.



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