



1999
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Newsletter

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Mogens Blanke, Council Member

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14th IFAC World Congress

Beijing, China, P.R., 5 July, 1999

For the first time in IFAC history, the World Congress was convened on the Asian continent. And this Congress and all the related meetings were outstanding in many respects. The facilities provided and the scientific level of the Congress were excellent, and participation did not lag behind previous IFAC Congresses. In this and further issues of the Newsletter, there will be plenty of opportunities to inform about the scientific aspects of the Congress in greater detail.

During the General Assembly, all IFAC Officers gave their progress reports and it may be said that IFAC is in very good shape indeed.

The team, which was elected by the General Assembly to lead IFAC into the new millennium, is composed as follows:

Council

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	Eduardo Mosca	IT
	Jonas Paiuk	AR
	Torsten Söderström	SE
	Paul van den Hof	NL

Opening Ceremony

The Opening Ceremony took place in a very festive frame at the Beijing International Congress Centre. IFAC Congress participants had the great honour to be addressed by outstanding representatives of Chinese public life: Mr. Lanqing Li, Vice Premier of China, Prof. Ruwei Dai, Co-President of the Chinese Association of Automation, Congress Co-Chair, Ms. Wenyi Lin, Vice-Mayor of Beijing, Prof. Yongxiang Lu, President of the Chinese Academy of Sciences, NOC Chair, Prof. Yongzai Lu, President of IFAC, Prof. Hanfu Chen, Congress Co-Chair, Chairman of the IPC. The keynote speech was given by Prof. Jian Song, President of the Chinese Academy of Engineering, who has been connected to IFAC from the first days when the Federation was founded. Parts of this speech will be published in one of the next issues of the IFAC Newsletter.

IFAC Congresses are also the time when the President presents awards and appoints Advisors. In many cases, only one Advisor is appointed. But this Congress was outstanding also in this respect. Three

distinguished persons received the Advisor's Seal during the Opening Ceremony: Professor Stephen Kahne, Past President of IFAC; Professor Pieter Eykhoff, who has served IFAC in many capacities for many years; and Professor Janos Gertler, instrumental, among others, in drafting the main body of the present IFAC Constitution and By-Laws. All of them continue to serve IFAC in various ways, and their advice will in the future be sought in essential matters.

At the Opening Ceremony, the two Major Medals awarded by IFAC, were presented. The Quazza Medal was awarded to Professor Brian D.O. Anderson "for his comprehensive contributions to Control Theory and his leadership in IFAC". The Nichols Medal was awarded to Dr. Gunther Stein "for his contributions to the theory and practice of automatic control in the aerospace industry".

Closing Ceremony

At the Closing Ceremony, the IFAC Congress Applications Paper Prize was awarded to J.F. Magni, and co-workers (C. Döll, C. Chiappa, B. Frapard and B. Girouart) for the paper: Mixed μ Analysis for Flexible Systems; The IFAC Congress Young Author Prize was awarded to Y. Hong for the paper: H infinite Control, Stabilization and Input-Output Stability of Nonlinear Systems Based on Homogeneous Techniques. The IFAC Control Engineering Textbook Prize, endowed in honor of Harold Chestnut, 1st President of IFAC, was awarded to Ch.G. Cassandras for the Textbook: Discrete Event Dynamic Systems: Modelling and Performance Analysis, published by R.D. Irwin, Inc. and Aksen Assoc, Inc. The Congress Poster Prize (funded by the Beijing Congress NOC) was awarded to two papers: Deyi Li and co-workers (Hui Chen, Jianhua Fan, C.Z. Shen) for the paper: A Novel Qualitative Control Method to Inverted Pendulum Systems; and Kazuo Tanaka and co-workers (T. Taniguchi, H.O. Wang) for the paper: Robust and Optimal Fuzzy Control: A Linear Matrix Inequality Approach.

In addition, the awards of the two IFAC Journals - Automatica and Control Engineering Practice - were presented.

The Automatica Paper Prizes were awarded to the following papers: From Youla-Kucera to Identification, Adaptive and Nonlinear Control, by B.D.O. Anderson; A New Pattern Recognition Adaptive Controller with Application to HVAC, by J.E. Seem; and Stability of Bottom Heavy Underwater Vehicles, by N.E. Leonard.

The Control Engineering Practice Paper Prizes were awarded to the following papers: Electrical Assistance for SI Engine Idle-Speed Control, by P. Bidan and co-workers (L.K. Kouadio, M. Valentin, G. Montseny); Optimization of Boiler Control to Improve the Load-Following Capability of Power Plant Units, by J.H. Mortensen and co-workers (T. Moelbak, P. Andersen, T.S. Pedersen); and A Distributed Expert Control System for a Hydrometallurgical Zinc Process, by M. Wu and co-workers (M. Nakano, J.H. She)

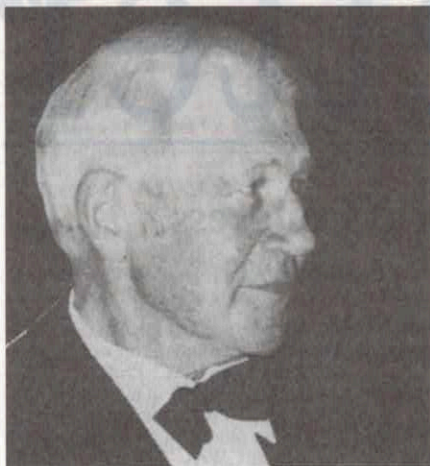
In the next issues of the Newsletter, the various awards, the finalists and winners and the criteria for selecting them and awarding the prizes will be described in detail.

John F. Coales

14 September, 1907

6 June, 1999

IN MEMORIAM



John F. Coales

We have learnt with great sadness that John F. Coales, an outstanding scientist, one of IFAC's founding fathers and leading representatives of the Federation, passed away on 6 June, 1999.

Born at Harborne in Birmingham, John Coales was educated at Berkhamsted School and Sussex College. In 1929 he joined the Admiralty to do original work on radio-direction finding, transferring in 1937 to ultra short-wave radar and communications. During the Second World War he was in charge of research and development of naval gunnery radar, for which he was awarded the O.B.E. in 1946. The same year he was appointed research director of Elliott Brothers, responsible for work on all aspects of instrumentation and automatic control. In 1952 Professor Coales returned to Cambridge University to organize research and post-graduate courses in control engineering. He was appointed assistant director of research in 1953 and rose to take a personal chair in 1965, when he also became one of the first Fellows of Clare Hall. In that year, the UK Science Research Council awarded John Coales' group a grant to set up a powerful combined analogue and digital computing installation to carry out long-term research on adaptive control of complex processes.

John Coales' service for IFAC began in 1957, when he became member of the Executive Council. From 1961-63 he was first Vice-President. In 1963 he was elected President of IFAC for the 1963-66 triennium. The 3rd IFAC World Congress, which was prepared and took place under his Presidency in London in 1966, was a great success, but by no means marked the end of his IFAC activities. First serving as Past President and then member of the Advisory Committee, he was appointed lifetime Advisor of IFAC. John Coales was instrumental in initiating the one-publisher agreement between IFAC and Pergamon Press and was Chairman of the Publications Managing Board for many years.

John Coales never ceased taking an active interest in IFAC. He attended every IFAC Congress and was a source of inspiration and an example for many generations of control engineers.

We shall remember John Coales as the great scientist and inventor, as an educator but also as a warm-hearted man who was a pleasure to be with at all times. He will be missed and never forgotten.

Recommendations to Improve Industrial Involvement

During the last triennium the participation of industry in IFAC events was of major concern to the Executive Board of IFAC, since an active role of colleagues from industry is of primary importance for the development, the transfer and the application of control and automation sciences. Therefore, a Task Force, coordinated by the Chairman of the IFAC Policy Committee studied the matter and made proposals which were cast into recommendations approved by the IFAC Council in the framework of its meetings held in the course of the IFAC World Congress in Beijing. The IFAC Council thus asks organizers of IFAC events to take the following into account:

- **Action Items**
 - all major IFAC events (Symposia, Conferences, Congresses, and appropriate workshops) should make provision for
 - NOC Vice-Chair for Industry involvement
 - IPC Vice-Chair for Industry technical involvement
- **Improved Targeted Publicity**
 - invite local and regional industries
 - invite local news media (with topics for general media attention)
 - organize IFAC events at application-based industrial professional meetings
- **Including Events of Interest to Industry**
 - organize tutorial workshops before (or after) the event
 - technical sessions with applications content (e.g. survey on a method by industry or university, followed by several short presentations on the application of the method by industry)
 - papers on success stories, on best practice (no lengthy theory)
 - plan and highlight special industry tracks
 - problem-solving workshop sessions
 - panel discussions on topics of interest for industry
 - high attractiveness for industrialists
 - no requirement for full manuscripts
- **Papers from Industry**
 - special invitation of industry papers
 - special review process under the guidance of IPC Vice-Chair for Industry
 - acceptance based on (extended) abstract, no full paper.
- **Exhibits of Products Relevant to IFAC meetings**
 - exhibits by local, regional and international industry add to the attractiveness
 - size of exhibits to be compatible with the expected size of the event to avoid low attendance at technical sessions
- **Location and date of the Event**
 - the meeting place should be close to industrial centers, easy to reach
 - the length of the event should be no more than 2 or 3 days.
 - 1-or-2 day-participation should be possible
 - important for industrial participation is the time spent (including traveling)

The above recommendations apply to IFAC meetings with theoretical topics but in particular also to those which are applications-oriented or treat special application areas.

The forms used to apply for IFAC events will forthwith also ask to identify the special Vice-Chairs and the special activities for improving industrial participation.

We hope that we can, in this way, improve the quality of our events even further.

Rolf Isermann
Vice-President
Chairman Executive Board 1996 - 99

LAST CALL

Issues 2 and 3 of the Newsletter this year conducted a Newsletter Survey and confirmation of Affiliate Membership.

For those who have not replied, this will be the last Newsletter they receive, unless they send us a confirmation by return mail/e-mail. If you have already replied, please do not repeat your confirmation.

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FORTHCOMING EVENTS (ctd.)

Title	2000	Place	Deadline	Further Information
IFAC Symposium (9 th) Control in Transportation Systems 2000	June 13 - 15	Braunschweig Germany	17 Sept. 1999	Prof. E. Schnieder Inst. f. Regelungs- und Automatisierungs- technik, Langer Kamp 8 D-38106 Braunschweig, Germany Fax: +49/531/391 5197 e-mail: trans-system2000@tu-bs.de http://www.ifra.ing.tu-bs.de/ifac/
IFAC Symposium Fault Detection, Supervision and Safety for Technical Processes - SAFEPROCESS 2000	June 14 - 16	Budapest Hungary	15 Oct. 1999	Prof. Andras Edelmayer, Comp&Autom. Inst., H A S Kende u. 13 - 17, H-1111 Budapest, Hungary FAX: +36/1/386 9378 e-mail: edelmayer@sztaki.hu http://www.sztaki.hu/conferences/safeprocess2000
IFAC Symposium Advanced Control of Chemical Processes - ADCHEM 2000	June 14 - 16	Pisa Italy	6 Sept 1999	IFAC ADCHEM 2000, Prof. A. Brambilla Dip. of Chem. Engg., University of Pisa Via Diotisalvi, 2, I-561226 Pisa, Italy FAX: +39/50 511266 e-mail: adchem2000@ing.unipi.it http://adchem-2000@diccism.unipi.it http://adchem-2000.cheme.emu.edu
IFAC Symposium (7 th) Automated Systems Based on Human Skill - Joint Design of Technology and Organization	June 15 - 17	Aachen Germany	1 Jan. 2000	VDI/VDE GMA IFAC - NMO Secretariat, POB 10 11 39 D-40002 Düsseldorf, Germany FAX: +49/211/6214 161 e-mail: rosenzweig@vdi.de http://www.vdi.de/gma/gma_e-htm
IFAC Conference Control Systems Design	June 18 - 20	Bratislava Slovak Rep.	20 Sept. 1999	Prof. Stefan Kozak, Ilkovicova 3 SK-81219 Bratislava, Slovak Rep. FAX: 42/7/65429734 e-mail: kozak@kasr.elf.stuba.sk http://www.kasr.elf.stuba.sk/csd2000
IFAC Symposium Robust Control Design - ROCOND 2000	June 21 - 23	Prague Czech Rep.	1 Sept. 1999	Dr. Michael Sebek Institute of Information Theory and Automation CZ-18208 Prague, Czech Rep. FAX: +420/2/6884554 e-mail: msebek@utia.cas.cz
IFAC Symposium 12 th System Identification - SYSID 2000	June 21 - 23	Santa Barbara CA, USA	1 Sept. 1999	SYSID 2000 Secretariat Dept. of El. & Comp. Engineering UCSB, Santa Barbara, CA, 93106, USA FAX: +1/805/893 3262 e-mail: sysid2000@ece.ucsb.edu http://www.ece.ucsb.edu/cccc/SYSID2000
American Control Conference ACC2000 (in cooperation with IFAC)	June 28 - 30	Chicago, IL USA		Prof. A. Haddad, AACC Secretariat Dept. of ECE, North Western Univ. 2145 Sheridan Road Evanston, IL 60208-3118, USA FAX: +1/647/491 4456 e-mail: acc00@ece.nwu.edu http://che.vill.edu/acc.2000/acc.html
IFAC Workshop Control Applications of Optimization	July 3 - 6	St. Petersburg Russia	1 Jan. 2000	CAO 2000 Organizing Committee St. Petersburg State University Fac. of Applied Math. and Control Processes Bibliotchnaya pl. 2, Petrodvorets St. Petersburg 198904, Russia FAX: +7/812/428 7189 e-mail: cao2000@apmath.spbu.ru http://www.apmath.spbu.ru/cao2000/
IFAC Conference Technology Transfer in Developing Countries Automation in Infrastructure Creation	July 5 - 7	Pretoria South Africa	1 Sept. 1999	Prof. Ian K. Craig Dept. of Electrical and Electronic Engg. University of Pretoria, Pretoria, South Africa FAX: +27/12/362 5000 e-mail: icraig@postino.up.ac.za http://www.ee.up.ac.za/decom/
IFAC/(IFIP/IEEE) Conference 2 nd Management and Control of Production and Logistics - MCPL 2000	July 5 - 8	Grenoble France	30 Nov. 1999	Prof. B. Descotes-Genon L A G, ENSIEG-INPG, BP 46 F-38402 Saint Martin-d'Herès-Cedex, France FAX: +33/04/76826388 e-mail: mcpl@lag.ensieg.inpg.fr http://www-lag.ensieg.inpg.fr/conferences/mcpl2000
IFAC Conference Modelling and Control in Agriculture Horticulture and Post-Harvest Processing - AGRICONTROL 2000	July 10 - 12	Wageningen NL	1 Dec. 1999	Congress Office, Wageningen Agric. Univ. Costerweg 50 NL-6701 BH Wageningen, Netherlands e-mail: Joost.Meulenbroek@alg.vl.wau.nl http://www.aenf.wau.nl/conf2000
IFAC Conference Manufacturing Modelling, Management and Control - MIM 2000	July 12 - 14	Patras Greece	15 Oct. 1999	Prof. Peter Groumpos, El. & Computer Engg. Lab. for Automation & Robotics GR-26500 Rion Patras, Greece FAX: +30/61/997309 e-mail: groumpos@ee.upatras.gr
IFAC Workshop Future Trends in Automation of the Mineral and Metal Processing	August 22 - 24	Espoo Finland	1 January 2000	Prof. K. Leiviskä, University of Oulu, POB 4300 FI-90401 Oulu, Finland FAX: +358/8/5532466 e-mail: kauko.leiviskä@oulu.fi http://kepo.hut.fi/IFAC MM-Workshop2000
IFAC Conference (5 th) Manoeuvring and Control of Marine Craft - MCMC 2000	August 24 - 27	Aalborg DK	20 January 2000	Prof. Mogens Blanke, Dept. of Control Engg. Aalborg University, Fredrik Bajers Vej 7C DK-9220 Aalborg, Denmark FAX: +45/98/151739 e-mail: mcmc2000@control.auc.dk http://www.control.auc.dk/MCMC2000



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Aug.

Title	1999	Place	Deadline	Further Information
5 th European Control Conference (in cooperation with IFAC) ECC99	August 31 – Sept. 3	Karlsruhe Germany	-	VDI-VDE GMA ECC'99 Secretariat, POB 10 11 39 D-40239 Düsseldorf, Germany FAX: +49/211/6214-161 e-mail: gma@vdi.de http: ecc99.uni-duisburg.de/
2 nd Intl. Workshop European Scientific and Industrial Collaboration – WESIC 99	September 1 – 3	Newport UK	-	Ms Jane John, Mechatronics Research Centre UWCN, POB 180 Newport NP9 5XR, UK FAX: +44/1633/432442 e-mail: wesic@newport.ac.uk http://www.newport.ac.uk
16 th IAARC/IFAC/IEEE Int. Symposium Robotics and Automation in Construction – ISARC 99	Sept. 22 – 24	Madrid Spain	-	ISARC'99 Secretariat Escuela Politécnica Superior, c/Butarque, 15 Universidad Carlos III de Madrid E-28911 Leganes (Madrid), Spain FAX: +34 91 624 94 30 e-mail: isarc99@ing.uc3m.es http://www.uc3m.es/isarc99
EFITA/IFAC 2 nd Conference Information Technology in Agriculture	Sept. 27 – 30	Bonn Germany	-	Prof. Dr. Gerhard Schiefer, University of Bonn Meckenheimer Allee 174 D-53115 Bonn, Germany FAX: +49/228/733431 e-mail: efita999@uni-bonn.de http: //www.dainet.de/efita99
EPS/IFAC Intl. Conference Accelerators and Large Experimental Physics Control System – ICALEPCS'99	Oct. 4 – 8	Trieste Italy	-	ICALEPCS 99 Conference Secretariat Sincrotrone Trieste, S.S.14 – Km 163,5 Basovizza, I-34012 Trieste, Italy FAX: +39/40/3758565 e-mail: icalpecs@elettra.trieste.it http: www.elettra.trieste.it/ICALEPCS99
ISA/IFAC Conference INTERKAMA-ISA TECH	Oct. 18 – 23	Düsseldorf Germany	-	I S A, Ms. Susan Janke 67 Alexander Drive, POB 12277 Research Triangle Park, NC 27708 FAX: +1/919/549-8288 e-mail: info@isa.org http: www.isa.org/interkama
IFAC Workshop Multi-Agent Systems in Production	Dec. 2 – 4	Vienna Austria	-	Dr. Gernot Kronreif, Institute of Robotics Vienna University of Technology Floragasse 7 A, A-1010 Vienna, Austria FAX: +43/1/504 18 359 e-mail: kronreif@ihrt1.ihrt.tuwien.ac.at http: www.ihrt.tuwien.ac.at/MAS99/
Title	2000	Place	Deadline	Further Information
IMACS/IFAC Symposium 3 rd Mathematical Modelling – MATHMOD 2000	Feb. 2 – 4	Vienna Austria	-	Prof. Inge Troch, Vienna Univ. of Technology Wiedner Hauptst. 8 - 10, A-1040 Vienna, Austria FAX: +43/1/586 29 59 e-mail: inge.troch@tuwien.ac.at http://simtech.tuwien.ac.at/3rdMATHMOD
IFAC Workshop Programmable Devices and Systems – PDS 2000	Feb. 8 – 9	Ostrava Czech Rep.	20 Sept. 1999	Prof. Karel Vlcek VSB-Technical Univ. of Ostrava, 17, listopadu 15 CZ-70833 Ostrava, Czech Rep. FAX: +420/69/699 3138 e-mail: karel.vlcek@vsb.cz
IFAC Workshop Lagrangian and Hamiltonian Methods for Nonlinear Control	March 16 – 18	Princeton NJ, USA	15 Sept. 1999	Prof. Naomi E. Leonard Princeton University, MAE Dept. Equad. Rm. D209 A Princeton, NJ, 08544 USA FAX: +1/609/258 6109 e-mail: naomi@princeton.edu http://graham.princeton.edu/~auvlab/workshop.html
IFAC/IMEKO Symposium Modelling and Control in Biomedical Systems – BIOMED 2000	March 30 – April 1	Karlsburg Germany	-	IFAC Biomedical Symposium Secretariat Inst. of Diabetes „G. Katsch“ Karlsburg e.V. Greifswalder Str. 11 e D-17495 Karlsburg, Germany FAX: +49 38355 68444 e-mail: diab@rz.uni-greifswald.de http: www.diabetes-karlsburg.de
IFAC Workshop Digital Control: Past, Present and Future of PID Control	April 5 – 7	Terrassa Spain	15 October 1999	Comite Espanol de la IFAC (CEA-IFAC) Secretary of PID'00 R. Sant Nebridi, 10, E-08222 Terrassa, Spain FAX: +34/93/739 86 28 e-mail: pid00@esaii.upc.es http: www-esaiiterrassa.upc.es/pid00
IFAC/CIGRE Symposium Power Plants and Power Systems	April 26 – 29	Brussels Belgium	-	IBRA/BIRA Federation Attn. Mr. F. Desclefs – General Secretary Ravensteinstreet 3, B-1000 Brussels, Belgium FAX: +32 /2 /511 7004 e-mail: ifac2000@skynet.be http: www.fpms.ac.be/~ibra/

Control Engineering Practice

A Journal of **IFAC** the International Federation of Automatic Control

Papers from the June 1999 Issue

Accurate Position Control of Servo Pneumatic Actuator Systems: An Application to Food Packaging
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Modelling of Ozone Concentrations Using a Takagi-Sugeno Model
(G. Mourot, K. Gasso, J. Ragot)
System Identification with Multi-level Periodic Perturbation Signals
(H.A. Barker, K.R. Godfrey)

Special Section on Intelligent Autonomous Vehicles
Preface on the Special Section on Intelligent Autonomous Vehicles
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(J.E. Normey-Rico, J. Gomez-Ortega, E.F. Camacho)
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(B. Nilsson, J. Nygards, U. Larsson, A. Wernersson)
Representation of Interactions between Mobile Robots for Trajectory Planning
(C. Zanardi, J.-Y. Hervé, P. Cohen)
Localization of a Wheeled Mobile Robot by Sensor Data Fusion Based on a Fuzzy Logic Adapted Kalman Filter
(L. Jetto, S. Longhi, D. Vitali)
Sensor Fusion for Localization Using Possibility Theory
(C. Sossai, P. Bison, G. Chemello, G. Trainito)
Can Robots Learn to See?
(G. von Wichert)
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IFAC Meeting Papers – Keyword Listing
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On-orbit System Identification Experiments on Engineering Test Satellite-VI
(S. Adachi, I. Yamaguchi, T. Kida, T. Segikuchi, K. Yamada, Y. Chida)
Linear and Nonlinear Skyhook Damping Control Laws for Active Railway Suspensions
(H. Li, R.M. Goodall)
Robust Controllers for Simultaneous Control of Temperature and CO₂ Concentration in Greenhouses
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Special Section on On-line Fault Detection and Supervision in the Chemical Process Industry
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(R. Shao, F. Jia, E.B. Martin, A.J. Morris)
Observing Sugar-beet Quality Using Process and Signal-analysis Methods
(A. Arenz, M. Reimann, E. Schnieder, U. Harten)
Real-time Monitoring for a Process with Multiple Operating Modes
(D.-H. Hwang, C. Han)
PCA-SDG Based Process Monitoring and Fault Diagnosis
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IFAC Meeting Papers – Keyword Listing
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Object-oriented Models for Advanced Automation Engineering
(C. Maffezzoni, L. Ferrarini, E. Carpanzano)
Improved Constrained Cascade Control for Parallel Processes
(R. Lestage, A. Pomerleau, A. Desbiens)
Reliability Improvement of the Dual-priority Protocol under Unreliable Transmission
(N. Navet, Y.-Q. Song)

Special Section on Advances in Automotive Control
Preface on the Special Section of Advances in Automotive Control
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(U. Kiencke, R. Majjad, S. Kramer)
Automatic Design of Diagnosis Systems with Application to an Automotive Engine
(M. Nyberg)
Transmission Shift Controller Design Based on a Dynamic Model of Transmission Response
(Q. Zheng, K. Srinivasan, G. Rizzoni)
Supporting Real-time Distributed Computer-controlled Systems with Multi-hop P-NET Networks
(E. Tovar, F. Vasques, A. Burns)

IFAC Meeting Papers - Keyword Listing
System Structure and Control, Nantes, France, July 1998

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Title	2000	Place	Deadline	Further Information
IFAC Symposium (8 th) Computer Aided Control Systems Design - CACSD 2000	Sept. 11 - 13	Salford UK	-	Prof. J. Gray, Dept. of Electronic & El. Engg. University of Salford, Salford M5 4WT, UK FAX: +44/0161/295 5975 e-mail: j.o.gray@eee.salford.ac.uk
IFAC Workshop Linear Time Delay Systems	Sept. 11 - 13	Ancona Italy	15 January 2000	Prof. G. Conte, Dip. di Elettronica e Automatica Universita di Ancona, Via Breccia Bianche I-60131 Ancona, Italy FAX: +39/071/2804334 e-mail: gconte@popcsi.unian.it http://dipmat.unian.it/LTDS2000
IFAC Symposium (4 th) Intelligent Components and Instruments for Control Application - SICICA 2000	Sept. 13 - 15	Buenos Aires Argentina	-	AADECA, Av. Callao 220 1o B 1022 Buenos Aires, Argentina FAX: +54/1/372-3780 e-mail: system@aaedca.satlink.net http://www.aaedca.org
IFAC Conference Mechatronic Systems	Sept. 18 - 20	Darmstadt Germany	15 Nov. 1999	VDI/VDE-GMA, Mechatronics 2000 POB 10 11 39, D-40002 Düsseldorf, Germany FAX: +49/211/6214-161 e-mail: mechatronics2000@vdi.de http://www.vdi.de/gma/ifac-mechatronic
IFAC Symposium Robot Control - SYROCO 2000	Sept. 21 - 23	Vienna Austria	29 Feb. 2000	SYROCO 2000, Inst. f. Handling Dev & Robotics Univ. of Tech., Florag. 7a, A-1040 Vienna, Austria e-mail: kopecek@ihrt1.ihrt.tuwien.ac.at http://www.ihrt.tuwien.ac.at/SYROCO/
IFAC Symposium Artificial Intelligence in Real-Time Control - AIRTC 2000	October 2 - 4	Budapest Hungary	1 Dec. 1999	Prof. Imre Rudas, Nepszinhaz u. 8 H-1081 Budapest, Hungary FAX: +36/1/333 9183 e-mail: rudas@zeus.banki.hu
IFAC Workshop Bio-Robotics, Information Technology and Intelligent Control for Bio-production Systems - BIO-ROBOTICS II	Nov. 25 - 26	Osaka area Japan	1 February 2000	Prof. Naoshi Kondo, Faculty of Agriculture Okayama University, 1-1-1, Tushima-Naka Okayama 700-8530, Japan FAX: +81/86/251-8351 e-mail: nkondo@cc.okayama-u.ac.jp
IFAC/IEEE Symposium (5 th) Advances in Control Education ACE - 2000	Dec. 17 - 19	Gold Coast Australia	January 2000	Dr.L. Vlacic, School of Microelectronic Engg. Griffith Univ., Nathan, Qld. 4111, Australia FAX: +61/7/3875 5384 e-mail: ace2000@me.gu.edu.au http://www.gu.edu.au/centre/icsl/ace2000/

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Brief Papers

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Adaptive Control of Robot Manipulators with Controller/Update Law Modularity
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Analysis of a Two-relay System Configuration with Application to Coulomb Friction Identification
(A. Besancon-Voda, G. Besancon)
Control Parametrization Enhancing Technique for Optimal Discrete - Valued Control Problems
(H.W.J. Lee, K.L. Teo, V. Rehbock, L.S. Jennings)
Robust High-order Tuner of Simplified Structure
(V.O. Nikiforov)
Robust Decentralized Adaptive Control for Non Minimum Phase Systems with Unknown and/or Time Varying Delay
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A Note on the Action of Constant Pseudostate Feedback on the Internal Properness of an ARMA Model
(E.N. Antoniou, A.I.G. Vardoulakis)
Model Reference Adaptive Control of a Maglev System with Stable Maximum Descent Criterion
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H-infinite Stability Robustness of Fuzzy Control Systems
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(L.-X. Wang)
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Upper Bounds for the Solution of the Discrete Algebraic Lyapunov Equation
(M.K. Tippett, D. Marchesin)
Discrete Adaptive Sliding-mode Control of a Class of Stochastic Systems
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A Robust Decentralized Model Reference Adaptive Control for Non-minimum-phase Interconnected Systems
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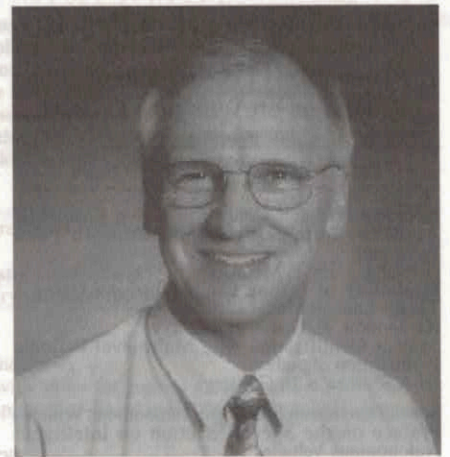
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WHO IS WHO IN IFAC



Prof. Mogens Blanke

Mogens Blanke was born in 1947 in Copenhagen, Denmark. He received the M.Sc. and Ph.D. degrees in automatic control from the Technical University of Denmark (DTU) in 1974 and 1982, respectively. He was a systems analyst at the European Space Agency in the Netherlands in 1975-76, assistant and later associate professor of control engineering at DTU from 1976 to 1985. He was head of the Marine Division of the Automation Company Søren T. Lyngsø A/S from 1985 until 1990 where main activities included total ship integrated control and diesel engine control. He was appointed, in 1990, to the Chair as Professor of Control Engineering at Aalborg University, where he started the research group in autonomous systems and fault-tolerant control. The group's most visible achievement was the autonomous attitude control system for the first Danish satellite, which has been in orbit since early 1999.

Mogens Blanke's research interests include identification and control of continuous, non-linear systems, estimation and fault detection, and design methods for fault tolerant control. His personal application interests include spacecraft attitude control, automatic steering and rudder-roll damping for ships, and control systems for ship propulsion.

In IFAC, Mogens Blanke started the Working Group on Marine Systems in 1986. He chaired the WG and later the Technical Committee of Marine Systems until 1996 and chaired the Co-ordination Committee for Transportation and Vehicles from 1996-99. He was elected to the Council in July 1999.

Mogens Blanke received the Radio Parts Award in 1985, the Esso Prize in 1986 and, jointly with the satellite control team in Aalborg, the Aalborg City Springtime Award in 1999.

Robust Stability and Performance with Fixed Order Controllers
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(A.J. Wilkinson)
Modelling and Simulation of Human Behaviour in System Control, by Pietro Carlo Cacciabue
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Finite Horizon H infinite and Related Control Problems, by M.B. Subrahmanyam
(P. Berhard)