



1997  
No. 1  
Feb.

# Newsletter

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### Message from the Newsletter Editor

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Volume 5, Nos 1 & 2

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of Automatica, Nos 1 & 2

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Who is Who in IFAC

## Message from the Newsletter Editor

This first issue of the IFAC Newsletter in 1997 differs somewhat from other editions of this publication. It is intended to use this issue to give you a complete survey over the technical events which have so far been approved for 1997 and 1998. Looking even further ahead we can already announce the dates of the next IFAC World Congress, which will be held in the Beijing International Convention Center (BICC), Beijing, China, P.R. from 4 - 9 July, 1999. The first IPC meeting for the Congress was held in the framework of the last World Congress in San Francisco, July 1996. But planning for technical events already extends to the year 2000 and beyond.

The past year was one of many changes. A very important one for the activities of the Federation was the firm establishment of the IFAC Homepage. After an initial trial period it is now ready and easily accessible at [www.dit.upm.es/~ifac](http://www.dit.upm.es/~ifac). It contains some standard information on the history and development of IFAC. Further there is a calendar of IFAC events

and links to homepages established by some event organizers. Another important feature is the IFAC Procedure Booklet, which provides information on how to organize an IFAC meeting. All National Member Organizations are listed with links to their homepages, if available. The contents of the IFAC Newsletter is regularly published on the IFAC Homepage. Also Affiliate Information, including the Affiliate Registration Card can be downloaded from the Homepage.

The IFAC Information Brochure, edition 1996 is now available and can be ordered from the IFAC Secretariat free of charge.

In the last two issues of the Newsletter, a request for renewal of Affiliate membership was made. For those who have not replied this will be the last Newsletter they receive, unless they confirm their wish to continue their subscription by return fax or e-mail.

## Control Engineering Practice Volume 5, Number 1, January 1997

### Preview

Model-Integrated On-Line Problem-Solving in Chemical Engineering (G. Karsal and F. DeCaria)  
Coordinated Control of Spacecraft Attitude and Space Manipulators (M. Oda and Y. Ohkami)  
Design of a Combined Tracking Control System (F.R. Rubio and J. Aracil)  
Individual Channel Analysis and Helicopter Flight Control in Moderate- and Large-Amplitude Manoeuvres (G.J.W. Dudgeon, J.J. Gribble and J.O'Reilly)  
Dynamic Modelling and Genetic-Based Trajectory Generation for Non-Holonomic Mobile Manipulators (M.W. Chen and A.M.S. Zalzal)  
Development and Performance of a Neural-Network Predictive Controller (J.B. Gomm, J.T. Evans and D. Williams)

### Special Section on Control of Power Plants and Power Systems

Preface to the revised papers from the 2nd IFAC Symposium on Control of Power Plants and Power Systems (SIPOWER '95) (R. Canales-Ruiz)  
Development and Experimental Identification of Dynamic Models for Wind Turbines (E. Welfonder, R. Neifer and M. Spanner)  
New Monitoring System for Thermal Power-Plant using Digital Image Processing and Sound Analysis (T. Okawa, M. Tomizawa and S. Degawa)  
Predictive Co-Ordinated Control for Power Plant Steam Pressure and Power Output (S. Lu and B.W. Hogg)  
On-Line Thermal Stress Monitoring using Mathematical Models (G.K. Lausterer)  
Performance Index and Classifier Approaches to Real-Time Discrete-Event Control (S.M. Rovnyak, C.W. Taylor and J.S. Thorp)

An Intelligent Expert System (KBOSS) for Power Plant Coal Mill Supervision and Control (G.Q. Fan and N.W. Rees)  
Stabilization and Re-Engineering of a Hydro-Electric Power Plant - A Case Study (K.H. Fasol)  
Analysis of Inter-Area Damping Enhancement by Static VAR Compensators in Longitudinal Power Systems (A. Roman Messina and M.A. Avila Rosales)  
Fast Simulation of Power System Dynamics in a General Purpose Simulator (P. Baratella, B. Cova, M. Damonte, E. Gaglioti, R. Marconato and P. Scarpellini)

### IFAC Meeting Papers - Keyword Listing

13th IFAC Triennial World Congress (Volume C), July 1996, San Francisco, USA  
Supplementary Ways of Increasing International Stability, September 1995, Vienna, Austria  
13th IFAC Triennial World Congress (Volume D), July 1996, San Francisco, USA

Index of IFAC Meeting Papers  
Book Reviews  
Conference Calendar

## Control Engineering Practice Volume 5, Number 2, February 1997

### Preview

CEP Prize Winners at CONTROL '96 (G.W. Irwin)  
Lessons to be Learned from European Science and Applications Space Missions (W. Wimmer)  
Predictive Control of a Glass Process (Q. Wang, G. Chalaye, G. Thomas and G. Gilles)  
Active Suspension of Motor Coaches using Skyhook Damper and Fuzzy Logic Controls (T. Yoshimura, Y. Isari, Q. Li and J. Hino)  
Two Methods for the Engineering of Manufacturing Systems (J. Zaytoon and G. Villemain-Lecolier)

Robust Fault Diagnosis Based on Clustered Symptom Trees (Kyung Hoo Mo, Gibaek Lee, Dong Soo Nam, Yeo Hong Yoon and En Sup Yoon)  
A New Field-Oriented Discrete-Time Controller for Current-Fed Induction Motors (C.L. Hwang, R. Puerto, R. Ortega and L. Loron)

### Special Section on Automation in Mining, Mineral and Metal Processing

Preface to the Revised Papers from the 1995 IFAC Symposium on Automation in Mining, Mineral and Metal Processing (D.G. Hulbert)  
Improved Mould-Level Control in a Continuous Steel Casting Line (R.M.C. de Keyser)  
Computer-Aided Measurements in Mining Mineral and Metal Processing (B.T. Cronhjort, A.J. Niemi and E. Suoninen)  
Predictive Fuzzy Control Applied to the Sinter Strand Process (J.Q. Hu and E. Rose)  
Using Electrical Impedance Tomography for Controlling Hydrocyclone Underflow Discharge (R.A. Williams, F.J. Dickin, J.A. Gutiérrez, T. Dyakowski and M.S. Beck)  
Measurement of Load Behaviour in an Industrial Grinding Mill (M.A. van Nierop and M.H. Moys)  
Machine Learning Strategies for Control of Flotation Plants (C. Aldrich, D.W. Moolman, F.S. Gouws and G.P.J. Schmitz)  
Model Predictive Control for Grinding Systems (A.J. Niemi, L. Tian and R. Ylinen)

### IFAC Meeting Papers - Keyword Listing

Automated Systems Based on Human Skill, September 1995, Berlin, Germany  
13th IFAC Triennial World Congress (Volume F), July 1996, San Francisco, USA

Index of IFAC Meeting Papers  
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Erratum





# FORTHCOMING EVENTS

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Title	1997	Place	Deadline	Further Information
IFAC/IFIP/IFORS Workshop Manufacturing Systems Modelling Management and Control	Feb. 3 - 5	Vienna Austria	-	Prof. Peter Kopacek Technical University of Vienna Floragasse 7 a, A-1040 Vienna, Austria FAX +43/1/504 18359 e-mail: kopacek@ihrt1.ihrt.tuwien.ac.at
IMACS/IFAC Symposium (2nd) Mathematical Modelling MATHMOD '2	Feb. 5 - 7	Vienna Austria	-	Prof. I. Troch Technical University of Vienna (E114/5) Wiedner Hauptstrasse 8 - 10 A-1040 Vienna, Austria FAX +43/1/586 8093 e-mail: itroch@email.tuwien.ac.at
IFAC Symposium (3rd) Modelling and Control of Biomedical Systems including Biological Systems	March 23 - 26	Warwick UK	-	Prof. K. Godfrey, Dept. of Engineering Univ. of Warwick, Coventry CV4 7AL, UK FAX +44/1203/418922 e-mail: krg@eng.warwick.ac.uk
IFAC Workshop Algorithms and Architectures for Real-Time Control	April 9 - 11	Vilamoura Portugal	-	AARTC 97, Att. Ms. Pereira Unidade de Ciencias Exactas e Humanas Universidade do Algarve Campus de Gambelas P-8000 Faro, Portugal FAX +351/89/818560 e-mail: aartc@mozart.si.ualg.pt
IFAC/IEEE Symposium Computer-Aided Control Systems Design - CACSD 97	April 28-30	Ghent Belgium	-	Prof. Luc Boullart University of Ghent, Campus Ardoyen Technologiepark - Zwijnaarde, 9 B-9052 Zwijnaarde, Belgium FAX +32/9/264 5605 e-mail: CACSD97@autoctrl.rug.ac.be www.autoctrl.rug.ac.be/cacsd97.html
IMACS/IFAC Symposium Mathematical Modelling and Simulation in Agriculture and Bio-Industries	May 7 - 9	Budapest Hungary	-	Prof. I. Farkas Gödöllo Univ. of Agricultural Sciences Dept. of Physics and Process Control Pater K. u. 1, H-2103 Gödöllo, Hungary FAX +36 28 310 804 e-mail: ifarkas@eng.gau.hu
IFAC Conference Control of Industrial Systems	May 20 - 22	Belfort France	-	IFAC-CIS 97 Secretariat ENIB, Belfort Technopolole, BP 525 F-90016 Belfort, France FAX +33/84582330 e-mail: ifac.cis97@lmp.enibe.fr
IFAC Workshop Computer Software Structures Integrating AI/KBS Systems in Process Control	May 22 - 23	Budapest Hungary	-	Prof. K.M. Hangos Computer and Automation Institute POB 63, H-1518 Budapest, Hungary FAX +361 166 7503 e-mail: h318@haisztaki.hu
IMEKO/IFAC Congress New Measurements - Challenges and Visions	June 1 - 6	Tampere Finland	-	XIV IMEKO Secretariat Finnish Society of Automation Asemapaällikönkatu 12 C SF-00520 Helsinki, Finland FAX +358 9 1461 650 e-mail: atufin@ibm.net http://ee.tut.fi/aitokset/mit.imeko/
1997 American Control Conference (in cooperation with IFAC)	June 4 - 6	Albuquerque NM, USA	-	Prof. A. Haddad AACC Secretariat, Dept. of EECS Northwestern Univ., 2145 Sheridan Road Evanston, IL 60208-3118, USA FAX +1/708/491-4455 e-mail: ahaddad@ece.nwu.edu
IFAC Symposium (3rd) Intelligent Components and Instruments for Control Applications - SICICA '97	June 9 - 11	Anancy France	-	SICICA97, Anancy Congres F-74016 Anancy, France FAX +33/50 66 60 63 e-mail: sicica97@esia.univ-savoie.fr http://ava.univie-savoie.fr/sicica97/
IFAC Symposium Advanced Control in Chemical Processes - ADCHEM 97	June 9 - 11	Banff Canada	-	Prof. Sirish L. Shah Dept. of Chemical Engg., University of Alberta, Edmonton, Alberta, T6G 2G6, Canada FAX +1/403/492-2881 e-mail: Sirish.Shah@UAlberta.Ca
IFAC/(IFIP/IFORS) Symposium (8th) Transportation Systems	June 16-18	Chania Crete, Greece	-	Secretariat 8th IFAC Transportation Symposium Technical University of Crete GR-73100 Chania, Greece FAX +30/821 69410 e-mail: ts97@dssl.tuc.gr



## FORTHCOMING EVENTS (ctd.)

Title	1997	Place	Deadline	Further Information
2nd IEEE/IEEE/IFAC Conference Genetic Algorithms in Engineering Systems: Innovations and Applications - GALESIA 97	Sept. 2 - 4	Glasgow UK		GALESIA Secretariat The Inst. of Electrical Engineers Savoy Place, London WC2R 0BL, UK FAX +44/171 240 8830 e-mail: conference@iee.org.uk http://www.iee.org.uk/LSboard/Conf/Galesia/
IFAC Symposium Robot Control	Sept. 3 - 5	Nantes France		Prof. W. Khalil LAN - Ecole Centrale de Nantes F-44072 Nantes Cedex 03, France FAX +33 40 74 74 06 e-mail: Khalil@lan.ec-nantes.fr http://www.ec-nantes.fr
IFAC Workshop New Trends in Design of Control Systems	Sept. 7 - 10	Smolenice Slovakia		IFAC Workshop '97, Ms. Alena Kozakova, Fac. of El. Engg., Ilkovicova 3 SK-81219 Bratislava, Slovakia FAX +42/71 72 97 34 e-mail: ntcds@kassr.elf.stuba.sk
FAC Conference Manoeuvring and Control of Marine Craft - MCMC'97	Sept. 10 - 12	Brijuni Croatia		Prof. Z. Vukic University of Zagreb Fac. of El. Engg. and Computing, Unska 3 HR-1000 Zagreb, Croatia FAX +385/1/6129809 e-mail: zoran.vukic@fer.hr
IFAC Workshop (22nd) Real Time Programming - WRTP 97	Sept. 15 - 17	Lyon France	15 March 1997	Hichem Malek, L3i-Dep. d'Informatique INSA de Lyon - Bat 502 F-69621 Villeurbanne Cedex, France FAX +33 4 72 43 85 18 e-mail: wrtp97@if.insa-lyon.fr www.insa-lyon.fr/Insa/Laboratoires/L3i/ wrtp97.html
IFAC Symposium (6th) Automated Systems Based on Human Skill - Joint Design of Technology and Organization	Sept. 17 - 19	Kranjska Gora Slovenia	7 Feb. 1997	Prof. Janko Cernetic J. Stefan Institute, POB 3000, Jamova 39 SLO-1001 Ljubljana, Slovenia FAX +386/61/219 385 e-mail: janko.cernetic@ijs.si www-e2.ijs.si/people/janko.cernetic.html
EURAGENG/IFAC Workshop Robotics and Automated Machinery for Bio-Productions - Bio Robotics	Sept. 21 - 25	Valencia Spain	15 March 1997	Secretariat Bio-Robotics 97 DISCA-UPV, POB 22012 E-46071 Valencia, Spain FAX: +34/6/387 75 79 e-mail: biorob97@disca.upv.es
IFAC Symposium AI in Real-Time Control - AIRTC 97	Sept. 23 - 25	Kuala Lumpur Malaysia	-	Dr. Marzuki Bin Khalid B.A.T.C., Universiti Teknologi Jalan Semarak 54100 Kuala Lumpur, Malaysia FAX +603/2911294 e-mail: marzuki@batcserv.batc.utm.my
IFAC/(ISHS) Workshop (3rd) Mathematical and Control Applications in Agriculture and Horticulture	Sept. 28 - Oct. 2	Hannover Germany	-	VDI-VDE GMA, POB 10 11 39 D-40002 Düsseldorf, Germany FAX+ 49/211/6214-161
IFAC Conference System Structure and Control	Oct. 23 - 25	Bucharest Romania	1 June 1997	IFAC SSC97 Secretariat Polytechnic Univ. of Bucharest Fac. of Control & Comp. Splaiul Independentei 313 RO-77206 Bucharest 6, Romania e-mail: ssc97@indinf.pub.ro
IFAC/(IFIP/IEEE) Workshop Safety and Reliability in Emerging Control Technologies	Oct. 29-31	Tallinn Estonia	15 June 1997	Prof. Leo Motus Estonian Association of Engineers Ehitajate tee 5, Tallinn EE 0026, Estonia e-mail: leo@cc.ttu.ee
EPS/IFAC Intl. Conference Accelerator and Large Experimental Physics Control Systems ICALEPCS 97	Nov. 3 - 7	Beijing China, P.R.	1 June 1997	Prof. Jijiu Zhao Institute of High Energy Physics, POB 918 (10) Beijing, 100039, China, P.R. FAX +86/10/ 821 3374 e-mail: icalpecsj@bepc2.ihep.ac.cn www.ihep.ac.cn/ins/IHEP/div10/icalpecs/ index.html
Title	1998	Place	Deadline	Further Information
IFAC Symposium Intelligent Autonomous Vehicles - IAV 98	March 25 - 27	Madrid Spain	16 May 1997	IAV'98 Universidad Carlos III de Madrid c/Butarque 15 E-28911 Leganes (Madrid), Spain FAX +34 1 624 9430 e-mail: iav@ing.uc3m.es www.uc3m.es/iav98

## FORTHCOMING EVENTS (ctd.)

Title	1998	Place	Deadline	Further Information
IFAC/CIGR Workshop Artificial Intelligence in Agriculture	April 24-26	Makuhari Japan	1 Sept. 1997	Prof. Y. Hashimoto Dept. of Biomechanical Systems Ehime University Tarumi, Matsuyama 790, Japan FAX+81 89 947 8748 e-mail: hashimoto@agr.ehime-u.ac.jp
IFAC Workshop Intelligent Assembly and Disassembly	May 21 - 23	Ljubljana Slovenia	31 Oct. 1997	Dr. D. Noe Fac. of Mechanical Engg., Askerceva 6 SLO-1000 Ljubljana, Slovenia FAX +386/61/218567 e-mail: dragica.noe@fs.uni-lj.si
IFAC Workshop Control Applications in Post-Harvest and Processing Technology - CAPPT '98	June 3 - 5	Budapest Hungary	15 Nov. 1997	Prof. I. Farkas Dept. of Physics and Process Control University of Agriculture H-2103 Gödöllő, Hungary FAX +36 28 310804 e-mail: ifarkas@eng.gau.hu
IFAC Symposium Information Control Problems in Manufacturing - INCOM '98	June 24 - 26	Nancy France	8 Sept. 1997	INCOM '98/CRAN-GSIP Faculté des Sciences Université Henri Poincaré Nancy I, BP 239 F-54506 Vandoeuvre les Nancy, France FAX +33/83 91 21 26 e-mail: incom98@cran.u-nancy.fr www.gsip.cran.u-nancy.fr/incom98.html
IFAC Symposium Computation in Economics, Finance and Engineering Economic Systems	June 29 - July 1	Cambridge UK	*	Dr. Sean Holly, Dept. of Applied Economics Univ. of Cambridge, Sedgwick Avenue Cambridge CB3 9DE, UK FAX: +44/1223/335475 e-mail: sean.holly@econ.cam.ac.uk
IFAC Workshop Linear Time Delay Systems	July 6 - 7	Grenoble France	1 October 1997	Prof. Luc Dugard Lab. d'Automatique de Grenoble ENSIEG, BP 46 F-38402 St. Martin d'Herès-Cedex, France FAX +33 4 76 82 63889 e-mail: dugard@lag.ensieg.fr
IFAC Conference System Structure and Control	July 8 - 10	Nantes France	1 August 1997	Prof. J.J. Loiseau Lab. d'Automatique Nantes, 1, rue de la Noe F-44072 Nantes Cedex 03, France FAX +33 40 37 25 22
IFAC/(IMACS/IFIP) Symposium Large Scale Systems: Theory and Applications	July 15 - 17	Patras Greece	15 July 1997	IFAC-LSS'98 El. & Computer Engg. Dept. Lab. for Automation & Robotics University of Patras GR-26500 Rion Patras, Greece FAX +30 997 309 e-mail: groumpos@ee.upatras.gr
IFAC Symposium (14th) Automatic Control in Aerospace	Aug. 24 - 28	Seoul Korea	15 Oct. 1997	The Secretariat IFAC 98 Aero Automatic Control Res. Centre Seoul National University, Seoul 151-742 Korea FAX: +82 2 825 1585 e-mail: ifac98aero@asri.snu.ac.kr
IFAC Symposium Mining, Mineral and Metal Processing - MMM 98	Sept. 1 - 3	Düsseldorf Germany	15 Nov. 1997	VDI-VDE GMA, POB 10 11 30 D-40002 Düsseldorf, Germany FAX +49/211/6214-161
IFAC Symposium Low Cost Automation LCA 98	Sept. 8 - 10	Shenyang China, P.R.	30 Oct. 1997	Prof. Chen Zhen-Yu LCA 98 Secretariat, POB 919 Beijing 100071, China, P.R. FAX +86/10/63816990
IFAC/IEA/IFIP/IFORS Symposium Analysis, Design and Evaluation of Man-Machine Systems MMS '98	Sept. 16 - 18	Kyoto Japan	1 Sept. 1997	Prof. Hiroshi Tamura Kyoto Institute of Technology Matsugasaki, Sakyo-ku, Kyoto 606, Japan FAX +81 75 701 7211 e-mail: tamura@hisol.dj.kit.ac.jp
IFAC Workshop Motion Control	Sept. 21-23	Grenoble France	15 Dec. 1997	Prof. Luc Dugard Lab. d'Automatique de Grenoble ENSIEG, BP 46 F-38402 St. Martin d'Herès-Cedex, France FAX +33 4 76 82 63889 e-mail: dugard@lag.ensieg.fr
ICSC/IFAC Intl. Symposium Neural Computation - NC 98	Sept. 23-25	Vienna Austria	31 January 1998	ICSC Canada, POB 279, Millet Alberta T0C 1Z0, Canada FAX +1/403/387 4329 e-mail: icsc@compusmart.ab.ca
IFAC Workshop Control Applications in Marine Systems - CAMS '98	October 27 - 30	Fukuoka Japan	11 February 1998	Prof. K. Kijima Kyushu University, Dept. of Naval Architecture Higashi-ku, Fukuoka 812, Japan



## FORTHCOMING EVENTS (ctd.)

Title	1997	Place	Deadline	Further Information
Intl. Conference Transition to Advanced Market Institutions and Economies: Systems and Operations Research Challenges	June 18 - 21	Warsaw Poland	-	Prof. Roman Kulikowski Systems Research Institute Polska Akademia Nauk, ul. Newelska 6 PL-01-447 Warsaw, Poland FAX: +48/22/372772 e-mail: trans97@ibspan.waw.pl
IFAC Symposium Robust Control Design	June 25-27	Budapest Hungary	-	Ms. Csilla Banyasz Computer and Automation Res. Inst. POB 63, H-1518 Budapest, Hungary FAX +361/1667 503 e-mail: banyasz@sztaki.hu
1997 European Control Conference (in cooperation with IFAC)	July 1 - 4	Brussels Belgium	-	ECC 97 Secretariat c/o Timshel Conference Consultancy and Management JB Van Moonstraat 8, B-3000 Leuven, Belgium FAX +32 16 290510 <a href="http://www.auto.ucl.ac.be/ECC97.html">http://www.auto.ucl.ac.be/ECC97.html</a>
IFAC Workshop Singular Solutions and Perturbations in Control Systems	July 7 - 11	Pereslavl- Zalessky Russia	-	Prof. Michael G. Dmitriev Program Systems Inst. of R A S, Botik 152140 Pereslavl-Zalessky, Russia FAX 08535/20593 e-mail: dmitriev@spoc.botik.yaroslavl.ru
IFAC/IFORS Symposium (11th) System Identification - SYSID '97	July 8 - 11	Fukuoka Japan	-	SYSID '97 Secretariat: Mrs. Y. Hayashi Fukuoka Institute of Technology 3-30-1 Wajiro-higashi, Higashi-ku Fukuoka 811-02, Japan FAX +81/92-606 1342 e-mail: y-hayashi@dw.ee.fit.ac.jp <a href="http://dnksun5.dw.ee.fit.ac.jp:80/IFAC/">http://dnksun5.dw.ee.fit.ac.jp:80/IFAC/</a>
IFAC Symposium (4th) Advances in Control Education ACE 97	July 14-16	Istanbul Turkey	-	Prof. A. Talha Dinibütün Istanbul Technical University Mech. Engg. Faculty Gümüşsuyu 80191, Istanbul, Turkey FAX +90/212-245 0795 e-mail: mkdinib@tritu.bitnet
IFAC Workshop Automation in the Steel Industry: Current Practice and Future Developments	July 16-18	Seoul Korea	-	ASI 97, c/o SPARC Pohang Uni. of Science and Technology San 31 Hyoja Dong, Pohang Kyungbuk 79, Korea FAX +82/562 279 8119 e-mail: asi97@vision.postech.ac.kr <a href="http://jane.postech.ac.kr/~asi97/">http://jane.postech.ac.kr/~asi97/</a>
IFAC Workshop Intelligent Manufacturing Systems IMS-97	July 21 - 22	Seoul Korea	-	IMS 97 Secretariat c/o ERC-ACI, Seoul National University San 56-1 Shinlim-dong Kwanak-ku, Seoul 151-742, Korea FAX +82/2 888 4182 e-mail: ims@asri.snu.ac.kr
1997 Asian Control Conference (in cooperation with IFAC)	July 22-25	Seoul Korea	-	Prof. Dong-il Cho 1997 ASCC Secretariat Automation and Systems Res. Institute Seoul National University, Bldg. 133 Kwanak-ku, Shinrim-dong, San 56- Seoul 151-742, Korea, Rep. FAX +82/2/889-4239 e-mail: ascc@asri.snu.ac.kr
IFAC Workshop Distributed Computer Control Systems	July 28 - 30	Seoul Korea	-	Prof. Wook Hyun Kwon Dept. of Control & Instrumentation Engg. Seoul National University San 56-1, Shillim-dong, Kwanak-gu Seoul 151-742, Korea FAX +82/2/ 888 4182 e-mail: whkwon@cisl.snu.ac.kr
IFAC/CIGRE Symposium Control of Power Plants and Power Systems	August 18 - 21	Beijing China, P.R.	-	Prof. Zeng Qingyu Chinese Soc. for Electrical Engg. No 1, Lane, Baiguang Rd. Beijing, 100761, China, P.R. FAX +86 10 6341 4319 e-mail: qyzeng@public3.bta.net.cn
IFAC Symposium Fault Detection, Supervision and Safety for Technical Processes - SAFEPROCESS '97	August 26 - 28	Hull UK	-	Prof. Ron Patton, Dept. of El. Engg. The University of Hull Cottingham Rd., Hull HU6 7RX, UK FAX +44/1482/466006 e-mail: r.j.patton@e-eng.hull.ac.uk <a href="http://www.enc.hull.ac.uk/EE/CONTROL/safe97.htm">www.enc.hull.ac.uk/EE/CONTROL/safe97.htm</a>
IFAC/IFIP Conference Management and Control of Production and Logistics	Aug. 31 - Sept. 3	Campinas Brazil	15 Jan. 1997	Mr. Roberto de Oliveira, MCPL 97 CTI, Rodovia D. Pedro I (SP-65) km 143.6, Caixa Postal 6162 13081-970 Campinas, SP, Brazil FAX +55 19 240 20 29 e-mail: MCPL97@ia.cti.br <a href="http://mcpl97.ia.cti.br">http://mcpl97.ia.cti.br</a>



## Papers

- Suppression of Bursting  
(B.D. Collier, P. Holmes)  
An  $L_2$ -stable Feedback Structure for Nonlinear Adaptive Filtering and Identification  
(A.H. Sayed, M. Rupp)  
Finite Escapes and Convergence Properties of Guaranteed-cost Robust Filters  
(P. Bolzem, P. Colaneri, G. de Nicolao)  
A Behavioural Approach to Identifiability of 2D Scalar Systems  
(S. Zampieri)  
Robust Torque Control Design for Induction Motors: The Minimum Energy Approach  
(C. Canudas de Wit, S.I. Seleme Jr.)

## Brief Papers

- On the Relation between Continuous and Discrete Nonlinear Parametric Models  
(Xiao Zhao, V.Z. Marmarelis)  
 $\alpha$ -Optimal Control of SISO Continuous-time Systems  
(Zi-Qin Wang, M. Szaier)  
Alternative Derivation of the Algebraic Riccati Equation in  $H^\infty$  Control  
(K. Kuriyama, T. Mita)  
Eigenstructure Assignment-based Robust Stability Conditions for Uncertain Systems with Multiple Time-varying Delays  
(H. Wu)  
Tuning of PID Controllers by the Non-symmetrical Optimum Method  
(L. Loron)

## Technical Communiques

- A One-measurement Form of Simultaneous Perturbation Stochastic Approximation  
(J.C. Spall)  
Dual Pole-placement Controller with Direct Adaptation  
(N.M. Filatov, H. Unbehauen, U. Keuchel)

## Book Review

- Methods of Algebraic Geometry in Control Theory: Part I, Scalar Linear Systems and Affine Algebraic Geometry, by Peter Falb  
(S. Celikovskiy)

## Survey Paper

- Static Output Feedback: A Survey  
(V.L. Syrmos, C.T. Abdallah, P. Dorato, K. Grigoriadis)

## Papers

- The Spatial Bandwidth of Cross-directional Control Systems for Web Processes  
(S.R. Duncan, G.F. Bryant)  
Validation and Verification of Decision Making Rules  
(A.K. Zaidi, A.H. Levis)  
Independent of Delay Stability Criteria for Uncertain Linear State Space Models  
(J.S. Luo, P.P.J. van den Bosch)

- PID Control of a Chaotic System: An Application to an Epidemiological Model  
(L.L. Ghezzi, C. Piccardi)  
A Controllability Test for General First-order Representations  
(U. Helmke, J. Rosenthal, J.M. Schumacher)

## Brief Papers

- A Hybrid Adaptive Control Scheme Using Sampled Data and Intersampling Compensation  
(Jing Sun)  
Unbiased Estimation of a Sinusoid in Colored Noise via Adapted Notch Filters  
(S. Bittanti, M. Campi, S. Savarese)  
On the Use of Adaptive Updating Rules for Actuator and Sensor Fault Diagnosis  
(Hong Wang, Zhen J. Huang, S. Daley)  
Adaptive Control in Robotic Systems with  $H^\infty$  Tracking Performance  
(Bor-Sen Chen, Yeong-Chan Chang, Ti-Chung Lee)  
Spectral Factorizations with Unmixed Pole and Zero Sets  
(H.K. Wimmer)  
Adaptive Disturbance Attenuation with Global Stability for Rigid and Elastic Joint Robots  
(S. Battilotti, L. Lanari)  
Stabilization using Pseudolinearization and High-gain Feedback  
(D.E. Davison, S.A. Bortoff)  
Fixed-order Robust Filtering for Linear Uncertain Systems  
(A.V. Savkin, I.R. Petersen)  
Finite Input/Output Representative of a Class of Volterra Polynomial Systems  
(S. Kotsios)  
Global Adaptive Stabilization of Cascade Nonlinear Systems  
(M. Jankovic, R. Sepulchre, P.V. Kokotovic)

## Technical Communiques

- A Semi-canonical Form for a Class of Right-Invertible Linear Systems  
(A. Herrera, J.F. Lafay, P. Zagalak)  
Infinite-horizon Differential Games of Singularly Perturbed Systems: A Unified Approach  
(Hua Xu, K. Mizukami)  
A Fast Technique for the Generation of the Spectral Set of a Polytope of Polynomials  
(C. Verone)

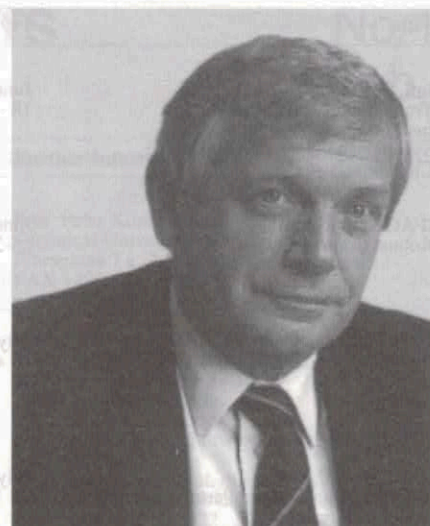
## Offenlegung:

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 und der Österreichischen Akademie der Wissenschaften in Laxenburg. Der 'IFAC Newsletter' erscheint sechsmal jährlich in englischer Sprache unter der Redaktion des Generalsekretärs der IFAC, Dipl.Ing.Dr. Gusztáv Hencsey. Die Zeitschrift dient der Information über die Aktivitäten der IFAC. Sie wird kostenlos an Abonnenten in 50 Ländern versandt. Die Kosten werden von der IFAC aus Beiträgen der derzeit 48 Mitgliedsländer getragen. Präsident der IFAC ist für 1996/99 Prof. Yong-Zai Lu (VR China), Vizepräsidenten sind Prof. Vladimir Kucera (CZ) und Prof. Ralf Isermann (D). Alle Funktionen werden ehrenamtlich ausgeübt.

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## WHO IS WHO IN IFAC



Professor Peter Kopacek, Council Member

Peter Kopacek was born in Vienna in 1939. He received his Diploma and PhD degrees in Control Engineering from the University of Technology Vienna in 1966 and 1971 respectively. In 1976 he got the *venia legendi* as a lecturer in Control Engineering. From 1986 to 1990 he was Full Professor of Systems Engineering and Automation at the University Linz and since 1990 he has served as Full Professor and Head of the Institute for Handling Devices and Robotics at the University of Technology Vienna. In addition he was scientific supervisor of the Science Academy of Lower Austria from 1988 to 1995 and founded the department of Systems Engineering and Automation - SAT in 1989.

In IFAC he has been the Austrian NMO delegate in the General Assembly since 1972 and was Chairman of the WG Education in Robotics of the EDCOM between 1986 and 1990. In 1983 he founded the WG on „SWISS-Supplemental Ways for Improving International Stability“ together with H. Chestnut and was its Chairman for three triennial periods. From 1990 to 1996 he served as a member of the Policy Committee. In 1996 he was elected IFAC Council member. P. Kopacek has been IPC Chairman of several IFAC events and organised more than 20 as a NOC Chairman.

On the national level he has been a member of the Austrian NMO since 1967. As the Secretary General of the IFAC-Beirat Österreich, founded 1982 by the Austrian government as well as the Austrian Academy of Sciences, he is responsible for the popularisation of automation in the broadest sense in the Austrian industry. For this purpose he has organized the Austrian Automation Day for 11 years and is one of the publishers of the International Journal Automation Austria - IJAA. The Fred Margulies Award for outstanding work in automation with special emphasis on social aspects was introduced for Austrian scientists by him in 1994.

The scientific work of P. Kopacek started with identification by means of stochastic signals and time varying systems and was continued in the area of robotics, CIM and IMS. Currently his work is very industry-oriented, mainly dealing with the application of AI methods in automation. In the last years he has developed a postgraduate education program Engineering Management in cooperation with an American university. This work is documented in 6 books and 180 publications. So far he has received Dr. honoris causa degrees from two universities.