



2000
No. 3
June

Newsletter

Contents:

15th IFAC World Congress
Barcelona, Spain, July 2002

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Forthcoming Events 2001

*

Papers from Automatica,
Nos 7, 8 & 9 2000

*

Control Engineering Practice
Volume 8, No 5

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15th IFAC World Congress Barcelona, Spain 21 – 26 July, 2002



2002 in Barcelona

The XV IFAC World Congress to be held in Barcelona, the b'02, will be the first to take place in the XXI Century and therefore, in the Third Millennium. As such, it will be highlighting the new directions of Automatic Control science and technology in the new century. The Congress will follow three main lines:

- Emergent Automatic Control Applications. New applications in industry and services, and their technological implications
- The Social Challenge of Automation and Control Theory. Analysis of the social impact of control and automation at the turn of the century.
- Use of Advanced Information Technologies at the Congress. The Congress itself should be an example of how advanced information technologies can promote scientific and technical exchange between world wide specialists. For example, the use of the Internet as the main way of receiving the author's contributions, and as the preferred way for communications between program and technical committees members, on-line information as a congress facility, and presentations using direct on-line experiments.

In addition, Barcelona is traditionally a city friendly to all cultures. Barcelona has a rich past, a dynamic present, and an exciting future. Situated on the coast, its climate is Mediterranean and mild. In July, its coasts and beaches invite you to spend a pleasant holiday here. All those attending the b'02 IFAC World Congress, will have the opportunity to participate in a very interesting congress and understand why Barcelona is one of the most visited cities of the world.

You are kindly invited to come to Barcelona, to the XV IFAC World Congress.

Gabriel Ferraté (NOC Chair)
Luis Basanez/Juan Antonio de la Puente (IPC Chairs)
Pedro Albertos (IFAC President)

Congress Dates
Monday – Friday, July 21 – 26, 2002

Pre-Congress Tutorials Dates
Saturday – Sunday, July 19 – 20, 2002

Open Forums Period
April 1 – June 15, 2002

Paper Pre-discussion Period
April 1 – June 15, 2002

Congress Venue

Universitat Politècnica de Catalunya – Campus Nord, Barcelona, Spain.



FORTHCOMING EVENTS 2001

2000
No. 3
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Title	2001	Place	Deadline	Further Information
IFAC/CIGR Workshop Artificial Intelligence in Agriculture	June 4-6	Budapest Hungary	15 Nov. 2000	Prof. I. Farkas Dept. of Physics and Process Control Szent Istvan University Pater K. 1, H-2100 Gödöllő, Hungary e-mail: ifarkas@fft.gau.hu http://fft.gau.hu
IFAC Symposium 6 th Dynamics and Control of Process Systems - DYCOPS 6	June 4-6	Cheju Island Korea, Rep.	15 Sept. 2000	Mr. En Sup Yoon School of Chemical Engineering Seoul National University Seoul 151-742, Korea FAX: +82/2/884 0530 e-mail: dycops6@postech.ac.kr http://pslab.snu.ac.kr/dycops6
IFAC Workshop 4 th On-Line Fault Detection and Supervision in the Chemical Process Industries	June 8-9	Seoul Korea, Rep.	15 Sept. 2000	Mr. En Sup Yoon, School of Chemical Engg. Seoul National University Seoul 151-742, Korea FAX: +82/2/562 279 3499 e-mail: ifacworkshop@postech.ac.kr http://pslab.snu.ac.kr/fdscpi4
IFIP/CIRP/IEEE/IFAC Conference Feature Modelling and Advanced Design- For-The-Life-Cycle-Systems FEATS2001	June 12-14	Valenciennes France	-	The Secretariat of FEATS2001 University of Valenciennes LAMIH/GIL Le Mont Houy - BP 311 F-59304 Valenciennes Cedex, France FAX: +33/327 14 12 88 e-mail: feats2001@univ-valenciennes.fr http://www.univ-valenciennes.fr/LGIL/FEATS2001/Welcome.htm
IFAC Conference Computer Applications in Biotechnology - CAB 8	June 24-27	Quebec City Canada	1 Sept. 2000	Prof. Michel Perrier, Dept. of Chemical Engg Ecole Polytechnique, POB 6079 Station Centre-ville Montreal, Quebec H3C 3A7, Canada FAX: +1/514 340-4159 e-mail: Michel.Perrier@urpc.polymtl.ca
American Control Conference - ACC01 (in co-operation with IFAC)	June 25-27	Arlington Virginia, USA	15 Sept. 2000	Bruce H. Krogh Dept. of Electrical & Computer Engg. Carnegie Mellon University Pittsburgh, PA 15213, USA FAX: +1/412 268 3890 e-mail: krogh@ece.cmu.edu http://acc2001.che.ufl.edu
IFAC Symposium Nonlinear Control Systems - NOLCOS 2001	July 4-6	St. Petersburg Russia	15 Nov. 2000	Prof. A. L. Fradkov Institute for Problems of ME Russian Academy of Sciences 61, Bolshoy, V.O. 199178 St. Petersburg, Russia FAX: +7/812/321 4771 e-mail: nolcos@ccs.ipme.ru http://www.ipme.ru/nolcos.html
IEEE/ASME Intl. Conference Advanced Intelligent Mechatronics (AIM'01) - in cooperation with IFAC -	July 8-11	Como Italy	*	Prof. Bruno Siciliano Dip. di Informatica e Sistemistica Universita degli Studi di Napoli Federico II Via Claudio 21, I-80125 Napoli, Italy Fax: +39/081 768-3186 e-mail: siciliano@unina.it http://www.AIM01.unina.it
IFAC Conference Control Applications in Marine Systems - CAMS 2001	July 17-20	Glasgow UK	January 2001	Prof. M.J. Grimble Industrial Control Centre Univ. of Strathclyde, Graham Hills Bldg. 50, George Street Glasgow G1 1QE, Scotland, UK FAX: +44/141 548 4203 e-mail: system@icu.strath.ac.uk http://www.icc.strath.ac.uk/cams2001
IFAC Symposium Large Scale Systems LSS 2001	July 18-20	Bucharest Romania	31 May 2000	IFAC-LSS 2001 Symposium Secretariat National Institute for R&D in Informatics M. Averescu Ave. 8-10 RO-71316 Bucharest, Romania FAX: +40/1/224 05 39 e-mail: florinf@ici.ro http://www.ici.ro/lss2001
IFAC Conference Telematics Applications in Automation and Robotics	July 24-26	Weingarten Germany	2 Oct. 2001	Prof. Schilling/Prof. Roth University of Applied Sciences FH Ravensburg-Weingarten, POB 1261 D-88250 Weingarten Germany FAX: +49 751 48623 e-mail: ta2001@ars.fh-weingarten.de http://www.ars.fh-weingarten.de/ta2001

FORTHCOMING EVENTS 2001 (ctd.)

Title	2001	Place	Deadline	Further Information
IFAC Workshop Intelligent Control for Agriculture Applications	August 22 - 24	Bali Indonesia	1 Nov. 2000	Dr. Kundang B. Seminar Dept. of Agriculture Engineering FATETA-IPB, POB 220 Bogor 16002, Indonesia FAX: +62/251/623026/622202 e-mail: kseminar@indo.net.id
IFAC Workshop Periodic Control Systems	August 27 - 28	Como Italy	1 Nov. 2000	Prof. Sergio Bittanti, Politecnico di Milano Piazza Leonardo da Vinci, 32 I-20133 Milano, Italy FAX: +39/02/23993412 e-mail: bittanti@elet.polimi.it http://www.elet.polimi.it/PSYCO
IFAC Workshop Adaptation and Learning in Control and Signal Processing	August 29 - 31	Como Italy	1 Nov. 2000	Prof. Sergio Bittanti, Politecnico di Milano Piazza Leonardo da Vinci, 32 I-20133 Milano, Italy FAX: +39/02/23993412 e-mail: bittanti@elet.polimi.it http://www.elet.polimi.it/ALCOSP2001.html
IFAC Symposium System Structure and Control	August 29 - 31	Prague CZ	31 October 2000	Dr. Petr Zagalak, UTIA-AVCR POB 18, CZ-18208 Prague, Czech Rep. FAX: +420/2/688 4903 e-mail: zagalak@utia.cas.cz http://www.sssc01.cz
IFAC Workshop Computation in Economic, Financial and Engineering-Economic Systems	Aug/Sept.	Tianjin China	15 Nov. 2000	Chinese Association of Automation POB 2728 Beijing 100080, China, P.R. FAX: +86 10 62620908 e-mail: wanhg@sunserver.ia.ac.cn
IFAC Symposium Automatic Control in Aerospace	Sept. 2 - 7	Bologna/Forli Italy	1 October 2000	Prof. Gianni Bertoni, D E I S University of Bologna Viale Risorgimento, 2 I-40136 Bologna, Italy FAX: +39/051/209 3073 e-mail: bofo2001@deis.unibo.it http://ars-sun1.ars.fh-weingarten.de/ifac/events.html
European Control Conference - ECC 2001 (in cooperation with IFAC)	Sept. 4 - 7	Porto Portugal	1 October 2000	Prof. Martins de Carvalho, FEUP, DEEC Rua dos Bragas P-4050-123 Porto, Portugal e-mail: chairecc@fe.up.pt http://www.fe.up.pt/ecc2001/
IFAC Symposium 10 th Automation in Mining, Mineral and Metal Processing - MMM 2001	Sept. 4 - 6	Tokyo Japan	15 October 2000	Prof. K. Uchida Dept. of El., Electronics & Comp. Engg. Waseda University, Okubo 3-4-1, Shinjyuku Tokyo 169 8555, Japan FAX: +81/3/5273 9507 e-mail: kuchida@uchi.elec.waseda.ac.jp http://www.isij.or.jp/ifac-mmm2001
IFAC Symposium Modelling and Control of Economic Systems	Sept. 6 - 8	Klagenfurt Austria	1 March 2001	Prof. Reinhard Neck Dept. of Economics University of Klagenfurt Universitaetsstrasse 65-67 A-9020 Klagenfurt, Austria FAX: +43 463 2700-6343 mail: reinhard.neck@uni-klu.ac.at
IFAC/IFIP/IFORS/IEA Symposium Analysis, Design, and Evaluation of Human-Machine Systems HMS'2001	Sept. 18 - 20	Kassel Germany	1 Jan. 2000	Dr. B. Borys, University of Kassel Lab. Sys. Engg.&Human-Machine System Mönchebergstrasse 7, D-34109 Kassel, Germany FAX: +49/561/804 3542 e-mail: HMS2001@imat.maschinenbau.uni-kassel.de http://www.imat.maschinenbau.uni-kassel.de/hms2001/index.html
IFAC/IFIP/IFORS/IFR Symposium Information Control Problems in Manufacturing Technologies - INCOM 2001	Sept. 20 - 22	Vienna Austria	31 January 2001	Ms Ilse Nemetz Institute for Handling Devices and Robotics (E318) Technical University Favoritenstr. 9, A-1040 Vienna, Austria FAX: 43/1/58801/31899 e-mail: nemetz@ihrt.tuwien.ac.at
IFAC Workshop Control Applications in Post-harvest and Processing Technology - CAPPT 2001	Oct. 3 - 5	Tokyo Japan	31 March 2001	Prof. Dr. Yasuhisa Seo Graduate School of Agric and Life Sciences The University of Tokyo Yayoi 1-1-1, Bunkyo-ku Tokyo 113-8657, Japan FAX: +81/3/5689-8095 e-mail: aseoo@mail.ecc.u-tokyo.ac.jp
IFAC Conference New Technologies for Computer Control 2001	Nov. 19 - 22	Hong Kong China	15 December 2000	Dr. C.W. Chan Dept. of Mechanical Engineering University of Hong Kong, Pokfulam Road Hong Kong, China FAX: +857 2858 5415 e-mail: mechan@hkucc.hku.hk

Papers from the July 2000 Issue

Paper

The Precise Control of Manipulators with High Joint-friction Using Base Force/Torque Sensing (G. Morel, K. Iagnemma, S. Dubowsky)

Brief Papers

Infinite Horizon Predictive Control of Constrained Continuous-time Linear Systems (M. Cannon, B. Kouvaritakis)
Linear Matrix Inequality Approach to Synthesizing Low Order Suboptimal Mixed l_1/H_p Controllers (J. Bu, M. Sznajer)
Feasibility and Stability of Constrained Finite Receding Horizon Control (J.A. Primbs, V. Nevistic)
A Polytopic Game (P. Carabani, E. De Santis)
Box-Jenkins Continuous-time Modeling (R. Pintelon, J. Schoukens, Y. Rolain)
Mixed Internal Model-based and Feedforward Control for Robust Tracking in Nonlinear Systems (L. Marconi, A. Isidori)
Variable Gain Parameter Estimation Algorithms for Fast Tracking and Smooth Steady State (Er-Wei Bai, Yih-Fang Huang)
Identification of Linear Time-varying Systems Using a Modified Least Squares Algorithm (R. Lozano, D. Dimogianopoulos, R. Mahony)
State-space Representation for Fractional Order Controllers (H.-F. Raynaud, A. Zergainoh)
Minimizing the Effect of Out-of-bandwidth Dynamics in the Models of Reverberant Systems that Arise in Modal Analysis: Implications on Spatial H-infinite Control (S.O. Reza Moheimani)
Stability Radii of Discrete-time Stochastic Systems with Respect to Blockdiagonal Perturbations (A.El Bouhtouri, D. Hinrichsen, A.J. Pritchard)
Designing Robust Sliding Hyperplanes for Parametric Uncertain Systems: A Riccati Approach (Kyung-Soo Kim, Youngjin Park, Shi-Hwan Oh)
Canonical H-infinite State-space Parametrization (H.G. Sage, M.F. De Mathelin)

Technical Communiqués

A Robust Model Reference Adaptive Control for Non Minimum Phase Systems with Unknown or Time-varying Delay (M. Makoudi, L. Radouane)
Switching Control of H-infinite Gain Scheduled Controllers in Uncertain Nonlinear Systems (S.-H. Lee, Hong-Tae Lim)
On Kharitonov's Theorem without Invariant Degree Assumption (A.A. Kale, A.L. Tits)
On Mixed μ Synthesis (A.L. Tits, Yung-Shan Chou)

Book Reviews

Feedback Control Theory for Dynamic Traffic Assignments, by P. Kachrov and K. Özbay (M. Papageorgiou)
Mathematical Control Theory: Deterministic Finite Dimensional Systems, 2nd Edition, by E.D. Sontag (A. Van Der Schaft)
Nonlinear Control of Robotic Systems for Environmental Waste and Restoration, by D.M. Dawson, M.M. Bridges and Z. Qu (J. Dayan)

Papers from the August 2000 Issue

Papers

Linear Quadratic Bumpless Transfer (M.C. Turner, D.J. Walker)
Solutions to General H-infinite almost Disturbance Decoupling Problem with Measurement Feedback and Internal Stability for Discrete-time Systems (Zongli Lin, B.M. Chen)
Characterization of All Nonlinear Stabilizing Controllers via Observer-based Kernel Representations (Kenji Fujimoto, Toshiharu Sugie)
Dynamic Causal Model Diagnostic Reasoning for Online Technical Process Supervision (J. Montmain, S. Gentil)
Control of Underactuated Spacecraft with Bounded Inputs (P. Tsotras, J. Luo)

Brief Papers

Supervision of Adaptive Control Algorithms (T. Hägglund, K.J. Åström)
Robust H-infinite Minimum Entropy Static Output-feedback Control of Singularly Perturbed Systems (E. Fridman, U. Shaked)
A Self-learning Fuzzy Controller for Embedded Applications (W.W. Tan, A.L. Dexter)
Tracking Time-varying Parameters with Local Regression (A. Joensen, H. Madsen, H.A. Nielsen, T.S. Nielsen)
Sliding Mode Controllers Design for Linear Discrete-time Systems with Matching Perturbations (C.-C. Cheng, M.-H. Lin, J.-M. Hsiao)
Asymptotic Methods in the Stability Analysis of Parametrized Homogeneous Flows (L. Moreau, D. Aeyels)
State Space Approach to Control Design under Partial Statistical Information for Exogenous Signals (R.K. Prasad, K.M. Nagpal)
Continuous-time Approaches to Identification of Continuous-time Systems (Z. Kowalczyk, J. Kozłowski)

Technical Communiqué

Optimal Closed-loop Identification Test Design for Internal Model Control (Y. Zhu, P.P.J. Van Den Bosch)

Correspondence

Comment and Corrections to "Robustness and Optimality of Linear Quadratic Controller for Uncertain Systems" (Mao-Lin Ni, Meng Joo Er, Yeng Chai Soh)
Author's Reply on Comments and Corrections to "Robustness and Optimality of Linear Quadratic Controller for Uncertain Systems" (D. Mehdi)

Book Review

H-infinite Control and its Applications, by Ben M. Chen (C.W. Scherer)

Papers from the September 2000 Issue

Survey Paper

A Survey of Computational Complexity Results in Systems and Control (V. Blondel, J.N. Tsitsiklis)

Paper

Nonlinear Decentralized Control of Large-scale Power Systems (Y. Guo, D.J. Hill, Y. Wang)

Brief Papers

Finite Sample Properties of System Identification of ARX Models under Mixing Conditions (E. Weyer)
Direct Iterative Tuning via Spectral Analysis (L.C. Kammar, R.R. Bitmead, P.L. Bartlett)
Nonlinear Robust Stabilization by Conicity and QFT Techniques (A. Barreiro, A. Banos)
A New Controller Adapted to Constrained Pneumatic Multichain Structures (M. Guihard, P. Gorcé)

Tracking Control of Flexible Robot Arms with a Nonlinear Observer (M.A. Arteaga)
Output Feedback Controllers for Disturbance Attenuation with Actuator Amplitude and Rate Saturation (T. Nguyen, F. Jabbari)
Linear Conditioning for Systems Containing Saturating Actuators (P.F. Weston, I. Postheltwaite)
Intelligent Optimal Control of Robotic Manipulators Using Neural Networks (Y.H. Kim, F.L. Lewis, D.M. Dawson)
Parametric Absolute Stability of Multivariable Lur'e Systems (Teruyo Wada, Masao Ikeda, Yuzo Ohta, D.D. Siljak)
Stabilization of Compact Sets for Passive Affine Nonlinear Systems (A.S. Shiriaev)

Technical Communiqué

On the Optimality of Recursive Unbiased State Estimation with Unknown Inputs (W.S. Kerwin, J.L. Prince)

Correspondence

Comments on "On-delay-dependent Stability and Decay Estimation for Uncertain Systems with Time-varying Delay" (C. Cheng)
Author's Reply (Yongru Gu, Z. Cheng, J. Qian)

Book Reviews

Passivity-based Control of Euler-Lagrange Systems, by R. Ortega, A. Loria, P.J. Nicklasson and H. Sira-Ramirez (W.E. Dixon, D.M. Dawson)
Optimization of Linear Control Systems, Analytical Methods and Computational Algorithms, by F.A. Aliev and V.B. Larin (P. Benner)
Schur Parameters, Factorization and Dilation Problems, by T. Constantinascu (D. Alpay)
Complexity and Information, by J.F. Traub and A.G. Werschulz (E.W. Bai)
Robust Control Design: A Polynomial Approach, by Theodore E. Djaferis (V.L. Kharitonov)

Control Engineering Practice

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Papers from the May 2000 Issue

A Self Validating Digital Coriolis Mass-flow Meter: An Overview (M.P. Henry, D.W. Clarke, N. Archer, J. Bowles, M.J. Leahy, R.P. Liu, J. Vignos, F.B. Zhou)
Active Suspension Control of Flexible-bodied Railway Vehicles Using Electro-hydraulic and Electro-magnetic Actuators (E. Foo, R.M. Goodall)
A Comparison of Idle Speed Control Schemes (M. Thornhill, S. Thompson, H. Sindano)
The Applications of Principal Component Analysis and Kernel Density Estimation to Enhance Process Monitoring (O. Chen, R.J. Wynne, P. Goulding, D. Sandoz)
A Redundancy-based Strategy for Safety Management in a Modern Civil Aircraft (A. Zolghadri)
AI Approaches to Identification and Control of Total Plant Production Systems (T. Morimoto, Y. Hashimoto)
Implicit Linear Control Law of a Close-spaced Vapor Transport Process (M. Bonilla Estrada, V. Rejon, R. Castro-Rodriguez)
Design of Time Delay Controller Using Variable Reference Model (J.-B. Song, K.-S. Byun)

IFAC Meeting Papers – Keyword Listing

Real-time Programming, Wadern, Germany, May 1999
Index of IFAC Meeting Papers
Conference Calendar