Council- and Related Meetings
Nantes, France, 7 – 11 July, 1998

This year, the IFAC Council- and Related meetings will take place in Nantes, France, upon invitation of AFCET, the French NMO, in conjunction with the IFAC Conference on System Structure and Control (July 8 – 10, 1998).

Since these meetings precede the next IFAC Congress, which will take place in Beijing, China, P.R., in July 1999, considerable time will be spent for preparation of this Congress. For this purpose also, the International Program Committee for the Congress will hold a meeting.

Some very important decisions for the short-term and the long-term perspective of the Federation will be taken by the Council. In preparation for the General Assembly in Beijing in 1999, the Elections Committee has prepared a slate of candidates for the key positions in IFAC which will be discussed by the IFAC Council.

But beyond these preliminary deliberations for the next triennium, a decision will also be taken on the venue and President for the IFAC Congress in 2008. IFAC always plans far ahead and thus the Congress venues and Presidents for 1999 (Beijing, China, Professor Yong-Zai Lu), 2002 (Barcelona, Spain, Professor Pedro Albertos), and 2005 (Prague, Czech Republic, Professor Vladimir Kucera) have already been determined. For the 2008 Congress, three applications have been made, by the German, the Japanese and the Korean NMOs. At the Council meeting in Nantes, presentations will be made by the three applicants and, following these presentation, the Council will vote on the venue for 2008 in a secret ballot.

In addition to these key matters, the various committees and Boards (Technical Board and Executive Board) of IFAC will meet.

Gusztav Hencsey, IFAC Secretary

This Newsletter may be reproduced in whole or in part. We encourage reprinting in national and local automatic control periodicals. Acknowledgement to IFAC would be appreciated.
Automated Systems Based on Human Skill – Joint Design of Technology and Organization
6th IFAC Symposium
Kranjska gora, Slovenia, Sept. 17 – 19 1997

1. The Symposium in short
This symposium was the 6th of its name. It brought together about 80 researchers, developers and users of automated systems and information technology. They came from about 25 different countries; about all European countries were represented, furthermore the USA, Japan, Australia etc.

The symposium took place in Slovenia specifically in order to integrate the participants from the newly independent states of Europe to join the IFAC activities - which was successful! The EU sponsored these participants by covering most of their travel expenses.

The Symposium was held in close cooperation with our colleagues from the J. Stefan Institute and the University of Ljubljana, Slovenia. 104 papers were submitted, 54 papers were accepted for formal presentation (≈ 51 %), 13 papers were submitted by the host country, mostly as invited papers. In addition, a number of short papers were accepted for "adhoc" presentation in the 3 Discussion Groups which also took place as a more informal exchange of experiences.

2. Structure of the Symposium
The Symposium was organized in three Strands:

Strand I: Human-Machine Interaction: the role of the individual human operator at the work place, human-machine interaction, skills, motivation, health, creativity, quality of working life.

Here the presentations by D. and J. Mickie, Sammart and the Slovenian team around Bratko, Filipic and Urbanbec need to be specifically mentioned. Creativity issues were discussed extensively by Holmes, Brandt, Platts, Vamos and others. The issues of quality of working life and the satisfaction of the workplace were explicitly discussed by Matsunaga and Wakamatsu.

Strand II: Business Processes: networks of groups and enterprises, together with the supporting networks of information and control, computer-supported cooperative work, virtual enterprises, issues of reengineering of complex hardware and software, technology and quality management.

In this range of issues, our Slovenian colleagues organized several Invited Sessions which covered all these fields with particular emphasis on experiences in the former "Eastern" Countries: Mulej, Rihar; for the US: Ensmark; and many others.

Other fields of discussion were work-group support by technology, human communication, cooperation, participation in decision, processes etc.

These issues were taken up in the discussion of control in transportation: the control of aircraft and ships (Helbing, Wiersma). Furthermore new kinds of interfaces were suggested to offer human operators new insight into automated systems which are increasingly controlled by "intelligent agents" (Peters, Cermelc, Nolden and others).

Strand III: Industrial Development: the impact of control and information technology on society at large, issues of national strategies, employment and qualification, education and training, the roles of trade unions.

Again, the most recent experiences of the former "Eastern" Countries were important contributions to these sessions (e.g. Kljaic, Czeman, Rajkovic). Furthermore new support systems and new organizational structures for human operators were suggested to counteract de-skilling and de-learning. (Nakamura, Westerick, Kirikova, Rzeszki, Erbe and others). This also took on the issues of his Plenary contribution: Production 2000 - Trying to jointly improve technology, organisation and qualification.

The issue of gender was extensively discussed in a special session organized by Marion Hersh. The future of industry under the pressure of environmental discussions was the theme of the Plenary contribution of Rita van der West. The future of society at large was critically viewed by Oberschelp: he compared computer technology today and tomorrow with the magic triggered by the Sorcerer's Apprentice: following Goethe and his poem, this apprentice could not remember the keyword to switch the magic off again.

3. Further Events in 1997
The 6th Symposium "Automated Systems Based on Human Skill" was in a new way integrated with 2 different industrial workshops:

1. Production 2000, Karlsruhe, Germany, September 11–12, 1997 - organized by Tomas Martin. It was an international event with the emphasis on the most recent developments in German industry.

2. East meets West, Kranjska gora, Slovenia, September 16, 1997 - organized by Marjan Rihar. It was an international gathering to exchange experiences among the different countries from "Eastern" Europe and with the "Western" countries.

4. The next Symposium
Automated Systems Based on Human Skills
7th Symposium is planned for June 15-17, 2000, Aachen, Germany. This very special event will be linked to the World Expo Hanover. Within this Expo, the German Association of Professional Engineers (VDI) is organizing the World Engineering Congress. The participants of the Symposium at Aachen are invited to attend this unique Congress - by daily train to and from the Expo. More information: http://www.hhz-im.rrth-aachen.de/ifac socialimpact.html

D. Brandt, Chair IPC, J. Cermelc, Chair NOC

IFAC World Congress (14th)
Beijing, China, 5 – 9 July, 1999

Although it is still more than a year until the IFAC World Congress in Beijing, some preparations have to be made well in advance of such a big event.

For this purpose we shall publish information about the forthcoming Congress in some of the issues of the IFAC Newsletter to keep you up-to-date about developments and administrative requirements in connection with the Congress.

1. Passport and Visa
A valid passport and visa for visiting China are required. Upon receiving your registration form and fees the China International Conference Center for Science and Technology (CICCSST) will send you an invitation letter with which you can apply for an entry visa at the nearest Chinese embassy or consulate general.

2. Insurance
All participants are advised to make their own arrangements with respect to health and travel insurance before commencing their journey to the Congress.

3. Registration Fee
Advance registration fee:
USD 480,— (full registration)
USD 180,— (student fee)
On-site registration fee:
USD 550,— (full registration)
USD 250,— (student fee)

Further details about registration fees include the Opening Ceremony and Reception, the Closing Ceremony and Congress publications. Full registration also includes the Congress dinner.

4. Accommodation
Continental Grand Hotel (CGH)
This hotel is the Congress Hotel (Wuzhou Hotel). It is in the three minutes walking distance to the conference venue - BICC. A block of rooms has been reserved for the participants at a special discount rate, contact IFAC '99 IPC Secretariat Institute of Systems Science Chinese Academy of Sciences Beijing 100080, China, P.R.

Address: 8 Beichen Dong Road, North Shi huan Road, Beijing 100101, China
Phone: +86/10/6491-0598
Fax: +86/10/6491-0106
Standard room rate: approx. USD 80 - 100 per night
More information on the Beijing Continental Grand Hotel can be found on the following web site: http://chinatour.com/bchj

Lihang Hotel
The Lihang Hotel (2 star) is near the meeting venue BICC in about 5 minutes walking distance. Standard room rates may range from USD 35 - 50 per night.

Other hotels will be recommended in the near future.

5. Tours
There will be a number of pre- and post-Congress tours organized. They will provide a splendid opportunity to appreciate ancient Chinese civilization and culture and to have a view of the daily life of Chinese people.

If you wish to organize a special tour with a group of more than five persons, please contact us. We will try our best to help you.

The details of all programs will be provided in August 1998.

6. Weather
July in Beijing is sunny and fine. The average daily temperature is 25C, with the high at 32C and the low about 22C.

For further information related to the Technical Program, contact IFAC '99 IPC Secretariat Institute of Systems Science Chinese Academy of Sciences Beijing 100080, China, P.R.

Phone: +86/10/2532161
Fax: +86/10/2587343
E-mail: ifac99@iss.ac.cn
lsc@public.east.cn.net

for other queries related to registration, hotel accommodation, visa and tours, contact Mr. Wu Shouyuwan CICCS/IFAC'99 86 Xueyuan Nanlu Beijing 100081, China, P.R.

Phone: +86/10/62180142
E-mail: sywu@public3bt.net.cn
homepage: http://www.ciccs.org.cn/ifac99

for other organizing information related to IFAC activities, financial aid, exhibition, etc. please contact IFAC '99 NOC Secretariat Chinese Association of Automation POB 2728
Beijing 100080, China, P.R.

Fax: +86/10/62629008
E-mail: ifac99@samserver.ia.ac.cn
ifac99@public.g.d.com.cn
homepage: http://www.ia.ac.cn/ifac99/ifac99.html
Control Engineering Practice
Volume 6, No 2, February, 1998

Preview:

The R-S-T digital controller design and applications (L.D. Landau)
Off-equilibrium linearisation and design of gain-scheduled control with application to vehicle speed control (T.A. Johansen, K.J. Hunt, P.J. Gawthrop and H. Fritz)
Practical issues in designing estimators under realistic model and sensor errors (M. Agarwal)
Scheduling the parallel Kalman algorithm onto multiprocessor systems - a genetic approach (M. Vaidhe and C.N. Krishnan) Design of an H-filter-based robust visual servoing system (A. Kawabata and M. Fujita) Image registration for applications in Digital Subtraction Angiography (N. Tuleb and L. Jetto)
Ethics on the fast back loop (R. Schinzinga)
Preface to the Special Section on Artificial Intelligence in Real-Time Control (M.B. Khalid and H.B. Verbruggen)
A control engineer’s use of artificial intelligence (H.E. Rashed)
Adaptive predictive control of a heat exchanger based on a fuzzy model (M. Fischer, O. Nelles and R. Isertmann) Control algorithms within the dynamic multi-layered perceptron and the generalised Hummerstein model for experimental identification of the loading processes in diesel engines (M. Ayoubi)
Neural networks for fault diagnosis of a nuclear fuel processing plant at different operating points (M. Weersinghe, J.B. Comm and D. Williams)

IFAC meeting papers - keyword listing

Manoeuvring and control of marine craft September 1997, Brjuni, Croatia

Index of IFAC meeting papers

Book reviews

Conference calendar

European Control Conference ECC 99

Control Engineering Practice
Volume 6, No 3, March, 1998

Preview:

Nonlinear Simulation of a modified F-16 with full-envelope control laws (W.C. Reigelsperger and S.S. Banda)
Identification and control of web processes: polymer film extrusion (P.E. Wellstead, W.P. Heath and A.P. Kijer)
Nonlinear identification applied to predictive control of a solar plant (M.R. Arahal, M. Berenguell and E.F. Camacho)
Iterative auto-calibration of digital controllers: methodology and applications (A Besançon-Voda)
Robust digital friction compensation (M. Slinko)
Rotor speed estimator for induction motors using voltage and current measurements (J.L. Zamora, A. Garcia-Cerrada and A. Zazo)
An active omnidirectional range sensor for mobile robot navigation (I.S. Joung and H.S. Cho)

Preface to the Special Section on Real-Time Programming (M. Maranaza)
Putting hardware/software codesign into practice (G. Schrot and T. Tempelmeier)
Timing analysis of real-time rule-based programs (M. Lin and J. Malec)
Timing analysis of a generic robot teleoperation software architecture (B. Alvarez, A. Alosso and J.A. de la Puente) Time-stamped event histories: a real-time programming object (A. Shaw)
Expressing real-time constraints in a reflective object model (J.P. Babu and J.L. Sourouille) Real-time constraint satisfaction in PEARL with interfaces and active objects (A.H. Frigeri, C.E. Pereira and W.A. Halang)

IFAC meeting papers - keyword listing

Distributed computer control systems, July 1997, Seoul, Korea
Singular solutions and perturbation in control systems, July 1997, Persaluv-Zalesksy, Russia

Index of IFAC Meeting Papers

Conference Calendar

Artificial Intelligence in Agriculture

IFAC/CIGR Workshop (3rd) Makuhari, Japan, 24 – 26 April 1998

The 3rd IFAC/CIGR Workshop on Artificial Intelligence in Agriculture (AIA’98) was held from 24 to 26 April, 1998 at the international conference center, Makuhari-Messe, Makuhari, Japan. This workshop was locally organized by the SHITA (Japanese Society of High Technology in Agricultural High Technology; president/ Prof. Yasushi Hashimoto, secretary/Prof. Takehiko Hoshi) with the great help from IFAC/TC/ILA (Intelligent Control in Agricultural Automation: chairman/ Prof. Haruhiko Murase) in co-operation with CIGR (International Commission of Agricultural Engineering: president/Prof. Osamu Kitani).

The first IFAC Workshop on Expert Systems in Agriculture was held at Huagshun/China, in August, 1995, chaired by Prof. F.L. Xiong. The second one, the IFAC/IFIP Workshop on Artificial Intelligence in Agriculture was held at Wageningen/ NL in 1995, chaired by Prof. A.J. Uldzik in Case. There, the name of the workshop was changed slightly in order to broaden its scope to include the AI methodology at large. Further, the purpose of the workshop was successfully focused to provide a forum for the presentation of new results in research, development and applications of AI in Agriculture.

The organization of this workshop was almost identical to the previous workshop, which took place in Wageningen/NL in 1995. The IFP was composed of 28 members from 14 countries. 51 papers were submitted and 36 high quality papers were accepted. However, we were unhappy to have 3 no-show authors. By the way, we, the IFAC Japanese NMO, has begun to establish the IFAC Foundation of Japan with the help of SICE. We hope to have no few-show authors at all IFAC events held in Japan in the future.

On the first day, April 24, all participants were invited to the 5th International Horticultural Exhibition, the Hi-Tech Hori-Mation held at the same place from April 21-24, 1998. On April 25, 26, we had two plenary lectures, one panel discussion and 6 sessions with 55 participants from 12 countries. It was our great pleasure to have opening addresses by Prof. Nakahara, (Chairman of the IFAC-NOMO), Prof. Osamu Kitani (the president of CIGR) etc. Two plenary lectures were given: "Biosystem-derived algorithms and their applications in agriculture" by H. Murase, and "AI approaches to identification and control of total plant production - for SPA and SFA to environmental control" by T. Morimoto and Y. Hashimoto. The workshop was thought to be a kind of intelligent control of the cultivating or the storing facilities, taking the biological status into consideration as speaking plant approach (SPA) and/or speaking fruit approach (SFA), to environmental control. One panel discussion was organized by Prof. S. Ninomiya and Prof. T. Hoshi. AI applications in the world were presented and discussed by panelists from four European countries, two Asian countries and the USA. General sessions were successful and 12 papers were accepted to be suggested for publication in the IFAC affiliated journal of "Computer and Electronics in Agriculture". It may be stated that the workshop was very successful.

To sum up the activities of IFAC in the agricultural applications as the chair of CC on Life Support Systems, it may be noted that the origin was the establishment of a small Working Group inside APCOM in 1988, owing to Prof. L. Ljung (IFAC advisor) at that time, chair of the Working Group at Matsuyama/Japan in 1991. With the great help from Prof. Y. Swarai (advisor of IFAC) and the Japanese NMO, it was successful (see IFAC Newsletter no.6, 1991). Since then, we have organized 6 workshops as main-sponsors and 3 symposia as co-sponsors in 8 countries. Most of this was done by the present two Technical Committees which succeeded the original Working Group owing to Prof. V. Kucera (Chair of TB, vice-pres. of IFAC). This June, we have two IFAC workshops in European countries. One is CAPPT’98 in Budapest chaired by Prof. I. Farkas, another is CAE98 in Athens chaired by Prof. N. Kotsakis. It is certain that these workshops, too, will be successful.

Yasushi Hashimoto, IFAC Chairman (Chair, CC on Life Support Systems)

Fault Detection, Supervision and Safety for Technical Processes – SAFEPROCESS 97

IFAC Symposium
Hull, UK, 26 – 28 August, 1997

During August 26–28 1997 the IFAC Symposium SAFEPROCESS97 was held at the University of Hull, United Kingdom as the 3rd in a new series of symposia forming SAFEPROCESS91 at Baden-Baden and SAFEPROCESS94 at Helsinki. The theme of this symposium series has been reliability, availability and safety of technical processes and their control systems - qualities which are emphasised during all phases of system design and at start-up and including full system operation, maintenance and repair. Reliability and safety imply the continuous monitoring of the whole controlled process, including the sensors actuators and control equipment. This also means closed-loop operation. At SAFEPROCESS97 the relevant methods and tools for fault data collection and analysis, human factors and fault-tolerant control were presented and discussed. At SAFEPROCESS96 the symposia were fault detection and isolation (FDI), fault detection theory and diagnosis, condition monitoring, supervision and control actions based upon hardware and software redundancy in hardware and software. There were many application studies describing methods to enhance the reliability and availability in industrial, biomedicai and vehicle systems. The development of methods based upon quantitative and/or qualitative math-
Technical Communiques

Guaranteed Cost Control of Uncertain Systems with a Time-multiplied quadratic Cost Function: An Approach Based on Linear Matrix Inequalities (S.O.R. Moheimani, J.R. Petersen)
A Bidimensional Optimal Landing Problem (M. Levebvre)

Papers

Popov-type Criterion for Stability of Nonlinear Sampled-data Systems (T. Hagiwara, G. Kuroda, M. Araki)

Brief Papers

Exponential Feedback Passivity and Stabilizability of Nonlinear Systems (A.L. Fradkov, D.J. Hill)
Necessary Conditions for Robust Stability of a Class of Nonlinear Systems (J.M. Concannon, A.M. Dahleh)
Approximate I/O Feedback Linearization of Discrete-time Nonlinear Systems via Virtual Input Direct Sign (S.M. Savarese, G.O. Guardabassi)
Adaptive Robust Control under Unknown Plants Orders (S.M. Veres, V.F. Sokolov)
Output Stabilizing Robust Control for Discrete Uncertain Systems (N. Shavy-Schapiro, Z.J. Palmor, A. Steinberg)
A Search Control for Switching Problems (R. Rodosek)
An Enhanced PID Control Strategy for Unstable Processes (J.H. Park, S.W. Sung, I.-B. Lee)
State and Input Estimation for a Class of Uncertain Systems (M. Corless, J. Tu)
Finite Dimensional Filters for Passive Tracking of Markov Jump Linear Systems (K.V. Krishnan, B. Evans)
An Adaptive Algorithm for the Tuning of Two Input Shaping Methods (M. Bodson)

Papers from the June 1998 Issue

FORTHCOMING EVENTS (ctd.)

IFAC Conference Modelling and Control in Agriculture Horticulture and Post-Harvest Processing - AGRICONTROL 2000

July 10 - 12 Wageningen 1 Dec. NL 1999

IFAC Symposium (4th) Intelligent Components and Instruments for Control Application - SICICA 2000


IFAC/IFIP/IFORS/IFR Symposium Information Control Problems in Manufacturing Technologies - INCOM 2001


IFAC Symposium (5th) Advances in Control Education ACE - 2000

Dec. 17 - 19 Gold Coast January 2000 Australia

New Results on the Global Stabilization of Minimum Phase Nonlinear Systems (A. Astolfi)
Input Observability and Input Reconstruction (M. Hov, R.J. Patton)

Technical Communiques

Robust Design of Stabilizing Controllers for Interconnected Time-delay Systems (M.S. Mahmoud, S. Barughel)

Expert attended SAFEPROCESS97 from various fields of industry and academia and delegates were present from 28 countries. The programme consisted of 3 keynote papers, state-of-the-art reviews, the latest results, tutorial papers and 12 specially organised sessions. Many of the papers presented were of an interdisciplinary nature, reflecting the advancement of interaction issues in the design and operation of fault-tolerant and safety-critical systems. There were 236 papers with 264 participants and this reflected a rapidly developing interest in this important subject as the symposium series has continued to grow.

There is an important connection between robust control theory, control systems design and design and fault-tolerant control systems. For this reason SAFEPROCESS 2000 is planned for Budapest from 14 to 16 June 2000, a few days before the Symposium on Control Systems Design (CSD 2000) at Bratislava (18-20 June) and Robust Control Systems Design (ROCOCO 2000) at Prague (21-23 June). The close timing and geographical location of these three events will certainly facilitate a close synergy between IFAC activities in these related fields of control engineering.

R.J. Patton, IFAC Chairman

Prof. Gerrit van Straten Wageningen Agricultural University Agrotechnology, Bomenweg 4 NL-6703 HD Wageningen, Netherlands e-mail: gerrit.vanstraten@user.aenf.wau.nl FAX: +31/317/483 331 http://www.aenf.wau.nl

Eng. Jonas Pauk, Av. Callao 220 l.o B 1022 Buenos Aires, Argentina FAX: +54/1/3743-700 e-mail: system@aadega.satlink.net

Dr. Robert Probst Institute for Handling Devices and Robotics (E311), Technical University Floragasse 7 a, A-1040 Vienna, Austria FAX: 43/1/50418359 e-mail: e318@ihr.rzt.tuwien.ac.at

Dr. Ljubo Vlacic School of Microengineering, Griffith Univ Nathan, Qld. 4111, Australia FAX: +61/7/3875 5384 e-mail: L.Vlacic@me.gu.edu.au
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<th>Event</th>
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<th>Further Information</th>
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<tr>
<td>IFAC Symposium Automation in Mining, Mineral and Metal Processing - MMM 98</td>
<td>Sept. 1-3</td>
<td>Cologne, Germany</td>
<td>-</td>
<td>VDI-VDE GMA POB 10 11 30 D-4002 Düsseldorf, Germany FAX: +49/211/6241-161 e-mail: <a href="mailto:vdi@gmx.de">vdi@gmx.de</a></td>
</tr>
<tr>
<td>7th IEEE/IFAC Conference Control Applications</td>
<td>Sept. 1-4</td>
<td>Trieste, Italy</td>
<td>-</td>
<td>Prof. Frank L. Lewis Automation and Robotics Res. Inst. The University of Texas at Arlington 7300 Jack Newell Blvd, S Fort Worth, TX 76118, USA FAX: +1/817/272-5989 e-mail: <a href="mailto:flewis@controls.uta.edu">flewis@controls.uta.edu</a></td>
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<tr>
<td>IFAC Symposium Low Cost Automation LCA 98</td>
<td>Sept. 8-10</td>
<td>Shenyang, China, PR.</td>
<td>-</td>
<td>Prof. Chen Zhe-Yu LCA 98 Secretariat, POB 919 Beijing 100701, China, PR. FAX: +86/10/63816990</td>
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<tr>
<td>IFAC Workshop <em>East Meets West</em> on Automated Systems Based on Human Skill</td>
<td>Sept. 8-12</td>
<td>Palanga, Lithuania</td>
<td>-</td>
<td>Prof. Saulius Kausinis Kaunas University of Technology A. Mickevicius str. 37-305 LT-3005 Kaunas, Lithuania e-mail: <a href="mailto:ifclinio@eaf.ktu.lt">ifclinio@eaf.ktu.lt</a> FAX: +370/7/351574 <a href="http://www.ktu.lt:81/en/science/semin/ram.1.html">http://www.ktu.lt:81/en/science/semin/ram.1.html</a></td>
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<tr>
<td>IFAC Workshop Distributed Computer Control Systems - DCCS '98</td>
<td>Sept. 9-11</td>
<td>Como, Italy</td>
<td>-</td>
<td>DCCS98 Secretariat Dip. di Scienze Informazione Via Cornetico, 39 1-20153 Milano, Italy FAX +39/2/5500 6373 e-mail: <a href="mailto:dccs98@dsi.unimi.it">dccs98@dsi.unimi.it</a> <a href="http://www.dsi.unimi.it/dccs98">http://www.dsi.unimi.it/dccs98</a></td>
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<tr>
<td>IFAC/IEA/IFIP/IFORS Symposium Analysis, Design and Evaluation of Man-Machine Systems MMS '98</td>
<td>Sept. 16-18</td>
<td>Kyoto, Japan</td>
<td>-</td>
<td>Prof. Hiroshi Tamura Kyoto Institute of Technology Matsugasaki, Sakyo-ku Kyoto 606, Japan FAX: +81/75/701 7211 e-mail: <a href="mailto:tamurah@hisol.dj.kit.ac.jp">tamurah@hisol.dj.kit.ac.jp</a></td>
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<tr>
<td>IFAC Workshop Control in Natural Disasters</td>
<td>Sept. 21-22</td>
<td>Tokyo, Japan</td>
<td>-</td>
<td>Prof. R. Ishii Div. Elec. Comp. Engg. Yokohama National University Yokohama 240, Japan FAX: +81/45/738 1157 e-mail: ishii@<a href="mailto:ishii@ntu.yamagata.ac.jp">ishii@ntu.yamagata.ac.jp</a> <a href="http://www.ishii@ntu.yamagata.ac.jp/CN/D98">http://www.ishii@ntu.yamagata.ac.jp/CN/D98</a></td>
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<tr>
<td>IFAC Workshop Motion Control</td>
<td>Sept. 21-23</td>
<td>Grenoble, France</td>
<td>-</td>
<td>Prof. Luc Dugard Lab. d'Automatique de Grenoble, ENSIEG, BP 46 F-38402 St. Martin d'Hères-Cedex, France FAX: +33/4 76 82 6389 e-mail: <a href="mailto:dugard@lag.ensieg.fr">dugard@lag.ensieg.fr</a></td>
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<tr>
<td>ICSC/IFAC Intl. Symposium Neural Computation - NC 98</td>
<td>Sept. 23-25</td>
<td>Vienna, Austria</td>
<td>-</td>
<td>ICSC Canada, POB 279, Millet Alberta T0C 1Z0, Canada FAX: +1/403/387 4329 e-mail: <a href="mailto:icsc@compusmart.ab.ca">icsc@compusmart.ab.ca</a> or: <a href="mailto:Michael.Hess@Siemens.at">Michael.Hess@Siemens.at</a> <a href="http://www.compusmart.ab.ca/icsc">http://www.compusmart.ab.ca/icsc</a></td>
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<tr>
<td>IFAC Symposium Artificial Intelligence in Real Time Control</td>
<td>October 5-8</td>
<td>Grand Canyon, AZ, USA</td>
<td>-</td>
<td>Dr. Steven R. LeClair Materials Process Design Branch US Air Force Materials Directorate Wright Laboratory, Wright Patterson AFB Ohio 45433, USA FAX: +1/937/656 7905 e-mail: <a href="mailto:leclair@mil.wpsafb.af.mil">leclair@mil.wpsafb.af.mil</a> <a href="http://sys36174.mil.wpsafb.af.mil/airtech98/airtech98.html">http://sys36174.mil.wpsafb.af.mil/airtech98/airtech98.html</a></td>
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<tr>
<td>IFIP/EWICS/IFAC Conference SAFECOMP '98</td>
<td>October 6-8</td>
<td>Heidelberg, Germany</td>
<td>-</td>
<td>Ms. Gabriele Trapp Gesellschaft für Informatik Ahrstrasse 45, D-53175 Bonn, Germany e-mail: <a href="mailto:dia@grnd.de">dia@grnd.de</a> <a href="http://www.ff-hf-ulma.de/safecomp">http://www.ff-hf-ulma.de/safecomp</a></td>
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<tr>
<td>IFAC/Workshop Space Robotics - SPRO'98</td>
<td>October 19 - 22</td>
<td>Montreal, Canada</td>
<td>1998</td>
<td>Prof. J. O'Shea, SPRO'98 Ecole Polytechnique C.P. 6079, SUCC. Centre-ville Montreal, Que., H3C 3A7, Canada FAX: +1/514 340 4174 e-mail: o'<a href="mailto:shea@auto.polymtl.ca">shea@auto.polymtl.ca</a></td>
</tr>
<tr>
<td>IFAC Conference Control Applications in Marine Systems - CAMS '98</td>
<td>October 27 - 30</td>
<td>Fukuoka, Japan</td>
<td></td>
<td>Prof. K. Kijima Kyushu University, Dept. of Naval, Archit., Higashiku, Fukuoka 812, Japan FAX: +81/92/363 2821</td>
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<tr>
<td>IFAC Workshop 5th Intelligent Manufacturing Systems</td>
<td>November 9 - 11</td>
<td>Gramado, Brazil</td>
<td></td>
<td>Prof. Carlos E. Pereira Rua Siqueira Campos 341/304 CEP 92010 - 230, Canoas RS, Brazil FAX: +55/11 316 3129 e-mail: <a href="mailto:cpeireira@icd.ufg.br">cpeireira@icd.ufg.br</a> <a href="http://www.icd.ufg.br/icd.tecnologia/">http://www.icd.ufg.br/icd.tecnologia/</a></td>
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<tr>
<td>VIII Latin American Congress on Automatic Control ACCA</td>
<td>November 9 - 13</td>
<td>Viña del Mar, Chile</td>
<td></td>
<td>Prof. Gastón LeFranc H. Escuela de Ing. Eléctrica U. Católica de Valparaíso Casilla 4059, Valparaíso, Chile FAX: +56/32/273804 e-mail: <a href="mailto:glerfranc@atix.uva.cl">glerfranc@atix.uva.cl</a> <a href="http://www.vic.univ.cl/rdm/rdm/">http://www.vic.univ.cl/rdm/rdm/</a></td>
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<td>14th IFAC WORLD CONGRESS</td>
<td>July 5 - 9</td>
<td>Beijing, PRC</td>
<td>15 June 1998</td>
<td>IFAC'99 IPC Secretariat Institute of Systems Science Chinese Academy of Sciences Beijing 100080, PR China FAX: +86/10/6288 7343 e-mail: <a href="mailto:ifac99@iss.ac.cn">ifac99@iss.ac.cn</a> <a href="http://www.ia.ac.cn/ifac99/ifac99.html">http://www.ia.ac.cn/ifac99/ifac99.html</a></td>
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<td>15th IFORS WORLD CONGRESS</td>
<td>August 16 - 20</td>
<td>Beijing, PRC</td>
<td>30 Nov. 1998</td>
<td>IFORS XV Conference Secretariat Institute of Applied Mathematics Chinese Academy of Sciences Beijing 100080, PR China FAX: +86/10/6254 1689 e-mail: <a href="mailto:orchina@public.east.cn.net">orchina@public.east.cn.net</a> <a href="http://www.ifors.org/leaflet/triennial.html">http://www.ifors.org/leaflet/triennial.html</a></td>
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<td>EFITA/IFAC Conference Information Technology in Agriculture</td>
<td>Sept. 27-30</td>
<td>Bonn, Germany</td>
<td>*</td>
<td>Prof. Dr. Gerhard Schiefer University of Bonn Meckenheimer Allee 174 D-53115 Bonn, Germany FAX: +49/228/733431 e-mail: <a href="mailto:schiefer@uni-bonn.de">mailto:schiefer@uni-bonn.de</a></td>
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<tr>
<td>EPS/IFAC Intl. Conference on Accelerator and Large Experimental Physics Control Systems - ICALEPCS'99</td>
<td>open</td>
<td>Trieste, Italy</td>
<td>*</td>
<td>Dr. Daniele Bulfone co-chair ICALEPCS 99 Sincronote Trieste I-34012 Trieste, Italy e-mail: <a href="mailto:bifione@eletra.trieste.it">bifione@eletra.trieste.it</a> <a href="http://www.elettra.trieste.it">http://www.elettra.trieste.it</a></td>
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<td>IMACS/IFAC Symposium 3rd Mathematical Modelling - MATHMOD 2000</td>
<td>Feb. 2 - 4</td>
<td>Vienna, Austria</td>
<td>15 May 1999</td>
<td>Prof. Inge Troch Vienna University of Technology Wiedner Hauptstrasse 8 - 10 A-1040 Vienna, Austria e-mail: <a href="mailto:inge.troch@tuwien.ac.at">inge.troch@tuwien.ac.at</a> FAX: +43/1/386 29 59 <a href="http://sintech.tuwien.ac.at/3rdMATHMOD">http://sintech.tuwien.ac.at/3rdMATHMOD</a></td>
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<td>IFAC/CIGR Symposium Power Plants and Power Systems</td>
<td>May 24 - 26</td>
<td>Brussel, Belgium</td>
<td>June 1999</td>
<td>Ir Jacques Dehelle, c/o IBRA/IBIRA R.Ravenstein 3, B-1000 Brussels, Belgium FAX: +32 2 511 7004</td>
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<td>IFAC Symposium Fault Detection, Supervision and Safety for Technical Processes SAFEPROCESS 2000</td>
<td>June 14 - 16</td>
<td>Budapest, Hungary</td>
<td>15 October 1999</td>
<td>Dr. A. Edelmayer, Systems and Control Lab Computer and Automation Institute, HAS Kende u. 13-17, H-1111 Budapest, Hungary FAX: +36/1/1667503 e-mail: <a href="mailto:edelmayer@szakti.hu">edelmayer@szakti.hu</a></td>
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<td>IFAC Symposium Robust Control Design ROCOND 2000</td>
<td>June 21 - 23</td>
<td>Prague, Czech Rep.</td>
<td>September 1999</td>
<td>Dr. M. Sebek, Inst. of Information Theory &amp; C.Z.-18208 Prague, Czech Rep. FAX: +420/2/6884554 e-mail: <a href="mailto:masebek@utia.cas.cz">masebek@utia.cas.cz</a></td>
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