# FAC D

### International Federation of Automatic Control

Secretariat: Schlossplatz 12, A-2361 Laxenburg, Austria - Phone (02236) 71 4 47, Telex 79248 ifac a

1987 No. 3 June

# Newsletter

Contents:

Informal Meeting of the IFAC Presidents

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A Sad Loss

Forthcoming Events

New IFAC Prizes

Papers from the Next Issue of Automatica

Modelling and Controlbitaterelawilly Igrasi

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Fred Margulies Memorial Workshop

Who is Who in IFAC

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## Informal Meeting of the IFAC Presidents

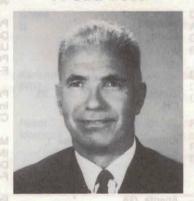
For the last time in this triennium, the present team of IFAC Presidents met in Laxenburg from April 2–4. The President, Prof.M. Thoma, the Vice Presidents, Prof. B.D.O. Anderson and Mr. W. E. Miller, the Past President, Prof. T. Vamos and the President Elect, Prof. B. Tamm participated in this meeting as well as the Treasurer, Prof. M. Mansour and the Secretary, G. Hencsey.

This time it was quite naturally the 10th IFAC World Congress and the preparation of the General Assembly in Munich which were in the centre of interest. The overall impression was that preparations are proceeding very smoothly. Also preparations for the Counciland Related Meetings, which will be held in

the framework of the World Congress in Munich are well under way.

Apart from directly IFAC-related matters there was also opportunity for the Presidents to meet representatives of the Austrian authorities and scientists and representatives of IIASA on the occasion of a dinner given by the IFAC President, Prof. M. Thoma. The Austrian National Member Organization, ÖPWZ, invited the Presidents to a typical Viennese Heurigen. All these activities, in addition to the informal discussions, help strengthen the ties within IFAC by giving continuity in spite of the regular change in the gremiums of IFAC, a fact which also contributes to keeping IFAC lively and future-oriented.

#### A Sad Loss



Michel Cuénod died on April 3rd, 1987, at the age of 68. The news of his death was a shock to his friends in IFAC.

Michel Cuénod served IFAC for 22 years, as Treasurer and member of the Executive Council from 1959 till 1981, then as IFAC Adviser until his death. He was among the IFAC officers with the longest record of IFAC activities and certainly with the longest Council membership. He was also one of the founding members of the Swiss Federation of Automatic Control (SGA/ASSPA), where he was a committee member and scientific secretary till 1985, and honorary member since then. His extraordinary engagement for IFAC and the Swiss national member organization has always been admired by all

people who knew him in both organizations. IFAC has lost one of its most dedicated officers, an outstanding scientist and engineer, and above all a sincere friend. He will live on in our memories.

M. Mansour

#### Michel Cuénod, the Artist

Some of our readers will perhaps remember that Michel Cuénod was not only an excellent scientist, engineer, organizer and teacher, but that his hobby was graphic art. At the last World Congress he showed us his lovely sketches of Budapest and others he had made of previous IFAC World Congresses.

All of us very much enjoyed these sketches which in a way are an illustration of IFAC history. Last year therefore, a booklet was printed in which the information on the history of IFAC World Congresses was illustrated by Michel's sketches. This booklet will be presented to IFAC Congress Prize winners, IFAC Advisors and other outstanding officers of our Federation at the World Congress in Munich.

Unfortunately the Budapest sketches were the last ones to be added to this extraordinarily interesting series. We will miss Michel Cuénod and his sketches very much in the future.

G. Hencsey



### FORTHCOMING EVENTS

1987 No. 3 June

| Title tion (ne intext E. sineerin   | 1987               | Place                       | Deadlines  | Further Information   |
|---|--------------------|-----------------------------|--|---|
| X. IFAC WORLD CONGRESS  | July<br>26—31      | Munich<br>FRG               | ar Blatt Feedus  | Eng. H. Wiefels<br>VDI/VDE Gesellschaft<br>Meß- und Regelungstechnik GMR<br>Postfach 1139<br>D-4000 Düsseldorf 1, FRG                   |
| 3rd Intl. IFIP/IFAC Conference<br>Advances in Production<br>Management Systems (APMS '87)             | August<br>11 — 14  | Winnipeg<br>Manitoba<br>CDN | bt Overhead G  | Prof. A. Kusiak<br>Dept. of Mechanical & Industrial Engrg,<br>University of Manitoba<br>Winnipeg, Manitoba R3T 2N2 Canada               |
| 2nd IFIP/IFAC Conference<br>Human Computer Interaction —<br>INTERACT '87                              | Sept.<br>1-4       | Stuttgart<br>FRG            | Past Vine Wilds<br>of IFAC Prepide   | INTERACT '87 Secretary c/o IAO/IPA<br>Nobelstrasse 12, D-7000 Stuttgart, FRG  |
| IMACS/IFAC Int. Symposium<br>Modelling and Simulation of<br>Distributed Parameter Systems             | October<br>6—9     | Hiroshima<br>J              | CBYPHALICHTUP 1 An W ET RELIEB T, VANNOUT BIND BY AND THE STRICK WAS TRICK W | Dr. T. Futagami<br>Dept. of Civil Engineering<br>Hiroshima Inst. of Technology<br>Miyake, Itsukaichi, Saeki<br>Hiroshima, 731-51, Japan |
| Title   | 1988               | Place                       | Deadlines  | Further Information   |
| IFAC/IMEKO/IMACS Symposium<br>Modelling and Control in<br>Biomedical Systems                          | April<br>6—8       | Venice<br>Italy             | May 15,<br>1987  | Prof. C. Cobelli<br>Istituto di Elettrotecnica e di Eletronica<br>University of Padova, Via Gradenigo 6/a<br>I-35131 Padova, Italy      |
| IFAC/IFIP Symposium<br>Software for Computer Control —<br>SOCOCO '88                                  | April<br>26—28     | Johannesburg<br>ZA          | for the Compa  | Prof. I. M. Macleod Dept. of Electrical Engineering, University of Witwatersrand 1 Jan Smuts Ave Johannesburg 2001, ZA                  |
| IFAC/IFIP Workshop (15th)<br>Real Time Programming  | May 25—27          | Valencia<br>Spain           |  | Prof. J. A. de la Puente Dept. de Sistemas, Informaticos y Comput. Universidad Politecnico POB 22012 E-46071 Valencia, Spain            |
| IUTAM/IFAC Symposium Dynamics of Controlled Mechanical Systems  | May 30—<br>June 3  | Zurich<br>CH                | Sept. 30,<br>1987  | Prof. M. Mansour<br>Institute of Automatics ETH Zurich<br>CH-8092 Zurich, Switzerland   |
| INRIA/IFAC (8th) Conference<br>Analysis and Optimization<br>of Systems                                | June<br>8—10       | Antibes<br>F                | Nov. 1,<br>1987  | Ms. Th. Bricheteau<br>INRIA, B.P. 105<br>Domaine de Voluceau<br>F-78153 Le Chesnay, France  |
| IFAC Workshop<br>Model Based Process Control  | June<br>13—14      | Atlanta, GA<br>USA          | Cuesud died<br>ge of 60 The p<br>ok to bis figge   | Prof. Y. Arkun Dept. of Chemical Engrg. Georgia Institute of Techn. Atlanta, GA 30332, USA  |
| IFAC/IFIP/IEA/IFORS Conference<br>Analysis, Design and Evaluation<br>of Man-Machine Systems (MMS '88) | June<br>14—16      | Oulu<br>SF                  | om bolt version<br>i Delt most le<br>mess out this t<br>est rem aller en   | B. Wahlström Technical Research Centre of Finland Electrical Engineering Lab., Otakaari 7B SF-02150 Espoo, Finland                      |
| IFAC/IMACS Symposium<br>Systems with Distributed<br>Intelligence: Methodology<br>and Applications     | June 27—<br>July 1 | Varna<br>BG                 | Sept. 20,<br>1987  | DIS '88 Symposium<br>Information Centre "INFORMA"<br>POB 26<br>BG-1592 Sofia, Bulgaria  |
| IFAC Symposium<br>Trends in Control and<br>Measurement Education                                      | July<br>11—13      | Clyne Castle<br>UK          | A DEW LOW TRUME<br>STATE COM THOMSON<br>STATE COM THOMSON<br>TO DOWN THE COM   | Ms. Rosamund da Gama The Institute of Measurement and Control 87 Gower Street, London WC1E6AA, UK                                       |

### FORTHCOMING EVENTS (ctd.)

| Title  | 1988            | Place                     | Deadlines  | Further Information  |
|--|-----------------|---------------------------|--|--|
| 1500.0   |                 | O the Internation         | A I to tilimbo   | Prof. M. Kümmel  |
| IFAC Symposium Adaptive Control of   | August<br>17—19 | Lyngby<br>DK              | Oct. 1,<br>1987  | Prof. M. Kümmel  Denmark Technical University  |
| Chemical Processes   | 11/1/           |                           |  | Institute for Kemiteknik, Bldg 229   |
|  |                 |                           |  | DK-2800 Lyngby, Denmark  |
| IFAC Workshop  | August          | Newcastle                 | July 15,   | Prof. G. C. Goodwin  |
| Robust Adaptive Control  | 22 — 24         | NSW, AUS                  | 1987   | Dept. of Electrical & Computer Engrg   |
|  |                 | ear State Feedback        |  | The University of Newcastle, N.S.W. 2308, Australi   |
| 4th IFAC Symposium   | August          | Beijing                   |  | Prof. Chen Zhen-Yu   |
| Computer Aided Design in   | 23 — 25         | PRC                       | and the same   | CADCS '88 Secretariat Application Committee of the   |
| Control and Engineering Systems  | C CONTRACTOR OF |                           |  | Chinese Association of Automation  |
| Chairman of the IFAC   |                 |                           | America H. Tros  | P.O. Box 919, Beijing, PRC   |
| IFAC/IFORS Symposium   | August          | Beijing                   |  | Prof. Chen Han-Fu  |
| Identification and   | 27-31           | PRC                       |  | Institute of Systems Science Academia Sinica   |
| System Parameter Estimation  | (I) an Nov      | Lionar, Time-Vicuo        | Ja., Gentrel, at   | Beijing,, 10080, P. R. China   |
| IFAC Symposium   | Sept.           | Brussels                  | es rect la Lavier  | J. Debelle, Vice President of IBRA   |
| Power Systems: Modelling and   | 5-8             | Belgium                   |  | Rue Ravenstein 3   |
| Control Applications   |                 |                           |  | B-1000 Brussels, Belgium   |
| 3rd Intl. Symposium  | Sept.           | Berlin                    | O. Child Internet  | Prof. Dr. A. Sydow   |
| Systems Analysis and   | 12-16           | GDR                       |  | ZKI der AdW der DDR  |
| Simulation Simulation (1979) et  |                 |                           |  | Kurstrasse 33  |
| d a honorary doctor's degree from  |                 | enlete, G. Mouetaklde     | sacvilla, A. Benyi   | DDR-1086 Berlin, GDR   |
| IFAC Workshop  | Sept.           | Pasadena                  | stunder to (909)   | Mr. G. E. Cunningham   |
| Spacecraft Autonomy:   | 13-15           | CA, USA                   |  | Pathfinder Project, Jet Propulsion Lab.  |
| The state of the s | beinow Gi       |                           |  | Mail Stop 79—21, 4800 Oak Grove Drive  |
| s of the French Air Force from 1960<br>Life activities in this fonction were   |                 |                           |  | Pasadena, CA 91109, USA  |
| IFAC Workshop (8th)  |                 | Vitznau                   | tions spely a electronic   | Prof. Bühler, SGA  |
| Distributed Computer   | 13—15           | CH                        |  | 16 Chemin de Bellerive   |
| Control Systems — DCCS '88   | aninimi i       | Systems                   | profit-otopicals of  | CH-1007 Lausanne, Switzerland  |
| SCI/IFAC Symposium   | Sept.           | Cambridge                 | nd Mederal pade  | UKACC  |
| Modelling and Control of   | 25—28           | OK 100 Bitt 101 B         |  | The Institute of Measurement and Control   |
| Biotechnological Processes   |                 |                           |  | 87 Gower Street, London WC1E 6AA, UK   |
| IFAC Workshop (2nd)  | Sept.           | Ghent                     |  | Dr. ir. L. Boullart  |
| Reliability, Availability  | 28-30           | В                         |  | Automatic Control Lab. University of Ghent   |
| and Maintenability of<br>Industrial Instrumentation Systems  |                 |                           |  | Grotesteenweg Noord 2<br>B-9710 Ghent, Belgium   |
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| IFAC/IMACS/IFIP Symposium  | October         | Karlsruhe                 | January and Land   | Dr. G. Hirzinger   |
| Robot Control SYROCO '88   | 5-7             | FRG                       |  | DFVLR Oberpfaffenhofen D-8031 Wessling/Oberbayern, FRG   |
|  |                 |                           |  | D-0001 Wessing/Oberbayerii, Fhd  |
| 4th IFAC Symposium   | Oct.            | Rabat                     | pillin from #10 to tot   | Prof. M. Najim, AMADEIA  |
| Systems Analysis Applied to<br>Management of Water Resources   | 11—13           | Morocco                   |  | c/o Laboratoire Electronique   |
| ivialiagement of vvater nesources  |                 |                           |  | Faculté des Sciences<br>BP 1014, Rabat, Morocco  |
|  |                 |                           |  |  |
| dament lab in and ob closerable of   | Name of         |                           | 7  | Healt made of course of East, World Consequence  |
| Title Title  | 1989            | Place                     | Deadlines  | Further Information (DES) Note C   |
| IEAC Sumposium   | Apell           | Glassow                   | M.K.   | Which in a way are apply armen of the  |
| IFAC Symposium Adaptive Control and  | April<br>19—21  | Glasgow                   | A STATE OF THE PARTY OF THE PAR | Ms. Rosamund da Gama The Institute of Measurement and Control  |
| Signal Processing  | Oner T          |                           |  | 87 Gower Street, London WC1E6AA, UK  |
| IEAC Sumagaire   | August          | Porlin                    | gorichel Witchelper  | Part H Fresh District Control of the State o |
| IFAC Symposium  Large Scale Systems:   | August<br>28—31 | Berlin<br>GDR             | No mineral sport   | Prof. H. Fuchs Academy of Sciences of the GDR  |
| Theory and Applications  | granto in       |                           |  | Kurstrasse 33, DDR-1086 Berlin, GDR  |
|  | Cost            | Property Alexander        | Historic desta come de   | Conf. I. Polish  |
| IFAC Symposium Automation in Mining, Mineral   | Sept. 4—8       | Buenos Aires<br>Argentina | maniferent trans   | Prof. J. Paluk<br>c/o AADECA, Venezuela 639 9° P.Off 39  |
| and Metal Processing   | THE STATE OF    | Argentina                 |  | 1095 Buenos Aires, Argentina   |
|  | mginto i di     | tt vo bosinsgap bus       |  | MINA PROPERTY SERVICE AND  |
| IFAC/IFIP/IEA/IFORS Conference   | Sept.           | Xian                      |  | Prof. Wang Ying Luo  |
| Analysis, Design and Evaluation of<br>Man-Machine Systems (MMS '89)  | 12-14           | PRC                       |  | Xian Jiaotong University Xian, Shaanxi, PRC  |
| The state of the s |                 |                           |  | Month Lintbleton, 14D 21000  |

#### **New IFAC Prizes**

Issue 5/1986 of the Newsletter gave information on the IFAC Council and Related Meetings in Zurich. Reference was made to three new prizes which were established on the occasion of these meetings. The February 1987 issue of the Newsletter gave detailed information on the Control Engineering Textbook Prize.

#### **IFAC Congress** Young Author Prize

The criterion for the Young Author Prize is high technical quality and good presentation of the paper by an author or authors 35 years

Three to eight finalists for the Young Author Prize will be identified for the Congress IPC. The finalists will be notified and their papers identified in the Congress Final Program. The IFAC Council has appointed a Young Author Prize Selection Committee. The names of the members of the Selection Committee will also be stated for the Congress participants to encourage outside comments to the Selection Committee during the Congress.

Young Author Prize Selection Committee for the IFAC World Congress in Munich:

S. Kahne (USA) - Chairman H. Akashi (J) K. J. Aström (S) G. S. Axelby (USA)

V. I. Utkin (USSR)

#### **IFAC Congress Applications Paper Prize**

The criterion for this prize are outstanding technical contributions in the area of control applications. The term applications includes, but is not limited to, case study, design and implementation of control systems, optimization of operation of a process, but excludes work of a simulation or laboratory scale nature that does not embrace work on an actual full-scale process.

The procedure of the Applications Paper Prize is identical to the one of the Young Authors Prize.

Applications Paper Prize Selection Committee for the IFAC World Congress in Munich

L. Keviczky (H) - Chairman

D. Ernst (FRG)

U. Luoto (SF)

J. L. Nevins (USA)

The winners of both prizes and the finalists will be announced and presented with certificates at the Closing Session of the Congress.

The value of the monetary award of each prize will be sfr 1.500.

New address of AUTOMATICA editor-in-chief Dr. G. S. Axelby AUTOMATICA 211 Coronet Drive North Linthicum, MD 21090 USA

## automatica WHO IS WHO IN IFAC

The Journal of IFAC the International Federation of Automatic Control

Papers from the Next Issue - July 1987

Robustness of Nonlinear State Feedback -A Survey (T. Glad)

Time Optimal Control of Overhead Cranes with Hoisting of the Load (J. W. Auernig, H. Troger)

A Parameter-Adaptive PID-Controller with Stepwise Parameter Optimization (F. Radke, R. Isermann)

Adaptive Control of Linear Time-Varying

(K. Tsakalis, P. Ioannou)

Physically Based Parameterizations Designing Adaptive Algorithms

(S. Dasgupta, B. D. O. Anderson)

Detection and Diagnosis of Changes in the Eigenstructure of Nonstationary Multivariable Systems

(M. Basseville, A. Benveniste, G. Moustakides, A. Rougée)

Prediction-Error-Method for Recursive Identification of Nonlinear-Systems (W. Jakoby, M. Pandit)

Identification and Application of Bounded-Parameter Models (J. P. Norton)

Identification and Model Reduction of Time-Varying Discrete-Time Systems

(S. Shokoohi, L. M. Silverman) Distributed Algorithms for the Computation of Noncooperative Equilibria

(S. Li, T. Basar)

#### **Brief Papers**

Some Results on Simultaneous Stabilization with Multiple Domains of Stability (M. Vidyasagar)

On the Uniqueness of Prediction Error Models for Systems with Noisy Input-Output Data (P. Stoica, A. Nehorai)

#### **Technical Communiques**

#### **Book Reviews**

Lineare Kontrolltheorie by H. W. Knobloch and H. Kwakernaak

(J. L. Willems)

Nonlinear System Theory by J. L. Casti (T. Glad)

#### **Fred Margulies** Memorial Workshop

A Memorial Workshop will be held in Laxenburg near Vienna on October 2, 1987, to commemorate the 70th birthday of the late IFAC Secretary, one of the outstanding specialists on the interdependence between society and new technologies.

The workshop will be sponsored by several Austrian authorities and organised by the IFAC Secretariat. Well known scientists from Austria and abroad were invited to give lectures on social effects of automation.

For further information please contact the IFAC Secretariat.



Professor Marc J. Pélegrin Chairman of the IFAC Technical Committee on Aerospace

Professor Marc J. Pélegrin was born in Paris on November 28, 1923. He graduated from the Polytechnic School in 1946 and subsequently studied at the Ecole Nationale Supérieure de l'Aéronautique, both in Paris, until 1949. After his graduation from this institute he spent one year at the Massachusetts Institute of Technology in the USA. Back in France he took his Doctor és Sciences (PhD) degree in 1952. In 1960 he received a honorary doctor's degree from Gand University in Belgium.

In his professional capacity Professor Pélegrin worked as an engineer in the Technical Services of the French Air Force from 1950 to 1960. His activities in this function were concerned with guidance of missiles and aircraft, study on simulators for missiles and training simulators for aircraft. From 1960 to 1964 Professor Pélegrin was Scientific Advisor at SHAPE. From 1964 he was in charge of the transfer of the Ecole Nationale Supérieure de l'Aéronautique et de l'Espace from Paris to Toulouse and was responsible for the creation of the Research Center attached to the school. He became head of the Automatism Research Centre attached to the School in Paris and transformed it into a department of the Research Centre in Toulouse. In 1964 he also became Professor at the Automatic Control and Electronic Computer department of the school and in 1969 he was appointed director of the School (Ecole nationale Supérieure de l'Aéronautique et de l'Espace) and Research Centre in Toulouse. From 1978 on he has been Director of the Research Centre in Toulouse (Centre d'Etudes et de Recherches de Toulouse) and in 1983 he became Secretary General of the Académie Nationale de l'Air et de l'Espace.

Professor Pélegrin is holder of the Aeronautics Medal (1971); officier de l'Ordre National du Mérite (1973); officier de la Légion d'Honneur (1979). He received the Prix Michel Monpetit (French Academy of Sciences - 1981) and is a corresponding member of the French Academy of Sciences (since 1987) and a Foreign Member of the National Academy of Engineering in the USA (since 1978)

Among his functions in IFAC have been the Chairman of the Education Committee, Vicechairman of the Space Committee. At present Prof. Pélegrin is Chairman of the Space Committee, which was renamed "Aerospace" Committee in 1986. Under his chairmanship also, this committee has organized a number of symposia, workshops and conferences which have attracted great interest in the scientific community.