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A New Highlight in IFAC's History:
Budapest Congress Inspires More Than 1000 Participants

On July 2, 1984 the 9th World Congress of IFAC was opened in Budapest by the Hungarian Prime Minister G. Lázár. Other speakers at the opening ceremony were the Mayor of Budapest, Z. Szépvölgyi, the Secretary General of the Hungarian Academy of Sciences, L. Pál and the President of IFAC, Academician T. Vámos.

When on July 6, 1984 the 9th IFAC World Congress came to a close, the data bank of the Congress Computer System held the data of 1157 participants, who had come from 44 countries to Budapest. On top of the list were the USA with 124 participants followed by Japan (with 119 participants as a very close second) and Germany (77). The other registrations were more evenly distributed, ranging between 1 (Iceland) and 54 (Czechoslovakia).

Another record was noted with the number of (submitted and invited) papers reaching a peak of 1014, again led by the US and Japan, followed closely however by Hungary and Germany.

Out of these 1014 papers the Program Committee had selected 596 for presentation in 11 parallel sessions. For the first time the Congress was structured into "Colloquia", organised in 11 strings each comprising papers and discussion sessions of related subjects — a new idea which proved to bring considerable advantages and was accepted with general approval.

In addition 27 panel discussion sessions took place, offering the participants the opportunity to interfere actively and to express their own views on the topics under consideration, while 7 case studies were devoted to interesting and important practical experiences.

Particular interest focussed on the six plenary papers presented by distinguished scientists: J. Zaborsky (USA) analysed automatic control as systems science in past, present and future, P. Kokotovic (USA) demonstrated the importance of and the trends in feedback design and its renaissance with respect to control theory in the 80's. Prof. G. Färber's (FRG) lecture was devoted to the topic of integration of process control and information systems, while a survey on flexible manufacturing systems was delivered by H. Yoshikawa of Japan, beyond doubt the leading country in this field. Two further plenary papers dealt with incentives and control in economic organisations and with control in and for biosystems; they were read by Roy Radner (USA) and by Victor Novoseltser (USSR) respectively.

Continuity and Change

At the end of the Closing Ceremony T. Vámos, IFAC President 1981/84 handed the formal attributes of his office — Gavel and Seal — to his successor M. Thoma, pointing to IFAC's tradition of continuity and change.

"The most important feature of this continuity" he said, "is our consensus in the basic principle of cooperation, scientific, technical and human standards, maintaining the spirit of being a very informal but very closely tied human faced organisation.

The change however is represented also in the personalities of the presidents. Each of them starts with new initiatives and that is one reason why we keep ourselves to the very healthy rotation principle.

T. Vámos had begun his closing address expressing his gratitude "to all my colleagues within the Council, the Secretariat, the IFAC Boards and Committees who helped me during these three unforgettable and rewarding years. If the President had a success, it is the result of the common effort of all the IFAC Family, a group of people who serve and contribute to IFAC independently of their momentary office."

With all the best wishes for the future on behalf of the outgoing Council and of the IFAC Family he then transferred the Presidency to M. Thoma, the new IFAC President for the term 1984/87.

Taking over this office, M. Thoma expressed his appreciation of the now "Immediate Past President, who not only succeeded to maintain the high standard of our Federation but also did add some new dimensions". He mentioned in particular his broad cultural background, his modesty and his deep belief in humanity.

"The great tension and danger for our mankind would not exist if in particular the leading people of our world would not only talk about, but practice ethic principles", Prof. Thoma added.

At the end of his address a slide show of Munich, the venue of the 10th IFAC Congress in 1987, was shown and everybody invited to attend.

„Auf Wiedersehen 1987 in München!"

IFAC Council 1984/87

The IFAC General Assembly, convening in Budapest on July 2 to hold its ordinary meeting endorsed the slate of officers proposed by the Nominations Committee for the 1984/87 period as follows:

COUNCIL

President	M. Thoma	(FRG)
President Elect	B. Tamm	(USSR)
Vice President (Technical Board)	B. D. O. Anderson	(AUS)
Vice President (Executive Board)	W. E. Miller	(USA)
Immediate Past President	T. Vámos	(H)
Treasurer	M. Mansour	(CH)
Ordinary Members:	H. Akashi	(J)
	K. J. Aström	(S)
	A. Fossard	(F)
	G. Guardabassi	(I)
	L. Lazarov	(BG)
	A. Niemi	(SF)
	I. Sharkass	(ET)
	J. Song	(PRC)

SECRETARY:	G. Hencsey	(H)

TECHNICAL BOARD:

Chairman	B. D. O. Anderson	(AUS)
Vice Chairmen	J. B. Cruz	(USA)
	L. F. Pau	(CH)
	K. Reinisch	(GDR)
	V. I. Utkin	(USSR)
	J. D. N. van Wyk	(ZA)
Members	Chairmen of Technical Committees	

EXECUTIVE BOARD:

Chairman	W. E. Miller	(USA)
ex officio members:		
Immediate Past President	T. Vámos	(H)
Treasurer	M. Mansour	(CH)
Secretary	G. Hencsey	(H)
Chairman Policy Committee	S. Kahne	(USA)
Chairman Publications Committee	P. Eykhoff	(NL)
Chairman Administration and Finance Committee	B. Tamm	(USSR)

Change in the Secretariat

F. Margulies, who had been Honorary Secretary of IFAC since the Secretariat found its new and permanent home in Laxenburg in March 1978, has asked and obtained the Council's agreement to retire due to his age.
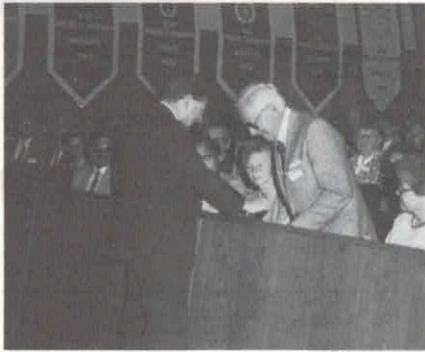
The Incoming Council appointed G. Hencsey new IFAC Secretary. He lives and works in Budapest, but will be able to visit Laxenburg frequently, while Barbara Aumann and Elfie Schrott who over the last years have been handling a considerable part of the work autonomously and efficiently, will both share the work and the duties of the Secretariat with Barbara Aumann acting as Deputy Secretary by appointment of the Council.

The Secretariat during the Meeting of the General Assembly; right to left: E. Schrott, M. Hentschel (Secretary to M. Thoma in Hannover), B. Aumann and F. Margulies.

Nat Cohn and Yoshikazu Sawaragi — IFAC Advisors for Lifetime

The new IFAC Constitution provides that any elected IFAC Officer may be appointed an Advisor of IFAC by the President upon retirement from his office or any time thereafter. Nine such personalities had been appointed three years ago at the Kyoto Congress.

Now President Vámos announced the appointment of two further distinguished officers, N. Cohn, one of IFAC's pioneers, and Y. Sawaragi, IFAC President 1978—81. As token of appreciation and as visible sign of their new office he presented to them a case with the "Advisor's Seal".

Book News

Design of Work in Automated Manufacturing Systems

Proceedings of the IFAC Workshop, Karlsruhe, FRG, 7-9 November 1983. Edited by T. Martin, Kernforschungszentrum Karlsruhe, FRG.

A collection of 29 papers which discuss manufacturing systems to meet the needs of modern industries. Emphasis is placed on new design concepts and practical applications (presented as case studies), rather than on social analyses and theoretical work. Major subject areas covered include computer numerical control (CNC) and work design; general work design principles; alternative work organizations; experience with the "Autonomous Production Island" concept; participation in work design; robots and work design; trends and effects of flexible automation. Of interest to automation and control engineers.

166 pp   US $ 41.50   £ 26.00

Modelling & Control of Electric Power Plants

Proceedings of the IFAC Workshop, Como, Italy, 22-23 September 1983. Edited by C. Maffezzoni, Centro Ricerca di Automatica, Rome, Italy.

A unifying picture of the current state of the research concerning practical applications in the interdisciplinary field of modelling and control of electric power plants. The 21 papers, which pay particular attention to industrial research and innovation, cover: process modelling, modelling of plant components or subsystems, compact plant models, real time simulators, advanced control techniques in fossil-fuel fired and nuclear power plants, specialist computer control systems, the man-machine interface, interaction between economic optimisation and dynamic control, and new generation processes.

166 pp   US $ 41.50   £ 26.00

IFAC General Assembly Accepts Important Decisions

The final version of the New Constitution is accepted unanimously after a trial period of three years. A unanimous vote was also cast in favour of the new Officers and Council members.

An increase of membership fee by 15% taking effect from 1985 was accepted with eight abstentions.

Pergamon Press

An Invitation to Contribute and Subscribe to Leading Journals in Systems Engineering, Automation & Control Engineering

Presentation of IFAC Awards

Professor I. Z. Tsypkin Awarded the Quazza Medal

Iakov Zalmanovitch Tsypkin was born on 19 September 1919 in Dnepropetrovsk, Ukrainia, USSR.

In September 1937 he joined the Department of Radio Communications of the Electro-technical Communications Institute in Moscow.

He received his candidate degree (Ph. D.) in 1945 and doctorate in 1948 from the Institute for Automation and Remote Control (now the Institute of Control Problems), Moscow.

He has been with this Institute since 1950 where he is Head of the Adaptive Systems Laboratory. He became full professor in 1949 and he also teaches now at the Physical-Technical Institute in Moscow. His field of scientific activities includes the theory of discrete, adaptive and self-learning systems.

Iakov Zalmanovitch Tsypkin was awarded the highest Soviet honour — the Lenin Prize — in 1960 for his results in theory of impulse relay systems. In 1974, he was elected a corresponding member of the USSR Academy of Sciences and in 1982 he became an honorary doctor of the Politechnical Institute in Prague, Czechoslovakia.

He published more than 180 papers and 12 monographs. His books on the theory of impulse and adaptive systems and theory of adaptive systems have been translated into English, German, French, Spanish, Polish, Chinese and Japanese. He is also editor of many books published in Russian.

Iakov Zalmanovitch Tsypkin was Chairman of the IFAC Technical Committee on Theory between 1978 and 1981 and was a member of various program committees for meetings organized by IFAC.

In recognition of his outstanding services to IFAC and to the Control Engineering Community the IFAC Council decided in its meeting in November 1983 in Laxenburg that Professor Tsypkin should become the second bearer of the Quazza Medal, the highest honour in the Automatic Control field.

This award was established in 1980 to commemorate Giorgio Quazza, a distinguished pioneer of power systems control and one of the architects of IFAC, who died during an Alpine tour.

Once in each congress period this medal is to be given to a personality chosen by the IFAC Council. At the Opening Ceremony of the 9th IFAC World Congress President T. Vámos presented the award to Professor Tsypkin.

Automatica Prize Paper Award

This award was established by the Editorial Board of Automatica, the official technical journal of IFAC to go to the authors of the three best papers published in Automatica within a congress period.

A committee under the chairmanship of Prof. P. Eykhoff (NL) was assigned to select the three most outstanding contributions out of the Automatica volumes 1981, 1982 and 1983.

This rather straightforward task, Prof. Eykhoff told the Opening Session of the Budapest Congress, proved to be a very difficult one, simply because there were too many excellent papers to be found. The committee therefore decided to add two honourable citations to the three prizes and awarded a further prize to a particular survey paper which they felt would qualify at least as much as the theoretical and applications papers.

The honourable citations are attached to the following papers:

- Dr. K. R. Lorell
  Dr. E. K. Parsons
  Prof. J. D. Powell
  Image Motion Compensation System for the Shuttle Infrared Telescope Facility
  Automatica, vol. 17, no. 4, pp. 555—562 (1981).

- Prof. R. Isermann
  Parameter Adaptive Control Algorithms — A Tutorial
  Automatica, vol. 18, no. 5, pp. 513—528 (61982).

The following papers have been rated prize-worthy based on the facts mentioned with each paper.

- Prof. H. Kumura
  Perfect and Subperfect Regulation in Linear Multivariable Control Systems
  Automatica, vol. 18, no. 2, pp. 125—145 (1982).

"This paper is considered to be a very important contribution to solving the linear, multivariable control problem in a novel and promising way, with interesting implications for application to practical problems."

- Dr. R. Rouhani
  Dr. R. K. Mehra
  Model Algorithmic Control (MAC); Basic Theoretical Properties
  Automatica, vol. 18, no. 4, pp. 401—414 (1982).

"This paper is considered to be an important contribution to the understanding, further development and application of model algorithmic — or model predictive heuristic control.

Thus it stimulates the use of such control schemes to industrial processes."

- Dr. T. Shiraiwa
  Dr. Y. Sakamoto
  S. Kobayashi
  S. Anezaki
  H. Kato
  A. Kuwabara
  Automatic Control of Casting Speed in Ingot Casting
  Automatica, vol. 17, no. 4, pp. 613—618 (1981).

"This paper offers a very nice and interesting example of specific measurement instrumentation and of automatic control in a real industrial situation, solving a well-defined problem of product quality."

- Prof. K. J. Aström
  Theory and Applications of Adaptive Control —— A Survey
  Automatica, vol. 19, no. 5, pp. 471—486 (1983).

"This is considered a survey paper of great width and depth, ranging from theory to applications. It bears witness of a truly expert view. It is written in a clear and well-balanced way.

Thus it constitutes a genuine service through IFAC to the control engineering community."

Prof. Eykhoff closed his laudation by congratulating the authors on their achievement and IFAC on having such contributions in its Journal Automatica.

He called upon the Chairman of the Automatica Editorial Board, Prof. John F. Coales, to present the certificates and prizes to the authors present.

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Years ago the Hungarian organisers chose the slogan "A Bridge Between Control Science and Technology" for this Congress. Now, at the end of it, the participants fully endorsed that the slogan had become reality. The structure of the programme, the high proportion of topics related to applied technology in each of the colloquia, in particular the string of "Industrial Problem Sessions" under the leadership of U. Luoto, one of IFAC's past presidents, and based on an inquiry in IFAC's member countries had built that bridge in a technical sense while the eight bridges connecting the eastern and western parts of Budapest across the Danube symbolised the spirit of friendship, tolerance and mutual support prevailing in IFAC.

Before and during the Congress week meetings of the IFAC Technical Board, the Council, the General Assembly and of various Committees took place, reviewing the past period of their activities and taking decisions for the future. More details on these decisions can be found in this and in the next issue of the IFAC Newsletter.

FORTHCOMING EVENTS

Title	**1984**	Place	Deadlines	Further Information
IFIP/IFAC Conference Human Factors in Computer Systems Human-Computer Interaction INTERACT '84	Sept. 4 — 7	London, UK	—	Prof. B. Shackel Dept. of Human Sciences University of Technology Laughborough Leicestershire, UK
IFAC Workshop Reconfigurable Spacecraft Systems Autonomous and Non-Autonomous	Sept. 11 — 13	Cambridge MA, USA	—	John W. Hursh Aircraft and Spacecraft Division The Charles Stark Draper Lab., Inc. 555 Technology Square Cambridge, MA 021389, USA

Title	**1985**	Place	Deadlines	Further Information
IFAC/IFORS/IFIP Workshop Artificial Intelligence Pattern Recognition in Economics and Management	March 12 — 14	Zurich, CH	Aug. 1, 1984	Prof. L. F. Pau Battelle Institute 7, Route de Drize CH-1227 Carouge Switzerland
6th IFAC Workshop Distributed Computer Control Systems	May 19 — 24	San Francisco, CA, USA	not yet known	Dr. R. W. Gellie CSIRO P.O. Box 71 Fitzroy, 3065 Australia
IFIP/IFAC Conference Programming Languages for Machine Tools (PROLAMAT)	June 11 — 13	Paris, F	—	AFCET 156, Bd. Pereire F-75017 Paris, France
IFAC Workshop Control Application of Nonlinear Programming and Optimization	June 11 — 14	Capri, I	Nov. 30, 1984	Prof. G. Di Pillo Dipartimento di Informatica e Sistemistica Universita di Roma „La Sapienza" Via Eudossiana 18 I-00184 Rome, Italy
IFAC Workshop Model Error Concepts and Compensation	June 17 — 18	Boston, MA, USA	not yet known	Prof.R. E. Skelton Purdue University Aeronautics & Astronautics 331 Grissom Hall West Lafayette, IN 47907, USA
IFAC/ISAGA Workshop Simulation and Games	June 24 — 26	Alma-Ata, SU	June 15, 1984	Acad. V. A. Trapeznikov Institute of Control Sciences Profsojuznaja 65 Moscow 117342, USSR
IFIP/IFAC Symposium Automation for Safety in Shipping and Offshore Petroleum Operations — ASSOPO '85	June 25 — 27	Trondheim, N	Oct. 15, 1984	The Norwegian Society of Automatic Control Kronprinsens gt. 17 Oslo 2, Norway
IFAC Symposium Automatic Control in Space	June 25 — 29	Toulouse, F	June 30, 1984	Prof. M. Pelegrin CERT Complexe Aérospatial de Lespinet 2, Avenue Édouard Belin BP 4025 F-31055 Toulouse Cedex France
7th IFAC/IFORS Symposium Identification and System Parameter Estimation	July 3 — 7	York, UK	—	Prof. H. A. Barker University College of Swansea Dept. of Electrical and Electronic Engineering Singleton Park Swansea SA2 8PP, UK

Title	1985	Place	Deadlines	Further Information
IFAC Symposium Automation for Mineral Resource Development	July 9 — 11	Brisbane, AUS	—	Prof. Alban J. Lynch Julius Kruttschnitt Mineral Research Centre University of Queensland Isles Road, Indooroopilly, QLD 4068 Australia
IFAC Symposium Planning and Operation of Electric Energy Systems	July 22 — 25	Rio de Janeiro, BR	June 1, 1984	T. E. DyLiacco Consultant 651 Radford Drive Cleveland, OH 44143 USA
3rd IFAC/IFIP Symposium Computer Aided Design in Control and Engineering Systems	July 31— Aug. 2	Copenhagen, DK	Sept. 1, 1984	Prof. P. M. Larsen Electric Power Engineering Building 325 DK 2800 Lyngby, Denmark
IFAC/IFORS Conference Control Science and Technology for Development	August 20 — 22	Beijing, PRC	Oct. 1, 1984	Prof. Yan Xiaojun Research Institute of Automation for Machine-Building Industry De Sheng Men Wai Beijing, China
2nd IMACS/IFAC/WGMA Intl. Symposium Systems Analysis and Simulation	Aug, 26 — 31 1985	Berlin GDR	abstracts: Aug. 15, 1984	Organizing Committee 2nd Intern. Symposium on Systems Analysis and Simulation Central Institute of Cybernetics and Information Processes of the Academy of Sciences of the GDR P.O.B. 1298 DDR-1086 Berlin
2nd IFAC/IFIP/IFORS/IEA Conference Analysis, Design and Evaluation of Man-Machine Systems	Sept. 10 — 12	Varese, I	Sept. 15, 1984	Prof. Dr. Ing. Gunnar Johannsen Laboratory for Man-Machine Systems (FB 15) University of Kassel (GhK) P.O. Box 10 13 80, D-3500 Kassel, FRG
7th IFAC/IFIP/IMACS Symposium Digital Computer Application to Process Control	Sept. 17 — 20	Vienna, A	—	Dr. P. Kopacek Ö P W Z Postfach 131 1014 Vienna, Austria
4th IFAC Workshop Safety of Computer Control Systems (SAFECOMP '85)	Oct. 1 — 3 1985	Como I	not yet known	Dr. E. DeAgostino Senior Research Engineer ENEA — Dip. Reattori Termici, CRE-Casaccia Via Anguillarese 301 I-00060 Rome, Italy
IFAC/IFORS Symposium Systems Analysis Applied Water and Related Land Resources	Oct. 2 — 4	Lisbon, Portugal	Nov. 15, 1984	Prof. Luis Valadares Tavares APDIO Av. Rovisco Pais 1000 Lisbon, Portugal
IFAC Symposium Robot Control	Nov. 6 — 8	Barcelona, E	—	Secretariat of SYROCO '85 Institut de Cibernètica Diagonal, 647 E-080828 Barcelona, Spain
IFAC Workshop Automatic Control in Petroleum, Petrochemical and Desalination Industries	Nov. 18 — 20 1985	Kuwait	not yet known	Dr. Jaafar Assiri c/o Dr. Samir Kotob TED/ASD Kuwait Institute for Scientific Research P.O. Box 24885, Safat, Kuwait
IFAC Symposium Modelling and Control of Biotechnological Processes	Dec. 11 — 13	Noordwijker- hout, NL	Oct. 1, 1984	Prof. Dr. A. Johnson Lab. voor Fysische Technologie Prins Bernhardlaan G 2628 BW Delft The Netherlands