



No.4  
July 1980

# Newsletter

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Editor: Prof. Dipl. Ing. Fred Margulies

Layout: Margaret A. Gottfried

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## EXECUTIVE COUNCIL MET IN CLEVELAND

Hosted by the American Automatic Control Council (AACC) the governing bodies of IFAC held their annual meeting on the premises of the Case Western Reserve University in Cleveland May 30 through June 3, 1980. One year before the 8th Triennial World Congress - to be held in Kyoto, August 1981 - these meetings had important points on their agenda.

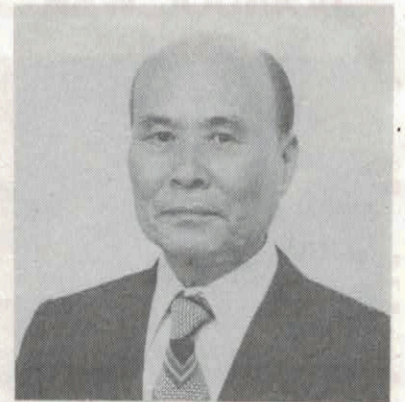
Certainly the most remarkable issue was the draft for a **new IFAC-Constitution**, intended to relieve the President and the Executive Council of routine duties, to increase the influence and responsibilities of the NMO's and the TC's, while at the same time strengthening their links with the council. After an extensive discussion the draft was adopted to go to all IFAC Member Organisations and TC Chairmen for their remarks. (Any other person requiring a copy please apply to the IFAC secretariat.) In August 1981 it is to be put to the General Assembly for final decision.

The EC also discussed the **financial situation** of IFAC. In spite of increased activities of the Secretariat in connection with the Newsletter publication the limits drawn by the budget have been strictly adhered to. Publication activities are also increasing and the "One-Publisher-Scheme", which was established in 1976 and made Pergamon Press Ltd. (Oxford, UK) the only publisher for proceedings of IFAC events, is now starting to bear fruit in form of royalties. On the other hand the EC shared the Treasurer's concern about some countries being in arrears with their membership fee. The President and the Executive Council wish to emphasize to NMO's that IFAC's activities depend solely on the member countries paying their dues to the fullest possible amount and at the earliest possible point in time.

The **Budget** for 1981, showing much the same figures for revenue and expenditure than for previous years, was passed unanimously. The **Advisory Committee** reported that Symposia and Workshops had taken place as scheduled so far. All count the total for 1980 should come up to 30 events (as against 16 in 1979). The majority of these events are still Symposia and Conferences, but the number of Workshops is markedly on the increase. While the scientific level of workshops is considered to hold a rather high average, the publication of proceedings might in some cases be economically less rewarding. The AC therefore recommended negotiations to allow for more flexibility

both on the side of Pergamon Press and of the Workshop organizers. With respect to workshops yet another point might be worth mentioning: The current practice to restrict participation to invited participants only has led to some difficulties and misunderstandings. This practice will therefore be changed in future and participation will be open to anyone interested within the constraints given by the capacity of the premises.

IFAC events in 1981 will focus on the 8th World Congress in Kyoto (Japan). Only three IFAC sponsored workshops and one IFAC-cosponsored IMEKO Conference have been listed, after agreement from the Congress Organizers, the Japanese NMO, had been obtained. For 1982 the AC has tentatively accepted 17 proposals already and more are expected to come forward before the end of this year. Of course 1983 and even 1985 are to be found on our list. The January-issue of our Newsletter is to contain the complete and updated list.



Prof. Y. Sawaragi was awarded a "Purple Ribbon Medal of Honor" from the Government for his distinguished contribution to the establishment of the "Field of Automatic Control" in Japan on May 20, 1980. He was invited by the Emperor to the Imperial Palace for the celebration of the occasion.

On behalf of the Executive Council and of the "IFAC-Family" Prof. T. Vámos, the first Vice President, congratulated President Sawaragi on the appreciation shown to his scientific work as well as on his personal engagement in the promotion of Control Engineering all over the world. No question that this appreciation also has its reflexion on IFAC, Prof. Vámos pointed out, while the EC applauded its President.

# NEXT IFAC EVENTS

**IFAC Workshop on Systems Engineering Applications to Industrial Energy Generation and Processes (Houston, Texas, USA, October 23 - 24, 1980)**

Sponsored by:  
IFAC Systems Engineering Committee (SE-COM); co-sponsored by Applications Committee (APCOM).

Organized by:  
Instrument Society of America (ISA) for the American Automatic Control Council (AACC).

The scope will be the application of methods of systems engineering such as modeling, multi-level control, optimization to industrial processes, including, but not limited to, industrial power generation, pulp and paper, oil and petrochemical, steel, glass and ceramic, and other energy intensive processes. Papers dealing with computer control and optimization for energy conservation and management will be of particular interest.

Six copies of about 500 word abstracts should be submitted by July 15, 1980 to:  
Prof. Azmi Kaya  
Mechanical Engineering Dept.  
The University of Akron  
Akron, OH 44325, USA

**IFAC Workshop on Scientific Experiments and Laboratory Procedures Automation (Smolenice, Czechoslovakia, November 12-14, 1980)**

Sponsored by:  
IFAC - TC on Computers as well as the TC's on Application, Biomedical Engineering and Components and Instruments.

Organized by:  
Institute of Measurement and Measuring Technique of the Slovak Academy of Sciences.

## Purpose and Scope:

The purpose of the workshop is to review the scope, the contemporary state and the perspective of the theory and practice of the laboratory instrumentation systems for measurement and control in scientific experimentation. Specific theoretical problems (methods, procedures, algorithms) and special technical means concerning automation of scientific experiments and laboratory automation will be discussed. Examples of automation in different fields of scientific research and laboratories can be incorporated. Discussion on areas of professional interest exploring the possibilities of a new

working group for laboratory automation are expected.

Language:  
English.

Notice:  
The number of participants is limited to fifty.

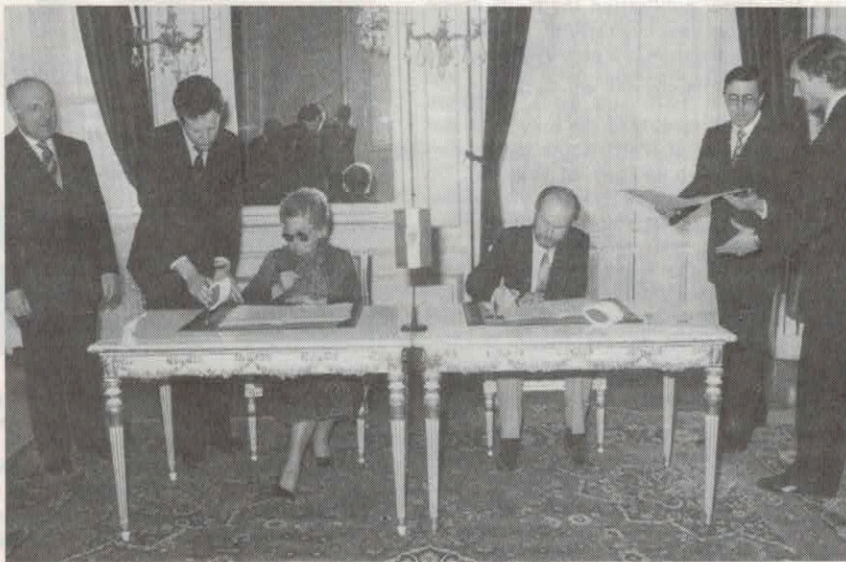
All inquiries and correspondence should be addressed to:

Slovak Academy of Sciences  
Institute of Measurement and Measuring Technique  
(IFAC Workshop '80)  
Dúbravská cesta  
885 27 Bratislava, ČSSR



1981  
AUGUST 24 - 28  
KYOTO, JAPAN

## NEW NEIGHBOUR TO IFAC



Next door to the IFAC Secretariat in Laxenburg, the International Federation for Systems Research is going to establish its new international Secretariat.

The agreement with the Austrian Government, represented by the Federal Minister for Science and Research, Frau Dr. Hertha Firnberg, was signed on April 10, 1980,

with the Mayor of Laxenburg, representatives of IIASA and of IFAC attending.

Laxenburg is now hosting four international scientific institutions and it looks as if the plan of the Austrian government to develop an international science centre and meeting place, is about to be realized.

## IFAC 8th Triennial World Congress Kyoto Japan, August 24 - 28, 1981 Second Call for Papers

This is to remind you that papers are solicited for the above congress by the deadline:

September 20, 1980.  
Four copies of draft papers and abstracts are to be sent directly to

IFAC/81 Secretariat  
Kinki Hatsumei Center  
14 Kawahara-cho, Yoshida  
Sakyo-ku, Kyoto 606, Japan.  
Telex: 5423191 IFAC K J

Length of the paper: 4000 words and 10 figures; abstract: 100 words.

The papers on any topics of control are welcome. The International Program Committee suggests a number of topics of special interest in the "2nd Announcement" (available from the Congress Secretariat as above).

The National Organizing Committee expects that a good number of papers from Japanese industry will be presented, for example from Iron & Steel, Electric & Electronics, Chemical Processes and Computers.

# WHAT GOES IN IFAC

Under the title of "Who is Who in IFAC" we have begun to introduce to our readers the main IFAC officers. This has been well received as far as we know and we intend to continue this series.

Moreover we also want to provide some information on the activities of and on the personalities active in the Technical Committees (TC) and the National Member Organisations (NMO) of IFAC. The recent EC meeting in Cleveland to which most

TC-chairmen submitted their activity reports provides the possibility to start another series of introductory articles. From these reports we have selected one committee at random, which we are going to introduce here.

**All TC's and NMO's are herewith invited to send information on their general activities or on particular topics of general interest to the IFAC secretariat for publication in the Newsletter.**

## IFAC Technical Committee on COMPUTERS

**Chairman: C.M. Doolittle**  
IBM Corporation, Data Processing Division  
1133 Westchester Avenue,  
White Plains  
New York 10604, USA

**Vice-Chairmen: P. Elzer**  
Dornier-System GmbH  
Postfach 1369,  
D 7990 Friedrichshafen, FRG

**B. Tamm**  
Tallinn Technical University  
Ehitajate tee 5, Tallinn 200026,  
USSR

**Next events planned and sponsored by the Computers Committee:**

2nd IFAC Workshop on  
**Distributed Computer Control Systems**  
(Sept. 29 - Oct. 1, 1980, Quebec, Canada)

IFAC Workshop on  
**Scientific Experiments and Laboratory Procedures Automation (SELPA)**  
(Nov. 10 - 12, 1980, Smolence, CSSR)

IFAC/IFIP Workshop on  
**Real Time Programming**  
(August 1981, Kyoto, Japan)

IFAC Workshop on  
**Distributed Control Systems**  
(August 15 - 17, 1981, Peking, People's Republic of China)

3rd IFAC/IFIP Symposium on  
**Software for Computer Control (SOCOCO 82)**  
(Madrid, Spain - date to be announced later)

Over the past two or three decades, computers have been applied more and more extensively in control systems. There is no end in sight to the continued innovative use of computers in control applications or to the advancements in computation technology and computer system functions to solve control problems.

The committee's first purpose, then, is to be sure advancements in computer techno-

logy are shared in the IFAC tradition. In doing this, the committee wants to be sure it is always developing forums to share information on current leading-edge interest and issue areas. This is one reason for our special interest in the new "annual" workshops on distributed computer control systems. It is the reason for another planned conference on safety of computer control systems, possibly enhanced to a symposium.

While cost/performance in computer system hardware has constantly and dramatically improved for years, and can be expected to improve in the future, software design and development requires major strides to achieve the full economic potential of computer control systems. The need for advances in software development and the designed integration of hardware and software is the reason for the committee's continued interest in its major triennial event - the symposium on software for computer control and the annual real time programming workshop.

In addition to the information sharing purpose of the committee's role in IFAC, we also will take the lead when it seems advisable on new uses of computers. Laboratory automation is such an area assigned to the committee (a workshop is planned) and we can expect other such areas from time to time. Network control is another possibility particularly as it affects the design of hierarchical control and information systems. The use of computer technology to diagnose the operation of computer systems is another possibility.

The second purpose of the committee is to enhance the flow of information on computer science and technology advances to all other IFAC committees and certain intergovernmental organizations. The minimum mechanism to do this is conference co-sponsorship, and we are considering other means such as dual committee membership.

The committee especially wants to push ahead on timely computer-oriented "hot topics", normally using workshops, and would welcome suggestions for such topics from Newsletter readers. We would also appreciate hearing from those who would like to participate in the committee's activities.

C. M. Doolittle

## IFAC-PUBLICATIONS TO ASSIST PREPARATIONS FOR WORKSHOPS AND SYMPOSIA

IFAC Information - Aims, Structure, Activities

Advice to Organizers of IFAC Sponsored Symposia

Guidelines for Organizers of IFAC Sponsored Symposia and Conferences

Guidelines for Organizers of IFAC Sponsored Workshops

Advice to IFAC Symposium Editors

Preparation of Slides - A Guide for Authors

Presentation of Scientific Papers - A Guide for Authors and Session Chairmen

Round Table Discussions - Suggestions for Chairmen

All publications available from  
**IFAC Secretariat**  
Schlossplatz 12  
A 2361 Laxenburg, Austria

## NEW JOURNAL

**MIC - Modeling, Identification and Control**

Published by the Royal Norwegian Council for Scientific and Industrial Research

The new Norwegian research bulletin is published quarterly with the first issue in January 1980. This journal deals with the methodologies of mathematical modeling, simulation, identification (parameter estimation) and design of control strategies (synthesis and analysis of system behaviour) and with the application of such techniques to engineering, physics, biology, ecology, economics, etc. The bulletin will publish papers describing research work done in Norway, and is distributed on a world wide basis. All papers are written in English and are refereed by internationally known specialists in the different fields.

Subscriptions can be obtained from

MIC  
Division of Engineering Cybernetics  
N-7034 Trondheim - NTH, Norway

Personal subscription: 1 year: US \$ 15,-  
2 years: US \$ 20,-  
Institutional subscription: 1 year: US \$ 35,-  
2 years: US \$ 60,-

# NON-IFAC EVENTS

## 1980 Joint Automatic Control Conference JACC

The 1980 Joint Automatic Control Conference (JACC) will be held in San Francisco, California August 12 - 15, at the Sheraton Palace Hotel. The program includes two plenary speakers, twelve theme sessions, two pre-conference tutorial workshops, thirty invited sessions and approximately eighty contributed papers.

Plenary speakers include Professor Alistair MacFarlane of Cambridge University who will discuss recently developed frequency domain multivariable control design techniques. In addition, Dr. John Cassidy of General Motors will speak on the application of digital controls to automotive engines. He will discuss the history, current practice, and future trends.

Theme sessions on Adaptive Control, Direct Digital Control with Small Computers, and Energy have been organized into three categories: a) tutorial b) application, and c) theory. Topics include "Digital Signal Processing - Hardware and Architecture", "Digital Control - Industrial Prospective and Applications", "Control of Solar Energy Processes", "Energy Conversion in Industrial Plants via Measurement and Control", "Power Plant Control", "Systems Engineering for Power Complex System Stability", and others.

The two preconference tutorial workshops to be held on Tuesday, August 12 are "System Identification - Theory and Applications" organized by Professor J. Mendal and "Transportation Control Systems" organized by Dr. R. Levin.

In addition to fifteen contributed paper sessions, thirty invited sessions have been organized for the conference attendees.

Information pertaining to the program or workshops can be obtained by writing to

Dr. H. Austin Spang, III  
G. E. Research and Dev. Ctr.  
Bldg 5, Rm 207  
Schenectady, N.Y. 12345, USA

## International Association for Bridge and Structural Engineering

Two forthcoming events are announced by the above mentioned association: the 11th Congress to be held on the occasion of the association's 50th anniversary in Vienna, Austria, August 31 to September 5, 1980. A technical exhibition, "BASE 80" will be held at the same time near the congress centre. Technical excursions to Switzerland, the Federal Republic of Germany, Hungary and Austria will take place before and after the Congress.

Another event, the IVBH Kolloquium Delft, Netherlands, will be held from June 2 - 4, 1981, on "Advanced Mechanics of Reinforced Concrete".

For more information on these two events please write to:

Sekretariat der IVBH  
ETH - Hönggerberg  
CH 8093 Zürich, Schweiz

## 2nd Yugoslav Symposium on Electronics in Traffic EP-80

This symposium is organized by the Elektrotehniška zveza Slovenije during the Modern Electronic Exhibition held at the Ljubljana Fair, October 6 - 10, 1980.

The programme of the symposium will comprise the following themes:

- Information and communications along Yugoslav highways
- Traffic control in towns, situation and prospects
- Realization and priority of public traffic in towns
- Traffic on road and railroad crossings
- Environment protection against automobile pollution and noise
- Bus stations, interior traffic, parking automats.

For further information please contact:  
Elektrotehniška zveza Slovenije  
6100 Ljubljana, Titova 50, Yugoslavia

## Working Party on Automation of the Economic Commission for Europe, Seminar on Automation of Welding.

Following the invitation by the Government of the Ukrainian SSR, a Seminar on the Automation of Welding will be held from October 13 to 17 in Kiev, Ukrainian SSR, under the auspices of the Working Party on Automation of the Economic Commission for Europe. The topics will comprise the economic and social aspects of the automation of welding as well as the technical methods and means of the automation of welding.

The Seminar will be open to all interested persons, approved by their governments or organisations participating in the activities of the ECE, as well as to representatives of organisations and institutes invited by the Organising Committee.

The names of the authors and the titles of the papers with abstracts (up to 100 words) should reach the secretariat not later than April 20, 1980; the full paper, 10 - 12 pages in length should arrive by July 31, 1980.

For further information please contact  
The Institute of Scientific and Technical Information and Techno-Economic Research of the Ukrainian State Planning Committee  
180, Gorky Street, Kiev, Ukrainian SSR

or

The Industry Division,  
United Nations Economic Commission for Europe  
Palais des Nations  
CH 1211 Geneva 10, Switzerland

The 19th IEEE Conference on Decision and Control (CDC 80) including the Symposium on Adaptive processes (Albuquerque, New Mexico, December 10 - 12, 1980).

The CDC is the annual meeting of the IEEE Control Systems Society, and is conducted in cooperation with the Society for Industrial and Applied Mathematics (SIAM). The inclusion of the Symposium on Adaptive Processes (SAP) is a traditional feature of this Conference.

The conference program will include both contributed and invited sessions as well as tutorial and state-of-the-art presentations in all aspects of the theory and application of systems involving decision, control, and adaptation. Topics of interest include, but are not limited to, linear and nonlinear system theory, stability theory large scale system theory and decentralized control, estimation, identification, signal processing and stochastic control, control systems, man-machine systems, optimization, distributed parameter systems and game theory. Presentation of applications of system theory is strongly encouraged. Possible areas of application include, but are not limited to, aerospace systems, industrial and manufacturing systems, energy systems, transportation systems, process control, biomedical systems, economic systems, networks, communications systems, and signal processing. The Symposium on Adaptive Processes will focus on adaptive control and estimation, learning and self-organizing systems, cognitive processes, fuzzy sets, pattern recognition and related areas.

For further information please contact:  
19th CDC.  
Prof. Michael K. Sain  
Notre Dame University  
Department of Electrical Engineering  
South Bend, IN 46556, USA

We regret to announce that due to the reduced working capacity during summer vacation time, the next (September) issue of the Newsletter will not be in the mail before the end of September.

Have a nice vacation!

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Schlossplatz 12, A 2361 Laxenburg.

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1060 Wien

# CAN WE FIND A COMMON LANGUAGE?

INDUSTRIAL ENGINEERS AND COMPUTER EXPERTS DISCUSSED REAL TIME PROGRAMMING

The IFAC/IFIP workshop on Real Time Programming was the tenth in a series which originated as "European Seminar on Real-Time Programming" in 1971. It has been organized annually and is sponsored by IFAC (TC on Computers) since 1974. Harwell, Erlangen, Ispra, Budapest, Boston, Le Chesnay, Eindhoven, Mariehamn and Smolenice have been the places where experts on real-time programming, control systems, and distributed computing have met.

In 1980 (April 14 - 16) 56 attendees coming from 12 countries met at Schloss Retzhof near Leibnitz in southern Styria (Austria). The meeting was organized by the "Institut für Informationsverarbeitung" in Graz; the International Program Committee, chaired by Jan Sedlak from Prague had selected 16 submitted papers, and provided 2 panel discussions. As a new feature in the series of real-time workshops there was a "main" topic comprising 50 % of the scientific program: requirements specifications for control systems (or: "In which language should industrial engineers and computer people talk to each other?").

Please note:

The new telephone number  
of the IFAC Secretariat  
in Laxenburg, Austria  
is as follows:

(02236) 71 447

The subtitle for the sessions on the first day could have been: "Real-time programming between proven applications and new concepts". Peter van der Stok from CERN presented the NODAL system, an easy approach to a large real-time computer network, and Janusz Górski from Gdansk a view into the kernel of a dedicated operating system used for telex exchanges. Erwin Schoitsch from Seibersdorf established a link between real-time applications in a rolling mill and advanced concepts of parallel programming, and Gérard Verroust presented the much awaited LTPL/E Universal I/O Model for real-time programming (I/O being no more an "add-upon" feature of programs!). Discussions - facilitated by the round-table layout of the auditorium - followed each paper.

An "evening session" with flute quartets by Mozart and A. Rejcha, and Markus Jaroschka's poems around Wittgenstein's logic was a sound initialization to the second day's

scientific program: "Is ADA the language for real-time people in the future?" (morning sessions), and "Can requirements be expressed in a simple way?" (compare L. Wittgenstein: *Tractatus Logico Philosophicus* 4.116) in the afternoon sessions.

Stephen Goldsack (London) analysed ADA from the standpoint of an experienced real-time programmer and gave valuable hints how to use it, and Serge Savoyky (Paris) showed how the language can be used to describe real world processes. The papers were discussed vividly, and in the panel - ADA in Process Control (Ian Pyle, Peter Elzer, Stephen Goldsack and Jean Robert) - many attendees took the opportunity to express ideas, experiences and hopes related to the new language.

Specification of the requirements for control systems was the central topic of the workshop: we started with theoretical aspects, with models. Stephen Goldsack presented the "invariants"-concept (i.e. to specify "laws" of a computation like the laws of physics). A new promising concept is Peter Elzer's mechanism of self-contained jobs and virtual resources; finally Claudio Walter showed his model based on sequential (Mealy) machines.

After that there was some necessity to extend the time for technical discussions, thus a social program was organized which consisted of nothing but a bus ride up to hills covered with wine yards, and a dinner in a wine-grower's hut, and plenty of time to talk to each other ("Computers and wine: that is fine, says Wittgenstein", Horst Halling wrote into the guest book).

In my opinion the last day was the best one, at least as far as the technical discussions were concerned. "What is really done in the field of requirements specification" was shown by Jean-G. Gander from Borer Corporation (control of an automatic laser equipment), Joachim Biewald (EPOS, a comprehensive specification, design and documentation system), Jochen Ludewig (Karlsruhe) about the PCSL-language for requirements engineering of control systems, and last but certainly not least by Bruce Taylor from GTE, who showed how advanced the telecommunications people in the area of specification languages are. In the end there was not enough time to discuss all the aspects presented, even not in the panel with Genevieve Bianchi, Björn Cronhjort, Wolf-M. Dehnert, Jochen Ludewig and Bruce Taylor on "Requirement specifications, today and tomorrow". The question: "whose language should be used in requirement specifications - the user's (practical and understandable) or the specialist's (formal and verifiable)?" remained unsolved.

But when we left Schloss Retzhof we had the feeling that we had received useful in-

formation for the benefit of our work at home, and had both met old friends and found new ones. As a later (end of 1980) "consequence" proceedings will be available published by Pergamon Press in its IFAC Proceedings Series.

Volkmar H. Haase

## automatica

The Journal of IFAC the International  
Federation of Automatic Control

Preview for the Next Issue September 1980

### SUBJECT

Editorial: Special Sections and Issues  
(G. S. Axelby)

### PAPERS

Recursive Output Error Identification Algorithms-Theory and Evaluation  
(L. Dugard, I. D. Landau)

Optimal Sensor Location in the Presence of Nonstationary Noise  
(M. Morari, M. J. O'Dowd)

### BRIEF PAPERS

A Simple Stability Criterion for Spinning Satellites with Flexible Appendages  
(R. Metzger)

A Class of Small Sample Nonlinear Least Squares Problems  
(A. van den Bos)

### SPECIAL SECTION

#### TUTORIALS ON SYSTEM IDENTIFICATION

Editor's Note  
(G. S. Axelby)

#### Preface

(R. Isermann)

Modelling and Identification

(K.H. Fasol, H.P. Jörgl)

Step Response and Frequency

Response Methods

(H. Rake)

Correlation Methods

(K. R. Godfrey)

Least Squares Parameter Estimation

(V. Strejc)

Maximum Likelihood and Prediction Error

Methods

(K. J. Åström)

Practical Aspects of Process

Identification

(R. Isermann)

### IFAC REPORT

5th IFAC Symposium on "Identification and System Parameter Estimation"

(R. Haber, H. Kurz, R. Schumann)

# IFAC Workshop on Automation, Demand for Work and the Economy

WHO IS WHO IN IFAC

This workshop was held at the University of Aston in Birmingham (U.K.) on 8 and 9 May, 1980, with 24 participants. It was organized by Prof. E. Braun and Dr. J. Bessant, both from the U.K. The program included 9 papers of which one could not be presented. Ample opportunities were available for interesting and informal discussion. The subject appeared to be rather complex; it is scientifically unsound to make simple statements or propose easy solutions. Papers, discussions and summing-up will be published in the form of proceedings.

Some of the topics discussed were:

## 1. Importance of Micro-electronics

Micro-electronics is only one factor in automation. It can promote the take-off of automation, but soon other factors become critical.

The impact is strongest on information-intensive products and processes (watches, pocket calculators, and the office), but less so in other sectors.

## 2. Influence on demands

Automation and computerization can create new demands and broaden existing demands. However, the problem is to transform these potential demands into effective ones. Unfortunately, the present economic situation is unfavourable in this respect, which can be seen from the correlation between employment and investment over the post-war period (schematically shown in Fig. 1).

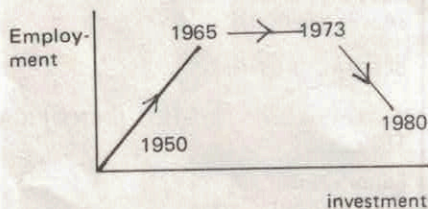


Fig. 1.: Schematic correlation between employment and investment during the post-war period (similar for many different developed countries).

It should be stressed that the influence of automation on this pattern is of minor importance. The present situation creates unemployment; open in Western countries and hidden (underutilization of skills) in Socialist countries.

## 3.1. Simulation of Innovation

Time lags in applying new technologies are very critical; world-wide competition makes price differences of 10 % significant in conquering or losing contracts and markets. Hence stimulation of innovation is of great importance. Innovation should be taken in a wide sense here, it encompasses development, design, production, marketing and

management. Innovation is triggered by a combination of factors (the "constellation" approach).

## 3.2. Government Spending

It was suggested to reduce unemployment on the one hand by stimulation of labour intensive activities such as public transport, city-development, culture and leisure. On the other hand, costly labour-extensive activities, such as nuclear power generation and arms production, should be diminished.

## 3.3. Leisure

Instead of reducing unemployment by creating more demand for work, it can be replaced by more leisure. The trade unions in Europe are aiming at a reduction of working life, in particular to reduce the working week from the present length (about 42 hours) to 35 hours over a number of years. In some economic sectors in Belgium this is already being realized, together with an increase in the work force.

J. E. Rijnsdorp  
Chairman IFAC Committee on  
Social Effects of Automation

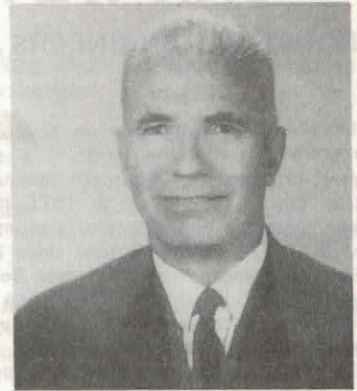
## ICSU Anniversary

1979 was the 60th anniversary of the creation in Brussels of the International Research Council, ICSU's immediate predecessor. To celebrate the occasion the General Committee met in the Palace of the Academies in Brussels in July. Professor M. Nicolet reviewed the history of the IRC and ICSU in a talk given at the Palais de Laeken at the invitation of the King and Queen of Belgium.

The General Committee received the first report from the Ad hoc Group on the structure of ICSU which put forward a suggestion that the Unions be grouped according to scientific affinities and that each of the groups should have an ordinary member on the Executive Board. It was also suggested that there should be a number of ordinary members representing the National Members on the Executive Board equal to that of the Scientific Union representatives.

The Group had received papers putting forward a number of suggestions. These were transmitted to the National Members for comments which are still being received.

The first draft report of the Ad hoc Group will be transmitted to Members and Associates during the course of the next few months and it is hoped that the final report will be available for consideration at the General Assembly in Amsterdam in the period 8 - 12 September. The Admissions Committee suggested that no applicants for admission should be accepted until the report of the Ad hoc Group is available.



Dipl.-Eng. Dr. Michel CUENOD  
Treasurer of IFAC

Michel Cuenod is among the IFAC officers with the longest record of IFAC activities. He was appointed Honorary Treasurer in 1959 and has served IFAC in this capacity and as a member of the Executive Council ever since.

It was essentially his effort that carried IFAC's economy through the ups and downs of world economy. In spite of inflations, devaluations, recessions and booms the IFAC balance remained stable and met the requirements.

Michel was born at La Seyne/Mer, Var, France on September 13, 1918. He graduated as Dipl.-Eng. in Electrical Engineering from the Swiss Federal Institute of Technology in Zurich and took his PhD in Technical Sciences at the same institute.

After being employed at Brown Boveri, Baden, Switzerland from 1941 - 1950 for the design and testing of rectifiers, transducers and regulating devices, he has worked, amongst others, on the design and erection of power plants in Switzerland and Luxembourg. 1964 - 1966 he was a visiting professor at the University of Florida, Gainesville, lecturing on linear control systems, power system control, electrical machinery and control. Since 1969 he has been working with the Prospecting Engineering Gestion (PEG), Geneva, where he has been concerned with the process control and automation research and the engineering as well as with the feasibility and systems engineering studies for different cement plants. Moreover he has been engaged in computer simulation for raw material chemistry, equipment availability production chain and storage capacities. He is a resident engineer for the electrical and control engineering of the cement plant of Hawari (Benghazi, Libya).

His memberships in professional societies and institutions include the Swiss Association of Electricians (ASE), Swiss Association for Architects and Engineers (SIA) as well as the Swiss Association for Automatic Control (ASSPA) where he is a Committee member and scientific Secretary.

Michel Cuenod's list of publications includes a great number of papers on control systems, power systems, cement plants and other topics as well as four books. He was awarded the "Prix de la Soci t  Belge des Electriciens" in 1952 and the Prix Gillet from the "Association des Ingenieurs Electriciens sortis de l'Institut Electro-technique Montefiore, Liege".