



No.1
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Newsletter

WELCOME TO LAXENBURG

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Insert: IFAC Events in 1980

For more than a year, precisely since October 1978, the IFAC-Secretariat has been operating from its new – and hopefully permanent – home in Laxenburg, Austria. After negotiations between the then President of IFAC, Uolevi Luoto (Finland) with the Austrian Government and the Austrian Academy of Sciences an agreement was reached and – after endorsement by the IFAC Executive Council – signed in April 1978 in the presence of the Austrian Federal Minister of Science and Research, the Austrian Federal Minister for Foreign Affairs, the President of the Austrian Academy of Sciences, the Mayor of Laxenburg and – on behalf of IFAC – President Luoto, Vice-President Vamos, the members of the Executive Council Prof. Thoma (FRG), Prof. Eykhoff (NL) and the Honorary Secretary, Prof. Margulies (A).

Laxenburg is a small village some 15 miles south of Vienna and should not be confused with Luxembourg, an autonomous state situated between France, Belgium and Germany. Laxenburg was once a holiday resort of the Austrian Emperor. The castle now accommodates IIASA, the International Institute of Applied Systems Analysis. The IFAC Secretariat has its premises in a small but beautiful building nearby, with yet another international scientific institution, the Institute for International Policy next door.

For the first time now, the IFAC Newsletter is being produced under the responsibility of the IFAC Secretariat in Laxenburg, after Prof. Kümmel (Denmark), for many years, has edited the Newsletter in a very difficult, though extremely successful co-operation between the IFAC Secretariat (then in Helsinki) and Pergamon Press in Oxford, who did the printing and the mailing. Prof. Kümmel agreed several times to continue with his task until preparations in Laxenburg had advanced sufficiently. The Executive Council has expressed its high esteem and appreciation to Prof. Kümmel for his important and valuable work.

As from this issue, editing, printing and mailing will be concentrated in Laxenburg. Some small changes in the appearance and the contents of the Newsletter might also be noticed. They are however subject to modification, extension or reversal according to the requests of our readers.

any way you feel improvements could be achieved.

- You are furthermore cordially invited to send in reports for publication on your country's and your personal activities in the field of automatic control.
- You are – last not least – cordially invited to visit the IFAC Secretariat for an exchange of opinions and experiences whenever you come near Vienna and whenever your time allows.

In all these respects the IFAC Secretariat extends to the IFAC family a hearty

WELCOME TO LAXENBURG



1981
AUGUST 24 – 28

KYOTO, JAPAN

Time schedule:

Abstracts	September 20, 1980
Acceptance	February 10, 1980
Final manuscripts	April 10, 1980

Call for papers has just been published and can be obtained from the

IFAC/81 Secretariat
Kinki Hatsmuei Center
14 Kawahara-cho, Yoshida
Sakyo-ku, Kyoto 606, Japan

Telex No.: 5423191 IFAC K J
Cable: IFAC KYOTO

or from

IFAC Secretariat
Schlossplatz 12, A 2361 Laxenburg,
Austria

Editor: Prof. Dipl. Ing. Fred Margulies

Layout: Margaret A. Gottfried

- You are cordially invited to comment on and to contribute to the Newsletter in

SYMPOSIUM SCHEDULE STRETCHES TILL 1983

According to the IFAC Constitution the Advisory Committee—AC (Chairman for 1978/81 Prof. Antti Niemi, Technical University, Helsinki) receives all proposals for Workshops, Symposia and Conferences and co-ordinates dates, places and topics. The number of these events reached a maximum of twelve in 1974 and again in 1977 and 1979, whereas for 1980 the schedule has rocketed to 29.

In compliance with IFAC rules, no Symposia will take place in 1981, the year of the 8th World Congress. For 1982 however ten further events have already been listed tentatively and so have two Symposia for 1983.

A complete list of the 1980 events is inserted in this Newsletter in a format that

makes it suitable to be exchanged against the insert in the IFAC Information Brochure. Here we would like to draw your attention to a few AC-decisions of particular interest:

- The new Committee on Developing Countries, which has been formally approved at the IFAC World Congress in Helsinki in 1978, has begun its activities in a very promising and efficient way. Morocco is now organising the Conference on Systems Approach for Development to take place in Rabat in November 1980. The Conference was scheduled for Iran, but has been cancelled due to circumstances.
- An IFAC Workshop on Case Studies for Appropriate Technology was tenta-

tively listed for Cairo in September 1980 and has been approved in the meantime. It will be co-sponsored by the TC's on Social Effects of Automation and on Education.

- An application for an IFAC Workshop had been received from El Fateh University in Tripoli, Libya. Since there is no IFAC-NMO in Libya, the matter had to be brought before the Executive Council, who agreed that in this particular case the AC and DECOM should make an effort in finding a suitable form of IFAC assistance to the Workshop. A kind of co-sponsorship has meanwhile been agreed upon, with El Fateh University as the primary sponsor and organiser.

NEXT IFAC EVENTS

IIASA/IFAC Symposium on Modeling of Large-Scale Energy Systems (Laxenburg, Austria, February 25 – 29, 1980)

Organised by:

The International Institute for Applied Systems Analysis (IIASA)

The International Federation for Automatic Control (IFAC) through its Systems Engineering Committee (SECOM)

Purpose:

The Symposium is designed to introduce an international audience of decision makers, scientists, and representatives of industry to the scope, limitations, and current applications of energy models through an issue-oriented approach. At the same time, it is expected that insight into and understanding of prospects, goals, and the role of future research will be stimulated.

Language:
English.

Preprints – Proceedings:

Registered participants will receive one set of preprints at registration. Final proceedings will be published by Pergamon Press.

All inquiries and correspondence should be sent to

IIASA/IFAC Symposium: Modeling of Large-Scale Energy Systems,
IIASA, A2361 Laxenburg, Austria

IFAC Workshop: Computer-Aided Control Systems Design (Baku, Azerbaijan SSR, USSR, April 2 – 6, 1980)

Organised by:

The USSR National Committee on Automatic Control, Moscow

Scope:

The technical program of the Workshop is devoted to discussion of the state-of-art

trends in developing CAD conceptual and methodological principles, theoretical foundations and linguistic tools and hardware/software applied in CAD.

Language:
English and Russian.

Address all inquiries to

USSR 117342, Moscow
81, Profsoyuznaya Street
USSR Committee on Automatic Control
phone: 334-88-79

IFAC/IFIP Workshop on Real-Time Programming (Schloß Retzhof, Leibnitz, Austria, April 14 – 16, 1980)

Sponsored by:

IFAC – Technical Committee on Computers

Co-sponsored by: IFIP International Federation of Information Processing -TC5 Computer Applications in Technology.

Scope:

The purpose of the workshop is to provide a forum for discussion and exchange of ideas between people actively engaged in real-time programming and the design of process control systems. Special areas are specification and programming methods including application oriented specifications, the interface between real-time languages and operating systems and distributed real-time systems.

Language:
English.

Attendance:

Attendance will be limited by invitation to approximately 50 participants.

Address correspondence to

Volkmar H. Haase
1980 WRTP Organiser
Institut für Informatik
Steyrergasse 7
A 8010 Graz, Austria

Phone: (316)77511-7310 or 7314
Telex: 31265 rzgraz a

IFAC Workshop on Management Control Systems (Hertford, UK, April 15 – 17, 1980)

Sponsored by:

IFAC Economic and Management Systems Committee (EMSCOM)

Organised by:

The Institute of Measurement and Control on behalf of UKAC, the United Kingdom Automatic Control Council.

Scope:

It is intended that the Control Systems to be discussed should be those embracing long time-constants, ranging from several hours, through days, to weeks, months and even years. It is expected that the majority of the sessions will be concerned with control systems within companies and corporations ranging from large international to relatively small units in both the private and public sectors of business, commerce, etc.

Language:
English.

Attendance:

Attendance will be restricted to a maximum of 60 people, invitation based on information supplied by applicants about their areas of expertise and interest.

Address correspondence to

Mr. M.J. Yates
Deputy Secretary
Institute of Measurement and Control
20 Peel Street, London W8 7PD, UK

IFAC Workshop on Differential Games – Game Problems in Dynamic Systems Control (Sochi, USSR, April 16 – 20, 1980)

Organised by:

The USSR National Committee on Automatic Control.

Scope:

The aim of the Workshop is to discuss the results of research in game problems of dynamic system control. Topics suggested for discussion include:

NEXT IFAC EVENTS(ctd.)

- Differential games and optimal control theory
- Multiattribute control problems
- Applications of differential games theory
- Decision-making theory and differential games.

Language:
English and Russian.

Address all inquiries to
USSR 117342, Moscow
81, Profsoyuznaya Street
USSR Committee on Automatic Control
phone: 334-88-79

IFAC Workshop—Neural Control-System for Human Motion (Montpellier, France, June 27 — 28, 1980)

Sponsored by:
IFAC — Technical Committee on Biomedical Engineering

Organiser:
AFCET Association Française pour la Cybernétique Economique et Technique.

Purpose:
The aim of the workshop is to evaluate the present state of research and bioengineering applications in the field of neural physiological models for Human Control Systems of movements and postures.

Topics:
Mathematical and computer models, simulations and related implementations concerning:

- Neural components: nerves, motor units, receptors, sensory elements
- The signal transmissions and storage, the information processing from and to the Central Nervous System
- Integrated functions: "playback", feedback servo-systems, adaptative control systems
- Applications: neurology, neurophysiology, functional electrical stimulation, prosthetic and orthoptic devices, aids for rehabilitation . . .

Languages:
English and French.

Further details can be obtained from the Organising Committee.

All correspondence should be addressed to Prof. P. Rabichong (IFAC Workshop)
Unité 103 de Recherches Biomécaniques INSERM
Avenue des Moulins
34000 Montpellier, France

Tel.: 67/63 37 98
63 27 48

IFAC Workshop on Spacecraft System Reconfiguration in Orbit (the Charles Stark Draper Laboratory, Cambridge, Massachusetts, USA, September 9 — 11, 1980)

Sponsored by:
IFAC Technical Committee on Space.

Organised by:
American Automatic Control Council.

Topics:
Spacecraft reconfiguration techniques
- Fault isolation and management
- System rework through software modification
- Hardware reconfiguration under ground control
- Spacecraft repair in orbit
Case Studies — In flight spacecraft mission recoveries
- Deep space
- Synchronous altitude
- Near earth
Spacecraft design and mission planning to maximise potential for effective on-orbit system reconfiguration.

Language:
English.

Those interested in participating are invited to submit extended summaries of presentation in the above mentioned topical areas to one of the following:

J.W. Hursh
The Charles Stark Draper Laboratory,
555 Technology Square
Cambridge, Mass. 02139 USA

H. Bittner
MBB Raumfahrt
Postfach 801169
8000 München 80 (FRG)

I.N. Vasiljev
USSR National Committee on
Automatic Control
Moscow, Profsoyuznaja, 81 (USSR)

APPLICATIONS OF NONLINEAR PROGRAMMING — SUCCESSFUL START OF NEW WORKSHOP SERIES

The impetus for the first IFAC Workshop on Control Applications of Nonlinear Programming was derived from a newly organised Working Group formed at the suggestion of Professor Henry Kelly, Chairman of the IFAC Mathematics of Control Committee.

The purpose of the Workshop, which took place in Denver, Colorado, USA, June 21, 1979, was to exchange ideas and information on problems and solutions involving promising approaches in the areas of

- applying optimal and nonlinear programming techniques to real-life control problems,
- investigating new ideas which arise out of these applications, and
- advances in optimal and nonlinear programming which will help in the solution of modern control problems.

We were fortunate to have Professor Arthur Bryson (USA) as Chairman of the International Program Committee along with Professor Faina M. Kirillova (USSR) and Professor R.W.H. Sargent (UK). Forty people attended the Workshop with lively discussions interspersed between the fifteen papers (from the USSR, the FRG, France and England, as well as from the USA).

IFAC Symposium on Automatic Control in Power Generation, Distribution and Protection (CSIR Conference Centre, Pretoria, Republic of South Africa, September 15 — 19, 1980)

Sponsored by:
IFAC Technical Committee on Applications.

Organised by:
The South African Council for Automation and Computation (SACAC)

Topics:
- Control of power systems
- Control of, protection schemes and equipment
- Control of power system plant
- Control centre concepts and equipment
- Power system dynamic performance
- Security and reliability
- Identification, modelling and simulation
- Control theory.

Language:
English.

All inquiries and correspondence should be sent to

The Symposium Secretariat
1980 IFAC Symposium — S. 176
P.O. Box 395
Pretoria 0001
Republic of South Africa

The second Workshop in this series is scheduled for September 15 — 17, 1980 in Oberpfaffenhofen (FRG).

Sponsored again by the IFAC Technical Committee on Mathematics of Control, it will be organised by:

VDI/VDE-Gesellschaft Mess- und Regelungstechnik in co-operation with Deutsche Forschungs- und Versuchsanstalt für Luft- und Raumfahrt e.V. (DFVLR) and Carl-Cranz-Gesellschaft e.V.

Prospective contributors are invited to submit abstracts (one page length) in English not later than

February 29, 1980 to:
Dr. K. Well
Institut für Dynamik der Flugsysteme
DFVLR
Oberpfaffenhofen
D 8031 Wessling (FRG)

For further information contact either Dr. Well or
VDI/VDE-Gesellschaft Mess- und Regelungstechnik
Att. Mr. H. Wiefels
P.O.B. 1139
D 4000 Düsseldorf 1 (FRG)

HIGHLIGHTS OF EC - MEETING

WHO IS WHO IN IFAC

As a rule the IFAC-EC meets once a year in conjunction with some other IFAC event to economise on travel expenses of the participants. In 1979 Laxenburg was chosen as a kind of "house warming party" for the new home of the Secretariat.

The EC-meeting took place on June 18 and 19, 1979, with the Advisory Committee, the International Programme Committee for the Kyoto Congress 1981 and several Technical Committees meeting during adjacent days.

Since the deliberations and decisions of these meetings form the frame for future IFAC activities, it seems appropriate to inform a wider public of their contents.

Here are some of the highlights:

- In honour of the late Prof. Giorgio Quazza, who for many years has rendered outstanding services to IFAC as a member of the EC and in various other functions, the Hungarian NMO has produced a Quazza Medal, which is to be awarded together with a prize for outstanding contributions to IFAC. The prize is to be presented at each IFAC World Congress.

- Prof. Umberto Pellegrini, Chairman of the Italian national organisation, was appointed to succeed Prof. Quazza as member of the EC, pending agreement by the Italian NMO, which has meanwhile been given.

- The Status Report concerning the 8th World Congress in Kyoto (August 24 - 28, 1981) was presented by H. Akashi. The theme of the 8th World Congress of IFAC will be "Control Science and Technology for the Progress of Society". Papers are to be submitted in English to facilitate reviewing. Preprints are intended to be published in a number of smaller volumes for the convenience of the participants.

- T. Vámos reported on preparations for the 9th World Congress of IFAC to be held in Budapest in 1984. Financial support by international organisations should be reported to and approved by the EC.

- M. Thoma stated that the venue for the 10th IFAC Congress 1987 (30th anniversary of IFAC) has not been chosen yet and suggestions for suitable places in the FRG passed on to him could be taken into account.

- The Future of IFAC was discussed on the basis of a paper prepared by P. Eykhoff. It was agreed that priority should be given in our future activities to improve services to the individual control engineers and to the control engineering community by strengthening our links to NMO's and TC's. The need for better co-operation with industry without neglecting the academic world was strongly emphasized. A letter from the President has meanwhile been sent to all NMO's and TC's to inform them in detail about our views on the future of IFAC policy.

- The Constitution Committee (J. Coales, Steve Kahne and Janos Gertler) reported on the discussion concerning the redrafting of the IFAC Constitution. To ensure that proposals could be widely discussed before being presented to the General Assembly at the time of the Kyoto Congress, the following timetable was accepted:

• EC members will receive the new draft by January 31, 1980 and are expected to comment not later than March 31. Detailed discussion on the new draft at the next EC meeting, June 1980.

• Distribution of amended version among all NMO's and discussion by the NMO's till the next General Assembly, August 1981.

The IFAC Secretariat will be pleased to supply further details on any items concerning the EC and related meetings of last June. The next EC meeting is scheduled for Cleveland, Ohio, June 1 - 5, 1980.

IFAC-PUBLICATIONS TO ASSIST PREPARATIONS FOR WORKSHOPS AND SYMPOSIA

- IFAC Information - Aims, Structure, Activities
- IFAC - 20 Years Old; 20 Years Young. An Anniversary Publication, 1957 - 1977
- 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



Prof Dr. Yoshikazu SAWARAGI
IFAC President 1978-81

Yoshikazu Sawaragi was born on December 19, 1916. He is married and has four children. He is currently a professor at the Department of Applied Mathematics and Physics at Kyoto University, Japan, where he received the B. Eng. and D. Eng. degrees in mechanical engineering (1939 and 1949 respectively).

He served as Second Vice President of IFAC in the period of 1972/75, became First Vice President in 1975 and was elected President of IFAC in 1978 at the 7th IFAC World Congress in Helsinki. He is to remain in office till the 8th World Congress scheduled for 1981 in Kyoto. Presently he is also the chairman of the National Committee of Automatic Control, Japan.

His research interests cover a broad area such as viscoelasticity, nonlinear oscillation, sensitivity analysis, computer control of industrial processes, methodology in environmental systems etc.

In addition to his professorship he has, amongst other scientific activities, been a director of the Institute of Atomic Energy from 1966 to 1972 and is currently a member of the Science Council of Japan. He is also a member of the National Committee and the Advisory Committees for the Resources and Environment Area, both of the International Institute for Applied Systems Analysis (IIASA). He has been the organiser and principal investigator in environmental research programs of the Ministry of Education, Science and Culture, Japan.

He has authored or co-authored six books in Japanese, three in English and approximately 300 papers.

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Dipl.-Ing. Fred Margulies
Schlossplatz 12, A 2361 Laxenburg.

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1060 Wien

Date 1980 Event

Place Contact

- Sept. 29 - Oct. 3 24. IFAC Workshop
Impact of Automation and
Computerization on the
Organization
Youngstown
Ohio
USA
American Automatic Control Council
AACC Secretariat
400 Stanwix Street
Pittsburgh, PA 15222 USA
- October 14 - 17 25. 6th IFAC/IFIP Conference
Digital Computer Applications to Process Control
Düsseldorf
D
VDI/VDE-Gesellschaft Meß- und Regelungstechnik
Postfach 1139
D-4000 Düsseldorf, FRG
- October 26. 3rd. IFAC/IFIP Symposium
Control Problems and Devices in Manufacturing Technology
Budapest
H
Ms. Judit Soltesz
Conference Bureau Computer and Automation Inst.
Hungarian Academy of Sciences.
H-1502 Budapest
P.O. Box 63 Hungary
- Nov. 10 - 12 27. IFAC Workshop
Scientific Experiments and Laboratory Procedures
Smolenice
CSSR
Slovak Academy of Sciences Inst. of Measurement and Measuring Technique
/IFAC WORKSHOP '80/
Dúbravská cesta
885 27 Bratislava CSSR
- Nov. 17 - 20 28. IMEKO/IFAC Symposium
Application of Microprocessors in Automatic Control Devices and in Instrument Devices
London
UK
IMEKO/IFAC Symp. Organizing Committee
The Institute of Measurement and Control
20 Peel Street, London
W8 7PD, UK
- Nov. 23 - 26 29. IFAC/IFIP/IFORS Symposium
Systems Approach for Development
Rabat
Morocco
Prof. Mohamed Najim
IFAC
System Approach for Development Conference
Faculté des Sciences
Avenue Ibn Batouta
B.P. 1014
Rabat Morocco

IFAC EVENTS IN 1980

Date 1980 Event Place Contact

- February 26 - 28 1. IIASA/IFAC Symp.
Modelling of Large Scale Energy Systems
Vienna
A
International Institute for Applied Systems Analysis (IIASA)
Schloß Laxenburg
A-2361 Laxenburg, Austria
- April 2 - 6 2. IFAC Workshop
Computer Aided Control Systems Design
Baku
USSR
USSR Committee of Automatic Control
81, Profsoyuznaya Street
USSR 117342, Moscow
- April 14 - 16 3. 10th IFAC/IFIP Workshop
Real Time Programming
nr. Graz
A
Volkmar H. Haase
1980 WRTP Organizer
Institut für Informatik
Steyrerergasse 17
A-8010 Graz, Austria
- April 15 - 17 4. IFAC Workshop
Management Control Systems
Hertford
UK
Mr. M.J. Yates
Deputy Secretary
Institute of Measurement and Control
20, Peel Street
London, W8 7PD UK
- April 16 - 20 5. IFAC Workshop
Differential Games; Game Problems in Dynamic System Control
Sochi
USSR
USSR Comm. of Automatic Control
Profsoyuznaya, 81
117342 Moscow, USSR
- May 6. IFAC Workshop
Automation, Demand for Work, and the Economy
Birmingham
UK
UK Automatic Control Council; Institute of Measurement and Control
20 Peel Street
London W8 7PD
- May 12 - 15 7. El Fateh/IFAC Workshop
Appropriate Applications of Automatic Control in the Oil Industry and Desalination
Tripoli
Libya
Prof. H. El. Hares
Faculty of Engineering
El Fateh University
P.O. Box 13235
Tripoli, Libya

Date 1980	Event	Place	Contact	Date 1980	Event	Place	Contact
May 20 - 23	8. IFAC Symposium Pneumatic and Hydraulic Components and Instruments in Automatic Control	Warsaw PL	Polski Komitet Pomiarow i Automatyki Naczelna Organizacja Techniczna w. Polisce ul. Czackiego 3/5 00-034 Warszawa, Poland	August 18 - 20	16. 3rd IFAC Symposium Automation in Mining, Mineral and Metal Processing	Montreal CDN	Ecole Polytechnique Campus de l'Universite de Montreal Case Postale 6079, succursale "A" Montreal, Quebec, H3C 3A7 Canada
May 28 - 31	9. IFAC/IWRA/WERC Symposium Water and Related Land Resource Systems	Cleveland Ohio USA	IFAC/WATER SYSTEMS 1980 c/o AGU Meetings American Geophysical Union 1909 K. Street, N.W. Washington, D.C., 20006, USA	Sept. 17	17. 2nd IFAC Workshop Distributed Computer Control Systems	nr. Montreal CDN	Associate Committee on Automatic Control National Research Council Bldg. M2 Montreal Road Ottawa K1A 0R6 Canada
June 27 - 28	10. IFAC Workshop Neural Control Systems for Human Motion	Montpellier F	Association Francaise pour la Cybernetique Economique et Technique (AFCEET) 156 Bd Péreire B.P. 571 F-75826 Paris Cédex 17 France	Sept. 1 - 5	18. Academy of Sciences /DDR IMACS/IFAC/WGMA Symposium Systems Analysis and Simulation	Berlin DDR	Zentralinstitut für Kybernetik und Informationsprozesse der AdW der DDR DDR-1199 Berlin Rudower Chaussee 5
June 3 - 6	11. 4th IFAC Conference PRPA Automation	Ghent B	4th IFAC-PRP Automation Conf. Jan Van Rijswijck- laan, 58 B-2000 Antwerp, Belgium	Sept. 6 - 8	19. IFAC Workshop Case Studies for Appropriate Control Technologies	Cairo Egypt	The Egyptian High Committee of Automatic Control 6 Khalil Agha Street Garden City, Cairo, Egypt
June 16 - 18	12. IFIP/IFAC Symposium Automation for Safety in Shipping and Offshore Petroleum Operation (ASSOPO' 80)	Trondheim N	Arthur B. Aune SINTEF, Automatic Control Div. N-7034 Trondheim-NTH Norway	Sept. 9 - 11	20. IFAC Workshop Spacecraft System Reconfiguration in Orbit	Cambridge Mass., USA	The Charles Stark Draper Laboratory, Inc. 555 Technology Square Cambridge, Massachusetts 02139 USA
June 16 - 19	13. 3rd IFAC/IFORS Conference Dynamic Modelling and Control of National Economics	Warsaw PL	Dr. M. Lipiec Systems Research Institute Polish Academy of Science ul. Newelska 6 01-447 Warsaw, Poland	Sept. 15 - 17	21. IFAC Workshop Control Applications of Nonlinear Programming and on Optimization	Oberpfaffen- hofen FRG	Dr. Klaus Weill DFVLR 8031 Oberpfaffenhofen FRG
June 24 - 26	14. 2nd IFAC/IFORS Symposium Large Scale Systems: Theory and Application	Toulouse F	Prof. A. Trifi 7, Avenue du Colonel Roche 31 400 Toulouse, France	Sept. 15 - 19	22. IFAC Symposium Automatic Control in Power Generation, Distribution and Protection	Pretoria ZA	The Symposium Secretariat 1980 IFAC-Symposium CSIR P.O. Box 385 Pretoria 0001 Rep. of South Africa
August 4 - 5	15. IFAC Workshop Resources and Environment	Kyoto J	National Committee of Automatic Control, Science Council of Japan 22 - 34 Roppongi 7-chome Minatu-ku Tokyo 106, Japan	Sept. 23 - 26	23. IFAC/ISAO Symposium Control Aspects of Artificial Organs	Warsaw PL	Dr. W. Zmyslowski Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences 55 KRN str. 00-818 Warsaw, Poland