



*For immediate release*

### Automatic Control in Space

The International Programme Committee of the 5th IFAC Symposium on Automatic Control in Space, Genova, Italy, June 4 - 8, 1973, has met and selected about 70 papers out of a hundred submitted. Moreover, survey papers by invited speakers will be presented. Titles and authors (tentative):

- A general survey on man space flight (Mr. *P.E. Culbertson*)
- Supersonic aircraft automatic control and guidance (Dr. *M. Pélegrin*)
- Ship automatic navigation (Prof. *E. Volta*)
- Multiple automatic control aspects in satellite operations (Dr. *P. Blassel*)
- Multimode three-axes electric mechanical system for METEOR satellite attitude control (Prof. *N.N. Sheremetjevsky*)
- Automatic control in planetary exploration in the 1980's (Mr. *J.W. Moore*)
- Dynamics and control of locomotion control and manipulators (Prof. *M. Vukobratovic*)

Preliminary programme and registration forms available from:

Istituto Internazionale delle Comunicazioni,  
Via Pertinace - Villa Piaggio,  
16 125, Genova, Italy.

### Dynamic Modelling and Control of National Economies

This is the title of an IFAC/IFORS Conference sponsored by the IFAC Technical Committees on Systems Engineering, on Theory, and on Economic and Management Systems with the co-sponsorship of the International Federation of Operational Research Societies (IFORS). The conference, organized by the Control and Automation Division of the Institution of Electrical Engineers, London, in association with the Control Theory Centre and School of Economics, University of Warwick, and the United Kingdom Automation Council, National Member Organization of IFAC, will be held at the University of Warwick, Coventry, U.K., from July 9 - 12, 1973.

About 30 papers will be presented in sessions on

- Concepts and methods in macroeconomic modelling (Chairman: Prof. *L.R. Klein*)
- Empirical macroeconomic models (Chairman: Prof. *F.G. Pyatt*)
- Growth and cycles (Chairman: Prof. *J.A. Mirlees*)
- Optimisation (two sessions chaired by Prof. *J.H. Westcott* and Prof. *Z. Pawlowski* respectively)
- Optimum stochastic control (Chairman: Prof. *P.C. Parks*)
- Estimation (Chairman: Prof. *A. Nomoto*)
- Special problems (Chairman: Prof. *L. Markus*).

In most of these sessions, opening lectures will be delivered by experts in the field.

One special session will be devoted exclusively to a Round Table Discussion. The aim of this session, chaired by Prof. *J.F. Coales*, is to provide a forum for general

discussion rather than a set-piece debate. The members of the Round Table panel have considerable experience of modelling techniques and problems in a wide variety of applications, notably in the areas of econometrics, control engineering, time series analysis and systems dynamics. It is hoped that discussion in that session will focus mainly on two broad topics: systems modelling in general, and modern quantitative control techniques in relation to economic systems.

Interested readers should apply to

The Manager, Conference Department,  
Institution of Electrical Engineers,  
Savoy Place,  
London WC2R 0BL, England

to obtain copies of the programme, booking forms and other relevant details.

### Automatic Control in Mining, Mineral and Metal Processing

In that subject area, an IFAC sponsored symposium will be held at the University of New South Wales in Sydney, Australia, August 13 - 17, 1973 under the auspices of The Institution of Engineers, Australia (Member Organization of IFAC), The Institution of Radio and Electronics Engineers Australia, The Australasian Institute of Mining and Metallurgy, the Australian Computer Society Incorporated, and with the co-operation of the South African Council for Automation and Computation (Member Organization of IFAC).

Authors from many parts of the world responded to the call for papers, and out of the large number of papers offered, more than 50 were selected, covering the main topic areas of the symposium, viz.

MINING with sessions on

- Prospecting
- Mine design
- Transport

MINERAL PROCESSING with sessions on

- Beneficiation
- Grinding
- Flotation
- Cement manufacture

METAL PROCESSING with sessions on

- Furnaces
- Rolling mills
- Production controls.

Other broad areas to be included are Instrumentation and Computers. Discussion and seminar sessions will be organized and there will be special addresses by experts in the field.

Registration forms will become available in April 1973, and interested readers should apply to:

The Secretary,  
The Institution of Engineers, Australia,  
157 Gloucester Street,  
Sydney, N.S.W. 2000, Australia.

## Computer Applications in the Automation of Shipyard Operation and Ship Design

This IFIP-IFAC-JSNA Conference, sponsored by the IFIP Technical Committee on Computer Applications in Technology and co-sponsored by the IFAC Technical Committees on Systems Engineering and on Applications, will be held in Tokyo, Japan, August 28 - 30, 1973, under the auspices of The Society of Naval Architects of Japan and with the co-operation of the Information Processing Society of Japan and the Japanese Society of Instrument and Control Engineers.

The Conference will deal with general topics in research and development (FEM, model test etc.), computer and communication technology, with design, with production information systems, materials handling, and so on.

The paper selection on the basis of abstracts has resulted in the provisional acceptance of about 50 papers submitted by authors from 12 countries.

The registration fee for participants is Yen 15,000 if received not later than May 31, 1973, and Yen 18,000 after that date. Registration forms and further information may be obtained from

Prof. Y. Fujita,  
c/o The Society of Naval Architects of Japan,  
No. 35 Shiba-Kotohiracho, Minato-ku,  
Tokyo 105, Japan.

## Control of Water Resources Systems

For the second time, IFAC is sponsoring a symposium in Israel. The first one, held in Haifa, September 1967, dealt with the control of natural resources and public utilities. The next one, also with Haifa as venue, will take place from September 17 to 21, 1973. It is sponsored by the IFAC Technical Committees on Applications and on Systems Engineering. The International Commission on Water Resources Relations and Systems of the International Association of Hydrological Sciences is co-operating in the scientific planning of the symposium which is organized by the Israel Committee for Automatic Control, National Member Organization of IFAC.

The symposium will deal with the control of water resources systems, emphasizing the application of the various aspects of control theory. Also the methodology used in controlling such systems will be stressed. Case studies of the application of control theory with emphasis on optimization techniques in water resources systems are another feature of the programme.

Almost 50 papers will be presented and discussed in six technical sessions. The main topics and some interesting titles taken from the preliminary programme which is under way, are:

### PLANNING THE DEVELOPMENT AND CONTROL OF WATER RESOURCES

- Multiple input hydrological systems
- Control of river system with two storage reservoirs

### WATER STORAGE

- Dynamic programming algorithms for optimization of operating policies of water storage systems
- Water management and control technology for the Alcan hydroelectric power systems

### WATER DISTRIBUTION SYSTEMS

- A computer based telecontrol and communication system for a water supply network
- Analysis of operation policies for complementary use of hydroelectric and thermal power resources

### UTILIZATION OF WATER

- Optimum control of irrigation water application
- Peak-month agricultural water supply: control and management by marginal demand and supply analysis

### WATER QUALITY CONTROL

- Multi-level control of a system of waste water treatment facilities on a polluted river
- Water quality control under uncertainty

### WATER DESALINATION

- The control and operation of nuclear desalination systems.

Readers who wish to receive copies of the preliminary programme and of the registration and hotel accommodation forms should write to the following address:

IFAC 1973 Symposium on  
Control of Water Resources Systems,  
The Israel Committee for Automatic Control,  
Danziger Laboratory,  
Technion - Israel Institute of Technology,  
Haifa 32000, Israel.

Registration fee including preprints, technical tour (National Water Carrier), transportation from hotel to sessions, refreshments, luncheons and banquet is US \$ 75.00 for participants and US \$ 30.00 for accompanying persons (no preprints included).

## Traffic Control and Transportation Systems

In June 1970, an IFAC/IFIP Symposium on "Traffic Control" organized by the Association Française pour la Cybernétique Economique et Technique (AFCET) was held at Versailles, France. The success has justified a sequence, and a second symposium in that field, again organized by AFCET, will take place in September 1974 on the French Côte d'Azur. IFAC through its Technical Committees on Applications and on Systems Engineering is the main sponsor, with the International Federation for Information Processing (IFIP) co-sponsoring as before, and the International Federation of Operational Research Societies (IFORS) as additional co-sponsor. The title "Traffic Control and Transportation Systems" has taken into account the desired broadened scope. The main subjects will be:

- Urban traffic and passenger transportation
- Interurban traffic and passenger transportation
- Goods transportation systems
- Transportation and community.

The issues to be discussed will span all modes of transportation (road, railway, air, rapid transit, pedestrian traffic, pipes and other specific means) and air-land-waterway interfaces. They will concern passenger and various goods movements as well as research, planning and operations of modern transportation systems. In each of these fields the contributions will be focused on systems aspects, namely:

at the stage of research and development:

- Modelling
- Choice of criteria and evaluation
- Simulation
- Optimisation techniques
- Transportation planning
- Socio-economic aspects and consequences on environment;

at the stage of actual applications:

- Systems technology and operation
- Advanced techniques in data gathering and information transmission
- Data processing and systems control by computers
- Systems reliability, maintainability and safety
- Future trends in systems conception.

Offers of papers should be addressed to AFCET and include title and abstract (200 - 300 words in the English and/or French language) to be produced in 30 copies for subsequent distribution to the members of the International Programme Committee. The deadline for the submission is April 15, 1973, and should possibly be observed.

Enquiries:

AFCET, Secrétariat des Congrès,  
Université Paris IX - Dauphine,  
75775 Paris Cedex 16, France.

## Non-IFAC Events

- Two one-week SYSTEMS THEORY AND APPLICATIONS courses on "Digital Signal Processing Fundamentals/Implementation and Applications" (July 9 - 13, 1973) and on "Applications of Digital Processing" (July 16 - 20, 1973) are offered by the Rensselaer Polytechnic Institute (RPI), Troy, N.Y., and will be held at a resort hotel on Lake George, USA. Enquiries: RPI Office of Continuing Studies, Troy, New York 12181, USA.

- INFORMATICA 73, 8th Yugoslav International Symposium on Information Processing, Bled, October 1 - 5, 1973. Topics: Computer software and hardware; Systems for management and administration; Technological applications; Numerical mathematics; Theory of information processing; Science and humanities; Computer education. Potential authors should submit titles and abstracts by April 10, 1973, to Mr. I. Lajovic, Jozef Stefan Institute, POB 199, Ljubljana, Yugoslavia.