



# INFORMATION BULLETIN

International Federation of Automatic Control

Editors: Derek H. Barlow, London B. N. Naumov, Moscow Published by the IFAC Secretary Dr.-Ing. G. Ruppel

Postfach 1139, Düsseldorf, Germany

## Four North American Conferences - June 1968

June 1968 looks like a busy month for control engineers with four vital conferences all in North America occuring between June 17th and 28th.

The first of these - the IFAC/IFIP Symposium on "Digital Control of Large Industrial Systems" takes place in Toronto, Canada from June 17-19.

Immediately after this are two concurrent symposia, from June 20-22, one continuing in Toronto, organised by the Society for Industrial and Applied Mathematics on Mathematical optimization. The other syposium organised by IFAC's Systems Engineering Committee will be held in Cleveland U.S.A. on the subject of Systems Engineering.

The fourth conference of interest to control engineers will be on June 26-28, in Ann Arbor, U.S.A., where the American Automatic Control Council are holding their annual Joint Automatic Control Conference.

#### Details on the Digital Control Symposium

The above-mentioned joint IFAC/IFIP symposium will be organised by the Associate Committee on Automatic Control of the National Research Council of Canada, the Canadian Computer Society, and the University of Toronto. It will focus on the state of

the art in application of digital process computers to industrial processes. Typical of the areas being covered are:

- Installation performance data, technical and economic valuations of operating systems reliability records
- Design techniques closing the loop through computers and applying theory to the system design
- Implementation Techniques
   Interface and programming problems.

It is hoped that simultaneous translation English-French-German-Russian will be provided at all sessions.

Summaries or abstracts of proposed papers are required immediately with a closing date for papers (in final form, ready for printing) of January 15th, 1968.

For further information, contact:

Secretary,

IFAC/IFIP Symposium Toronto 1968, Division of University Extension, University of Toronto, Toronto 5, Canada

## Deadlines announced for Australian System Dynamics Conference

First programme details are now available on the IFAC symposium to be held in Sydney, Australia, August 26-30, 1968, on System Dynamics and Automatic Control in Basic Industries. Sponsored by three IFAC Committees, Technical Applications, Theory and Systems, together with the Australian Institution of Engineers the symposium will provide an opportunity for specialists from around the world to meet in Australia, and exchange information on the latest developments in the fields of system dynamics. Theoretical and applied papers will present new results in the study of dynamical properties of the material and energy conversion processes encountered in basic industries. In particular, attention will be drawn to processes in the electrical power, nuclear, chemical, metallurgical and paper industries.

Some of the papers will deal with the mathematical modelling of processes whose dynamical properties are at present only partly understood. Some will be concerned with methods for testing processes and analysing responses with a view to obtaining parameter values for the models. Others will consider the use of the dynamical models in the design of improved process controllers. In addition to papers outlining fields of research, survey and tutorial contributions will be included.

Technical sessions will cover:

Electrical Power applications

Nuclear Reactors

Steel production processes
Chemical
Control computers
Theoretical aspects of modelling.

Deadlines for papers is January 31st, 1968.

For further details, contact:

The Secretary, The Institution of Engineers, Australia, Science House, 157 Gloucester Street, Sydney, NSW 2000, Australia.

## Programme formulated for Hungarian Pulse Symposium

From April 8 to 11th, 1968, Budapest will be the host city to delegates attending the International Symposium on "Pulse Rate and Pulse Number Signals in Automatic Control" organised by the Technical Sciences Section and the Automation Research Institute of the Hungarian Academy of Sciences in conjunction with Hungary's Scientific Society for Measurement and Automation. IFAC sponsorship is through the IFAC components committee, chairman Professor J. Shearer of M.I.T., U.S.A.

Programmé details for the symposium are now being finalised and due to the large number of papers submitted there will be three parallel sessions covering Incremental and Digital Techniques, Pulsed systems, Controllers and Actuators. In all, 110 authors are participating in providing papers of wich abstracts will be circulated early in 1968. Full preprints which must be ordered by December 15th, 1967, will be dispatched to all registrants in March, 1968. Preprints are available at \$2 each (or equivalent currency) for each of the following seven categories:

- A. Incremental and Digit Techniques
- B. Digital Differential Analysers
- C. Controllers and Actuators
- D. The Theory of Pulsed Systems
- E. Hybrid Systems
- F. Data Transmission
- G. Logic Elements

Full preprint sets can be ordered for \$10 or equivalent.

A random selection of titles from the papers being presented shows the range covered by the symposium:

- Application of a DDA circuit for attenuation measurement
- Digital telecontrol and telemetering for pipeline surveying
- Bistable fluidic component with adjustable impedance
- Synthesis methods for pulse systems
- Adaptive logic elements in pulse control systems
- Numerical control of machine tools
- Adaptive sampling
- Digital two-term controller
- Hybrid simulator of nuclear systems.

Post - conference tours are being arranged to the Central Research Institute of Physics, the Research Institute for Automation and to establishments at Debrecen.

Registrations should be made before December 31st, 1967, to obtain advantage of the lower \$ 30 (or equivalent) fee. After that date the fee will be \$ 40.

Registrants should send in their applications to:

Miss K. Molnar, Research Institute for Automation, Hungarian Academy of Sciences, POB 63, Budapest 112, Hungary.

#### SYMPOSIUM ON FLUIDICS

A Symposium on Fluidics organized by the Royal Aeronautical Society and sponsored by the IFAC Committee on Components will be held in London, November 4 to 8,1968. Further to IFAC Information Bulletin No. 36, some more detailed information is now available. About 30 papers will be presented in six half-day sessions reporting work under the following general headings:—

- 1. Fluid Mechanics of Fluidic Devices
- 2. Fluidic System Design
- Mechanical Design Aspects and Production of Fluidic Components and Systems
- 4. Application of Fluidics in Automatic Control

Prospective authors are reminded that the deadline for offers of papers together with two copies of an abstract is January 31st, 1968 and that the closing date for full papers is 31st May. The cost of a set of preprints is included in the registration fee which will not exceed \$12. Registration forms may be obtained from the

Royal Aeronautical Society, 4 Hamilton Place, London W 1 England

#### ARTIFICIAL LIMBS SYMPOSIUM

A Symposium on the Basic Problems of Artificial Prehension, Movement and Control of Artificial Limbs will be held in London from 31st October to 1st November 1968. Information on this Symposium can be obtained from

Mr. E.P. Davies, Institution of Mechanical Engineers, Westminster, 1 Birdcage Walk, London S W 1, England