



# INFORMATION BULLETIN

34 No. 34 May, 1967

International Federation of Automatic Control

Editors: Derek H. Barlow, London B. N. Naumov, Moscow Published by the IFAC Secretary
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Postfach 1139, Düsseldorf, Germany

#### PRESS RELEASE

## POLAND - IMEKO IV

The second circular on the Fourth International Measurement Congress IMEKO IV to be held in Warsaw, Poland, from 3rd to 8rd july 1967 has been issued. It includes the titles of the 166 adopted papers as well as all other relevant information. Inquiries should be directed to

IMEKO IV Ul. Czackiego 3-5, Warszawa 1, Poland (Cables: NOT, Warszawa).

### AICA CONGRESS FOR ANALOG COMPUTATION

The Advance Program of the Fifth Congress of the International Association for Analog Computation has just been issued by the Congress Secretary, Dr. A. v. S c h u 1 t h e s s, Wasserwerkstr. 53, CH-8006 Zürich, Switzerland. The Congress is to be held on August 28 to September 2, 1967.

# ISRAEL - Automation of Population Register Systems

Sponsored by the International Computation Centre (ICC) and the International Federation of Information Processing, a symposium on Automation of Population Register Systems is being organised in Jerusalem from September 25-28, 1967, by the Information Processing Association of Israel.

The problem to be discussed at the symposium is the evergrowing need of large population register systems for use in applications such as national elections, social security, health schemes, education, welfare and taxation. In all these systems common design questions emerge such as -

- the choice of the correct personal identification system to use
- how to code names effectively
- how to obtain efficient random access to the register
- remote terminal interrogation methods of the system
- the advantages of time sharing.

The symposium will not only cover these technical problems but will also look at critical evaluations of some systems in use, the design problems, applications, economic aspects and finally statistical results that can be obtained from such systems.

For further information contact -

Information Processing Association of Israel, P.O. Box 3009, Jerusalem, Israel.

# IFAC'S FIRST CONFERENCE IN THE SOUTHERN HEMISPHERE

1968 will be the first time that the International Federation of Automatic Control (IFAC) has sponsored any activity in the Southern Hemisphere. In Sydney, between August 26-30,1968, control engineers and system design specialists from the States, New Zealand and other centres will be flocking to an international conference on

"SYSTEM DYNAMICS AND AUTOMATIC CONTROL IN BASIC INDUSTRIES"

sponsored by IFAC in collaboration with the Institution of Engineers, Australia.

Under this rather formal title, papers will be presented on

Systems having the possibility of improved performance Measurements Mathematical modelling Simulation Improvement of system performance.

On the theoretical side papers are being sought on mathematical modelling of such systems where the dynamic behaviour of the system can be described by mathematical equations. One area of this work expected to arouse discussion is how far such equations can be simplified and the degree of accuracy that occurs after such simplification — still a major problem area in the control field.

Other areas to be discussed will be processes of which the dynamics can only be partially formulated. Here papers will describe cases where advanced control systems can improve the performance of such systems. Measurement techniques, hybrid computer and pilot plant similation plus the development of improved controllers will also be covered.

In addition to the main technical sessions of the Symposium, there will be a series of panel discussions on the broader aspects of teaching and application of automatic control. Visits will be arranged to installations of particular technical interest.

It would assist the Organizing Committee if each intending author would indicate in advance his intention of submitting a paper, giving an indication of the likely topic. Completed manuscripts, in English, in triplicate, preferable of less than 4,000 words with a minimum of necessary illustrations, are required by 31st January, 1968. A booklet "The Preparation and Submission of Technical Papers" setting out recommendations to authors and further information may be obtained from the Secretary, The Institution of Engineers, Australia, Science House, Gloucester St., Sydney, N.S.W. Australia.

An International Symposium on Pulse-Rate and Pulse-Number Signals in Automatic Control will be held in Budapest, Hungary, from April 9th to 11th, 1968. It will be sponsored by the Components Committee of the International Federation of Automatic Control (IFAC) and it will be held under the patronage of the Hungarian Academy of Science and the Scientific Society for Measurement and Automation.

A first circular has been issued inviting papers in the field of automatic control systems and their components, involving the use of Pulse-Rate and Pulse-Number Signals. Subject areas of interest include digital differential analyzers, incremental and digital-operational computing techniques, the designing procedures and hardware used to implement them, the possibilities and limitations of the various principles in automatic control applications and the relative merits of the components and methods applied.

The languages of the Symposium are English and Russian. Further information should be requested from

The Organizing Committee

International Pulse-Symposium Budapest 112, POB 63, Hungary Telegrams: Pulsesymp Budapest

## YUGOSLAVIA - SYSTEM SENSITIVITY AND ADAPTIVITY

The Second International Symposium on System Sensitivity and Adaptivity will be held in Dubrovnik during the last week of August, 1968.

Papers are being sollicited on the following topics:

- 1. Sensitivity operators and sensitivity models for parametric and functional variations. Effects of structural changes: Changes in system order discretization sensitivity for lumped and distributed parameter systems. Applications to error analysis.
- 2. Systems with stochastic parameters. Sensitivity of a large scale system with respect to a change in a part of th system.
- 3. Comparison sensitivity for open and closed loop design.
  Parameter invariance, uncontrollability and insensitivity conditions.
- 4. Synthesis of optimal systems with limited or minimum sensitivity, including the sensitivity criteria in system optimization (examples!).
- 5. Sensitivity problems in passive and active network synthesis and integrated circuit design.

- 6. Sensitivity models as a tool for iterative optimization procedures in parameter and functional spaces. Simultaneity problems in obtaining sensitivity functions and gradient components. Applications of sensitivity methods in system identification.
- 7. Adaptive control of incompletely defined plants, compatibility of adaptive controllers. Adaptive systems and reduction of necessary a priori information. Application of sensitivity models and sensitivity minimization in model-reference adaptive systems.

For further information apply to: Yugoslav Committee for ETAN, P.O. Box 356, Belgrade, Yugoslavia.

## U.S.A. - Switching and Automata Theory

Papers are required for the symposium being held October 18-20, 1967, at the University of Texas, Austin, Texasm on Switching and Automata Theory. The areas covered include automata theory, computation theory, and the theoretical aspects of logical design. In detail the subjects on which papers are sought are abstract languages, adaptive logic, asynchronous circuits, minimization techniques, threshold logic, sequential machines, reliability and fault diagnosis.

Authors submitting papers for selection should send abstracts (6 copies) to -

Dr. Raymond E. M i l l e r IBM Thomas J. Watson Research Center P.O. Box 218, Yorktown, Heights, New York 10598, U.S.A.

## Theory of Self-Adaptive Control Systems

The proceedings of the IFAC Symposium on the Theory of Self-Adaptive Control Systems held at Teddington, UK, in September 1965, have appeared and are available for sale at \$ 15. Orders should be directed to:

Plenum Press (ISA) 227 West 17th Street, New York, N.Y. 10011, USA.

## CUBA - New Automation Magazines

Two new Automation Magazines are being published in Cuba this year.

One entitled "Instrumentacion Industrial" is aimed for users and designers of industrial instrument and measuring systems.

The other new Magazine starting in December is called "C.C.A. (Comision Co-ordinadora de Automatisacion)" and will be directed to automation engineers.

For further details contact -

Marcelo P 1 a p o n , Director, Ministerio de Industrias, Dereccion de Automatisacion y Electronica, Calzado no. 1055, Vedado, Havana, Republica de Cuba.