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## Fourth IFAC Congress

The Fourth Congress of the International Federation of Automatic Control, IFAC, will be held in Warsaw from June 16 to 21, 1969. Papers dealing with automatic control problems in the fields of theory, applications and components will be presented in either one of the four official languages of IFAC, English, French, German and Russian. At the technical sessions authors will briefly present a summarized version of their papers which will be available to participants in the form of preprints prior to the Congress. Discussions will follow the presentation of the papers. A number of survey papers are intended as well as a variety of round-table discussions dealing with selected topics. For registrations made before March 31, 1969, the fee will be US \$ 50,-; after that date the fee will be US \$ 60,-. This will cover receipt of a complete set of summaries of papers in one of the four IFAC languages according to choice, full texts of survey papers in the language as submitted by the authors, and a list of participants. An additional charge will be required for copies of the full texts of technical papers.

Further details are given in a leaflet "First Information", obtainable from either

Organizing Committee  
of IFAC IV  
P.O.B. 903  
Warsaw/Poland

Secretary of IFAC  
Dr.-Ing. G. Ruppel  
or  
4 Düsseldorf 1/Germany  
Postfach 1139

## IFAC Symposium on Hazard and Race Phenomena in Switching Circuits

This Symposium to be held under the sponsorship of the Subcommittee for Algebraic Theory of Relay Systems and Finite Automata of the IFAC Theory Committee will take place in Bucharest, Roumania, from October 6 to 10, 1968. A Call for Papers appeared in IFAC Information Bulletin No. 44. Papers accepted for presentation include topics such as: A universal state assignment for pulse input asynchronous sequential circuits; On the

classification of many-valued logical functions; Essential hazard correction without the use of delay elements; On the synthesis of M-stable switching circuits. The authors' origin reveal the international character of the meeting and the interest in the subject, though it is very specialized. A variety of topics have been accepted for discussion at the symposium. In addition to that, two tutorial sessions will be held dealing with Algebraic Theory of Automata.

Inquiries: Prof. Gr. Moisil,  
Institutul de Matematica,  
str. Mihail Eminescu, 47,  
Bucuresti 9, Roumania

## Precision Strain Gauge Measurements of Force and Weight

### IMEKO-Symposium in Braunschweig

A specialised meeting for some 100 specialists in the field is being planned for Oktober 16 - 18, 1968, in Braunschweig on Precision strain gauge measurements of force and weight. The meeting is a continuation of the round-table discussion on "Strain Gauge Technique in Industrial Weighing" held at the fourth IMEKO Congress in Warsaw.

The Braunschweig gathering, organised by the "VDE/VDI-Fachgruppe Meßtechnik", the Member Organisation of IMEKO in the Federal Republic of Germany, will deal with the following topics:

- Properties of strain gauges;
- Materials and construction of deformation bodies;
- Procedure for the measurement of resistance change;
- Calibration and verification of force measuring devices and balances.

Further details, program and application forms may be obtained from the:

VDE/VDI-Fachgruppe Meßtechnik 4 Düsseldorf 1 Postfach 1139, Germany	or	IMEKO SECRETARIAT P.O.B. 457 Budapest, 5 Hungary
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## Numerically Controlled Machine Tools

### A Joint IFIP/IFAC Programming Language Conference

First details have been announced of a joint conference to be held in Rome September 15-17, 1969 by IFIP (International Federation of Information Processing) and IFAC (International Federation of Automatic Control). The subject - Programming Languages for Numerically Controlled Machine Tools (PROLAMAT).

The PROLAMAT Conference will provide an international forum for experience interchange in this growing branch of control systems application, the use of computer control for machines such as lathes, millers, tube binders and drafting machines.

Expected to arouse great interest among the delegates will be papers dealing with conversational, timesharing and graphic communication interlinks between the operator and designer and the machine itself.

To ensure maximum interaction between experts in the field, the attendance at the Conference being held with the collaboration of the Italian National Research Council and the Italian Computer Association will be limited to approximately 350 people and a maximum of 30 formal papers will be presented.

Papers suitable for this Conference are invited, initial drafts to be sent to Prof. A. Caracciolo di Forino  
Istituto di Elaborazione dell'Informazione  
Via S. Maria 46  
56100 Pisa, Italy.

and

Dr. D.T. Ross  
M.I.T.  
545 Technology Square  
Cambridge, Mass., 02139, USA.

Drafts should be submitted before Jan. 15th, 1969.

## London Fluidics Meeting

### Final Program Details

From the 4-8th Nov. 1968, London will be the host to one of the largest symposia yet on Fluidics. Organised by the British Royal Aeronautical Society under IFAC auspices, the symposium will present some 23 papers divided between three areas of Fluid Mechanics, Components and System Design, and Applications.

The preliminary program recently released highlights the international flavour of the symposium with contributions from the USA, USSR, Japan, Poland and Czechoslovakia.

Among the Application papers is one that will arouse great interest detailing the use of fluidics to control an artificial

heart. Developed by a tripartite team from Japan's Waseda University, the Japan Heart Institute and the Tokyo Women's Medical College, the application opens up new application areas for fluid amplifiers in the medical field. This medical application for fluidics is also being developed in other countries. From Czechoslovakia a paper will describe a fluid logic microdiaphragm system and its use for medical process control.

Other applications concentrate on jet engine control, with one paper (UK) describing a pressure ratio sensor for gas turbine engine control, while another UK paper describes fluidic control of a jet engine inlet vane.

American contributions describe various forms of sensors and a pneumatic stepping motor.

In the Components session, emphasis will be on characteristics of the various components. Typical of these papers are

- "Experimental Study on the Characteristics of Vortex Valves" (USA)
- "Vortex Pressure Amplifier Characteristics" (USA)
- "Equivalent circuit for the Transverse Impact Modulator" (USA)
- "Curved Wall Amplifier Characteristics and Applications" (France),

Other papers in this session discuss problems of protection against hazards in fluidic adders and subtractors (UK) and how to miniaturise fluidic logic (Germany).

Registrations for this Conference are still available and intending delegates should contact

IFAC Secretariat  
c/o Royal Aeronautical Society  
4, Hamilton Place  
London, W1V 0BQ  
England.

## New Symposium Proceedings

IFAC SYMPOSIUM ON AUTOMATIC CONTROL OF NATURAL RESOURCES AND PUBLIC UTILITIES, HAIFA, Israel, September 1967. A bound volume of preprints of 39 papers is available at \$ 6 per copy (postage included) from the Israel Committee for Automatic Control, Dept. of Electrical Engineering, Technion City, Haifa/Israel.

IFAC SYMPOSIUM ON OPTIMAL SYSTEMS PLANNING, CLEVELAND, Ohio, June 1968. Volume of Preprints at \$ 15 per copy (plus postage on overseas delivery) available from IEEE Headquarters, c/o Mr. E.D. Mac Donald, Supervisor of Conference Services, Technical Activities Board, 345 East 47th Street, New York, 100017/USA.

IFAC SYMPOSIUM ON SYSTEM SENSITIVITY AND ADAPTIVITY, DUBROVNIC, Yugoslavia, August 1968. Volume of preprints containing 60 papers \$ 10 per copy available from the Yugoslav Committee for Electronics and Automation (ETAN), c/o Dr. S. Bingulac, POB 356, Belgrade, Yugoslavia.