



IFAC

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**International Federation
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IFAC 75

The 6th TRIENNIAL WORLD CONGRESS of IFAC, devoted to the theme of "CONTROL TECHNOLOGY IN THE SERVICE OF MAN", will be held in Boston-Cambridge, Massachusetts, USA, August 24 - 30, 1975. Host Organization is the American Automatic Control Council (US National Member Organization of IFAC) representing the American Institute of Aeronautics and Astronautics, the American Institute of Chemical Engineers, the American Society of Mechanical Engineers, the Institute of Electrical and Electronics Engineers, the Institute of Traffic Engineers, the Instrument Society of America, the Society for Industrial and Applied Mathematics and the Technical Association of the Pulp and Paper Industry.

The Call for Papers resulted in the response of several hundred potential authors from 41 countries. This gratifying response required intensive reviewing effort first by IFAC National Member Organizations and then by the Technical Committees of IFAC enabling the International Program Committee to develop an excellent technical program for the Congress.

The congress will feature Plenary Sessions preceding the morning and afternoon Technical Sessions (seven parallel), and also a number of Round Table Discussions on selected subjects of current interest.

PLENARY SESSIONS

Apart from the Opening Session and Closing Session there will be Plenary Sessions on

- World Dynamics (*J. W. Forrester, USA*)
- Future of Control (*H. M. Rosenbrock, England*)
- National Economic Management (*L. R. Klein, USA*)
- Man's Role in Control Systems (contributions by five authors presented by *R. E. Rijnsdorp, Netherlands*)
- System Engineering Methodology (*P. Faurre, France*)
- Control of Legged Locomotion Robots (*D. E. Okhocsimskij, USSR; M. Vukobratovic, Yugoslavia*)
- Hospital and Health Care Systems (*P. L. Reichertz, FRG*)
- Environmental Impacts of Control (*W. A. Hall, USA*).

TECHNICAL SESSIONS

Programmed by: Theory Committee

- Distributed Parameter Systems (3 Sessions)
- Linear Control System Theory
- Differential Games (2 Sessions)
- Optimal and Nonlinear Control
- State Estimation
- Optimal and Stochastic Control
- Algebraic Methods in Control (2 Sessions)
- Optimal and Adaptive Control
- Stability
- Digital Adaptive Systems
- Optimization Methods
- Computation Methods in Control
- Model Reference Adaptive Systems

Programmed by: Applications Committee

- Electric Power Plants - Hydro and Conventional Steam
- Nuclear Power Plants
- Process Identification (2 Sessions)
- Energy Control Centers (2 Sessions)
- Electric Power Systems
- National Support of Advanced Developments in Computers and Industrial Automation
- Control Systems for Chemical Processes
- Steel Making and Heating
- Control of Unit Operations in the Chemical Industry
- Plate Rolling and Tinning
- Control in the Paper, Glass and Electronic Component Industries
- Sheet Metal Rolling
- Control in other Industries
- Mining

Programmed by: Systems Engineering Committee

- Complex and Hierarchical Production Systems (2 Sessions)
- Transportation Systems
- Methods for Complex and Hierarchical Systems
- Information Utilization in Complex and Hierarchical Systems
- Systems Reliability
- Man in Systems
- Medical and Health Care Systems
- Water Resources (2 Sessions)
- Modelling of Biological Systems
- Environmental Systems

Programmed by: Computers Committee

- Experience in Computer Control
- Computer Systems
- Micro- and Minicomputers in Control Systems
- Software for Process Control
- Testing and Reliability in Computer Control

Programmed by: Space Committee

- Control of Manned Orbiting Vehicles
- Control of Unmanned Space Vehicles
- Auxiliary Control Devices for Space Application and Underwater Control
- On-board and Launch Support Control Methods and Computers
- Theoretical Investigations in the Design and Application of Space Mechanisms

Programmed by: Education Committee

- Control Laboratories in Engineering Education

Programmed by: Social Effects of Automation Committee

- Social Effects of Automation

Programmed by: Economic and Management Systems

- Control and Management of Human Activity Systems
- Urban, Regional and National Planning (jointly with Systems Engineering Committee)

Programmed by: Components and Instruments Committee

- Fluidic Devices
- Fluidic Applications
- Automatic Testing
- Sensing and Control Devices

ROUND TABLE DISCUSSION GROUPS

Theory

- The Effect of Modern Control Theory on Engineering Practice
- Adaptive Control Today
- Fuzzy Automata

Applications

- Test Case for the Comparison of Identification Methods
- Modern Control Techniques in the Metal Industry

Systems

- Large Scale Systems Theory and Decentralized Control

Computers

- Hardware Software Tradeoffs in Real Time Applications
- Distributed Computer Control Systems

Education

- Continuing Education in Automatic Control
- International Aspects in Control Education

Economics and Management Systems

- Aspects of World Dynamics

Terminology and Standards

- Status of Control Terminology and Standards
- Symbolics of the Sequence Control Systems

In addition to the tabulated Round Table Discussions, classroom facilities will be provided for informal discussion groups who wish to exchange views on selected topics. Arrangements for convening such discussion groups will be provided at the Congress.

Copies of the Advance Program and a number of forms covering registration, accommodation (Harvard Dormitories or Sheraton-Boston Hotel), publications orders, reservation for social and cultural activities and plant visits may be obtained from

IFAC/75 Secretariat,
400 Stanwix Street,
Pittsburg, Pa. 15222, USA.

Registration fees (including a copy of plenary session papers and a set of technical paper abstracts):

- \$ 80 if received by June 16; includes daily lunches.
- \$ 95 if received between June 17 and August 11; includes daily lunches.
- \$ 95 if received after August 11 or at Congress; does not include daily lunches.
- \$ 15 for students if received by June 16 and \$ 20 if received after that date; neither fee includes lunches.
- \$ 10 per family includes all accompanying persons, but does not include lunches.