



IFAC

NEWSLETTER

**International Federation
of Automatic Control**

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3rd IFAC Symposium Automation in Mining, Mineral and Metal Processing (Montréal, Canada, August 18–20, 1980)

Organized by: Associate Committee on Automatic Control of National Research Council Canada and École Polytechnique de Montréal

Scope: The Symposium will permit to review the progress made in applying automatic control to the fields of mining, mineral, and metal processing since the second symposium of Johannesburg in 1976. It will also offer an opportunity to discuss new areas of control and to exchange expertise at the international level.

Topics: Papers will be selected on the basis of the following or related topics:

Mining

Prospecting; computer aided mine design techniques; materials handling, transportation; mining equipment and methods; environmental control; monitoring; equipment dispatching and production scheduling.

Mineral Processing and Extractive Metallurgy

Grinding and flotation; agglomeration; beneficiation; blast furnaces; direct reduction; electrolysis; pyrometallurgy; sintering; kilns operation.

Metal Processing

Steelmaking; non-ferrous metal production; reheat furnaces; rolling mills; continuous casting.

Computers and Control Equipment

System design techniques; equipment design; interfaces and data transmission, man/machine communications; distributed systems; control software; real-time operating systems; procedural languages; problem oriented languages.

On-Line Instrumentation

Measurement techniques for the above processes; use and design of sensors; data acquisition and telemetry systems.

Control Theory

Identification; modeling; optimization; sensitivity and stability analysis; control algorithms relevant to the above processes.

System Engineering

Economics of computer control; reliability; human factors; integrated system approach; case studies of computer control systems.

Time Schedule:

Abstracts submission	August 5, 1979
Preliminary acceptance	October 15, 1979
Full papers submission	December 31, 1979
Final acceptance	February 28, 1980
Submission of definite texts	March 31, 1980
Symposium	August 18–20, 1980

Languages: French and English with simultaneous translation from French to English.

Call for Papers: All correspondence and abstracts of papers in English or French (200–300 words, 5 copies) should be received by:

Professor J. O'Shea
École Polytechnique
C.P. 6079, Succ. "A"
Montréal, Québec, H3C 3A7, Canada

6th IFAC/IFIP Conference on Digital Computer Applications to Process Control, (Duesseldorf, F.R.G., October 14–17, 1980)

Sponsored by: IFAC and IFIP

Organized by: VDI/VDE-Gesellschaft Mess- und Regelungstechnik GMR

Purpose: The aim of the conference is to present, to discuss, and to summarize recent advances in the application of digital computers to the control of technical processes. Emphasis will be placed on the practical realization of modern control principles.

Topics:

Applications

Chemical and oil industry; metallurgical processes; energy and power systems; heating and climate systems; cement industry; paper and pulp processes; food and fermentation processes; water-treatment and supply; traffic and transportation (vehicles, pipelines); laboratory automation; material handling and distribution.

General Aspects

Applied control methods; automation systems engineering; experience with software; operational aspects.

All experts in this field are invited to submit papers on the above topics, in English only.

Time Schedule:

Abstract submission	September 15, 1979
Full paper submission	December 15, 1979
Final acceptance of papers	March 15, 1980

All correspondence, abstracts, and papers are to be addressed to:

VDI/VDE-Gesellschaft Mess-und
Regelungstechnik (GMR)
POB 1139, D-4000 Duesseldorf 1
F.R.G.
Tel.: (0211) 6214/226 or 6214/215
Telex: 085 865 25

IFAC Information Brochure

The 1979 edition of the brochure of IFAC Information, Aims, Structure, and Activities is now available from the IFAC Secretariat. The brochure gives among other items information about all IFAC Committees and about all Proceedings from the many IFAC Symposiums and Conferences.

New Editor of IFAC Newsletter

With this issue of IFAC Newsletter the present editor resigns. The new editor will be IFAC general secretary, Mr Fred Margulies. The old editor expresses his sincere thanks for the support and cooperation he has enjoyed from the IFAC family and urges all to support Fred Margulies likewise. All correspondence to the Newsletter should be addressed to the IFAC Secretariat.

IFAC PROCEEDINGS

A Link between Science and Applications of Automatic Control:

Proceedings of the 7th Triennial World Congress of IFAC, (Helsinki, Finland, June 1978).

Editor: A. Niemi, Helsinki University of Technology, Finland

Co-Editors: B. Wahlstrom, Technical Research Centre of Finland, Espoo, Finland and J. Virkunnen, Helsinki, University of Technology, Finland

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Vol. 1 0 08 022436 9	\$152.00	£76.00
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4 Vols. 0 08 022414 8	\$500.00	£250.00
Vol 1 - 846 pp	Vol 3 - 744 pp	
Vol 2 - 840 pp	Vol 4 - 372 pp	

Over 3500 Literature References.

Contents (partial): Approximately 300 papers, including: electric systems; thermal metallurgical industries; paper plants; chemical processes; heating systems; cars and engines; computer systems; clinical health care; safety; software; microprocessors; reliability; optimum guidance and control methods; transportation; stochastic, environmental and urban systems; thermal plants (including nuclear).

Systems Approach for Development: Proceedings of the IFAC Conference, (Cairo, A.R.E., November 1977)

Editor: M. A. R. Ghonaimy

0 08 022017 7	\$90.00	£45.00
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658 pages, 629 Literature References

The needs and problems of developing countries and the ways in which science and technology can aid development are the topics discussed in this volume. Special emphasis is given to problems in the following areas: infrastructure in developing countries; energy problems (resources, reserves, management etc.).

Contents: Methodology; management and planning; education and transfer of technology; industrial applications; energy; power systems; transportation and communication systems; urban systems and housing; water resource systems; agriculture and food; health care systems; pollution and environmental systems; socioeconomic models.

Both proceedings available from: Pergamon Press, Headington Hill Hall, Oxford OX3 0BW, U.K.

NON-IFAC ACTIVITIES

Systems Science VI International Conference on Systems Science, (Wroclaw, Poland, September 10-13, 1979)

Organized by: Institute of Engineering Cybernetics and Polish Committee of Measurement and Automation

Topics: Systems theory, mathematical models, theory of transport systems; system identification, modelling, and simulation; system optimization; large scale control systems; applications of systems theory to economy and technology, management systems, and biological systems.

Conference Language: English

Additional Information: The International Conference Systems Science VI will be held directly after the 9th IFIP Conference on Optimization Techniques (Warsaw, Poland, September 4-9, 1979). In connection with this the participants of the IFIP Conference will have the opportunity of participating in the Systems Science VI Conference.

Further information from:

Institute of Engineering Cybernetics
Technical University of Wroclaw
Janiszewskiego st. 11/17
50-370 Wroclaw, Poland

Application of Statistical Methods in Measurement

Proceedings of the Symposium organized by the IMEKO Technical Committee on Measurement Theory - TC7 in Leningrad from 16 to 19 May, 1978.

Measurement of Probability Characteristics of Random Processes.

Statistical Methods for the Determination of Metrological Characteristics.

43 papers, 414 pages for U.S. \$25.

To be ordered from the

IMEKO Secretariat
1371 Budapest 5
POB 457, Hungary