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#### PREFACE

These Proceedings are based on the papers presented at the 5th IFIP Conference on Optimization Techniques held in Rome, May 7-11, 1973. The Conference was sponsored by the IFIP Technical Committee on Optimization (TC-7) and by the Consiglio Nazionale delle Ricerche (Italian National Research Council).

The Conference was devoted to recent advances in optimization techniques and their application to modelling, identification and control of large systems.

Major emphasis of the Conference was on the most recent application areas, including: Environmental Systems, Socio-economic Systems, Biological Systems.

An interesting feature of the Conference was the participation of specialists both in control theory and in the field of application of systems engineering.

The Proceedings are divided into two volumes. In the first are collected the papers in which the methodological aspects are emphasized; in the second those dealing with various application areas.

The International Program Committee of the Conference consisted of:
R. Conti, A. Ruberti (Italy) Chairmen, Fe de Veubeke (Belgium), E. Goto (Japan),
W. J. Karplus (USA), J. L. Lions (France), G. Marchuk (USSR), C. Olech (Poland),
L. S. Pontryagin (USSR), E. Rofman (Argentina), J. Stoer (FRG), J. H. Westcott (UK).

Previously published optimization conferences:

Colloquium on Methods of Optimization. Held in Novosibirsk/USSR, June 1968. (Lecture Notes in Mathematics, Vol. 112)

Symposium on Optimization. Held in Nice, June 1969. (Lecture Notes in Mathematics, Vol. 132)

Computing Methods in Optimization Problems. Held in San Remo, September 1968. (Lecture Notes in Operation Research and Mathematical Economics, Vol. 14)

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