***** A. Bensoussan and J.L. Lions (eds)**

CONTROL THEORY, NUMERICAL METHODS AND COMPUTER SYSTEM MODELLING

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The work comprises the papers presented at the International Conference on Control Theory, Numerical Methods and Computer System Modelling organized by IRIA-LABORIA with the support of IFIP and of the European Institute for Advanced Studies in Management.

The papers are distributed on several main subjects, such as: filter theory, game theory, control of stochastic systems with distributed parameters and random fields, stochastic control, problems in discrete time and numerical methods, control of systems with distributed parameters, control of jump processes and applications to computer modelling, problems without boundary conditions and control theory, applications of control theory in economy, in the control of industrial processes and in the recognition of forms.

Worth mentioning among the 50 works included in the volume, all of a high scientific standard, are some belonging to specialists, such as A. V. Balakrishnan (Identification and stochastic control of a class of distributed systems with boundary noise), R. T. Rockafellar (On the equivalence of multistage recourse models in stochastic optimization), A. Bonsoussan and J. L. Lions (Problèmes de temps d'arrêt optimaux et de perturbations singulieres dans les inéquations variationnelles), P. Varaya (Filtering and control of jump processes), etc.

Also worth mentioning are some of the applications of control theory in solving the economic problems. Thus the paper "Supply and demand relationships in fisheries management" by C. W. Clark proposes an interesting model of dynamic optimization for the management of the fishing industry while the paper "Commande stochastique d'un systeme de stockage" by G. Bornard and J. F. Cavassilas, setting out from a problem of stock management, proposes two methods for solving it, a probabilistic one and the other based on simulation.

The work is useful to those concerned with the control theory, offering a complete image of the progress scored in this field.

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