Progress in Systems and Control Theory

Robust Control of Linear Systems and Nonlinear Control

Proceedings of the International Symposium MTNS-89, Volume II

M.A. Kaashoek J.H. van Schuppen A.C.M. Ran Editors

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Preface

This volume is the second of the three volume publication containing the proceedings of the 1989 International Symposium on the Mathematical Theory of Networks and Systems (MTNS-89), which was held in Amsterdam, The Netherlands, June 19-23, 1989

The International Symposia MTNS focus attention on problems from system and control theory, circuit theory and signal processing, which, in general, require application of sophisticated mathematical tools, such as from function and operator theory, linear algebra and matrix theory, differential and algebraic geometry. The interaction between advanced mathematical methods and practical engineering problems of circuits, systems and control, which is typical for MTNS, turns out to be most effective and is, as these proceedings show, a continuing source of exciting advances.

The second volume contains invited papers and a large selection of other symposium presentations in the vast area of robust and nonlinear control. Modern developments in robust control and H-infinity theory, for finite as well as for infinite dimensional systems, are presented. A large part of the volume is devoted to nonlinear control. Special attention is paid to problems in robotics. Also the general theory of nonlinear and infinite dimensional systems is discussed. A couple of papers deal with problems of stochastic control and filtering.

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The titles of the two other volumes are: Realization and Modelling in System Theory (volume 1) and Signal Processing, Scattering and Operator Theory, and Numerical Methods (volume 3).

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Amsterdam February 1990

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