Contents

Preface		*iii*
Contributors		*ix*
1.	**Continued Fraction Solutions of Matrix Riccati Equation** *P. Achutan and R. Rangarajan*	1
2.	**Semigroup Theory and Control Theory** *A. V. Balakrishnan*	11
3.	**Robust Control of an Unstable Continuous Bioreactor** *Jayadeva Bhat, M. Chidambaram and K. P. Madhavan*	21
4.	**Gradient Based Interpretation of Two Stochastic Approximation Methods and Their Modifications** *R. K. P. Bhatt*	29
5.	**Applied Problems of Recursive Filtering and System Identification** *Josif A. Boguslavsky*	41
6.	**A Modified Self-Tuner for Controlled Diffusions with an Unknown Parameter** *Vivek S. Borkar*	57
7.	**Some Results on Boundary Periodic Control Problems** *Giuseppe Da Prato*	69
8.	**Linear Control Synthesis and Infinite Linear Programming** *Girish Deodhare and M. Vidyasagar*	87
9.	**A Representation Theorem for Radon-Nikodym Derivatives in the White-Noise Theory** *A. De Santis, A. Gandolfi, A. Germani, P. Tardelli*	109
10.	**The Geometry of Nonlinear Control Systems** *David L. Elliott*	125
11.	**Observability of a Class of Nonlinear Abstract Systems** *Raju K. George*	143
12.	**Stability of Stochastic Differential Equations in a Banach Space** *T. E. Govindan*	161

13. **An Introduction to White Noise Analysis and Nonlinear Filtering** 173
G. Kallianpur and R. L. Karandikar

14. **Stable Behavior and Stabilizing Supervisor for Discrete Event Dynamical Systems** 185
Ratnesh Kumar, Vijay Garg and Steven I. Marcus

15. **Solution of the Standard H_∞ Optimal Control Problem by Two Polynomial J-Spectral Factorizations** 205
Huibert Kwakernaak

16. **Practical Stabilization of Control Systems** 209
V. Lakshmikantham

17. **Pole Assignment Using Output Feedback** 225
B. K. Lande and S. D. Agashe

18. **Uniform Boundary Stabilization of Semilinear Wave Equation with Nonlinear Boundary Damping** 233
I. Lasiecka and D. Tataru

19. **On an Abnormal Optimal Control Problem** 255
U. Ledzewicz-Kowalewska

20. **Nonlinear Adaptive Control in Immunology and Cancer** 269
R. R. Mohler and K. S. Lee

21. **On the Stabilizable Dynamic Output Feedback Controller** 283
Satyabrata Pradhan and M. Seetharama Bhat

22. **Matrix Polynomials—A New Tool in Linear System Theory** 293
Ashok Rao and S. D. Agashe

23. **The Attainable Set in Control Systems** 307
Emilio O. Roxin

24. **Multiple Model Matching and Control System Design** 321
G. R. Sivaramakumar and K. Rajgopal

25. **On Interior Point Methods for Solving Linear Programs and Their Complexity** 337
J. Stoer

26. **Approximate Controllability of Semilinear Control Systems with Growing Nonlinearity** 353
N. Sukavanam

27. **New Developments in the Identification and Control of Structural and Mechanical Systems** 359
Firdaus E. Udwadia

28. **Terminal Guidance for a Launch Vehicle** 381
R. Vijaya Vittal and M. Seetharama Bhat

29. **On Stable Matrix Linear Fractional Transformations** 399
Weiyong Yan and John B. Moore

Index *417*