# Contents

## Part I Optimization and Control Theory

**Some Recent Developments in Systems and Control Theory on Infinite Dimensional Banach Spaces: Part 1**
N. U. Ahmed  
Page 3

**Some Recent Developments in Systems and Control Theory on Infinite Dimensional Banach Space: Part 2**
N. U. Ahmed  
Page 25

**A Class of History-Dependent Inclusions with Applications to Contact Problems**
Stanisław Migórski, Anna Ochal and Mircea Sofonea  
Page 45

**On the Number of Solutions Generated by the Simplex Method for LP**
Tomonari Kitahara and Shinji Mizuno  
Page 75

**Use of Approximations of Hamilton-Jacobi-Bellman Inequality for Solving Periodic Optimization Problems**
Vladimir Gaitsgory and Ludmila Manic  
Page 91

**On Proper Efficiency in Multiobjective Semi-infinite Optimization**
Francisco Guerra-Vázquez and Jan-J. Rückmann  
Page 115

**Using Penalty in Mathematical Decomposition for Production-Planning to Accommodate Clearing Function Constraints of Capacity**
Raimundo J. B. de Sampaio, Rafael R. G. Wollmann, Jin Yun Yuan and Fábio Favaretto  
Page 137
Part II Techniques and Applications

Minimum Time Synchronization of Chaotic Systems via Numerical Optimal Control Techniques .......................................................... 153
Honglei Xu, Guanglu Zhou and Louis Caccetta

The Uncorrelated and Discriminant Colour Space for Facial Expression Recognition ................................................................. 167
Mingliang Xue, Wanquan Liu and Ling Li

Admissibility Analyses for Dynamic Input–Output Economic Models with Multiple Delays ................................................................. 179
Yongyun Shao, Xiaodong Liu, Xin Sun and Yan Feng

Content Based Image Retrieval Using Local Directional Pattern and Color Histogram ................................................................. 197
Juxiang Zhou, Tianwei Xu and Wei Gao

Time-Minimal Orbital Transfers to Temporarily-Captured Natural Earth Satellites ................................................................. 213
Monique Chyba, Mikael Granvik, Robert Jedicke, Geoff Patterson, Gautier Picot and Jeremie Vaubaillon

A Chaotic Particle Swarm Optimization Exploiting Snap-Back Repellers of a Perturbation-Based System ........................................ 237
Satoshi Nakashima, Takeru Ibuki, Keiji Tatsumi and Tetsuzo Tanino

Modeling and Analysis of the Cyber Infrastructure for Vehicle Route Optimization ................................................................. 255
Mingyong Lai, Hongming Yang, Songping Yang, Junhua Zhao and Yan Xu
Optimization and Control Techniques and Applications
Xu, H.; Teo, K.L.; Zhang, Y. (Eds.)
2014, VIII, 269 p. 41 illus., 28 illus. in color., Hardcover
ISBN: 978-3-662-43403-1