

# Contents

<b>Part 1 Plenary Addresses</b>	<b>1</b>
Habitual Domains: Stealth Software for Effective Decision Making <i>Herbert Moskowitz and Po-Lung Yu</i>	3
Bringing MCDM to the Forefront of Management Practice <i>Stanley Zionts</i>	18
<b>Part 2 Preference Modeling</b>	<b>29</b>
Discrete Decision Problems, Multiple Criteria Optimization Classes and Lexicographic Max-Ordering <i>Matthias Ehrgott</i>	31
Exploitation of a Rough Approximation of the Outranking Relation in Multicriteria Choice and Ranking <i>Salvatore Greco, Benedetto Matarazzo, Roman Slowinski and Alexis Tsoukias</i>	45
An Algorithm for Solving Intransitivities without Repeating Trials <i>Jacinto González-Pachon and M<sup>a</sup> Isabel Rodríguez-Galiano</i>	61
The Approach to Multicriteria Decision Making Based on Pattern Recognition Algorithms <i>Anna Perekhod</i>	68
Decision Analysis under Partial Information <i>Vladislav V. Podinovski and Victor V. Podinovski</i>	75
<b>Part 3 Methodologies of MCDA</b>	<b>85</b>
Interval Judgements in the Analytic Hierarchy Process: A Statistical Perspective <i>Linda M. Haines</i>	87
The Stability of AHP Rankings in the Presence of Stochastic Paired Comparisons <i>Antonie Stam and A. Pedro Duarte Silva</i>	96

Convergence of Interactive Procedures of Multiobjective Optimization and Decision Support <i>Andrzej P. Wierzbicki</i>	106
Fuzzy Parameters Multiobjective Linear Programming Problem: Solution Analysis <i>Mar Arenas, Amelia Bilbao, M. Victoria Rodríguez and Mariano Jiménez</i>	128
The Static Approach to Quadratic Dynamic Goal Programming <i>Francisco Ruiz, Rafael Caballero, Trinidad Gómez, Mercedes González and Lourdes Rey</i>	138
Stochastic Simulation in Risk Analysis of Energy Trade <i>Simo Makkonen and Risto Lahdelma</i>	149
<b>Part 4 Negotiation and Group Decision Support</b>	<b>161</b>
Modeling Negotiations in Group Decision Support Systems <i>N.I. Karacapilidis, D. Papadias and C.P. Pappis</i>	163
Modelling Multi-Issue Negotiation <i>May Tajima and Niall M. Fraser</i>	177
Influence in Group Decision Making <i>Geoff Lockett, Peter Naudé and Gerd Islei</i>	187
Monotonicity of Power Indices <i>František Turnovec</i>	199
Fairness and Equity via Concepts of Multi-Criteria Decision Analysis <i>F.A. Lootsma, R. Ramanathan and H. Schuijt</i>	215
<b>Part 5 Systems Thinking and Philosophical Issues</b>	<b>227</b>
Structuring and Weighting Criteria in Multi Criteria Decision Making (MCDM) <i>Cathal M. Brugha</i>	229
The Analytic Hierarchy Process and Systems Thinking <i>D. Petkov and O. Mihova-Petkova</i>	243

The Analytic Hierarchy Process and Systems Thinking: A Response to Petkov & Mihova-Petkova <i>Denis Edgar-Nevill and Michael Jackson</i>	253
Interpretative Structural Modelling: Decision Making and the Method of Science <i>Tom Ryan</i>	261
A New Conflict-Based Redundancy Measure <i>Per J. Agrell</i>	272
<b>Part 6 MCDA in Environmental and Natural Resource Management</b>	<b>283</b>
Comparing Contingent Valuation, Conjoint Analysis and Decision Panels: An Application to the Valuation of Reduced Damages from Air Pollution in Norway <i>Bente Halvorsen, Jon Strand, Kjartan Sælensminde and Fred Wenstøp</i>	285
The Use of MCDM to Evaluate Trade-offs Between Spatial Objectives <i>Marjan van Herwijnen and Ron Janssen</i>	303
Interactive Decision Maps, with an Example Illustrating Ocean Waste Management Decisions <i>A. Lotov, O. Chernykh, V. Bushenkov, Hannele Wallenius and Jyrki Wallenius</i>	313
Second-Generation Interactive Multi-Criteria Decision Making in Reservoir Management <i>Per J. Agrell, Antonie Stam and Barbara J. Lence</i>	324
Carbon Sequestration and Timber Production: A Bi-Criteria Optimisation Problem <i>Valeria Ríos, Luis Díaz-Balteiro and Carlos Romero</i>	336
<b>Part 7 General Applications of MCDA</b>	<b>345</b>
Integrated MCDA: A Simulation Case Study <i>Valerie Belton and Mark Elder</i>	347
Viewing a Plant Layout Problem as a Multiobjective Case to Enhance Manufacturing Flexibility <i>H.T. Phong and M.T. Tabucanon</i>	360

Judgmental Modelling as a Benchmarking Tool: A Case Study in the Chemical Industry <i>Pete Naudé</i>	377
Spatial Conflicts in Transport Policies: Structuring the Analysis for Large Infrastructure Projects <i>Euro Beinat</i>	390
Congestion Modeling and Multi-Criteria Smoothing Heuristics <i>Sydney C.K. Chu</i>	400
A Real-World MCDA Application in Cellular Telephony Systems <i>Carlos A. Bana e Costa, Leonardo Ensslin and Italo J. Zanella</i>	412
Interactive MCDM Support System in the Internet <i>Kaisa Miettinen and Marko M. Mäkelä</i>	424
Using AHP for Textbook Selection <i>H. Roland Weistroffer and Lynda Hodgson</i>	434
<b>Acknowledgement to Referees</b>	<b>448</b>