

CONTENTS

I.	INTRODUCTORY LECTURE	1
Interactive Decision Analysis and Interpretative Computer Intelligence <i>A. Wierzbicki</i>		2
II.	APPROACHES AND CONCEPTS IN INTERACTIVE DECISION ANALYSIS	21
DIDASS - Theory, Implementation and Experiences <i>M. Grauer, A. Lewandowski and A. Wierzbicki</i>		22
Handling Conflicts in Fuzzy Multiple-Criteria Optimization <i>C. Carlsson</i>		31
A Game-Theoretic Approach for Multicriteria Decision Making <i>F. Forgó</i>		41
The Systems Approach and Contingency View in Managerial Behavior and Management Organization <i>N. Sugihara and M. Ichikawa</i>		47
Recent Developments in our Approach to Multiple-Criteria Decision Making <i>S. Zionts and J. Wallenius</i>		54
Interactive Structure Design and Simulation of Nonlinear Systems from a Multiobjective Viewpoint Using the Lotka-Volterra Approach <i>M. Peschel and F. Breitenecker</i>		63
Hierarchical Model-Oriented System Organization <i>V. Mazurik</i>		77
III.	METHODS AND TECHNIQUES FOR INTERACTIVE DECISION ANALYSIS	83
Dual Relaxation and Branch-and-Bound Techniques for Multi-objective Optimization <i>P. Serafini</i>		84
Levitin-Miljutin-Osmolovskii Conditions for Local Pareto Optimality <i>M. Vlach</i>		91
Fuzzy Assessment of Multiattribute Utility Functions <i>F. Seo and M. Sakawa</i>		97
Interactive Fuzzy Decision Making for Multiobjective Nonlinear Programming Problems <i>M. Sakawa</i>		105
Satisficing Trade-Off Method for Multiobjective Programming <i>H. Nakayama and Y. Sawaragi</i>		113
On Dialogue Algorithms for Linear and Nonlinear Vector Optimization from the Point of View of Parametric Programming <i>J. Guddat and K. Wendler</i>		123
Operating Considerations Pertaining to the Interactive Weighted Tchebycheff Procedure <i>R.E. Steuer</i>		132
A Posteriori Trade-Off Analysis in Reference Point Approaches <i>E.E. Bischoff</i>		139

A Visual Interactive Method for Solving the Multiple-Criteria Problem <i>P. Korhonen and J. Laakso</i>	146
On the Implementation of the Interactive Surrogate Worth Trade-Off (ISWT) Method <i>K. Tarvainen</i>	154
IV. APPLICATIONS OF INTERACTIVE DECISION ANALYSIS 163	
Multicriteria Decision Analysis to Aid Budget Allocation <i>K. Légrády, F.A. Lootsma, J. Meissner and F. Schellemans</i>	164
Investment and Financial Planning in a General Partnership <i>H. Isermann</i>	175
A Multiobjective Expert System for Suppliers of Out-of-the-Money Options <i>J.N. Morse</i>	186
A Multiple-Layer Model for Economic-Environmental-Energy Policy Analysis <i>W. Hafkamp and P. Nijkamp</i>	193
Simulation of an Interactive Method Supporting Collective Decision Making Using a Regional Development Model <i>Z. Fortuna and L. Krus</i>	202
A Multiobjective Observation Network Design Procedure and its Application in Hydrology and Mining <i>F. Szidarovszky</i>	210
Analysis of Regional Water Policies in Open-Cast Mining Areas - A Multicriteria Approach <i>S. Kaden</i>	218
Decision Support via Simulation for a Multipurpose Hydro-energetic System <i>F. Breitenecker and A. Schmid</i>	227
Multiobjective Analysis of Forestry Management Models Using the Generalized Reachable Set Method <i>A.V. Lotov and H.M. Stolyarova</i>	236
A Multiobjective Procedure for Project Formulation - Design of a Chemical Installation <i>H. Górecki, J. Kopytowski, T. Rys, and M. Żebrowski</i>	248
APPENDICES	261
Workshop Program	262
List of Contributors	265