Industriemathematik und Angewandte Mathematik

Karl-Heinz Küfer Heinrich Rommelfanger Christiane Tammer Kristin Winkler (Eds.)

Multicriteria Decision Making and Fuzzy Systems

Theory, Methods and Applications

Shaker Verlag Aachen 2006

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at http://dnb.d-nb.de.

Copyright Shaker Verlag 2006

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publishers.

Printed in Germany.

ISBN-10: 3-8322-5540-0 ISBN-13: 978-3-8322-5540-4 ISSN 1615-6390

Shaker Verlag GmbH • P.O. BOX 101818 • D-52018 Aachen Phone: 0049/2407/9596-0 • Telefax: 0049/2407/9596-9

Internet: www.shaker.de • e-mail: info@shaker.de

Multicriteria Decision Making and Fuzzy Systems are rapidly growing fields of management, engineering and other areas. Bringing together theory and applications, the German Working Group on Decision Theory and Practice within the Gesellschaft für Operations Research (GOR) organizes a workshop every year. In 2006 the meeting was managed in cooperation with the German Working Group on Fuzzy Systems, Neural Networks and Artificial Intelligence. More than thirty persons attended the workshop, which took place from March 6th to March 7th at the Fraunhofer Institut für Technound Wirtschaftsmathematik in Kaiserslautern. The participants came from universities, research institutes and companies in Germany and from abroad.

The concept of bringing together two working groups and their corresponding members in a single event turned out to be successful. It combines specific research with ideas from other fields. Taking into account the discussion during the workshop, some problems form fields for joint work within the scope of interdisciplinary projects.

The topics discussed during the workshop reflect the latest results concerning theory, methodology and applications of Multicriteria Decision Making and Fuzzy Systems. The contents of the lectures can be found slightly changed in these proceedings.

This book will hopefully contribute to the advancement of Multicriteria Decision Making and Fuzzy Systems in theory, methods and applications. It should serve as a valuable reference for both scientists and practitioners who are looking for authoritative discussions of current results and for new topics of study.