

# **Lecture Notes in Business Information Processing**

**277**

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# Information Technology for Management

New Ideas and Real Solutions

14th Conference, AITM 2016  
and 11th Conference, ISM 2016, held as Part of FedCSIS  
Gdansk, Poland, September 11–14, 2016  
Revised Selected Papers

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ISSN 1865-1348                      ISSN 1865-1356 (electronic)  
Lecture Notes in Business Information Processing  
ISBN 978-3-319-53075-8              ISBN 978-3-319-53076-5 (eBook)  
DOI 10.1007/978-3-319-53076-5

Library of Congress Control Number: 2016963601

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Printed on acid-free paper

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The registered company is Springer International Publishing AG  
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

# Preface

The first edition of this book appeared in 2016 under the title *Information Technology for Management* (LNBIP 243). Given the rapid developments in information technology and its applications for improving management, there was a clear need for an updated version.

The present book includes extended and revised versions of selected papers submitted to the 11th Conference on Information Systems Management (ISM 2016) and the 14th Conference on Advanced Information Technologies for Management (AITM 2016) held in Gdańsk, Poland, during September 13–16, 2016. These conferences were organized within Federated Conference on Computer Science and Information Systems (FedCSIS 2016).

FedCSIS provides a platform for bringing together researchers, practitioners, and academics to present and discuss ideas, challenges, and potential solutions on established or emerging topics related to research and practice in computer science and information systems. Since 2012, the proceedings of the FedCSIS conferences are indexed in the Thomson Reuters Web of Science. In addition, FedCSIS full and short papers are included in the IEEE Xplore Digital Library.

ISM is a forum for computer scientists, IT specialist, and business people to exchange ideas on management of information systems in organizations and the usage of information systems for enhancing the decision-making process and empowering managers. It concentrates on various issues of planning, organizing, resourcing, coordinating, controlling, and leading the management functions to ensure a smooth operation of information systems in organizations.

AITM is a forum for all in the field of business informatics to present and discuss the current issues of IT in business applications. It is mainly focused on business process management, enterprise information systems, business intelligence methods and tools, decision support systems and data mining, intelligence and mobile IT, cloud computing, SOA, agent-based systems, and business-oriented ontologies.

ISM 2016 and AITM 2016 received 51 papers from 13 countries in all continents. From these, after a review process, only 15 papers were accepted as full papers and ten as short papers. Twelve papers of the highest quality as ranked by the Program Committee were chosen and the authors were invited to extend their papers and submit them for consideration to the LNBIP publication. Our guiding criterion for including papers in the book was the excellence of publications indicated by the reviewers, the relevance of subject matter for the economy, and promising results. The selected papers reflect state-of-art research work that is often oriented toward real-world applications and highlight the benefits of information systems and technology for business and public administration, thus forming a bridge between theory and practice.

This book provides a comprehensive overview of current research in the field of information technology for management. Its first two parts focus on information technology and information systems for knowledge management and business

transformation. The third part of this book presents research on implementation and evaluation of information systems.

Finally, the authors and I hope readers will find the content of this book useful and interesting for their own research activities. It is in this spirit and conviction we offer our monograph, which is the result of the intellectual effort of the authors, for the final judgment of the readers. We are open to discussion on the issues raised in this book, and we look forward to the polemical voices as to the content and form.

February 2017

Ewa Ziemia

# Acknowledgments

I would like to take this opportunity to express my gratitude to all those who contributed to the ISM 2016 and AITM 2016 research events. First of all, the authors, whose quality work was the essence of the conference, and the members of the Program Committee, who helped us with their expertise and diligence in reviewing the papers. I am deeply grateful to the program chairs of ISM 2016 and AITM 2016, namely, Witold Chmielarz, Helena Dudycz, and Jerzy Korczak, for their extensive organizational involvement in the conferences and the evaluation of papers. I acknowledge the chairs of the FedCSIS 2016, i.e., Maria Ganzha, Leszek A. Maciaszek, and Marcin Paprzycki for putting a lot of effort into organizing the big and excellent research event. Their work and commitment were invaluable. I extend my heartfelt thanks to Ralf Gerstner and Alfred Hofmann from Springer without whom this book would not come into being.

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