

INFORMATYKA EKONOMICZNA

BUSINESS INFORMATICS

3 (53)•2019

SCIENTIFIC COUNCIL

Frederic Andres (National Institute of Informatics, Japan)
Dimitar Christozov (American University in Bulgaria, Bulgaria)
Jerzy Gołuchowski (University of Economics in Katowice, Poland)
André Ludwig (Kühne Logistics University, Hamburg, Germany)
Eunika Mercier-Laurent (Jean Moulin – Lyon 3 University, France)
Małgorzata Nycz-Łukaszewska (Wrocław University of Economics, Poland)
Peter Stanchev (Kettering University, Flint, Michigan, United States)
Rainer Unland (Institut für Informatik und Wirtschaftsinformatik (ICB),
Essen, Germany)
Jan Vanthienen (Université Catholique de Louvain, Belgium)

EDITORIAL COMMITTEE

Małgorzata Nycz-Łukaszewska – Editor-in-Chief
Andrzej Bąk
Andrzej Bytniewski
Helena Dudycz
Bogdan Franczyk
Leszek Maciaszek
Mieczysław L. Owoc
Kazimierz Perechuda
Iwona Chomiak-Orsa – Managing Editor
iwona.chomiak@ue.wroc.pl
+48 71 36 80 323

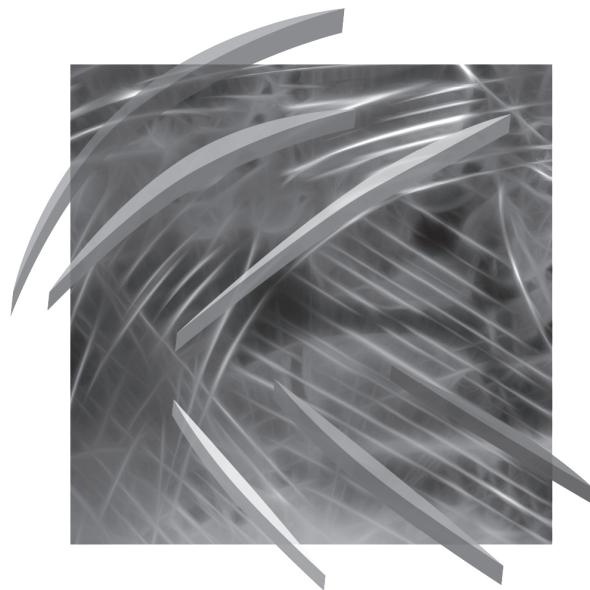
SUBJECT EDITOR

Joanna Sadłowska-Wrzesińska

INFORMATYKA EKONOMICZNA

BUSINESS INFORMATICS

3 (53) • 2019



Publishing House of Wrocław University of Economics
Wrocław 2019

Copy-editing: Elżbieta Macauley, Tim Macauley, Aleksandra Śliwka

Layout: Barbara Łopusiewicz

Proof-reading: Rafał Galos

Typesetting: Beata Mazur

Cover design: Beata Dębska

Information on submitting and reviewing papers is available on websites

www.wydawnictwo.ue.wroc.pl

www.businessinformatics.ue.wroc.pl

The publication is distributed under the Creative Commons Attribution 3.0 Poland

Attribution-NonCommercial-NoDerivs

(CC BY-NC-ND 3.0 PL)



ISSN 1507-3858

e-ISSN 2450-0003

The original version: printed

Publication may be ordered in Publishing House:

Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu

ul. Komandorska 118/120, 53-345 Wrocław

tel. 71 36-80-602; e-mail: econbook@ue.wroc.pl

www.ksiegarnia.ue.wroc.pl; ksiegarnienaukowe.pl

Printing: TOTEM

Contents

Preface	7
Małgorzata Bienias, Kinga Czerniak, Tomasz Ewertowski: Preparation of an enterprise for emergency situations and their better communication / Przygotowanie przedsiębiorstwa produkcyjnego na sytuacje awaryjne i lepsza komunikacja dotycząca sytuacji awaryjnych w przedsiębiorstwie	9
Józef Gruszka: Cost of quality assessment as IT system input for product quality analysis / Rachunek kosztów jakości jako źródło systemu informacyjnego do analiz jakości wyrobu	23
Joanna Majchrzak, Ewa Więcek-Janka: Application of grey systems theory in the analysis of relationships between family enterprise communication and their market attitude / Zastosowanie Teorii Szarych Systemów w analizie relacji między komunikacją a postawą rynkową przedsiębiorstw rodzinnych	30
Irena Pawłyszyn: Symbiosis between the Lean Manufacturing concept and progressive informatization / Symbioza koncepcji <i>Lean Manufacturing</i> z postępującą informatyzacją	49
Elżbieta Racek, Józef Gruszka: The use of IT tools in the accident investigation and analysis process based on the example of foundries / Wykorzystanie narzędzi informatycznych w procesie badania i analizy wypadkowości na przykładzie odlewni	62
Katarzyna Ragin-Skorecka, Sylwia Frankiewicz: Analysis of a selected logistic model online store / Analiza wybranego modelu logistycznego sklepu internetowego	74
Katarzyna Ragin-Skorecka, Agnieszka Stachowiak, Hubert Wojciechowski, Marek Fertsch: Congestion in historical city centres – discussion on phenomena and analysis with network thinking methodology and grey sets theory / Kongestia w historycznych dzielnicach Poznania – charakterystyka zjawiska z wykorzystaniem metodyki myślenia sieciowego i zbiorów szarych	86

Preface

In the modern world, where information and knowledge are key resources, the process of computerization is the basis for the development of societies within modern forms of management. This is related to the dynamic development of technologies that enable rapid information transfer and data analysis. Computerization also influences the economic dimension of sustainable development – on a macro scale, it increases the rate of economic growth by improving the efficiency of the economy; on the level of enterprises, it facilitates the management of customer relations and shortens the time of information flow, supports decision-making and provides the opportunity to increase the range of activities. Moreover, enterprises can control their information processes, which significantly improves their functioning, becoming an element of broadly understood competitiveness.

In this issue of *Business Informatics* very interesting works were presented by both young researchers and experienced academics. They familiarize the reader with the processes of computerization occurring in the business and their environment in a comprehensive way. The topics presented cover the scope of management engineering and include the development, modification, implementation and maintenance of effective technical and organizational solutions using interdisciplinary knowledge, including information and communication technologies. The authors analyse both original and current problems. The observation and conclusion from all the presented articles is that the use of modern information and communication solutions is possible by correlating the computerization strategy with the development strategies of the organization as a whole.

Wishing you a good read

Joanna Sadłowska-Wrzesińska