BUSINESS INFORMATICS

INFORMATYKA EKONOMICZNA

2 (60) • 2021

EDITORIAL BOARD

Parag Amin (SIES College of Management Studies, India)
Frederic Andres (National Institute of Informatics, Japan)
Pastor Arguelles (University of Perpetual Help System DALTA, Philipines)
Anuja Arora (Jaypee Institute of Information Technology, India)
Samarjeet Borah (Sikkim Manipal Institute of Technology, Sikkim Manipal University, India)
Adriana Burlea-Schiopoiu (University of Craiova, Romania)
Iwona Chomiak-Orsa (Wroclaw University of Economics and Business, Poland)
Dimitar Christozov (American University in Bulgaria, Bulgaria)
Kyeur Darji (Gujarat Technological University, India)
Nilanjan Dey (JIS University, India)
Nitul Dutta (Marwadi University, India)
Soumi Dutta (Institute of Engineering & Management, India)
Ahmed Elngar (Beni-Suef University, Egypt)
Jerzy Gołuchowski (University of Economics in Katowice, Poland)
Deepak Gupta (Maharaja Agrasen Institute of Technology, India)
Md Asdul Islam (Swinburne University of Technology (Sarawak Campus), Malaysia)
S. O. Junare (National Forensic Sciences University, Gandhinagar Campus, India)
Sandeep Kautish (LBEF Campus, Nepal)
Rajesh Khajuria (Indian Quality Assurance Council, India)
Ashish Khanna (Maharaja Agrasen Institute of Technology, India)
André Ludwig (Kühne Logistics University, Hamburg, Germany)
Pradeep Kumar Mallick (KIIT University, India)
Amit Kumar Manocha (Maharaja Ranjit Singh Punjab Technical University, India)
Natalia Marinova (D. Tsenov Academy of Economics, Bulgaria)
Eunika Mercier-Laurent (Jean Moulin – Lyon 3 University, France)
Hetal Metha (Swami Sahajanand College of Commerce & Management, India)
Sambit Kumar Mishra (Gandhi Institute for Education and Technology, India)
Harish Mittal (BM Institute of Engineering and Technology, India)
Ipseeta Nanda (K L Deemed to be University, India)
Sunil Pandey (Institute of Technology & Science, India)
Emil Pricop (Petroleum-Gas University of Ploiesti, Romania)
Vijay Singh Rathore (IIS (Deemed to be University), India)
Sameer Rohadia (Freelance IT Specialist, Germany)
Suresh Savani (Maharaja Krishnakumarsinhji Bhavnagar University, India)
Corina Savulescu (University of Pitesti, Romania)
A. K. Sen Gupta (Higher Education Forum, India)
Rajesh Shinde (Swami Ramanand Teerth Marathwada University, India)
Pradeep Kumar Singh (ABES Engineering College, India)
Umang Singh (Institute of Technology & Science, India)
Peter Stanchev (Kettering University, Flint, Michigan, USA)
Marian Taicu (University of Pitesti, Romania)
Reza Tavakkoli-Moghaddam (University of Tehran, Iran)
Rainer Unland (Institut fur Informatik und Wirtschaftsinformatik (ICB), Essen, Germany)
Jan Vanthienen (Université Catholique de Louvain, Belgium)
Dmitry Zaitsev (University of León, Spain)
Marianna Zichar (University of Debrecen, Hungary)

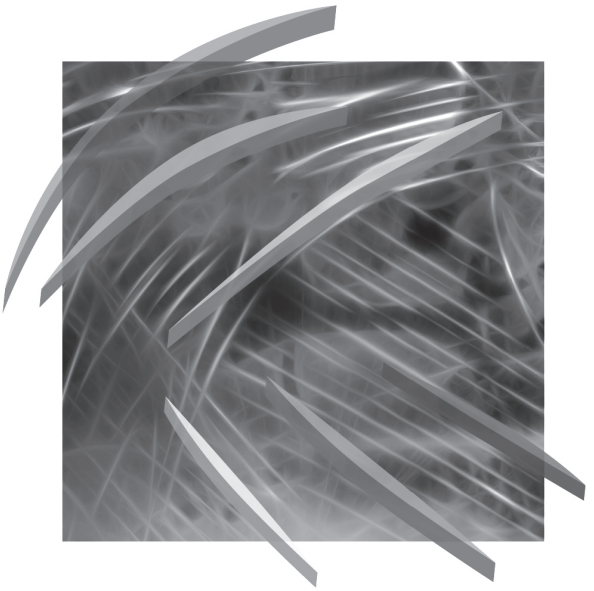
EDITORS
Iwona Chomiak-Orsa – Editor-in-Chief
Zdzisław Pólkowski – Managing Editor
Marcin Hernes
Artur Rot

SUBJECT EDITOR
Iwona Chomiak-Orsa

BUSINESS INFORMATICS

INFORMATYKA EKONOMICZNA

2 (60) • 2021



Publishing House of Wroclaw University of Economics and Business
Wroclaw 2021

Copy-editing: Elżbieta Macauley, Tim Macauley, Rafał Galos

Layout: Barbara Łopusiewicz

Proof-reading: Aleksandra Śliwka

Typesetting: Adam Dębski

Cover design: Beata Dębska

Information on submitting and reviewing papers is available on websites
www.wydawnictwo.ue.wroc.pl
www.businessinformatics.ue.wroc.pl

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License.

To view a copy of this license, visit http://creativecommons.org/licenses/by-sa/4.0/

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

Printing: TOTEM

Spis treści

Introduction VII

Kamila Bartuś: Computer support for Competitive Intelligence / Komputerowe wspomaganie *Competitive Intelligence* 1

Mateusz Bąska: The clustering and segmentation of customers and products in the multi-channel sales of B2B e-commerce trading companies / Klastrowanie i segmentacja klientów i produktów w sprzedaży wielokanałowej firm handlowych działających w e-commerce w segmencie B2B 14

Katarzyna Jasińska, Łukasz Szala: Potential directions for improving production processes in Industry 4.0 conditions based on a Polish furniture enterprise – a case study / Potencjalne kierunki doskonalenia procesów produkcji w warunkach Industry 4.0 na przykładzie polskiego przedsiębiorstwa meblarskiego – *case study* 27

Klaudia Smoląg, Oliwia Ślusarczyk: Communication technologies and internal communication in an organization during the Covid-19 pandemic / Technologie komunikacyjne a komunikacja wewnętrzna w organizacji w czasie pandemii Covid-19 47

Dorota Walentek: Scope and forms of controlling teleworkers / Zakres i formy kontrolowania telepracowników 56

Jacek Zasada: Integration of the production planning and execution process in enterprise management IT systems / Integracja procesu planowania i realizacji produkcji w informatycznych systemach zarządzania przedsiębiorstwem 69

Introduction

The subject of development and implementation of ICT is a source of many scientific considerations. On the other hand, investing in modern ICT solutions is one of the main of organizational improvement directions.

Therefore, the subject of management systems is still current and an important topic of publication. The editors would like to thank the authors for the next articles, thanks to which the magazine is alive and developing.

An extremely valuable feature of the Business Informatics series is the fact that the studies contained in it are the presentations of various views and points of view on the application of modern ICT solutions. Perspectives and views presented by the Authors often allow the Readers to broaden their own reflections related to the created view on the possibilities and directions of application of information and communication technologies in economic practice.

It is also important that not all publications sent for publication meet the formal and substantive requirements. This further increases the significance and value of publications which received double positive reviews and were selected for publication in this issue of Business Informatics.

Currently, as a result of a multistage and strict formal and substantive verification of our journal, approximately 25% of the texts submitted are accepted for publication.

The editors of this issue would like to express their gratitude to all the authors who wanted to share their experiences and opinions. In addition, they would like to thank the reviewers for their insightful and factual assessments of the submitted works.

Iwona Chomiak-Orsa, Zdzisław Pólkowski