Editorial

EDITORIAL:
A word from the new editor

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One day in May 2019, I received an extraordinary request from my Department of Industrial Engineering and Management as to whether I would be interested in discussing the editorship of International Journal of Industrial Engineering and Management (IJIEM). IJIEM has always served researchers and managers in the industry by publishing articles on research and industrial applications, new techniques, and development trends in the field of industrial engineering, manufacturing engineering, and management. This dissemination of information on new and advanced developments in the field of industrial engineering and management is one of the reasons why I feel very happy to take over the editorship. On June 1, 2019, I was officially nominated as an Editor-in-Chief of IJIEM.

This is my first editorial as the new editor of IJIEM.
In this editorial, I present the papers of Volume 11, Issue 1.

The aim and structure of this Issue

This Issue contains six articles covering topics from maintenance management, logistics 4.0, human error, traffic optimization, through a case study on food traceability, and literature review on product-service systems.
Criticality evaluation for supporting daily equipment maintenance management and the definition of medium and long-term maintenance actions to improve equipmentare discussed and illustrated in the article 'Criticality evaluation to support maintenance management of manufacturing systems'. I.S. Lopes, M. C. Figueiredo, and V. Sá introduces two different methods for the critical evaluation of maintenance. The first method is based on rules for defining priorities for corrective and preventive maintenance tasks. The second

method uses the Analytic Hierarchy Process to prioritize equipment based on its performance.

A. Gialos and V. Zeimpekis present evidence from laboratory experiments that evaluate vision picking technology in both accuracy and time efficiency level in the article 'Testing vision picking technology in warehouse operations: Evidence from laboratory experiments'. They adopt the Design of Experiments methodology to examine the impact of four parameters that affect the performance of the system. The results are encouraging, showing the benefits that order pickers may have by adopting the proposed technology.

In the article 'Model of Human Error Probability based on dual-phase approach for learning process in cognitive-oriented tasks', F. Facchini, S. Digiesi, and G. Mummolo introduce the model of human error probability. The proposed model combines the advantages of a dual-phase learning approach with that of multi-attribute utility analysis. Results of numerical simulations show the effectiveness of the model in quantifying, over time, the HEP and in evaluating the human task error proneness by varying the workbreaks schedule.

Traffic optimization normally improves flow conditions at the expense of increased vehicles' emissions. As a contribution to the problems of environmental and congestion impacts of network design, S. Salman and S. Alaswad present 'Mitigating the Impact of Congestion Minimization on Vehicles' Emissions in a Transportation Road Network'. They focus on environmental and congestion impacts of Network Design Problems (NDPs) using the Markov chain traffic assignment approach instead of user equilibrium. The NDP model selectively reverses roads' directions to improve network performance. The model is optimized by simultaneously minimizing maximum traffic density, and total vehicles' emissions cost using non-dominated sorting genetic algorithm.

A new approach for tracking and tracing an extra-virgin olive oil supply chain is applied in the article, 'A framework for food traceability: case study – Italian extra-virgin olive oil supply chain' by R. Guido, G. Mirabelli, E. Palermo, and V. Solina. Starting from the results of a market survey, they propose a traceability model, which increases the perceived value of the product placed on the market and can be easily reused by small enterprises. The paperoutlines some possible future developments, based on the blockchain technology.

The first five articles above cover fundamental models, new theoretical concepts in the field of industrial engineering, manufacturing engineering, and management. The sixth article provides an overview of literature review papers in the areas of product-service systems. In the article 'Product-service systems benefits and barriers: an overview of literature review papers', S. R. Moro, P. A. Cauchick-Miguel, and G.H.S. Mendes present a set of 36 PSS benefits and 24 barriers. They identified future research opportunities that can foster the design and implementation of PSS business models.

UGLJESA MARJANOVIC has earned his PhD degree in Industrial Engineering and Management at the University of Novi Sad, Serbia. He was a postdoctoral researcher in the School of Mathematics, Computer Science & Engineering at City University London. He has also been an Adviser to the Minister of Innovation at the Government of Serbia. Currently, Dr. Marjanovic is an Assistant Professor of the Department of Industrial Engineering and Management at the University of Novi Sad. His research interests include servitization, service business models, innovation (organizational & technology), and technology strategy and management. His preferred research methods are field surveys, interviews and observations, as well as multivariate statistical analysis and structural equation modeling. Dr.Marjanovic is a member of IFIP WG5.7.