



International Scientific Conference
MOTSP 2023
Management of Technology
Step to Sustainable Production
May 31 – June 02, 2023, Zadar, Croatia

ICIL 2023
International Conference on Industrial Logistics
May 31 – June 02, 2023, Hotel Kolovare, Zadar, Croatia

Conference Program

31th May 2023

Wednesday

18:00 – 20:00 Registration and welcome drink

01st June 2023

Thursday

08:00 – 09:00 Registration

09:15 Opening ceremony

MOTSP 2023 ICIL 2023

09:30 – 10:30 **Invited lectures**

Matija Hoić

Faculty of Mechanical Engineering and Naval Architecture University of Zagreb, Croatia

Role of Mechanical Engineering in the Development of the European Fusion Project

Miro Hegedić

Faculty of Mechanical Engineering and Naval Architecture University of Zagreb, Croatia

Deep Tech Ecosystem for Manufacturing and the Role of TLFs

10:30 – 11:00 Coffee break

11:00 – 12:30 **Session A1**

ICIL 2023

Simona Cohen Kadosh, Zilla Sinuany-Stern, Yuval Bitan

Location of Emergency Treatment Sites After Earthquake Using Hybrid Simulation

Andreas Lober, Lisa Ollinger, Sven Voelker, Hartwig Baumgaertel

Towards Logistics 4.0: A Skill-Based OPC UA Communication between WMS and the PLC of an Automated Storage and Retrieval System

U. Aytun Ozturk

Probing the Role of Python and Jupyterlab in Teaching Operations Management

Aurelija Burinskiene, Arunas Burinskas

Modelling Freight Allocation and Transportation Lead-Time

Attila Turi

Just Too Late: Mismatching Issues in Automotive Industry

11:00 – 12:30

Session A2

MOTSP 2023

Bernhard Axmann, Harmoko Harmoko, Rahul Malhotra

The Assessment of Robotic Process Automation Projects with a Portfolio Analysis: 1st step - Evaluation Criteria Identification and Introduction of the Portfolio Concept

Filip Knapp, Michal Šimon

Standardization of Project Management Practices of Automotive Industry Suppliers – Systematic Literature

Tea Bajičová, Ilona Kačerová, Michal Šimon

Estimating costs and benefits of preventive ergonomic measures

Syuan-Cheng Chang, Chung-Ping Chang, Yung-Cheng Wang, Chi-Chieh Chu

Leveling Maintenance Mechanism by Using the Fabry-Perot Interferometer with Machine Learning Technology

Lena Sophie Leitenbauer, Sabrina Romina Sorko, Miriam Lutz

Reducing change resistance: Stakeholder-based approach for Extended Reality (XR) implementations

12:30 – 14:00

Lunch

14:00 – 15:30

Session B1

ICIL 2023

Zoran Kunkera, Ivana Željković, Ratko Mimica, Boris Ljubenkov, Tihomir Opetuk

Development of Augmented Reality Technology Implementation in a Shipbuilding Project Realisation

Ákos Cservenák

Development Possibilities of Controlling System in the Logistics 4.0 Laboratory at the University of Miskolc

Miro Hegedić, Borna Škrlec, Matija Golec, Mihael Gudlin, Petar Gregurić

Development of a Simulation Environment for Mobile Robotics Application in Manufacturing Industry

Ante Klečina, Ljudevit Krpan, Krešimir Buntak, Ivan Cvitković

Creating an Integrated Public Transport Network for Urban Transit in the City of Varaždin

Key-note: Mannisto T., Hintsu J., Raimondi A.

PARSEC Horizon Europe Project – Overview and Goals

14:00 – 15:30

Session B2

MOTSP 2023

Elvis Krulčić, Sandro Doboviček, Dario Matika, Duško Pavletić

Design for Six Sigma Digital Model for Manufacturing Process Design

Zdenka Keran, Amalija Horvatić Novak, Andrej Razumić, Biserka Runje, Petar Piljek
in-Crystal Dislocation Behaviour and Hardness Changes in the Case of Severe Plastic Deformation of Aluminium Samples

Damir Godec, Mario Brozović, Tomislav Breški
[Topologic Optimization of Electric Train Cable Carrier](#)

Uros Župerl, Miha Kovačič
[Artificial Neural Network System for Predicting Cutting Forces in Helical-end Milling of Laser-Deposited Metal Materials](#)

Davor Kolar, Dragutin Lisjak, Martin Curman, Juraj Benic
[Identification of Inability States of Rotating Machinery Subsystems Using Industrial IOT and Convolutional Neural Network – Initial Research](#)

15:30 – 16:00

Poster session

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Maciej Bielecki
[Logistics 4.0: Challenges, Opportunities and Threats](#)

Jadranko Tuta, Erik Bajš, Mirko Ljevar, Diana Božić
[The Influence of the Transport Problem on the Optimization of the Transport Network of Military Logistic Support](#)

Simona Šinko, Brigita Gajšek
[Calculation of the Impact of the Warehouse Management System on the Green Dimension of Warehouse Operations](#)

Szymon Nowaczyk, Marcin Butlewski, Wiktoria Czernecka
[Determinants of the Strategy of Companies in the Transport Industry in the Face of Its Prospects for Autonomization – Human Factor Perspectives](#)

Aljaz Javernik, Robert Ojstersek, Borut Buchmeister
[The Impact of Collaborative Robots on Production Line Efficiency and Sustainability](#)

Hrvoje Cajner, Vid Križanić, Tihomir Opetuk, Maja Trstenjak
[Optimisation of Parameters for Metal Part Cutting on a CNC Plasma Cutting Machine](#)

17:00 – 19:00

Excursion (Zadar city guided tour)

02nd June 2023

Friday

09:00 – 10:30

Session C

ICIL 2023

Gerald Schneikart, Walter Mayrhofer, Josef Frysak, Clemens Löffler
[A Returnable Transport Item to Integrate Logistics 4.0 and Circular Economy in Pharma Supply Chains](#)

Raymond A. Marie
[Operational Availability Prediction for a Fleet of Large Systems; an Approximate Solution](#)

Primož Bencak, Darko Hercog, Tone Lerher
[Object Detection and Graspability Analysis for Robotic Bin-Picking Application in Intralogistics](#)

	<p>Marko Motaln, Tone Lerher Numerical Simulation of Conveying Fine Powders in a Screw Conveyor Using the Discrete Element Method</p>
	<p>Luka Olivari Comparison of Improved ACO Algorithms for Tool Path Optimization in Multi-Hole Drilling</p>
10:30 – 11:00	Coffee break
11:00 – 12:30	<p>Session D1 ICIL 2023</p>
	<p>Maja Trstenjak, Miljenko Mustapić, Petar Gregurić, Tihomir Opetuk Use of Green Industry 5.0 Technologies in Logistics Activities</p>
	<p>Tina Cvahte Ojsteršek, Simona Šinko, Brigita Gajšek Determining Learning Outcomes Relevant for Logistics Higher Education on Sustainability and Industry 4.0</p>
	<p>Lars Tasche, Maximilian Bähring, Benno Gerlach Digital Supply Chain Twins in Urban Logistics System – Conception of an Integrative Platform</p>
	<p>Lara Kuhlmann, Markus Pauly A Dynamic Systems Model for an Economic Evaluation of Sales Forecasting Methods</p>
	<p>Stefan Schmidt, Benjamin Stefan Godwin Schmidt PQCDSM-Logic in Maintenance (TPM) and Mountaineering</p>
11:00 – 12:30	<p>Session D2 MOTSP 2023</p>
	<p>Sabrina Romina Sorko, Christine Lichem-Herzog Development of a Strategy Roadmap for the Widespread Implementation of Extended Reality</p>
	<p>Tarik Demiral, Jürgen Bock, Pierre Johansson Challenges in Flexible Manufacturing Technologies for the Final Assembly in the Commercial Vehicle Industry</p>
	<p>Ivana Cukor, Miro Hegedić Lean Product Development Tools for Promotion of Sustainability Integration in Product Development</p>
	<p>Daniela Ludin, Wanja Wellbrock, Erika Müller, Paul Klussmann, Rebecca Schöttle The Need for Digitalization in B2C Commerce from the Customer's Point of View: An Empirical Study with Focus on Sustainable Consumption</p>
	<p>Pavel Ikononov, Andrew Wyman, Lina Sawalha Hybrid 3D Metal Printer Optimization</p>
	<p>Mihai Dragomir, Denisa Szabo, Diana Dragomir, Diana Blagu Remaining Socially Responsible in the Age of Smart Sustainable Production</p>
12:30 – 14:00	Lunch
20:00 – 23:00	Gala dinner