







University of Minho School of Engineering

Day I (13.09.2023)

| 18:00 21:00 Welcome dinner (Piwnica Świdnicka: Rynek Ratusz 1A 50-106 Wrocław) | | | |
|--|-------|-------|--|
| | 18:00 | 21:00 | Welcome dinner (Piwnica Świdnicka: Rynek Ratusz 1A 50-106 Wrocław) |

Day II (14.09.2023) Building H-14, wybrzeże Stanisława Wyspiańskiego 40

| 8:00 | 9:00 | Registration |
|----------|------|---------------------------|
| 9:00 | 9:30 | Opening of the conference |

CONFERENCE PROGRAM ISPEM 2023 (13 - 15 September 2023)

| Session 1k: Keynot | e Session | | Room Chairman: A.D. Batako | |
|--------------------|-----------|-----------|----------------------------|--|
| 9:30 | 10:05 | Keynote 1 | | M. Anthony Xavior, School of Mechanical Engineering at Vellore Institute of Technology (VIT), India: |
| 10:05 | 10:15 | Keynole I | | "Metal Additive Manufacturing with a focus on specific metallic materials" |
| 10:15 | 10:50 | Kourata 2 | | Kondo H. Adjallah, Institut Nationale Polytechnique de Lorraine, France: |
| 10:50 | 11:00 | Keynote 2 | | "Toward the development of self-healing intelligent machine tools" |

11:00 11:30 **Coffee break**

| Session 1a | | | Room Chairmans: Suthep Butdee and Zbigniew Banaszak |
|------------|-------|----------------------|---|
| 11:30 | 11:50 | Yuliia Denysenko | Statistical Methods for Decision-Making Regarding Technological Systems |
| 11:50 | 12:10 | Mehmet Cem Yildiz | Integrated Modelling of Electrical Resistance Spot Welded Joints (online) |
| 12:10 | 12:30 | Fu Ping | Micromagnetic quantitative prediction of stress in DH steel |
| 12:30 | 12:50 | He Cunfu | Development of acoustic beam deflection electromagnetic acoustic transducer for surface crack detection of wind turbine main shaft |
| 12:50 | 13:10 | Ziping Wang | Research on f-k Domain Modal Separation Method for Guided Wave Array Non-destructive Testing |

13:10 14:00 Lunch

| Session 2a | | | Room Chairmans: Luboslav Dulina and Niles Perera |
|------------|-------|-------------------------|--|
| 14:00 | 14:20 | Phatchani Srikhumsuk | Energy assessment for automotive rubber parts using fuzzy AHP |
| 14:20 | 14:40 | Vidosav Majstorovic | Development of the cloud ERP model and its application in smart mining |
| 14:40 | 15:00 | Lyu Yan | SOC evaluation of lithium-ion battery based on MFC sensors |
| 15:00 | 15:20 | Mavin De Silva | Modeling the Impact of Leadership on Change Management Decisions using System Dynamics Simulation |
| 15:20 | 15:40 | Jakub Gapsa | Evaluation of Live-Line Work Procedure in Virtual Reality |
| 15:40 | 16:00 | Michaela Bodingerová | Virtual Training at ELLA Platform – The Case Study |

| Session 1b | | | Room Chairmans: Monika Chaszczewska and Przemysław Prządka |
|------------|-------------|--------------|--|
| 11:30 | 11:50 | Ying Luo | Laser ultrasonic Lamb wave damage detection method based on the single |
| 11.50 | 11.50 | Ting Luo | transmitter and multiple receivers circular array |
| 11:50 | 12:10 | Amila | Location suitability for the implementation of unmanned aerial vehicles in the |
| 11:50 | 12:10 | Thibbotuwawa | vaccine supply chain |
| 12.10 | 12:30 | Andrzej | Ultrasound tissue differentiation (UTC) in prevention and healing monitoring |
| 12:10 | 12:10 12:30 | Golachowski | tendon problems in race horses |
| 12:30 | 12:50 | Jianguo Zhu | Defects detection in thermal barrier coatings using long pulse and vibro- |
| 12:30 | 12:50 | | thermography |
| 12:50 | 13:10 | Christophe | Web Application for the Learning of Emotions in Children with Autism |
| 12:50 | 13:10 | Magalhães | Spectrum Disorder (online) |

| Session 2b | | | Room Chairmans: Ziping Wang and Vitalii Ivanov |
|------------|-------|---------------------------|---|
| 14:00 | 14:20 | Song Guorong | Development of a creep crack detection system for the inner and outer walls of high temperature hydrogen furnace tubes |
| 14:20 | 14:40 | João Cruz | An augmented system based on machine learning for Boccia assisted gameplay (online) |
| 14:40 | 15:00 | Salem Udoh | The Mediating Role of Auditing in Shared Value Optimization through Big Data Analytics: A Conceptual Review |
| 15:00 | 15:20 | Suthep Butdee | Performance evaluation model for sub-contractors in automotive rubber part supply chain management |
| 15:20 | 15:40 | Katarzyna Kowalczewska | Managing production for mass customized manufacturing – case studies |
| 15:40 | 16:00 | Zhou Xinhua | Two Kinds of New Flexible Eddy Current Sensors for Curved Surface Defect Detection |

| 16:00 | 17:45 | Poster Session with Coffee break with visiting CAMT research laboratories (Buliding B-4, I. Łukasiewicza 5) | | | | |
|-------|-------|---|--|--|--|--|
| From | 18:00 | Banquet | (Summer Restaurant at the ZOO ul. Wróblewskiego 1-5), In the meantime touring AFRICARIUM | | | |

Day III (15.09.2023) Building H-14, wybrzeże Stanisława Wyspiańskiego 40

| Session 2k: Keynote Session | | | Room | Chairman: José Machado |
|-----------------------------|-------|--------------|-----------|---|
| 9:00 | 9:35 | Presentation | Kaumata 2 | Vitalii Ivanov, Faculty of Technical Systems and Energy Efficient Technologies of Sumy State University, Ukraine: |
| 9:35 | 9:45 | Discussion | Keynote 3 | "Production Planning in Smart Manufacturing: Fixture Design Case Study" |
| 9:45 | 10:20 | Presentation | Keynote 4 | YongKeun (Paul) Park, KAIST, Department of Physics, Advanced Institute of Science and Technology, Korea: |
| 10:20 | 10:30 | Discussion | Keynole 4 | "Holotomography and artificial intelligence: label-free 3D imaging, classification, and inference of live cells and organoids" - online |

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10:30 10:50 **Coffee break**

| Session 3a | | | Room Chairmans: Jacek Diakun and Robert Waszkowski |
|------------|-------|------------------|---|
| 10:50 | 11:10 | Jakub Pizoń | Vertical Integration Principles in the Age of the Industry 5.0 and Mass Personalization |
| 11:10 | 11:30 | Arkadiusz Żuczek | The concept of an energy-efficient, modular hydraulic device that increases work safety and reduces labor intensity in the construction of large-scale |
| 11:30 | 11:50 | Piotr Piotrowicz | Energy efficiency of production processes in terms of European standards and legal requirements |
| 11:50 | 12:10 | Konrad Kluwak | Vision systems in industrial applications |
| 12:10 | 12:30 | Adam Kowalski | Business continuity management of production processes of steel structures for offshore wind energy industry |

12:30 12:50 **Coffee break**

| Session 4a | | | Room Chairmans: Lyu Yan and Cezary Grabowik |
|------------|-------|----------------------|--|
| 12:50 | 13:10 | Mengshuai Ning | Micromagnetic automatic detection method for mechanical properties of automobile B-pillar |
| 13:10 | 13:30 | Paweł Radzik | The concept of a system for predicting emergency states of a hydropneumatic rocker arm by using nitrogen pressure measurement |
| 13:30 | 13:50 | Wojciech Łapa | Integrated quality control vision system for aerosol jet printing |
| 13:50 | 14:10 | Raphael Olaniyi | Additive Manufacturing and 3D Printing Technology |
| 14:10 | 14:30 | Mariusz Galiński | Analysis of production parameters of a hydraulic drive designated to work in low temperatures |
| 14:30 | 14:50 | Wojciech Majewski | Application of artificial neural networks in the prediction of tire manufacturing defects |

| Session 3b | | | Room Chairmans: Ying Luo and Vidosav Majstorovic |
|------------|-------|----------------|--|
| 10:50 | 11:10 | Wiktor Nocoń | Topology optimization and FEA analysis of brake pedal for additive manufacturing |
| 11:10 | 11:30 | Jinmiao Wang | Determining the Range of Image Base of ARM Firmware (online) |
| 11:30 | 11:50 | Olga Tsesliv | Implementation of Industry 4.0 solutions in the agricultural field of Ukraine (online) |
| 11:50 | 12:10 | José Machado | Analysis of Basic Characteristics of Textile Yarn using Image Processing Techniques |
| 12:10 | 12:30 | Oliver Ulerich | Design of customized shoe soles using lattice structures fabricated by additive manufacturing |

| Session 4b | | | Room Chairmans: Katarzyna Antosz and Sebastian Saniuk |
|------------|-------|-------------------|--|
| 12:50 | 13:10 | Paula Kolbusz | Assessment of the effectiveness of Six Sigma methodology implementation - a literature review |
| 13:10 | 13:30 | Ewelina | Value stream mapping and process indicators supporting sustainable |
| 15.10 | 13.50 | Wyczewska | development in organizations – a systematic literature review |
| 13:30 | 13:50 | Liudmyla Shulhina | Performance Marketing in the Management of Supply Chains Sustainable |
| 15.50 | 15:50 | | Development |
| 13:50 | 14:10 | Saichol | ANFIS model for robotic welding process on a bus body structure |
| | 14.10 | Chudjuarjeen | ANTIS model for robotic weiging process of a bus body structure |
| 14:10 | 14:30 | Yizheng Zhang | Measurements of stress based on the surface wave by acoustic microscopy |
| 14.10 | | | system |
| 14:30 | 14:50 | Cezary Grabowik | Mechanical properties of PLA Printed Samples in Different Printing Directions |
| | | | and Orientations using Fused Filament Fabrication |

14:50 15:00 Closing ceremony

15:00 16:00 Lunch





University of Minho School of Engineering







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Day II (14.09.2023)

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|---|-------|--|---|---|
| Note Control 10 Pointerminitation Lange Pointerminitation Pointerministation Pointerministatin Pointerministatin Pointerministation Pointerminis | 16:00 | 17:45 | Poster Session with Coffee break with vi | siting CAMT research laboratories; Chairmans: Katarzyna Antosz, Justyna Trojanowska and Saichol Chudjuarjeen and Phatchani Srikhumsuk |
| Interfact Number Official State | | Names of the Authors | | Title |
| American Marchania American Marchania 14 American Marchania 15 American Marchania 16 American Marchania 17 American Marchania 18 American Marchania 19 American Marchania 10 American Marchania 11 American Marchania 12 American Marchania 13 American Marchania 14 American Marchania 15 American Marchania 16 American Marchania 17 American Marchania 18 American Marchania 19 American Marchania 10 American Marchania 11 American Marchania 12 American Marchania 13 American Marchania 14 American Marchania 15 American Marchania 16 American Marchania 17 American Marchania 18 American Marchania 19 American Marchania | 7 | Olexiy Pavlenko, Dmitriy Muzylyov, Justyna Trojanowska, Vitalii Ivanov | | Rational Logistics of Engineering Products to the European Union |
| Image: Section of Sec | 13 | 3 Przemysław Przadka, Zdzisław Kiełbowicz and Joanna Tunikowska | | NIRF imaging with indocyanine green (ICG) in a veterinary minimally invasive surgery |
| i ioneree in a section of the section of | 20 | | Anna Bluszcz and Marcin Chabior | Modern trends in project management – selected issues – case study |
| NoteNote10Analysical Section11Analysical Section12Analysical Section13Analysical Section14Analysical Section15Analysical Section16Analysical Section17Analysical Section18Analysical Section19Analysical Section10Analysical Section10Analysical Section11Analysical Section12Analysical Section13Analysical Section14Analysical Section15Analysical Section16Analysical Section17Analysical Section18Analysical Section19Analysical Section10Analysical Section10Analysical Section11Analysical Section12Analysical Section13Analysical Section14Analysical Section15Analysical Section16Analysical Section17Analysical Section18Analysical Section19Analysical Section19Analysical Section10Analysical Section11Analysical Section12Analysical Section13Analysical Section14Analysical Section15Analysical Section16Analysical Section17Analysical Section18Analysical Section19Analysical | 21 | | Jerzy Stanik and Jarosław Napiórkowski | Cyber Resilience as a new strategy to reduce the impact of cyber threats |
| No Image: A section of the sect | 24 | Erik | a Ottaviano, Pierluigi Rea and Lorenzo Miele | Simulation, Sensorization and Testing of a Hybrid Inspection Robot |
| NoteNote1NoteRestance2NoteRestance3NoteRestance4NoteRestance4NoteRestance5NoteRestance4NoteRestance5NoteRestance6NoteRestance7NoteRestance7NoteRestance7NoteRestance8NoteRestance9NoteRestance <th>27</th> <th></th> <th>Joanna Krajewska-Śpiewak</th> <th>Prediction of the wear intensity of rolling guides with the use of a neural network</th> | 27 | | Joanna Krajewska-Śpiewak | Prediction of the wear intensity of rolling guides with the use of a neural network |
| NoNotabalan set and s | 29 | | Beata Starzyńska and Izabela Rojek | Supporting the selection of quality tools using neural networks |
| NoRelative laying having h | 33 | | Erika Ottaviano and Pierluigi Rea | Design and Simulation of a Cable-Driven Parallel Manipulator for Monitoring and Inspection of Structures |
| A Functional work that rever Product method and regular tradition during durin | 35 | Vira S | ihendryk, Petro Pavlenko, Justyna Trojanowska | Information Design Management of Machining Parts on Metal Cutting Machines |
| International and a second s | 43 | | | Application of Swimlane Modelling for the Digital Transformation of Vegetable Supply Chains: A Case Study from a Developing Economy |
| International methods and solution without any solution of the solution | 45 | Krzysztof Nowacki, Iwo Podloch | | Lean Manufacturing knowledge correlation model |
| In Regine and tables for Model Perform South and Endone IP Subsidia Sink and Sinks Gradiese Rink Composition is a standard to identify that practices and you standard to identify that practices and you standard to identify a standard to identify that practices and you standard to identify a standard to identify that practices and you standard to identify a standard to identify that practices and you standard to identify a standard to identify that practices and you standard to identify a standard to identify that practices and you standard to identify a standard to identify that practices and you standard to identify a stan | 46 | Andrzej Miranowicz, Krzysztof Nowacki and Joanna Furman | | Impact of technical parameters on repair time of injection molding machines |
| NoNoNo10Jarobase Drobasequientits from Control Splatmis for Dioceter Production of Madanical Production11School School Sch | 51 | Nikila Dharmad | | Using an ISO 9001 based framework as a benchmark to identify best practices used by Sri Lankan practitioners when selecting suppliers |
| No. NoteStarting watch, F.Y.E.S. Signification, Solubility, I. Strang, Mail Relation watch is the lease and tradication, Strang, Mail 10 Performance, Mascader Honoro, Gal Cass, Value Relation of the Soft Robot with a Presume: Macket Actuator 10 Disson Mail Performance, Mascader Honoro, Gal Cass, Value Relation of the Soft Robot with a Presume: Macket Actuator 10 Disson Mail Performance, Market Market, Market Relation of the Soft Robot with a Presume: Macket Actuator 10 Disson Mail Relation Presume: Cass, Market Market, Market Relation Presume: Cass, Market Market, Market 10 Disson Market, Market, Market, Market Relation of thataction of transport roles is no certrative in muticipaet system 11 Anterodowich, Kass, Nacket, Strang, Stran | 52 | Sebastian Saniuk and Sandra Grabowska | | Skills and competencies of industrial employees in the Industry 5.0 environment |
| 3 Theodewave, takedw kinken and Tacabab Kinken Perinduction of a unit of a unito unit of a unitof a unit of a unit of a unit of a | 53 | Jarosław Chrobot | | Requirements for Flow Control Systems for Discrete Production of Mechanical Products |
| is Concernment Concernment 13 Data have for all work of the set of concernment is instance of vacuum furcase for carboticing process 14 Bartos: Poolart, Gregori Isleinia and Kamila action of obtacte or transport rulely in the factory through vision systems using the VOLO model based on concolutional recurs in a certra based multi-signet system 15 Instruct Poolart, Gregori Isleinia and Kamila cation of obtacte on transport rulely in the factory through vision systems using the VOLO model based on convolutional recurs in a certra based multi-signet system 16 Instruct Poolart, Gregori Isleinia and Kamila cation of obtacte on transport rulely in the factory through vision systems using the VOLO model based on convolutional recurs in a certra based multi-signet system 17 Instruct Poolart, Gregori Isleinia and Kamila cation of obtacte on transport rulely in the factory through vision systems using the VOLO model based on convolutional recurs in a certra based multi-signet system 17 Instruct Moles, Montis Rubel Astructs, Kamila Kamila Kamila cation of Hararch Kamila Simple | 55 | | | Revolutionizing Sri Lankan Tea Industry: A Comprehensive Analysis of the Economic Viability of Implementing IoT Applications |
| Matheway Matheway 65 Bartoz Poskart, Gregort Skieha and Kami Kott Scisis 4.0 - montroing of transport rotely in the factory through vision systems using the YOLO model based on convolutional neural networks 66 Bartozz Poskart, Gregort Skieha and Kami Kott Scisis 4.0 - montroing of transport rotels in a certralized multi-speet system 67 Princisco Morais, Nucleo Steps, José Dessa, José Veente, José David converging Data Mesh and Microservice Principies into a Unified Legical Architecture 67 José Prisari Multica KongOlovi converging Data Mesh and Microservice Principies into a Unified Legical Architecture 67 José Prisari Multica KongOlovi converging Data Mesh and Microservice Principies into a Unified Legical Architecture 67 José Prisari Meshewaki José Doubletis, Frije Orisk, Archita Krytanek converging Data Mesh and Microservice Principies into a Unified Legical Architecture 67 Artur Meller, Martisa Prechowaki Jad Arkaluza Golo seign of Experiments: An Overview and Future Paths 67 Artur Meller, Martisa Prechowaki José Douberta Briteria seign of Experiments: An Overview and Future Paths 67 Artur Meller, Martisa Rethonwaki José Douberta Briteria seign of Experiments: An Overview and Future Paths 67 Julia Grenz, Evas Kulifska and Malgorzata Dendersa Gruzaba scign of Experiments: An Overview | 56 | | | A Digital Twin of the Soft Robot with a Pneumatic Muscle Actuator |
| InInIn16Bartos: Pokar (Gregor: Iskerka and Kami (Gregor: Iskerka and Kami CoreInclean of obstacles on transport routes in a certralized multi-agent system17Faristic Moriais, Nano Saree, Jobs Bessa, Job Vietent; José MakaIncreasing Caree Methodology as 1 Col for Preparing Students for Industry 5.0170Increase Multi-Agent Lick Kaptic MaximaInsegneent Training Came Methodology as 1 Col for Preparing Students for Industry 5.0171Insp Silva, André S. SchlichadoInsegneent Training Came Methodology as 1 Col for Preparing Students for Industry 5.0172Insp Silva, André S. Schlichador Strager MaximaInsegneent Training Came Methodology as 1 Col for Preparing Students for Industry 5.0173Industry Make Methodology As 1 Col for Preparing Students for Industry 5.0Industry Silva, André S. Schlichador Andrékus Gala174Matrus Methodology Asia Andrékus Strager MaximaIndustry Silva, Silva Silva Industry Silva Industry 5.0174Matrus Moley, Marius Piechowski and Aladius GalaIndustry Equation of Industry 5.0175Julia Gregor, Ewa Kulifikka and Multor GalaIndustry 5.0176Matrus Moley, Maxima DolenekIndustry 5.0177Julia Gregor, Ewa Kulifikka and Alaria DalaIndustry 5.0178Julia Gregor, Ewa Kulifikka and Maria DalaIndustry 5.0179Julia Gregor, Ewa Kulifikka and Maria DalaIndustry 5.0179Julia Statu Site, Kokana PolocekIndication In orocade Information In production process using IIOT179Julia Statu Site, Juni Rohma, Anna Smok and Domina DemoIndication In production process using IIOT <th>62</th> <th colspan="2">Sławomir Kłos and Mariusz Michalski</th> <th>Predictive maintenance of vacuum furnace for carburizing process</th> | 62 | Sławomir Kłos and Mariusz Michalski | | Predictive maintenance of vacuum furnace for carburizing process |
| Interpretation Interpretation 107 Rescention of React of LAB and React of LAB and Anticoservice Principles into a Unified Logical Architecture 108 Lozef Huair and Lucia KnapEková Lean Management Training Game Methodology as a Tool for Preparing Students for Industry S.0 109 Lozef Huair and Lucia KnapEková Revelopment analysis of IT tools supporting data processing in castom manufacturing orthoses 101 Huair Subsci Sciencis ER, Varela, Justym Trojanova Kristina Berladir Beijo Experiments: An Overview and Future Paths 102 Andrur Meller, Marina Piechowski and Akadau Golu Beijo Experiments: An Overview and Future Paths 103 Materaz Molose, Even Kulińska and Malagorzata Dender Soncessi. Beijo Experiments: An Overview and Future Paths 104 Materaz Molose, National Beinard Markai Beijo Experiments: An Overview and Future Paths 105 Materaz Molose, Even Kulińska and Malagorzata Dender Grussa Beijo Experiments: An Overview and Future Paths 105 Materaz Molose, Even Kulińska and Mala Grast Beijo Experiments: An Overview and Future Paths 106 Materaz Moloseka, Kokasana Poloczek Beilezd Abects of theologing od in the Mucin Soluci Berla Grasta Moloseka, Kokasana Poloczek 107 Materaz Moloseka, Kokasana Poloczek Beilezd Abects of theneinding goads in the | 65 | Bartosz Poskart, Grzegorz Iskierka and Kamil Krot | | Logistics 4.0 - monitoring of transport trolley in the factory through vision systems using the YOLO model based on convolutional neural networks |
| 67Converging Gala Mech and Microserice Principles into a Unified Optical Architecture70Indextords J. MachadoConverging Gala Mech and Microserice Principles into a Unified Optical Architecture71Mana Dudkovida, Ewa Dotatni, Filip Garski, Karolina Kirzytanek and Aketaanier Torncasia, Kirstina BerladirBeelpoment and comparative analysis of I tools supporting data processing in custom manufacturing of orthoses72Hapo Silvo, André S. Samos, Locanie K. Varela, Justyma TrojowaBeign of Eperiments: An Overview and Future Paths73Hapo Silvo, André S. Samos, Locanie K. Varela, Justyma TrojowaIdicators of Hierarchical Structure Model of Supporting the Production Management Process - a Framework74Mateusz Molasy, Maria Rosientiewicz, Joanna Helman and MariusIdicators of Hierarchical Structure Model of Supporting the Production Management Process - a Framework Cholewa75Julia Giera, Ewa Kulińska and Julia GoreIdicators of Hierarchical Structure Model of Supporting the Production Management Process - a Framework | 66 | Bartosz Poskart, Grzegorz Iskierka and Kamil Krot | | Location of obstacles on transport routes in a centralized multi-agent system |
| In I | 67 | Francisco Mora | | Converging Data Mesh and Microservice Principles into a Unified Logical Architecture |
| 12Aleksander TomczakDevelopment and comparative analysis of it tools supporting bata processing in Custom manufacturing of othooses17Hugo Silva, André S. Santos, Leonide R. Varels, Justyma Trojanovska, Kristina Berladirdesign of Experiments: An Overview and Future Paths180Artur Meller, Mariuz Piechowski and Arkaluuz Gola Cholewaindicators of Hierarchical Structure Model of Supporting the Production Management Process – a Framework191Mateuz Molasy, Maria Rosienkewicz, Joanna Helma and Mairuz Cholewadiadictors of Hierarchical Structure Model of Supporting the Production Management Process – a Framework193Mateuz Molasy, Maria Rosienkewicz, Joanna Helma and Mairuz Cholewacholesto of Supply chains in Industry 5.0.194Malgorzata Dendera-Gruzaka, Kokana Poloczek Dariusz Masłowski, Eva Kulińska and Julia Gierachocets of Supply chains in Industry 5.0.194CholewaOdern methods of unloading goods in the FMCG industry194Cholewa Kulińska and Maria Działaodern methods of unloading goods in the FMCG industry194Agnieska Tubic, Juni Rohma, Anna Smok and Dominika Dopat Anjeks of Huma errors in the traditional and automated order-picking system194Agnieska Tubic, Juni Rohma, Anna Smok and Dominika Dopat Anjeks of Huma errors in the traditional and automated order-picking system194Agnieska Tubic, Juni Rohma, Anna Smok and Dominika Dopat Anjeks of Huma errors in the traditional and automated order-picking system194Agnieska Tubic, Juni Rohma, Anna Smok and Dominika Dopat Anjeks of Huma errors in the traditional and automated order-picking system194Robert Waszkowski and Marcin Sirat An | 70 | | Jozef Husár and Lucia Knapčíková | Lean Management Training Game Methodology as a Tool for Preparing Students for Industry 5.0 |
| 7 Kristina Berladir Degrin in Egerinities: All Overview and Fudire Faths 82 Artur Meller, Mariusz Piechowski and Arkadiusz Gola Indicators of Hierarchical Structure Model of Supporting the Production Management Process – a Framework. 84 Mateusz Molasy, Maria Rosienkiewicz, Joanna Helman and Mariusz Cholewa Gamification-based crowdsourcing as a tool for new product development in manufacturing companies 85 Julia Giera, Ewa Kulińska and Malgorzata Dendera Gruszka Analysis safety and quality of products for internal supply chains 96 Małgorzata Dendera-Gruszka, Ewa Kulińska and Julia Giera Concepts of supply chains in Industry 5.0. 97 Beata Oleksiak, Roksana Poloczek Selected Aspects of the Environmental Analysis of HDPE Film Using the LCA Method 98 Dariusz Masłowski, Ewa Kulińska and Maria Działa Modern methods of unloading goods in the FMCG industry 91 Dariusz Masłowski, Ewa Kulińska and Maria Działa Monitoring energy consumption of workstations in production processes using IIoT 92 Kamil Krot, Bartosz Poskart and Grzegorz Iskierha Monitoring energy consumption of workstations in production processes using IIoT 93 Agnieszka Tubis, Juni Rohman, Anna Smok and Dominika Dopari Analysis of human errors in the traditional and automated order-picking system 94 Robert Waszkowski and Marici Dybowski Generating complex dynamic forms in | 72 | | | Development and comparative analysis of IT tools supporting data processing in custom manufacturing of orthoses |
| 111284Mateusz Molasy, Maria Rosenkiewicz, Joanna Helman and Mariusz CholewaGamification-based crowdsourcing as a tool for new product development in manufacturing companies95Julia Giera, Ewa Kulińska and Małgorzata Dendera GruszkaAnalysis safety and quality of products for internal supply chains98Małgorzata Dendera-Gruszka, Ewa Kulińska and Julia GieraConcepts of supply chains in Industry 5.0.90Beata Oleksiak, Roksana PoloczekSelected Aspects of the Environmental Analysis of HDPE Film Using the LCA Method91Dariusz Masłowski, Ewa Kulińska and Maria DziałaModern methods of unloading goods in the FMCG industry92Kamil Krot, Bartosz Poskart and Grzegorz IskierkaMontoring energy consumption of workstations in production processes using IIoT93Agnieszka Tubis, Juni Rohman, Anna Smok and Dominika DopartAnalysis of human errors in the traditional and automated order-picking system94Robert Waszkowski and Marcin SirantOptimizing the form data presentation in low-code platforms with the use of artificial Intelligence95Tadeusz Nowicki, Maksymilian Górko and Piotr JakubowskiSystem integration in the SAP environment in finance modules using artificial intelligence: challenges and benefits | 77 | | | Design of Experiments: An Overview and Future Paths |
| 38CholewaCaminication-based crowdsourcing as a tool for new product development in manufacturing companies38Julia Giera, Ewa Kulińska and Małgorzata Dendera GruszkaAnalysis safety and quality of products for internal supply chains39Małgorzata Dendera-Gruszka, Ewa Kulińska and Julia GieraConcepts of supply chains in Industry 5.0.30Beata Oleksiak, Roksana PoloczekSelected Aspects of the Environmental Analysis of HDPE Film Using the LCA Method31Dariusz Masłowski, Ewa Kulińska and Maria DziałaModern methods of unloading goods in the FMCG industry32Kamil Krot, Bartosz Poskart and Grzegorz IskierkaMonitoring energy consumption of workstations in production processes using IIoT33Agnieszka Tubis, Juni Rohman, Anna Smok and Dominika DopatAnalysis of human errors in the traditional and automated order-picking system34Robert Waszkowski and Marcin SirantOptimizing the form data presentation in low-code platforms with the use of artificial Intelligence34Tadeusz Nowicki, Maksymilian Gório and Piotr JakubowskiSystem integration in the SAP environment in finance modules using artificial Intelligence: challenges and benefits | 82 | Artur Meller, Mariusz Piechowski and Arkadiusz Gola | | Indicators of Hierarchical Structure Model of Supporting the Production Management Process – a Framework |
| IndextIndext19Malgorzata Dendera-Gruszka, Ewa Kulińska and Julia GieraConcepts of supply chains in Industry 5.0.19Beata Oleksiak, Roksana PoloczekSelected Aspects of the Environmental Analysis of HDPE Film Using the LCA Method191Dariusz Masłowski, Ewa Kulińska and Maria DziałaModern methods of unloading goods in the FMCG industry192Kamil Krot, Bartosz Poskart and Grzegorz IskierkaMointoring energy consumption of workstations in production processes using IIoT193Agnieszka Tubis, Juni Rohman, Anna Smok and Dominika DopartAnalysis of human errors in the traditional and automated order-picking system101Robert Waszkowski and Marcin SirantGenerating complex dynamic forms in low-code platforms with the use of artificial intelligence103Tadeusz Nowicki, Maksymilian Górko and Plot JakubowskiSystem integration in the SAP environment in finance modules using artificial intelligence: challenges and benefits | 84 | Mateusz Mol | | Gamification-based crowdsourcing as a tool for new product development in manufacturing companies |
| Image: Construction of the Construc | 85 | Julia Giera, Ewa Kulińska and Małgorzata Dendera Gruszka | | Analysis safety and quality of products for internal supply chains |
| Image: Proceeding and Proceeding an | 89 | Małgorza | ata Dendera-Gruszka, Ewa Kulińska and Julia Giera | Concepts of supply chains in Industry 5.0. |
| Image: Construction of the construc | 90 | | Beata Oleksiak, Roksana Poloczek | Selected Aspects of the Environmental Analysis of HDPE Film Using the LCA Method |
| Image: Construction of the construc | 91 | Dariusz Masłowski, Ewa Kulińska and Maria Działa | | Modern methods of unloading goods in the FMCG industry |
| 101 Robert Waszkowski and Maciej Dybowski Generating complex dynamic forms in low-code development platforms 102 Robert Waszkowski and Marcin Sirant Optimizing the form data presentation in low-code platforms with the use of artificial intelligence 103 Tadeusz Nowicki, Maksymilian Górko and Piotr Jakubowski System integration in the SAP environment in finance modules using artificial intelligence: challenges and benefits | 92 | Kamil Krot, Bartosz Poskart and Grzegorz Iskierka | | Monitoring energy consumption of workstations in production processes using IIoT |
| Image: Constraint of the second se | 93 | Agnieszka Tubis, Juni Rohman, Anna Smok and Dominika Dopart | | Analysis of human errors in the traditional and automated order-picking system |
| 103 Tadeusz Nowicki, Maksymilian Górko and Piotr Jakubowski System integration in the SAP environment in finance modules using artificial intelligence: challenges and benefits | 101 | Robert Waszkowski and Maciej Dybowski | | Generating complex dynamic forms in low-code development platforms |
| | 102 | Robert Waszkowski and Marcin Sirant | | Optimizing the form data presentation in low-code platforms with the use of artificial intelligence |
| 104 Tadeusz Nowicki and Patryk Wicherek Algorithm for the assignment of courses and instructors in class planning | 103 | Tadeusz I | Nowicki, Maksymilian Górko and Piotr Jakubowski | System integration in the SAP environment in finance modules using artificial intelligence: challenges and benefits |
| | 104 | Tadeusz Nowicki and Patryk Wicherek | | Algorithm for the assignment of courses and instructors in class planning |

| 105 | Katarzyna Radwan, Dorota Więcek and Dariusz Plinta | The role of Throughput Accounting in making decision in small batch production environment |
|-----|---|---|
| 107 | Grzegorz Derlega, Joanna Helman and Anna Burduk | Method of risk analysis in the new product development process |
| 108 | Michał Stawowiak and Małgorzata Olender-Skóra | Identification of problems occurring in the steel construction of road machines |
| 109 | Leszek Jurdziak, Ryszard Błażej, Agata Kirjanów-Błażej and Aleksandra Rzeszowska | Comparison of different metrics of belt condition used in lignite mines for taking decision about belt segments replacement and refurbishment |
| 110 | Aleksandra Rzeszowska, Leszek Jurdziak, Ryszard Błażej and Agata Kirjanów-Błażej | Application of clustering and SOM analysis for identification of conveyor belt damage based on data from the DiagBelt+ magnetic system |
| 111 | Małgorzata Olender-Skóra | Improving the workplace for manufacturing of selected elements |
| 112 | Katarzyna Antosz, Edward Kozłowski, Sławomir Prucnal and Jaroslaw Sep | Pre-processing signal analysis for cutting tool condition in the milling process |
| 114 | Magdalena Dąbrowska, Damian Jurewicz, Anna Burduk, Daniel Medyński, Jose Machado, Piotr Motyka and Krzysztof Kolbusz | Implementation of Total Productive Maintenance (TPM) to improve overall equipment effectiveness (OEE) - case study |
| 119 | Glib Mazhara and Viktoriia Melnychuk | Artificial intelligence management in Industry 4.0 - Challenge or Opportunity |
| 120 | Joanna Helman | The role of Design Thinking in fostering innovation for Industry 4.0 |
| 121 | Xenie Lukoszová, Elżbieta Szymańska and Ewa Kulińska | The use of multi-criteria decision-making methods in the outsourcing of logistics services |
| 122 | Grzegorz Cwikta, Krzysztof Kalinowski, Marek Kciuk, Michał Gold, Marek Waluśkiewicz, Michał Sładek, Jarosław Tlołka, Robert Woźnica and Aleksander Wlazło | Integration of industrial automation and IoT devices on the example of the assembly station with the Astorino educational robot |
| 123 | Aldona Małgorzata Dereń and Jan Skonieczny | Strategic activities in the area of intellectual property management in the enterprise |
| 125 | Danielle Blanco, Leonilde Varela, José Vicente and José Machado | A Systematic Literature Review of Management and Technological Approaches Integration with Industry 4.0 |
| 128 | Joanna Kochańska | Categorization of production losses in the context of assessing production effectiveness indicators |
| 129 | Dagmara Łapczyńska | Fuzzy FMEA in risk assessment of human-factor in production process |
| 130 | Anna Woźna, Małgorzata Rusińska and Mateusz Bryłkowski | Impact analysis and evaluation of the COVID-19 pandemic on decision-making processes in enterprises based on Just-In-Time methodology |
| 131 | Damian Krenczyk | Digital twins of the manufacturing system based on a simulation model with bi-directional process data exchange |
| 136 | Tsesliv Olga | IMPLEMENTATION OF INDUSTRY 4.0 SOLUTIONS IN THE AGRICULTURAL FIELD OF UKRAINE |
| 137 | Magdalena Dąbrowska, Paweł Jokiel, Phatchani Srikhumsuk and Jozef Huzar | Eliminating Waste with the Use of Poka Yoke Solutions – an Example of a Selected Manufacturing Company |
| 138 | Malgorzata Olender-Skora, Krzysztof Kalinowski and Andriy Zdobytskyi | Scheduling algorithm with simultaneous determination of the batch sizes on the example of 3D printing system |
| 140 | Parthkumar Parmar, Anna Burduk and Leszek Jurdziak | Ishikawa diagram indicating potential causes for damage occurring to the rubber conveyor belt operating at coal mining site |
| 142 | Anna Burduk, Oleh Pihnastyi, Ewa Kulińska, Magdalena Dąbrowska, Daniel Medyński, Piotr Wrzecioniarz and Krzysztof Kolbusz | Production system risk assessment and loss categorization using simulation models |
| 143 | Wioleta Rakowska, Mariusz Galiński, Aleksander Gwiazda, Suthep Butdee and Anthony M Xavior | Analysis of production parameters of a hydraulic drive designated to work in low temperatures |
| 146 | Kamil Musiał | Implementing local search algorithms to multi-series production task |
| | | |