







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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Interfact Number Official State		Names of the Authors		Title
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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
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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
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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
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