

Eurocast 2024

February 25- March 1

***Museo Elder de la Ciencia y la Tecnología
Las Palmas de Gran Canaria
Canary Islands, Spain***



**19th International Conference on Computer
Aided Systems Theory**

Final Program

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Conference Chairs and Program Committee Publication Chairs

Founder and Honorary: *Franz Pichler (Linz)*

General: *Roberto Moreno-Díaz (Las Palmas de G.C.)*

Program: *M. Affenzeller (Hagenberg)*

Logistics: *A. Quesada-Arencibia Díaz (Las Palmas de G.C.)*

Workshops and Chairpersons

1. Systems Theory, Applications, Pioneers, and Landmarks

F. Pichler (Linz, AT), R. Moreno-Díaz (Las Palmas, ES)

2. Theory and Applications of Metaheuristic Algorithms

M. Affenzeller, S. Wagner (Hagenberg, AT), G. Raidl (Vienna, AT)

3. Mechatronic Product Development

M. Jungwirth, T. Schlechter (Wels, AT)

4. Model-Based System Design, Verification and Simulation

J. Nikodem (Wroclaw, PL), Ito, A. (Chuo, JP), Nikodem, M. (Wroclaw, PL)

5. Applications of Signal Processing Technology

Zagar (MULeoben, AT), Lunglmayr (Linz, AT)

6. Applied Data Science and Engineering for Intelligent Transportation Systems and Smart Mobility

J. Sanchez-Medina (Las Palmas, ES), J. del Ser (Bilbao, ES), H.B. Celikoglu (Istanbul, TR), R. Rossetti (Lisboa, PT), L. Acosta (La Laguna, ES)

7. Computer and Systems Based Methods and Electronic Tools in Clinical and Academic Medicine

J. Rozenblit (Tucson AZ, US), M. Maynar (Las Palmas, ES), R. Klempous (Wroclaw, PL), L. Kovacs (Budapest, HU)

8. Systems in Industrial Robotics, Automation and IoT

D. Jacob (Kempten, D), R. Stetter (Munich, D), E. Markl (Vienna, AT)

**9. Systems Thinking:
Applications in Technology,
Science, and Management.**

M.Schwaninger (St. Gallen, CH),
S. Groesser (Bern, CH)

**10. Data Science in Medical
and Bio-Informatics**

M. Giretzlehner (RISC Software,
Hagenberg, AT), M. Geiß
(Software Competence Center,
Hagenberg, AT), S. Winkler (FH
OÖ, Hagenberg, AT)

**11. Modeling, Simulation, and
Optimization in Production
and Logistics**

S. Wagner (Hagenberg, AT), F.
Longo, A. Padovano (Calabria,
IT)

**12. "Green AI" and SW-Tools
for Sustainable Energy and
Materials Consumption**

D. Jacob (Kempten, D), R.
Stetter (Munich, D), E. Markl
(Vienna, AT)

**13. Stochastic Models,
Statistical Methods, and
Applied Systems Simulations**

E. Pirozzi (Napoli, IT), V. Giorno
(Salerno, IT)

**14. Systems Cybersecurity
Technologies and Quantum
Approaches Potentials**

P. Caballero (La Laguna, ES), A.
Quesada-Arencibia (Las
Palmas, ES)

Local Organizing Committee

Espino-Sánchez, Alexis
Alemán-Alemán, Jonathan
Alonso-García, Mayte

De Blasio, Gabriele Salvatore
García-Rodríguez, Carmelo Rubén
Rodríguez-Rodríguez, José Carlos

Program Committee

Acosta, L. (Univ. of La Laguna, ES)
Affenzeller, M. (Univ. of Applied Sciences, Upper Austria, AT)
Berk Celikoglu, H. (Istanbul Technical University, TR)
Caballero, P. (Univ. of La Laguna, ES)
del Ser, J. (Univ. of Bilbao, ES)
Geiß, M. (SCCH, AT)
Giorno, V. (Univ. di Salerno, IT)
Giretzlehner, M. (RISC Soft, AT)
Groesser, S. (Univ. of Applied Sciences, Bern, CH)
Jacob, D. (Univ. of Applied Sciences, Kempten, DE)
Jungwirth, M. (Univ. of Applied Sciences, Wels, AT)
Klempous, R. (Wroclaw Technical Univ, PL)
Kovacs, L. (Univ. of Obuda, HU)
Longo, F. (Univ. of Calabria, IT)
Lto, A. (Univ. of Chuo, JP)
Lunglmayr, M. (JKU, Linz, AT)
Markl, E. (Univ. of Applied Sciences, Vienna, AT)
Maynar, M. (Univ. of Las Palmas de Gran Canaria, ES)
Moreno-Díaz, R. (Univ. of Las Palmas de Gran Canaria, ES)
Nikodem, M. (Univ. of Science and Technology, PL)
Nikodem, J. (Wroclaw Univ, PL)
Padovano, A. (Univ. of Calabria, IT)
Pichler, F. (JKU, Linz, AT)
Pirozzi, E. (Univ. di Napoli, IT)
Quesada-Arencibia, A. (Univ. of Las Palmas de Gran Canaria, ES)
Raidl, G. (Technical, Vienna, AT)
Rossetti, R. (Univ. of Lisboa, PT)
Rozenblit, J. (Univ. of Arizona, AZ US)
Sanchez-Medina, J. (Univ. of Las Palmas de Gran Canaria, ES)
Schlechter, T. (Univ. of Applied Sciences, Wels, AT)
Schwaninger, M. (Univ. of St Gallen, CH)
Stetter, R. (Munich, DE)
Wagner, S. (Univ. of Applied Sciences, Upper Austria, AT)
Winkler, S. (FH OÖ, Hagenberg, AT)
Zagar, B. (Montanuniv. Leoben, AT)

Codes of Sessions

1. Systems Theory, Applications, Pioneers, and Landmarks
2. Theory and Applications of Metaheuristic Algorithms
3. Mechatronic Product Development
4. Model-Based System Design, Verification and Simulation
5. Applications of Signal Processing Technology
6. Applied Data Science and Engineering for Intelligent Transportation Systems and Smart Mobility
7. Computer and Systems Based Methods and Electronic Tools in Clinical and Academic Medicine
8. Systems in Industrial Robotics, Automation and IoT
9. Systems Thinking: Applications in Technology, Science, and Management
10. Data Science in Medical and Bio-Informatics
11. Modeling, Simulation, and Optimization in Production and Logistics
12. "Green AI" and SW-Tools for Sustainable Energy and Materials Consumption
13. Stochastic Models, Statistical Methods, and Applied Systems Simulations
14. Systems Cybersecurity Technologies and Quantum Approaches Potentials

Sessions Chairpersons Table

Monday, February 26			
Room A	Room B	Room C	Room D
2.1 to 2.4 Affenzeller, M.	13.1 to 13.4 Dai Pra, P.	9.1 to 9.4 Schwaninger, M.	12.1 to 12.3 Jacob, D.
2.5 to 2.8 Iurlano, E.	13.5 to 13.8 Gómez-Corral, A.	9.5 to 9.8 Grösser, S.	12.5 to 12.8 Markl, E.

Tuesday, February 27			
Room A	Room B	Room C	Room D
2.9 to 2.10 Winkler, S.	13.9 to 13.10 Sacerdote, L.	7.1 to 7.6 Klempous, R. Buchenrieder, K. Jagielski, D.	2.9 to 12.11 Jacob, D.
2.11 to 11.7 Varga, J.	13.11 to 13.14 Pirozzi, E.		8.1 to 8.3 Stetter, R.
2.15 to 2.18 Wagner, S.	1.1 to 1.4 Borghoff, U.M.	7.7 to 7.9 Duleba, I; Gergics, B.	8.4 to 8.7 Markl, E.

Wednesday, February 28			
Room A	Room B	Room C	Room D
2.19 to 2.20 Raidl, G.	4.1 to 4.7 Nikodem, J.	5.1 to 5.6 Zagar, B. Lunglmayr, M.	8.8 to 8.11 Jacob, D.
10.1 to 10.4 Giretzlehner, M.	4.8 to 4.10 Ito, A. Nikodem, M.		
10.5 to 10.7 Winkler, S.			

Thursday, February 29			
Room A	Room B	Room C	Room D
11.1 to 11.6 Wagner, S.	4.11 to 4.13 Nikodem, J.	14.1 to 14.4 Caballero-Gil, P.	6.1 to 6.6 Sánchez-Medina, J.

Friday, March 1			
Room A	Room B	Room C	Room D
11.8 to 11.11 Padovano, A.		14.1 to 14.4 Caballero-Gil, P.	

Plenary Sessions (Room A)

Monday, February 26

10:00-11:00 **Towards the technologically intelligent Hospital**

Prof. Manuel Maynar ([CV](#))
Emeritus, Faculty of Medicine
Universidad de Las Palmas de G.C.

Tuesday, February 27

9:00-10:00 **Eurocast from the 1990's: Personal Perspective and Contributions**

Prof. Ryszard Klempous ([CV](#))
Faculty of Electronics
Wroclaw University of Technology

Wednesday, February 28

9:00-10:00 **Programs for Motivation of Science and Technology among Youngsters**

***[Makeathon Green Island](#)**

Prof. Dirk Jacob
Kempten Technological University

***[Ciberlandia Canarias](#)**

Prof. Alexis Quesada-Arencibia ([CV](#))
Universidad de Las Palmas de G.G.

Social Program

Monday, February 26 ([Elder Museum](#))

- 18:00 **Elder Museum Invitation**
[City Sightseeing guided tourist route](#)
[The Smart Home](#)

Tuesday, February 27 ([Elder Museum](#))

- 19:00 **Elder Museum Reception**
Live music performance.
Reception offered by the Elder Museum director: Tasting of Canarian products.

Wednesday, February 28 ([La Marinera](#))

- 19:00 **Conference Dinner**

Thursday, February 29 ([Rectorate Building](#))

- 18:00 **Guided Visit to Painting Exhibition**
Canarian cheese and wine tasting

Friday, March 1 ([Gáldar](#))

- 11:30 **Closing Session and Toast to Eurocast in Gáldar**

Systems Theory, Applications, Pioneers, and Landmarks

- 1.1 Application of Named Entity Recognition
C. Nitzl, A. Cyran, S. Krstanovic, U.M. Borghoff
- 1.2 A System Theoretical Multi-Agent Approach to Human-Computer Interaction
U.M. Borghoff, P. Bottoni, R. Pareschi
- 1.3 The Yetman Transmitting Machine
B. Kerschbaumer
- 1.4 Data Transformation: Limitless Strategies in Energy Consumption
M. Miró-Julià, M.J. Ruiz-Miró, R. Alberich, F. Cordero Piñero

Theory and Applications of Metaheuristic Algorithms

- 2.1 VFLBench: A Practical Benchmark for Vertical Federated Learning in Smart Manufacturing
D. Nguyen Duy, R. Nikzad-Langerodi, M. Affenzeller
- 2.2 A Hybrid Cooperative Approach for Symbolic Regression
B. Etaati, S. Wagner, M. Affenzeller
- 2.3 Comparing Constraint Evaluation Methods for Shape-constrained Regression
C. Haider, F. Olivetti de França, F. Bachinger
- 2.4 Re-evaluation in Dynamic Tree-Search with Backtracking from Known Solutions
P. Fleck, P. Neuhauser, S. Leitner, S. Wagner
- 2.5 Application of Adapt-CMSA to the Electric Vehicle Routing Problem with Simultaneous Pickup and Deliveries
M.A. Akbay, C. Blum, C.B. Kalayci

- 2.6 Optimizing Public Transport Through Integration of Microscopic and Macroscopic Simulations
K. Han, L.A. Christie, A.C. Zăvoianu, J.A.W. McCall
- 2.7 Automated Inference of Domain Knowledge in Scientific Machine Learning
F. Bachinger, C. Haider, J. Zenisek, M. Affenzeller
- 2.8 On-demand Automated Guided Vehicles in Yard Logistics
U. Ritzinger, B. Hu, M. Reinthaler
- 2.9 Diversity Management in Evolutionary Dynamic Optimization
B. Werth, J. Karder, S. Wagner, M. Affenzeller
- 2.10 Tackling the α -Domination Problem Heuristically
E. Iurlano, J. Varga, G.R. Raidl
- 2.11 A Comparative Study of Symbolic Regression Methods on the Scaled Nikuradse Dataset
Y. A. Radwan, G. Kronberger
- 2.12 Composable Evolutionary Computation
J. Zenisek, F. Bachinger, E. Pitzer, S. Wagner, M. Affenzeller
- 2.13 Solving the Manhattan Metric Straddle Carrier Routing Problem with Buffer Areas using a Hybrid Metaheuristic Method
N. Radojičić, A. Cürebal, L. Heilig, S. Voß
- 2.14 A Genetic Algorithm-based Approach for Hotel Buildings Design
A. Adamska-Idzikowska, R. Idzikowski
- 2.15 Route Planning for Parcel Logistics Systems with Reusable Packaging
G. Brandstätter, W. Ponweiser, M. Prandtstetter
- 2.16 Selecting User Queries in Interactive Job Scheduling
J. Varga, G.R. Raidl, T. Rodemann
- 2.17 Improvements in Large Neighborhood Search for the Electric Autonomous Dial-A-Ride Problem
M. Bresich, G.R. Raidl, S. Limmer

- 2.18 A Hybrid Metaheuristic for a Tourist Route Recommender
C. González-Navasa, J.A. Moreno-Pérez, J. Brito
- 2.19 Learning to Select Promising Initial Solutions for Large Neighborhood Search-Based Multi-Agent Path Finding
S. Huber, C. Blum, G.R. Raidl
- 2.20 A Learning Bilevel Optimization Approach for the Demand Maximizing Battery Swapping Station Location Problem
L. Tomandl, T. Jatschka, G.R. Raidl, T. Rodemann

Mechatronic Product Development

- 3.1 Enhancing Manufacturing Efficiency through Integration of MBSE and Capella in the Digital Thread
M. Burgstaller, T. Schichl, M. Jungwirth
- 3.2 Leveraging Learning Factories for Mechatronic Systems Development: A Collaborative Approach
P. Kopylov, J. Wegen, T. Schlechter, K. Manfredi, L. Nicoletti, A. Padovano, M. Cardamone, E. Francalanza
- 3.4 CNN Based Radar Kick Sensor Gesture Recognition Prototype
S. Mahmud, T. Schlechter, A. Loeffler
- 3.5 Comparison of Different Battery-powered Tag Positions for Lower Limb Gesture Detection
C. Hofer, J. Mayer, V. Sturm, K. Pendl, E. Schimbäck, C. Kastl, F. Runte

Model-Based System Design, Verification and Simulation

- 4.1 Comparison of Physiological Data Acquisition for Modeling of drivers in Autonomous Vehicles
R. Fernandez-Matellan, D. Puertas-Ramirez, D. Martín Gómez, J.G. Boticario
- 4.3 Automatic Control of Robots via 5G Communication from EC
A. Sasaki, A. Ito

- 4.4 Automatic Classification of Grazing Cow Behavior
A. Ito, K. Nagakura, Y. Hiramatsu, Y. Nagao, R. Fukumori, H. Yamamoto, Y. Otani, S. Suyama, M. Yasugi, Y. Yoshiura
- 4.5 Programming Learning through the Use of ChatGPT
A. Otsuka, A. Sasaki, A. Ito
- 4.6 ChatGTP Language Model as a Support for Teaching and Self-learning in a Field of Engineering and Technical Sciences
A. Czemplik, I. Karcz-Duleba
- 4.7 Analytical Conversion of the Strejc Model to the First Order with Time Delay (FOTD) Model
A. Czemplik
- 4.8 Neural Analysis of Parameters Occurring in a Smart Building
A. Stachno
- 4.9 Scheduling Dynamic set of Computational Tasks in Multiprocessor Embedded Systems
D. Dorota, C. Smutnicki
- 4.10 Efficient Manipulation of Control Flow Models in Evolving Software
T. Fiedor, J. Pavela, A. Rogalewicz, T. Vojnar
- 4.11 Textile Sensor Surrogate Modelling using Sparse Identification
M. Steiger, P. Petz, S. Schuler
- 4.12 Design and Control of Robot Gripper Hand Using Hierarchical Systems Technology
K. Miatliuk, T. Kordziukiewicz, R. Benotsmane
- 4.13 Discrimination Criteria for Modeling Association, Aggregation, and Composition in UML Class Diagrams
M. Alemán-Flores

EUROCAST 2024

REGISTRATION: Sunday February 25, from 16:									
	Monday February 26				Tuesday February 27				
9:00					Plenary Session 2				
9:30	Opening Session								
10:00	Plenary Session 1				2.9	13.9	7.1	12.9	
10:30					2.10	13.10	7.2	12.10	
11:00	Coffee								
11:30	2.1	13.1	9.1	12.1	2.11	13.11	7.4	12.11	
12	2.2	13.2	9.2	12.2	2.12	13.12	7.5	8.1	
12:30	2.3	13.3	9.3	12.3	2.13	13.13	7.6	8.2	
13:00	2.4	13.4	9.4		2.14	13.14		8.3	
13:30					11.7				
16:00	2.5	13.5	9.5	12.5	2.15	1.1	7.7	8.4	
16:30	2.6	13.6	9.6	12.6	2.16	1.2	7.8	8.5	
17:00	2.7	13.7	9.7	12.7	2.17	1.3	7.9	8.6	
17:30	2.8	13.8	9.8	12.8	2.18	1.4		8.7	
18:00	Elder Museum Invitation								
19:00					Elder Museum Reception				

First Column (left to right) for each day is in Room A, second in Room B,

World

1. Systems Theory, Applications, Pioneers, and Landmarks	7. Computer and Systems Ba
2. Theory and Applications of Metaheuristic Algorithms	Tools in Clinical and Academ
3. Mechatronic Product Development	8. Systems in Industrial Roboti
4. Model-Based System Design, Verification and Simulation	9. Systems Thinking: Applica
5. Applications of Signal Processing Technology	and Management
6. Applied Data Science and Engineering for Intelligent Transportation Systems and Smart Mobility	10. Data Science in Medical and

Final Program

00 to 19:00 and all Conference days at office hours.

Wednesday February 28				Thursday February 29				Friday March 1			
Plenary Session 3								11.8		14.5	
				11.1	4.11			11.9		14.6	
2.19	4.1	5.1	8.8	11.2	4.12			11.10		14.7	
2.20	4.3	5.2	8.9	11.3	4.13			11.11		14.8	
Break										14.9	
10.1	4.4	5.3	8.10	11.4		14.1	6.1	Closing Session and Toast to Eurocast in Gáldar			
10.2	4.5	5.4	8.11	11.5		14.2	6.2				
10.3	4.6	5.5		11.6		14.3	6.5				
10.4	4.7	5.6				14.4	6.6				
10.5	4.8	3.1									
10.6	4.9	3.2									
10.7	4.10	3.4									
		3.5									
				Guided Visit to Painting Exhibition							
Conference Dinner											

third in Room C and fourth in Room D

Workshops

<p>used Methods and Electronic ic Medicine cs, Automation and IoT tions in Technology, Science, Bio-Informatics</p>	<p>11. Modeling, Simulation, and Optimization in Production and Logistics 12. "Green AI" and SW-Tools for Sustainable Energy and Materials Consumption 13. Stochastic Models, Statistical Methods, and Applied Systems Simulations 14. Systems Cybersecurity Technologies and Quantum Approaches Potentials</p>
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Applications of Signal Processing Technology

- 5.1 Efficient Hardware Architecture for Random Forest Training
J. Winkler, D. Hackl, M. Lunglmayr
- 5.2 Influence of Spike Encoding, Neuron Models and Quantization on SNN Performance
D. Windhager, B. Moser, M. Lunglmayr
- 5.3 Adaptive combination in Frequency Domain: An Approach for Robust Nonlinear Acoustic Echo Cancellation
A. Nezamdoust, M. Huemer, D. Comminiello
- 5.4 Using of a Robotic Platform to Detect Acoustic Events for Indoor Environments
S. Grama, L. Grama, C. Rusu
- 5.5 Determination of the Object Volume through Processed Images from a TOF-Camera
F. Wirnsberger, P. Fleischanderl, T. Thurner, B.G. Zagar
- 5.6 Analysis of the Accuracy of Electrical Resistance Tomography Measurements
S. Affortunati, B.G. Zagar

Applied Data Science and Engineering for Intelligent Transportation Systems and Smart Mobility

- 6.1 Modeling Wildlife Accident Risk with Gaussian Mixture Models
C. Praschl, D.C. Schedl, A. Stöckl
- 6.2 Context-Aware Vehicle Lane Change Prediction based on Knowledge Graphs and Bayesian Inference
M. Manzour, R. Izquierdo, M.A. Sotelo
- 6.5 Towards a Unified Incident Detection and Response System for Autonomous Transportation
L. Ahmeti, C. Meyer, K. Dolos, A. Attenberger

- 6.6 Tackling "Padre Anchieta" Roundabout from New Simulation and Optimization Perspectives
O. Castilla, L. Acosta, J.J. Sánchez-Medina

Computer and Systems Based Methods and Electronic Tools in Clinical and Academic Medicine

- 7.1 Edge-Processing of Myoelectric Signals
K. Buchenrieder
- 7.2 Enhancing Virtual Reality Medical Training through Gesture Recognition and Action Sequencing
D. Arias Ruiz-Esquide, J.J. Reyes Cabrera, A. Hernandez-Guedes, A. Trujillo-Pino, M.A. Rodríguez-Florida
- 7.4 Advanced Protocols and Integrated Algorithms for Comprehensive Monitoring of Cardiac Implantable Electronic Devices
M. Kulbacki, D. Jagielski, A. Bak, J. Segen, M. Kulbacki, Z. Chaczko, J. Rozenblit, J. Nikodem, R. Klempous
- 7.5 Machine Learning Methods for Synovitis Arthritis Analysis in Human Joints: A Survey
A. Bak, R. Klempous, J. Nikodem, J. Rozenblit, Z. Chaczko, M. Kulbacki, K. Kluwak, K. Wojciechowski, W. Bożejko, D. Jagielski, J. Segen, A. Ito, K. Gruszecka, M. Skoczynska, A. Panejko, H Kowalczyk, M. Kulbacki
- 7.6 6DoF Motion Tracking in Immersive Technologies and its Usefulness in Medical Application
J. Nikodem, R. Klempous, J. Rozenblit, H. Kowalczyk, K. Kluwak, M. Kulbacki, A. Bak
- 7.7 Exploration of Medical Human Digital Twin Applications for Cerebral Palsy
M. Kulbacki, J. Segen, M. Kulbacki, Z. Chaczko, W. Bożejko, P. Mrozek, C.P. Suárez-Araujo, R. Klempous, M. Bonikowski
- 7.8 Usability Testing of Virtual Reality Software in Digital Pathology
M. Kozlovszky, B. Biricz, M. Vincze, A. Benhamida, V. Jónás, R. Paulik, B. Szócska, L. Kovács

- 7.9 In Vitro to in Vivo Extrapolation of Pharmacokinetic Model of Doxorubicin Treated Mammary Tumor
B. Gergics, D.A. Drexler, L. Kovács

Systems in Industrial Robotics, Automation and IoT

- 8.1 Transformation of IEC 61131-3 onto an Embedded Platform Using LLVM
N. Frank, M. Friedrich, B. Kormann
- 8.2 Retail 4.0 as a Booster for Industry 5.0
M. Horn, S. Kranzer, J. Nöbauer, L. Portenschlager, T. Neureiter, P. Pankonin, V. Schleifer, R. Zniva
- 8.3 Applicability of Chatsbots in Closed-Source Projects
A. Feldmeyer, K. Höfig
- 8.4 Machine Learning based Parameter Estimation of Energy Models in Digital Production Environments
F. Fichtl, M. Ulrich, F. Heieck, B. Lüdemann-Ravit
- 8.5 Efficient Classification of Live Sensor Data on Low-Energy IoT Devices with Simple Machine Learning Methods
M. Hanreich, O. Krauss, G. Zwettler
- 8.6 Machine Learning using a Hybrid Quantum Classical Algorithm with Amplitude Data Encoding
S. Gül-Ficici, M. Spiegel, U. Göhner
- 8.7 Quantitative Trend Analysis of Reinforcement Learning Algorithms in Production Systems
G. Schäfer, T. Krau, M. Schirl, S. Huber
- 8.8 Using AutomationML for Advanced Simulation in Industrial Automation
R Fellner, R Pal, H. Orsolits
- 8.9 Development and Prototypical Implementation of a Robot System based on Artificial Intelligence for Gripping and Precisely Placing Unknown Objects without a predefined strategy
J. Berlak, R. Beckert, S. Fuchs

- 8.10 AR Digital Twin Demonstrator for Industrial Robotics Education
H. Orsolits
- 8.11 Accelerating Manual Pick-and-Place Operations with AR-Projected CAD Plans and AI-Assisted Object Recognition
R. Seliger, M. Micheler, S. Gül-Ficici, U. Göhner

Systems Thinking: Applications in Technology, Science, and Management

- 9.1 Variety Engineering - A Cybernetic Concept with Practical Implications
M. Schwaninger, S.C. Ott
- 9.2 Using System Archetypes to Explore Business Model Challenges for Digital Textile Microfactories
M. Tilebein
- 9.3 Organisational Viability - challenges and Approaches in Today's Management
F. Rössli, K. Pichel
- 9.4 Interacting with the Water Cycle - Towards an Experimental Paradigm
M. Schaffernicht, S. Groesser
- 9.5 Systemic Thinking in IT Management of the Future: Where are the Benefits?
W. Brenner, R. Schneider, B. Brenner
- 9.6 Developing a Digital Twin for Cardiovascular Risk Assessment: A Simulation Model and Dashboard
S. Groesser, M Hänni
- 9.7 The Human-Centered AI-DATA Model for Digital Customer Journeys in E-Commerce
H. Mühle, O. Krauss, A. Stöckl
- 9.8 Using LLMs and Websearch in Order to Perform Fact Checking on Texts Generated by LLMs
S. Sandler, O. Krauss, A. Stöckl

Data Science in Medical and Bio-Informatics

- 10.1 Data Based Prediction of the Duration of the Postoperative Stay of Patients
J. Vetter, M. Strobl, G. Halmerbauer, T. Köenigswieser, S. Winkler
- 10.2 Building Spanish Trustworthy Question-Answer Datasets for Suicide Information
P. Ascorbe, M.S. Campos, C. Dominguez, J. Heras, M. Perez, A.R. Terroba-Reinares
- 10.3 Personalized ML-Assisted Respiratory Muscle Training for Patients with Paraplegia
A. Lopez, C. Schachner, S. Khan, T. Rajab, M. Geiß
- 10.4 Modelling the Risk of Overweight and Obesity
J.I. Hidalgo, E. Mayrhuber, S. Winkler, D. Parra, J.M. Velasco, J.J. Zamorano-León, O. Garnica
- 10.5 Customization and Analysis of Orthopedic Aids
C. Praschl, M. Dalkilic, S. Bauernfeind, M. Walkolbinger, G.A. Zwettler
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