

IEEE International Conference on Industrial Informatics (INDIN 2023): Technical Program at a glance

Time	Sunday 16.07.2023	Time	Monday 17.07.2023		Time	Tuesday 18.07.2023	Time	Wednesday 19.07.2023		Time	Thursday 20.07.2023	Time	Friday 21.07.2023			
						Transfer from the Hotels/ Registration Open			Transfer from the Hotels			Transfer from the Hotels				
09:00		09:00		Tutorials Welcome Coffee		09:00	Welcome Ceremony		09:00	Keynote 4 Jie Wang		09:00	Outdoor activities on your own initiative (see website "Excursions and visit our excursion information desk")			
09:30		09:30				09:30	Keynote 1 Roland Bent		09:30	Parallel Sessions (TT02, TT04, TT09)		09:30				
10:00		10:00			Slot 1 Tutorials	10:00			10:00	Coffee Break		10:00				
10:30		10:30				10:30	Coffee Break		10:30			10:30				
11:00	Pickup Service from Bielefeld Main Station to the Hotels	11:00			Welcome Coffee	11:00			11:00	Coffee Break		11:00				
11:30		11:30				11:30	Parallel Sessions (TT02, TT03, TT10, SS11)		11:30		IES-SYPA Student Forum	11:30		Parallel Sessions (TT02,TT06 TT07, TT11)		
12:00		12:00			Slot 1 Industry Day	Slot 2 Tutorials	12:00		Parallel Sessions (TT02,TT04, SS07)	12:00						
12:30		12:30					12:30			12:30					Lunch Break	
13:00		13:00		Lunch Break		13:00			13:00			Lunch Break				
13:30		13:30				13:30	Lunch Break		13:30	Lunch Break					13:30	
14:00		14:00			Slot 2 Industry Day	Slot 3 Tutorials	14:00			14:00					14:00	Parallel Sessions (TT05, TT07, TT13, SS09)
14:30		14:30					14:30			14:30	Keynote 3 Mikael Gidlund				14:30	
15:00		15:00		Coffee Break		15:00	Parallel Sessions (TT02,TT03, TT10, SS12)		15:00			15:00				
15:30		15:30					15:30			15:30	Coffee Break				15:30	
16:00	16:00		Slot 3 Industry Day	Slot 4 Tutorials	16:00			16:00			16:00	Parallel Sessions (TT05, TT07, TT13, SS10)				
16:30	16:30				16:30	Coffee Break		16:30	Parallel Sessions (TT02, TT01/TT08, SS01, SS02)		16:30					
17:00	17:00		Guided Tour <i>Future Food Factory</i>		17:00	Parallel Sessions (TT02, TT12, TT14, SS02)		17:00			17:00	Closing Session				
17:30	17:30		Transfer to the Hotels		17:30			17:30	Visit to the <i>SmartFactoryOWL</i>		17:30	Transfer from the Hotels/ Bielefeld Main Station				
18:00	18:00			18:00			18:00	Transfer to/from the Hotels		18:00						
18:30	18:30			18:30			Welcome Reception <i>Innovation Spin</i> and Keynote 2 Manuel Greisinger	18:30	Transfer to/from the Hotels		18:30					
19:00	19:00			19:00				19:00			19:00					
19:30	19:30		19:30			19:30		Conference Dinner <i>Brake Castle</i>		19:30	Optional: Visit to <i>Brewery Strate</i>					
20:00	20:00		20:00			20:00				20:00						
20:30	20:30		20:30			20:30			20:30							
21:00	21:00		21:00				21:00	Transfer to the Hotels at 23:00		21:00						

IEEE International Conference on Industrial Informatics (INDIN 2023):
Technical Program

Monday, 17.07.2023
Industry Forum: *Sustainability – Special Challenges in Industry*

10:00 – 11:00

10:00 – 11:00	Registration / Welcome Coffee	CIIT-Atrium
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11:00 – 11:30

11:00 – 11:30	Welcome <i>Jürgen Jasperneite, Lukasz Wisniewski</i>	CIIT II-Atrium
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11:30 – 12:00

11:30 – 12:00	Industrie.Zero – Approaches and Solutions for Sustainable Industry from the Leading-Edge Cluster it's OWL <i>Günter Korder, CEO, it's OWL Clustermanagement</i>	CIIT II-Atrium
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12:00 – 12:30

12:00 – 12:30	On the Way to a Climate-neutral Company <i>Markus Fleuter, Vice President, GEA Group</i>	CIIT II-Atrium
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12:30 – 13:00

12:30 – 13:00	5G and TSN for Factory Automation <i>Junaid Ansari, Ericsson Research</i>	CIIT II-Atrium
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13:00 – 13:40

13:00 – 13:40	Network Lunch	CIIT-Atrium
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13:40 – 14:10

13:40 – 14:10	Decarbonization of Chemical Industry – Challenges and Solution Approaches <i>Martin Hoffmann, Research Team Manager, German ABB Research Center</i>	CIIT II-Atrium
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14:10 – 14:40

14:10 – 14:40	Digital Twins as a Basis for Sustainability in Industry <i>Florian Pethig, Group Manager Big Data Platforms, Fraunhofer IOSB-INA</i>	CIIT II-Atrium
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14:40 – 15:10

14:40 – 15:10	Digital Twins Support Sustainability in the Plant Lifecycle <i>Domenic Schäffer, CEO, Digital Twin Factory</i>	CIIT II-Atrium
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15:10 – 15:30

15:10 – 15:30	Coffee Break	CIIT-Atrium
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Monday, 17.07.2023
Industry Forum: Sustainability – Special Challenges in Industry

15:30 – 16:00

15:30 – 16:00	Data-driven Optimization for Sustainable Shopfloors <i>Tom Hammerbacher, System Manager, PHOENIX CONTACT Electronics</i>	CIIT II-Atrium
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16:00 – 16:30

16:00 – 16:30	Digitalisation and Industrial IoT as a Strategic Pillar for the Energy Transition <i>Dirk Bauerkämper, Head of Global Market Management New Energy, Weidmüller</i>	CIIT II-Atrium
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16:30 – 17:00

16:30 – 17:00	Sustainable Manufacturing in a Networked Plastics Production <i>Nissrin Arbesun Perez, Innovation Manager, Fraunhofer IOSB-INA</i>	CIIT II-Atrium
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17:00 – 18:00

17:00 – 18:00	Guided Tour of the Future Food Factory	Future Food Factory
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Monday, 17.07.2023
Tutorials

09:00 – 09:30

09:00 – 09:30	Tutorials Welcome Coffee	CIIT-Atrium
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09:30 – 11:00

Slot 1: Tutorials			Room
09:30 – 11:00	BaSyx: Enabling Industry 4.0 with Eclipse BaSyx	<i>Frank Schnicke (Fraunhofer IESE), Daniel Espen (Fraunhofer IESE)</i>	1.376
09:30 – 11:00	ABM CPS: Information Processing for Industrial Cyber-physical Systems - A Complex Systems Science Approach with Agent-Based Models	<i>Pedro H. J. Nardelli (Lappeenranta-Lahti University of Technology), Daniel G. Rojas (Lappeenranta-Lahti University of Technology) et al.</i>	1.341
09:30 – 11:00	DSB: Data Science Basics – From Sensors Data Evaluation to Graphical Visualization	<i>Sebastian Braun (FH Aachen), Jessica Ullmer (FH Aachen), Prof. Jörg Wollert (FH Aachen)</i>	1.248

11:00 – 11:30

11:00 – 11:30	Welcome Coffee	CIIT-Atrium
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11:30 – 13:00

Slot 2: Tutorials			Room
11:30 – 13:00	BaSyx: Enabling Industry 4.0 with Eclipse BaSyx	<i>Frank Schnicke (Fraunhofer IESE), Daniel Espen (Fraunhofer IESE)</i>	1.376
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11:30 – 13:00	AMiRo: Hands-on – Building Processing Pipelines with the ml4proflow Framework Using Autonomous Robot Platform AMiRo	<i>Christian Klarhorst (Uni Bielefeld), Dennis Quirin (Uni Bielefeld)</i>	1.278

13:00 – 13:40

13:00 – 13:40	Lunch Break	
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Monday, 17.07.2023
Tutorials

13:40 – 15:10

Slot 3: Tutorials			Room
13:40 – 15:10	BaSyx: Enabling Industry 4.0 with Eclipse BaSyx	<i>Frank Schnicke (Fraunhofer IESE), Daniel Espen (Fraunhofer IESE)</i>	1.376
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13:40 – 15:10	TwinERGY: Digital Tools for the Intelligent Integration of Prosumers in Local Energy Markets. The TwinERGY paradigm.	<i>Stylianios Karatzas (University of Patras), Johannes Üpping (TH OWL), Sam Gunner (University of Bristol) et al.</i>	1.377

15:10 – 15:30

15:10 – 15:30	Coffee Break	CIIT-Atrium
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15:30 – 17:00

Slot 4: Tutorials			Room
15:30 – 17:00	BaSyx: Enabling Industry 4.0 with Eclipse BaSyx	<i>Frank Schnicke (Fraunhofer IESE), Daniel Espen (Fraunhofer IESE)</i>	1.376
15:30 – 17:00	ABM CPS: Information Processing for Industrial Cyber-physical Systems - A Complex Systems Science Approach with Agent-Based Models	<i>Pedro H. J. Nardelli (Lappeenranta-Lahti University of Technology), Daniel G. Rojas (Lappeenranta-Lahti University of Technology) et al.</i>	1.341
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17:00 – 18:00

17:00 – 18:00	Guided Tour of the Future Food Factory	Future Food Factory
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Tuesday, 18.07.2023

08:30 – 09:00

08:30 – 09:00	Registration Open	TH OWL–2nd floor
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09:00 – 09:30

09:00 – 09:30	Welcome Ceremony	1.204
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09:30 – 10:30

09:30 – 10:30	Keynote: "All Electric Society" Roland Bent	1.204
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10:30 – 11:00

10:30 – 11:00	Coffee Break	TH OWL–2nd floor
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11:00 – 13:00 Parallel Sessions

TT02	Artificial Intelligence in Industrial Applications (Part I: Anomaly and Fault Detection) <i>Session Chairs: Aimal Khan, Pforzheim UAS (Germany) and Jessica Rubart, TH OWL (Germany)</i>		Room 1.247
11:00 – 11:20	INDIN23-000016	Discussion of Features for Acoustic Anomaly Detection under Industrial Disturbing Noise in an End-of-Line Test of Geared Motors	Peter Wißbrock, Lenze SE
11:20 – 11:40	INDIN23-000031	Using Differential Equation Inspired Machine Learning for Valve Faults Prediction	Benjamin Uhrich, Leipzig University
11:40 – 12:00	INDIN23-000048	Counterfactual Root Cause Analysis via Anomaly Detection and Causal Graphs	Josephine Rehak, Karlsruhe Institute of Technology
12:00 – 12:20	INDIN23-000080	AI-based Cavitation Detection in Process Valves	Marisa Ehemann, Heilbronn UAS
12:20 – 12:40	INDIN23-000192	Anomaly Detection for Hydroelectric Power Plants: a Machine Learning-based Approach	Mattia Fanan, University of Padova
12:40 – 13:00	INDIN23-000229	Domain Transfer for Surface Defect Detection using Few-Shot Learning on Scarce Data	Andreas Theissler, Aalen UAS
TT03	Safety and Security in Industrial Applications (Part I) <i>Session Chairs: Bhosale Pushparaj Rajaram, TU Wien (Austria) and Axel Sikora, HS Offenburg (Germany)</i>		Room 1.276
11:00 – 11:20	INDIN23-000019	Trust Management System for Hybrid Industrial Blockchains	Fatemeh Stodt, Offenburg UAS
11:20 – 11:40	INDIN23-000076	Protocol-Agnostic Detection of Stealth Attacks on Networked Control Systems	Hauke Heseding, Karlsruhe Institute of Technology
11:40 – 12:00	INDIN23-000089	PROFINET Security: A Look on Selected Concepts for Secure Communication in the Automation Domain	Andreas Walz, Offenburg UAS
12:00 – 12:20	INDIN23-000098	An FPGA-based Unidirectional Gateway Proposal for OT-IT Network Separation to Secure Industrial Automation Systems	Song Son Ha, HSU Hamburg
12:20 – 12:40	INDIN23-000115	Integrated Safety-Security Risk Assessment for Production Systems: A Use Case Using Bayesian Belief Networks	Pushparaj Bhosale, TU Vienna
12:40 – 13:00	INDIN23-000147	Safety and Security: A Field of Tension in Industrial Practice	Siegfried Hollerer, TU Vienna

Tuesday, 18.07.2023

11:00 – 13:00
Parallel Sessions

TT10	Technologies, Infrastructures and Applications for Smart Grids, Buildings and Cities (Part I: Enabling technologies and infrastructures towards smart and sustainable energy distribution and living) <i>Session Chairs: Dennis Sprute, Fraunhofer IOSB-INA (Germany) and Theo Tryfonas, University of Bristol (UK)</i>			Room 1.277
	11:00 – 11:20	INDIN23-000044	E-VarifocalNet: A Lightweight Model to Detect Insulators and Their Defects under Power Grid Surveillance (ONLINE)	Chao Ouyang, Harbin Institute of Technology
	11:20 – 11:40	INDIN23-000135	Privacy in Local Energy Markets: A Framework for a Self-Sovereign Identity based P2P-Trading Authentication System	Moritz Volkmann, UAS Hamburg
	11:40 – 12:00	INDIN23-000191	A multi-output LSTM-CNN learning scheme for power disaggregation within a NILM framework	Yacine Belguermi, Universite de Haute Alsace
	12:00 – 12:20	INDIN23-000033	Application of the Interoperability Score in the home and building domain	Markus Reinke, OFFIS e.V.
	12:20 – 12:40	INDIN23-000110	Understanding the Role of Solar PV and Battery Energy Storage in a Snack Bar: A Case Study in Madeira Island	Lucas Pereira, LARSyS, Técnico Lisboa
SS11	Open Automation Architecture and the Module Type Package <i>Session Chairs: Andreas Stutz, Siemens AG (Germany) and Michelle Blumenstein, HSU Hamburg (Germany)</i>			Room 1.278
	11:00 – 11:20	INDIN23-000117	Communication of Energy Data in Modular Production	Leif-Thore Reiche, HSU Hamburg
	11:20 – 11:40	INDIN23-000139	Automation Service Choreographies using Decentralized Orchestration to Integrate Non-Choreography-Enabled Equipment Assemblies	Andreas Stutz, Siemens AG
	11:40 – 12:00	INDIN23-000119	Automated Generation of MTP Skeletons Based on Ontologies	Artan Markaj, HSU Hamburg
	12:00 – 12:20	INDIN23-000142	Integration of Flexible Transport Systems into Modular Production-Related Logistics Areas	Michelle Blumenstein, HSU Hamburg
	12:20 – 12:40	INDIN23-000181	Security Analysis of the Module Type Package Concept	Marwin Madsen, Karlsruhe Institute of Technology

13:00 – 14:30

13:00 – 14:30	Lunch	TH OWL–2nd floor
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14:30 – 16:30
Parallel Sessions

TT03	Safety and Security in Industrial Applications (Part II) <i>Session Chairs: Marco Ehrlich, TH OWL (Germany) and Ilaria Matteucci, CNR-IIT (Italy)</i>			Room 1.276
	14:30 – 14:50	INDIN23-000151	Determining the Target Security Level for Automated Security Risk Assessments	Marco Ehrlich, inIT, TH OWL
	15:10 – 15:30	INDIN23-000215	Watermark Based Sensor Data Protection System for Wireless Sensor Network	Akash Reddy Kondapuram, Donau Uni Krems
	15:30 – 15:50	INDIN23-000219	From Functional to Software-Defined Vehicle and its Security Issues	Marco De Vincenzi, CNR
	15:50 – 16:10	INDIN23-000220	Generation of Synthetic Data to Improve Security Monitoring for Cyber-Physical Production Systems	Felix Specht, Fraunhofer IOSB-INA

Tuesday, 18.07.2023

14:30 – 16:30
Parallel Sessions

TT02	Artificial Intelligence in Industrial Applications (Part II: Emerging AI Applications) <i>Session Chairs: Anton Pfeiffer, TH OWL (Germany) and Nikolai Hlubeck, Bürkert Fluid Control Systems (Germany)</i>			Room 1.247
14:30 – 14:50	INDIN23-000060	Cut Interruption Detection in the Laser Cutting Process Using ROCKET on Audio Signals	Kathrin Leiner, Trumpf SE+Co. KG	
14:50 – 15:10	INDIN23-000093	External Magnetic Interference Classification in Magnetostrictive Position Sensors using Neuro-Symbolic AI with Log-Likelihood Ratios	Aimal Khan, Pforzheim UAS	
15:10 – 15:30	INDIN23-000114	A Prototype for Lab-Based System Testing of Cyber Physical Systems for Smart Farming	Aluko Tunde Oluwayemi, UAS Hamm-Lippstadt	
15:30 – 15:50	INDIN23-000178	Key Indicators for the Discrimination of Wines by Electronic Noses	Julius Wörner, TH OWL	
15:50 – 16:10	INDIN23-000179	Systematic Preprocessing of Dielectric Spectroscopy Data and Estimating Viable Cell Densities	Selina Ramm, TH OWL	
16:10 – 16:30	INDIN23-000218	Infrared Hyperspectral Analysis for Non-invasive, Inline Fat Content Determination in Bakery Products	Arne De Temmermann, KU Leuven	
TT10	Technologies, Infrastructures and Applications for Smart Grids, Buildings and Cities (Part II: Enabling Technologies and Infrastructures for the Smart City and Smart Transportation/Mobility Paradigms) <i>Session Chairs: Joao Coelho, Instituto Politécnico de Bragança (Portugal) and Lucas Pereira, Técnico Lisboa (Portugal)</i>			Room 1.277
14:30 – 14:50	INDIN23-000131	Open Data Platform Tools for Energy Service Ecosystem in Urban Superblocks	Mikael Filppula, Tampere University	
14:50 – 15:10	INDIN23-000159	Modelling with NGSI-LD: The VALLPASS Project Case Study	Tiago Ribeiro, CeDRI, Bragança	
15:10 – 15:30	INDIN23-000024	3D-LiDAR-based Pedestrian Detection for Demand-Oriented Traffic Light Control	Dennis Sprute, Fraunhofer IOSB-INA	
15:30 – 15:50	INDIN23-000155	Outdoor Field Test of 5G-based V2X Communication for Real-Time Monitoring and Remote Control of a Monorail Vehicle	Denis Gustin, Fraunhofer IOSB-INA	
15:50 – 16:10	INDIN23-000165	Detection and Mitigation of GPS Attack via Cooperative Localization (ONLINE)	Zhuang Wang, Beijing Institute of Technology	
16:10 – 16:30	INDIN23-000242	Deep Reinforcement Learning for Energy-Efficient Task Offloading in Cooperative Vehicular Edge Networks (ONLINE)	Paul Agbaje, University of Texas	
SS12	Resource Awareness in Industrial Informatics <i>Session Chairs: Arne Noyer, Ostfalia University of Applied Sciences (Germany) and Tiago Carvalho, School of Engineering of the Polytechnic Institute of Porto – ISEP (Portugal)</i>			Room 1.278
14:30 – 14:50	INDIN23-000071	Efficient Production Scheduling by Exploiting Repetitive Product Configurations	Niels Grüttemeier, Fraunhofer IOSB-INA	
15:10 – 15:30	INDIN23-000184	A Scalable Clustered Architecture for Cyber-Physical Systems	Luis Ferreira, ISEP	
15:30 – 15:50	INDIN23-000186	Integration of Machine Learning Safety Functions in the Ontology of Functional Safety	Michael Kieviet, University Osnabrück	
15:50 – 16:10	INDIN23-000187	Framework for the Analysis and Configuration of Real-Time OpenMP Applications	Tiago Carvalho, ISEP	
16:10 – 16:30	INDIN23-000222	A Chatbot Assistant for Reducing Risk in Machinery Design	Padma Iyengar, University Osnabrück	

Tuesday, 18.07.2023

16:30 – 17:00

16:30 – 17:00	Coffee Break	TH OWL–2nd floor
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17:00 – 18:20
Parallel Sessions

TT02	Artificial Intelligence in Industrial Applications (Part III: Reinforcement Learning) <i>Session Chairs: Gabriele Formis, CNR-IEIT (Italy) and Jie Zhang, Tohoku University (Japan)</i>		Room 1.247
17:00 – 17:20	INDIN23-000022	Integration of Reinforcement Learning into Fluid Control Systems	Moritz Allmendinger, Heilbronn UAS
17:20 – 17:40	INDIN23-000070	A Mini Review on the Utilization of Reinforcement Learning with OPC UA	Simon Schindler, Salzburg UAS
17:40 – 18:00	INDIN23-000111	Individualized Clustered Cooperative Communication Units in Automated Electrical Routing in 3D CAD	Tizian Dagner, Siemens AG
18:00 – 18:20	INDIN23-000225	Enhancing Crane Handling Safety: A Deep Deterministic Policy Gradient Approach to Collision-Free Path Planning	Rafaela Machado, Universidade Federal Rio Grande
TT12	Industrial Informatics Tools <i>Session Chairs: Fiorella Sibona, Politecnico di Torino (Italy) and Lisa Underberg, ifak (Germany)</i>		Room 1.276
17:00 – 17:20	INDIN23-000010	Model-driven Engineering of flexible Production Systems with the RAMI Toolbox	Christoph Binder, Salzburg UAS
17:20 – 17:40	INDIN23-000030	Development of a CAD-based Automated Worker Guidance System	Alexander Rommel, TH Augsburg
17:40 – 18:00	INDIN23-000059	An Adaptation Framework for Industry 4.0 Responsive Production Systems (ONLINE)	Mohammed M. Mabkhot Loughborough University
TT14	Smart Health Technologies <i>Session Chairs: Michael Condry, ClinicAI (USA)</i>		Room 1.278
17:00 – 17:20	INDIN23-000037	Non-Interventional Precise TC Assessment for Enhancing Consumer Energy Flexibility	Ioannis Gialelis, University of Patras
17:20 – 17:40	INDIN23-000063	A Prototype Body-powered Prosthetic Hand Using Self-weight for Upper Limb Amputees in Return to Work	Rihito Ogura, Aoyamakuin University
18:00 – 18:20	INDIN23-000124	Small and Medium Scale Automation in iPS cell Culture utilizing AI Based Learning and Machine Vision	Lucas Artmann, TU Munich

17:00 – 18:20
Parallel Sessions

SS02	Explainable and Interactive Machine Learning for Industrial Applications <i>Session Chairs: Gianluca Manca, ABB Corporate Research Center (Germany) and Marcel Dix, ABB Corporate Research Center (Germany)</i>		Room 1.277
17:00 – 17:20	INDIN23-000013	Measuring the Robustness of ML Models Against Data Quality Issues in Industrial Time Series Data	Marcel Dix, ABB Corporate Research Center
17:20 – 17:40	INDIN23-000035	Automatic Generation of Visual Concept-based Explanations for Pest Recognition	Zhipeng Yuan, University of Sheffield
17:40 – 18:00	INDIN23-000162	Motivational Exploration of Explanations in Industrial Analytics	Valentin Grimm, TH OWL
18:00 – 18:20	INDIN23-000170	Adaptive Real-Time Exploration and Optimization of Safety-Critical Industrial Systems with Ensemble Learning	Buse Sibel Korkmaz, Imperial College London

18:20 – 21:00

18:20 – 19:20	Keynote: „Staying Ahead of the Innovation Curve: Google Insights“ Manuel Greisinger (Google)		Innovation Spin
18:20 – 21:00	Welcome Reception		Innovation Spin

09:00 – 11:00
Parallel Sessions

TT02		Artificial Intelligence in Industrial Applications (Part IV: Deep Learning and Neural Networks) <i>Session Chairs: Jörn Tebbe, TH OWL (Germany) and Lisa Gebauer, TH OWL (Germany)</i>	Room 1.247
09:00 – 09:20	INDIN23-000086	Improving Online Non-destructive Moisture Content Estimation using Data Augmentation by Feature Space Interpolation with Variational Autoencoders	Christian Wewer, Aarhus University
09:20 – 09:40	INDIN23-000113	An Autonomous Inspection Method for Pitting Detection Using Deep Learning	Luciane Soares, Universidade Federal do Rio Grande
09:40 – 10:00	INDIN23-000190	Predictive Maintenance in the Industry: A Comparative Study on Deep Learning-based Remaining Useful Life Estimation	Yao Yang, University of Padua
10:00 – 10:20	INDIN23-000193	Graph Neural Network-Based Measurement Inference on Irregular Sensor Geometries	Martin ben Ahmed, Forschungszentrum Jülich
10:20 – 10:40	INDIN23-000194	Chemical Property-Guided Neural Networks for Naphtha Composition Prediction	Jeondong Kim, Yonsei University
TT04		Industrial System and Software Engineering, Runtime Intelligence (Part I) <i>Session Chairs: Christoph Binder, FH Salzburg (Austria) and Marvin Schieseck, HSU Hamburg (Germany)</i>	Room 1.276
09:00 – 09:20	INDIN23-000011	Towards Flexible Production Systems Engineering According to RAMI 4.0 by Utilizing PPR Notation	Christoph Binder, Josef Ressel Centre for Dependable System-of-Systems Engineering
09:20 – 09:40	INDIN23-000046	A Graphical Modeling Language for Artificial Intelligence Applications in Automation Systems	Marvin Schieseck, Helmut Schmidt University
09:40 – 10:00	INDIN23-000090	BPMN4CARS: A Car-Tailored Workflow Engine	Simone König, TU Munich, Mercedes Benz
10:00 – 10:20	INDIN23-000097	Formalization of a Product-Process-Resource Model within Aircraft Component Maintenance, Repair, and Overhaul	Maximilian Rappl, Helmut Schmidt University
10:20 – 10:40	INDIN23-000100	A Control Flow based Static Analysis of GRAFCET using Abstract Interpretation	Aron Schnakenbeck, Helmut Schmidt University
10:40 – 11:00	INDIN23-000103	GRAFCET Reduction Techniques for Model Checking	Robin Mroß, RWTH Aachen

Wednesday, 19.07.2023

09:00 – 11:00
Parallel Sessions

TT09	Industrial Real-Time, Networked Embedded Systems and IoT Technologies <i>Session Chairs: Axel Sikora, HS Offenburg (Germany) and Holger Flatt, Fraunhofer IOSB-INA (Germany)</i>			Room 1.277
09:00 – 09:20	INDIN23-000234	A Conceptual Architecture for Scalable Multi-Application Support in Blockchain-based IoT Environments	Akin Eker, University of Bristol	
09:20 – 09:40	INDIN23-000185	Automated Physical TestBeds (APTb 2.0): Enabling Reliable and Efficient Testing of Wireless Communication Networks for IoT and Industry 4.0	Jubin Sebastian, Offenburg UAS	
09:40 – 10:00	INDIN23-000012	Measurement Methods for Software Execution Time on Heterogeneous Edge Devices	Bernhard Rupprecht, Technical University of Munich	
10:00 – 10:20	INDIN23-000188	Secure Real-Time Industrial IoT Communications in Smart Grids Using Named Data Networking	Henry Hui, Queen's University Belfast	
10:20 – 10:40	INDIN23-000120	TRUST: Transparent Redundancy for UDP Streams	Felix Neumeister, Karlsruhe Institute of Technology	
10:40 – 11:00	INDIN23-000199	Methodology and Implementation for Monitoring Precise Time Synchronisation in TSN	Kedar Naik, Offenburg UAS	

11:00 – 11:30

11:00 – 11:30	Coffee Break			TH OWL–2nd floor
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11:30 – 13:30
Parallel Sessions

TT02	Artificial Intelligence in Industrial Applications (Part V: Industrial Applications of AI) <i>Session Chairs: Andreas Theissler, Aalen UAS (Germany)</i>			Room 1.247
11:30 – 11:50	INDIN23-000020	Imitation Learning from Operator Experiences for a Real-time CNC Machine Controller	Hoa Nguyen, Høgskolen i Østfold	
11:50 – 12:10	INDIN23-000043	Edge Intelligence for Detecting Deviations in Batch-based Industrial Processes	Alexander Keusch, Siemens & TU Wien	
12:10 – 12:30	INDIN23-000023	Comparison of Different Natural Language Processing Models to Achieve Semantic Interoperability of Heterogeneous Asset Administration Shells	Jo Beermann, Technische Hochschule Köln	
12:30 – 12:50	INDIN23-000164	Optimization of a High Storage System with two Cranes per Aisle	Niels Grüttemeier, Fraunhofer IOSB-INA	
12:50 – 13:10	INDIN23-000168	A Novel Spectroscopic Approach for Vaseline Quality Discrimination	Niels Hendrik Fliedner, OWITA GmbH	
13:10 – 13:30	INDIN23-000231	Learning the Automated Setup of Profile Wrapping Lines for New Products from Few Past Setups	Steven Koppert, Fraunhofer Institute for Mechatronic Systems Design IEM	

11:30 – 13:30
Parallel Sessions

TT04		Industrial System and Software Engineering, Runtime Intelligence (Part II) <i>Session Chairs: Kathrin Land, Technical University of Munich (Germany) and Alexander Fay, HSU Hamburg (Germany)</i>		Room 1.276
11:30 – 11:50	INDIN23-000105	An OPC UA-based Industrial Big Data Architecture	Eduard Hirsch, Salzburg University of Applied Sciences GmbH	
11:50 – 12:10	INDIN23-000203	Execution Time Oriented Design of an Adaptive Controller for Mobile Machines	Marius Krüger, TU Munich	
12:10 – 12:30	INDIN23-000206	Concept of a Causality-driven Fault Diagnosis System for Cyber-Physical Production Systems	Carl Willy Mehling, Fraunhofer-Institut für Werkzeug- maschinen und Umformtechnik IWU	
12:30 – 12:50	INDIN23-000208	A Methodical Approach to Hybrid Modelling for Contextual Anomaly Detection on Time-Series Data	Cederic Lenz, Fraunhofer Institute for Mechatronic System Design	
12:50 – 13:10	INDIN23-000233	Managing Technical Debt in Automation: Best Practices and Cross-Life-Cycle Strategies	Fandi Bi, TU Munich	
13:10 – 13:30	INDIN23-000249	Integration of ABB Robot Manipulators and Robot Operating System for Industrial Automation	Mochammad Rizky Diprasetya, South Westphalia University of Applied Science	
SS07		Wireless Communications for Industry 4.0 <i>Session Chairs: Lisa Underberg, ifak (Germany) and Arne Neumann, inIT, Germany (Germany)</i>		Room 1.277
11:30 – 11:50	INDIN23-000054	5G Packet Delay Considerations for Different 5G-TSN Communication Scenarios	Niklas Ambrosy, Volkswagen AG	
11:50 – 12:10	INDIN23-000088	Entity Component System Architecture for Scalable, Modular, and Power-Efficient IoT-Brokers	Franc Pouhela, German Research Center for Artificial Intelligence GmbH (DFKI)	
12:10 – 12:30	INDIN23-000154	Extended Reference Broadcast Infrastructure Synchronization Protocol in 5G and Beyond	Michael Gundall, German Research Center for Artificial Intelligence GmbH (DFKI)	
12:30 – 12:50	INDIN23-000213	A Container-based Architecture to Provide Services from SDR Devices	Ederson Ribas Machado, Universidade Federal do Rio Grande do Sul	
12:50 – 13:10	INDIN23-000236	Towards the 5G-Enabled Factories of the Future	Melisa López, University of Oviedo	

11:30 – 13:30
IES-SYPA Student Forum

11:30 – 11:35		Opening		1.375
11:35 – 11:55		Keynote: „Importance of Practice-Oriented Studies and International Research Collaborations for Academic Careers in Engineering" Maxim Friesen (inIT / TH OWL)		1.375
Presentations by the Student Award Winners				1.375
11:55 – 12:00		INDIN23-000101	Thermal Digital Twin of a Multi-Domain System for Discovering Mechanical Faulty Behaviors	Francesco Tosoni, University of Verona
12:00 – 12:05		INDIN23-000102	Hybrid Computational Framework for Early Fault Detection in Coil Winding Manufacturing Process Using Knowledge Distillation	Izhar Oswaldo Escudero Ornelas, University of Sheffield
12:05 – 12:10		INDIN23-000181	Security Analysis of the Module Type Package Concept	Marwin Madsen, Karlsruhe Institute of Technology
12:10 – 12:15		INDIN23-000200	Network Pruning and Fine-tuning for Few-shot Industrial Image Anomaly Detection	Jie Zhang, Tohoku University
12:15 – 12:20		INDIN23-000075	Linear Combination of Exponential Moving Averages for Wireless Channel Prediction	Gabriele Formis, Politecnico di Torino
12:20 – 12:40		Keynote: „A PhD topic between Theory and Application: Reconfiguration of Hybrid Systems" Kaja Balzereit (Fraunhofer IOSB-INA)		1.375
12:40 – 13:00		Keynote: „Bridging the Gap: Industrial Doctorate Programs and the Transfer of Research to Real-Life Applications" Peter Wissbrock (Lenze)		1.375
13:00 – 13:30		Discussions, Interactions and Socialising		1.375

Wednesday, 19.07.2023

13:30 – 14:30

13:30 – 14:30	Lunch	TH OWL–2nd floor
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14:30 – 15:30

14:30 – 15:30	Keynote: "First 5G and now 6G – What will Industrial Automation Benefit from it and what are the Key Challenges?" Mikael Gidlund (Mid Sweden University)	1.204
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15:30 – 16:00

15:30 – 16:00	Coffee Break	TH OWL–2nd floor
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16:00 – 17:20
Parallel Sessions

TT02	Artificial Intelligence in Industrial Applications (Part VI: Time-series Analysis) Session Chairs: Sungho Suh, German Research Center for Artificial Intelligence (Germany) and Andreas Bunte, Fraunhofer IOSB-INA (Germany)		Room 1.247
16:00 – 16:20	INDIN23-000008	Supervised Time Series Segmentation as Enabler of Multi-Phased Time Series Classification: A Study on Hydraulic End-of-Line Testing	Stefan Gaugel, Bosch Rexroth AG
16:20 – 16:40	INDIN23-000075	Linear Combination of Exponential Moving Averages for Wireless Channel Prediction	Gabriele Formis, Politecnico di Torino
16:40 – 17:00	INDIN23-000176	A Comparison of Statistical and Machine Learning Approaches for Time Series Forecasting in a Demand Management Scenario	Anton Pfeifer, OWL University of Applied Sciences and Arts
TT01 / TT08	Industrial Cyber-Physical Systems, Industrial Agents and Applications, Human, Computer and Machine Interaction Session Chairs: Valerio Frasca, Intel (Germany) and Carsten Roecker, TH OWL (Germany)		Room 1.276
16:00 – 16:20	INDIN23-000133	Communication-Control Co-design for Robotic Manipulation in 5G Industrial IoT	Arvind Merwaday, Intel Corporation
16:20 – 16:40	INDIN23-000196	Increasing Robustness of Agents' Decision-Making in Production Automation using Sanctioning	Kathrin Land, Technical University of Munich
16:40 – 17:00	INDIN23-000211	Holistic Optimization of a Dynamic Cross-Flow Filtration Process Towards a Cyber-physical System	Jörn Tebbe, OWL University of Applied Sciences and Arts
17:00 – 17:20	INDIN23-000173	Adaptive Navigation Method for Mobile Robots in Various Environments using Multiple Control Policies	Kanako Amano, Tokyo Woman's Christian University

Wednesday, 19.07.2023

16:00 – 17:20
Parallel Sessions

SS01	Fault Diagnosis and Attack Detection for Industrial Cyber-Physical Systems <i>Session Chairs: Sebastian Kropatschek, Austrian Center for Digital Production (Austria) and Izhar Oswaldo Escudero Ornelas, University of Sheffield (UK)</i>		Room 1.278
16:00 – 16:20	INDIN23-000025	Deep Autoencoder With Orthogonal Features for Process Monitoring (ONLINE)	Chao Yang, Northeastern University
16:20 – 16:40	INDIN23-000051	Non-singular Terminal Sliding Mode Tracking Control with Synchronization in the Cable Space for Cable-Driven Parallel Robots	Yanqi Lu, Harbin Institute of Technology
16:40 – 17:00	INDIN23-000102	Hybrid Computational Framework for Early Fault Detection in Coil Winding Manufacturing Process Using Knowledge Distillation	Izhar Oswaldo Escudero Ornelas, University of Sheffield
17:00 – 17:20	INDIN23-000250	Combining Models for Safety and Security Concerns in Automating Digital Production	Sebastian Kropatschek, Austrian Center for Digital Production

SS02	Explainable and Interactive Machine Learning for Industrial Applications <i>Session Chairs: Gianluca Manca, ABB Corporate Research Center (Germany) and Marcel Dix, ABB Corporate Research Center (Germany)</i>		Room 1.277
16:00 – 16:20	INDIN23-000195	Semi-supervised Variational Autoencoders for Regression: Application to Soft Sensors	Yilin Zhuang, Imperial College London
16:20 – 16:40	INDIN23-000205	Using Prior Knowledge to Improve Adaptive Real Time Exploration and Optimization	Bill Tubbs, B. Tubbs & Associates Consulting
16:40 – 17:00	INDIN23-000207	Explaining Deep Neural Networks for Bearing Fault Detection with Vibration Concepts	Thomas Decker, Ludwig Maximilians Universität & Siemens AG

17:20 – 18:00

17:20 – 18:00	Visit to the SmartFactoryOWL	Smart Factory
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19:00 – 23:00

19:00 – 23:00	Conference Dinner	Brake Castle
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Thursday, 20.07.2023

09:00 – 10:00

09:00 – 10:00

Keynote: „Including Humans in Decision Making through Computational Learning and Knowledge Integration“
Jie Wang (Stanford University)

1.204

10:00 – 10:30

10:00 – 10:30

Coffee Break

TH OWL–2nd floor

10:30 – 12:30
Parallel Sessions

TT02

Artificial Intelligence in Industrial Applications (Part VII: Computer Vision)
Session Chairs: Julius Pfrommer, Fraunhofer IOSB (Germany)

Room
1.247

10:30 – 10:50

INDIN23-000015

Burrs Edge and Sharp Edge Detection Using CNN Method of Metal Workpiece for Intelligent Manufacturing App. (ONLINE)

Wahyu
Caesarendra,
Universiti Brunei
Darussalam

10:50 – 11:10

INDIN23-000039

Recognition of Defective Mineral Wool Using Pruned ResNet Models

Mehdi Rafiei,
Aarhus University

11:10 – 11:30

INDIN23-000049

Self-supervised Learning with Temporary Exact Solutions: Linear Projection

Qiang Li,
Accenture

11:30 – 11:50

INDIN23-000180

An end-to-end workflow for synthetic data generation for robust object detection

Johannes Metzler,
HTW Dresden

11:50 – 12:10

INDIN23-000200

Network Pruning and Fine-tuning for Few-shot Industrial Image Anomaly Detection

Zhang Jie,
Tohoku University

12:10 – 12:30

INDIN23-000217

HAB detection within Aquaculture Industry: A Case Study in the Atlantic Area

Bruna Guterres,
FURG

TT06

Factory Communications, Control and Automation Systems
Session Chairs: Marlon Löppenberg, Fachhochschule Südwestfalen (Germany)
and Janis Albrecht, Fraunhofer IOSB-INA (Germany)

Room
1.276

10:30 – 10:50

INDIN23-000057

Model-based Automation of TSN Configuration for Industrial Distributed Systems

Brendan J.
Mackenzie,
imec-DistriNet &
KU Leuven

10:50 – 11:10

INDIN23-000157

Increasing Ethernet TSN Multi-Protocol Interoperability by Algorithmic Configuration Merge

Janis Albrecht,
Fraunhofer IOSB-
INA

11:10 – 11:30

INDIN23-000128

Self Optimisation and Automatic Code Generation by Evolutionary Algorithms in PLC based Controlling Processes

Marlon
Löppenberg,
South Westphalia
University of
Applied Sciences

11:30 – 11:50

INDIN23-000216

High Availability for virtualized Programmable Logic Controllers with Hard Real-Time Requirements on Cloud Infrastructures

Thomas Kampa,
Technische
Hochschule
Ingolstadt

11:50 – 12:10

INDIN23-000172

Robot Control Offloading in 5G Network Using Real-Time Trajectory Interpolation

David Ginthoer,
Robert Bosch
GmbH

10:30 – 12:30
Parallel Sessions

TT07	Industrial Digitalization, Digital Twins in Industrial Applications (Part I) <i>Session Chairs: Alexander Fay, HSU Hamburg (Germany) and Wolfgang Kastner, TU Wien (Austria)</i>		Room 1.277
10:30 – 10:50	INDIN23-000053	Architecture for the Shared Production Leveraging the Asset Administration Shell and Gaia-X	Simon Jungbluth, Smartfactory KL
10:50 – 11:10	INDIN23-000055	Standardized Integration of Source Systems into Asset Administration Shell Realizations	Torben Miny, TWTH Aachen University
11:10 – 11:30	INDIN23-000132	Generation of digital twins for information exchange between partners in the Industrie 4.0 value chain	Nico Braunisch, TU Dresden
11:30 – 11:50	INDIN23-000201	Reusing OPC UA Information Models in the Asset Administration Shell	Arno Weiß, TU Dresden
11:50 – 12:10	INDIN23-000109	A Microservices-based Architecture for Data and Software Management of Heavy Equipment Digital Twins	Victor Zhidchenko, LUT University

TT11	Education in Engineering and Industrial Informatics <i>Session Chairs: Lucia Seno, CNR-IEIIT (Italy) and Henning Trsek, Institute Industrial IT – TH OWL (Germany)</i>		Room 1.278
10:30 – 10:50	INDIN23-000032	DeLMS: A Decentralized Learning Management System using Ethereum Smart Contracts and IPFS	Midhun Xavier, Luleå Tekniska Universitet
10:50 – 11:10	INDIN23-000095	Remote Lab of Robotic Manipulators through an Open Access ROS-based Platform	Luis Piardi, Instituto Politécnico de Bragança
11:10 – 11:30	INDIN23-000096	Learning Emergent Digital Technologies: The Experience in the Internet of Things Course Unit	Luis Piardi, Instituto Politécnico de Bragança
11:30 – 11:50	INDIN23-000161	KIAAA: An AI Assistant for Teaching Programming in the Field of Automation	Leon Wehmeier, TH OWL
11:50 – 12:10	INDIN23-000198	Introducing a Group-based Remote Laboratory for Embedded Education	Christopher Beck, Hamm-Lippstadt UAS

12:30 – 14:00

12:30 – 14:00	Lunch	TH OWL–2nd floor
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14:00 – 15:20
Parallel Sessions

TT05	Robotics and Mechatronics in Industrial Applications (Part I) <i>Session Chairs: Victor Zhidchenko, LUT University (Finland) and Omar Ismail, HSU Hamburg (Germany)</i>		Room 1.276
14:00 – 14:20	INDIN23-000068	A Method for Planning the Trajectory of Mobile Hydraulic Crane Booms with a Focus on Energy Efficiency	Victor Zhidchenko, LUT University
14:20 – 14:40	INDIN23-000122	Optimizing Virtual Commissioning of a Robotic System using Process Mining and Footprints Conformance Checking	Omar Ismail, Helmut Schmidt University
14:40 – 15:00	INDIN23-000136	Designing Redundant Cable-Driven Parallel Robots for Additive Manufacturing using End-Effector Compliance Index	Burhan Kara, Özyeğin University
15:00 – 15:20	INDIN23-000197	EValueAction: A Proposal for Policy Evaluation in Simulation to Support Interactive Imitation Learning	Fiorella Sibona, Politecnico di Torino

Thursday, 20.07.2023

14:00 – 15:20
Parallel Sessions

TT07	Industrial Digitalization, Digital Twins in Industrial Applications (Part II) <i>Session Chairs: Wolfgang Kastner, TU Wien (Austria) and Aron Schnakenbeck, HSU Hamburg (Germany)</i>		Room 1.277
14:00 – 14:20	INDIN23-00009	Digital Twins of Business Processes as Enablers for IT / OT Integration	Hannes Wacławek, Salzburg UAS
14:20 – 14:40	INDIN23-00140	An Information Model for Modernizing Brownfield Plants in the Process Industry	Dorothea Pantfoerder, TU Munich
14:40 – 15:00	INDIN23-00182	Standards for Information Models considering Knowledge Distribution in Modular Plants	Amy Koch, TU Dresden
15:00 – 15:20	INDIN23-00101	Thermal Digital Twin of a Multi-Domain System for Discovering Mechanical Faulty Behaviors	Francesco Tosoni, University of Verona

SS09	Edge Computing-Based Pervasive Artificial Intelligence Towards Industry 5.0 <i>Session Chairs: Hao Ran Chi, Instituto de Telecomunicações and Universidade de Aveiro (Portugal) and Jimmy Li, Hong Kong Metropolitan University (Hong Kong)</i>		Room 1.247
14:00 – 14:20	INDIN23-000028	Full-Decentralized Federated Learning-Based Edge Computing Peer Offloading Towards Industry 5.0	Hao Ran Chi, Universidade de Aveiro
14:20 – 14:40	INDIN23-000047	A Review of 5G Building Management Technologies and Applications in Smart Campus	Li Jimmy, City University of Hong Kong
15:00 – 15:20	INDIN23-000251	A Standardized Edge Computing Infrastructure of LoRaWAN Using IEEE 2668	Zhifu Zhang, City University of Hong Kong

15:20 – 15:50

15:20 – 15:50	Coffee Break		TH OWL–2nd floor
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15:50 – 17:10
Parallel Sessions

TT05	Robotics and Mechatronics in Industrial Applications (Part II) <i>Session Chairs: Raphael Hanselle, TH OWL (Germany) and Fiorella Sibona, Politecnico di Torino (Italy)</i>		Room 1.276
15:50 – 16:10	INDIN23-000073	Preview Control-based Jumping and Spot-Jogging Trajectory Generation for Quadruped Robots	Burak Ozkaynak, Ozyegin University
16:10 – 16:30	INDIN23-000163	HIL Simulation of the Positioning Control for an Automated Driving Monorail Vehicle	Raphael Hanselle, TH OWL
16:30 – 16:50	INDIN23-000189	Multi-scenario Learning MPC for Automated Driving in Unknown and Changing Environments (ONLINE)	Yu Yue, Beijing Institute of Technology

15:50 – 17:10
Parallel Sessions

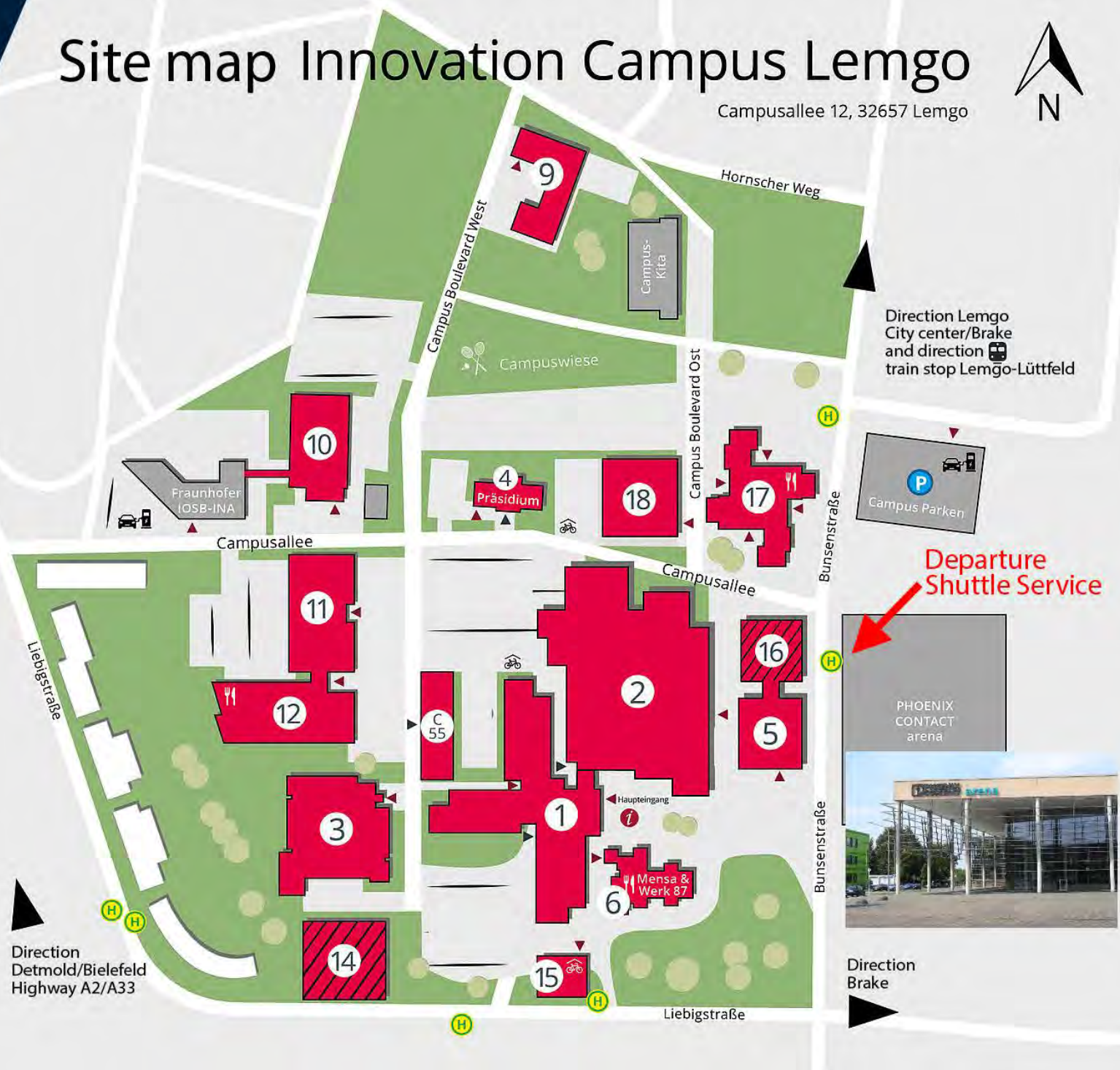
TT07	Industrial Digitalization, Digital Twins in Industrial Applications (Part II: Digitalization, Big Data and Advanced Analytics for Industrial Process Optimization) Session Chairs: Wolfgang Kastner, TU Wien (Austria) and Aron Schnakenbeck, HSU Hamburg (Germany)			Room 1.277
15:50 – 16:10	INDIN23-00143	A Design Approach and Prototype Implementation for Factory Monitoring Based on Virtual and Augmented Reality at the Edge of Industry 4.0	Christos Anagnostopoulos, Athena Research and Innovation Center	
16:10 – 16:30	INDIN23-00072	FAIR Sensor Ecosystem: Long-Term (Re-)Usability of FAIR Sensor Data through Contextualization	Matthias Bodenbenner, RWTH Aachen University	
16:30 – 16:50	INDIN23-00099	Low-Threshold Retrofit Strategy for CNC Machines: A New Process Data Acquisition Approach	Bastian Schulte, Fraunhofer IOSB-INA	
16:50 – 17:10	INDIN23-00104	A Novel Blade Crack Detection Method based on Diffusion Model with Acoustic-vibration Fusion	Xun Zhao, Southeast University	
SS10	Engineering of AI-Based Systems in Industrial Automation Session Chairs: Julius Pfrommer, Fraunhofer IOSB (Germany) and Jürgen Beyerer, Fraunhofer IOSB (Germany)			Room 1.247
15:50 – 16:10	INDIN23-000034	Technical Debt Management in Industrial ML - State of Practice and Management Model Proposal	Xiaofei Wang, ABB Corporate Research Center	
16:10 – 16:30	INDIN23-000041	Design Requirements for the Concept of an Industrial Surface Defect Detection System for Machined, Metal Drivetrain Workpieces in the Automotive Industry	Marco Wagenstetter, BMW Group	
16:30 – 16:50	INDIN23-000116	Reduce the Handicap: Performance Estimation for AI Systems Safety Certification	Julius Pfrommer, Fraunhofer IOSB	
16:50 – 17:10	INDIN23-000144	SiD²Re – A Novel Simulation Framework for Drifting Regression Data	Constanze Hasterok, Fraunhofer IOSB	
17:10 – 17:30				
17:10 – 17:30	Closing Session			1.204
18:30 – 21:00				
18:30 – 21:00	Optional: Visit to Brewery Strate			Detmold

Site map Innovation Campus Lemgo

Campusallee 12, 32657 Lemgo



- 1** Main building of the OWL University of Applied Sciences
- 2** Laboratory building
- 3** Laborgelände Produktions- und Holztechnik, FabLab|OWL
- 4** Präsidium, Verwaltung
- 5** Laborgelände Life Science Technologies
- 6** Mensa, Cafeteria „Werk 87“
- 9** Institut für Energieforschung (iFE), S(kim)
- 10** SmartFactoryOWL
- 11** Centrum Industrial IT 1 (CIIT), Institut für industrielle Informationstechnik (inIT)
- 12** Centrum Industrial IT 2 (CIIT), Forschungs- und Transferzentrum (FTZ)
- 14** Construction of new building
- 15** Technical building
- 16** Construction of new building
- 17** InnovationSPIN, Institut für Wissenschaftsdialog (IWD), Campus Foundry OWL, OWL Racing-Team
- 18** Future Food Factory OWL, Institute for Life Science Technologies (ILT.NRW)
- C55** Interim-Büro-Containeranlage



barrier free entrance



not barrier free entrance

Registration to Tutorials and IndustryDay inside Centrum Industrial IT



Wir freuen uns, Sie am 17.07.23 persönlich zum IndustryDay/Tutorials der IEEE INDIN Konferenz im CENTRUM INDUSTRIAL IT begrüßen zu dürfen. Für Ihre Orientierung möchten wir darauf hinweisen, dass die Registrierung im CENTRUM INDUSTRIAL IT, Campusallee 6 im ATRIUM stattfindet. Hier erfolgt auch das Catering für den Tag - Kaltgetränke für die Tutorials stehen Ihnen auch im Hauptgebäude der Technischen Hochschule Ostwestfalen Lippe in den Korridoren zu den Tutorials zur Verfügung. Wir wünschen Ihnen einen informativen und guten Start in eine interessante Konferenzwoche in Lemgo. Gerne helfen wir Ihnen sonst auch am InfoPoint neben der Registrierung oder unter unserer Hotline: +49 5261/702-2411 mit Ihren Anliegen weiter.

We are pleased to welcome you personally to the IndustryDay/Tutorials of the IEEE INDIN Conference at the CENTRUM INDUSTRIAL IT on 17/07/2013. For your orientation, we would like to point out that the registration will occur in the CENTRUM INDUSTRIAL IT, Campusallee 6 in the ATRIUM. Catering for the day will also be provided here - cold drinks for the tutorials will also be available in the main building of the Technische Hochschule Ostwestfalen-Lippe in the corridors to the tutorials.

We wish you an informative and good start to an interesting conference week in Lemgo. Otherwise, we will gladly help you with your concerns at the InfoPoint next to the registration desk or on our hotline: +49 5261/702-2411.

Legend:

- 1.204 Audimax
- 1.247 Auditorium
- 1.248 Session room
- 1.276 Session room
- 1.277 Auditorium
- 1.278 Session room
- ☒ Socialising / Dining area
- ☒ Wardrobe

Room Details:

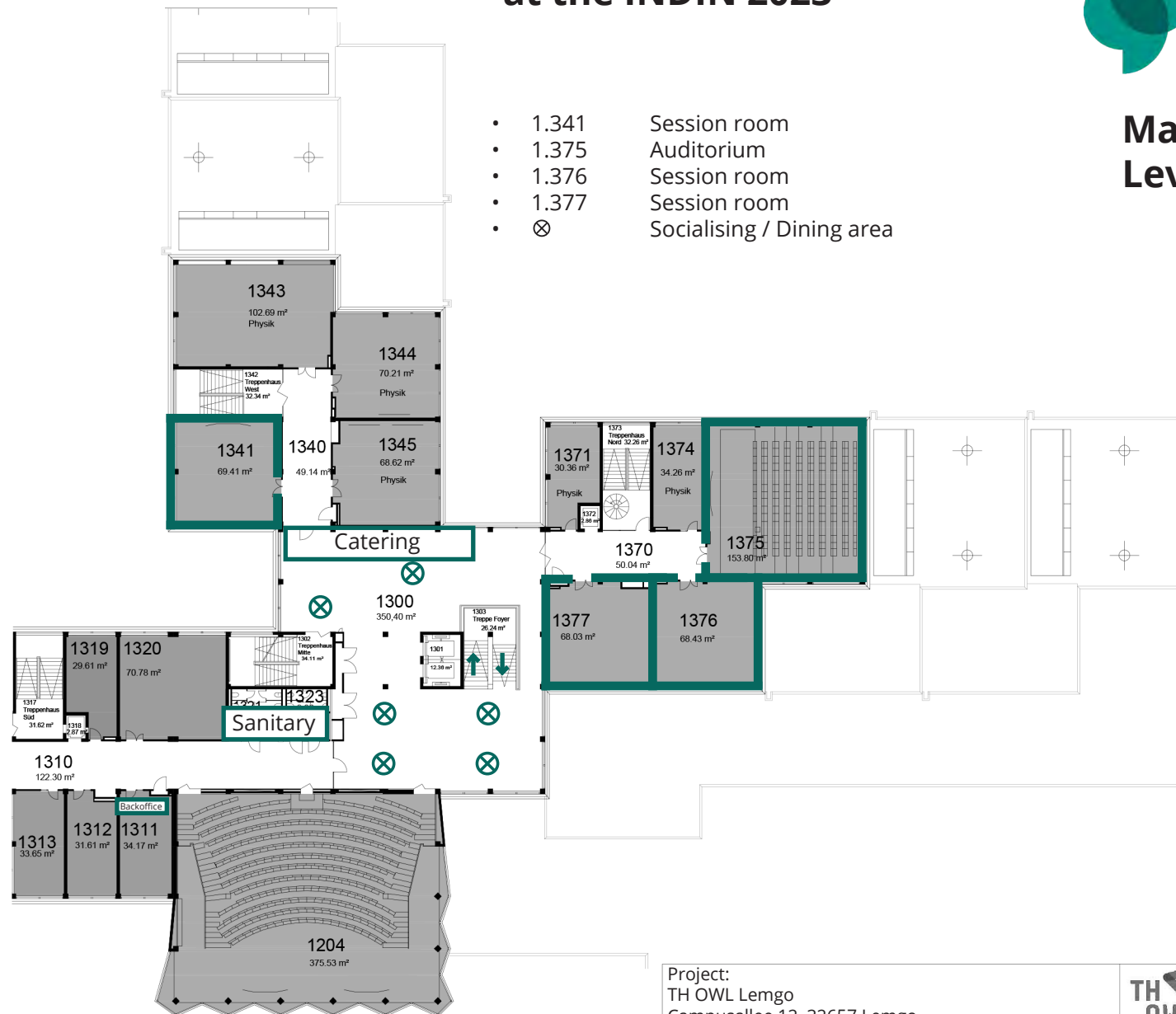
Room Number	Area (m²)	Room Type
1.204	375.53	Audimax
1.247	154.37	Auditorium
1.248	68.46	Session room
1.246	34.28	Session room
1.245	34.11	Session room
1.240-2	47.67	Session room
1.249	33.47	Session room
1.250	33.71	Session room
1.251	33.64	Session room
1.252	35.24	Session room
1.242	34.19	Session room
1.243	16.87	Session room
1.241	16.48	Session room
1.272	16.62	Session room
1.271	13.21	Session room
1.275	33.72	Session room
1.276	106.36	Session room
1.277	156.31	Session room
1.270-1	32.60	Session room
1.270-2	63.48	Session room
1.282	32.79	Session room
1.281	34.37	Session room
1.280	32.73	Session room
1.279	34.53	Session room
1.278	103.86	Session room
1.225	30.09	Session room
1.226	62.85	Session room
1.227	1.90	Session room
1.228	1.90	Session room
1.229	1.90	Session room
1.210-1	49.19	Session room
1.200-1	64.98	Session room
1.205	103.20	Session room
1.213	33.04	Session room
1.212	33.12	Session room
1.211	34.78	Session room
1.201	12.38	Session room
1.203	24.39	Session room
1.204	375.53	Audimax

Other Areas:

- Catering
- Sanitary
- Registration & Infopoint

Project: TH OWL Lemgo Campusallee 12, 32657 Lemgo		 TECHNISCHE HOCHSCHULE OSTWESTFALEN-LIPPE UNIVERSITY OF APPLIED SCIENCES AND ARTS	
Building 01 Level 02	Plot date: 22/12/2021	Scale: 1:500	 N
Layout (Faculties)			

- 1.341 Session room
- 1.375 Auditorium
- 1.376 Session room
- 1.377 Session room
- ⊗ Socialising / Dining area



TH OWL TECHNISCHE HOCHSCHULE OSTWESTFALEN-LIPPE
UNIVERSITY OF APPLIED SCIENCES AND ARTS

Plot date:	22/12/2021
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1	Scale: 1:500
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Layout (Faculties)
