

Jan Olaf Blech

List of Publications by Year in descending order

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Version: 2024-02-01

79
papers

597
citations

1039406

9
h-index

996533

15
g-index

86
all docs

86
docs citations

86
times ranked

370
citing authors

#	ARTICLE	IF	CITATIONS
1	Applying Model Checking to Industrial-Sized PLC Programs. IEEE Transactions on Industrial Informatics, 2015, 11, 1400-1410.	7.2	56
2	Analysis and optimization of fault-tolerant task scheduling on multiprocessor embedded systems. , 2011, , .		46
3	Software Defined Networking for Communication and Control of Cyber-Physical Systems. , 2015, , .		23
4	Software Defined Networks in Industrial Automation. Journal of Sensor and Actuator Networks, 2018, 7, 33.	2.3	23
5	Towards Certified Runtime Verification. Lecture Notes in Computer Science, 2012, , 494-509.	1.0	21
6	Behavioral type-based monitoring for IEC 61499. , 2015, , .		20
7	Verification of PLC Properties Based on Formal Semantics in Coq. Lecture Notes in Computer Science, 2011, , 58-73.	1.0	16
8	A Model-Based Toolchain to Verify Spatial Behavior of Cyber-Physical Systems. International Journal of Web Services Research, 2016, 13, 40-52.	0.5	16
9	Towards Product Centric Manufacturing: From Digital Twins to Product Assembly. , 2019, , .		15
10	Digital Twins for Manufacturing Using UML and Behavioral Specifications. , 2020, , .		14
11	Concept Drift Analysis by Dynamic Residual Projection for Effectively Detecting Botnet Cyber-Attacks in IoT Scenarios. IEEE Transactions on Industrial Informatics, 2022, 18, 3692-3701.	7.2	13
12	Efficient incident handling in industrial automation through collaborative engineering. , 2015, , .		12
13	Model-Based Engineering and Analysis of Space-Aware Systems Communicating via IEEE 802.11. , 2015, , .		12
14	Visualization facilities for distributed and remote industrial automation: VxLab. , 2015, , .		12
15	A Methodology for Model-based Development and Safety Analysis of Transport Systems. , 2016, , .		12
16	Behavioral Specification Based Runtime Monitors for OSGi Services. Lecture Notes in Computer Science, 2012, , 405-419.	1.0	12
17	Optimizing Code Generation from SSA Form: A Comparison Between Two Formal Correctness Proofs in Isabelle/HOL. Electronic Notes in Theoretical Computer Science, 2005, 141, 33-51.	0.9	10
18	Towards a formal foundation of behavioral types for UML state-machines. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2012, 37, 1-8.	0.5	10

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19	A Certifying Code Generation Phase. <i>Electronic Notes in Theoretical Computer Science</i> , 2007, 190, 65-82.	0.9	9
20	Reliability-Aware Design Optimization for Multiprocessor Embedded Systems. , 2011, , .		9
21	Collaborative engineering through integration of architectural, social and spatial models. , 2014, , .		9
22	A Comparison of Formal Verification Approaches for IEC 61499. , 2016, , .		9
23	Evaluating software-defined networking for deterministic communication in distributed industrial automation systems. , 2017, , .		9
24	Cloud Based Monitoring of Timed Events for Industrial Automation. , 2015, , .		8
25	Certifying compilers using higher-order theorem provers as certificate checkers. <i>Formal Methods in System Design</i> , 2011, 38, 33-61.	0.9	7
26	Modelling and Formal Verification of Timing Aspects in Large PLC Programs. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014, 47, 3333-3339.	0.4	7
27	A Machine learning based intrusion detection approach for industrial networks. , 2020, , .		7
28	Towards Verifying Safety Properties of Real-Time Probabilistic Systems. <i>Electronic Proceedings in Theoretical Computer Science</i> , EPTCS, 0, 147, 1-15.	0.8	7
29	Reusing Test-Cases on Different Levels of Abstraction in a Model Based Development Tool. <i>Electronic Proceedings in Theoretical Computer Science</i> , EPTCS, 0, 80, 13-27.	0.8	7
30	A REST and HTTP-based Service Architecture for Industrial Facilities. , 2020, , .		7
31	Classifying and Formally Verifying Integer Constant Folding. <i>Electronic Notes in Theoretical Computer Science</i> , 2004, 82, 410-425.	0.9	6
32	An Invariant Preserving Transformation for PLC Models. , 2011, , .		6
33	Cloud-Based Analysis and Control for Robots in Industrial Automation. , 2015, , .		6
34	Remote monitoring infrastructure for IEC 61499 based control software. , 2016, , .		6
35	Software defined industry automation networks. , 2017, , .		6
36	Service-based Architecture with Product-centric Control in a Production Island-based Agile Factory. , 2019, , .		6

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37	Performance Evaluation of Containerization Platforms for Control and Monitoring Devices. , 2020, , .		6
38	Towards Formal Monitoring of Workpieces in Agile Manufacturing. , 2020, , .		6
39	Model-Based Engineering and Spatiotemporal Analysis of Transport Systems. Communications in Computer and Information Science, 2016, , 44-65.	0.4	6
40	Generating Invariant-Based Certificates for Embedded Systems. Transactions on Embedded Computing Systems, 2012, 11, 1-22.	2.1	5
41	A Design Pattern for Monitoring Adapter Connections in IEC 61499. , 2021, , .		5
42	Dynamic Adapter Connections for IEC 61499. , 2021, , .		5
43	Visualization, Simulation and Validation for Cyber-Virtual Systems. Communications in Computer and Information Science, 2015, , 140-154.	0.4	5
44	Towards a Framework for Behavioral Specifications of OSGi Components. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 108, 79-93.	0.8	5
45	Collaborative Model-based Development of a Remote Train Monitoring System. , 2016, , .		5
46	Mirrorlabs - creating accessible Digital Twins of robotic production environment with Mixed Reality. , 2020, , .		5
47	A Plug and Produce-inspired Approach in Distributed Control Architecture: A Flexible Assembly Line and Product Centric Control Example. , 2020, , .		4
48	Anomaly Detection for Injection Molding Using Probabilistic Deep Learning. , 2021, , .		4
49	Towards a Model-based Toolchain for Remote Configuration and Maintenance of Space-aware Systems. , 2015, , .		4
50	Proving the security of ElGamal encryption via indistinguishability logic. , 2011, , .		3
51	A software framework for augmented reality-based support of industrial operations. , 2016, , .		3
52	A Candidate Architecture for Cloud-Based Monitoring in Industrial Automation. , 2017, , .		3
53	Assessing Long Distance Communication Alternatives for the Remote Control of AGVs. , 2020, , .		3
54	Towards a 3D Scanning/VR-based Product Inspection Station. , 2020, , .		3

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55	Simulation Components in Gazebo. , 2021, , .		3
56	The Virtual Experiences Portals â€” A Reconfigurable Platform for Immersive Visualization. Lecture Notes in Computer Science, 2016, , 186-197.	1.0	3
57	Spatio-Temporal Models for Formal Analysis and Property-Based Testing. Lecture Notes in Computer Science, 2016, , 196-206.	1.0	3
58	Coinductive Verification of Program Optimizations Using Similarity Relations. Electronic Notes in Theoretical Computer Science, 2007, 176, 61-77.	0.9	2
59	Spatio-temporal reasoning and decision support for smart energy systems. , 2016, , .		2
60	On Developing a Collaborative and Interoperable Mobile Production Platform for an Agile Factory: A Case Study. , 2019, , .		2
61	Behavioral Types for Component-Based Development of Cyber-Physical Systems. Lecture Notes in Computer Science, 2015, , 43-52.	1.0	2
62	An Architecture for Visualization of Industrial Automation Data. , 2017, , .		2
63	Towards Digital Twins for the Description of Automotive Software Systems. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 312, 20-28.	0.8	2
64	A Software Platform for Architectural Robots. , 2015, , .		1
65	Model-based development of a controller and simulator for a mobile robot. , 2016, , .		1
66	Behavioral types for component-based software systems. , 2017, , .		1
67	SMT-Based Deployment Calculation for IEC 61499 Control Applications. , 2021, , .		1
68	Probabilistic Compositional Reasoning for Guaranteeing Fault Tolerance Properties. Lecture Notes in Computer Science, 2011, , 222-234.	1.0	1
69	Formal Behavioural Models to Facilitate Distributed Development and Commissioning in Industrial Automation. , 2016, , .		1
70	Self-adaptive control in cyber-physical systems. , 2017, , .		1
71	A Case Study of Utilizing the SMT Solver for Deployment Optimization of an IEC 61499-based Application. , 2021, , .		1
72	Towards enhanced live visualization based on communication delay prediction for remote AGV operation. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
73	A Ground Texture-based Mapping and Localization Method for AGVs. , 2021, , .		1
74	Spatio-Temporal Aware Testing for Complex Systems. , 2017, , .		0
75	Formal Analysis of Control Software for Cyber-Physical Systems. , 2017, , .		0
76	Simulation-driven Development of Self-adaptive Transportation Systems. , 2018, , .		0
77	Coalgebraic Semantics for Component Systems. Lecture Notes in Computer Science, 2006, , 245-261.	1.0	0
78	Analysis of Software Binaries for Reengineering-Driven Product Line Architecture – An Industrial Case Study. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 182, 71-82.	0.8	0
79	Model-Based Development and Spatiotemporal Behavior of Cyber-Physical Systems. Advances in Web Technologies and Engineering Book Series, 2019, , 69-93.	0.4	0