

# Birgit Vogel-Heuser

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

395  
papers

3,468  
citations

27  
h-index

44  
g-index

447  
ext. papers

4,462  
ext. citations

2  
avg, IF

6.16  
L-index

#	Paper	IF	Citations
395	Boosting Extra-functional Code Reusability in Cyber-physical Production Systems: The Error Handling Case Study. <i>IEEE Transactions on Emerging Topics in Computing</i> , <b>2022</b> , 1-1	4.1	0
394	A model-driven engineering design process for the development of control software for Intralogistics Systems. <i>Automatisierungstechnik</i> , <b>2022</b> , 70, 164-180	0.8	0
393	Towards automatic generation of functionality semantics to improve PLC software modularization. <i>Automatisierungstechnik</i> , <b>2022</b> , 70, 181-191	0.8	0
392	MICOSE4aPS: Industrially Applicable Maturity Metric to Improve Systematic Reuse of Control Software. <i>ACM Transactions on Software Engineering and Methodology</i> , <b>2022</b> , 31, 1-24	3.3	0
391	Coping with Variability in HMI Software in the Design of Machine Manufacturers' Control Software. <i>Lecture Notes in Computer Science</i> , <b>2022</b> , 418-432	0.9	
390	Modelling Industrial Technical Compromises in Production Systems with Causal Loop Diagrams. <i>IFAC-PapersOnLine</i> , <b>2021</b> , 54, 212-219	0.7	0
389	Modelling technical compromises in electronics manufacturing with BPMN+TD in an industrial use case. <i>IFAC-PapersOnLine</i> , <b>2021</b> , 54, 912-917	0.7	0
388	Leveraging the Asset Administration Shell for Agent-Based Production Systems. <i>IFAC-PapersOnLine</i> , <b>2021</b> , 54, 837-844	0.7	6
387	Modellkonsistenz in der Entwicklung von Materialflusssystemen. <i>ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb</i> , <b>2021</b> , 116, 820-825	0.5	1
386	An approach for leveraging Digital Twins in agent-based production systems. <i>Automatisierungstechnik</i> , <b>2021</b> , 69, 1026-1039	0.8	1
385	Measuring the Overall Complexity of Graphical and Textual IEC 61131-3 Control Software. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 5784-5791	4.2	1
384	Hierarchical Reinforcement Learning for Waypoint-based Exploration in Robotic Devices <b>2021</b> ,		2
383	Industry 4.0 and Industry 5.0 Inception, conception and perception. <i>Journal of Manufacturing Systems</i> , <b>2021</b> , 61, 530-535	9.1	95
382	Product Quality Monitoring in Hydraulic Presses Using a Minimal Sample of Sensor and Actuator Data. <i>ACM Transactions on Internet Technology</i> , <b>2021</b> , 21, 1-23	3.8	1
381	(Re)deployment of Smart Algorithms in CyberPhysical Production Systems Using DSL4hDNCS. <i>Proceedings of the IEEE</i> , <b>2021</b> , 109, 542-555	14.3	3
380	Automation platform independent multi-agent system for robust networks of production resources in industry 4.0. <i>Journal of Intelligent Manufacturing</i> , <b>2021</b> , 32, 2023-2041	6.7	7
379	Anforderungsbasierter Test für die Validierung komplexer Automatisierungssysteme. <i>Automatisierungstechnik</i> , <b>2021</b> , 69, 417-429	0.8	

378	A Metric and Visualization of Completeness in Multi-Dimensional Data Sets of Sensor and Actuator Data Applied to a Condition Monitoring Use Case. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 5022	2.6	
377	Evaluating Docker for Lightweight Virtualization of Distributed and Time-Sensitive Applications in Industrial Automation. <i>IEEE Transactions on Industrial Informatics</i> , <b>2021</b> , 17, 3566-3576	11.9	11
376	Interdisciplinary effects of technical debt in companies with mechatronic products – a qualitative study. <i>Journal of Systems and Software</i> , <b>2021</b> , 171, 110809	3.3	4
375	A General Methodology for Adapting Industrial HMIs to Human Operators. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2021</b> , 18, 164-175	4.9	5
374	A Host Intrusion Detection System architecture for embedded industrial devices. <i>Journal of the Franklin Institute</i> , <b>2021</b> , 358, 210-236	4	4
373	. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2021</b> , 18, 2-4	4.9	
372	Model-Driven Approach for Realization of Data Collection Architectures for Cyber-Physical Systems of Systems to Lower Manual Implementation Efforts. <i>Sensors</i> , <b>2021</b> , 21,	3.8	3
371	Towards a Graphical Modelling Tool for Response-Time Requirements based on Soft and Hard Real-time Capabilities in Industrial Cyber-Physical Systems. <i>IEEE Journal of Emerging and Selected Topics in Industrial Electronics</i> , <b>2021</b> , 1-1	2.6	1
370	Managing Variability and Reuse of Extra-functional Control Software in CPPS <b>2021</b> ,		2
369	Potential for combining semantics and data analysis in the context of digital twins. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2021</b> , 379, 20200368	3	2
368	Digital Technologies and Automation: The Human and Eco-Centered Foundations for the Factory of the Future [TC Spotlight]. <i>IEEE Robotics and Automation Magazine</i> , <b>2021</b> , 28, 174-179	3.4	1
367	Custom-tailored clone detection for IEC 61131-3 programming languages. <i>Journal of Systems and Software</i> , <b>2021</b> , 182, 111070	3.3	3
366	Safe Three-Dimensional Assembly Line Design for Robots Based on Combined Multiobjective Approach. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 8844	2.6	2
365	. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2020</b> , 1-14	4.9	2
364	Graphical modeling notation for data collection and analysis architectures in cyber-physical systems of systems. <i>Journal of Industrial Information Integration</i> , <b>2020</b> , 19, 100155	7	6
363	Interdisciplinary engineering of cyber-physical production systems: highlighting the benefits of a combined interdisciplinary modelling approach on the basis of an industrial case. <i>Design Science</i> , <b>2020</b> , 6,	2.8	4
362	Overview and classification of approaches for the simulation of networked control systems. <i>Automatisierungstechnik</i> , <b>2020</b> , 68, 151-165	0.8	0
361	The role of spatial, verbal, numerical, and general reasoning abilities in complex word problem solving for young female and male adults. <i>Mathematics Education Research Journal</i> , <b>2020</b> , 32, 189-211	0.9	10

360	Design, Application, and Evaluation of a Multiagent System in the Logistics Domain. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2020</b> , 1-14	4.9	4
359	Condition monitoring for the Binder Jetting AM-process with machine learning approaches <b>2020</b> ,		3
358	A Cross-disciplinary Model-Based Systems Engineering Workflow of Automated Production Systems Leveraging Socio-technical Aspects <b>2020</b> ,		3
357	Towards Providing Feasibility Feedback in Intralogistics Using a Knowledge Graph <b>2020</b> ,		3
356	Multi-agent systems to enable Industry 4.0. <i>Automatisierungstechnik</i> , <b>2020</b> , 68, 445-458	0.8	8
355	Handover Abilities in Reconfigurable Material Flow Systems for Topology Computing. <i>Lecture Notes in Logistics</i> , <b>2020</b> , 451-461	0.5	1
354	Comparison of Communication Technologies for Industrial Middlewares and DDS-based Realization. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 10935-10942	0.7	0
353	A concept for fault diagnosis combining Case-Based Reasoning with topological system models. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 8217-8224	0.7	1
352	Formalization of Design Patterns and Their Automatic Identification in PLC Software for Architecture Assessment. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 7819-7826	0.7	3
351	Elektronische Datenverarbeitung [Agentenbasiertes Steuern <b>2020</b> , 143-150		
350	Automatisierte Generierung von Sicherheitstests für variantenreiche Produktionssysteme mittels ECAD. <i>Automatisierungstechnik</i> , <b>2020</b> , 68, 375-386	0.8	0
349	Variability Visualization of IEC 61131-3 Legacy Software for Planned Reuse <b>2020</b> ,		1
348	Applying Dynamic Programming to Test Case Scheduling for Automated Production Systems. <i>Communications in Computer and Information Science</i> , <b>2020</b> , 3-20	0.3	
347	Remote Operations. <i>Springer Reference Technik</i> , <b>2020</b> , 1-8	0.1	
346	Causal Inference in Industrial Alarm Data by Timely Clustered Alarms and Transfer Entropy <b>2020</b> ,		4
345	Analysis of metamodels for model-based production automation system engineering. <i>IET Collaborative Intelligent Manufacturing</i> , <b>2020</b> , 2, 45-55	2	2
344	Using Eye Tracking to Assess User Behavior in Virtual Training. <i>Advances in Intelligent Systems and Computing</i> , <b>2020</b> , 341-347	0.4	
343	Smart Data Architekturen. <i>Springer Reference Technik</i> , <b>2020</b> , 1-25	0.1	

342	BPMN+I to support decision making in innovation management for automated production systems including technological, multi team and organizational aspects. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 10891-10898	0.7	3
341	Datenqualität in CPPS. <i>Springer Reference Technik</i> , <b>2020</b> , 1-11	0.1	
340	Conception and Development of a Support System for Assembly Technology. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 639-657	0.9	
339	Softwaremodularität als Voraussetzung für autonome Systeme. <i>Springer Reference Technik</i> , <b>2020</b> , 1-26	0.1	
338	A Knowledge Based System for Managing Heterogeneous Sources of Engineering Information. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 10511-10517	0.7	1
337	Guest Editorial Special Section on the 2018 Conference on Automation Science and Engineering (CASE). <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2020</b> , 17, 1182-1183	4.9	
336	Visual Leakage Inspection in Chemical Process Plants Using Thermographic Videos and Motion Pattern Detection. <i>Sensors</i> , <b>2020</b> , 20,	3.8	1
335	Deep Q-learning for the Control of PLC-based Automated Production Systems <b>2020</b> ,		2
334	Challenges for the digital transformation of development processes in engineering <b>2020</b> ,		2
333	Applying Core Features of the Object-Oriented Programming Paradigm by Function Blocks Based on the IEC 61131 and IEC 61499 Industrial Automation Norms. <i>Studies in Computational Intelligence</i> , <b>2020</b> , 273-289	0.8	0
332	Dynamic Resource Task Negotiation to Enable Product Agent Exploration in Multi-Agent Manufacturing Systems. <i>IEEE Robotics and Automation Letters</i> , <b>2019</b> , 4, 2854-2861	4.2	13
331	An Adaptive Virtual Training System Based on Universal Design. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 51, 335-340	0.7	6
330	Analyzing variability in automation software with the variability analysis toolkit <b>2019</b> ,		4
329	Scientific fundamentals of Industry 4.0. <i>Automatisierungstechnik</i> , <b>2019</b> , 67, 502-503	0.8	1
328	Applying Semantic Web Technologies to Provide Feasibility Feedback in Early Design Phases. <i>Journal of Computing and Information Science in Engineering</i> , <b>2019</b> , 19,	2.4	6
327	Technical Debt as indicator for weaknesses in engineering of automated production systems. <i>Production Engineering</i> , <b>2019</b> , 13, 273-282	1.9	5
326	System architectures for Industrie 4.0 applications. <i>Production Engineering</i> , <b>2019</b> , 13, 247-257	1.9	40
325	Application of a multi-disciplinary design approach in a mechatronic engineering toolchain. <i>Automatisierungstechnik</i> , <b>2019</b> , 67, 246-269	0.8	6

324	Managing inter-model inconsistencies in model-based systems engineering: Application in automated production systems engineering. <i>Journal of Systems and Software</i> , <b>2019</b> , 153, 105-134	3.3	23
323	A Framework for Automatic Initialization of Multi-Agent Production Systems Using Semantic Web Technologies. <i>IEEE Robotics and Automation Letters</i> , <b>2019</b> , 4, 4330-4337	4.2	17
322	Cyber-physical production systems architecture based on multi-agent design pattern comparison of selected approaches mapping four agent patterns. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 105, 4005-4034	3.2	40
321	Reverse Engineering on changed Functional Specification Documents for Model-Based Requirements Engineering <b>2019</b> ,		1
320	Key Directions for Industrial Agent Based Cyber-Physical Production Systems <b>2019</b> ,		20
319	Learning from Evolution for Evolution <b>2019</b> , 255-308		1
318	Effective Innovation Implementation of Mechatronic Product-Service Systems Considering Socio-Technical Aspects. <i>Proceedings of the Design Society International Conference on Engineering Design</i> , <b>2019</b> , 1, 3051-3060	0.7	1
317	Applying knowledge bases to make factories smarter. <i>Automatisierungstechnik</i> , <b>2019</b> , 67, 504-517	0.8	6
316	A Pragmatic Approach Towards Leveraging Employee Competences by Use of Semantic Web Technologies. <i>Proceedings of the Design Society International Conference on Engineering Design</i> , <b>2019</b> , 1, 1045-1054	0.7	1
315	Inconsistency Management in Heterogeneous Models - An Approach for the Identification of Model Dependencies and Potential Inconsistencies. <i>Proceedings of the Design Society International Conference on Engineering Design</i> , <b>2019</b> , 1, 3661-3670	0.7	4
314	The Nature of Software Evolution <b>2019</b> , 9-20		2
313	Leveraging inconsistency management in the multi-view collaborative modelling of cyber-physical production systems. <i>IET Collaborative Intelligent Manufacturing</i> , <b>2019</b> , 1, 126-129	2	2
312	Concept and Evaluation of a Technology-independent Data Collection Architecture for Industrial Automation <b>2019</b> ,		2
311	Similarity Analysis of Control Software Using Graph Mining <b>2019</b> ,		3
310	On the Preservation of the Trust by Regression Verification of PLC software for Cyber-Physical Systems of Systems <b>2019</b> ,		1
309	Adapting Virtual Training Systems for Industrial Procedures to the Needs of Older People <b>2019</b> ,		1
308	An Industrial Evaluation of Test Prioritisation Criteria and Metrics <b>2019</b> ,		2
307	Automatic Visual Leakage Inspection by Using Thermographic Video and Image Analysis <b>2019</b> ,		2

306	Exploring Docker Containers for Time-sensitive Applications in Networked Control Systems <b>2019</b> ,		1
305	Analyzing Students' Mental Models of Technical Systems <b>2019</b> ,		1
304	An Approach to Efficient Test Scheduling for Automated Production Systems <b>2019</b> ,		5
303	Effiziente Initialisierung von Steuerungsparametern in Cyber-Physische Produktionssysteme via Multi-Ebenen-Optimierung. <i>Automatisierungstechnik</i> , <b>2019</b> , 67, 477-489	0.8	
302	Using Real-time Feedback in a Training System for Manual Procedures. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 52, 241-246	0.7	3
301	Introduction and Evaluation of Complexity Metrics for Network-based, Graphical IEC 61131-3 Programming Languages <b>2019</b> ,		4
300	Herausforderungen in der interdisziplinären Entwicklung von Cyber-Physischen Produktionssystemen. <i>Automatisierungstechnik</i> , <b>2019</b> , 67, 445-454	0.8	1
299	Graphical Modeling of Communication Architectures in Network Control Systems with Traceability to Requirements <b>2019</b> ,		3
298	Automatic Synchronization of Mechanical CAD Models and a SysML-based Mechatronic Model using AutomationML <b>2019</b> ,		1
297	Online parameter estimation for cyber-physical production systems based on mixed integer nonlinear programming, process mining and black-box optimization techniques. <i>Automatisierungstechnik</i> , <b>2018</b> , 66, 331-343	0.8	5
296	Increasing system test coverage in production automation systems. <i>Control Engineering Practice</i> , <b>2018</b> , 73, 171-185	3.9	4
295	Analyzing the industrial scalability of backwards compatible intralogistics systems. <i>Production Engineering</i> , <b>2018</b> , 12, 297-307	1.9	1
294	Industrially Applicable System Regression Test Prioritization in Production Automation. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2018</b> , 15, 1839-1851	4.9	7
293	Automatic Parameter Estimation for Reusable Software Components of Modular and Reconfigurable Cyber-Physical Production Systems in the Domain of Discrete Manufacturing. <i>IEEE Transactions on Industrial Informatics</i> , <b>2018</b> , 14, 275-282	11.9	35
292	Interaction in Virtual Environments - How to Control the Environment by Using VR-Glasses in the Most Immersive Way. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 183-201	0.9	2
291	Concept and Implementation of a Software Architecture for Unifying Data Transfer in Automated Production Systems. <i>Technologien Für Die Intelligente Automation</i> , <b>2018</b> , 1-17	0.7	3
290	Improved alarm flood analysis by cluster identification and alarm assignment. <i>Automatisierungstechnik</i> , <b>2018</b> , 66, 647-655	0.8	1
289	Model-based training of manual procedures in automated production systems. <i>Mechatronics</i> , <b>2018</b> , 55, 212-223	3	4

288	Assessment of variance & distribution in data for effective use of statistical methods for product quality prediction. <i>Automatisierungstechnik</i> , <b>2018</b> , 66, 344-355	0.8	1
287	Elektronische Datenverarbeitung [Agentenbasiertes Steuern <b>2018</b> , 2029-2033		
286	1. Dynamische Anbindung und automatische Konfiguration modularer Intralogistiksysteme mittels Agenten <b>2018</b> , 1-20		2
285	Change analysis on evolving PLC software in automated production systems. <i>Automatisierungstechnik</i> , <b>2018</b> , 66, 806-818	0.8	1
284	<b>2018</b> ,		3
283	Towards verified continuous integration in the engineering of automated production systems. <i>Automatisierungstechnik</i> , <b>2018</b> , 66, 784-794	0.8	1
282	Identifying Design Pattern for Agent Based Production System Control <b>2018</b> ,		1
281	Bringing Automated Intelligence to Cyber-Physical Production Systems in Factory Automation <b>2018</b>		6
280	Consistent Automated Production Systems Modeling in a Multi-disciplinary Engineering Workflow <b>2018</b> ,		6
279	Data-Driven Approach to Support Experts in the Identification of Operational States in Industrial Process Plants <b>2018</b> ,		1
278	System evolution through semi-automatic elicitation of security requirements: A Position Paper ? ?Research supported by the DFG (German Research Foundation) in Priority Programme SPP1593: Design for Future - Managed Software Evolution (VO 937/20-2 and JU 2734/2-2).. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 64-69	0.7	0
277	Technical Debt indication in PLC Code for automated Production Systems: Introducing a Domain Specific Static Code Analysis Tool. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 70-75	0.7	2
276	Improving the software engineering of brew house plants by modularizing the control software. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 241-248	0.7	
275	Integrating Haptic Interaction into a Virtual Training System for Manual Procedures in Industrial Environments. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 60-65	0.7	4
274	Key maturity indicators for module libraries for PLC-based control software in the domain of automated Production Systems. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 1610-1617	0.7	9
273	Platform Independent Multi-Agent System for Robust Networks of Production Systems. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 1261-1268	0.7	9
272	Graph-based Grouping of Statistical Dependent Alarms in Automated Production Systems. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 395-400	0.7	1
271	Cross-disciplinary and cross-life-cycle-phase Technical Debt in automated Production Systems: two industrial case studies and a survey. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 1192-1199	0.7	6



270	Methodological Approach for the Evaluation of an Adaptive and Assistive Human-Machine System <b>2018,</b>		1
269	Integrating Hierarchical Task Analysis into Model-Based System Design using Airbus XHTA and IBM Rational Rhapsody <b>2018,</b>		2
268	Methods to support the evolution of Cyber Physical Production Systems. <i>Automatisierungstechnik,</i> <b>2018,</b> 66, 781-783	0.8	
267	A Qualitative Study of Variability Management of Control Software for Industrial Automation Systems <b>2018,</b>		9
266	Applicability of generalized test tables: a case study using the manufacturing system demonstrator xPPU. <i>Automatisierungstechnik,</i> <b>2018,</b> 66, 834-848	0.8	4
265	Towards Industrial Intrusion Prevention Systems: A Concept and Implementation for Reactive Protection. <i>Applied Sciences (Switzerland),</i> <b>2018,</b> 8, 2460	2.6	1
264	Resolving Inconsistencies Optimally in the Model-Based Development of Production Systems <b>2018,</b>		5
263	Design Parameter Optimization of Automated Production Systems <b>2018,</b>		3
262	Automated Generation of Modular PLC Control Software from P&ID Diagrams in Process Industry <b>2018,</b>		2
261	Cyclic Management of Innovative PSS Changes: An Integrated and Interdisciplinary Engineering View <b>2018,</b>		1
260	Alarm Flood Analysis by Hierarchical Clustering of the Probabilistic Dependency between Alarms <b>2018,</b>		1
259	Preventing Technical Debt For Automated Production System Maintenance Using Systematic Change Effort Estimation With Considering Contingent Cost <b>2018,</b>		1
258	Maintainability and evolvability of control software in machine and plant manufacturing [An industrial survey. <i>Control Engineering Practice,</i> <b>2018,</b> 80, 157-173	3.9	18
257	A model-based framework for increasing the interdisciplinary design of mechatronic production systems. <i>Journal of Engineering Design,</i> <b>2018,</b> 29, 617-643	1.8	12
256	Architecture-based change impact analysis in cross-disciplinary automated production systems. <i>Journal of Systems and Software,</i> <b>2018,</b> 146, 167-185	3.3	7
255	Information Retrieval from Redlined Circuit Diagrams and its Model-Based Representation for Automated Engineering <b>2018,</b>		3
254	Model-based development of a multi-agent system for controlling material flow systems. <i>Automatisierungstechnik,</i> <b>2018,</b> 66, 438-448	0.8	10
253	Supporting evolution of automated material flow systems as part of CPPS by using coupled meta models <b>2018,</b>		3

252	Maturity variations of PLC-based control software within a company and among companies from the same industrial sector <b>2018</b> ,		1
251	A flexible architecture for data mining from heterogeneous data sources in automated production systems <b>2017</b> ,		18
250	Model-document coupling in aPS engineering: Challenges and requirements engineering use case <b>2017</b> ,		5
249	Modularity and architecture of PLC-based software for automated production Systems: An analysis in industrial companies. <i>Journal of Systems and Software</i> , <b>2017</b> , 131, 35-62	3.3	32
248	Interdisciplinary product lines to support the engineering in the machine manufacturing domain. <i>International Journal of Production Research</i> , <b>2017</b> , 55, 3701-3714	7.8	2
247	A configurable partial-order planning approach for field level operation strategies of PLC-based industry 4.0 automated manufacturing systems. <i>Engineering Applications of Artificial Intelligence</i> , <b>2017</b> , 66, 128-144	7.2	17
246	Towards the co-evolution of industrial products and its production systems by combining models from development and hardware/software deployment in cyber-physical systems. <i>Production Engineering</i> , <b>2017</b> , 11, 687-694	1.9	10
245	Specification, Verification and Design of Evolving Automotive Software <b>2017</b> ,		1
244	Generation of monitoring functions in production automation using test specifications <b>2017</b> ,		3
243	An agent-based approach for dependable planning of production sequences in automated production systems. <i>Automatisierungstechnik</i> , <b>2017</b> , 65, 766-778	0.8	11
242	A Light-Weight Fault Injection Approach to Test Automated Production System PLC Software in Industrial Practice. <i>Control Engineering Practice</i> , <b>2017</b> , 58, 12-23	3.9	14
241	Metrics for software quality in automated production systems as an indicator for technical debt <b>2017</b> ,		10
240	Metrics for the evaluation of data quality of signal data in industrial processes <b>2017</b> ,		7
239	Integration of safety aspects in modeling of Networked Control Systems <b>2017</b> ,		2
238	Scalable cloud based semantic code analysis to support continuous integration of industrial PLC code <b>2017</b> ,		3
237	Automatic generation of shop floor gateway configurations from systems modeling language <b>2017</b> ,		2
236	Modeling as the basis for innovation cycle management of PSS: Making use of interdisciplinary models <b>2017</b> ,		5
235	Adapting the concept of technical debt to software of automated Production Systems focusing on fault handling, mode of operation and safety aspects. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 5887-5894	0.7	4

234	Maintenance effort estimation with KAMP4aPS for cross-disciplinary automated PLC-based Production Systems - a collaborative approach. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 4360-4367	0.7	3
233	Agenten und Zuverlässigkeit Ein Widerspruch?. <i>Automatisierungstechnik</i> , <b>2017</b> , 65, 719-720	0.8	
232	Data-driven model development for quality prediction in forming technology <b>2017</b> ,		6
231	Feature-based systematic approach development for inconsistency resolution in automated production system design <b>2017</b> ,		4
230	A priori test coverage estimation for automated production systems: Using generated behavior models for coverage calculation <b>2017</b> ,		1
229	Failure mode classification for control valves for supporting data-driven fault detection <b>2017</b> ,		4
228	Hidden Markov model-based predictive maintenance in semiconductor manufacturing: A genetic algorithm approach <b>2017</b> ,		4
227	A virtual training system for aging employees in machine operation <b>2017</b> ,		4
226	A tiered security analysis of Industrial Control System Devices <b>2017</b> ,		2
225	Current status of software development in industrial practice: Key results of a large-scale questionnaire <b>2017</b> ,		3
224	Towards modern inclusive factories: A methodology for the development of smart adaptive human-machine interfaces <b>2017</b> ,		27
223	Generalized test tables: A powerful and intuitive specification language for reactive systems <b>2017</b> ,		6
222	Management of Inconsistencies in Domain-Spanning Models An Interactive Visualization Approach. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 71-87	0.9	2
221	Making Implicit Knowledge Explicit Acquisition of Plant Staffs Mental Models as a Basis for Developing a Decision Support System. <i>Communications in Computer and Information Science</i> , <b>2017</b> , 358-365	0.3	3
220	Generalised Test Tables: A Practical Specification Language for Reactive Systems. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 129-144	0.9	4
219	Modellbasierte Softwareagenten als Konnektoren zur Kopplung von heterogenen Cyber-Physischen Produktionssystemen <b>2017</b> , 407-416		
218	Agentenbasierte dynamische Rekonfiguration von vernetzten intelligenten Produktionsanlagen <b>2017</b> , 31-44		3
217	Agentenorientierte Verknüpfung existierender heterogener automatisierter Produktionsanlagen durch mobile Roboter zu einem Industrie-4.0-System <b>2017</b> , 93-118		1

216 Diagnose von Inkonsistenzen in heterogenen Engineeringdaten **2017**, 315-334

215 A verification-supported evolution approach to assist software application engineers in industrial factory automation **2016**, 4

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204 From Selling Products to Providing User Oriented Product-Service Systems Exploring Service Orientation in the German Machine and Plant Manufacturing Industry. *IFIP Advances in Information and Communication Technology*, **2016**, 280-290 0.5

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202 Towards a common classification of changes for information and automated production systems as precondition for maintenance effort estimation **2016**, 1

201 Automated test suite generation to test modular designed packaging machines using Fault Injection and a simulink-based simulation approach **2016**, 1

200 Semantic integration of multi-agent systems using an OPC UA information modeling approach **2016**, 10

199 An agent approach to flexible automated production systems based on discrete and continuous reasoning **2016**, 10

198	Variability management for automated production systems using product lines and feature models <b>2016,</b>		2
197	Data-driven valve diagnosis to increase the overall equipment effectiveness in process industry <b>2016,</b>		7
196	System regression test prioritization in factory automation: Relating functional system tests to the tested code using field data <b>2016,</b>		3
195	A multivariate process capability index that complies with industry requirements <b>2016,</b>		2
194	A model-based failure recovery approach for automated production systems combining SysML and industrial standards <b>2016,</b>		5
193	Supporting Operators in Process Control TasksBenefits of Interactive 3-D Visualization. <i>IEEE Transactions on Human-Machine Systems</i> , <b>2016</b> , 46, 895-907	4.1	8
192	Challenges in integrating requirements in model based development processes in the machinery and plant building industry <b>2016,</b>		2
191	Modularized control algorithm for automated material handling systems <b>2016,</b>		3
190	Konzept eines wissensbasierten Frameworks zur Spezifikation und Diagnose von Inkonsistenzen in mechatronischen Modellen. <i>Automatisierungstechnik</i> , <b>2016</b> , 64,	0.8	2
189	<b>2016,</b>		37
188	Optimizing modular and reconfigurable cyber-physical production systems by determining parameters automatically <b>2016,</b>		7
187	Summer school on intelligent agents in automation: Hands-on educational experience on deploying industrial agents <b>2016,</b>		5
186	Guided semi-automatic system testing in factory automation <b>2016,</b>		3
185	Increasing Dependability by Agent-Based Model-Checking During Run-Time. <i>Studies in Computational Intelligence</i> , <b>2016</b> , 159-167	0.8	
184	Design for future: managed software evolution. <i>Computer Science - Research and Development</i> , <b>2015</b> , 30, 321-331		9
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182	Agentenbasierte Kopplung von Produktionsanlagen. <i>Informatik-Spektrum</i> , <b>2015</b> , 38, 191-198	0.3	10
181	Criteria-based alarm flood pattern recognition using historical data from automated production systems (aPS). <i>Mechatronics</i> , <b>2015</b> , 31, 89-100	3	36

180	Agent-Based Control of Production Systems and Its Architectural Challenges <b>2015</b> , 153-170		6
179	Evolution of software in automated production systems: Challenges and research directions. <i>Journal of Systems and Software</i> , <b>2015</b> , 110, 54-84	3.3	185
178	Coupling simulation and model checking to examine selected mechanical constraints of automated production systems <b>2015</b> ,		4
177	Data integration in manufacturing industry: Model-based integration of data distributed from ERP to PLC <b>2015</b> ,		7
176	Changeability of Manufacturing Automation Systems using an Orchestration Engine for Programmable Logic Controllers. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 1573-1579	0.7	6
175	A comparison of inconsistency management approaches using a mechatronic manufacturing system design case study <b>2015</b> ,		33
174	A Model-Driven Approach on Object-Oriented PLC Programming for Manufacturing Systems with Regard to Usability. <i>IEEE Transactions on Industrial Informatics</i> , <b>2015</b> , 11, 790-800	11.9	24
173	Selected challenges of software evolution for automated production systems <b>2015</b> ,		14
172	Engineering Support in the Machine Manufacturing Domain through Interdisciplinary Product Lines: An Applicability Analysis. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 211-218	0.7	7
171	Towards Effective Management of Inconsistencies in Model-Based Engineering of Automated Production Systems. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 916-923	0.7	44
170	Integrating Lab-size Automation Plants into a Web-based E-learning Environment for Teaching C Programming in Teams. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 295-300	0.7	1
169	Towards interdisciplinary variability modeling for automated production systems: Opportunities and challenges when applying delta modeling: A case study <b>2015</b> ,		5
168	An Assessment of the Potentials and Challenges in Future Approaches for Automation Software <b>2015</b> , 137-152		2
167	Interdisziplinärer Produktlinienansatz zur Steigerung der Wiederverwendung. <i>Automatisierungstechnik</i> , <b>2015</b> , 63,	0.8	4
166	Applicability of Technical Debt as a Concept to Understand Obstacles for Evolution of Automated Production Systems <b>2015</b> ,		11
165	Towards finding the appropriate level of abstraction to model and verify automated production systems in discrete event simulation <b>2015</b> ,		1
164	Evaluating reconfiguration abilities of automated production systems in Industrie 4.0 with metrics <b>2015</b> ,		4
163	Enabling flexible automation system hardware: Dynamic reconfiguration of a real-time capable field-bus <b>2015</b> ,		7

162	Challenges for maintenance of PLC-software and its related hardware for automated production systems: Selected industrial Case Studies <b>2015</b> ,		22
161	Contribution of personal factors for a better understanding of the gender effects of freshmen in mechanical engineering <b>2015</b> ,		2
160	Reconfiguration architecture for updates of automation systems during operation <b>2015</b> ,		6
159	Model driven engineering of manufacturing execution systems using a formal specification <b>2015</b> ,		9
158	Configuration of PLC software for automated warehouses based on reusable components- an industrial case study <b>2015</b> ,		3
157	Agents enabling cyber-physical production systems. <i>Automatisierungstechnik</i> , <b>2015</b> , 63,	0.8	51
156	Agentenbasierte dynamische Rekonfiguration von vernetzten intelligenten Produktionsanlagen <b>2015</b> , 1-14		1
155	Architecture-Based Assessment and Planning of Software Changes in Information and Automated Production Systems State of the Art and Open Issues <b>2015</b> ,		5
154	Technical debt in Automated Production Systems <b>2015</b> ,		8
153	An Analysis of Challenges and State of the Art for Modular Engineering in the Machine and Plant Manufacturing Domain. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 87-92	0.7	6
152	Proving equivalence between control software variants for Programmable Logic Controllers <b>2015</b> ,		3
151	Model-based quality assurance in machine and plant automation using sequence diagrams [A comparison of two research approaches <b>2015</b> ,		3
150	Enhancing a model-based engineering approach for distributed manufacturing automation systems with characteristics and design patterns. <i>Journal of Systems and Software</i> , <b>2015</b> , 101, 221-235	3.3	39
149	Review of Model-Based Testing Approaches in Production Automation and Adjacent Domains Current Challenges and Research Gaps. <i>Journal of Software Engineering and Applications</i> , <b>2015</b> , 08, 499-519	0.6	24
148	Regression Verification for Programmable Logic Controller Software. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 234-251	0.9	18
147	An Orchestration Engine for Services-Oriented Field Level Automation Software. <i>Studies in Computational Intelligence</i> , <b>2015</b> , 71-80	0.8	3
146	Diagnose von Inkonsistenzen in heterogenen Engineeringdaten <b>2015</b> , 1-21		
145	Automatic Generation of Integrated Process Data Visualizations Using Human Knowledge. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 488-498	0.9	2

144	Agentenorientierte Verknüpfung existierender heterogener automatisierter Produktionsanlagen durch mobile Roboter zu einem Industrie-4.0-System <b>2015</b> , 1-25		2
143	Modellbasierte Softwareagenten als Konnektoren zur Kopplung von heterogenen Cyber-Physischen Produktionssystemen <b>2015</b> , 1-10		
142	Modeling of power consumption in manufacturing: Gross and detailed planning in consideration of all forms of energy as planning resources including load management during runtime <b>2014</b> ,		1
141	Keeping requirements and test cases consistent: Towards an ontology-based approach <b>2014</b> ,		13
140	An experimental study on UML Modeling errors and their causes in the education of model driven PLC programming <b>2014</b> ,		1
139	Combining a SysML-based Modeling Approach and Semantic Technologies for Analyzing Change Influences in Manufacturing Plant Models. <i>Procedia CIRP</i> , <b>2014</b> , 17, 451-456	1.8	31
138	An Integrated Approach to Analyze Change-situations in the Development of Production Systems. <i>Procedia CIRP</i> , <b>2014</b> , 17, 148-153	1.8	9
137	Sparse representation and its applications in micro-milling condition monitoring: noise separation and tool condition monitoring. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2014</b> , 70, 185-199	3.2	42
136	Model-driven engineering of Manufacturing Automation Software Projects – A SysML-based approach. <i>Mechatronics</i> , <b>2014</b> , 24, 883-897	3	63
135	Family model mining for function block diagrams in automation software <b>2014</b> ,		29
134	Detection of Temporal Dependencies in Alarm Time Series of Industrial Plants. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2014</b> , 47, 1802-1807		15
133	Model-based testing of PLC software: test of plants' reliability by using fault injection on component level. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2014</b> , 47, 3509-3515		13
132	Automated model generation in the field of electrical automotive driveline components. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2014</b> , 47, 4499-4504		
131	Benefit of an e-learning environment including real and simulated plants for teaching mechanical engineering freshman in programming C <b>2014</b> ,		2
130	Coupling heterogeneous production systems by a multi-agent based cyber-physical production system <b>2014</b> ,		63
129	Extension of Electronic Device Description Language for analysing change impacts in modular automation in manufacturing plants. <i>Journal of Engineering Design</i> , <b>2014</b> , 25, 125-149	1.8	4
128	Consistent engineering information model for mechatronic components in production automation engineering <b>2014</b> ,		5
127	Challenges of Parallel Evolution in Production Automation Focusing on Requirements Specification and Fault Handling. <i>Automatisierungstechnik</i> , <b>2014</b> , 62, 758-770	0.8	24



126	Interface Behavior Modeling for Automatic Verification of Industrial Automation Systems' Functional Conformance. <i>Automatisierungstechnik</i> , <b>2014</b> , 62, 815-825	0.8	21
125	Co-evolution and reuse of automation control and simulation software: Identification and definition of modification actions and strategies <b>2014</b> ,		2
124	Interaction of model-driven engineering and signal-based online monitoring of production systems: Towards Requirement-aware evolution <b>2014</b> ,		3
123	Female characteristics and requirements in software engineering in mechanical engineering <b>2014</b> ,		6
122	Supporting the cross-disciplinary development of product-service systems through model transformations <b>2014</b> ,		4
121	Redeployment of control software during runtime for modular automation systems taking real-time and distributed I/O into consideration <b>2014</b> ,		3
120	Software design für die Zukunft   Geplante und gemanagte Softwareevolution. <i>Automatisierungstechnik</i> , <b>2014</b> , 62, 755-757	0.8	1
119	Delta modeling for variant-rich and evolving manufacturing systems <b>2014</b> ,		14
118	Towards industrial application of model-driven platform-independent PLC programming using UML <b>2014</b> ,		5
117	Integration of distributed hybrid multi-agent systems into an industrial IT environment: Improving interconnectivity of industrial IT systems to the shop floor <b>2014</b> ,		3
116	Quality despite quantity   Teaching large heterogenous classes in C programming and fundamentals in computer science <b>2014</b> ,		3
115	MDE of manufacturing automation software   Integrating SysML and standard development tools <b>2014</b> ,		7
114	Compatibility and coalition formation: Towards the vision of an automatic synthesis of manufacturing system designs <b>2014</b> ,		2
113	Software changes in factory automation: Towards automatic change based regression testing <b>2014</b> ,		7
112	Anforderungen an die Softwareevolution in der Automatisierung des Maschinen- und Anlagenbaus. <i>Automatisierungstechnik</i> , <b>2014</b> , 62,	0.8	6
111	Automatic generation of field control strategies for supporting (re-)engineering of manufacturing systems. <i>Journal of Intelligent Manufacturing</i> , <b>2014</b> , 25, 1101-1111	6.7	27
110	Industrie 4.0 am Beispiel einer Verbundanlage. <i>Atp Magazin</i> , <b>2014</b> , 56, 52	1.3	5
109	Usability Experiments to Evaluate UML/SysML-Based Model Driven Software Engineering Notations for Logic Control in Manufacturing Automation. <i>Journal of Software Engineering and Applications</i> , <b>2014</b> , 07, 943-973	0.6	21

108	Challenges for Software Engineering in Automation. <i>Journal of Software Engineering and Applications</i> , <b>2014</b> , 07, 440-451	0.6	74
107	A Multi-Agent Architecture for Compensating Unforeseen Failures on Field Control Level. <i>Studies in Computational Intelligence</i> , <b>2014</b> , 195-208	0.8	7
106	Formal Technical Process Specification and Verification for Automated Production Systems. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 287-303	0.9	4
105	Herausforderungen und Anforderungen aus Sicht der IT und der Automatisierungstechnik <b>2014</b> , 37-48		22
104	Agentenbasierte dynamische Rekonfiguration von vernetzten intelligenten Produktionsanlagen □ Evolution statt Revolution <b>2014</b> , 145-158		12
103	Enabling Industrie 4.0 □ Chancen und Nutzen für die Prozessindustrie <b>2014</b> , 159-171		6
102	Zyklusmanagement in der Planung und Entwicklung <b>2014</b> , 90-154		
101	Kollaborative Fertigung mittels eines Multiagentensystems zur Vernetzung anlagenspezifischer Echtzeitsysteme. <i>Informatik Aktuell</i> , <b>2014</b> , 91-100	0.3	
100	Integrated Modeling of Complex Production Automation Systems to Increase Dependability <b>2014</b> , 363-385		1
99	Prozessgrundlagen <b>2014</b> , 14-89		
98	Development of PLC-Based Software for Increasing the Dependability of Production Automation Systems. <i>IEEE Transactions on Industrial Informatics</i> , <b>2013</b> , 9, 2397-2406	11.9	42
97	Funktionaler Anwendungsentwurf für agentenbasierte, verteilte Automatisierungssysteme. <i>Xpert Press</i> , <b>2013</b> , 3-19		5
96	Werkzeugunterstützung für die Entwicklung von SPS-basierten Softwareagenten zur Erhöhung der Verfügbarkeit. <i>Xpert Press</i> , <b>2013</b> , 291-303		4
95	Concept for an integration-framework to enable the crossdisciplinary development of product-service systems <b>2013</b> ,		3
94	Using DSM and MDM methodologies to analyze structural SysML models <b>2013</b> ,		2
93	Anforderungen an CPS aus Sicht der Automatisierungstechnik / Requirements on CPS from the Viewpoint of Automation. <i>Automatisierungstechnik</i> , <b>2013</b> , 61, 669-676	0.8	20
92	Cyber-physische Systeme. <i>Automatisierungstechnik</i> , <b>2013</b> , 61, 667-668	0.8	3
91	. <i>IEEE Transactions on Education</i> , <b>2013</b> , 56, 329-335	2.1	20

90	Modeling Multicore Programmable Logic Controllers in Networked Automation Systems <b>2013</b> ,		3
89	An interdisciplinary SysML based modeling approach for analyzing change influences in production plants to support the engineering <b>2013</b> ,		46
88	Benefit of e-learning teaching C-programming and software engineering in a very large mechanical engineering beginners class <b>2013</b> ,		5
87	Efficient modeling of mechatronic systems regarding variety and complexity in the field of automotive <b>2013</b> ,		1
86	Evolution in industrial plant automation: A case study <b>2013</b> ,		36
85	Increasing agility in engineering and runtime of automated manufacturing systems <b>2013</b> ,		8
84	Agent based control of production systems <b>2013</b> ,		6
83	Model-Driven Engineering and Semantic Technologies for the Design of Cyber-Physical Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2013</b> , 46, 210-215		4
82	Design and implementation of an integrated, platform independent 3D visualization of complex process data. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2013</b> , 46, 317-323		1
81	Energy Management based on a Hybrid Modeling Approach. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2013</b> , 46, 158-161		2
80	Combining Knowledge Modeling and Machine Learning for Alarm Root Cause Analysis. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2013</b> , 46, 1843-1848		26
79	Possibilities and challenges of an integrated development using a combined SysML-model and corresponding domain specific models. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2013</b> , 46, 1465-1470		3
78	Erweiterung des V-Modells für den Entwurf von verteilten Automatisierungssystemen. <i>Automatisierungstechnik</i> , <b>2013</b> , 61, 79-91	0.8	4
77	Methodology for Identification of Adaptive Reusable Modules in Automated Production Systems. <i>Lecture Notes in Production Engineering</i> , <b>2013</b> , 125-135	0	5
76	Knowledge-Based Technologies for Future Factory Engineering and Control. <i>Studies in Computational Intelligence</i> , <b>2013</b> , 355-374	0.8	18
75	SysML-Based Approach for Automation Software Development [Explorative Usability Evaluation of the Provided Notation. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 568-574	0.9	6
74	Improving Common Model Understanding Within Collaborative Engineering Design Research Projects. <i>Lecture Notes in Mechanical Engineering</i> , <b>2013</b> , 643-654	0.4	6
73	Automated Test Case Generation for Industrial Control Applications. <i>Studies in Computational Intelligence</i> , <b>2013</b> , 263-273	0.8	5

72	Realisierung eines Konzeptes zur Diagnose ethernetbasierter Echtzeitkommunikationssysteme. <i>Informatik Aktuell</i> , <b>2013</b> , 99-108	0.3
71	Dynamic redeployment of control software in distributed industrial automation systems during runtime <b>2012</b> ,	9
70	Time as non-functional requirement in distributed control systems <b>2012</b> ,	8
69	Computing dependent industrial alarms for alarm flood reduction <b>2012</b> ,	25
68	Modeling of Networked Automation Systems for simulation and model checking of time behavior <b>2012</b> ,	7
67	Workflow and decision support for the design of distributed automation systems <b>2012</b> ,	4
66	Evaluation of a graphical modeling language for the specification of manufacturing execution systems <b>2012</b> ,	1
65	Using contact points to integrate discipline spanning real-time requirements in modeling Networked Automation Systems for manufacturing systems <b>2012</b> ,	4
64	Design, implementation and evaluation of a hybrid approach for software agents in automation <b>2012</b> ,	10
63	Fault-centric system modeling using SysML for reliability testing <b>2012</b> ,	5
62	Design patterns for distributed automation systems with consideration of non-functional requirements <b>2012</b> ,	12
61	Diagnosis of automation devices based on engineering and historical data <b>2012</b> ,	4
60	A web-based e-learning and exam tool with an automated evaluation process for teaching software engineering <b>2012</b> ,	4
59	Efficient 3D voxel reconstruction of human shape within robotic work cells <b>2012</b> ,	4
58	Towards a Formal Specification Framework for Manufacturing Execution Systems. <i>IEEE Transactions on Industrial Informatics</i> , <b>2012</b> , 8, 311-320	11.9 52
57	Supporting integrated development of closed-loop PLC control software for production systems <b>2012</b> ,	4
56	Comparison of a transformed Matlab/Simulink model into the programming language CFC on different IEC 61131-3 PLC environments <b>2012</b> ,	4
55	Evaluation of a newly developed model-driven PLC programming approach for machine and plant automation <b>2012</b> ,	2

54	Usability evaluation on teaching and applying model-driven object oriented approaches for PLC software <b>2012</b> ,		6
53	Usability challenges in the design workflow of reusable PLC software for machine and plant automation <b>2012</b> ,		3
52	Automatic Generation of Field Control Strategies for Supporting (Re-)Engineering of Manufacturing Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 1574-1579		6
51	Specification of the Requirements to Support Information Technology-Cycles in the Machine and Plant Manufacturing Industry. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 1077-1082		14
50	Model-based Approach to Generate Training Sequences for Discrete Event Anomaly Detection in Manufacturing. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 151-156		2
49	On Modelling the State-Space of Manufacturing Systems using UML. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 469-474		11
48	Automated PLC Software Testing using adapted UML Sequence Diagrams. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 1615-1621		5
47	Konzept zur Erhöhung der Flexibilität von Produktionsanlagen durch Einsatz von rekonfigurierbaren Anlagenkomponenten und echtzeitfähigen Softwareagenten. <i>Informatik Aktuell</i> , <b>2012</b> , 121-130	0.3	6
46	Lifecycle Oriented Planning of Mechatronic Products and Corresponding Services. <i>International Federation for Information Processing</i> , <b>2012</b> , 349-358		4
45	Typical automation functions and their distribution in automation systems <b>2011</b> ,		11
44	Dealing with non-functional requirements in distributed control systems engineering <b>2011</b> ,		7
43	PLC-Statecharts: An Approach to Integrate UML-Statecharts in Open-Loop Control Engineering □ Aspects on Behavioral Semantics and Model-Checking. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2011</b> , 44, 7866-7872		23
42	Implementation and evaluation of UML as modeling notation in object oriented software engineering for machine and plant automation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2011</b> , 44, 9151-9157		11
41	Intelligent Probabilistic Recurrent Fuzzy Control of Human-Machine Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2011</b> , 44, 4857-4862		2
40	Formal MES Modeling Framework Integration of Different Views. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2011</b> , 44, 14109-14114		5
39	Test case generation approach for industrial automation systems <b>2011</b> ,		23
38	<b>2011</b> ,		3
37	Highly reconfigurable production systems controlled by real-time agents <b>2011</b> ,		12

36	Automated test case generation approach for PLC control software exception handling using fault injection <b>2011</b> ,		22
35	Integration of control loops in an UML based engineering environment for PLC <b>2011</b> ,		2
34	Unified sensor data provisioning with semantic technologies <b>2011</b> ,		7
33	Modeling network architecture and time behavior of Distributed Control Systems in industrial plant automation <b>2011</b> ,		18
32	Engineering process for an online testing process of control software in production systems <b>2011</b> ,		1
31	Towards management of Information Technology-cycles in transdisciplinary innovation processes <b>2011</b> ,		1
30	Modeling order effects on errors in object oriented modeling for machine and plant automation from an educational point of view <b>2011</b> ,		3
29	Common communication model for distributed automation systems <b>2011</b> ,		12
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