

Birgit Vogel-Heuser

List of Publications by Citations

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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	Evolution of software in automated production systems: Challenges and research directions. <i>Journal of Systems and Software</i> , 2015 , 110, 54-84	3.3	185
394	Guest Editorial Industry 4.0 Prerequisites and Visions. <i>IEEE Transactions on Automation Science and Engineering</i> , 2016 , 13, 411-413	4.9	162
393	Design, modelling, simulation and integration of cyber physical systems: Methods and applications. <i>Computers in Industry</i> , 2016 , 82, 273-289	11.6	154
392	Industry 4.0 and Industry 5.0 Inception, conception and perception. <i>Journal of Manufacturing Systems</i> , 2021 , 61, 530-535	9.1	95
391	Challenges for Software Engineering in Automation. <i>Journal of Software Engineering and Applications</i> , 2014 , 07, 440-451	0.6	74
390	Model-driven engineering of Manufacturing Automation Software Projects A SysML-based approach. <i>Mechatronics</i> , 2014 , 24, 883-897	3	63
389	Coupling heterogeneous production systems by a multi-agent based cyber-physical production system 2014 ,		63
388	Towards a Formal Specification Framework for Manufacturing Execution Systems. <i>IEEE Transactions on Industrial Informatics</i> , 2012 , 8, 311-320	11.9	52
387	Agents enabling cyber-physical production systems. <i>Automatisierungstechnik</i> , 2015 , 63,	0.8	51
386	An interdisciplinary SysML based modeling approach for analyzing change influences in production plants to support the engineering 2013 ,		46
385	Towards Effective Management of Inconsistencies in Model-Based Engineering of Automated Production Systems. <i>IFAC-PapersOnLine</i> , 2015 , 48, 916-923	0.7	44
384	Sparse representation and its applications in micro-milling condition monitoring: noise separation and tool condition monitoring. <i>International Journal of Advanced Manufacturing Technology</i> , 2014 , 70, 185-199	3.2	42
383	Development of PLC-Based Software for Increasing the Dependability of Production Automation Systems. <i>IEEE Transactions on Industrial Informatics</i> , 2013 , 9, 2397-2406	11.9	42
382	System architectures for Industrie 4.0 applications. <i>Production Engineering</i> , 2019 , 13, 247-257	1.9	40
381	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> , 2019 , 105, 4005-4034	3.2	40
380	Enhancing a model-based engineering approach for distributed manufacturing automation systems with characteristics and design patterns. <i>Journal of Systems and Software</i> , 2015 , 101, 221-235	3.3	39
379	2016 ,		37

378	Criteria-based alarm flood pattern recognition using historical data from automated production systems (aPS). <i>Mechatronics</i> , 2015 , 31, 89-100	3	36
377	Evolution in industrial plant automation: A case study 2013 ,		36
376	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> , 2018 , 14, 275-282	11.9	35
375	Fault Handling in PLC-Based Industry 4.0 Automated Production Systems as a Basis for Restart and Self-Configuration and Its Evaluation. <i>Journal of Software Engineering and Applications</i> , 2016 , 09, 1-43	0.6	34
374	A comparison of inconsistency management approaches using a mechatronic manufacturing system design case study 2015 ,		33
373	Modularity and architecture of PLC-based software for automated production Systems: An analysis in industrial companies. <i>Journal of Systems and Software</i> , 2017 , 131, 35-62	3.3	32
372	Close integration between UML and IEC 61131-3: New possibilities through object-oriented extensions 2009 ,		32
371	Combining a SysML-based Modeling Approach and Semantic Technologies for Analyzing Change Influences in Manufacturing Plant Models. <i>Procedia CIRP</i> , 2014 , 17, 451-456	1.8	31
370	Family model mining for function block diagrams in automation software 2014 ,		29
369	Towards modern inclusive factories: A methodology for the development of smart adaptive human-machine interfaces 2017 ,		27
368	Automatic generation of field control strategies for supporting (re-)engineering of manufacturing systems. <i>Journal of Intelligent Manufacturing</i> , 2014 , 25, 1101-1111	6.7	27
367	Combining Knowledge Modeling and Machine Learning for Alarm Root Cause Analysis. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 1843-1848		26
366	Computing dependent industrial alarms for alarm flood reduction 2012 ,		25
365	A Model-Driven Approach on Object-Oriented PLC Programming for Manufacturing Systems with Regard to Usability. <i>IEEE Transactions on Industrial Informatics</i> , 2015 , 11, 790-800	11.9	24
364	Challenges of Parallel Evolution in Production Automation Focusing on Requirements Specification and Fault Handling. <i>Automatisierungstechnik</i> , 2014 , 62, 758-770	0.8	24
363	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> , 2015 , 08, 499-519	0.6	24
362	Managing inter-model inconsistencies in model-based systems engineering: Application in automated production systems engineering. <i>Journal of Systems and Software</i> , 2019 , 153, 105-134	3.3	23
361	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> , 2011 , 44, 7866-7872		23

360	Test case generation approach for industrial automation systems 2011 ,		23
359	Challenges for maintenance of PLC-software and its related hardware for automated production systems: Selected industrial Case Studies 2015 ,		22
358	Automated test case generation approach for PLC control software exception handling using fault injection 2011 ,		22
357	Herausforderungen und Anforderungen aus Sicht der IT und der Automatisierungstechnik 2014 , 37-48		22
356	Interface Behavior Modeling for Automatic Verification of Industrial Automation Systems' Functional Conformance. <i>Automatisierungstechnik</i> , 2014 , 62, 815-825	0.8	21
355	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> , 2014 , 07, 943-973	0.6	21
354	Key Directions for Industrial Agent Based Cyber-Physical Production Systems 2019 ,		20
353	Anforderungen an CPS aus Sicht der Automatisierungstechnik / Requirements on CPS from the Viewpoint of Automation. <i>Automatisierungstechnik</i> , 2013 , 61, 669-676	0.8	20
352	. <i>IEEE Transactions on Education</i> , 2013 , 56, 329-335	2.1	20
351	Multi-objective optimization of hybrid electric vehicles considering fuel consumption and dynamic performance 2010 ,		19
350	A flexible architecture for data mining from heterogeneous data sources in automated production systems 2017 ,		18
349	Modeling network architecture and time behavior of Distributed Control Systems in industrial plant automation 2011 ,		18
348	Regression Verification for Programmable Logic Controller Software. <i>Lecture Notes in Computer Science</i> , 2015 , 234-251	0.9	18
347	Knowledge-Based Technologies for Future Factory Engineering and Control. <i>Studies in Computational Intelligence</i> , 2013 , 355-374	0.8	18
346	Maintainability and evolvability of control software in machine and plant manufacturing [An industrial survey. <i>Control Engineering Practice</i> , 2018 , 80, 157-173	3.9	18
345	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> , 2017 , 66, 128-144	7.2	17
344	Increasing flexibility of modular automated material flow systems: A meta model architecture. <i>IFAC-PapersOnLine</i> , 2016 , 49, 1543-1548	0.7	17
343	A Framework for Automatic Initialization of Multi-Agent Production Systems Using Semantic Web Technologies. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 4330-4337	4.2	17

342	Model based design of knowledge bases in multi agent systems for enabling automatic reconfiguration capabilities of material flow modules 2016 ,		16
341	Modeling of Manufacturing Execution Systems: An interdisciplinary challenge 2010 ,		16
340	Detection of Temporal Dependencies in Alarm Time Series of Industrial Plants. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 1802-1807		15
339	Selected challenges of software evolution for automated production systems 2015 ,		14
338	A Light-Weight Fault Injection Approach to Test Automated Production System PLC Software in Industrial Practice. <i>Control Engineering Practice</i> , 2017 , 58, 12-23	3.9	14
337	Delta modeling for variant-rich and evolving manufacturing systems 2014 ,		14
336	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> , 2012 , 45, 1077-1082		14
335	Dynamic Resource Task Negotiation to Enable Product Agent Exploration in Multi-Agent Manufacturing Systems. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 2854-2861	4.2	13
334	Keeping requirements and test cases consistent: Towards an ontology-based approach 2014 ,		13
333	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> , 2014 , 47, 3509-3515		13
332	Automatic program verification of continuous function chart based on model checking 2009 ,		13
331	Design patterns for distributed automation systems with consideration of non-functional requirements 2012 ,		12
330	Highly reconfigurable production systems controlled by real-time agents 2011 ,		12
329	Common communication model for distributed automation systems 2011 ,		12
328	Agentenbasierte dynamische Rekonfiguration von vernetzten intelligenten Produktionsanlagen □ Evolution statt Revolution 2014 , 145-158		12
327	A model-based framework for increasing the interdisciplinary design of mechatronic production systems. <i>Journal of Engineering Design</i> , 2018 , 29, 617-643	1.8	12
326	An agent-based approach for dependable planning of production sequences in automated production systems. <i>Automatisierungstechnik</i> , 2017 , 65, 766-778	0.8	11
325	Applicability of Technical Debt as a Concept to Understand Obstacles for Evolution of Automated Production Systems 2015 ,		11

324	Typical automation functions and their distribution in automation systems 2011,		11
323	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> , 2011 , 44, 9151-9157		11
322	On Modelling the State-Space of Manufacturing Systems using UML. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 469-474		11
321	TELEMATIC BASED TRANSPORT DEVICE TRACKING AND SUPERVISION SYSTEM 2006 , 39, 99-99		11
320	Evaluating Docker for Lightweight Virtualization of Distributed and Time-Sensitive Applications in Industrial Automation. <i>IEEE Transactions on Industrial Informatics</i> , 2021 , 17, 3566-3576	11.9	11
319	Towards a taxonomy of errors in PLC programming. <i>Cognition, Technology and Work</i> , 2015 , 17, 417-430	2.9	10
318	Agentenbasierte Kopplung von Produktionsanlagen. <i>Informatik-Spektrum</i> , 2015 , 38, 191-198	0.3	10
317	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> , 2020 , 32, 189-211	0.9	10
316	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> , 2017 , 11, 687-694	1.9	10
315	Metrics for software quality in automated production systems as an indicator for technical debt 2017,		10
314	Design, implementation and evaluation of a hybrid approach for software agents in automation 2012,		10
313	Automation in the Wood and Paper Industry 2009 , 1015-1026		10
312	Semantic integration of multi-agent systems using an OPC UA information modeling approach 2016,		10
311	An agent approach to flexible automated production systems based on discrete and continuous reasoning 2016,		10
310	Model-based development of a multi-agent system for controlling material flow systems. <i>Automatisierungstechnik</i> , 2018 , 66, 438-448	0.8	10
309	Design for future: managed software evolution. <i>Computer Science - Research and Development</i> , 2015 , 30, 321-331		9
308	An Integrated Approach to Analyze Change-situations in the Development of Production Systems. <i>Procedia CIRP</i> , 2014 , 17, 148-153	1.8	9
307	Model driven engineering of manufacturing execution systems using a formal specification 2015,		9

306	Dynamic redeployment of control software in distributed industrial automation systems during runtime 2012,		9
305	Key maturity indicators for module libraries for PLC-based control software in the domain of automated Production Systems. <i>IFAC-PapersOnLine</i> , 2018 , 51, 1610-1617	0.7	9
304	Platform Independent Multi-Agent System for Robust Networks of Production Systems. <i>IFAC-PapersOnLine</i> , 2018 , 51, 1261-1268	0.7	9
303	A Qualitative Study of Variability Management of Control Software for Industrial Automation Systems 2018,		9
302	Technical debt in Automated Production Systems 2015,		8
301	Time as non-functional requirement in distributed control systems 2012,		8
300	Increasing agility in engineering and runtime of automated manufacturing systems 2013,		8
299	Multi-agent systems to enable Industry 4.0. <i>Automatisierungstechnik</i> , 2020 , 68, 445-458	0.8	8
298	Improving Transferability Between Different Engineering Stages in the Development of Automated Material Flow Modules. <i>IEEE Transactions on Automation Science and Engineering</i> , 2016 , 13, 1422-1432	4.9	8
297	Supporting Operators in Process Control Tasks Benefits of Interactive 3-D Visualization. <i>IEEE Transactions on Human-Machine Systems</i> , 2016 , 46, 895-907	4.1	8
296	Data integration in manufacturing industry: Model-based integration of data distributed from ERP to PLC 2015,		7
295	Industrially Applicable System Regression Test Prioritization in Production Automation. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 1839-1851	4.9	7
294	Metrics for the evaluation of data quality of signal data in industrial processes 2017,		7
293	Engineering Support in the Machine Manufacturing Domain through Interdisciplinary Product Lines: An Applicability Analysis. <i>IFAC-PapersOnLine</i> , 2015 , 48, 211-218	0.7	7
292	Enabling flexible automation system hardware: Dynamic reconfiguration of a real-time capable field-bus 2015,		7
291	MDE of manufacturing automation software [Integrating SysML and standard development tools 2014,		7
290	Software changes in factory automation: Towards automatic change based regression testing 2014,		7
289	Modeling of Networked Automation Systems for simulation and model checking of time behavior 2012,		7

288	Dealing with non-functional requirements in distributed control systems engineering 2011 ,		7
287	Unified sensor data provisioning with semantic technologies 2011 ,		7
286	PERFORMANCE ANALYSIS OF INDUSTRIAL ETHERNET NETWORKS BY MEANS OF TIMED MODEL-CHECKING. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 101-106		7
285	A Multi-Agent Architecture for Compensating Unforeseen Failures on Field Control Level. <i>Studies in Computational Intelligence</i> , 2014 , 195-208	0.8	7
284	Benefit and Evaluation of Interactive 3D Process Data Visualization for the Presentation of Complex Problems. <i>Lecture Notes in Computer Science</i> , 2009 , 869-878	0.9	7
283	An Analytical Alarm Flood Reduction to Reduce Operator's Workload. <i>Lecture Notes in Computer Science</i> , 2011 , 297-306	0.9	7
282	Automation platform independent multi-agent system for robust networks of production resources in industry 4.0. <i>Journal of Intelligent Manufacturing</i> , 2021 , 32, 2023-2041	6.7	7
281	Data-driven valve diagnosis to increase the overall equipment effectiveness in process industry 2016 ,		7
280	Optimizing modular and reconfigurable cyber-physical production systems by determining parameters automatically 2016 ,		7
279	Architecture-based change impact analysis in cross-disciplinary automated production systems. <i>Journal of Systems and Software</i> , 2018 , 146, 167-185	3.3	7
278	An Adaptive Virtual Training System Based on Universal Design. <i>IFAC-PapersOnLine</i> , 2019 , 51, 335-340	0.7	6
277	Applying Semantic Web Technologies to Provide Feasibility Feedback in Early Design Phases. <i>Journal of Computing and Information Science in Engineering</i> , 2019 , 19,	2.4	6
276	Application of a multi-disciplinary design approach in a mechatronic engineering toolchain. <i>Automatisierungstechnik</i> , 2019 , 67, 246-269	0.8	6
275	Agent-Based Control of Production Systems and Its Architectural Challenges 2015 , 153-170		6
274	Changeability of Manufacturing Automation Systems using an Orchestration Engine for Programmable Logic Controllers. <i>IFAC-PapersOnLine</i> , 2015 , 48, 1573-1579	0.7	6
273	Graphical modeling notation for data collection and analysis architectures in cyber-physical systems of systems. <i>Journal of Industrial Information Integration</i> , 2020 , 19, 100155	7	6
272	Interdisciplinary Communication and Comprehension in Factory Automation Engineering - A Concept for an Immersive Virtual Environment. <i>IFAC-PapersOnLine</i> , 2016 , 49, 227-232	0.7	6
271	Analysis framework for evaluating PLC software: An application of Semantic Web technologies 2016 ,		6

270	Applying knowledge bases to make factories smarter. <i>Automatisierungstechnik</i> , 2019 , 67, 504-517	0.8	6
269	Data-driven model development for quality prediction in forming technology 2017 ,		6
268	Generalized test tables: A powerful and intuitive specification language for reactive systems 2017 ,		6
267	Reconfiguration architecture for updates of automation systems during operation 2015 ,		6
266	An Analysis of Challenges and State of the Art for Modular Engineering in the Machine and Plant Manufacturing Domain. <i>IFAC-PapersOnLine</i> , 2015 , 48, 87-92	0.7	6
265	Female characteristics and requirements in software engineering in mechanical engineering 2014 ,		6
264	Anforderungen an die Softwareevolution in der Automatisierung des Maschinen- und Anlagenbaus. <i>Automatisierungstechnik</i> , 2014 , 62,	0.8	6
263	Agent based control of production systems 2013 ,		6
262	PLC-statecharts: An approach to integrate umlstatecharts in open-loop control engineering 2010 ,		6
261	Usability evaluation on teaching and applying model-driven object oriented approaches for PLC software 2012 ,		6
260	Automatic Generation of Field Control Strategies for Supporting (Re-)Engineering of Manufacturing Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 1574-1579		6
259	COMBINING UML WITH IEC 61131-3 LANGUAGES TO PRESERVE THE USABILITY OF GRAPHICAL NOTATIONS IN THE SOFTWARE DEVELOPMENT OF COMPLEX AUTOMATION SYSTEMS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2007 , 40, 90-94		6
258	Leveraging the Asset Administration Shell for Agent-Based Production Systems. <i>IFAC-PapersOnLine</i> , 2021 , 54, 837-844	0.7	6
257	Konzept zur Erhöhung der Flexibilität von Produktionsanlagen durch Einsatz von rekonfigurierbaren Anlagenkomponenten und echtzeitfähigen Softwareagenten. <i>Informatik Aktuell</i> , 2012 , 121-130	0.3	6
256	SysML-Based Approach for Automation Software Development [Explorative Usability Evaluation of the Provided Notation. <i>Lecture Notes in Computer Science</i> , 2013 , 568-574	0.9	6
255	Enabling Industrie 4.0 [Chancen und Nutzen für die Prozessindustrie 2014 , 159-171		6
254	Improving Common Model Understanding Within Collaborative Engineering Design Research Projects. <i>Lecture Notes in Mechanical Engineering</i> , 2013 , 643-654	0.4	6
253	Bringing Automated Intelligence to Cyber-Physical Production Systems in Factory Automation 2018 ,		6

252	Consistent Automated Production Systems Modeling in a Multi-disciplinary Engineering Workflow 2018 ,		6
251	Cross-disciplinary and cross-life-cycle-phase Technical Debt in automated Production Systems: two industrial case studies and a survey. <i>IFAC-PapersOnLine</i> , 2018 , 51, 1192-1199	0.7	6
250	Model-document coupling in aPS engineering: Challenges and requirements engineering use case 2017 ,		5
249	Technical Debt as indicator for weaknesses in engineering of automated production systems. <i>Production Engineering</i> , 2019 , 13, 273-282	1.9	5
248	Online parameter estimation for cyber-physical production systems based on mixed integer nonlinear programming, process mining and black-box optimization techniques. <i>Automatisierungstechnik</i> , 2018 , 66, 331-343	0.8	5
247	Modeling as the basis for innovation cycle management of PSS: Making use of interdisciplinary models 2017 ,		5
246	Towards interdisciplinary variability modeling for automated production systems: Opportunities and challenges when applying delta modeling: A case study 2015 ,		5
245	Architecture-Based Assessment and Planning of Software Changes in Information and Automated Production Systems State of the Art and Open Issues 2015 ,		5
244	Consistent engineering information model for mechatronic components in production automation engineering 2014 ,		5
243	Towards industrial application of model-driven platform-independent PLC programming using UML 2014 ,		5
242	Fault-centric system modeling using SysML for reliability testing 2012 ,		5
241	Funktionaler Anwendungsentwurf für agentenbasierte, verteilte Automatisierungssysteme. <i>Xpert Press</i> , 2013 , 3-19		5
240	Benefit of e-learning teaching C-programming and software engineering in a very large mechanical engineering beginners class 2013 ,		5
239	Formal MES Modeling Framework Integration of Different Views. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011 , 44, 14109-14114		5
238	Benefit and evaluation of interactive 3D process data visualization in operator training of plant manufacturing industry 2009 ,		5
237	Modellintegration von Verhaltens- und energetischen Aspekten für mechatronische Module. <i>Automatisierungstechnik</i> , 2011 , 59, 33-41	0.8	5
236	Automated PLC Software Testing using adapted UML Sequence Diagrams. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 1615-1621		5
235	UML-PA AS AN ENGINEERING MODEL FOR DISTRIBUTED PROCESS AUTOMATION. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2005 , 38, 129-134		5

234	Industrie 4.0 am Beispiel einer Verbundanlage. <i>Atp Magazin</i> , 2014 , 56, 52	1.3	5
233	Fundamental Aspects Concerning the Usability Evaluation of Model-Driven Object Oriented Programming Approaches in Machine and Plant Automation. <i>Lecture Notes in Computer Science</i> , 2011 , 497-506	0.9	5
232	Methodology for Identification of Adaptive Reusable Modules in Automated Production Systems. <i>Lecture Notes in Production Engineering</i> , 2013 , 125-135	0	5
231	Automated Test Case Generation for Industrial Control Applications. <i>Studies in Computational Intelligence</i> , 2013 , 263-273	0.8	5
230	A model-based failure recovery approach for automated production systems combining SysML and industrial standards 2016 ,		5
229	Summer school on intelligent agents in automation: Hands-on educational experience on deploying industrial agents 2016 ,		5
228	An Approach to Efficient Test Scheduling for Automated Production Systems 2019 ,		5
227	A General Methodology for Adapting Industrial HMIs to Human Operators. <i>IEEE Transactions on Automation Science and Engineering</i> , 2021 , 18, 164-175	4.9	5
226	Resolving Inconsistencies Optimally in the Model-Based Development of Production Systems 2018 ,		5
225	Analyzing variability in automation software with the variability analysis toolkit 2019 ,		4
224	Coupling simulation and model checking to examine selected mechanical constraints of automated production systems 2015 ,		4
223	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> , 2020 , 6,	2.8	4
222	Design, Application, and Evaluation of a Multiagent System in the Logistics Domain. <i>IEEE Transactions on Automation Science and Engineering</i> , 2020 , 1-14	4.9	4
221	Increasing system test coverage in production automation systems. <i>Control Engineering Practice</i> , 2018 , 73, 171-185	3.9	4
220	A verification-supported evolution approach to assist software application engineers in industrial factory automation 2016 ,		4
219	Model-based training of manual procedures in automated production systems. <i>Mechatronics</i> , 2018 , 55, 212-223	3	4
218	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> , 2019 , 1, 3661-3670	0.7	4
217	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> , 2017 , 50, 5887-5894	0.7	4

216	Feature-based systematic approach development for inconsistency resolution in automated production system design 2017 ,		4
215	Failure mode classification for control valves for supporting data-driven fault detection 2017 ,		4
214	Hidden Markov model-based predictive maintenance in semiconductor manufacturing: A genetic algorithm approach 2017 ,		4
213	A virtual training system for aging employees in machine operation 2017 ,		4
212	Interdisziplinärer Produktlinienansatz zur Steigerung der Wiederverwendung. <i>Automatisierungstechnik</i> , 2015 , 63,	0.8	4
211	Evaluating reconfiguration abilities of automated production systems in Industrie 4.0 with metrics 2015 ,		4
210	Extension of Electronic Device Description Language for analysing change impacts in modular automation in manufacturing plants. <i>Journal of Engineering Design</i> , 2014 , 25, 125-149	1.8	4
209	Supporting the cross-disciplinary development of product-service systems through model transformations 2014 ,		4
208	Workflow and decision support for the design of distributed automation systems 2012 ,		4
207	Using contact points to integrate discipline spanning real-time requirements in modeling Networked Automation Systems for manufacturing systems 2012 ,		4
206	Diagnosis of automation devices based on engineering and historical data 2012 ,		4
205	A web-based e-learning and exam tool with an automated evaluation process for teaching software engineering 2012 ,		4
204	Efficient 3D voxel reconstruction of human shape within robotic work cells 2012 ,		4
203	Supporting integrated development of closed-loop PLC control software for production systems 2012 ,		4
202	Comparison of a transformed Matlab/Simulink model into the programming language CFC on different IEC 61131-3 PLC environments 2012 ,		4
201	Werkzeugunterstützung für die Entwicklung von SPS-basierten Softwareagenten zur Erhöhung der Verfügbarkeit. <i>Xpert Press</i> , 2013 , 291-303		4
200	Model-Driven Engineering and Semantic Technologies for the Design of Cyber-Physical Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 210-215		4
199	Erweiterung des V-Modells für den Entwurf von verteilten Automatisierungssystemen. <i>Automatisierungstechnik</i> , 2013 , 61, 79-91	0.8	4

198	Reviews and findings on implementing active learning in a large class environment for Mechatronics and Computer Science students 2010 ,		4
197	Benefit of system modeling in automation and control education. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	4
196	Causal Inference in Industrial Alarm Data by Timely Clustered Alarms and Transfer Entropy 2020 ,		4
195	Formal Technical Process Specification and Verification for Automated Production Systems. <i>Lecture Notes in Computer Science</i> , 2014 , 287-303	0.9	4
194	Generalised Test Tables: A Practical Specification Language for Reactive Systems. <i>Lecture Notes in Computer Science</i> , 2017 , 129-144	0.9	4
193	Lifecycle Oriented Planning of Mechatronic Products and Corresponding Services. <i>International Federation for Information Processing</i> , 2012 , 349-358		4
192	Introduction and Evaluation of Complexity Metrics for Network-based, Graphical IEC 61131-3 Programming Languages 2019 ,		4
191	Interdisciplinary effects of technical debt in companies with mechatronic products – a qualitative study. <i>Journal of Systems and Software</i> , 2021 , 171, 110809	3.3	4
190	A Host Intrusion Detection System architecture for embedded industrial devices. <i>Journal of the Franklin Institute</i> , 2021 , 358, 210-236	4	4
189	Integrating Haptic Interaction into a Virtual Training System for Manual Procedures in Industrial Environments. <i>IFAC-PapersOnLine</i> , 2018 , 51, 60-65	0.7	4
188	Applicability of generalized test tables: a case study using the manufacturing system demonstrator xPPU. <i>Automatisierungstechnik</i> , 2018 , 66, 834-848	0.8	4
187	Concept and Implementation of a Software Architecture for Unifying Data Transfer in Automated Production Systems. <i>Technologien Für Die Intelligente Automation</i> , 2018 , 1-17	0.7	3
186	Generation of monitoring functions in production automation using test specifications 2017 ,		3
185	Scalable cloud based semantic code analysis to support continuous integration of industrial PLC code 2017 ,		3
184	Maintenance effort estimation with KAMP4aPS for cross-disciplinary automated PLC-based Production Systems - a collaborative approach. <i>IFAC-PapersOnLine</i> , 2017 , 50, 4360-4367	0.7	3
183	Current status of software development in industrial practice: Key results of a large-scale questionnaire 2017 ,		3
182	Configuration of PLC software for automated warehouses based on reusable components- an industrial case study 2015 ,		3
181	Proving equivalence between control software variants for Programmable Logic Controllers 2015 ,		3

180	Model-based quality assurance in machine and plant automation using sequence diagrams \square comparison of two research approaches 2015 ,		3
179	Interaction of model-driven engineering and signal-based online monitoring of production systems: Towards Requirement-aware evolution 2014 ,		3
178	Redeployment of control software during runtime for modular automation systems taking real-time and distributed I/O into consideration 2014 ,		3
177	Integration of distributed hybrid multi-agent systems into an industrial IT environment: Improving interconnectivity of industrial IT systems to the shop floor 2014 ,		3
176	Quality despite quantity \square Teaching large heterogenous classes in C programming and fundamentals in computer science 2014 ,		3
175	Concept for an integration-framework to enable the crossdisciplinary development of product-service systems 2013 ,		3
174	Cyber-physische Systeme. <i>Automatisierungstechnik</i> , 2013 , 61, 667-668	0.8	3
173	Modeling Multicore Programmable Logic Controllers in Networked Automation Systems 2013 ,		3
172	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> , 2013 , 46, 1465-1470		3
171	Usability evaluation of modeling notations for software engineering in machine and plant automation 2010 ,		3
170	2011 ,		3
169	Vergleich der Anwendbarkeit von UML und UML-PA in der anlagennahen Softwareentwicklung der Automatisierungstechnik Evaluation of UML and UML-PA for Software Engineering in Plant Automation. <i>Automatisierungstechnik</i> , 2009 , 57,	0.8	3
168	Modeling order effects on errors in object oriented modeling for machine and plant automation from an educational point of view 2011 ,		3
167	Usability challenges in the design workflow of reusable PLC software for machine and plant automation 2012 ,		3
166	Benefits of an Interdisciplinary Modular Concept in Automation of Machine and Plant Manufacturing. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 894-899		3
165	Condition monitoring for the Binder Jetting AM-process with machine learning approaches 2020 ,		3
164	A Cross-disciplinary Model-Based Systems Engineering Workflow of Automated Production Systems Leveraging Socio-technical Aspects 2020 ,		3
163	Towards Providing Feasibility Feedback in Intralogistics Using a Knowledge Graph 2020 ,		3

162	Formalization of Design Patterns and Their Automatic Identification in PLC Software for Architecture Assessment. <i>IFAC-PapersOnLine</i> , 2020 , 53, 7819-7826	0.7	3
161	BPMN+I to support decision making in innovation management for automated production systems including technological, multi team and organizational aspects. <i>IFAC-PapersOnLine</i> , 2020 , 53, 10891-10898	0.7	3
160	Making Implicit Knowledge Explicit Acquisition of Plant Staff Mental Models as a Basis for Developing a Decision Support System. <i>Communications in Computer and Information Science</i> , 2017 , 358-365	0.3	3
159	An Orchestration Engine for Services-Oriented Field Level Automation Software. <i>Studies in Computational Intelligence</i> , 2015 , 71-80	0.8	3
158	Agentenbasierte dynamische Rekonfiguration von vernetzten intelligenten Produktionsanlagen 2017 , 31-44		3
157	(Re)deployment of Smart Algorithms in CyberPhysical Production Systems Using DSL4hDNCS. <i>Proceedings of the IEEE</i> , 2021 , 109, 542-555	14.3	3
156	System regression test prioritization in factory automation: Relating functional system tests to the tested code using field data 2016 ,		3
155	Modularized control algorithm for automated material handling systems 2016 ,		3
154	Guided semi-automatic system testing in factory automation 2016 ,		3
153	Similarity Analysis of Control Software Using Graph Mining 2019 ,		3
152	Using Real-time Feedback in a Training System for Manual Procedures. <i>IFAC-PapersOnLine</i> , 2019 , 52, 241-246	0.7	3
151	Graphical Modeling of Communication Architectures in Network Control Systems with Traceability to Requirements 2019 ,		3
150	Model-Driven Approach for Realization of Data Collection Architectures for Cyber-Physical Systems of Systems to Lower Manual Implementation Efforts. <i>Sensors</i> , 2021 , 21,	3.8	3
149	2018 ,		3
148	Design Parameter Optimization of Automated Production Systems 2018 ,		3
147	Information Retrieval from Redlined Circuit Diagrams and its Model-Based Representation for Automated Engineering 2018 ,		3
146	Supporting evolution of automated material flow systems as part of CPPS by using coupled meta models 2018 ,		3
145	Custom-tailored clone detection for IEC 61131-3 programming languages. <i>Journal of Systems and Software</i> , 2021 , 182, 111070	3.3	3

144	Interdisciplinary product lines to support the engineering in the machine manufacturing domain. <i>International Journal of Production Research</i> , 2017 , 55, 3701-3714	7.8	2
143	Safe Three-Dimensional Assembly Line Design for Robots Based on Combined Multiobjective Approach. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 8844	2.6	2
142	. <i>IEEE Transactions on Automation Science and Engineering</i> , 2020 , 1-14	4.9	2
141	Cross-discipline modeling and its contribution to automation. <i>Automatisierungstechnik</i> , 2016 , 64,	0.8	2
140	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> , 2018 , 183-201	0.9	2
139	Integration of safety aspects in modeling of Networked Control Systems 2017 ,		2
138	Automatic generation of shop floor gateway configurations from systems modeling language 2017 ,		2
137	A tiered security analysis of Industrial Control System Devices 2017 ,		2
136	An Assessment of the Potentials and Challenges in Future Approaches for Automation Software 2015 , 137-152		2
135	Contribution of personal factors for a better understanding of the gender effects of freshmen in mechanical engineering 2015 ,		2
134	Benefit of an e-learning environment including real and simulated plants for teaching mechanical engineering freshman in programming C 2014 ,		2
133	Co-evolution and reuse of automation control and simulation software: Identification and definition of modification actions and strategies 2014 ,		2
132	Compatibility and coalition formation: Towards the vision of an automatic synthesis of manufacturing system designs 2014 ,		2
131	Using DSM and MDM methodologies to analyze structural SysML models 2013 ,		2
130	Energy Management based on a Hybrid Modeling Approach. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 158-161		2
129	Intelligent Probabilistic Recurrent Fuzzy Control of Human-Machine Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011 , 44, 4857-4862		2
128	Integration of control loops in an UML based engineering environment for PLC 2011 ,		2
127	Evaluation of a newly developed model-driven PLC programming approach for machine and plant automation 2012 ,		2

126	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> , 2012 , 45, 151-156		2
125	Specification of hard real-time industrial automation systems with UML-PA		2
124	Hierarchical Reinforcement Learning for Waypoint-based Exploration in Robotic Devices 2021 ,		2
123	1. Dynamische Anbindung und automatische Konfiguration modularer Intralogistiksysteme mittels Agenten 2018 , 1-20		2
122	Analysis of metamodels for model-based production automation system engineering. <i>IET Collaborative Intelligent Manufacturing</i> , 2020 , 2, 45-55	2	2
121	The Nature of Software Evolution 2019 , 9-20		2
120	Management of Inconsistencies in Domain-Spanning Models [An Interactive Visualization Approach. <i>Lecture Notes in Computer Science</i> , 2017 , 71-87	0.9	2
119	Automatic Generation of Integrated Process Data Visualizations Using Human Knowledge. <i>Lecture Notes in Computer Science</i> , 2015 , 488-498	0.9	2
118	Agentenorientierte Verknüpfung existierender heterogener automatisierter Produktionsanlagen durch mobile Roboter zu einem Industrie-4.0-System 2015 , 1-25		2
117	Applications of Semantic Web Technologies for the Engineering of Automated Production Systems [Three Use Cases 2016 , 353-382		2
116	Mental Models in Process Visualization - Could They Indicate the Effectiveness of an Operator's Training?. <i>Lecture Notes in Computer Science</i> , 2009 , 297-306	0.9	2
115	Deep Q-learning for the Control of PLC-based Automated Production Systems 2020 ,		2
114	Challenges for the digital transformation of development processes in engineering 2020 ,		2
113	Variability management for automated production systems using product lines and feature models 2016 ,		2
112	A multivariate process capability index that complies with industry requirements 2016 ,		2
111	Challenges in integrating requirements in model based development processes in the machinery and plant building industry 2016 ,		2
110	Konzept eines wissensbasierten Frameworks zur Spezifikation und Diagnose von Inkonsistenzen in mechatronischen Modellen. <i>Automatisierungstechnik</i> , 2016 , 64,	0.8	2
109	Leveraging inconsistency management in the multi-view collaborative modelling of cyber-physical production systems. <i>IET Collaborative Intelligent Manufacturing</i> , 2019 , 1, 126-129	2	2

108	Concept and Evaluation of a Technology-independent Data Collection Architecture for Industrial Automation 2019 ,		2
107	An Industrial Evaluation of Test Prioritisation Criteria and Metrics 2019 ,		2
106	Automatic Visual Leakage Inspection by Using Thermographic Video and Image Analysis 2019 ,		2
105	Managing Variability and Reuse of Extra-functional Control Software in CPPS 2021 ,		2
104	Technical Debt indication in PLC Code for automated Production Systems: Introducing a Domain Specific Static Code Analysis Tool. <i>IFAC-PapersOnLine</i> , 2018 , 51, 70-75	0.7	2
103	Integrating Hierarchical Task Analysis into Model-Based System Design using Airbus XHTA and IBM Rational Rhapsody 2018 ,		2
102	Automated Generation of Modular PLC Control Software from P&ID Diagrams in Process Industry 2018 ,		2
101	Potential for combining semantics and data analysis in the context of digital twins. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200368	3	2
100	Scientific fundamentals of Industry 4.0. <i>Automatisierungstechnik</i> , 2019 , 67, 502-503	0.8	1
99	Analyzing the industrial scalability of backwards compatible intralogistics systems. <i>Production Engineering</i> , 2018 , 12, 297-307	1.9	1
98	Modellability of System Characteristics - Using Formal Mark-up Languages for Change Capability by Design. <i>Procedia CIRP</i> , 2016 , 52, 118-123	1.8	1
97	Improved alarm flood analysis by cluster identification and alarm assignment. <i>Automatisierungstechnik</i> , 2018 , 66, 647-655	0.8	1
96	Assessment of variance & distribution in data for effective use of statistical methods for product quality prediction. <i>Automatisierungstechnik</i> , 2018 , 66, 344-355	0.8	1
95	Reverse Engineering on changed Functional Specification Documents for Model-Based Requirements Engineering 2019 ,		1
94	Learning from Evolution for Evolution 2019 , 255-308		1
93	Effective Innovation Implementation of Mechatronic Product-Service Systems Considering Socio-Technical Aspects. <i>Proceedings of the Design Society International Conference on Engineering Design</i> , 2019 , 1, 3051-3060	0.7	1
92	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> , 2019 , 1, 1045-1054	0.7	1
91	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 2014 ,		1

90	An experimental study on UML Modeling errors and their causes in the education of model driven PLC programming 2014 ,		1
89	Specification, Verification and Design of Evolving Automotive Software 2017 ,		1
88	A priori test coverage estimation for automated production systems: Using generated behavior models for coverage calculation 2017 ,		1
87	Integrating Lab-size Automation Plants into a Web-based E-learning Environment for Teaching C Programming in Teams. <i>IFAC-PapersOnLine</i> , 2015 , 48, 295-300	0.7	1
86	Towards finding the appropriate level of abstraction to model and verify automated production systems in discrete event simulation 2015 ,		1
85	Agentenbasierte dynamische Rekonfiguration von vernetzten intelligenten Produktionsanlagen 2015 , 1-14		1
84	Software design für die Zukunft Geplante und gemanagte Softwareevolution. <i>Automatisierungstechnik</i> , 2014 , 62, 755-757	0.8	1
83	Evaluation of a graphical modeling language for the specification of manufacturing execution systems 2012 ,		1
82	Efficient modeling of mechatronic systems regarding variety and complexity in the field of automotive 2013 ,		1
81	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> , 2013 , 46, 317-323		1
80	Engineering process for an online testing process of control software in production systems 2011 ,		1
79	Towards management of Information Technology-cycles in transdisciplinary innovation processes 2011 ,		1
78	Evaluation of modeling notations for basic software engineering in process control		1
77	Handover Abilities in Reconfigurable Material Flow Systems for Topology Computing. <i>Lecture Notes in Logistics</i> , 2020 , 451-461	0.5	1
76	A concept for fault diagnosis combining Case-Based Reasoning with topological system models. <i>IFAC-PapersOnLine</i> , 2020 , 53, 8217-8224	0.7	1
75	Modellkonsistenz in der Entwicklung von Materialflusssystemen. <i>ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb</i> , 2021 , 116, 820-825	0.5	1
74	An approach for leveraging Digital Twins in agent-based production systems. <i>Automatisierungstechnik</i> , 2021 , 69, 1026-1039	0.8	1
73	Variability Visualization of IEC 61131-3 Legacy Software for Planned Reuse 2020 ,		1

72	Measuring the Overall Complexity of Graphical and Textual IEC 61131-3 Control Software. <i>IEEE Robotics and Automation Letters</i> , 2021 , 6, 5784-5791	4.2	1
71	Consideration of Human Factors for Prioritizing Test Cases for the Software System Test. <i>Lecture Notes in Computer Science</i> , 2011 , 303-312	0.9	1
70	A Knowledge Based System for Managing Heterogeneous Sources of Engineering Information. <i>IFAC-PapersOnLine</i> , 2020 , 53, 10511-10517	0.7	1
69	Agentenorientierte Verknüpfung existierender heterogener automatisierter Produktionsanlagen durch mobile Roboter zu einem Industrie-4.0-System 2017 , 93-118		1
68	Integrated Modeling of Complex Production Automation Systems to Increase Dependability 2014 , 363-385		1
67	Visual Leakage Inspection in Chemical Process Plants Using Thermographic Videos and Motion Pattern Detection. <i>Sensors</i> , 2020 , 20,	3.8	1
66	Product Quality Monitoring in Hydraulic Presses Using a Minimal Sample of Sensor and Actuator Data. <i>ACM Transactions on Internet Technology</i> , 2021 , 21, 1-23	3.8	1
65	Towards a common classification of changes for information and automated production systems as precondition for maintenance effort estimation 2016 ,		1
64	Automated test suite generation to test modular designed packaging machines using Fault Injection and a simulink-based simulation approach 2016 ,		1
63	On the Preservation of the Trust by Regression Verification of PLC software for Cyber-Physical Systems of Systems 2019 ,		1
62	Adapting Virtual Training Systems for Industrial Procedures to the Needs of Older People 2019 ,		1
61	Exploring Docker Containers for Time-sensitive Applications in Networked Control Systems 2019 ,		1
60	Analyzing Students' Mental Models of Technical Systems 2019 ,		1
59	Herausforderungen in der interdisziplinären Entwicklung von Cyber-Physischen Produktionssystemen. <i>Automatisierungstechnik</i> , 2019 , 67, 445-454	0.8	1
58	Automatic Synchronization of Mechanical CAD Models and a SysML-based Mechatronic Model using AutomationML 2019 ,		1
57	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> , 2021 , 1-1	2.6	1
56	Change analysis on evolving PLC software in automated production systems. <i>Automatisierungstechnik</i> , 2018 , 66, 806-818	0.8	1
55	Towards verified continuous integration in the engineering of automated production systems. <i>Automatisierungstechnik</i> , 2018 , 66, 784-794	0.8	1

54	Identifying Design Pattern for Agent Based Production System Control 2018 ,		1
53	Data-Driven Approach to Support Experts in the Identification of Operational States in Industrial Process Plants 2018 ,		1
52	Graph-based Grouping of Statistical Dependent Alarms in Automated Production Systems. <i>IFAC-PapersOnLine</i> , 2018 , 51, 395-400	0.7	1
51	Methodological Approach for the Evaluation of an Adaptive and Assistive Human-Machine System 2018 ,		1
50	Towards Industrial Intrusion Prevention Systems: A Concept and Implementation for Reactive Protection. <i>Applied Sciences (Switzerland)</i> , 2018 , 8, 2460	2.6	1
49	Cyclic Management of Innovative PSS Changes: An Integrated and Interdisciplinary Engineering View 2018 ,		1
48	Alarm Flood Analysis by Hierarchical Clustering of the Probabilistic Dependency between Alarms 2018 ,		1
47	Preventing Technical Debt For Automated Production System Maintenance Using Systematic Change Effort Estimation With Considering Contingent Cost 2018 ,		1
46	Maturity variations of PLC-based control software within a company and among companies from the same industrial sector 2018 ,		1
45	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> , 2021 , 28, 174-179	3.4	1
44	Overview and classification of approaches for the simulation of networked control systems. <i>Automatisierungstechnik</i> , 2020 , 68, 151-165	0.8	0
43	Boosting Extra-functional Code Reusability in Cyber-physical Production Systems: The Error Handling Case Study. <i>IEEE Transactions on Emerging Topics in Computing</i> , 2022 , 1-1	4.1	0
42	A model-driven engineering design process for the development of control software for Intralogistics Systems. <i>Automatisierungstechnik</i> , 2022 , 70, 164-180	0.8	0
41	Towards automatic generation of functionality semantics to improve PLC software modularization. <i>Automatisierungstechnik</i> , 2022 , 70, 181-191	0.8	0
40	Comparison of Communication Technologies for Industrial Middlewares and DDS-based Realization. <i>IFAC-PapersOnLine</i> , 2020 , 53, 10935-10942	0.7	0
39	Modelling Industrial Technical Compromises in Production Systems with Causal Loop Diagrams. <i>IFAC-PapersOnLine</i> , 2021 , 54, 212-219	0.7	0
38	Automatisierte Generierung von Sicherheitstests für variantenreiche Produktionssysteme mittels ECAD. <i>Automatisierungstechnik</i> , 2020 , 68, 375-386	0.8	0
37	Modelling technical compromises in electronics manufacturing with BPMN+TD in industrial use case. <i>IFAC-PapersOnLine</i> , 2021 , 54, 912-917	0.7	0

36	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> , 2020 , 273-289	0.8	o
35	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> , 2018 , 51, 64-69	0.7	o
34	MICOSE4aPS: Industrially Applicable Maturity Metric to Improve Systematic Reuse of Control Software. <i>ACM Transactions on Software Engineering and Methodology</i> , 2022 , 31, 1-24	3.3	o
33	Cyber-Physical Systems in the Context of Industry 4.0: A Review, Categorization and Outlook. <i>Information Systems Frontiers</i> ,1	4	o
32	Automated model generation in the field of electrical automotive driveline components. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 4499-4504		
31	Agenten und Zuverlassigkeit in Widerspruch?. <i>Automatisierungstechnik</i> , 2017 , 65, 719-720	0.8	
30	Flexible scheduling of diagnostic tests in automotive manufacturing. <i>Flexible Services and Manufacturing Journal</i> ,1	1.8	
29	Elektronische Datenverarbeitung in Agentenbasiertes Steuern 2020 , 143-150		
28	Machine-Learning Models on the Edge to reduce Data Volume in Wide-Area Networks between various Production Sites		
27	Elektronische Datenverarbeitung in Agentenbasiertes Steuern 2018 , 2029-2033		
26	Applying Dynamic Programming to Test Case Scheduling for Automated Production Systems. <i>Communications in Computer and Information Science</i> , 2020 , 3-20	0.3	
25	Remote Operations. <i>Springer Reference Technik</i> , 2020 , 1-8	0.1	
24	Using Eye Tracking to Assess User Behavior in Virtual Training. <i>Advances in Intelligent Systems and Computing</i> , 2020 , 341-347	0.4	
23	Smart Data Architekturen. <i>Springer Reference Technik</i> , 2020 , 1-25	0.1	
22	Datenqualitat in CPPS. <i>Springer Reference Technik</i> , 2020 , 1-11	0.1	
21	Conception and Development of a Support System for Assembly Technology. <i>Lecture Notes in Computer Science</i> , 2020 , 639-657	0.9	
20	Softwaremodularitat als Voraussetzung fur autonome Systeme. <i>Springer Reference Technik</i> , 2020 , 1-26	0.1	
19	Diagnose von Inkonsistenzen in heterogenen Engineeringdaten 2015 , 1-21		

18	Modellbasierte Softwareagenten als Konnektoren zur Kopplung von heterogenen Cyber-Physischen Produktionssystemen 2015 , 1-10	
17	From Selling Products to Providing User Oriented Product-Service Systems [Exploring Service Orientation in the German Machine and Plant Manufacturing Industry. <i>IFIP Advances in Information and Communication Technology</i> , 2016 , 280-290	0.5
16	Modellbasierte Softwareagenten als Konnektoren zur Kopplung von heterogenen Cyber-Physischen Produktionssystemen 2017 , 407-416	
15	Diagnose von Inkonsistenzen in heterogenen Engineeringdaten 2017 , 315-334	
14	Realisierung eines Konzeptes zur Diagnose ethernetbasierter Echtzeitkommunikationssysteme. <i>Informatik Aktuell</i> , 2013 , 99-108	0.3
13	Zyklusmanagement in der Planung und Entwicklung 2014 , 90-154	
12	Kollaborative Fertigung mittels eines Multiagentensystems zur Vernetzung anlagenspezifischer Echtzeitsysteme. <i>Informatik Aktuell</i> , 2014 , 91-100	0.3
11	Prozessgrundlagen 2014 , 14-89	
10	Guest Editorial Special Section on the 2018 Conference on Automation Science and Engineering (CASE). <i>IEEE Transactions on Automation Science and Engineering</i> , 2020 , 17, 1182-1183	4.9
9	Anforderungsbasierter Test für die Validierung komplexer Automatisierungssysteme. <i>Automatisierungstechnik</i> , 2021 , 69, 417-429	0.8
8	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> , 2021 , 11, 5022	2.6
7	Different complex word problems require different combinations of cognitive skills. <i>Educational Studies in Mathematics</i> , 1	2.9
6	Increasing Dependability by Agent-Based Model-Checking During Run-Time. <i>Studies in Computational Intelligence</i> , 2016 , 159-167	0.8
5	Effiziente Initialisierung von Steuerungsparametern für Cyber-Physische Produktionssysteme via Multi-Ebenen-Optimierung. <i>Automatisierungstechnik</i> , 2019 , 67, 477-489	0.8
4	. <i>IEEE Transactions on Automation Science and Engineering</i> , 2021 , 18, 2-4	4.9
3	Improving the software engineering of brew house plants by modularizing the control software. <i>IFAC-PapersOnLine</i> , 2018 , 51, 241-248	0.7
2	Methods to support the evolution of Cyber Physical Production Systems. <i>Automatisierungstechnik</i> , 2018 , 66, 781-783	0.8
1	Coping with Variability in HMI Software in the Design of Machine Manufacturers' Control Software. <i>Lecture Notes in Computer Science</i> , 2022 , 418-432	0.9

