Leon Urbas

List of Publications by Year
in descending order

137 papers	1,046 citations	687363 13 h-index	752698 20 g-index
142 all docs	142 docs citations	142 times ranked	584 citing authors

#	Article	IF	Citations
1	A Secure Hybrid Dynamic-State Estimation Approach for Power Systems Under False Data Injection Attacks. IEEE Transactions on Industrial Informatics, 2020, 16, 7275-7286.	11.3	58
2	Open source as enabler for OPC UA in industrial automation. , 2015, , .		52
3	Integration of Modular Process Units Into Process Control Systems. IEEE Transactions on Industry Applications, 2018, 54, 1870-1880.	4.9	42
4	Orchestration Requirements for Modular Process Plants in Chemical and Pharmaceutical Industries. Chemical Engineering and Technology, 2019, 42, 2282-2291.	1.5	35
5	Integrated virtual commissioning an essential activity in the automation engineering process: From virtual commissioning to simulation supported engineering. , 2014, , .		34
6	Linked Data as Integrating Technology for Industrial Data. , 2011, , .		31
7	Information models in OPC UA and their advantages and disadvantages. , 2017, , .		29
8	Individual differences in navigation between sharable content objects-an evaluation study of a learning module prototype. British Journal of Educational Technology, 2003, 34, 499-509.	6.3	24
9	Linked Data as Integrating Technology for Industrial Data. International Journal of Distributed Systems and Technologies, 2012, 3, 40-52.	0.7	23
10	The Digital Twin â€" Your Ingenious Companion for Process Engineering and Smart Production. Chemical Engineering and Technology, 2021, 44, 954-961.	1.5	23
11	State-based control of process services within modular process plants. Procedia CIRP, 2018, 72, 1088-1093.	1.9	22
12	Beyond app-chaining: Mobile app orchestration for efficient model driven software generation. , 2012, , .		20
13	Two-Stage Learning Based Fuzzy Cognitive Maps Reduction Approach. IEEE Transactions on Fuzzy Systems, 2018, 26, 2938-2952.	9.8	19
14	autoHMI: a model driven software engineering approach for HMIs in process industries. , 2011, , .		18
15	Towards context adaptive HMIs in process industries. , 2011, , .		18
16	Semantic description of process modules. , 2015, , .		18
17	Model-based engineering of CPPS in the process industries. , 2017, , .		18
18	Towards an integrated use of simulation within the life-cycle of a process plant. , 2015, , .		17

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19	Transformation of the NAMUR MTP to OPC UA to allow plug and produce for modular process automation. , 2016, , .		17
20	Causal effect analysis for fuzzy cognitive maps designed with non-singleton fuzzy numbers. Neurocomputing, 2017, 232, 122-132.	5.9	16
21	Modularisierung und Prozessführung. Chemie-Ingenieur-Technik, 2012, 84, 615-623.	0.8	15
22	The Machine Learning Life Cycle in Chemical Operations â€" Status and Open Challenges. Chemie-Ingenieur-Technik, 2021, 93, 2063-2080.	0.8	15
23	Triangular fuzzy number representation of relations in Fuzzy Cognitive Maps. , 2014, , .		14
24	Co-simulation with OPC UA. , 2016, , .		14
25	Namur Open Architecture. Atp Magazin, 2017, 59, 17.	0.5	14
26	Orchestration of Services in Modular Process Plants. , 2018, , .		13
27	Automatisierung von Prozessmodulen. Atp Magazin, 2012, 54, 44.	0.5	13
28	Information modeling for middleware in automation. , 2011, , .		12
29	Towards collaborative plant control using a distributed information and interaction space. , 2015, , .		11
30	Capability-analysis of co-simulation approaches for process industries. , 2014, , .		10
31	The potential of smartwatches to support mobile industrial maintenance tasks. , 2015, , .		10
32	FCM-GUI: A Graphical User Interface for Big Bang-Big Crunch Learning of FCM. Intelligent Systems Reference Library, 2014, , 177-198.	1.2	10
33	A mobile system for industrial maintenance support based on embodied interaction. , 2010, , .		9
34	Advanced interaction metaphors for RFID-tagged physical artefacts. , 2011, , .		9
35	Linked data as enabler for mobile applications for complex tasks in industrial settings. , 2013, , .		9
36	Plug & Produce auf dem Sprung in den Markt. Atp Magazin, 2019, 61, 56-69.	0.5	9

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37	Hardware Implementation of an OPC UA Server for Industrial Field Devices. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2021, 29, 1998-2002.	3.1	9
38	Automation architecture and engineering for modular process plants â€" approach and industrial pilot application. IFAC-PapersOnLine, 2020, 53, 8255-8260.	0.9	9
39	Formal Models for High Performance HMI Engineering. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 854-859.	0.4	8
40	OPC UA hardware offloading engine as dedicated peripheral IP core. , 2016, , .		8
41	A computational model of retrospective time estimation. Cognitive Systems Research, 2007, 8, 208-215.	2.7	7
42	Integration requirements of package units &#x2014; A description approach with FDI. , 2013, , .		7
43	Enabling the integrated use of simulation within the life cycle of a process plant: An initial roadmap: Results of an in-depth online study. , 2015, , .		7
44	Integrating industrial middleware in Linked Data collaboration networks. , 2016, , .		7
45	Efficient Automation Engineering of Modular Process Equipment Assemblies Using the Digital Twin. Chemie-Ingenieur-Technik, 2021, 93, 2081-2091.	0.8	7
46	Web-based object oriented modelling and simulation using mathml. Computer Aided Chemical Engineering, 2004, , 1171-1176.	0.5	6
47	Predicting temporal errors in complex task environments: A computational and experimental approach. Cognitive Systems Research, 2011, 12, 336-354.	2.7	6
48	MATLAB case-based reasoning GUI application for control engineering education. , 2012, , .		6
49	RFID as universal entry point to linked data clouds. , 2012, , .		6
50	Life Cycle Simulation for a Process Plant based on a Two-Dimensional Co-Simulation Approach. Computer Aided Chemical Engineering, 2015, 37, 935-940.	0.5	6
51	Concept for the detection of virtual functional modules in existing plant topologies. , 2016, , .		6
52	A proposal for an interactive roundtrip engineering system. , 2017, , .		6
53	Safety-Lifecycle of Modular Process Plants - Information Model and Workflow. , 2019, , .		6
54	Hard Real-Time Capable OPC UA Server as Hardware Peripheral for Single Chip IoT Systems. , 2019, , .		6

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55	Efficient OPC UA binary encoding considerations for embedded devices. , 2016, , .		6
56	NOA â€" Von Demonstratoren zu Pilotanwendungen. Atp Magazin, 2019, 61, 44-55.	0.5	6
57	Intermodulare funktionale Sicherheit fÃ¼r flexible Anlagen der Prozessindustrie. Atp Magazin, 2020, 62, 44-53.	0.5	6
58	Automated network layout for the industrial communication engineering system NetGen:X. , 2012, , .		5
59	Package unit integration for process industry — A new description approach. , 2014, , .		5
60	Learning of FCMs with causal links represented via fuzzy triangular numbers. , 2015, , .		5
61	Open Semantic Revision Control with R43ples. , 2016, , .		5
62	Cognitive Challenges of Changeability: Multiâ€Level Flexibility for Operating a Modular Chemical Plant. Chemie-Ingenieur-Technik, 2017, 89, 1409-1420.	0.8	5
63	Applying quality assurance concepts from software development to simulation model assessment in smart equipment. Computer Aided Chemical Engineering, 2021, 50, 813-818.	0.5	5
64	Bedienbilder auf Knopfdruck. Atp Magazin, 2011, 53, 30.	0.5	5
65	Beschreibung von Prozessmodulen. Atp Magazin, 2015, 57, 48-59.	0.5	5
66	Berechnung der dreidimensionalen Geschwindigkeitsverteilung in RohrbÃ¼ndel-WÃ¤rmeÃ¼bertragern und Simulation der Schwingungsanregung. Chemie-Ingenieur-Technik, 1994, 66, 938-940.	0.8	4
67	Fieldbus material take-off estimation: Towards an automated cost estimation of fieldbus installations. , 2010, , .		4
68	Architectures for integrating functional safety into modular process plants. IFAC-PapersOnLine, 2015, 48, 1321-1326.	0.9	4
69	Entwurf, Modellierung und Verifikation von ServiceabhÃ¤ngigkeiten in Prozessmodulen. Automatisierungstechnik, 2018, 66, 418-437.	0.8	4
70	From stirring to mixing: artificial intelligence in the process industry. , 2020, , .		4
71	Safety in modular process plants: demonstration of safety concepts. Elektrotechnik Und Informationstechnik, 2021, 138, 462-468.	1.1	4
72	Integrierte virtuelle Inbetriebnahme. Atp Magazin, 2015, 57, 68.	0.5	4

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73	Intermodulare funktionale Sicherheit für flexible Anlagen. Atp Magazin, 2020, 62, 84-92.	0.5	4
74	100% Wireless on Top. Atp Magazin, 0, 58, 50.	0.5	4
75	Informationsmodelle im Lebenszyklus. Atp Magazin, 2018, 60, 30-51.	0.5	4
76	Violations-Inducing Framing Effects of Production Goals: Conditions under which goal setting leads to neglecting safety-relevant rules. Proceedings of the Human Factors and Ergonomics Society, 2010, 54, 1895-1899.	0.3	3
77	Analysis of fuzzy cognitive maps from ambiguity and fuzziness perspective. , 2016, , .		3
78	Design classification of aggregating systems in intelligent information system architectures. , 2020, , .		3
79	Predictive maintenance with NOA: Application and insights for rotating equipment. , 2020, , .		3
80	Vernetzte Apps für komplexe Aufgaben in der Industrie. Atp Magazin, 2013, 55, 34.	0.5	3
81	Implementation and Operation of Collaborative Manufacturing Networks. Lecture Notes in Computer Science, 2014, , 197-208.	1.3	3
82	Simulation im Lebenszyklus einer Prozessanlage. Atp Magazin, 2015, 57, 46.	0.5	3
83	Applications for Cognitive User Modeling. Lecture Notes in Computer Science, 2007, , 127-136.	1.3	3
84	Utilization of Homomorphic Cryptosystems for Information Exchange in Value Chains. , 2021, , .		3
85	Anforderungen an modulare Elektrolyseanlagen. Atp Magazin, 2022, 63, 62-70.	0.5	3
86	Multimedia-supported teaching of process system dynamics using an ontology-based semantic network. Computer Aided Chemical Engineering, 2003, 15, 1453-1459.	0.5	2
87	Cognitive Model Data Analysis for the Evaluation of Human Computer Interaction. Lecture Notes in Computer Science, 2007, , 477-486.	1.3	2
88	Produktergonomie in der Prozessautomatisierung. Zeitschrift für Arbeitswissenschaft, 2012, 66, 169-182.	1.6	2
89	Extraction of safety relevant functions from CAE data for evaluating the reliability of communications systems. , 2012, , .		2
90	Communication and information engineering of FDI equipment packages. , 2012, , .		2

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91	Flexibility vs. security in linked enterprise data access control graphs. , 2013, , .		2
92	Using mobile technology for inter-organisational collaboration and end-customer integration. , 2013, , .		2
93	App-based system diagnosis using mobile information systems. , 2014, , .		2
94	Abbildung des NAMUR Module Type Package auf OPC UA. Automatisierungstechnik, 2017, 65, 49-59.	0.8	2
95	HAZOP studies for engineering safe modular process plants. , 2017, , .		2
96	A roundtrip engineering approach for data consistency in process industry environments. , 2017, , .		2
97	Distributed Functional Safety for Modular Process Plants. , 2020, , .		2
98	Steuerungsengineering für Prozessmodule. Atp Magazin, 2017, 59, 18.	0.5	2
99	Collaboration and Interoperability within a Virtual Enterprise Applied in a Mobile Maintenance Scenario. Advances in Business Strategy and Competitive Advantage Book Series, 0, , 137-165.	0.3	2
100	92. Einführung eines globalen Betriebs- und Prozeßdaten-Informationssystems. Chemie-Ingenieur-Technik, 1999, 71, 1001-1002.	0.8	1
101	INTEROPERABLE HUMAN PERFORMANCE MODELLING OF DISTRIBUTED COGNITIVE AGENTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 84-89.	0.4	1
102	SIMPLIFYING THE DEVELOPMENT OF COGNITIVE MODELS USING PATTERN-BASED MODELING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 130-135.	0.4	1
103	Function allocation for multi-agent systems and middleware in industrial automation systems. , 2011, , .		1
104	Simulation im Lebenszyklus einer Prozessanlage. Atp Magazin, 2015, 57, 38.	0.5	1
105	Hand Gesture Recognition as Means for Mobile Human Computer Interaction in Adverse Working Environments. Advances in Human and Social Aspects of Technology Book Series, 2014, , 331-352.	0.3	1
106	Online Communities and Community Building. , 2005, , 2203-2208.		1
107	Begreifbare Interaktion mit Distributed Wearable User Interfaces. , 2013, , 207-212.		1
108	Package-Unit-Integration in der Prozessindustrie. Atp Magazin, 2014, 56, 56.	0.5	1

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109	Virtuelle funktionale Module in der Prozessindustrie. Atp Magazin, 2016, 58, 65.	0.5	1
110	OPC UA von der Cloud bis ins Feld. Atp Magazin, 2020, 62, 90-101.	0.5	1
111	Building Blocks for Flexible Functional Safety in Discrete Manufacturing and Process Industries. , 2021, , .		1
112	Learning by Troubleshooting - A Suitable Didactical Scenario for Online Experiments?. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 557-562.	0.4	0
113	BedienermodellgestÃ¼tzte Bewertung des Ablenkungspotentials von Komfortsystemen im KFZ in frÃ¼hen Phasen der Systementwicklung (Model Based Assessment of Driver Distraction by In-Vehicle) Tj ETQq1 1 0.784314 rgBT /Overlock 10		0
114	USING COGNITIVE MODELING FOR THE EVALUATION OF HUMAN-MACHINE INTERACTION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 45-50.	0.4	0
115	A conceptional design to employ engineering databases in mobile maintenance support systems. , 2008, , .		0
116	An NA 114 conformant support system for automatic generation of communication structures. , 2012, , .		0
117	Modular and active learning to support asynchronous learning in automation engineering. , 2014, , .		0
118	Modularisierung von GaswÃ¤schern fÃ¼r die CO2-Entfernung aus Biogas. Chemie-Ingenieur-Technik, 2014, 86, 640-648.	0.8	0
119	Processes for Future. Chemie-Ingenieur-Technik, 2020, 92, 1131-1131.	0.8	0
120	Adaptable Navigation in a SCORM Compliant Learning Module. , 2008, , 1508-1522.		0
121	Automatisiertes Kommunikationsengineering. Atp Magazin, 2012, 54, 44.	0.5	0
122	FDI Usability Style Guide. Atp Magazin, 2014, 56, 48.	0.5	0
123	Aspektorientierte HMI-Adaption. Atp Magazin, 0, 58, 68.	0.5	0
124	Formal Modelling of App-Ensembles. Human-computer Interaction Series, 2017, , 529-547.	0.6	0
125	Digitale Transformation in der Prozessindustrie. Atp Magazin, 2017, 59, 54-65.	0.5	0
126	Steuerungsengineering fÃ¼r Prozessmodule. Atp Magazin, 2017, 59, 46-57.	0.5	0

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127	Strukturierte Modellierung von Validierungsregeln. Atp Magazin, 2018, 60, 50-59.	0.5	0
128	Representing Causal Structures in HAZOP Studies. , 2021, , .		0
129	Kognitive Modeiiierang zur Evaluation von Softwaresystemen. , 2006, , 433-436.		0
130	Systemfremde Steuerungen in modulare Anlagen integrieren. Atp Magazin, 2015, 57, 56-61.	0.5	0
131	Informationspartnerschaften fÃ¼r datenintensive Dienstleistungen. Atp Magazin, 2016, 58, 38-49.	0.5	0
132	Aspektorientierte HMI-Adaption. Atp Magazin, 2016, 58, 68-73.	0.5	0
133	Virtuelle funktionale Module in der Prozessindustrie. Atp Magazin, 2016, 58, 65-74.	0.5	0
134	Opportunities For A Hardware-Based OPC UA Server Implementation In Industry 4.0. , 2021, , .		0
135	FDI Usability Style Guide. Atp Magazin, 2014, 56, 48-55.	0.5	0
136	Managing the Tension between Trust and Confidentiality in Mobile Supply Chains. Sustainability, 2022, 14, 2347.	3.2	0
137	Integrierte, modulare Demonstrationsanlage zur Biowachsherstellung. Atp Magazin, 2022, 63, 82-89.	0.5	0