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	Managing the Tension between Trust and Confidentiality in Mobile Supply Chains. Sustainability, 2022, 14, 2347.	3.2	0
2	Anforderungen an modulare Elektrolyseanlagen. Atp Magazin, 2022, 63, 62-70.	0.5	3
3	Integrierte, modulare Demonstrationsanlage zur Biowachsherstellung. Atp Magazin, 2022, 63, 82-89.	0.5	0
4	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
5	The Digital Twin â€" Your Ingenious Companion for Process Engineering and Smart Production. Chemical Engineering and Technology, 2021, 44, 954-961.	1.5	23
6	Safety in modular process plants: demonstration of safety concepts. Elektrotechnik Und Informationstechnik, 2021, 138, 462-468.	1.1	4
7	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
8	Efficient Automation Engineering of Modular Process Equipment Assemblies Using the Digital Twin. Chemie-Ingenieur-Technik, 2021, 93, 2081-2091.	0.8	7
9	Representing Causal Structures in HAZOP Studies. , 2021, , .		0
10	Utilization of Homomorphic Cryptosystems for Information Exchange in Value Chains. , 2021, , .		3
11	The Machine Learning Life Cycle in Chemical Operations â€" Status and Open Challenges. Chemie-Ingenieur-Technik, 2021, 93, 2063-2080.	0.8	15
12	Building Blocks for Flexible Functional Safety in Discrete Manufacturing and Process Industries. , 2021, , .		1
13	Opportunities For A Hardware-Based OPC UA Server Implementation In Industry 4.0. , 2021, , .		0
14	From stirring to mixing: artificial intelligence in the process industry. , 2020, , .		4
15	Design classification of aggregating systems in intelligent information system architectures. , 2020, , .		3
16	Distributed Functional Safety for Modular Process Plants. , 2020, , .		2
17	Processes for Future. Chemie-Ingenieur-Technik, 2020, 92, 1131-1131.	0.8	0
18	Predictive maintenance with NOA: Application and insights for rotating equipment. , 2020, , .		3

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19	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
20	Intermodulare funktionale Sicherheit fÃ¼r flexible Anlagen der Prozessindustrie. Atp Magazin, 2020, 62, 44-53.	0.5	6
21	Intermodulare funktionale Sicherheit fÃ¼r flexible Anlagen. Atp Magazin, 2020, 62, 84-92.	0.5	4
22	OPC UA von der Cloud bis ins Feld. Atp Magazin, 2020, 62, 90-101.	0.5	1
23	Automation architecture and engineering for modular process plants â€" approach and industrial pilot application. IFAC-PapersOnLine, 2020, 53, 8255-8260.	0.9	9
24	Orchestration Requirements for Modular Process Plants in Chemical and Pharmaceutical Industries. Chemical Engineering and Technology, 2019, 42, 2282-2291.	1.5	35
25	Safety-Lifecycle of Modular Process Plants - Information Model and Workflow. , 2019, , .		6
26	Hard Real-Time Capable OPC UA Server as Hardware Peripheral for Single Chip IoT Systems. , 2019, , .		6
27	Plug & Produce auf dem Sprung in den Markt. Atp Magazin, 2019, 61, 56-69.	0.5	9
28	NOA â€" Von Demonstratoren zu Pilotanwendungen. Atp Magazin, 2019, 61, 44-55.	0.5	6
29	Two-Stage Learning Based Fuzzy Cognitive Maps Reduction Approach. IEEE Transactions on Fuzzy Systems, 2018, 26, 2938-2952.	9.8	19
30	Orchestration of Services in Modular Process Plants. , 2018, , .		13
31	State-based control of process services within modular process plants. Procedia CIRP, 2018, 72, 1088-1093.	1.9	22
32	Integration of Modular Process Units Into Process Control Systems. IEEE Transactions on Industry Applications, 2018, 54, 1870-1880.	4.9	42
33	Entwurf, Modellierung und Verifikation von ServiceabhÃ¤ngigkeiten in Prozessmodulen. Automatisierungstechnik, 2018, 66, 418-437.	0.8	4
34	Informationsmodelle im Lebenszyklus. Atp Magazin, 2018, 60, 30-51.	0.5	4
35	Strukturierte Modellierung von Validierungsregeln. Atp Magazin, 2018, 60, 50-59.	0.5	0
36	Abbildung des NAMUR Module Type Package auf OPC UA. Automatisierungstechnik, 2017, 65, 49-59.	0.8	2

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37	Causal effect analysis for fuzzy cognitive maps designed with non-singleton fuzzy numbers. Neurocomputing, 2017, 232, 122-132.	5.9	16
38	Information models in OPC UA and their advantages and disadvantages. , 2017, , .		29
39	Model-based engineering of CPPS in the process industries. , 2017, , .		18
40	A proposal for an interactive roundtrip engineering system. , 2017, , .		6
41	Cognitive Challenges of Changeability: Multiâ€Level Flexibility for Operating a Modular Chemical Plant. Chemie-Ingenieur-Technik, 2017, 89, 1409-1420.	0.8	5
42	HAZOP studies for engineering safe modular process plants. , 2017, , .		2
43	A roundtrip engineering approach for data consistency in process industry environments. , 2017, , .		2
44	Namur Open Architecture. Atp Magazin, 2017, 59, 17.	0.5	14
45	Formal Modelling of App-Ensembles. Human-computer Interaction Series, 2017, , 529-547.	0.6	0
46	Steuerungsengineering fÃ¼r Prozessmodule. Atp Magazin, 2017, 59, 18.	0.5	2
47	Digitale Transformation in der Prozessindustrie. Atp Magazin, 2017, 59, 54-65.	0.5	0
48	Steuerungsengineering fÃ¼r Prozessmodule. Atp Magazin, 2017, 59, 46-57.	0.5	0
49	OPC UA hardware offloading engine as dedicated peripheral IP core. , 2016, , .		8
50	Open Semantic Revision Control with R43ples. , 2016, , .		5
51	Analysis of fuzzy cognitive maps from ambiguity and fuzziness perspective. , 2016, , .		3
52	Integrating industrial middleware in Linked Data collaboration networks. , 2016, , .		7
53	Co-simulation with OPC UA. , 2016, , .		14
54	Transformation of the NAMUR MTP to OPC UA to allow plug and produce for modular process automation. , 2016, , .		17

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55	Concept for the detection of virtual functional modules in existing plant topologies. , 2016, , .		6
56	Efficient OPC UA binary encoding considerations for embedded devices. , 2016, , .		6
57	Virtuelle funktionale Module in der Prozessindustrie. Atp Magazin, 2016, 58, 65.	0.5	1
58	Informationspartnerschaften fÃ¼r datenintensive Dienstleistungen. Atp Magazin, 2016, 58, 38-49.	0.5	0
59	Aspektorientierte HMI-Adaption. Atp Magazin, 2016, 58, 68-73.	0.5	0
60	Virtuelle funktionale Module in der Prozessindustrie. Atp Magazin, 2016, 58, 65-74.	0.5	0
61	Architectures for integrating functional safety into modular process plants. IFAC-PapersOnLine, 2015, 48, 1321-1326.	0.9	4
62	Semantic description of process modules. , 2015, , .		18
63	The potential of smartwatches to support mobile industrial maintenance tasks. , 2015, , .		10
64	Towards collaborative plant control using a distributed information and interaction space. , 2015, , .		11
65	Towards an integrated use of simulation within the life-cycle of a process plant. , 2015, , .		17
66	Open source as enabler for OPC UA in industrial automation. , 2015, , .		52
67	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
68	Learning of FCMs with causal links represented via fuzzy triangular numbers. , 2015, , .		5
69	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
70	Integrierte virtuelle Inbetriebnahme. Atp Magazin, 2015, 57, 68.	0.5	4
71	Simulation im Lebenszyklus einer Prozessanlage. Atp Magazin, 2015, 57, 38.	0.5	1
72	Simulation im Lebenszyklus einer Prozessanlage. Atp Magazin, 2015, 57, 46.	0.5	3

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73	Beschreibung von Prozessmodulen. Atp Magazin, 2015, 57, 48-59.	0.5	5
74	Systemfremde Steuerungen in modulare Anlagen integrieren. Atp Magazin, 2015, 57, 56-61.	0.5	0
75	Package unit integration for process industry — A new description approach. , 2014, , .		5
76	Modular and active learning to support asynchronous learning in automation engineering. , 2014, , .		0
77	App-based system diagnosis using mobile information systems. , 2014, , .		2
78	Triangular fuzzy number representation of relations in Fuzzy Cognitive Maps. , 2014, , .		14
79	Modularisierung von Gaswäschern für die CO2-Entfernung aus Biogas. Chemie-Ingenieur-Technik, 2014, 86, 640-648.	0.8	0
80	Integrated virtual commissioning an essential activity in the automation engineering process: From virtual commissioning to simulation supported engineering. , 2014, , .		34
81	Capability-analysis of co-simulation approaches for process industries. , 2014, , .		10
82	FCM-GUI: A Graphical User Interface for Big Bang-Big Crunch Learning of FCM. Intelligent Systems Reference Library, 2014, , 177-198.	1.2	10
83	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
84	FDI Usability Style Guide. Atp Magazin, 2014, 56, 48.	0.5	0
85	Implementation and Operation of Collaborative Manufacturing Networks. Lecture Notes in Computer Science, 2014, , 197-208.	1.3	3
86	Package-Unit-Integration in der Prozessindustrie. Atp Magazin, 2014, 56, 56.	0.5	1
87	FDI Usability Style Guide. Atp Magazin, 2014, 56, 48-55.	0.5	0
88	Linked data as enabler for mobile applications for complex tasks in industrial settings. , 2013, , .		9
89	Integration requirements of package units &#x2014; A description approach with FDI. , 2013, , .		7
90	Flexibility vs. security in linked enterprise data access control graphs. , 2013, , .		2

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91	Using mobile technology for inter-organisational collaboration and end-customer integration. , 2013, , .		2
92	Vernetzte Apps fÃ¼r komplexe Aufgaben in der Industrie. Atp Magazin, 2013, 55, 34.	0.5	3
93	Begreifbare Interaktion mit Distributed Wearable User Interfaces. , 2013, , 207-212.		1
94	MATLAB case-based reasoning GUI application for control engineering education. , 2012, , .		6
95	Formal Models for High Performance HMI Engineering. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 854-859.	0.4	8
96	Produktergonomie in der Prozessautomatisierung. Zeitschrift FÃ¼r Arbeitswissenschaft, 2012, 66, 169-182.	1.6	2
97	Extraction of safety relevant functions from CAE data for evaluating the reliability of communications systems. , 2012, , .		2
98	Communication and information engineering of FDI equipment packages. , 2012, , .		2
99	Beyond app-chaining: Mobile app orchestration for efficient model driven software generation. , 2012, , .		20
100	An NA 114 conformant support system for automatic generation of communication structures. , 2012, , .		0
101	Automated network layout for the industrial communication engineering system NetGen:X. , 2012, , .		5
102	RFID as universal entry point to linked data clouds. , 2012, , .		6
103	Linked Data as Integrating Technology for Industrial Data. International Journal of Distributed Systems and Technologies, 2012, 3, 40-52.	0.7	23
104	Modularisierung und ProzessfÃ¼hrung. Chemie-Ingenieur-Technik, 2012, 84, 615-623.	0.8	15
105	Automatisierung von Prozessmodulen. Atp Magazin, 2012, 54, 44.	0.5	13
106	Automatisiertes Kommunikationsengineering. Atp Magazin, 2012, 54, 44.	0.5	0
107	Information modeling for middleware in automation. , 2011, , .		12
108	Linked Data as Integrating Technology for Industrial Data. , 2011, , .		31

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109	Advanced interaction metaphors for RFID-tagged physical artefacts. , 2011, , .		9
110	autoHMI: a model driven software engineering approach for HMIs in process industries. , 2011, , .		18
111	Predicting temporal errors in complex task environments: A computational and experimental approach. Cognitive Systems Research, 2011, 12, 336-354.	2.7	6
112	Function allocation for multi-agent systems and middleware in industrial automation systems. , 2011, , .		1
113	Towards context adaptive HMIs in process industries. , 2011, , .		18
114	Bedienbilder auf Knopfdruck. Atp Magazin, 2011, 53, 30.	0.5	5
115	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
116	A mobile system for industrial maintenance support based on embodied interaction. , 2010, , .		9
117	Fieldbus material take-off estimation: Towards an automated cost estimation of fieldbus installations. , 2010, , .		4
118	A conceptional design to employ engineering databases in mobile maintenance support systems. , 2008, , .		0
119	Adaptable Navigation in a SCORM Compliant Learning Module. , 2008, , 1508-1522.		0
120	BedienermodellgestÃ¼tzte Bewertung des Ablenkungspotentials von Komfortsystemen im KFZ in frÃ¼hen Phasen der Systementwicklung (Model Based Assessment of Driver Distraction by In-Vehicle) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 297 T		
121	Cognitive Model Data Analysis for the Evaluation of Human Computer Interaction. Lecture Notes in Computer Science, 2007, , 477-486.	1.3	2
122	INTEROPERABLE HUMAN PERFORMANCE MODELLING OF DISTRIBUTED COGNITIVE AGENTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 84-89.	0.4	1
123	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
124	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
125	A computational model of retrospective time estimation. Cognitive Systems Research, 2007, 8, 208-215.	2.7	7
126	Applications for Cognitive User Modeling. Lecture Notes in Computer Science, 2007, , 127-136.	1.3	3

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127	Kognitive Modeiiierang zur Evaluation von Softwaresystemen. , 2006, , 433-436.		0
128	Online Communities and Community Building. , 2005, , 2203-2208.		1
129	Web-based object oriented modelling and simulation using mathml. Computer Aided Chemical Engineering, 2004, , 1171-1176.	0.5	6
130	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
131	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
132	Multimedia-supported teaching of process system dynamics using an ontology-based semantic network. Computer Aided Chemical Engineering, 2003, 15, 1453-1459.	0.5	2
133	92. EinfÃ¼hrung eines globalen Betriebs- und ProzeÃŸdaten-Informationssystems. Chemie-Ingenieur-Technik, 1999, 71, 1001-1002.	0.8	1
134	Berechnung der dreidimensionalen Geschwindigkeitsverteilung in RohrbÃ¼ndel-WÃ¤rmeÃ¼bertragern und Simulation der Schwingungsanregung. Chemie-Ingenieur-Technik, 1994, 66, 938-940.	0.8	4
135	100% Wireless on Top. Atp Magazin, 0, 58, 50.	0.5	4
136	Aspektorientierte HMI-Adaption. Atp Magazin, 0, 58, 68.	0.5	0
137	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