Victor N Dubinin

List of Publications by Year
in descending order

44 papers	680 citations	686830 13 h-index	794141 19 g-index
45 all docs	45 docs citations	45 times ranked	418 citing authors

#	Article	IF	Citations
1	Toward Dependable Model-Driven Design of Low-Level Industrial Automation Control Systems. IEEE Transactions on Automation Science and Engineering, 2022, 19, 425-440.	3.4	6
2	A Formal Model of IEC 61499-Based Industrial Automation Architecture Supporting Time-Aware Computations. IEEE Open Journal of the Industrial Electronics Society, 2021, 2, 169-183.	4.8	6
3	Automatic Generation of Control Flow From Requirements for Distributed Smart Grid Automation Control. IEEE Transactions on Industrial Informatics, 2020, 16, 403-413.	7.2	15
4	Implementation of state transition models in IEC 61499 and its use for recognition and selection of sequences of events and objects. , 2019, , .		0
5	Towards formal ASM semantics of timed control systems for industrial CPS. , 2019, , .		1
6	Implementation of distributed semaphores in IEC 61499 with consensus protocols. , 2018, , .		1
7	Response to â€œComments on Bridging Service-Oriented Architecture and IEC 61499 for Flexibility and Interoperabilityâ€. IEEE Transactions on Industrial Informatics, 2017, 13, 1497-1502.	7.2	2
8	Ontology Driven Approach to Generate Distributed Automation Control From Substation Automation Design. IEEE Transactions on Industrial Informatics, 2017, 13, 668-679.	7.2	21
9	On development of execution model for model transforming distributed substation automation control with ontology. , 2017, , .		1
10	Toward Self-Manageable and Adaptive Industrial Cyber-Physical Systems With Knowledge-Driven Autonomic Service Management. IEEE Transactions on Industrial Informatics, 2017, 13, 725-736.	7.2	49
11	Towards formal verification for cyber-physically agnostic software: A case study. , 2017, , .		13
12	Petri nets behavioral equivalence checking in SMV. , 2016, , .		1
13	Speculative computation in IEC 61499 function blocks execution â€" Modeling and simulation. , 2016, , .		3
14	Formal verification of cyber-physical automation systems modelled with timed block diagrams. , 2016, , .		10
15	Formal modeling and verification of IEC 61499 function blocks on the basis of transition systems. , 2016, , .		3
16	Automatic Generation of Cyber-Physical Software Applications Based on Physical to Cyber Transformation Using Ontologies. IFIP Advances in Information and Communication Technology, 2016, , 37-45.	0.5	0
17	Automation Services Orchestration with Function Blocks: Web-Service Implementation and Performance Evaluation. Studies in Computational Intelligence, 2016, , 213-221.	0.7	1
18	Synthesis of Safety Controllers for Distributed Automation Systems on the Basis of Reverse Safe Net Condition/Event Systems. , 2015, , .		5

#	Article	IF	Citations
19	IEC 61499 distributed control enhanced with cloud-based web-services. , 2015, , .		12
20	Formal Verification of IEC61499 Function Blocks with Abstract State Machines and SMV -- Modelling. , 2015, , .		20
21	Toward Industrially Usable Agent Technology for Smart Grid Automation. IEEE Transactions on Industrial Electronics, 2015, 62, 2629-2641.	5.2	53
22	Bridging Service-Oriented Architecture and IEC 61499 for Flexibility and Interoperability. IEEE Transactions on Industrial Informatics, 2015, 11, 771-781.	7.2	88
23	Neutralizing Semantic Ambiguities of Function Block Architecture by Modeling with ASM. Lecture Notes in Computer Science, 2015, , 76-91.	1.0	17
24	Formal Modelling and Verification of IEC61499 Function Blocks with Abstract State Machines and SMV - Execution Semantics. Lecture Notes in Computer Science, 2015, , 300-315.	1.0	16
25	Cloud-Based Framework for Practical Model-Checking of Industrial Automation Applications. IFIP Advances in Information and Communication Technology, 2015, , 73-81.	0.5	9
26	On automatic generation of IEC61850/IEC61499 substation automation systems enabled by ontology. , 2014, , .		5
27	Automatic generation of automation applications based on ontology transformations. , 2014, , .		6
28	Enhancing distributed automation systems with efficiency and reliability by applying autonomic service management. , 2014, , .		5
29	Function block implementation of service oriented architecture: Case study. , 2014, , .		23
30	Migration From PLC to IEC 61499 Using Semantic Web Technologies. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2014, 44, 277-291.	5.9	25
31	Decision making for industrial agents in Smart Grid applications. , 2014, , .		4
32	Automatically Generated Layered Ontological Models for Semantic Analysis of Component-Based Control Systems. IEEE Transactions on Industrial Informatics, 2013, 9, 2124-2136.	7.2	26
33	Semantics-Robust Design Patterns for IEC 61499. IEEE Transactions on Industrial Informatics, 2012, 8, 279-290.	7.2	24
34	Ontology-based design recovery and migration between IEC 61499 - compliant tools. , 2011, , .		3
35	IEC 61499 ontology model for semantic analysis and code generation. , 2011, , .		2
36	Refactoring of Execution Control Charts in Basic Function Blocks of the IEC 61499 Standard. IEEE Transactions on Industrial Informatics, 2010, 6, 155-165.	7.2	19

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37	Refactoring of Execution Control Charts in Basic Function Blocks of the IEC 61499 Standard. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 193-198.	0.4	0
38	On Definition of a Formal Model for IEC 61499 Function Blocks. Eurasip Journal on Embedded Systems, 2008, 2008, 1-10.	1.2	31
39	Sequential Axiomatic Model for Execution of Basic Function Blocks in IEC61499. , 2007, , .		25
40	Alternatives for Execution Semantics of IEC61499. , 2007, , .		18
41	Towards a Formal Semantic Model of IEC 61499 Function Blocks. , 2006, , .		41
42	Modelling and Verification of IEC 61499 Applications using Prolog. , 2006, , .		34
43	Rapid engineering and re-configuration of automation objects aided by formal modelling and verification. International Journal of Manufacturing Research, 2006, 1, 382.	0.1	16
44	Engineering of Validatable Automation Systems Based on an Extension of UML Combined With Function Blocks of IEC 61499. , 0, , .		18