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	Bridging Service-Oriented Architecture and IEC 61499 for Flexibility and Interoperability. IEEE Transactions on Industrial Informatics, 2015, 11, 771-781.	7.2	88
2	Toward Industrially Usable Agent Technology for Smart Grid Automation. IEEE Transactions on Industrial Electronics, 2015, 62, 2629-2641.	5.2	53
3	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
4	Towards a Formal Semantic Model of IEC 61499 Function Blocks. , 2006, , .		41
5	Modelling and Verification of IEC 61499 Applications using Prolog. , 2006, , .		34
6	On Definition of a Formal Model for IEC 61499 Function Blocks. Eurasip Journal on Embedded Systems, 2008, 2008, 1-10.	1.2	31
7	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
8	Sequential Axiomatic Model for Execution of Basic Function Blocks in IEC61499. , 2007, , .		25
9	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
10	Semantics-Robust Design Patterns for IEC 61499. IEEE Transactions on Industrial Informatics, 2012, 8, 279-290.	7.2	24
11	Function block implementation of service oriented architecture: Case study. , 2014, , .		23
12	Ontology Driven Approach to Generate Distributed Automation Control From Substation Automation Design. IEEE Transactions on Industrial Informatics, 2017, 13, 668-679.	7.2	21
13	Formal Verification of IEC61499 Function Blocks with Abstract State Machines and SMV -- Modelling. , 2015, , .		20
14	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
15	Engineering of Validatable Automation Systems Based on an Extension of UML Combined With Function Blocks of IEC 61499. , 0, , .		18
16	Alternatives for Execution Semantics of IEC61499. , 2007, , .		18
17	Neutralizing Semantic Ambiguities of Function Block Architecture by Modeling with ASM. Lecture Notes in Computer Science, 2015, , 76-91.	1.0	17
18	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

#	Article	IF	Citations
19	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
20	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
21	Towards formal verification for cyber-physically agnostic software: A case study. , 2017, , .		13
22	IEC 61499 distributed control enhanced with cloud-based web-services. , 2015, , .		12
23	Formal verification of cyber-physical automation systems modelled with timed block diagrams. , 2016, , .		10
24	Cloud-Based Framework for Practical Model-Checking of Industrial Automation Applications. IFIP Advances in Information and Communication Technology, 2015, , 73-81.	0.5	9
25	Automatic generation of automation applications based on ontology transformations. , 2014, , .		6
26	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
27	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
28	On automatic generation of IEC61850/IEC61499 substation automation systems enabled by ontology. , 2014, , .		5
29	Enhancing distributed automation systems with efficiency and reliability by applying autonomic service management. , 2014, , .		5
30	Synthesis of Safety Controllers for Distributed Automation Systems on the Basis of Reverse Safe Net Condition/Event Systems. , 2015, , .		5
31	Decision making for industrial agents in Smart Grid applications. , 2014, , .		4
32	Ontology-based design recovery and migration between IEC 61499 - compliant tools. , 2011, , .		3
33	Speculative computation in IEC 61499 function blocks execution â€" Modeling and simulation. , 2016, , .		3
34	Formal modeling and verification of IEC 61499 function blocks on the basis of transition systems. , 2016, , .		3
35	IEC 61499 ontology model for semantic analysis and code generation. , 2011, , .		2
36	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

#	Article	IF	Citations
37	Petri nets behavioral equivalence checking in SMV. , 2016, , .		1
38	On development of execution model for model transforming distributed substation automation control with ontology. , 2017, , .		1
39	Implementation of distributed semaphores in IEC 61499 with consensus protocols. , 2018, , .		1
40	Towards formal ASM semantics of timed control systems for industrial CPS. , 2019, , .		1
41	Automation Services Orchestration with Function Blocks: Web-Service Implementation and Performance Evaluation. Studies in Computational Intelligence, 2016, , 213-221.	0.7	1
42	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
43	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
44	Implementation of state transition models in IEC 61499 and its use for recognition and selection of sequences of events and objects. , 2019, , .		0