Abhishek Dubey

List of Publications by Year
in descending order

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Version: 2024-02-01

144	1,731	840119	713013
papers	citations	11 h-index	21 g-index

146	146	146	1460
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Efficient Autoscaling in the Cloud Using Predictive Models for Workload Forecasting. , 2011, , .		386
2	Providing privacy, safety, and security in IoT-based transactive energy systems using distributed ledgers. , 2017, , .		79
3	VeriSolid: Correct-by-Design Smart Contracts for Ethereum. Lecture Notes in Computer Science, 2019, , 446-465.	1.0	76
4	Introducing the new paradigm of Social Dispersed Computing: Applications, Technologies and Challenges. Journal of Systems Architecture, 2018, 91, 83-102.	2.5	56
5	RIAPS: Resilient Information Architecture Platform for Decentralized Smart Systems. , 2017, , .		43
6	A component model for hard realâ€time systems: CCM with ARINCâ€653. Software - Practice and Experience, 2011, 41, 1517-1550.	2.5	41
7	Model-based software health management for real-time systems. , 2011, , .		31
8	DxNAT â€" Deep neural networks for explaining non-recurring traffic congestion. , 2017, , .		31
9	TRANSAX: A Blockchain-Based Decentralized Forward-Trading Energy Exchanged for Transactive Microgrids. , 2018, , .		31
10	A game-theoretic approach for power systems defense against dynamic cyber-attacks. International Journal of Electrical Power and Energy Systems, 2020, 115, 105432.	3.3	29
11	Resilient Information Architecture Platform for the Smart Grid: A Novel Open-Source Platform for Microgrid Control. IEEE Transactions on Industrial Electronics, 2020, 67, 9393-9404.	5.2	29
12	PlaTIBART. , 2017, , .		28
13	A Capacity Planning Process for Performance Assurance of Component-based Distributed Systems. , 2011, , .		23
14	Application of software health management techniques. , 2011, , .		23
15	Development of a Controller Hardware-in-the-Loop Platform for Microgrid Distributed Control Applications. , 2018, , .		23
16	Real-Time and Predictive Analytics for Smart Public Transportation Decision Support System. , 2016, , .		22
17	Distributed Real-Time Managed Systems: A Model-Driven Distributed Secure Information Architecture Platform for Managed Embedded Systems. IEEE Software, 2014, 31, 62-69.	2.1	21
18	F6COM: A component model for resource-constrained and dynamic space-based computing environments. , 2013, , .		20

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19	URMILA: Dynamically trading-off fog and edge resources for performance and mobility-aware IoT services. Journal of Systems Architecture, 2020, 107, 101710.	2.5	20
20	Consensus mechanisms and information security technologies. Advances in Computers, 2019, 115, 181-209.	1.2	19
21	Middleware for Resource-Aware Deployment and Configuration of Fault-Tolerant Real-time Systems. , 2010, , .		18
22	Achieving resilience in distributed software systems via self-reconfiguration. Journal of Systems and Software, 2016, 122, 344-363.	3.3	18
23	On the design of communication and transaction anonymity in blockchain-based transactive microgrids. , 2017, , .		18
24	Time synchronization services for low-cost fog computing applications. , 2017, , .		18
25	CHARIOT: a domain specific language for extensible cyber-physical systems. , 2015, , .		17
26	Towards Reliability-Based Decision Making in Cyber-Physical Systems. , 2016, , .		17
27	A Review of Incident Prediction, Resource Allocation, and Dispatch Models for Emergency Management. Accident Analysis and Prevention, 2022, 165, 106501.	3.0	16
28	Mechanisms for Integrated Feature Normalization and Remaining Useful Life Estimation Using LSTMs Applied to Hard-Disks. , 2019, , .		15
29	Model-based design for CPS with learning-enabled components. , 2019, , .		15
30	A Real-Time Component Framework: Experience with CCM and ARINC-653. , 2010, , .		14
31	Incident analysis and prediction using clustering and Bayesian network. , 2017, , .		13
32	Cyber-physical simulation platform for security assessment of transactive energy systems. , 2019, , .		13
33	Blockchains for Transactive Energy Systems: Opportunities, Challenges, and Approaches. Computer, 2020, 53, 66-76.	1.2	13
34	Towards a verifiable real-time, autonomic, fault mitigation framework for large scale real-time systems. Innovations in Systems and Software Engineering, 2007, 3, 33-52.	1.6	12
35	CHARIOT. ACM Transactions on Cyber-Physical Systems, 2018, 2, 1-37.	1.9	12
36	On the Data-Driven Prediction of Arrival Times for Freight Trains on U.S. Railroads. , 2018, , .		11

#	Article	IF	Citations
37	URMILA: A Performance and Mobility-Aware Fog/Edge Resource Management Middleware. , 2019, , .		11
38	Compensating for Timing Jitter in Computing Systems with General-Purpose Operating Systems. , 2009, , .		10
39	Performance modeling of distributed multi-tier enterprise systems. Performance Evaluation Review, 2009, 37, 9-11.	0.4	10
40	Distributed and Managed: Research Challenges and Opportunities of the Next Generation Cyber-Physical Systems. , 2014, , .		10
41	Using temporal causal models to isolate failures in power system protection devices. IEEE Instrumentation and Measurement Magazine, 2015, 18, 28-39.	1.2	10
42	Analyzing the Cascading Effect of Traffic Congestion Using LSTM Networks. , 2019, , .		10
43	ReSonAte: A Runtime Risk Assessment Framework for Autonomous Systems. , 2021, , .		10
44	Optimal detection of faulty traffic sensors used in route planning. , 2017, , .		10
45	Distributed diagnosis of complex systems using timed failure propagation graph models. , 2010, , .		9
46	A Rapid Testing Framework for a Mobile Cloud. , 2014, , .		9
47	Towards a generic computation model for smart city platforms. , 2016, , .		9
48	Implementation of a distributed microgrid controller on the Resilient Information Architecture Platform for Smart Systems (RIAPS). , 2017, , .		9
49	Vulnerability analysis of power systems based on cyber-attack and defense models. , 2018, , .		9
50	An online decision-theoretic pipeline for responder dispatch. , 2019, , .		9
51	Online monitoring and control of a cyber-physical manufacturing process under uncertainty. Journal of Intelligent Manufacturing, 2021, 32, 1289-1304.	4.4	9
52	Moving target defense for the security and resilience of mixed time and event triggered cyberâ€“physical systems. Journal of Systems Architecture, 2022, 125, 102420.	2.5	9
53	DREMS ML: A wide spectrum architecture design language for distributed computing platforms. Science of Computer Programming, 2015, 106, 3-29.	1.5	8
54	Transactive energy demo with RIAPS platform. , 2017, , .		8

#	Article	IF	Citations
55	Unsupervised Mechanisms for Optimizing On-Time Performance of Fixed Schedule Transit Vehicles. , 2017, , .		8
56	Short Paper: Towards Low-Cost Indoor Localization Using Edge Computing Resources. , 2017, , .		8
57	A Hardware-in-the-Loop Real-Time Testbed for Microgrid Hierarchical Control. , 2018, , .		8
58	A Decentralized Approach for Real Time Anomaly Detection in Transportation Networks. , 2019, , .		8
59	Transit-hub: a smart public transportation decision support system with multi-timescale analytical services. Cluster Computing, 2019, 22, 2239-2254.	3.5	8
60	Designing a decentralized fault-tolerant software framework for smart grids and its applications. Journal of Systems Architecture, 2020, 109, 101759.	2.5	8
61	Deliberative, search-based mitigation strategies for model-based software health management. Innovations in Systems and Software Engineering, 2013, 9, 293-318.	1.6	7
62	Resilience at the edge in cyber-physical systems. , 2017, , .		7
63	TRANSIT-GYM: A Simulation and Evaluation Engine for Analysis of Bus Transit Systems. , 2021, , .		7
64	Enabling Self-Management by Using Model-Based Design Space Exploration. , 2010, , .		6
65	Large Scale Monitoring and Online Analysis in a Distributed Virtualized Environment. , 2011, , .		6
66	SpeedPro: A Predictive Multi-Model Approach for Urban Traffic Speed Estimation. , 2017, , .		6
67	An Adaptive Interleaving Algorithm for Multi-Converter Systems. , 2018, , .		6
68	Device Access Abstractions for Resilient Information Architecture Platform for Smart Grid. IEEE Embedded Systems Letters, 2019, 11, 34-37.	1.3	6
69	Hierarchical planning for resource allocation in emergency response systems. , 2021, , .		6
70	Dynamic Workflow Management and Monitoring Using DDS. , 2010, , .		5
71	Establishing Secure Interactions across Distributed Applications in Satellite Clusters. , 2014, , .		5
72	Demo Abstract: RIAPS â€" A Resilient Information Architecture Platform for Edge Computing. , 2016, , .		5

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73	DelayRadar: A multivariate predictive model for transit systems. , 2016, , .		5
74	A simulation testbed for cascade analysis. , 2017, , .		5
75	Route Planning Through Distributed Computing by Road Side Units. IEEE Access, 2020, 8, 176134-176148.	2.6	5
76	Safe and Private Forward-trading Platform for Transactive Microgrids. ACM Transactions on Cyber-Physical Systems, 2021, 5, 1-29.	1.9	5
77	Fault-Adaptivity in Hard Real-Time Component-Based Software Systems. Lecture Notes in Computer Science, 2013, , 294-323.	1.0	5
78	CPS Design with Learning-Enabled Components. , 2019, , .		5
79	Emergency Incident Detection from Crowdsourced Waze Data using Bayesian Information Fusion. , 2020, , .		5
80	Model Predictive Analysis for AutonomicWorkflow Management in Large-scale Scientific Computing Environments. , 2007, , .		4
81	Towards A Model-Based Autonomic Reliability Framework for Computing Clusters. , 2008, , .		4
82	Generic modeling and analysis framework for shipboard system design. , 2013, , .		4
83	Computation and Communication Evaluation of an Authentication Mechanism for Time-Triggered Networked Control Systems. Sensors, 2016, 16, 1166.	2.1	4
84	Towards an architecture for evaluating and analyzing decentralized Fog applications. , 2017, , .		4
85	SolidWorx: A Resilient and Trustworthy Transactive Platform for Smart and Connected Communities. , 2018, , .		4
86	Distributed Microgrid Synchronization Strategy Using a Novel Information Architecture Platform. , 2018, , .		4
87	Short-Term Transit Decision Support System Using Multi-task Deep Neural Networks. , 2018, , .		4
88	Enabling Strong Isolation for Distributed Real-Time Applications in Edge Computing Scenarios. IEEE Aerospace and Electronic Systems Magazine, 2019, 34, 32-45.	2.3	4
89	On the Design of Fault- Tolerance in a Decentralized Software Platform for Power Systems. , 2019, , .		4
90	Augmenting Learning Components for Safety in Resource Constrained Autonomous Robots. , 2019, , .		4

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91	Data-Driven Optimization of Public Transit Schedule. Lecture Notes in Computer Science, 2019, , 265-284.	1.0	4
92	Learning Incident Prediction Models Over Large Geographical Areas for Emergency Response. , 2021, , .		4
93	Cyber-Attacks and Mitigation in Blockchain Based Transactive Energy Systems. , 2020, , .		4
94	Integrated Monitoring and Control for Performance Management of Distributed Enterprise Systems. , 2010, , .		3
95	Towards a resilient deployment and configuration infrastructure for fractionated spacecraft. ACM SIGBED Review, 2013, 10, 29-32.	1.8	3
96	Analysis, verification, and management toolsuite for cyber-physical applications on time-varying networks. , 2014, , .		3
97	A modeling framework to integrate exogenous tools for identifying critical components in power systems. , 2017, , .		3
98	Diagnostics and prognostics using temporal causal models for cyber physical energy systems. , 2017, , .		3
99	Heuristics-based approach for identifying critical N â€" k contingencies in power systems. , 2017, , .		3
100	Performance evaluation of smart systems under uncertainty. , 2017, , .		3
101	Resilient Information Architecture Platform for Smart Systems (RIAPS): Case Study for Distributed Apparent Power Control. , 2018, , .		3
102	Smart Transportation Delay and Resiliency Testbed Based on Information Flow of Things Middleware. , 2019, , .		3
103	Short Paper: Towards An Edge-Located Time-Series Database. , 2019, , .		3
104	Towards demand-oriented flexible rerouting of public transit under uncertainty. , 2019, , .		3
105	Architecting Health Management into Software Component Assemblies: Lessons Learned from the ARINC-653 Component Mode. , 2012, , .		2
106	Software health management. Innovations in Systems and Software Engineering, 2013, 9, 217-217.	1.6	2
107	Using temporal causal models to isolate failures in Power System protection devices. , 2014, , .		2
108	A component-based approach for modeling failure propagations in power systems. , 2015, , .		2

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109	Poster Abstract: A Distributed and Resilient Platform for City-Scale Smart Systems. , 2016, , .		2
110	DREMS-OS: An Operating System for Managed Distributed Real-Time Embedded Systems. , 2017, , .		2
111	Structured Summarization of Social Web for Smart Emergency Services by Uncertain Concept Graph. , 2018, , .		2
112	Real-Time Control of Cyber-Physical Manufacturing Process Under Uncertainty. , 2018, , .		2
113	Towards an Adaptive Multi-Modal Traffic Analytics Framework at the Edge. , 2019, , .		2
114	Testing at scale of IoT blockchain applications. Advances in Computers, 2019, 115, 155-179.	1.2	2
115	The Role of Blockchains in Multi-Stakeholder Transactive Energy Systems. Frontiers in Blockchain, 2020, 3, .	1.6	2
116	Designing a Resilient Deployment and Reconfiguration Infrastructure for Remotely Managed Cyber-Physical Systems. Lecture Notes in Computer Science, 2016, , 88-104.	1.0	2
117	User-centric Distributed Route Planning in Smart Cities based on Multi-objective Optimization. , 2021, , .		2
118	Deep-RBF Networks for Anomaly Detection in Automotive Cyber-Physical Systems. , 2021, , .		2
119	The Role of Context and Resilient Middleware in Next Generation Smart Grids. , 2016, , .		2
120	Designing Decision Support Systems for Emergency Response: Challenges and Opportunities. , 2022, , .		2
121	LQCD workflow execution framework: Models, provenance and fault-tolerance. Journal of Physics: Conference Series, 2010, 219, 072047.	0.3	1
122	Reliable Distributed Real-Time and Embedded Systems through Safe Middleware Adaptation. , 2012, , .		1
123	A resilient and secure software platform and architecture for distributed spacecraft. Proceedings of SPIE, 2014, , .	0.8	1
124	WiP Abstract: Platform for Designing and Managing Resilient and Extensible CPS. , 2016, , .		1
125	A Systematic Approach of Identifying Optimal Load Control Actions for Arresting Cascading Failures in Power Systems. , 2017, , .		1
126	Diagnosis in Cyber-Physical Systems with Fault Protection Assemblies. , 2018, , 201-225.		1

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127	Mobilytics-Gym: A Simulation Framework for Analyzing Urban Mobility Decision Strategies. , 2019, , .		1
128	Incident management and analysis dashboard for fire departments. , 2019, , .		1
129	Supporting fog/edge-based cognitive assistance IoT services for the visually impaired. , 2019, , .		1
130	Efficient Data Management for Intelligent Urban Mobility Systems. , 2021, , .		1
131	Power-attack. , 2021, , .		1
132	Scientific Computing Autonomic Reliability Framework. , 2008, , .		0
133	Algorithms for Synthesizing Safe Sets of Operation for Embedded Systems. , 2009, , .		0
134	Modeling and Analysis of Probabilistic Timed Systems. , 2009, , .		0
135	Using Runtime Verification to Design a Reliable Execution Framework for Scientific Workflows. , 2009, , .		0
136	Autonomic Healing of Model-Based Systems. Journal of Aerospace Computing, Information, and Communication, 2011, 8, 87-99.	0.8	0
137	Performance evaluation of an authentication mechanism in time-triggered networked control systems. , 2014, , .		0
138	Poster Abstract: Distributed Reasoning for Diagnosing Cascading Outages in Cyber Physical Energy Systems. , 2016, , .		0
139	Automated aircraft separation safety assurance using Bayesian networks. , 2018, , .		0
140	Mobilytics- An Extensible, Modular and Resilient Mobility Platform. , 2018, , .		0
141	Demo: Transactive Energy Application with RIAPS. , 2019, , .		0
142	A CPS toolchain for learning-based systems. , 2019, , .		0
143	DeepNNCar: A Testbed for Deploying and Testing Middleware Frameworks for Autonomous Robots. , 2019, , .		0
144	Indicator frameworks. , 2017, , .		0