

Mohammad Abdullah Al Faruque

List of Publications by Year in descending order

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104
papers

2,037
citations

394421

19
h-index

395702

33
g-index

106
all docs

106
docs citations

106
times ranked

1787
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy Management-as-a-Service Over Fog Computing Platform. IEEE Internet of Things Journal, 2016, 3, 161-169.	8.7	240
2	Extended Range Electric Vehicle With Driving Behavior Estimation in Energy Management. IEEE Transactions on Smart Grid, 2019, 10, 2959-2968.	9.0	78
3	Automotive Cyber-Physical Systems: A Tutorial Introduction. IEEE Design and Test, 2016, 33, 92-108.	1.2	66
4	Acoustic Side-Channel Attacks on Additive Manufacturing Systems. , 2016, , .		66
5	KCAD. , 2016, , .		56
6	Context-sensitive synthesis of executable functional models of cyber-physical systems. , 2013, , .		52
7	Security trends and advances in manufacturing systems in the era of industry 4.0. , 2017, , .		51
8	Physical Layer Cryptographic Key Generation by Exploiting PMD of an Optical Fiber Link. Journal of Lightwave Technology, 2018, 36, 5903-5911.	4.6	48
9	Battery lifetime-aware automotive climate control for electric vehicles. , 2015, , .		47
10	A Security Perspective on Battery Systems of the Internet of Things. Journal of Hardware and Systems Security, 2017, 1, 188-199.	1.3	47
11	A model-based design of Cyber-Physical Energy Systems. , 2014, , .		44
12	AHAR: Adaptive CNN for Energy-Efficient Human Activity Recognition in Low-Power Edge Devices. IEEE Internet of Things Journal, 2022, 9, 13041-13051.	8.7	44
13	Manufacturing Supply Chain and Product Lifecycle Security in the Era of Industry 4.0. Journal of Hardware and Systems Security, 2018, 2, 51-68.	1.3	42
14	QUILT. , 2019, , .		42
15	Runtime Thermal Management Using Software Agents for Multi- and Many-Core Architectures. IEEE Design and Test of Computers, 2010, 27, 58-68.	1.0	40
16	Functional Model-Based Design Methodology for Automotive Cyber-Physical Systems. IEEE Systems Journal, 2017, 11, 2028-2039.	4.6	37
17	Side Channels of Cyber-Physical Systems: Case Study in Additive Manufacturing. IEEE Design and Test, 2017, 34, 18-25.	1.2	31
18	Security-aware functional modeling of Cyber-Physical Systems. , 2015, , .		28

#	ARTICLE	IF	CITATIONS
19	Design Space Exploration for the Profitability of a Rule-Based Aggregator Business Model Within a Residential Microgrid. IEEE Transactions on Smart Grid, 2015, 6, 1167-1175.	9.0	28
20	Exploiting Wireless Channel Randomness to Generate Keys for Automotive Cyber-Physical System Security. , 2016, , .		27
21	Scene-Graph Augmented Data-Driven Risk Assessment of Autonomous Vehicle Decisions. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 7941-7951.	8.0	27
22	Stealing Neural Network Structure Through Remote FPGA Side-Channel Analysis. IEEE Transactions on Information Forensics and Security, 2021, 16, 4377-4388.	6.9	26
23	Brain-Inspired Golden Chip Free Hardware Trojan Detection. IEEE Transactions on Information Forensics and Security, 2021, 16, 2697-2708.	6.9	26
24	Graph Learning for Cognitive Digital Twins in Manufacturing Systems. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 34-45.	4.6	26
25	Sabotage Attack Detection for Additive Manufacturing Systems. IEEE Access, 2020, 8, 27218-27231.	4.2	25
26	AdNoC: Runtime Adaptive Network-on-Chip Architecture. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2012, 20, 257-269.	3.1	23
27	Security Challenges of Networked Control Systems. Studies in Systems, Decision and Control, 2018, , 77-95.	1.0	23
28	Cross-domain security of cyber-physical systems. , 2017, , .		21
29	Physical Layer Key Generation. ACM Transactions on Cyber-Physical Systems, 2019, 3, 1-26.	2.5	21
30	Confidentiality Breach Through Acoustic Side-Channel in Cyber-Physical Additive Manufacturing Systems. ACM Transactions on Cyber-Physical Systems, 2018, 2, 1-25.	2.5	20
31	Information Leakage-Aware Computer-Aided Cyber-Physical Manufacturing. IEEE Transactions on Information Forensics and Security, 2018, 13, 2333-2344.	6.9	19
32	HEAR: Fog-Enabled Energy-Aware Online Human Eating Activity Recognition. IEEE Internet of Things Journal, 2021, 8, 860-868.	8.7	19
33	Aging-Aware Workload Management on Embedded GPU Under Process Variation. IEEE Transactions on Computers, 2018, 67, 920-933.	3.4	18
34	Hierarchical Temporal Memory Based Machine Learning for Real-Time, Unsupervised Anomaly Detection in Smart Grid: WiP Abstract. , 2020, , .		18
35	Design methodologies for securing cyber-physical systems. , 2015, , .		17
36	Channel State Information-Based Cryptographic Key Generation for Intelligent Transportation Systems. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 7496-7507.	8.0	17

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37	GridMat: Matlab toolbox for GridLAB-D to analyze grid impact and validate residential microgrid level energy management algorithms. , 2014, , .		16
38	Battery-aware energy-optimal Electric Vehicle driving management. , 2015, , .		16
39	Wireless Qi-Powered, Multinodal and Multisensory Body Area Network for Mobile Health. IEEE Internet of Things Journal, 2021, 8, 7600-7609.	8.7	16
40	Neuroscience-Inspired Algorithms for the Predictive Maintenance of Manufacturing Systems. IEEE Transactions on Industrial Informatics, 2021, 17, 7980-7990.	11.3	16
41	Spatiotemporal Scene-Graph Embedding for Autonomous Vehicle Collision Prediction. IEEE Internet of Things Journal, 2022, 9, 9379-9388.	8.7	16
42	High Communication Throughput and Low Scan Cycle Time with Multi/Many-Core Programmable Logic Controllers. IEEE Embedded Systems Letters, 2014, 6, 21-24.	1.9	15
43	Extensibility in Automotive Security. , 2017, , .		15
44	Security of Emergent Automotive Systems: A Tutorial Introduction and Perspectives on Practice. IEEE Design and Test, 2019, 36, 10-38.	1.2	15
45	Energy-efficient Real-time Myocardial Infarction Detection on Wearable Devices. , 2020, 2020, 4648-4651.		15
46	Design and Analysis of Battery-Aware Automotive Climate Control for Electric Vehicles. Transactions on Embedded Computing Systems, 2018, 17, 1-22.	2.9	14
47	HTnet: Transfer Learning for Golden Chip-Free Hardware Trojan Detection. , 2021, , .		14
48	Run-Time Scheduling Framework for Event-Driven Applications on a GPU-Based Embedded System. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1956-1967.	2.7	13
49	Eco-Friendly Automotive Climate Control and Navigation System for Electric Vehicles. , 2016, , .		13
50	Modeling, analysis, and optimization of Electric Vehicle HVAC systems. , 2016, , .		13
51	SAGE: A Split-Architecture Methodology for Efficient End-to-End Autonomous Vehicle Control. Transactions on Embedded Computing Systems, 2021, 20, 1-22.	2.9	13
52	Energy-Efficient Real-Time Heart Monitoring on Edge-Cloud Internet of Medical Things. IEEE Internet of Things Journal, 2022, 9, 12472-12481.	8.7	13
53	RAMP: Impact of rule based aggregator business model for residential microgrid of prosumers including distributed energy resources. , 2014, , .		12
54	Models, abstractions, and architectures. , 2015, , .		12

#	ARTICLE	IF	CITATIONS
55	GAN-Sec: Generative Adversarial Network Modeling for the Security Analysis of Cyber-Physical Production Systems. , 2019, , .		12
56	Self-Secured Control with Anomaly Detection and Recovery in Automotive Cyber-Physical Systems. , 2019, , .		12
57	GNN4IP: Graph Neural Network for Hardware Intellectual Property Piracy Detection. , 2021, , .		12
58	Bounded arbitration algorithm for QoS-supported on-chip communication. , 2006, , .		11
59	Managing residential-level EV charging using network-as-automation platform (NAP) technology. , 2012, , .		11
60	Energy management as a service over fog computing platform. , 2015, , .		11
61	Security and privacy challenges in IoT-based machine-to-machine collaborative scenarios. , 2016, , .		11
62	Fix the leak! an information leakage aware secured cyber-physical manufacturing system. , 2017, , .		11
63	Low-overhead Aging-aware Resource Management on Embedded GPUs. , 2017, , .		11
64	Polarization Mode Dispersion-Based Physical Layer Key Generation for Optical Fiber Link Security. , 2017, , .		11
65	Feature Augmented Hybrid CNN for Stress Recognition Using Wrist-based Photoplethysmography Sensor. , 2021, 2021, 2374-2377.		11
66	Minimizing Virtual Channel Buffer for Routers in On-chip Communication Architectures. , 2008, , .		10
67	Functional modeling compiler for system-level design of automotive cyber-physical systems. , 2014, , .		10
68	Electric Vehicle Optimized Charge and Drive Management. ACM Transactions on Design Automation of Electronic Systems, 2018, 23, 1-25.	2.6	10
69	Modeling and simulation of cyberattacks for resilient cyber-physical systems. , 2017, , .		10
70	Run-time adaptive on-chip communication scheme. IEEE/ACM International Conference on Computer-Aided Design, Digest of Technical Papers, 2007, , .	0.0	9
71	QoS-supported On-chip Communication for Multi-processors. International Journal of Parallel Programming, 2008, 36, 114-139.	1.5	9
72	Home energy management as a service over networking platforms. , 2015, , .		9

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73	Survey of Low-Power Electric Vehicles: A Design Automation Perspective. IEEE Design and Test, 2018, 35, 44-70.	1.2	9
74	HW2VEC: a Graph Learning Tool for Automating Hardware Security. , 2021, , .		9
75	Security analysis for fixed-time traffic control systems. Transportation Research Part B: Methodological, 2020, 139, 473-495.	5.9	8
76	Path to Eco-Driving: Electric Vehicle HVAC and Route Joint Optimization. IEEE Design and Test, 2018, 35, 8-15.	1.2	7
77	OTEM: Optimized Thermal and Energy Management for Hybrid Electrical Energy Storage in Electric Vehicles. , 2016, , .		7
78	Hierarchical Temporal Memory-Based One-Pass Learning for Real-Time Anomaly Detection and Simultaneous Data Prediction in Smart Grids. IEEE Transactions on Dependable and Secure Computing, 2022, 19, 1770-1782.	5.4	7
79	roadscene2vec: A tool for extracting and embedding road scene-graphs. Knowledge-Based Systems, 2022, 242, 108245.	7.1	7
80	Poster Abstract: Thermal Side-Channel Forensics in Additive Manufacturing Systems. , 2016, , .		6
81	Tool of Spies: Leaking your IP by Altering the 3D Printer Compiler. IEEE Transactions on Dependable and Secure Computing, 2021, 18, 667-678.	5.4	6
82	Eve, You Shall Not Get Access! A Cyber-Physical Blockchain Architecture for Electronic Toll Collection Security. , 2020, , .		6
83	Control-as-a-Service in Cyber-Physical Energy Systems over Fog Computing. , 2018, , 123-144.		6
84	Template Matching Based Early Exit CNN for Energy-efficient Myocardial Infarction Detection on Low-power Wearable Devices. , 2022, 6, 1-22.		6
85	GPU-EvR: Run-time event based real-time scheduling framework on GPGPU platform. , 2014, , .		5
86	GPU-EvR: Run-time event based real-time scheduling framework on GPGPU platform. , 2014, , .		5
87	NeuroNoC. , 2010, , .		4
88	Multi-disciplinary integrated design automation tool for automotive cyber-physical systems. , 2014, , .		4
89	GPU Architecture Aware Instruction Scheduling for Improving Soft-Error Reliability. IEEE Transactions on Multi-Scale Computing Systems, 2017, 3, 86-99.	2.4	4
90	Application-Specific Residential Microgrid Design Methodology. ACM Transactions on Design Automation of Electronic Systems, 2017, 22, 1-21.	2.6	4

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91	Multi-disciplinary integrated design automation tool for automotive cyber-physical systems. , 2014, , .		2
92	Compartmentalisation-based design automation method for power grid. IET Cyber-Physical Systems: Theory and Applications, 2017, 2, 20-27.	3.3	2
93	Driving behavior modeling and estimation for battery optimization in electric vehicles. , 2017, , .		2
94	Maintaining the Design Intent in the Synthesis of 3-D and 1-D System Models Using Constraints. IEEE Systems Journal, 2018, 12, 1108-1117.	4.6	2
95	A Survivability-Aware Cyber-Physical Systems Design Methodology. , 2019, , .		2
96	A Physical Layer Security Key Generation Technique for Inter-Vehicular Visible Light Communication. , 2017, , .		2
97	Model-based design of time-triggered real-time embedded systems for digital manufacturing. , 2015, , .		1
98	ACQUA: Adaptive and cooperative quality-aware control for automotive cyber-physical systems. , 2017, , .		1
99	Circuit Inspired Modeling Method for Irrigation. , 2018, , .		1
100	Guest Editorsâ€™ Introduction: Secure Automotive Systems. IEEE Design and Test, 2019, 36, 5-6.	1.2	1
101	Attack Modeling Methodology and Taxonomy for Intelligent Transportation Systems. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 13255-13264.	8.0	1
102	Model-Based Design of Time-Triggered Real-Time Embedded systems for industrial automation. , 2015, , .		0
103	Report of the Fourth International Workshop on Design Automation for Cyber-Physical Systems (DACPS) 2019. IEEE Design and Test, 2019, 36, 84-85.	1.2	0
104	EcoLoc. , 2017, , .		0