

Mohammad Abdullah Al Faruque

List of Publications by Year in descending order

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Version: 2024-02-01

104
papers

2,037
citations

393982

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395343

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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. | 5.5 | 240 |
| 2 | Extended Range Electric Vehicle With Driving Behavior Estimation in Energy Management. IEEE Transactions on Smart Grid, 2019, 10, 2959-2968. | 6.2 | 78 |
| 3 | Automotive Cyber-Physical Systems: A Tutorial Introduction. IEEE Design and Test, 2016, 33, 92-108. | 1.1 | 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. | 2.7 | 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. | 0.8 | 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. | 5.5 | 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. | 0.8 | 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. | 1.4 | 40 |
| 16 | Functional Model-Based Design Methodology for Automotive Cyber-Physical Systems. IEEE Systems Journal, 2017, 11, 2028-2039. | 2.9 | 37 |
| 17 | Side Channels of Cyber-Physical Systems: Case Study in Additive Manufacturing. IEEE Design and Test, 2017, 34, 18-25. | 1.1 | 31 |
| 18 | Security-aware functional modeling of Cyber-Physical Systems. , 2015, , . | | 28 |

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| 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. | 6.2 | 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. | 4.7 | 27 |
| 22 | Stealing Neural Network Structure Through Remote FPGA Side-Channel Analysis. IEEE Transactions on Information Forensics and Security, 2021, 16, 4377-4388. | 4.5 | 26 |
| 23 | Brain-Inspired Golden Chip Free Hardware Trojan Detection. IEEE Transactions on Information Forensics and Security, 2021, 16, 2697-2708. | 4.5 | 26 |
| 24 | Graph Learning for Cognitive Digital Twins in Manufacturing Systems. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 34-45. | 3.2 | 26 |
| 25 | Sabotage Attack Detection for Additive Manufacturing Systems. IEEE Access, 2020, 8, 27218-27231. | 2.6 | 25 |
| 26 | AdNoC: Runtime Adaptive Network-on-Chip Architecture. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2012, 20, 257-269. | 2.1 | 23 |
| 27 | Security Challenges of Networked Control Systems. Studies in Systems, Decision and Control, 2018, , 77-95. | 0.8 | 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. | 1.9 | 21 |
| 30 | Confidentiality Breach Through Acoustic Side-Channel in Cyber-Physical Additive Manufacturing Systems. ACM Transactions on Cyber-Physical Systems, 2018, 2, 1-25. | 1.9 | 20 |
| 31 | Information Leakage-Aware Computer-Aided Cyber-Physical Manufacturing. IEEE Transactions on Information Forensics and Security, 2018, 13, 2333-2344. | 4.5 | 19 |
| 32 | HEAR: Fog-Enabled Energy-Aware Online Human Eating Activity Recognition. IEEE Internet of Things Journal, 2021, 8, 860-868. | 5.5 | 19 |
| 33 | Aging-Aware Workload Management on Embedded GPU Under Process Variation. IEEE Transactions on Computers, 2018, 67, 920-933. | 2.4 | 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. | 4.7 | 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. | 5.5 | 16 |
| 40 | Neuroscience-Inspired Algorithms for the Predictive Maintenance of Manufacturing Systems. IEEE Transactions on Industrial Informatics, 2021, 17, 7980-7990. | 7.2 | 16 |
| 41 | Spatiotemporal Scene-Graph Embedding for Autonomous Vehicle Collision Prediction. IEEE Internet of Things Journal, 2022, 9, 9379-9388. | 5.5 | 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. | 1.3 | 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. | 1.1 | 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. | 2.1 | 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. | 1.9 | 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. | 2.1 | 13 |
| 52 | Energy-Efficient Real-Time Heart Monitoring on Edge-Cloud Internet of Medical Things. IEEE Internet of Things Journal, 2022, 9, 12472-12481. | 5.5 | 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 |

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| 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. | 1.9 | 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. | 1.1 | 9 |
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| 73 | Survey of Low-Power Electric Vehicles: A Design Automation Perspective. IEEE Design and Test, 2018, 35, 44-70. | 1.1 | 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. | 2.8 | 8 |
| 76 | Path to Eco-Driving: Electric Vehicle HVAC and Route Joint Optimization. IEEE Design and Test, 2018, 35, 8-15. | 1.1 | 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. | 3.7 | 7 |
| 79 | roadscene2vec: A tool for extracting and embedding road scene-graphs. Knowledge-Based Systems, 2022, 242, 108245. | 4.0 | 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. | 3.7 | 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. | 2.5 | 4 |
| 90 | Application-Specific Residential Microgrid Design Methodology. ACM Transactions on Design Automation of Electronic Systems, 2017, 22, 1-21. | 1.9 | 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. | 1.9 | 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. | 2.9 | 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. | 1.1 | 1 |
| 101 | Attack Modeling Methodology and Taxonomy for Intelligent Transportation Systems. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 13255-13264. | 4.7 | 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. | 1.1 | 0 |
| 104 | EcoLoc. , 2017, , . | | 0 |