

# Osman Hasan

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/8407876/osman-hasan-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

208  
papers

1,414  
citations

18  
h-index

27  
g-index

249  
ext. papers

1,787  
ext. citations

1.7  
avg, IF

5.28  
L-index

#	Paper	IF	Citations
208	RRT*-SMART: A Rapid Convergence Implementation of RRT*. <i>International Journal of Advanced Robotic Systems</i> , <b>2013</b> , 10, 299	1.4	77
207	Probabilistic Error Modeling for Approximate Adders. <i>IEEE Transactions on Computers</i> , <b>2017</b> , 66, 515-530	2.5	56
206	Reliability modeling and analysis of communication networks. <i>Journal of Network and Computer Applications</i> , <b>2017</b> , 78, 191-215	7.9	46
205	Formal Verification Methods <b>2015</b> , 7162-7170		40
204	On the Formalization of the Lebesgue Integration Theory in HOL. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 387-402	0.9	40
203	Wearable technologies for hand joints monitoring for rehabilitation: A survey. <i>Microelectronics Journal</i> , <b>2019</b> , 88, 173-183	1.8	36
202	Applying Formal Methods to Networking: Theory, Techniques, and Applications. <i>IEEE Communications Surveys and Tutorials</i> , <b>2015</b> , 17, 256-291	37.1	33
201	IoTRiskAnalyzer: A Probabilistic Model Checking Based Framework for Formal Risk Analytics of the Internet of Things. <i>IEEE Access</i> , <b>2017</b> , 5, 5494-5505	3.5	31
200	<b>2010</b> ,		30
199	Formal Verification of Cyber-Physical Systems: Coping with Continuous Elements. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 358-371	0.9	28
198	Probabilistic Error Analysis of Approximate Recursive Multipliers. <i>IEEE Transactions on Computers</i> , <b>2017</b> , 66, 1982-1990	2.5	27
197	RRT*-Smart: Rapid convergence implementation of RRT* towards optimal solution <b>2012</b> ,		26
196	An area-efficient consolidated configurable error correction for approximate hardware accelerators <b>2016</b> ,		26
195	Statistical Error Analysis for Low Power Approximate Adders <b>2017</b> ,		23
194	QuAd <b>2017</b> ,		23
193	Formal Reliability Analysis Using Theorem Proving. <i>IEEE Transactions on Computers</i> , <b>2010</b> , 59, 579-592	2.5	22
192	Formalization of Laplace Transform Using the Multivariable Calculus Theory of HOL-Light. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 744-758	0.9	22

191	Formalization of Entropy Measures in HOL. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 233-248	0.9	20
190	. <i>IEEE Systems Journal</i> , <b>2016</b> , 10, 1035-1045	4.3	17
189	Formal Reasoning about Expectation Properties for Continuous Random Variables. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 435-450	0.9	16
188	Power profiling of microcontroller's instruction set for runtime hardware Trojans detection without golden circuit models <b>2017</b> ,		15
187	Formalization of Reliability Block Diagrams in Higher-order Logic. <i>Journal of Applied Logic</i> , <b>2016</b> , 18, 19-41		15
186	Using Theorem Proving to Verify Expectation and Variance for Discrete Random Variables. <i>Journal of Automated Reasoning</i> , <b>2008</b> , 41, 295-323	1	15
185	Comparative Study of Approximate Multipliers <b>2018</b> ,		14
184	Towards Formal Fault Tree Analysis Using Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 39-54	0.9	14
183	Formalization of Continuous Probability Distributions. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 3-18	0.9	14
182	Towards the Formal Reliability Analysis of Oil and Gas Pipelines. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 30-44	0.9	13
181	Formal Analysis of a Scheduling Algorithm for Wireless Sensor Networks. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 388-403	0.9	13
180	Runtime hardware Trojan monitors through modeling burst mode communication using formal verification. <i>The Integration VLSI Journal</i> , <b>2018</b> , 61, 62-76	1.4	13
179	Formal Analysis of Optical Systems. <i>Mathematics in Computer Science</i> , <b>2014</b> , 8, 39-70	0.5	12
178	Formal Reasoning About Finite-State Discrete-Time Markov Chains in HOL. <i>Journal of Computer Science and Technology</i> , <b>2013</b> , 28, 217-231	1.7	12
177	Performance Analysis and Functional Verification of the Stop-and-Wait Protocol in HOL. <i>Journal of Automated Reasoning</i> , <b>2009</b> , 42, 1-33	1	12
176	Formal analysis of steady state errors in feedback control systems using HOL-light <b>2013</b> ,		10
175	Formalization of the Standard Uniform random variable. <i>Theoretical Computer Science</i> , <b>2007</b> , 382, 71-83	1.1	10
174	Verification of Probabilistic Properties in HOL Using the Cumulative Distribution Function. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 333-352	0.9	10

173	Formal Analysis of Optical Waveguides in HOL. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 228-243	0.9	10
172	Adaptive Approximate Computing in Arithmetic Datapaths. <i>IEEE Design and Test</i> , <b>2018</b> , 35, 65-74	1.4	10
171	Input-Conscious Approximate Multiply-Accumulate (MAC) Unit for Energy-Efficiency. <i>IEEE Access</i> , <b>2019</b> , 7, 147129-147142	3.5	9
170	Formalization of Transform Methods Using HOL Light. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 319-332	0.9	9
169	Hardware Trojan detection in soft error tolerant macro synchronous micro asynchronous (MSMA) pipeline <b>2014</b> ,		9
168	On the Formalization of Gamma Function in HOL. <i>Journal of Automated Reasoning</i> , <b>2014</b> , 53, 407-429	1	9
167	Probabilistic Analysis of Wireless Systems Using Theorem Proving. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2009</b> , 242, 43-58	0.7	9
166	Formal reliability analysis of combinational circuits using theorem proving. <i>Journal of Applied Logic</i> , <b>2011</b> , 9, 41-60		9
165	Formalization of Finite-State Discrete-Time Markov Chains in HOL. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 90-104	0.9	9
164	Chronic kidney disease diagnosis using decision tree algorithms. <i>BMC Nephrology</i> , <b>2021</b> , 22, 273	2.7	9
163	Formal Dynamic Fault Trees Analysis Using an Integration of Theorem Proving and Model Checking. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 139-156	0.9	8
162	Statistical model checking of relief supply location and distribution in natural disaster management. <i>International Journal of Disaster Risk Reduction</i> , <b>2018</b> , 31, 1043-1053	4.5	8
161	Formalization of Fault Trees in Higher-Order Logic: A Deep Embedding Approach. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 264-279	0.9	8
160	An approach for lifetime reliability analysis using theorem proving. <i>Journal of Computer and System Sciences</i> , <b>2014</b> , 80, 323-345	1	8
159	Adaptive Potential guided directional-RRT <b>2013</b> ,		8
158	Theorem proving based Formal Verification of Distributed Dynamic Thermal Management schemes. <i>Journal of Parallel and Distributed Computing</i> , <b>2017</b> , 100, 157-171	4.4	8
157	Formal Probabilistic Analysis of Cyber-Physical Transportation Systems. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 419-434	0.9	8
156	Formal Probabilistic Analysis of Low Latency Approximate Adders. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2019</b> , 38, 177-189	2.5	8

155	Formal probabilistic analysis of detection properties in wireless sensor networks. <i>Formal Aspects of Computing</i> , <b>2015</b> , 27, 79-102	1.2	7
154	Formal Verification of Platoon Control Strategies. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 223-238	0.9	7
153	Formal verification of distributed dynamic thermal management <b>2013</b> ,		7
152	Formal reliability analysis of wireless sensor network data transport protocols using HOL <b>2015</b> ,		7
151	Formal verification of tail distribution bounds in the HOL theorem prover. <i>Mathematical Methods in the Applied Sciences</i> , <b>2009</b> , 32, 480-504	2.3	7
150	Performance Analysis of ARQ Protocols using a Theorem Prover <b>2008</b> ,		7
149	Formal Probabilistic Analysis of Stuck-at Faults in Reconfigurable Memory Arrays. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 277-291	0.9	7
148	Formal Reliability Analysis of Protective Relays in Power Distribution Systems. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 169-183	0.9	7
147	On the Formalization of Fourier Transform in Higher-order Logic. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 483-490	0.9	7
146	Formal comparison of LEACH and its extensions. <i>Computer Standards and Interfaces</i> , <b>2019</b> , 62, 119-127	3.5	7
145	Evaluation of anonymity and confidentiality protocols using theorem proving. <i>Formal Methods in System Design</i> , <b>2015</b> , 47, 265-286	1.4	6
144	Low Power Soft Error Tolerant Macro Synchronous Micro Asynchronous (MSMA) Pipeline <b>2014</b> ,		6
143	Formal reliability analysis of a typical FHIR standard based e-Health system using PRISM <b>2014</b> ,		6
142	Reasoning about conditional probabilities in a higher-order-logic theorem prover. <i>Journal of Applied Logic</i> , <b>2011</b> , 9, 23-40		6
141	Verification of Expectation Properties for Discrete Random Variables in HOL. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 119-134	0.9	6
140	Automated formal synthesis of Wallace Tree multipliers. <i>Midwest Symposium on Circuits and Systems</i> , <b>2007</b> ,	1	6
139	Formal Verification of Steady-State Errors in Unity-Feedback Control Systems. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 1-15	0.9	6
138	Formally Analyzing Continuous Aspects of Cyber-Physical Systems Modeled by Homogeneous Linear Differential Equations. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 132-146	0.9	6

137	Formal Dependability Modeling and Analysis: A Survey. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 132-147.	0.9	6
136	Formal Analysis of Linear Control Systems Using Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 345-361	0.9	6
135	Formal Kinematic Analysis of the Two-Link Planar Manipulator. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 347-362	0.9	6
134	Framework for Formally Verifying Analog and Mixed-Signal Designs <b>2015</b> , 115-145		5
133	Reliability block diagrams based analysis: A survey <b>2015</b> ,		5
132	A Library for Combinational Circuit Verification Using the HOL Theorem Prover. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2018</b> , 37, 512-516	2.5	5
131	FAMe-TM: Formal analysis methodology for task migration algorithms in Many-Core systems. <i>Science of Computer Programming</i> , <b>2017</b> , 133, 154-174	1.1	5
130	Formal reliability analysis of Device Interoperability Middleware (DIM) based E-health system using PRISM <b>2015</b> ,		5
129	Formal probabilistic analysis of distributed dynamic thermal management <b>2015</b> ,		5
128	Formalization of Measure Theory and Lebesgue Integration for Probabilistic Analysis in HOL. <i>Transactions on Embedded Computing Systems</i> , <b>2013</b> , 12, 1-23	1.8	5
127	Formalization of Normal Random Variables in HOL. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 44-59	0.9	5
126	Formal Analysis of Memory Contention in a Multiprocessor System. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 195-210	0.9	5
125	Formal Verification of Gate-Level Multiple Side Channel Parameters to Detect Hardware Trojans. <i>Communications in Computer and Information Science</i> , <b>2017</b> , 75-92	0.3	4
124	Formal Asymptotic Analysis of Online Scheduling Algorithms for Plug-In Electric Vehicles Charging. <i>Energies</i> , <b>2019</b> , 12, 19	3.1	4
123	Formal modeling and verification of integrated photonic systems <b>2015</b> ,		4
122	SIMCom: Statistical sniffing of inter-module communications for runtime hardware trojan detection. <i>Microprocessors and Microsystems</i> , <b>2020</b> , 77, 103122	2.4	4
121	FANNet: Formal Analysis of Noise Tolerance, Training Bias and Input Sensitivity in Neural Networks <b>2020</b> ,		4
120	Formal reasoning about systems biology using theorem proving. <i>PLoS ONE</i> , <b>2017</b> , 12, e0180179	3.7	4

119	Formal reliability analysis of protective systems in smart grids <b>2016,</b>		4
118	. <i>IEEE Access</i> , <b>2018</b> , 6, 32240-32257	3.5	4
117	Using Machine Learning for Quality Configurable Approximate Computing <b>2019,</b>		4
116	A Methodology for the Formal Verification of Dynamic Fault Trees Using HOL Theorem Proving. <i>IEEE Access</i> , <b>2019</b> , 7, 136176-136192	3.5	4
115	Triangular Geometrized Sampling Heuristics for Fast Optimal Motion Planning. <i>International Journal of Advanced Robotic Systems</i> , <b>2015</b> , 12, 10	1.4	4
114	Formal analysis of a ZigBee-based routing protocol for smart grids using UPPAAL <b>2015,</b>		4
113	Formal verification of circuit-switched Network on chip (NoC) architectures using SPIN <b>2014,</b>		4
112	Formal Probabilistic Analysis of a Wireless Sensor Network for Forest Fire Detection. <i>Electronic Proceedings in Theoretical Computer Science, EPTCS</i> , <b>2013</b> , 122, 1-9		4
111	Towards Probabilistic Formal Modeling of Robotic Cell Injection Systems. <i>Electronic Proceedings in Theoretical Computer Science, EPTCS</i> , <b>244</b> , 271-282		4
110	Formalization of Complex Vectors in Higher-Order Logic. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 123-137		4
109	Quantitative Analysis of Information Flow Using Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 119-134	0.9	4
108	Formal Reasoning about Classified Markov Chains in HOL. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 295-310		4
107	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2020</b> , 39, 3748-3761	2.5	4
106	Using gate-level side channel parameters for formally analyzing vulnerabilities in integrated circuits. <i>Science of Computer Programming</i> , <b>2019</b> , 171, 42-66	1.1	4
105	ApproxCT: Approximate Clustering Techniques for Energy Efficient Computer Vision in Cyber-Physical Systems <b>2018,</b>		4
104	Behavior profiling of power distribution networks for runtime hardware trojan detection <b>2017,</b>		3
103	Formal Analysis of Robotic Cell Injection Systems Using Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 127-141	0.9	3
102	Self-compensating accelerators for efficient approximate computing. <i>Microelectronics Journal</i> , <b>2019</b> , 88, 9-17	1.8	3

101	Stunting diagnostic and awareness: impact assessment study of sociodemographic factors of stunting among school-going children of Pakistan. <i>BMC Pediatrics</i> , <b>2020</b> , 20, 232	2.6	3
100	Formal reliability and failure analysis of ethernet based communication networks in a smart grid substation. <i>Formal Aspects of Computing</i> , <b>2020</b> , 32, 71-111	1.2	3
99	Software testing: A survey and tutorial on white and black-box testing of C/C++ programs <b>2016</b> ,		3
98	SecureSurgiNET: A framework for ensuring security in telesurgery. <i>International Journal of Distributed Sensor Networks</i> , <b>2019</b> , 15, 155014771987381	1.7	3
97	Formal analysis of electromagnetic optics <b>2014</b> ,		3
96	Towards the Formal Performance Analysis of Wireless Sensor Networks <b>2013</b> ,		3
95	Probabilistic Formal Verification Methodology for Decentralized Thermal Management in On-Chip Systems <b>2015</b> ,		3
94	Towards Formal Reasoning about Molecular Pathways in HOL <b>2014</b> ,		3
93	Verification of Tail Distribution Bounds in a Theorem Prover. <i>AIP Conference Proceedings</i> , <b>2007</b> ,	0	3
92	Design and Realization of a Robotic Manipulator for Minimally Invasive Surgery With Replaceable Surgical Tools. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2020</b> , 25, 2754-2764	5.5	3
91	Proof searching in HOL4 with genetic algorithm <b>2020</b> ,		3
90	EasyDetectDisease: An Android App for Early Symptom Detection and Prevention of Childhood Infectious Diseases. <i>Interactive Journal of Medical Research</i> , <b>2019</b> , 8, e12664	2.1	3
89	Telesurgical Robotics <b>2015</b> , 5482-5490		3
88	Formalized Probability Theory and Applications Using Theorem Proving <b>2015</b> ,		3
87	A Framework for Formal Dynamic Dependability Analysis Using HOL Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 105-122	0.9	3
86	On the Formal Analysis of HMM Using Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 316-331.9		3
85	Formal Probabilistic Analysis of a WSN-Based Monitoring Framework for IoT Applications. <i>Communications in Computer and Information Science</i> , <b>2017</b> , 93-108	0.3	3
84	Formal Lifetime Reliability Analysis Using Continuous Random Variables. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 84-97	0.9	3

83	Formal Probabilistic Analysis: A Higher-Order Logic Based Approach. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 2-19	0.9	3
82	Machine-Learning-Based Self-Tunable Design of Approximate Computing. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2021</b> , 29, 800-813	2.6	3
81	Probabilistic Formal Verification of the SATS Concept of Operation. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 191-205	0.9	3
80	Formal analysis of the continuous dynamics of cyberphysical systems using theorem proving. <i>Journal of Systems Architecture</i> , <b>2021</b> , 112, 101850	5.5	3
79	. <i>IEEE Internet of Things Journal</i> , <b>2021</b> , 8, 13251-13265	10.7	3
78	Formal Reliability Analysis of an Integrated Power Generation System Using Theorem Proving. <i>IEEE Systems Journal</i> , <b>2020</b> , 14, 4820-4831	4.3	2
77	Ver2Smv DA tool for automatic verilog to SMV translation for verifying digital circuits <b>2018</b> ,		2
76	Towards autonomous collision avoidance in surgical robots using image segmentation and genetic algorithms <b>2016</b> ,		2
75	Analyzing Vulnerability of Asynchronous Pipeline to Soft Errors: Leveraging Formal Verification. <i>Journal of Electronic Testing: Theory and Applications (JETTA)</i> , <b>2016</b> , 32, 569-586	0.7	2
74	Formal analysis of continuous-time systems using Fourier transform. <i>Journal of Symbolic Computation</i> , <b>2019</b> , 90, 65-88	0.8	2
73	Triangular geometry based optimal motion planning using RRT*-motion planner <b>2014</b> ,		2
72	Formally Verifying Transfer Functions of Linear Analog Circuits. <i>IEEE Design and Test</i> , <b>2017</b> , 34, 30-37	1.4	2
71	SmartSIM - a virtual reality simulator for laparoscopy training using a generic physics engine. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , <b>2017</b> , 13, e1771	2.9	2
70	Timing variation aware dynamic digital phase detector for low-latency clock domain crossing. <i>IET Circuits, Devices and Systems</i> , <b>2014</b> , 8, 58-64	1.1	2
69	Formally Analyzing Expected Time Complexity of Algorithms Using Theorem Proving. <i>Journal of Computer Science and Technology</i> , <b>2010</b> , 25, 1305-1320	1.7	2
68	Formal Analysis of Soft Errors using Theorem Proving. <i>Electronic Proceedings in Theoretical Computer Science, EPTCS</i> , <b>122</b> , 75-84		2
67	A Formally Verified Algebraic Approach for Dynamic Reliability Block Diagrams. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 253-269	0.9	2
66	Formal analysis of the biological circuits using higher-order-logic theorem proving <b>2020</b> ,		2

65	Towards the Formalization of Fractional Calculus in Higher-Order Logic. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 316-324	0.9	2
64	Formal Availability Analysis Using Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 226-242	0.9	2
63	Formal Verification and Safety Assessment of a Hemodialysis Machine. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 241-254	0.9	2
62	Using Probabilistic Analysis for the Certification of Machine Control Systems. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 305-320	0.9	2
61	Formal Analysis of Information Flow Using Min-Entropy and Belief Min-Entropy. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 131-146	0.9	2
60	Formal Verification of Distributed Task Migration for Thermal Management in On-Chip Multi-core Systems Using nuXmv. <i>Communications in Computer and Information Science</i> , <b>2015</b> , 32-46	0.3	2
59	On the Formalization of Zsyntax with Applications in Molecular Biology. <i>Scalable Computing</i> , <b>2015</b> , 16,	2.4	2
58	PEMACx: A Probabilistic Error Analysis Methodology for Adders with Cascaded Approximate Units <b>2020</b> ,		2
57	Formal verification of Matrix based MATLAB models using interactive theorem proving. <i>PeerJ Computer Science</i> , <b>2021</b> , 7, e440	2.7	2
56	An evolutionary/heuristic-based proof searching framework for interactive theorem prover. <i>Applied Soft Computing Journal</i> , <b>2021</b> , 104, 107200	7.5	2
55	Probabilistic Error Analysis of Approximate Adders and Multipliers <b>2019</b> , 99-120		2
54	Proof searching and prediction in HOL4 with evolutionary/heuristic and deep learning techniques. <i>Applied Intelligence</i> , <b>2021</b> , 51, 1580-1601	4.9	2
53	A Utility Maximized Demand-Side Management for Autonomous Microgrid <b>2018</b> ,		2
52	Continual Learning for Real-World Autonomous Systems: Algorithms, Challenges and Frameworks. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , <b>2022</b> , 105, 1	2.9	2
51	CANdy-TM: Comparative analysis of dynamic thermal management in many-cores using model checking <b>2017</b> ,		1
50	NoC-Based Implementation of Free Form Deformations in Medical Imaging Registration. <i>Journal of Circuits, Systems and Computers</i> , <b>2017</b> , 26, 1750058	0.9	1
49	Formal Verification of Robotic Cell Injection systems up to 4-DOF using HOL Light. <i>Formal Aspects of Computing</i> , <b>2020</b> , 32, 229-250	1.2	1
48	Formal verification of robotic cell injection systems <b>2020</b> , 143-170		1

47	Petri net and rewriting logic based formal analysis of multi-agent based safety-critical systems. <i>Multiagent and Grid Systems</i> , <b>2020</b> , 16, 47-66	0.5	1
46	Formal reliability analysis of oil and gas pipelines. <i>Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability</i> , <b>2018</b> , 232, 320-334	0.8	1
45	Towards Probabilistic Formal Analysis of SATS-Simultaneously Moving Aircraft (SATS-SMA). <i>Journal of Automated Reasoning</i> , <b>2018</b> , 60, 85-105	1	1
44	SAT Based Fitness Scoring for Digital Circuit Evolution. <i>Journal of Circuits, Systems and Computers</i> , <b>2018</b> , 27, 1850099	0.9	1
43	Formal Probabilistic Analysis of a Virtual Fixture Control Algorithm for a Surgical Robot. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 1-16	0.9	1
42	Safe-radius based motion planning of hexapod using RRT-connect <b>2015</b> ,		1
41	Augmenting RRT*-planner with local trees for motion planning in complex dynamic environments <b>2014</b> ,		1
40	Formalization of Asymptotic Notations. <i>SpringerBriefs in Applied Sciences and Technology</i> , <b>2022</b> , 61-76	0.4	1
39	Machine Learning-Based Self-Compensating Approximate Computing <b>2020</b> ,		1
38	Formal reasoning about synthetic biology using higher-order-logic theorem proving. <i>IET Systems Biology</i> , <b>2020</b> , 14, 271-283	1.4	1
37	State of the Art and Key Design Challenges of Telesurgical Robotics <b>2018</b> , 6872-6881		1
36	Telesurgical Robotics and a Kinematic Perspective <b>2018</b> , 6882-6893		1
35	State of the Art and Key Design Challenges of Telesurgical Robotics. <i>Advances in Computer and Electrical Engineering Book Series</i> , <b>2019</b> , 1100-1111	0.3	1
34	Formal Verification of Rewriting Rules for Dynamic Fault Trees. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 513-531	0.9	1
33	g-HOL: A Graphical User Interface for the HOL Proof Assistant. <i>Communications in Computer and Information Science</i> , <b>2016</b> , 265-269	0.3	1
32	Formalization of Zsyntax to Reason About Molecular Pathways in HOL4. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 32-47	0.9	1
31	Formal Verification of ECCs for Memories Using ACL2. <i>Journal of Electronic Testing: Theory and Applications (JETTA)</i> , <b>2020</b> , 36, 643-663	0.7	1
30	Formal Analysis of Unmanned Aerial Vehicles Using Higher-Order-Logic Theorem Proving. <i>Journal of Aerospace Information Systems</i> , <b>2020</b> , 17, 481-495	1	1

29	Formal verification of energy consumption for an EEG monitoring wireless body area sensor network <b>2016</b> ,		1
28	Toward Model Checking-Driven Fair Comparison of Dynamic Thermal Management Techniques Under Multithreaded Workloads. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2020</b> , 39, 1725-1738	2.5	1
27	Approximation-Conscious IC Testing <b>2018</b> ,		1
26	. <i>IEEE Access</i> , <b>2020</b> , 8, 27291-27307	3.5	0
25	LPQ-SAM: A Low-Power Quality Scalable Approximate Multiplier. <i>Journal of Circuits, Systems and Computers</i> , <b>2021</b> , 30, 2150017	0.9	0
24	Formal probabilistic analysis of a surgical robot control algorithm with different virtual fixtures. <i>Innovations in Systems and Software Engineering</i> , <b>2018</b> , 14, 83-100	1.1	0
23	A Quality-assured Approximate Hardware AcceleratorsBased on Machine Learning and Dynamic Partial Reconfiguration. <i>ACM Journal on Emerging Technologies in Computing Systems</i> , <b>2021</b> , 17, 1-19	1.7	0
22	ForASec: Formal Analysis of Hardware Trojan-based Security Vulnerabilities in Sequential Circuits. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , <b>2021</b> , 1-1	2.5	0
21	Clock domain crossing (CDC) in 3D-SICs: Semi QDI asynchronous vs loosely synchronous. <i>The Integration VLSI Journal</i> , <b>2016</b> , 52, 367-380	1.4	
20	Formal Analysis of Information Flow in HOL. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 283-299	0.9	
19	Formalization of Stability Theory. <i>SpringerBriefs in Applied Sciences and Technology</i> , <b>2022</b> , 31-45	0.4	
18	Formalization of Cost and Utility in Microeconomics. <i>SpringerBriefs in Applied Sciences and Technology</i> , <b>2022</b> , 47-60	0.4	
17	Interactive Theorem Proving. <i>SpringerBriefs in Applied Sciences and Technology</i> , <b>2022</b> , 23-29	0.4	
16	Towards the formal performance analysis of multistate coherent systems using HOL theorem proving. <i>Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability</i> , 1748006X2210744	0.8	
15	Formal Reliability Analysis of Embedded Computing Systems50-64		
14	How childhood diseases awareness contributes to minimize the risk of disease severity in children under five age: An evolutionary study. <i>JPMA the Journal of the Pakistan Medical Association</i> , <b>2020</b> , 70, 2210-2214	0.4	
13	Load Flow Analysis in Smart Grids <b>2018</b> , 3103-3113		
12	Load Flow Analysis in Smart Grids. <i>Advances in Environmental Engineering and Green Technologies Book Series</i> , <b>2019</b> , 187-199	0.4	

- |    |  |     |
|----|--|-----|
| 11 | Formal Timing Analysis of Digital Circuits. <i>Communications in Computer and Information Science</i> , <b>2019</b> , 84-100   | 0.3 |
| 10 | Telesurgical Robotics and a Kinematic Perspective. <i>Advances in Computer and Electrical Engineering Book Series</i> , <b>2019</b> , 1112-1126  | 0.3 |
| 9  | Formalization of Cost and Utility in Microeconomics. <i>Energies</i> , <b>2020</b> , 13, 712   | 3.1 |
| 8  | Formal Analysis of Real-Time Systems <b>2011</b> , 342-375   |     |
| 7  | Formal Reliability Analysis of Engineering Systems. <i>Advances in Information Security, Privacy, and Ethics Book Series</i> , <b>2014</b> , 224-238   | 0.3 |
| 6  | HVoC: a Hybrid Model Checking - Interactive Theorem Proving Approach for Functional Verification of Digital Circuits. <i>Journal of Electronic Testing: Theory and Applications (JETTA)</i> ,1 | 0.7 |
| 5  | Formal Stability Analysis of Control Systems. <i>Communications in Computer and Information Science</i> , <b>2019</b> , 3-17   | 0.3 |
| 4  | Formal Verification of ZigBee-Based Routing Protocol for Smart Grids. <i>Advances in Information Quality and Management</i> , <b>2021</b> , 1002-1017  | 0.1 |
| 3  | Formal probabilistic performance verification of randomly-scheduled wireless sensor networks. <i>International Journal of Critical Computer-Based Systems</i> , <b>2018</b> , 8, 311           | 0.4 |
| 2  | Formal Verification of n-bit ALU Using Theorem Proving. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 74-89   | 0.9 |
| 1  | Formal Verification of ZigBee-Based Routing Protocol for Smart Grids <b>2022</b> , 942-957   |     |