Joaquin Garcia-Alfaro

List of Publications by Year
in descending order

154 papers	1,381 citations	471061 17 h-index	552369 26 g-index
184 all docs	184 docs citations	184 times ranked	927 citing authors

#	Article	IF	Citations
1	Complete analysis of configuration rules to guarantee reliable network security policies. International Journal of Information Security, 2008, 7, 103-122.	2.3	93
2	Exploring DWT–SVD–DCT feature parameters for robust multiple watermarking against JPEG and JPEG2000 compression. Computers and Electrical Engineering, 2015, 41, 52-63.	3.0	47
3	J3Gen: A PRNG for Low-Cost Passive RFID. Sensors, 2013, 13, 3816-3830.	2.1	44
4	On the Difficulty of Hiding the Balance of Lightning Network Channels. , 2019, , .		41
5	Dynamic risk management response system to handle cyber threats. Future Generation Computer Systems, 2018, 83, 535-552.	4.9	37
6	Analysis and Improvement of a Pseudorandom Number Generator for EPC Gen2 Tags. Lecture Notes in Computer Science, 2010, , 34-46.	1.0	35
7	A multipath routing strategy to prevent flooding disruption attacks in link state routing protocols for MANETs. Journal of Network and Computer Applications, 2013, 36, 744-755.	5.8	33
8	On the use of watermark-based schemes to detect cyber-physical attacks. Eurasip Journal on Information Security, 2017, 2017, .	2.4	29
9	Dynamic deployment of context-aware access control policies for constrained security devices. Journal of Systems and Software, 2011, 84, 1144-1159.	3.3	28
10	Selecting optimal countermeasures for attacks against critical systems using the attack volume model and the RORI index. Computers and Electrical Engineering, 2015, 47, 13-34.	3.0	28
11	Analysis of Policy Anomalies on Distributed Network Security Setups. Lecture Notes in Computer Science, 2006, , 496-511.	1.0	27
12	Anti-correlation as a criterion to select appropriate counter-measures in an intrusion detection framework. Annales Des Telecommunications/Annals of Telecommunications, 2006, 61, 197-217.	1.6	24
13	MIRAGE: A Management Tool for the Analysis and Deployment of Network Security Policies. Lecture Notes in Computer Science, 2011, , 203-215.	1.0	24
14	A Practical Implementation Attack on Weak Pseudorandom Number Generator Designs for EPC Gen2 Tags. Wireless Personal Communications, 2011, 59, 27-42.	1.8	22
15	Decentralized Publish-Subscribe System to Prevent Coordinated Attacks via Alert Correlation. Lecture Notes in Computer Science, 2004, , 223-235.	1.0	21
16	Handling Stateful Firewall Anomalies. International Federation for Information Processing, 2012, , 174-186.	0.4	21
17	Secure Localization of Nodes in Wireless Sensor Networks with Limited Number of Truth Tellers. , 2009, , .		20
18	CACEV: A Cost and Carbon Emission-Efficient Virtual Machine Placement Method for Green Distributed Clouds. , 2016, , .		19

#	Article	IF	Citations
19	LockDown: Balance Availability Attack Against Lightning Network Channels. Lecture Notes in Computer Science, 2020, , 245-263.	1.0	19
20	Management of stateful firewall misconfiguration. Computers and Security, 2013, 39, 64-85.	4.0	18
21	Location-free link state routing for underwater acoustic sensor networks. , 2015, , .		17
22	Real-time malicious fast-flux detection using DNS and bot related features. , 2013, , .		16
23	DECA: A Dynamic Energy Cost and Carbon Emission-Efficient Application Placement Method for Edge Clouds. IEEE Access, 2021, 9, 70192-70213.	2.6	16
24	Evaluation of Two Privacy-Preserving Protocols for the DNS. , 2009, , .		15
25	Multiple-polynomial LFSR based pseudorandom number generator for EPC Gen2 RFID tags. , 2011, , .		15
26	Revisiting a Watermark-Based Detection Scheme to Handle Cyber-Physical Attacks. , 2016, , .		15
27	Semantic context aware security policy deployment. , 2009, , .		14
28	Adaptive control–theoretic detection of integrity attacks against cyber–physical industrial systems. Transactions on Emerging Telecommunications Technologies, 2018, 29, e3209.	2.6	14
29	Cyber-Resilience Evaluation of Cyber-Physical Systems. , 2020, , .		14
30	A privacy-aware access control model for distributed network monitoring. Computers and Electrical Engineering, 2013, 39, 2263-2281.	3.0	13
31	Doppler Effect in the Acoustic Ultra Low Frequency Band for Wireless Underwater Networks. Mobile Networks and Applications, 2018, 23, 1282-1292.	2.2	13
32	Towards Filtering and Alerting Rule Rewriting on Single-Component Policies. Lecture Notes in Computer Science, 2006, , 182-194.	1.0	13
33	A polytope-based approach to measure the impact of events against critical infrastructures. Journal of Computer and System Sciences, 2017, 83, 3-21.	0.9	12
34	Aggregating and Deploying Network Access Control Policies. , 2007, , .		11
35	Analysis of Threats to the Security of EPC Networks. , 2008, , .		11
36	Securing the Communications of Home Health Care Systems Based on RFID Sensor Networks. , 2010, , .		11

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37	NACER: A Network-Aware Cost-Efficient Resource Allocation Method for Processing-Intensive Tasks in Distributed Clouds. , 2015, , .		11
38	The Influence of Conception Paradigms on Data Protection in E-Learning Platforms: A Case Study. IEEE Access, 2019, 7, 64110-64119.	2.6	11
39	Prevention of Cross-Site Scripting Attacks on Current Web Applications. , 2007, , 1770-1784.		11
40	Model-Driven Security Policy Deployment: Property Oriented Approach. Lecture Notes in Computer Science, 2010, , 123-139.	1.0	11
41	Secure geolocalization of wireless sensor nodes in the presence of misbehaving anchor nodes. Annales Des Telecommunications/Annals of Telecommunications, 2011, 66, 535-552.	1.6	10
42	Onion routing circuit construction via latency graphs. Computers and Security, 2013, 37, 197-214.	4.0	10
43	Security Challenges in e-Assessment and Technical Solutions. , 2017, , .		10
44	The Sound of Communication in Underwater Acoustic Sensor Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2018, , 13-23.	0.2	10
45	Anonymous Resolution of DNS Queries. Lecture Notes in Computer Science, 2008, , 987-1000.	1.0	10
46	Mitigation of topology control traffic attacks in OLSR networks. , 2010, , .		9
47	Searching for a black hole in interconnected networks using mobile agents and tokens. Journal of Parallel and Distributed Computing, 2014, 74, 1945-1958.	2.7	9
48	KEDGEN2: A key establishment and derivation protocol for EPC Gen2 RFID systems. Journal of Network and Computer Applications, 2014, 39, 152-166.	5.8	9
49	Automated Classification of C&C Connections Through Malware URL Clustering. IFIP Advances in Information and Communication Technology, 2015, , 252-266.	0.5	9
50	$$mathcal {PCS}$$, A Privacy-Preserving Certification Scheme. Lecture Notes in Computer Science, 2017, , 239-256.	1.0	9
51	Tuning the demodulation frequency based on a normalized trajectory model for mobile underwater acoustic communications. Transactions on Emerging Telecommunications Technologies, 2019, 30, e3712.	2.6	9
52	Using a 3D Geometrical Model to Improve Accuracy in the Evaluation and Selection of Countermeasures Against Complex Cyber Attacks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 538-555.	0.2	9
53	Event-Triggered Watermarking Control to Handle Cyber-Physical Integrity Attacks. Lecture Notes in Computer Science, 2016, , 3-19.	1.0	9
54	Data Privacy Management, Cryptocurrencies and Blockchain Technology. Lecture Notes in Computer Science, 2017, , .	1.0	9

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55	Simulation of underwater communications with a colored noise approximation and mobility. , 2015, , .		8
56	A Real-Time Query Log Protection Method for Web Search Engines. IEEE Access, 2020, 8, 87393-87413.	2.6	8
57	HADEGA: A novel MPLS-based mitigation solution to handle network attacks. , 2012, , .		7
58	A model-driven approach for the extraction of network access-control policies. , 2012, , .		7
59	A new analysis of the cognitive radio jump-stay algorithm under the asymmetric model. , 2014, , .		7
60	Classification of SSL Servers based on their SSL Handshake for Automated Security Assessment. , 2014, , .		7
61	Integration of an adaptive trustâ€based eâ€assessment system into virtual learning environmentsâ€"The TeSLA project experience. Internet Technology Letters, 2018, 1, e56.	1.4	7
62	Switched-Based Resilient Control of Cyber-Physical Systems. IEEE Access, 2020, 8, 212194-212208.	2.6	7
63	Management of Exceptions on Access Control Policies. International Federation for Information Processing, 2007, , 97-108.	0.4	7
64	A Survey on Detection Techniques to Prevent Cross-Site Scripting Attacks on Current Web Applications. Lecture Notes in Computer Science, 2008, , 287-298.	1.0	7
65	Taxonomy and challenges in machine learning-based approaches to detect attacks in the internet of things. , 2020, , .		7
66	Security Threats on EPC Based RFID Systems. , 2008, , .		6
67	Anonymous Certification for an e-Assessment Framework. Lecture Notes in Computer Science, 2017, , 70-85.	1.0	6
68	Selection of Pareto-efficient response plans based on financial and operational assessments. Eurasip Journal on Information Security, 2017, 2017, .	2.4	6
69	Stateful RORI-based countermeasure selection using hypergraphs. Journal of Information Security and Applications, 2020, 54, 102562.	1.8	6
70	Towards an Automated and Dynamic Risk Management Response System. Lecture Notes in Computer Science, 2016, , 37-53.	1.0	6
71	Improved flooding of broadcast messages using extended multipoint relaying. Journal of Network and Computer Applications, 2011, 34, 542-550.	5.8	5
72	Towards Automated Assistance for Mined Roles Analysis in Role Mining Applications. , 2012, , .		5

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73	Semantic analysis of role mining results and shadowed roles detection. Information Security Technical Report, 2013, 17, 131-147.	1.3	5
74	Data Privacy Management, Autonomous Spontaneous Security, and Security Assurance. Lecture Notes in Computer Science, 2015, , .	1.0	5
75	Selection of Mitigation Actions Based on Financial and Operational Impact Assessments. , 2016, , .		5
76	Cyber-physical architecture assisted by programmable networking. Internet Technology Letters, 2018, 1, e44.	1.4	5
77	Resilience Estimation of Cyber-Physical Systems via Quantitative Metrics. IEEE Access, 2021, 9, 46462-46475.	2.6	5
78	Low Frequency Mobile Communications in Underwater Networks. Lecture Notes in Computer Science, 2018, , 239-251.	1.0	5
79	Model-Driven Extraction and Analysis of Network Security Policies. Lecture Notes in Computer Science, 2013, , 52-68.	1.0	5
80	Fine-grained privacy control for the RFID middleware of EPCglobal networks. , 2013, , .		4
81	Advanced Research in Data Privacy. Studies in Computational Intelligence, 2015, , .	0.7	4
82	Considering Internal Vulnerabilities and the Attacker's Knowledge to Model the Impact of Cyber Events as Geometrical Prisms. , 2016, , .		4
83	Secure Localization in the Presence of Colluders in WSNs. Sensors, 2017, 17, 1892.	2.1	4
84	Using an Event Data Taxonomy to Represent the Impact of Cyber Events as Geometrical Instances. IEEE Access, 2018, 6, 8810-8828.	2.6	4
85	Geocaching-inspired Resilient Path Planning for Drone Swarms. , 2019, , .		4
86	Capacity Requirements in Networks of Quantum Repeaters and Terminals. , 2020, , .		4
87	Security Threat Mitigation Trends in Low-Cost RFID Systems. Lecture Notes in Computer Science, 2010, , 193-207.	1.0	4
88	Leveraging Ontologies upon a Holistic Privacy-Aware Access Control Model. Lecture Notes in Computer Science, 2014, , 209-226.	1.0	4
89	Security of Cyber-Physical Systems. Lecture Notes in Computer Science, 2017, , 3-18.	1.0	4
90	Cyber-physical defense in the quantum Era. Scientific Reports, 2022, 12, 1905.	1.6	4

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91	Mitigation of Flooding Disruption Attacks in Hierarchical OLSR Networks. , 2011, , .		3
92	Privacy-enhanced filtering and collection middleware in EPCglobal networks. , 2013, , .		3
93	On the similarity of commercial EPC Gen2 pseudorandom number generators. Transactions on Emerging Telecommunications Technologies, 2014, 25, 151-154.	2.6	3
94	Channel selection using a multiple radio model. Journal of Network and Computer Applications, 2016, 64, 113-123.	5.8	3
95	A Study on Mitigation Techniques for SCADA-Driven Cyber-Physical Systems (Position Paper). Lecture Notes in Computer Science, 2019, , 257-264.	1.0	3
96	An n-Sided Polygonal Model to Calculate the Impact of Cyber Security Events. Lecture Notes in Computer Science, 2017, , 87-102.	1.0	3
97	RELIABLE PROCESS FOR SECURITY POLICY DEPLOYMENT. , 2007, , .		3
98	Security Issues in Link State Routing Protocols for MANETs. Mathematics in Industry, 2012, , 117-148.	0.1	3
99	A Contextual Privacy-Aware Access Control Model for Network Monitoring Workflows: Work in Progress. Lecture Notes in Computer Science, 2012, , 208-217.	1.0	3
100	Risky Zone Avoidance Strategies for Drones. , 2021, , .		3
101	Metrics to Enhance the Resilience of Cyber-Physical Systems. , 2020, , .		3
102	Pilot Contamination Attack Detection in 5G Massive MIMO Systems Using Generative Adversarial Networks. , 2021, , .		3
103	Research Trends in Collaborative Drones. Sensors, 2022, 22, 3321.	2.1	3
104	Distributed Exchange of Alerts for the Detection of Coordinated Attacks. , 2008, , .		2
105	Transaction-based authentication and key agreement protocol for inter-domain VoIP. Journal of Network and Computer Applications, 2012, 35, 1579-1597.	5.8	2
106	A new analytic model for the cognitive radio jump-stay algorithm. , 2013, , .		2
107	On the Isofunctionality of Network Access Control Lists. , 2015, , .		2
108	Remarks on Peinado et al.â€™s Analysis of J3Gen. Sensors, 2015, 15, 6217-6220.	2.1	2

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109	Attack Graph-Based Countermeasure Selection Using a Stateful Return onÂInvestment Metric. Lecture Notes in Computer Science, 2018, , 293-302.	1.0	2
110	Faking and Discriminating the Navigation Data of a Micro Aerial Vehicle Using Quantum Generative Adversarial Networks. , 2019, , .		2
111	1. Quantum Applications - Fachbeitrag: The Quantum What? Advantage, Utopia or Threat?. Digitale Welt, 2021, 5, 34-39.	0.3	2
112	Model-Driven Integration and Analysis of Access-control Policies in Multi-layer Information Systems. IFIP Advances in Information and Communication Technology, 2015, , 218-233.	0.5	2
113	Handling Security Threats to the RFID System of EPC Networks. , 2010, , 45-64.		2
114	Preventing the Cluster Formation Attack against the Hierarchical OLSR Protocol. Lecture Notes in Computer Science, 2012, , 118-131.	1.0	2
115	Data Privacy Management and Autonomous Spontaneous Security. Lecture Notes in Computer Science, 2014, , .	1.0	2
116	Decoupling Components of an Attack Prevention System Using Publish/Subscribe. , 2005, , 87-97.		2
117	Protecting on-line casinos against fraudulent player drop-out. , 2005, , .		1
118	Digital chips for an on-line casino. , 2005, , .		1
119	An alert communication infrastructure for a decentralized attack prevention framework. , 2005, , .		1
120	Mechanisms for attack protection on a prevention framework. , 2005, , .		1
121	Spyware-Based Menaces Against Web Applications. , 2009, , .		1
122	RFID EPC-Gen2 for postal applications: A security and privacy survey. , 2010, , .		1
123	System architecture for collaborative security and privacy monitoring in multi-domain networks. , 2011, , .		1
124	QoS and security in Link State Routing protocols for MANETs. , 2013, , .		1
125	The Bidirectional Algorithm for Channel Selection Using a Two-Radio Model. , 2014, , .		1
126	Considering technical and financial impact in the selection of security countermeasures against Advanced Persistent Threats (APTs). , 2015, , .		1

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127	Data Privacy Management, and Security Assurance. Lecture Notes in Computer Science, 2016, , .	1.0	1
128	Foundations and Practice of Security. Lecture Notes in Computer Science, 2017, , .	1.0	1
129	Learning to Communicate Underwater. , 2017, , .		1
130	Lifelogging Protection Scheme for Internet-Based Personal Assistants. Lecture Notes in Computer Science, 2018, , 431-440.	1.0	1
131	Towards a Security Event Data Taxonomy. Lecture Notes in Computer Science, 2018, , 29-45.	1.0	1
132	Hypergraph-driven mitigation of cyberattacks. Internet Technology Letters, 2018, 1, e38.	1.4	1
133	Security and Safety Interplay of Intelligent Software Systems. Lecture Notes in Computer Science, 2019, , .	1.0	1
134	Quality Amplification of Error Prone Navigation for Swarms of Micro Aerial Vehicles. , 2019, , .		1
135	Security and Privacy in the TeSLA Architecture. Lecture Notes on Data Engineering and Communications Technologies, 2020, , 85-108.	0.5	1
136	Stateful RORI-based countermeasure selection using hypergraphs. Journal of Information Security and Applications, 2020, 54, 102541.	1.8	1
137	GPS-Free, Error Tolerant Path Planning for Swarms of Micro Aerial Vehicles with Quality Amplification â€¡. Sensors, 2021, 21, 4731.	2.1	1
138	Formal Verification of a Key Establishment Protocol for EPC Gen2 RFID Systems: Work in Progress. Lecture Notes in Computer Science, 2012, , 242-251.	1.0	1
139	SMARTCOP â€" A Smart Card Based Access Control for the Protection of Network Security Components. Lecture Notes in Computer Science, 2006, , 415-424.	1.0	1
140	Evaluating the Comprehensive Complexity of Authorization-based Access Control Policies using Quantitative Metrics. , 2015, , .		1
141	Reflective Attenuation of Cyber-Physical Attacks. Lecture Notes in Computer Science, 2020, , 19-34.	1.0	1
142	Geocaching-Inspired Navigation for Micro Aerial Vehicles with Fallible Place Recognition. Lecture Notes in Computer Science, 2020, , 55-70.	1.0	1
143	Secure agent-based management for pervasive environments. , 2005, , .		0
144	A secured delegation of remote services on IPv6 home networks. , 2009, , .		0

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145	Data Privacy Management and Autonomous Spontaneus Security. Lecture Notes in Computer Science, 2012, , .	1.0	0
146	Attribute-Based Mining Process for the Organization-Based Access Control Model. , 2013, , .		0
147	Probabilistic Cycle Detection for Schneier's Solitaire Keystream Algorithm. , 2014, , .		0
148	Reputation trust mechanism under the organizationalâ€based access control model. Security and Communication Networks, 2016, 9, 5295-5310.	1.0	0
149	A Pyramidal-based Model to Compute the Impact of Cyber Security Events. , 2018, , .		0
150	Anonymous certification for E-assessment opinion polls. Journal of Ambient Intelligence and Humanized Computing, 2023, 14, 14979-14993.	3.3	0
151	A Policy Based Approach for the Management of Web Browser Resources to Prevent Anonymity Attacks in Tor. IFIP Advances in Information and Communication Technology, 2009, , 164-175.	0.5	0
152	An Adaptive Mitigation Framework for Handling Suspicious Network Flows via MPLS Policies. Lecture Notes in Computer Science, 2013, , 297-312.	1.0	0
153	Revisiting the Performance of the Modular Clock Algorithm for Distributed Blind Rendezvous in Cognitive Radio Networks. Lecture Notes in Computer Science, 2014, , 197-208.	1.0	0
154	Amapola: A Simple Infrastructure for Ubiquitous Computing. , 2005, , 77-86.		0