Dong Seong Kim

List of Publications by Year
in descending order

128	2,471	393982	344852
papers	citations	19	36
		h-index	g-index

133	133	133	1456
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Survey on Cyber Situation-awareness Systems: Framework, Techniques, and Insights. ACM Computing Surveys, 2023, 55, 1-37.	16.1	14
2	Proactive Defense for Internet-of-things: Moving Target Defense With Cyberdeception. ACM Transactions on Internet Technology, 2022, 22, 1-31.	3.0	12
3	Performability evaluation of switch-over Moving Target Defence mechanisms in a Software Defined Networking using stochastic reward nets. Journal of Network and Computer Applications, 2022, 199, 103267.	5.8	6
4	Evaluating the Security and Economic Effects of Moving Target Defense Techniques on the Cloud. IEEE Transactions on Emerging Topics in Computing, 2022, , 1-1.	3.2	5
5	An integrated security hardening optimization for dynamic networks using security and availability modeling with multi-objective algorithm. Computer Networks, 2022, 208, 108864.	3.2	4
6	A practical framework for cyber defense generation, enforcement and evaluation. Computer Networks, 2022, 208, 108878.	3.2	4
7	Threat-Specific Security Risk Evaluation in the Cloud. IEEE Transactions on Cloud Computing, 2021, 9, 793-806.	3.1	21
8	Evaluating the effectiveness of shuffle and redundancy MTD techniques in the cloud. Computers and Security, 2021, 102, 102091.	4.0	13
9	DESOLATER: Deep Reinforcement Learning-Based Resource Allocation and Moving Target Defense Deployment Framework. IEEE Access, 2021, 9, 70700-70714.	2.6	6
10	Panop: Mimicry-Resistant ANN-Based Distributed NIDS for IoT Networks. IEEE Access, 2021, 9, 111853-111864.	2.6	0
11	Novel security models, metrics and security assessment for maritime vessel networks. Computer Networks, 2021, 189, 107934.	3.2	12
12	Model-based Cybersecurity Analysis: Past Work and Future Directions. , 2021, , .		2
13	A Hierarchical Modeling Approach for Evaluating Availability of Dynamic Networks Considering Hardening Options. , 2021, , .		0
14	Model-based evaluation of combinations of Shuffle and Diversity MTD techniques on the cloud. Future Generation Computer Systems, 2020, 111, 507-522.	4.9	14
15	Toward Proactive, Adaptive Defense: A Survey on Moving Target Defense. IEEE Communications Surveys and Tutorials, 2020, 22, 709-745.	24.8	150
16	A Novel Graphical Security Model for Evolving Cyber Attacks in Internet of Things. , 2020, , .		1
17	Dynamic Security Metrics for Software-Defined Network-based Moving Target Defense. Journal of Network and Computer Applications, 2020, 170, 102805.	5.8	8
18	Integrated Proactive Defense for Software Defined Internet of Things under Multi-Target Attacks. , 2020, , .		1

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19	HARMer: Cyber-Attacks Automation and Evaluation. IEEE Access, 2020, 8, 129397-129414.	2.6	27
20	Privacy-Preserving Reinforcement Learning Using Homomorphic Encryption in Cloud Computing Infrastructures. IEEE Access, 2020, 8, 203564-203579.	2.6	14
21	Multiple-criteria Evaluation of Disaster Recovery Strategies Based on Stochastic Models. , 2020, , .		1
22	A Framework for Real-Time Intrusion Response in Software Defined Networking Using Precomputed Graphical Security Models. Security and Communication Networks, 2020, 2020, 1-15.	1.0	6
23	An Automated Security Analysis Framework and Implementation for MTD Techniques on Cloud. Lecture Notes in Computer Science, 2020, , 150-164.	1.0	4
24	Attack Graph-Based Moving Target Defense in Software-Defined Networks. IEEE Transactions on Network and Service Management, 2020, 17, 1653-1668.	3.2	38
25	Moving target defense for in-vehicle software-defined networking: IP shuffling in network slicing with multiagent deep reinforcement learning. , 2020, , .		3
26	Random Host and Service Multiplexing for Moving Target Defense in Software-Defined Networks. , 2019, , .		2
27	Multi-Objective Security Hardening Optimisation for Dynamic Networks. , 2019, , .		4
28	Security modelling and assessment of modern networks using time independent Graphical Security Models. Journal of Network and Computer Applications, 2019, 148, 102448.	5.8	9
29	SDN-Based IP Shuffling Moving Target Defense with Multiple SDN Controllers. , 2019, , .		15
30	A Systematic Approach to Threat Modeling and Security Analysis for Software Defined Networking. IEEE Access, 2019, 7, 137432-137445.	2.6	10
31	SAGA: Secure Auto-Configurable Gateway Architecture for Smart Home. , 2019, , .		1
32	Evaluation of a Backup-as-a-Service Environment for Disaster Recovery. , 2019, , .		5
33	Security and Performance Assessment of IP Multiplexing Moving Target Defence in Software Defined Networks. , 2019, , .		8
34	Security and Performance Modeling and Optimization for Software Defined Networking. , 2019, , .		0
35	CloudSafe: A Tool for an Automated Security Analysis for Cloud Computing. , 2019, , .		11
36	ThreatRiskEvaluator: A Tool for Assessing Threat-Specific Security Risks in the Cloud. , 2019, , .		2

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37	Systematic identification of threats in the cloud: A survey. Computer Networks, 2019, 150, 46-69.	3.2	37
38	A Game Theoretic Approach for Cloud Computing Security Assessment Using Moving Target Defense Mechanisms. Lecture Notes in Networks and Systems, 2018, , 242-254.	0.5	0
39	Automated security investment analysis of dynamic networks. , 2018, , .		6
40	Proactive defense mechanisms for the software-defined Internet of Things with non-patchable vulnerabilities. Future Generation Computer Systems, 2018, 78, 568-582.	4.9	30
41	Software Defined Stochastic Model for Moving Target Defense. Advances in Intelligent Systems and Computing, 2018, , 188-197.	0.5	5
42	Evaluating the Security of IoT Networks with Mobile Devices. , 2018, , .		3
43	Optimal Deployments of Defense Mechanisms for the Internet of Things. , 2018, , .		3
44	Comprehensive Security Assessment of Combined MTD Techniques for the Cloud. , 2018, , .		14
45	Time Independent Security Analysis for Dynamic Networks Using Graphical Security Models. , 2018, , .		3
46	FRVM: Flexible Random Virtual IP Multiplexing in Software-Defined Networks. , 2018, , .		42
47	Evaluation for Combination of Shuffle and Diversity on Moving Target Defense Strategy for Cloud Computing. , 2018, , .		16
48	Dynamic security metrics for measuring the effectiveness of moving target defense techniques. Computers and Security, 2018, 79, 33-52.	4.0	21
49	Reliability and Resiliency Analysis of Modern Distribution Grids Using Reliability Graphs. , 2018, , .		0
50	Stateless Security Risk Assessment for Dynamic Networks. , 2018, , .		4
51	A systematic evaluation of cybersecurity metrics for dynamic networks. Computer Networks, 2018, 144, 216-229.	3.2	22
52	Spiral^SRA: A Threat-Specific Security Risk Assessment Framework for the Cloud. , 2018, , .		2
53	A framework for automating security analysis of the internet of things. Journal of Network and Computer Applications, 2017, 83, 12-27.	5.8	122
54	A survey on the usability and practical applications of Graphical Security Models. Computer Science Review, 2017, 26, 1-16.	10.2	61

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55	Evaluating the Effectiveness of Security Metrics for Dynamic Networks. , 2017, , .		7
56	Security Modeling and Analysis of Cross-Protocol IoT Devices. , 2017, , .		2
57	Towards a Stochastic Model for Integrated detection and filtering of DoS attacks in Cloud environments. , 2017, , .		4
58	Effective Security Analysis for Combinations of MTD Techniques on Cloud Computing (Short Paper). Lecture Notes in Computer Science, 2017, , 539-548.	1.0	11
59	Firewall ruleset visualization analysis tool based on segmentation. , 2017, , .		14
60	Optimal Network Reconfiguration for Software Defined Networks Using Shuffle-Based Online MTD. , 2017, , .		23
61	Discovering and Mitigating New Attack Paths Using Graphical Security Models. , 2017, , .		3
62	A Secure Server-Based Pseudorandom Number Generator Protocol for Mobile Devices. Lecture Notes in Computer Science, 2017, , 860-876.	1.0	0
63	Availability and resiliency analysis of modern distribution grids using stochastic reward nets. , 2017, , .		2
64	Evaluating Security and Availability of Multiple Redundancy Designs when Applying Security Patches. , 2017, , .		5
65	Composite Metrics for Network Security Analysis. Software Networking, 2017, 2017, 137-160.	0.6	20
66	Defending against DDoS Attacks under IP Spoofing Using Image Processing Approach. IEICE Transactions on Communications, 2016, E99.B, 1511-1522.	0.4	1
67	Security Modelling and Analysis of Dynamic Enterprise Networks. , 2016, , .		22
68	Hybrid Attack Path Enumeration System Based on Reputation Scores. , 2016, , .		5
69	Availability Modeling and Analysis of a Virtualized System Using Stochastic Reward Nets. , 2016, , .		10
70	Hurst Parameter Based Anomaly Detection for Intrusion Detection System. , 2016, , .		11
71	Towards scalable security analysis using multi-layered security models. Journal of Network and Computer Applications, 2016, 75, 156-168.	5.8	46
72	Assessing the Effectiveness of Moving Target Defenses Using Security Models. IEEE Transactions on Dependable and Secure Computing, 2016, 13, 163-177.	3.7	115

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73	Recovery From Software Failures Caused by Mandelbugs. IEEE Transactions on Reliability, 2016, 65, 70-87.	3.5	27
74	Availability modeling and analysis of a data center for disaster tolerance. Future Generation Computer Systems, 2016, 56, 27-50.	4.9	40
75	MASAT: Model-based automated security assessment tool for cloud computing. , 2015, , .		1
76	Security modeling and analysis of a self-cleansing intrusion tolerance technique. , 2015, , .		5
77	Security modeling and analysis of an intrusion tolerant cloud data center. , 2015, , .		6
78	Analyzing the Effectiveness of Privacy Related Add-Ons Employed to Thwart Web Based Tracking. , 2015, , .		2
79	A Framework for Modeling and Assessing Security of the Internet of Things. , 2015, , .		5
80	Towards Automated Generation and Visualization of Hierarchical Attack Representation Models. , 2015, , .		6
81	Availability Modeling and Analysis for Software Defined Networks. , 2015, , .		18
82	Scalable Network Intrusion Detection and Countermeasure Selection in Virtual Network Systems. Lecture Notes in Computer Science, 2015, , 582-592.	1.0	0
83	Security Modeling and Analysis of a SDN Based Web Service. Lecture Notes in Computer Science, 2015, , 746-756.	1.0	2
84	Statistical Calibration and Validation of Mathematical Model to Predict Motion of Paper Helicopter. Transactions of the Korean Society of Mechanical Engineers, A, 2015, 39, 751-758.	0.1	1
85	A Comprehensive Availability Modeling and Analysis of a Virtualized Servers System Using Stochastic Reward Nets. Scientific World Journal, The, 2014, 2014, 1-18.	0.8	25
86	Scalable Security Analysis Using a Partition and Merge Approach in an Infrastructure as a Service Cloud. , 2014, , .		3
87	Scalable Security Models for Assessing Effectiveness of Moving Target Defenses. , 2014, , .		17
88	What Vulnerability Do We Need to Patch First?. , 2014, , .		13
89	System availability assessment using stochastic models. Applied Stochastic Models in Business and Industry, 2013, 29, 94-109.	0.9	14
90	Scalable security analysis in hierarchical attack representation model using centrality measures. , 2013, , .		11

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91	Scalable Attack Representation Model Using Logic Reduction Techniques. , 2013, , .		18
92	Modeling and analysis of software rejuvenation in a server virtualized system with live VM migration. Performance Evaluation, 2013, 70, 212-230.	0.9	80
93	System resiliency quantification using non-state-space and state-space analytic models. Reliability Engineering and System Safety, 2013, 116, 109-125.	5.1	27
94	Dependability and Security for Wireless Ad Hoc and Sensor Networks and Their Applications. International Journal of Distributed Sensor Networks, 2013, 9, 505313.	1.3	0
95	Scalable Security Model Generation and Analysis Using k-importance Measures. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 270-287.	0.2	9
96	Performance Analysis of Scalable Attack Representation Models. IFIP Advances in Information and Communication Technology, 2013, , 330-343.	0.5	18
97	A survivability model in wireless sensor networks. Computers and Mathematics With Applications, 2012, 64, 3666-3682.	1.4	11
98	Sensitivity Analysis of Server Virtualized System Availability. IEEE Transactions on Reliability, 2012, 61, 994-1006.	3.5	61
99	Multi-State Availability Modeling in Practice. Springer Series in Reliability Engineering, 2012, , 165-180.	0.3	6
100	Scalable optimal countermeasure selection using implicit enumeration on attack countermeasure trees. , 2012, , .		46
101	Attack countermeasure trees (ACT): towards unifying the constructs of attack and defense trees. Security and Communication Networks, 2012, 5, 929-943.	1.0	110
102	Quantitative intrusion intensity assessment for intrusion detection systems. Security and Communication Networks, 2012, 5, 1199-1208.	1.0	1
103	Reliability and availability analysis for an on board computer in a satellite system using standby redundancy and rejuvenation. Journal of Mechanical Science and Technology, 2012, 26, 2059-2063.	0.7	15
104	Detection of DDoS attacks using optimized traffic matrix. Computers and Mathematics With Applications, 2012, 63, 501-510.	1.4	48
105	DDoS Attacks Detection Using GA Based Optimized Traffic Matrix. , 2011, , .		3
106	Candy: Component-based Availability Modeling Framework for Cloud Service Management Using SysML. , 2011, , .		49
107	Performability Analysis of IaaS Cloud. , 2011, , .		7
108	Recovery from Failures Due to Mandelbugs in IT Systems. , 2011, , .		26

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109	Spam Detection Using Feature Selection and Parameters Optimization. , 2010, , .		34
110	End-to-End Performability Analysis for Infrastructure-as-a-Service Cloud: An Interacting Stochastic Models Approach. , 2010, , .		92
111	Modeling and analysis of software rejuvenation in a server virtualized system. , 2010, , .		53
112	A Hierarchical Model for Reliability Analysis of Sensor Networks. , 2010, , .		7
113	ACT: Attack Countermeasure Trees for Information Assurance Analysis. , 2010, , .		7
114	Cyber security analysis using attack countermeasure trees. , 2010, , .		48
115	A Peer-to-Peer RFID Resolution Framework for Supply Chain Network. , 2010, , .		14
116	Quantitative Intrusion Intensity Assessment Using Important Feature Selection and Proximity Metrics. , 2009, , .		3
117	Dependability and security models. , 2009, , .		78
118	Availability Modeling and Analysis of a Virtualized System. , 2009, , .		149
119	Toward optimal virtual machine placement and rejuvenation scheduling in a virtualized data center. , 2008, , .		15
120	Privacy Preserving Support Vector Machines in Wireless Sensor Networks. , 2008, , .		2
121	Toward Assessing Vulnerability and Risk of Sensor Networks under Node Compromise. , 2007, , .		1
122	A Security Framework in RFID Multi-domain System. , 2007, , .		20
123	Adaptation Mechanisms for Survivable Sensor Networks against Denial of Service Attack. , 2007, , .		9
124	Access Control and Authorization for Security of RFID Multi-Domain Using SAML and XACML. , 2006, , .		8
125	An Optimized Intrusion Detection System Using PCA and BNN. , 2005, , .		1
126	Design of Intelligent Security Management System Using Simulation-Based Analysis. Lecture Notes in Computer Science, 2005, , 766-775.	1.0	1

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127	GBR: Grid Based Random Key Predistribution for Wireless Sensor Network. , 0, , .		11
128	Genetic Algorithm to Improve SVM Based Network Intrusion Detection System. , 0, , .		44