Andrei Gurtov

List of Publications by Year
in descending order

172 papers	4,264 citations	236925 25 h-index	155660 55 g-index
186 all docs	186 docs citations	186 times ranked	3297 citing authors

#	Article	IF	Citations
1	Dew-Cloud-Based Hierarchical Federated Learning for Intrusion Detection in IoMT. IEEE Journal of Biomedical and Health Informatics, 2023, 27, 722-731.	6.3	13
2	Towards 6G-Enabled Internet of Vehicles: Security and Privacy. IEEE Open Journal of the Communications Society, 2022, 3, 82-105.	6.9	45
3	IoT and HIP's Opportunistic Mode. IEEE Transactions on Mobile Computing, 2021, 20, 1434-1448.	5.8	3
4	Intelligent intrusion detection system in smart grid using computational intelligence and machine learning. Transactions on Emerging Telecommunications Technologies, 2021, 32, e4062.	3.9	26
5	QUIC Throughput and Fairness over Dual Connectivity. Lecture Notes in Computer Science, 2021, , 175-190.	1.3	2
6	The Roadmap to 6G Security and Privacy. IEEE Open Journal of the Communications Society, 2021, 2, 1094-1122.	6.9	141
7	Decentralized Firmware Attestation for In-Vehicle Networks. ACM Transactions on Cyber-Physical Systems, 2021, 5, 1-23.	2.5	2
8	A Security Model for Controller-Pilot Data Communication Link. , 2021, , .		2
9	Controller Pilot Data Link Communication Security: A Practical Study. , 2021, , .		4
10	A Survey of Virtual Private LAN Services (VPLS): Past, Present and Future. Computer Networks, 2021, 196, 108245.	5.1	8
11	Vendor-Independent Software-Defined Networking. , 2021, , .		1
12	Implementation and Evaluation of the ACE DTLS Framework over Internet of Things Devices. , 2021, , .		0
13	Methodology and Mobile Application for Driver Behavior Analysis and Accident Prevention. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 2427-2436.	8.0	92
14	Demonstrating ADS-B AND CPDLC Attacks with Software-Defined Radio. , 2020, , .		7
15	Towards Wearable Sensing Enabled Healthcare Framework for Elderly Patients. , 2020, , .		5
16	Machine Learning Meets Communication Networks: Current Trends and Future Challenges. IEEE Access, 2020, 8, 223418-223460.	4.2	58
17	Cloud-Based Driver Monitoring System Using a Smartphone. IEEE Sensors Journal, 2020, 20, 6701-6715.	4.7	59
18	A lightweight portable intrusion detection communication system for auditing applications. International Journal of Communication Systems, 2020, 33, e4327.	2.5	38

#	Article	IF	Citations
19	Reliable Control and Data Planes for Softwarized Networks. Computer Communications and Networks, 2020, , 243-270.	0.8	3
20	Secure and Resilient Communications in the Industrial Internet. Computer Communications and Networks, 2020, , 219-242.	0.8	12
21	Aviation Scenarios for 5G and Beyond. , 2020, , .		3
22	Lightweight Authentication and Key Agreement for Smart Metering in Smart Energy Networks. IEEE Transactions on Smart Grid, 2019, 10, 4349-4359.	9.0	102
23	Trends and Detection Avoidance of Internet-Connected Industrial Control Systems. IEEE Access, 2019, 7, 155504-155512.	4.2	8
24	Decentralized Firmware Attestation for In-Vehicle Networks. , 2019, , .		7
25	Watch Your Step! Detecting Stepping Stones in Programmable Networks. , 2019, , .		1
26	Security for 5G and Beyond. IEEE Communications Surveys and Tutorials, 2019, 21, 3682-3722.	39.4	227
27	Transparent CoAP Services to IoT Endpoints through ICN Operator Networks. Sensors, 2019, 19, 1339.	3.8	5
28	Managing Mobile Relays for Secure E2E Connectivity of Low-Power IoT Devices. , 2019, , .		6
29	Enabling End-to-End Secure Connectivity for Low-Power IoT Devices with UAVs. , 2019, , .		8
30	Location–Price Competition in Mobile Operator Market. International Game Theory Review, 2019, 21, 1850015.	0.5	0
31	A Joint Transmission Power Control and Duty-Cycle Approach for Smart Healthcare System. IEEE Sensors Journal, 2019, 19, 8479-8486.	4.7	55
32	Overview of 5G Security Challenges and Solutions. IEEE Communications Standards Magazine, 2018, 2, 36-43.	4.9	293
33	Cyclic ranking in single-resource peer-to-peer exchange. Peer-to-Peer Networking and Applications, 2018, 11, 632-643.	3.9	2
34	DEMO: Mobile Relay Architecture for Low-Power IoT Devices. , 2018, , .		13
35	Controller–Pilot Data Link Communication Security. Sensors, 2018, 18, 1636.	3.8	24
36	Analyzing Internet-connected industrial equipment. , 2018, , .		6

#	Article	IF	Citations
37	Context-Oriented Competence Management in Expert Networks. SPIIRAS Proceedings, 2018, 4, 164.	0.8	5
38	Secure communication channel architecture for Software Defined Mobile Networks. Computer Networks, 2017, 114, 32-50.	5.1	27
39	Nash Bargaining Solution Allocation is Not Suitable for Datacenter Jobs. International Game Theory Review, 2017, 19, 1750001.	0.5	1
40	CHIP: Collaborative Host Identity Protocol with Efficient Key Establishment for Constrained Devices in Internet of Things. Wireless Personal Communications, 2017, 96, 421-440.	2.7	10
41	Anonymous Secure Framework in Connected Smart Home Environments. IEEE Transactions on Information Forensics and Security, 2017, 12, 968-979.	6.9	120
42	Enhancing Security, Scalability and Flexibility of Virtual Private LAN Services. , 2017, , .		2
43	Analysis of deployment challenges of Host Identity Protocol. , 2017, , .		8
44	On the Resiliency of Static Forwarding Tables. IEEE/ACM Transactions on Networking, 2017, 25, 1133-1146.	3.8	36
45	Fast Transmission Mechanism for Secure VPLS Architectures. , 2017, , .		5
46	5G security: Analysis of threats and solutions. , 2017, , .		97
47	Hardening Opportunistic HIP. , 2017, , .		1
48	Software defined VPLS architectures: Opportunities and challenges. , 2017, , .		7
49	CIDOR: Content distribution and retrieval in disaster networks for public protection. , 2017, , .		3
50	Analysis of the state of information security on the basis of surious emission electronic components. , 2017, , .		2
51	Smart Spaces-Based Application Development. International Journal of Embedded and Real-Time Communication Systems, 2017, 8, 66-100.	0.5	20
52	Performance analysis of general backoff protocols. Journal of Communications Software and Systems, 2017, 4, 13.	0.8	3
53	Secure and Efficient IPv4/IPv6 Handovers Using Host-Based Identifier-Locator Split. Journal of Communications Software and Systems, 2017, 6, 1.	0.8	5
54	Secure and Efficient Reactive Video Surveillance for Patient Monitoring. Sensors, 2016, 16, 32.	3.8	12

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55	Novel secure VPN architectures for LTE backhaul networks. Security and Communication Networks, 2016, 9, 1198-1215.	1.5	9
56	NFV security considerations for cloud-based mobile virtual network operators. , 2016, , .		10
57	The quest for resilient (static) forwarding tables. , 2016, , .		24
58	Improving the tunnel management performance of secure VPLS architectures with SDN. , 2016, , .		15
59	Poster Abstract: An Efficient Authentication Model in Smart Grid Networks. , 2016, , .		0
60	Energy-aware load monitoring for improving battery life of mobile peer-to-peer nodes. Sustainable Computing: Informatics and Systems, 2016, 12, 43-54.	2.2	2
61	Opportunities and Challenges of Software-Defined Mobile Networks in Network Security. IEEE Security and Privacy, 2016, 14, 34-44.	1.2	70
62	Performance and security evaluation of intra-vehicular communication architecture. , 2016, , .		2
63	Access Control Protocol With Node Privacy in Wireless Sensor Networks. IEEE Sensors Journal, 2016, 16, 8142-8150.	4.7	14
64	The Quest for Privacy in the Internet of Things. IEEE Cloud Computing, 2016, 3, 36-45.	3.9	147
65	Lightweight and Secure Session-Key Establishment Scheme in Smart Home Environments. IEEE Sensors Journal, 2016, 16, 254-264.	4.7	139
66	Implementation of OpenFlow based cognitive radio network architecture: SDN&R. Wireless Networks, 2016, 22, 663-677.	3.0	20
67	Secure Communication and Data Processing Challenges in the Industrial Internet. Baltic Journal of Modern Computing, 2016, 4, .	0.4	23
68	Secure and Efficient Automatic Ruling in Three-Level Network Architecture. Advances in Intelligent Systems and Computing, 2016, , 185-194.	0.6	0
69	isBF: Scalable in-packet bloom filter based multicast. Computer Communications, 2015, 70, 79-85.	5.1	14
70	Efficient Key Establishment for Constrained IoT Devices with Collaborative HIP-Based Approach. , 2015, , .		5
71	Group key establishment for secure multicasting in IoT-enabled Wireless Sensor Networks. , 2015, , .		8
72	A Simulation Study of the Stochastic Compensation Effect for Packet Reordering in Multipath Data Streaming. , 2015, , .		3

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73	Service Intelligence and Communication Security for Ambient Assisted Living. International Journal of Embedded and Real-Time Communication Systems, 2015, 6, 76-100.	0.5	18
74	Leveraging LTE security with SDN and NFV. , 2015, , .		19
75	Secure Virtual Private LAN Services: An overview with performance evaluation. , 2015, , .		8
76	Proxy-based end-to-end key establishment protocol for the Internet of Things. , 2015, , .		17
77	Secure end-to-end communication for constrained devices in IoT-enabled Ambient Assisted Living systems. , 2015, , .		30
78	Secure Hierarchical VPLS Architecture for Provider Provisioned Networks. IEEE Access, 2015, 3, 967-984.	4.2	11
79	Towards software defined cognitive networking. , 2015, , .		15
80	STEM+: Allocating bandwidth fairly to tasks. , 2015, , .		4
81	Security in Software Defined Networks: A Survey. IEEE Communications Surveys and Tutorials, 2015, 17, 2317-2346.	39.4	363
82	Group Key Establishment for Enabling Secure Multicast Communication in Wireless Sensor Networks Deployed for IoT Applications. IEEE Access, 2015, 3, 1503-1511.	4.2	96
83	SDN Core for Mobility between Cognitive Radio and 802.11 Networks. , 2014, , .		4
84	A novel distributed spanning tree protocol for provider provisioned VPLS networks. , 2014, , .		4
85	Two-phase authentication protocol for wireless sensor networks in distributed IoT applications. , 2014, , .		142
86	Delegation-based robust authentication model for wireless roaming using portable communication devices. IEEE Transactions on Consumer Electronics, 2014, 60, 668-674.	3.6	5
87	An Efficient and Adaptive Mutual Authentication Framework for Heterogeneous Wireless Sensor Network-Based Applications. Sensors, 2014, 14, 2732-2755.	3.8	22
88	PAuthKey: A Pervasive Authentication Protocol and Key Establishment Scheme for Wireless Sensor Networks in Distributed IoT Applications. International Journal of Distributed Sensor Networks, 2014, 10, 357430.	2.2	101
89	Securing swarm intellect robots with a police office model. , 2014, , .		4
90	How penalty leads to improvement: A measurement study of wireless backoff in IEEE 802.11 networks. Computer Networks, 2014, 75, 37-57.	5.1	15

#	ARTICLE	IF	CITATIONS
91	An efficient and simple key distribution scheme for smart environments. , 2014, , .		2
92	Hierarchical architectures in structured peer-to-peer overlay networks. Peer-to-Peer Networking and Applications, 2014, 7, 359-395.	3.9	15
93	Performance evaluation of current and emerging authentication schemes for future 3GPP network architectures. Computer Networks, 2014, 60, 60-74.	5.1	7
94	Securing the control channel of software-defined mobile networks. , 2014, , .		33
95	Security for medical sensor networks in mobile health systems. , 2014, , .		12
96	Securing virtual private LAN service by efficient key management. Security and Communication Networks, 2014, 7, 1-13.	1.5	18
97	Access Point selection game for mobile wireless users. , 2014, , .		7
98	Secure lightweight protocols for medical device monitoring. , 2014, , .		1
99	Addressing a secure session-key scheme for mobility supported e-Healthcare systems. , 2014, , .		2
100	Efficient Key Establishment for Constrained IoT Devices with Collaborative HIP-Based Approach. , 2014, , .		0
101	Trust and Reputation Mechanisms for Multi-agent Robotic Systems. Lecture Notes in Computer Science, 2014, , 106-120.	1.3	18
102	IP-Based Virtual Private Network Implementations in Future Cellular Networks. Advances in Wireless Technologies and Telecommunication Book Series, 2014, , 44-66.	0.4	10
103	A layered encryption mechanism for networked critical infrastructures. IEEE Network, 2013, 27, 12-18.	6.9	17
104	Realization of Mobile Femtocells: Operational and Protocol Requirements. Wireless Personal Communications, 2013, 71, 339-364.	2.7	7
105	Deployment of Smart Spaces in Internet of Things: Overview of the Design Challenges. Lecture Notes in Computer Science, 2013, , 48-59.	1.3	69
106	Suitability analysis of existing and new authentication methods for future 3GPP Evolved Packet Core. Computer Networks, 2013, 57, 3370-3388.	5.1	3
107	Certificate-Based Pairwise Key Establishment Protocol for Wireless Sensor Networks. , 2013, , .		21
108	A Mobile Object-Based Secret Key Distribution Scheme for Wireless Sensor Networks. , 2013, , .		2

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109	Enabling Secure Mobility with OpenFlow. , 2013, , .		22
110	Secure hierarchical Virtual Private LAN Services for provider provisioned networks. , 2013, , .		10
111	Security of Wi-Fi on-board intra-vehicular communication: Field trials of tunnel scenario. , 2013, , .		2
112	Hierarchical DHT Architectures. , 2013, , 171-226.		0
113	Terminology, Problems, and Design Issues. , 2013, , 5-23.		0
114	Cooperative security in distributed networks. Computer Communications, 2013, 36, 1284-1297.	5.1	17
115	SDN Based Inter-Technology Load Balancing Leveraged by Flow Admission Control. , 2013, , .		43
116	isBF. , 2013, , .		1
117	A novel demand-aware fairness metric for IEEE 802.11 wireless networks. , 2013, , .		1
118	A scalable and secure VPLS architecture for provider provisioned networks. , 2013, , .		16
119	Lightweight authentication and key management on 802.11 with Elliptic Curve Cryptography. , 2013, , .		8
120	A Strong Authentication Scheme with User Privacy for Wireless Sensor Networks. ETRI Journal, 2013, 35, 889-899.	2.0	29
121	Computing the Retransmission Timeout in CoAP. Lecture Notes in Computer Science, 2013, , 352-362.	1.3	12
122	Local Ranking. , 2013, , 133-166.		0
123	Demand-aware flow allocation in data center networks. , 2012, , .		4
124	Inter Technology Load Balancing Algorithm for Evolved Packet System. , 2012, , .		1
125	Secure and Multihomed Vehicular Femtocells. , 2012, , .		4
126	Scalable architecture for multimedia multicast Internet applications. , 2012, , .		2

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127	Mediating Multimedia Traffic with Strict Delivery Constraints. , 2012, , .		1
128	Lightweight host and user authentication protocol for All-IP telecom networks. , 2012, , .		4
129	An Adaptive Backoff Protocol with Markovian Contention Window Control. Communications in Statistics Part B: Simulation and Computation, 2012, 41, 1093-1106.	1.2	7
130	Secured VPN Models for LTE Backhaul Networks. , 2012, , .		32
131	Securing Medical Sensor Network with HIP. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 150-157.	0.3	4
132	Survey on Congestion Control Mechanisms for Wireless Sensor Networks. Lecture Notes in Computer Science, 2012, , 75-85.	1.3	16
133	Security and Mobility Aspects of Femtocell Networks. Advances in Wireless Technologies and Telecommunication Book Series, 2012, , 124-156.	0.4	0
134	DISPUTE: Distributed puzzle tussle. , 2011, , .		0
135	Comparison and Analysis of Secure Mobile Architecture (SMA) and Evolved Packet System. , 2011, , .		2
136	Secure Resolution of End-Host Identifiers for Mobile Clients. , 2011, , .		1
137	Survey on hierarchical routing schemes inâ€œflatâ€•distributed hash tables. Peer-to-Peer Networking and Applications, 2011, 4, 346-375.	3.9	10
138	CR-Chord: Improving lookup availability in the presence of malicious DHT nodes. Computer Networks, 2011, 55, 2914-2928.	5.1	3
139	Performance analysis of HIP diet exchange for WSN security establishment. , 2011, , .		20
140	Improving TCP-Friendliness for mHIP. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2011, , 3-17.	0.3	1
141	Elliptic Curve Cryptography (ECC) for Host Identity Protocol (HIP). , 2010, , .		6
142	Secure and usable P2P VoIP for mobile devices. , 2010, , .		1
143	On application of Host Identity Protocol in wireless sensor networks. , 2010, , .		5
144	Host Identity Protocol (HIP): Connectivity, Mobility, Multi-Homing, Security, and Privacy over IPv4 and IPv6 Networks. IEEE Communications Surveys and Tutorials, 2010, 12, 186-204.	39.4	129

#	ARTICLE	IF	CITATIONS
145	Playing Defense by Offense: Equilibrium in the DoS-attack problem. , 2010, , .		1
146	A secure peer-to-peer web framework. , 2010, , .		0
147	Performance of Host Identity Protocol on Symbian OS. , 2009, , .		3
148	On calibrating enterprise switch measurements. , 2009, , .		1
149	A local equilibrium model for P2P resource ranking. Performance Evaluation Review, 2009, 37, 27-29.	0.6	2
150	Towards behavioral control in multi-player network games. , 2009, , .		0
151	Cyclic routing: Generalizing look-ahead in peer-to-peer networks. , 2009, , .		3
152	Usable security management with host identity protocol. , 2009, , .		3
153	Distributed user authentication in wireless LANs. , 2009, , .		12
154	Collaborative Reputation-based Voice Spam Filtering. , 2009, , .		14
155	Secure Multipath Transport For Legacy Internet Applications. , 2009, , .		12
156	Securing web content. , 2009, , .		2
157	SAVAH: Source Address Validation with Host Identity Protocol. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2009, , 190-201.	0.3	1
158	Filtering SPAM in P2PSIP Communities with Web of Trust. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2009, , 110-121.	0.3	3
159	Hi3: An efficient and secure networking architecture for mobile hosts. Computer Communications, 2008, 31, 2457-2467.	5.1	24
160	A Diophantine model of routes in structured P2P overlays. Performance Evaluation Review, 2008, 35, 52-61.	0.6	4
161	Performance of host identity protocol on lightweight hardware. , 2007, , .		17
162	On scalability properties of the Hi3 control plane. Computer Communications, 2006, 29, 3591-3601.	5.1	7

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163	Traversing Middleboxes with the Host Identity Protocol. Lecture Notes in Computer Science, 2005, , 17-28.	1.3	5
164	Applying a cryptographic namespace to applications. , 2005, , .		8
165	Effect of vertical handovers on performance of TCP-friendly rate control. Mobile Computing and Communications Review, 2004, 8, 73-87.	1.7	70
166	Modeling wireless links for transport protocols. Computer Communication Review, 2004, 34, 85-96.	1.8	84
167	Lifetime packet discard for efficient real-time transport over cellular links. Mobile Computing and Communications Review, 2003, 7, 32-45.	1.7	17
168	Eliminating aborted data delivery over cellular links. Mobile Computing and Communications Review, 2003, 7, 53-54.	1.7	1
169	Effect of Delays on TCP Performance. , 2002, , 87-105.		43
170	Multi-layer protocol tracing in a GPRS network. , 0, , .		39
171	Security and Mobility Aspects of Femtocell Networks. , 0, , 1634-1666.		0
172	A Comparative Simulation Study of Deterministic and Stochastic Strategies for Reduction of Packet Reordering in Multipath Data Streaming. International Journal of Simulation: Systems, Science and Technology, 0, , .	0.0	0