Mika Ylianttila

List of Publications by Year
in descending order

192 papers	6,610 citations	159585 30 h-index	106344 65 g-index
211 all docs	211 docs citations	211 times ranked	4772 citing authors

#	Article	IF	Citations
1	Survey on Multi-Access Edge Computing for Internet of Things Realization. IEEE Communications Surveys and Tutorials, 2018, 20, 2961-2991.	39.4	535
2	Handoff in hybrid mobile data networks. IEEE Personal Communications, 2000, 7, 34-47.	3.8	363
3	Security in Software Defined Networks: A Survey. IEEE Communications Surveys and Tutorials, 2015, 17, 2317-2346.	39.4	363
4	Overview of 5G Security Challenges and Solutions. IEEE Communications Standards Magazine, 2018, 2, 36-43.	4.9	293
5	A Survey on Mobile Augmented Reality With 5G Mobile Edge Computing: Architectures, Applications, and Technical Aspects. IEEE Communications Surveys and Tutorials, 2021, 23, 1160-1192.	39.4	279
6	Security for 5G and Beyond. IEEE Communications Surveys and Tutorials, 2019, 21, 3682-3722.	39.4	227
7	Survey on blockchain based smart contracts: Applications, opportunities and challenges. Journal of Network and Computer Applications, 2021, 177, 102857.	9.1	207
8	CloudThings: A common architecture for integrating the Internet of Things with Cloud Computing. , 2013, , .		154
9	The Quest for Privacy in the Internet of Things. IEEE Cloud Computing, 2016, 3, 36-45.	3.9	147
10	Two-phase authentication protocol for wireless sensor networks in distributed IoT applications. , 2014, , .		142
11	The Roadmap to 6G Security and Privacy. IEEE Open Journal of the Communications Society, 2021, 2, 1094-1122.	6.9	141
12	Lightweight and Secure Session-Key Establishment Scheme in Smart Home Environments. IEEE Sensors Journal, 2016, 16, 254-264.	4.7	139
13	The Role of Blockchain to Fight Against COVID-19. IEEE Engineering Management Review, 2020, 48, 85-96.	1.3	139
14	The Fight Against the COVID-19 Pandemic With 5G Technologies. IEEE Engineering Management Review, 2020, 48, 72-84.	1.3	124
15	The Role of Blockchain in 6G: Challenges, Opportunities and Research Directions. , 2020, , .		123
16	The role of 5G for digital healthcare against COVID-19 pandemic: Opportunities and challenges. ICT Express, 2021, 7, 244-252.	4.8	116
17	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
18	5G security: Analysis of threats and solutions. , 2017, , .		97

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19	Blockchain Utilization in Healthcare: Key Requirements and Challenges. , 2018, , .		97
20	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
21	AI and 6G Security: Opportunities and Challenges. , 2021, , .		78
22	Blockchain based Proxy Re-Encryption Scheme for Secure IoT Data Sharing. , 2019, , .		77
23	Secure and Efficient Data Accessibility in Blockchain Based Healthcare Systems. , 2018, , .		71
24	Opportunities and Challenges of Software-Defined Mobile Networks in Network Security. IEEE Security and Privacy, 2016, 14, 34-44.	1.2	70
25	Survey on Blockchain-Based Smart Contracts: Technical Aspects and Future Research. IEEE Access, 2021, 9, 87643-87662.	4.2	65
26	Proxy re-encryption enabled secure and anonymous IoT data sharing platform based on blockchain. Journal of Network and Computer Applications, 2021, 176, 102917.	9.1	64
27	Analysis of handoff in a location-aware vertical multi-access network. Computer Networks, 2005, 47, 185-201.	5.1	63
28	BlockEdge: Blockchain-Edge Framework for Industrial IoT Networks. IEEE Access, 2020, 8, 154166-154185.	4.2	61
29	Machine Learning Meets Communication Networks: Current Trends and Future Challenges. IEEE Access, 2020, 8, 223418-223460.	4.2	58
30	SDN and NFV integration in generalized mobile network architecture. , 2015, , .		52
31	Edge computing server placement with capacitated location allocation. Journal of Parallel and Distributed Computing, 2021, 153, 130-149.	4.1	51
32	6G Security Challenges and Potential Solutions. , 2021, , .		48
33	SDN Based Inter-Technology Load Balancing Leveraged by Flow Admission Control. , 2013, , .		43
34	Performance evaluation of a Kademlia-based communication-oriented P2P system under churn. Computer Networks, 2010, 54, 689-705.	5.1	42
35	Energy Consumption Analysis of High Quality Multi-Tier Wireless Multimedia Sensor Network. IEEE Access, 2017, 5, 15848-15858.	4.2	41
36	5G Privacy: Scenarios and Solutions. , 2018, , .		40

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37	Plug-and-play application platform. , 2004, , .		39
38	Enhancing Security of Software Defined Mobile Networks. IEEE Access, 2017, 5, 9422-9438.	4.2	35
39	Health-BlockEdge: Blockchain-Edge Framework for Reliable Low-Latency Digital Healthcare Applications. Sensors, 2021, 21, 2502.	3.8	35
40	Decentralized Iot Edge Nanoservice Architecture for Future Gadget-Free Computing. IEEE Access, 2019, 7, 119856-119872.	4.2	34
41	Fog Computing and Blockchain-Based Security Service Architecture for 5G Industrial IoT-Enabled Cloud Manufacturing. IEEE Transactions on Industrial Informatics, 2022, 18, 7174-7185.	11.3	34
42	Securing the control channel of software-defined mobile networks. , 2014, , .		33
43	Identity privacy preserving biometric based authentication scheme for Naked healthcare environment. , 2017, , .		33
44	Cloud Architecture for Dynamic Service Composition. International Journal of Grid and High Performance Computing, 2012, 4, 17-31.	0.9	32
45	Performance Analysis of Local 5G Operator Architectures for Industrial Internet. IEEE Internet of Things Journal, 2020, 7, 11559-11575.	8.7	32
46	Energy consumption model for mobile devices in 3G and WLAN networks. , 2012, , .		31
47	Security for Future Software Defined Mobile Networks. , 2015, , .		31
48	Secure end-to-end communication for constrained devices in IoT-enabled Ambient Assisted Living systems. , 2015, , .		30
49	A Strong Authentication Scheme with User Privacy for Wireless Sensor Networks. ETRI Journal, 2013, 35, 889-899.	2.0	29
50	Context-aware pervasive service composition and its implementation. Personal and Ubiquitous Computing, 2011, 15, 291-303.	2.8	28
51	Towards gadget-free internet services: A roadmap of the Naked world. Telematics and Informatics, 2018, 35, 82-92.	5.8	28
52	Secure communication channel architecture for Software Defined Mobile Networks. Computer Networks, 2017, 114, 32-50.	5.1	27
53	The Challenges of Artificial Intelligence in Wireless Networks for the Internet of Things: Exploring Opportunities for Growth. IEEE Industrial Electronics Magazine, 2021, 15, 16-29.	2.6	27
54	Dependency-aware Service Oriented Architecture and Service Composition. , 2007, , .		26

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55	Evaluation of Machine Learning Techniques for Security in SDN. , 2020, , .		26
56	Digital Television for Mobile Devices. IEEE MultiMedia, 2009, 16, 60-71.	1.7	25
57	Securing Gadget-Free Digital Services. Computer, 2018, 51, 66-77.	1.1	25
58	Micro-Operator driven Local 5G Network Architecture for Industrial Internet. , 2019, , .		25
59	A Novel Blockchain-as-a-Service (BaaS) Platform for Local 5G Operators. IEEE Open Journal of the Communications Society, 2021, 2, 575-601.	6.9	25
60	Distributed resource directory architecture in Machine-to-Machine communications. , 2013, , .		23
61	Enabling Secure Mobility with OpenFlow. , 2013, , .		22
62	An Efficient and Adaptive Mutual Authentication Framework for Heterogeneous Wireless Sensor Network-Based Applications. Sensors, 2014, 14, 2732-2755.	3.8	22
63	An Overview of Wireless Indoor Geolocation Techniques and Systems. Lecture Notes in Computer Science, 2000, , 1-13.	1.3	21
64	Certificate-Based Pairwise Key Establishment Protocol for Wireless Sensor Networks. , 2013, , .		21
65	Multi-Access Edge Computing and Blockchain-based Secure Telehealth System Connected with 5G and IoT. , 2020, , .		21
66	Scavenger Hunt: Utilization of Blockchain and IoT for a Location-Based Game. IEEE Access, 2020, 8, 204863-204879.	4.2	20
67	Leveraging LTE security with SDN and NFV. , 2015, , .		19
68	Secure Keying Scheme for Network Slicing in 5G Architecture. , 2019, , .		18
69	AGE: authentication in gadget-free healthcare environments. Information Technology and Management, 2020, 21, 95-114.	2.4	18
70	Performance and Efficiency Optimization of Multi-layer IoT Edge Architecture. , 2020, , .		18
71	Cloud and Edge Computation Offloading for Latency Limited Services. IEEE Access, 2021, 9, 55764-55776.	4.2	18
72	SDN Enhanced Resource Orchestration of Containerized Edge Applications for Industrial IoT. IEEE Access, 2020, 8, 229117-229131.	4.2	18

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73	Proxy-based end-to-end key establishment protocol for the Internet of Things. , 2015, , .		17
74	Performance Analysis of Blockchain based Smart Grids with Ethereum and Hyperledger Implementations. , 2019, , .		17
75	Supporting resource allocation with vertical handoffs in multiple radio network environment. , 0, , .		16
76	Distributed Resource Discovery in the Machine-to-Machine Applications. , 2013, , .		15
77	Towards software defined cognitive networking. , 2015, , .		15
78	Improving the tunnel management performance of secure VPLS architectures with SDN. , 2016, , .		15
79	Pervasive Social Computing: augmenting five facets of human intelligence. Journal of Ambient Intelligence and Humanized Computing, 2012, 3, 153-166.	4.9	14
80	SDN-Enabled Resource Orchestration for Industrial IoT in Collaborative Edge-Cloud Networks. IEEE Access, 2021, 9, 115839-115854.	4.2	14
81	Battery life of mobile peers with UMTS and WLAN in a Kademlia-based P2P overlay. , 2009, , .		13
82	An efficient selection algorithm for building a super-peer overlay. Journal of Internet Services and Applications, 2013, 4, 4.	2.1	13
83	DEMO: Mobile Relay Architecture for Low-Power IoT Devices. , 2018, , .		13
84	Towards Context-Aware Mobile Web 2.0 Service Architecture. , 2007, , .		12
85	Semantics for intelligent delivery of multimedia content. , 2010, , .		12
86	P2P group management systems. ACM Computing Surveys, 2013, 45, 1-25.	23.0	12
87	Distributed multimedia content analysis with MapReduce. , 2013, , .		12
88	Secure and Efficient Reactive Video Surveillance for Patient Monitoring. Sensors, 2016, 16, 32.	3.8	12
89	Docker Enabled Virtualized Nanoservices for Local IoT Edge Networks. , 2019, , .		12
90	Secure Hierarchical VPLS Architecture for Provider Provisioned Networks. IEEE Access, 2015, 3, 967-984.	4.2	11

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91	From gadget to gadget-free hyperconnected world: Conceptual analysis of user privacy challenges. , 2017, , .		11
92	Energy Efficient Event Driven Video Streaming Surveillance Using SleepyCAM. , 2017, , .		11
93	Energy Consumption Analysis of Edge Orchestrated Virtualized Wireless Multimedia Sensor Networks. IEEE Access, 2018, 6, 5090-5100.	4.2	11
94	ISE02-6: Analysis of Peer-to-Peer SIP in a Distributed Mobile Middleware System. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	10
95	Comparing the performance and efficiency of two popular DHTs in interpersonal communication. , 2011, , .		10
96	Secure hierarchical Virtual Private LAN Services for provider provisioned networks. , 2013, , .		10
97	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
98	SEC-BlockEdge: Security Threats in Blockchain-Edge based Industrial IoT Networks. , 2019, , .		10
99	IP-Based Virtual Private Network Implementations in Future Cellular Networks. Advances in Wireless Technologies and Telecommunication Book Series, 2014, , 44-66.	0.4	10
100	Federated Learning based Anomaly Detection as an Enabler for Securing Network and Service Management Automation in Beyond 5G Networks. , 2022, , .		10
101	Super-peer-based coordinated service provision. Journal of Network and Computer Applications, 2011, 34, 1210-1224.	9.1	9
102	Novel secure VPN architectures for LTE backhaul networks. Security and Communication Networks, 2016, 9, 1198-1215.	1.5	9
103	Analytical Model for Mobile P2P Data Management Systems. , 2008, , .		8
104	Effects of different churn models on the performance of structured peer-to-peer networks. , 2009, , .		8
105	GTPP: General Truncated Pyramid Peer-to-Peer Architecture over Structured DHT Networks. Mobile Networks and Applications, 2010, 15, 729-749.	3.3	8
106	Pervasive Service Computing: Visions and Challenges. , 2010, , .		8
107	Group key establishment for secure multicasting in IoT-enabled Wireless Sensor Networks. , 2015, , .		8
108	Secure Virtual Private LAN Services: An overview with performance evaluation. , 2015, , .		8

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109	Analysis of deployment challenges of Host Identity Protocol. , 2017, , .		8
110	Enabling End-to-End Secure Connectivity for Low-Power IoT Devices with UAVs. , 2019, , .		8
111	User Experience in Added Value Location-Based Mobile Music Service. , 2010, , .		7
112	Software Defined Monitoring (SDM) for 5G mobile backhaul networks. , 2017, , .		7
113	sleepyCAM: Power management mechanism for wireless video-surveillance cameras. , 2017, , .		7
114	Software defined VPLS architectures: Opportunities and challenges. , 2017, , .		7
115	How DoS attacks can be mounted on Network Slice Broker and can they be mitigated using blockchain?. , 2021, , .		7
116	Group-based content push with dynamic session startup. , 2005, , .		6
117	Improving Multiple Mobile Application Interaction with Unified Session Management. , 2006, , .		6
118	Interconnecting P2PSIP and IMS. , 2008, , .		6
119	Community coordinated multimedia: Converging content-driven and service-driven models. , 2008, , .		6
120	Peer-to-peer community management using structured overlay networks. , 2008, , .		6
121	Managing Mobile Relays for Secure E2E Connectivity of Low-Power IoT Devices. , 2019, , .		6
122	Feasibility Study of a Mobile Peer-To-Peer Navigation Application. , 2006, , .		5
123	Analysis of Concept and Incentives for Digital Content Superdistribution. , 2007, , .		5
124	P2P SCCM: Service-Oriented Community Coordinated Multimedia over P2P. , 2008, , .		5
125	Leveraging Collaboration of Peer-to-Peer and Web Services. , 2008, , .		5
126	Metamodeling for Community Coordinated Multimedia and Experience on Metamodel-Driven Content Annotation Service Prototype. , 2008, , .		5

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127	User Experiences on a Community-Based Music Voting Service. , 2009, , .		5
128	Efficient Key Establishment for Constrained IoT Devices with Collaborative HIP-Based Approach. , 2015, , .		5
129	Performance analysis of open-source Linux-based HIP implementations. , 2015, , .		5
130	Performance evaluation of distributed data delivery on mobile devices using WebRTC. , 2015, , .		5
131	Fast Transmission Mechanism for Secure VPLS Architectures. , 2017, , .		5
132	Local 5G Operator Architecture for Delay Critical Telehealth Applications. , 2020, , .		5
133	Blockchain-based Roaming and Offload Service Platform for Local 5G Operators. , 2021, , .		5
134	Feasibility evaluation of a communication-oriented P2P system in mobile environments. , 2009, , .		5
135	Harnessing SIP for autonomous mobile peer-to-peer networking. , 2005, , .		4
136	PSC-RM: Reference Model for Pervasive Service Composition. , 2009, , .		4
137	Modeling Service Composition and Exploring its Characteristics. , 2009, , .		4
138	SDN Core for Mobility between Cognitive Radio and 802.11 Networks. , 2014, , .		4
139	A novel distributed spanning tree protocol for provider provisioned VPLS networks. , 2014, , .		4
140	Exploring Pervasive Service Computing Opportunities for Pursuing Successful Ageing. Lecture Notes in Computer Science, 2012, , 73-82.	1.3	4
141	Peer-to-Peer SIP for Mobile Computing. , 0, , 326-347.		4
142	User Evaluation of a Community-centric Music Voting Service. International Journal of Digital Content Technology and Its Applications, 2010, 4, 69-78.	0.1	4
143	Top-Down Connectivity Policy Framework for Mobile Peer-to-Peer Applications. , 2007, , .		3
144	SCCM: Service-Oriented Community Coordinated Multimedia Architecture. , 2008, , .		3

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145	Partially Decentralised Context Management for P2P Communities. , 2008, , .		3
146	Effects of peer-to-peer overlay parameters on mobile battery duration and resource lookup efficiency. , 2008, , .		3
147	Ontology-Driven Pervasive Service Composition for Everyday Life. Lecture Notes in Computer Science, 2010, , 375-389.	1.3	3
148	Analysis of Messaging Load in a P2PP Overlay Network under Churn. , 2010, , .		3
149	Robustness of a P2P community management system based on two-level hierarchical DHT overlays. , 2011, , .		3
150	Sensor Information Representation for the Internet of Things. Lecture Notes in Computer Science, 2012, , 515-524.	1.3	3
151	ADHT: Agent-based DHT architecture for constrained devices. , 2014, , .		3
152	Energy-efficient peer-to-peer networking for constrained-capacity mobile environments. , 2017, , .		3
153	Wireless Data Communications Systems. , 2002, , 201-214.		2
154	Evaluation of a Context-Aware Mobile Peer-to-Peer Navigation Application. , 2007, , .		2
155	Mobile Plug-and-Play Architecture for Collaborative Hybrid Peer-to-Peer Applications. , 2008, , .		2
156	A Mobile Object-Based Secret Key Distribution Scheme for Wireless Sensor Networks. , 2013, , .		2
157	Kuukkeli-TV: Online content-based services and applications for broadcast TV with long-term user experiments. , 2013, , .		2
158	Time shifting patterns in browsing and search behavior for catch-up TV on the web. , 2013, , .		2
159	An efficient and simple key distribution scheme for smart environments. , 2014, , .		2
160	Addressing a secure session-key scheme for mobility supported e-Healthcare systems. , 2014, , .		2
161	RADE: Resource-aware distributed browser-to-browser 3D graphics delivery in the web. , 2015, , .		2
162	Energy efficient motion detection in a high-resolution wireless surveillance camera node. , 2016, , .		2

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163	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
164	Performance and security evaluation of intra-vehicular communication architecture. , 2016, , .		2
165	Enhancing Security, Scalability and Flexibility of Virtual Private LAN Services. , 2017, , .		2
166	SDN based operator assisted offloading platform for multi-controller 5G networks. , 2017, , .		2
167	Energy Efficiency in Wireless Multimedia Sensor Networking: Architecture, Management and Security. Computer Communications and Networks, 2018, , 133-157.	0.8	2
168	Comparative analysis of VoIPv4 and VoIPv6 in a bandwidth-limited wireless LAN testbed. , 0, , .		1
169	Empirical evaluation of mobile peer-to-peer wellness group communication application for Symbian OS. , 2007, , .		1
170	P2P Service-Oriented Community Coordinated Multimedia: Modeling Multimedia Applications as Web Services and Experience. , 2008, , .		1
171	GTPP. , 2008, , .		1
172	Truncated Pyramid Peer-to-Peer Architecture with Vertical Tunneling Model. , 2009, , .		1
173	Design and development of Digital Movie Guide service for approaching Community Coordinated Multimedia. , 2010, , .		1
174	An efficient collaborative mechanism for enterprise cloud applications. , 2011, , .		1
175	A Robust Algorithm for the Membership Management of Super-Peer Overlay. Lecture Notes in Computer Science, 2009, , 132-143.	1.3	1
176	Distributed Web Service Architecture for Scalable Content Analysis: Semi-automatic Annotation of User Generated Content. Lecture Notes in Computer Science, 2011, , 158-167.	1.3	1
177	Message from the SCCM Workshop Chairs. , 2008, , .		0
178	Feasibility evaluation of context distribution in mobile environment. , 2009, , .		0
179	Constructing a robust overlay for digital ecosystems. , 2009, , .		0
180	Message from the Organizers of the International Workshop on Pervasive Service Computing and Applications. , 2009, , .		0

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181	Pervasive emotion computing: Conceptualization and implementation on emotion-aware digital movie guide service. , 2011, , .		0
182	Demo paper: Content-based non-linear skimming of archived TV programs for online and mobile access. , 2013, , .		0
183	An online system with end-user services. , 2013, , .		0
184	Extraction of novelty concepts from TV broadcasts with longitudinal user experiments. , 2013, , .		0
185	Consumer video dataset with marked head trajectories. , 2013, , .		0
186	Efficient Key Establishment for Constrained IoT Devices with Collaborative HIP-Based Approach. , 2014, , .		0
187	Preventing social exclusion for persons with disabilities through ICT based services. , 2015, , .		0
188	Message from the CIT 2017 Program Chairs. , 2017, , .		0
189	Performance Analysis of Softwarized Local Mobile Networks. , 2021, , .		0
190	Middleware for Community Coordinated Multimedia. , 2010, , 682-703.		0
191	Secure and Efficient Automatic Ruling in Three-Level Network Architecture. Advances in Intelligent Systems and Computing, 2016, , 185-194.	0.6	0
192	Case Study on Symbian OS Programming Practices in a Middleware Project. Studies in Computational Intelligence, 2008, , 89-99.	0.9	0