Thomas Watteyne

List of Publications by Year
in descending order

63 papers	4,005 citations	331670 21 h-index	254184 43 g-index
64 all docs	64 docs citations	64 times ranked	3010 citing authors

#	Article	IF	Citations
1	Understanding the Limits of LoRaWAN. , 2017, 55, 34-40.		943
2	Standardized Protocol Stack for the Internet of (Important) Things. IEEE Communications Surveys and Tutorials, 2013, 15, 1389-1406.	39.4	581
3	OpenWSN: a standardsâ€based lowâ€power wireless development environment. Transactions on Emerging Telecommunications Technologies, 2012, 23, 480-493.	3.9	228
4	6TiSCH: deterministic IP-enabled industrial internet (of things). , 2014, 52, 36-41.		210
5	Reliability through frequency diversity. , 2009, , .		162
6	A Realistic Energy Consumption Model for TSCH Networks. IEEE Sensors Journal, 2014, 14, 482-489.	4.7	130
7	IETF 6TiSCH: A Tutorial. IEEE Communications Surveys and Tutorials, 2020, 22, 595-615.	39.4	114
8	On-the-Fly Bandwidth Reservation for 6TiSCH Wireless Industrial Networks. IEEE Sensors Journal, 2016, 16, 550-560.	4.7	109
9	Adaptive Synchronization in IEEE802.15.4e Networks. IEEE Transactions on Industrial Informatics, 2014, 10, 795-802.	11.3	89
10	Industrial Wireless IP-Based Cyber â€"Physical Systems. Proceedings of the IEEE, 2016, 104, 1025-1038.	21.3	70
11	A Machine-Learning-Based Connectivity Model for Complex Terrain Large-Scale Low-Power Wireless Deployments. IEEE Transactions on Cognitive Communications and Networking, 2017, 3, 576-584.	7.9	67
12	Distributed PID-Based Scheduling for 6TiSCH Networks. IEEE Communications Letters, 2016, 20, 1006-1009.	4.1	64
13	OpenMote: Open-Source Prototyping Platform for the Industrial IoT. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 211-222.	0.3	61
14	Adaptive synchronization in multi-hop TSCH networks. Computer Networks, 2015, 76, 165-176.	5.1	60
15	Prediction of Frost Events Using Machine Learning and IoT Sensing Devices. IEEE Internet of Things Journal, 2018, 5, 4589-4597.	8.7	59
16	Industrial IEEE802.15.4e networks: Performance and trade-offs. , 2015, , .		57
17	Simulating 6TiSCH networks. Transactions on Emerging Telecommunications Technologies, 2019, 30, e3494.	3.9	57
18	LLSF: Low Latency Scheduling Function for 6TiSCH Networks. , 2016, , .		43

#	Article	IF	Citations
19	IETF 6TSCH: Combining IPv6 Connectivity with Industrial Performance. , 2013, , .		41
20	Technical Overview of SmartMesh IP. , 2013, , .		41
21	6TiSCH: Industrial Performance for IPv6 Internet-of-Things Networks. Proceedings of the IEEE, 2019, 107, 1153-1165.	21.3	38
22	MABOâ€TSCH: Multihop and blacklistâ€based optimized time synchronized channel hopping. Transactions on Emerging Telecommunications Technologies, 2018, 29, e3223.	3.9	35
23	Simple Distributed Scheduling With Collision Detection in TSCH Networks. IEEE Sensors Journal, 2016, 16, 5848-5849.	4.7	34
24	Evaluation of IEEE802.15.4g for Environmental Observations. Sensors, 2018, 18, 3468.	3.8	27
25	Real-Time Alpine Measurement System Using Wireless Sensor Networks. Sensors, 2017, 17, 2583.	3.8	26
26	A Crystal-Free Single-Chip Micro Mote with Integrated 802.15.4 Compatible Transceiver, sub-mW BLE Compatible Beacon Transmitter, and Cortex M0. , 2019, , .		26
27	PEACH: Predicting Frost Events in Peach Orchards Using IoT Technology. EAI Endorsed Transactions on Internet of Things, 2016, 2, 151711.	1.1	26
28	Moving Beyond Testbeds? Lessons (We) Learned About Connectivity. IEEE Pervasive Computing, 2018, 17, 15-27.	1.3	24
29	Broadcasting strategies in 6TiSCH networks. Internet Technology Letters, 2018, 1, e15.	1.9	23
30	Constructive Interference in 802.15.4: A Tutorial. IEEE Communications Surveys and Tutorials, 2019, 21, 217-237.	39.4	20
31	Using SmartMesh IP in Smart Agriculture and Smart Building applications. Computer Communications, 2018, 121, 83-90.	5.1	19
32	OpenTestBed: Poor Man's IoT Testbed. , 2019, , .		19
33	Overview of IEEE802.15.4g OFDM and its applicability to smart building applications. , 2018, , .		17
34	Long-Term Monitoring of the Sierra Nevada Snowpack Using Wireless Sensor Networks. IEEE Internet of Things Journal, 2022, 9, 17185-17193.	8.7	15
35	Awa: Using water distribution systems to transmit data. Transactions on Emerging Telecommunications Technologies, 2018, 29, e3219.	3.9	14
36	6LoWPAN Fragment Forwarding. IEEE Communications Standards Magazine, 2019, 3, 35-39.	4.9	13

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37	Key Performance Indicators of the Reference 6TiSCH Implementation in Internet-of-Things Scenarios. IEEE Access, 2020, 8, 79147-79157.	4.2	13
38	Experimental Interference Robustness Evaluation of IEEE 802.15.4-2015 OQPSK-DSSS and SUN-OFDM Physical Layers for Industrial Communications. Electronics (Switzerland), 2019, 8, 1045.	3.1	12
39	<scp>6TiSCH</scp> minimal scheduling function: Performance evaluation. Internet Technology Letters, 2020, 3, e170.	1.9	11
40	Dynamic Channel Calibration on a Crystal-Free Mote-on-a-Chip. IEEE Access, 2019, 7, 120884-120900.	4.2	9
41	No Free Lunchâ€"Characterizing the Performance of 6TiSCH When Using Different Physical Layers. Sensors, 2020, 20, 4989.	3.8	9
42	6TiSCH on SCÎ¼M: Running a Synchronized Protocol Stack without Crystals. Sensors, 2020, 20, 1912.	3.8	9
43	g6TiSCH: Generalized 6TiSCH for Agile Multi-PHY Wireless Networking. IEEE Access, 2021, 9, 84465-84479.	4.2	9
44	Wireless-Sensor Network Topology Optimization in Complex Terrain: A Bayesian Approach. IEEE Internet of Things Journal, 2021, 8, 17429-17435.	8.7	9
45	Constrained Localization: A Survey. IEEE Access, 2022, 10, 49297-49321.	4.2	9
46	YSF: A 6TiSCH Scheduling Function Minimizing Latency of Data Gathering in IIoT. IEEE Internet of Things Journal, 2022, 9, 8607-8615.	8.7	8
47	CCR: Cost-aware cell relocation in 6TiSCH networks. Transactions on Emerging Telecommunications Technologies, 2018, 29, e3211.	3.9	7
48	Experimental Clock Calibration on a Crystal-Free Mote-on-a-Chip. , 2019, , .		7
49	6DYN : 6TiSCH with Heterogeneous Slot Durations. Sensors, 2021, 21, 1611.	3.8	7
50	(Not so) intuitive results from a smart agriculture low-power wireless mesh deployment. , 2016, , .		6
51	SODA: 6TiSCH Open Data Action. , 2018, , .		6
52	Atlas: Exploration and Mapping with a Sparse Swarm of Networked IoT Robots. , 2020, , .		5
53	Traceâ€based simulation for 6TiSCH. Internet Technology Letters, 2020, 3, e162.	1.9	5
54	Accurate 3D Lighthouse Localization of a Low-Power Crystal-Free Single-Chip Mote. Journal of Microelectromechanical Systems, 2020, 29, 818-824.	2.5	4

#	Article	IF	Citations
55	QuickCal: Assisted Calibration for Crystal-Free Micromotes. IEEE Internet of Things Journal, 2021, 8, 1846-1858.	8.7	4
56	Lightweight Authenticated Key Exchange With EDHOC. Computer, 2022, 55, 94-100.	1.1	4
57	On the Impact of WiFi on 2.4 GHz Industrial IoT Networks. , 2018, , .		3
58	Industrial IoT with Crystal-Free Mote-on-Chip. , 2020, , .		2
59	Performance of the Transport Layer Security Handshake Over 6TiSCH. Sensors, 2021, 21, 2192.	3.8	2
60	Accelerating 6TiSCH Network Formation. , 2021, , .		2
61	Coordinating a Swarm of Micro-Robots Under Lossy Communication. , 2021, , .		1
62	Surviving the Hair Dryer: Continuous Calibration of a Crystal-Free Mote-on-Chip. IEEE Internet of Things Journal, 2022, 9, 4737-4747.	8.7	0
63	Bringing life out of diversity: Boosting network lifetime using multiâ€PHY routing in RPL. Transactions on Emerging Telecommunications Technologies, 0, , .	3.9	0