Ioannis Chatzigiannakis

List of Publications by Citations

148 papers	1,888 citations	22 h-index	35 g-index
174 ext. papers	2,261 ext. citations	2 avg, IF	5.03 L-index

#	Paper	IF	Citations
148	Efficient data propagation strategies in wireless sensor networks using a single mobile sink. *Computer Communications*, **2008**, 31, 896-914	5.1	97
147	Sink mobility protocols for data collection in wireless sensor networks **2006**,		92
146	Flexible experimentation in wireless sensor networks. *Communications of the ACM*, **2012**, 55, 82-90	2.5	71
145	A privacy-preserving smart parking system using an IoT elliptic curve based security platform. *Computer Communications*, **2016**, 89-90, 165-177	5.1	70
144	Open source IoT meter devices for smart and energy-efficient school buildings. *HardwareX*, **2017**, 1, 54-67	2.7	62
143	Mediated population protocols. *Theoretical Computer Science*, **2011**, 412, 2434-2450	1.1	61
142	Developing an IoT Smart City framework **2013**,		57
141	The role of blockchain and IoT in recruiting participants for digital clinical trials **2017**,		40
140	An IoT-Based Solution for Monitoring a Fleet of Educational Buildings Focusing on Energy Efficiency. *Sensors*, **2017**, 17,	3.8	37
139	Distributed Circle Formation for Anonymous Oblivious Robots. *Lecture Notes in Computer Science*, **2004**, 159-174	0.9	35
138	Smart dust protocols for local detection and propagation **2002**,		35
137	On the Deployment of Healthcare Applications over Fog Computing Infrastructure **2017**,		34
136	Efficient and Robust Protocols for Local Detection and Propagation in Smart Dust Networks. *Mobile Networks and Applications*, **2005**, 10, 133-149	2.9	34
135	Passively mobile communicating machines that use restricted space. *Theoretical Computer Science*, **2011**, 412, 6469-6483	1.1	31
134	A probabilistic algorithm for efficient and robust data propagation in wireless sensor networks. *Ad Hoc Networks*, **2006**, 4, 621-635	4.8	31
133	WISEBED: An Open Large-Scale Wireless Sensor Network Testbed. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering*, **2010**, 68-87	0.2	31
132	True self-configuration for the IoT **2012**,		29

131	Utility of Big Data in Predicting Short-Term Blood Glucose Levels in Type 1 Diabetes Mellitus Through Machine Learning Techniques. *Sensors*, **2019**, 19,	3.8	27
130	Fast and energy efficient sensor data collection by multiple mobile sinks **2007**,		24
129	An efficient communication strategy for ad-hoc mobile networks **2001**,		23
128	Controlling Physical Objects via the Internet using the Arduino Platform over 802.15.4 Networks. *IEEE Latin America Transactions*, **2012**, 10, 1686-1689	0.7	22
127	Elliptic Curve Based Zero Knowledge Proofs and their Applicability on Resource Constrained Devices **2011**,		22
126	Urban pervasive applications: Challenges, scenarios and case studies. *Computer Science Review*, **2011**, 5, 103-118	8.3	22
125	Temporal Network Optimization Subject to Connectivity Constraints. *Lecture Notes in Computer Science*, **2013**, 657-668	0.9	22
124	Enabling Sustainability and Energy Awareness in Schools Based on IoT and Real-World Data. *IEEE Pervasive Computing*, **2018**, 17, 53-63	1.3	22
123	New Models for Population Protocols. *Synthesis Lectures on Distributed Computing Theory*, **2011**, 2, 1-156	1	21
122	50 ways to build your application: A survey of middleware and systems for Wireless Sensor Networks **2007**,		21
121	A COMPARATIVE STUDY OF PROTOCOLS FOR EFFICIENT DATA PROPAGATION IN SMART DUST NETWORKS. *Parallel Processing Letters*, **2003**, 13, 615-627	0.3	21
120	A mobility aware protocol synthesis for efficient routing in ad hoc mobile networks. *Computer Networks*, **2008**, 52, 130-154	5.4	20
119	A new energy efficient and fault-tolerant protocol for data propagation in smart dust networks using varying transmission range. *Computer Communications*, **2006**, 29, 477-489	5.1	20
118	Wiselib: A Generic Algorithm Library for Heterogeneous Sensor Networks. *Lecture Notes in Computer Science*, **2010**, 162-177	0.9	20
117	Implementing multiplayer pervasive installations based on mobile sensing devices: Field experience and user evaluation from a public showcase. *Journal of Systems and Software*, **2011**, 84, 1989-2004	3.3	17
116	Distributed communication algorithms for ad hoc mobile networks. *Journal of Parallel and Distributed Computing*, **2003**, 63, 58-74	4.4	17
115	Fog-Computing-Based Heartbeat Detection and Arrhythmia Classification Using Machine Learning. *Algorithms*, **2019**, 12, 32	1.8	16
114	On the Possibility of Predicting Glycaemia 'On the FlyTwith Constrained IoT Devices in Type 1 Diabetes Mellitus Patients. *Sensors*, **2019**, 19,	3.8	16

113	Causality, influence, and computation in possibly disconnected synchronous dynamic networks. *Journal of Parallel and Distributed Computing*, **2014**, 74, 2016-2026	4.4	16
112	A Web Services-oriented Architecture for Integrating Small Programmable Objects in the Web of Things **2010**,		16
111	A sleep-awake protocol for information propagation in smart dust networks		16
110	jWebDust : A Java-Based Generic Application Environment for Wireless Sensor Networks. *Lecture Notes in Computer Science*, **2005**, 376-386	0.9	16
109	Power-Efficient Data Propagation Protocols for Wireless Sensor Networks. *Simulation*, **2005**, 81, 399-411	1.2	15
108	Naming and Counting in Anonymous Unknown Dynamic Networks. *Lecture Notes in Computer Science*, **2013**, 281-295	0.9	15
107	Virtualising Testbeds to Support Large-Scale Reconfigurable Experimental Facilities. *Lecture Notes in Computer Science*, **2010**, 210-223	0.9	14
106	Algorithmic Verification of Population Protocols. *Lecture Notes in Computer Science*, **2010**, 221-235	0.9	14
105	Conscious and Unconscious Counting on Anonymous Dynamic Networks. *Lecture Notes in Computer Science*, **2014**, 257-271	0.9	14
104	Privacy preserving data management in recruiting participants for digital clinical trials **2017**,		13
103	A new energy efficient and fault-tolerant protocol for data propagation in Smart Dust networks using varying transmission range		13
102			13
101	Wireless sensor networks protocols for efficient collision avoidance in multi-path data propagation **2004**,		13
100	The Dynamics of Probabilistic Population Protocols. *Lecture Notes in Computer Science*, **2008**, 498-499	0.9	13
99	Mediated Population Protocols. *Lecture Notes in Computer Science*, **2009**, 363-374	0.9	13
98	IoT sensors in sea water environment: Ahoy! Experiences from a short summer trial. *Electronic Notes in Theoretical Computer Science*, **2019**, 343, 117-130	0.7	12
97	TRAILS, a Toolkit for Efficient, Realistic and Evolving Models of Mobility, Faults and Obstacles in Wireless Networks. *Simulation Symposium, Proceedings of the Annual*, **2008**,		12
96	Design, Analysis and Performance Evaluation of Group Key Establishment in Wireless Sensor Networks. *Electronic Notes in Theoretical Computer Science*, **2007**, 171, 17-31	0.7	12

95	An Experimental Study of Basic Communication Protocols in Ad-hoc Mobile Networks. *Lecture Notes in Computer Science*, **2001**, 159-171	0.9	12
94	Design and Evaluation of a Person-Centric Heart Monitoring System over Fog Computing Infrastructure **2017**,		11
93	An adaptive power conservation scheme for heterogeneous wireless sensor networks with node redeployment **2005**,		11
92	Developing Smart Homes Using the Internet of Things: How to demonstrate Your System. *Lecture Notes in Computer Science*, **2014**, 415-426	0.9	11
91	Distributed algorithm engineering for networks of tiny artifacts. *Computer Science Review*, **2011**, 5, 85-103	8.3	10
90	Modeling and evaluation of the effect of obstacles on the performance of wireless sensor networks		10
89	Not All Fair Probabilistic Schedulers Are Equivalent. *Lecture Notes in Computer Science*, **2009**, 33-47	0.9	10
88	Distributed Game-Theoretic Vertex Coloring. *Lecture Notes in Computer Science*, **2010**, 103-118	0.9	9
87	Computational models for networks of tiny artifacts: A survey. *Computer Science Review*, **2011**, 5, 7-25	8.3	9
86	Power conservation schemes for energy efficient data propagation in heterogeneous wireless sensor networks		9
85	Design and Analysis of an Efficient Communication Strategy for Hierarchical and Highly Changing Ad-hoc Mobile Networks. *Mobile Networks and Applications*, **2004**, 9, 319-332	2.9	9
84	Recent Advances in Population Protocols. *Lecture Notes in Computer Science*, **2009**, 56-76	0.9	9
83	Causality, Influence, and Computation in Possibly Disconnected Synchronous Dynamic Networks. *Lecture Notes in Computer Science*, **2012**, 269-283	0.9	9
82	Routing Protocols for Delay Tolerant Networks: A Reference Architecture and a Thorough Quantitative Evaluation. *Journal of Sensor and Actuator Networks*, **2016**, 5, 6	3.8	9
81	Towards an Architecture to Guarantee Both Data Privacy and Utility in the First Phases of Digital Clinical Trials. *Sensors*, **2018**, 18,	3.8	9
80	Exploiting Gamification to Improve Eco-driving Behaviour: The GamECAR Approach. *Electronic Notes in Theoretical Computer Science*, **2019**, 343, 103-116	0.7	8
79	Developing multiplayer pervasive games and networked interactive installations using ad hoc mobile sensor nets **2009**,		8
78	Fault-tolerant and efficient data propagation in wireless sensor networks using local, additional network information. *Journal of Parallel and Distributed Computing*, **2007**, 67, 456-473	4.4	8

77	An efficient routing protocol for hierarchical ad-hoc mobile networks		8
76	Advanced observation and telemetry heart system utilizing wearable ECG device and a Cloud platform **2015**,		7
75	**2007**,		7
74	All Symmetric Predicates in NSPACE(n2) Are Stably Computable by the Mediated Population Protocol Model. *Lecture Notes in Computer Science*, **2010**, 270-281	0.9	7
73	Brief Announcement: Naming and Counting in Anonymous Unknown Dynamic Networks. *Lecture Notes in Computer Science*, **2012**, 437-438	0.9	7
72	Modeling and Forecasting Gender-Based Violence through Machine Learning Techniques. *Applied Sciences (Switzerland)*, **2020**, 10, 8244	2.6	7
71	Enhancing shopping experiences in smart retailing. *Journal of Ambient Intelligence and Humanized Computing*, **2021**, 1-19	3.7	7
70	Efficient and Robust Data Dissemination Using Limited Extra Network Knowledge. *Lecture Notes in Computer Science*, **2006**, 218-233	0.9	7
69	Utilising fog computing for developing a person-centric heart monitoring system. *Journal of Ambient Intelligence and Smart Environments*, **2019**, 11, 237-259	2.2	6
68	Delivering elder-care environments utilizing TV-channel based mechanisms. *Journal of Ambient Intelligence and Smart Environments*, **2017**, 9, 783-798	2.2	6
67	Enabling stream processing for people-centric IoT based on the fog computing paradigm **2017**,		6
66	The Design of an Environment for Monitoring and Controlling Remote Sensor Networks. *International Journal of Distributed Sensor Networks*, **2009**, 5, 262-282	1.7	6
65	A Model for Obstacles to be used in Simulations of Wireless Sensor Networks and its Application in studying Routing Protocol Performance. *Simulation*, **2007**, 83, 587-608	1.2	6
64	An adaptive compulsory protocol for basic communication in highly changing ad-hoc mobile networks **2002**,		6
63	Brief Announcement: Providing End-to-End Secure Communication in Low-Power Wide Area Networks. *Lecture Notes in Computer Science*, **2018**, 101-104	0.9	6
62	Brief Announcement: Decidable Graph Languages by Mediated Population Protocols. *Lecture Notes in Computer Science*, **2009**, 239-240	0.9	6
61	A Smart Water Metering Deployment Based on the Fog Computing Paradigm. *Applied Sciences (Switzerland)*, **2020**, 10, 1965	2.6	6
60	Design and Analysis of Adaptive Hierarchical Low-Power Long-Range Networks. *Journal of Sensor and Actuator Networks*, **2018**, 7, 51	3.8	6

59	Resource and service virtualisation in M2M and IoT platforms. *International Journal of Intelligent Engineering Informatics*, **2015**, 3, 205	0.3	5
58	Counting in Anonymous Dynamic Networks under Worst-Case Adversary **2014**,		5
57	Terminating Population Protocols via Some Minimal Global Knowledge Assumptions. *Lecture Notes in Computer Science*, **2012**, 77-89	0.9	5
56	Passively mobile communicating machines that use restricted space **2011**,		5
55	A peer-to-peer environment for monitoring multiple wireless sensor networks **2007**,		5
54	On the effect of user mobility and density on the performance of protocols for ad-hoc mobile networks. *Wireless Communications and Mobile Computing*, **2004**, 4, 609-621	1.9	5
53	Raising Awareness for Water Polution Based on Game Activities Using Internet of Things. *Lecture Notes in Computer Science*, **2018**, 171-187	0.9	5
52	Streaming techniques and data aggregation in networks of tiny artefacts. *Computer Science Review*, **2011**, 5, 27-46	8.3	4
51	Adaptive probabilistic secure routing in mobile wireless sensor networks **2008**,		4
50	Adaptive Energy Management for Incremental Deployment of Heterogeneous Wireless Sensors. *Theory of Computing Systems*, **2008**, 42, 42-72	0.6	4
49	Enhanced Buying Experiences in Smart Cities: The SMARTBUY Approach. *Lecture Notes in Computer Science*, **2019**, 108-122	0.9	4
48	Counting in Anonymous Dynamic Networks: An Experimental Perspective. *Lecture Notes in Computer Science*, **2014**, 139-154	0.9	4
47	Utilising Fog Computing for Developing a Person-Centric Heart Monitoring System **2018**,		4
46	A Fog Computing-Oriented, Highly Scalable IoT Framework for Monitoring Public Educational Buildings **2018**,		4
45	A collective awareness platform for energy efficient smart buildings **2015**,		3
44	Patriot **2015**,		3
43	Post-processing in wireless sensor networks: Benchmarking sensor trace files for in-network data aggregation. *Journal of Network and Computer Applications*, **2012**, 35, 548-561	7.9	3
42	Routing protocols for efficient communication in wireless ad-hoc networks **2006**,		3

41	Priority based adaptive coordination of wireless sensors and actors **2006**,		3
40	Counting the Number of Homonyms in Dynamic Networks. *Lecture Notes in Computer Science*, **2013**, 311-325	0.9	3
39	Stably Decidable Graph Languages by Mediated Population Protocols. *Lecture Notes in Computer Science*, **2010**, 252-266	0.9	3
38	Apps for smart buildings **2016**, 465-479		3
37	The computational power of simple protocols for self-awareness on graphs. *Theoretical Computer Science*, **2013**, 512, 98-118	1.1	2
36	Design and evaluation of a real-time locating system for wireless sensor networks. *Journal of Location Based Services*, **2014**, 8, 97-122	1.9	2
35	Building a Platform-Agnostic Wireless Network of Interconnected Smart Objects **2011**,		2
34	Monitoring physical space using mobile phones for inferring social and contextual interactions **2011**,		2
33	A mobility sensitive approach for efficient routing in ad hoc mobile networks **2006**,		2
32	Using Future Internet Infrastructure and Smartphones for Mobility Trace Acquisition and Social Interactions Monitoring. *Lecture Notes in Computer Science*, **2012**, 117-129	0.9	2
31	Making P-Space Smart: Integrating IoT Technologies in a Multi-office Environment. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering*, **2013**, 31-44	0.2	2
30	Citizens Vote to Act: smart contracts for the management of water resources in smart cities **2019**,		2
29	Out of the Box: Using Gamification Cards to Teach Ideation to Engineering Students. *Lecture Notes in Computer Science*, **2018**, 221-226	0.9	2
28	Scenarios for Educational and Game Activities using Internet of Things Data **2018**,		2
27	Symmetric Coherent Link Degree, Adaptive Throughput-Transmission Power for Wireless Sensor Networks **2014**,		1
26	Green mindset **2015**,		1
25	Applying a customer centric development approach for web 2.0 applications **2015**,		1
24	Experimental Evaluation of Duplicate Insensitive Counting Algorithms **2009**,		1

23	ROTA: An Archipelago-Wide Area Network for High Speed Communication to Ships **2012**,		1
22	A software platform for developing multi-player pervasive games using small programmable object technologies **2008**,		1
21	The Dynamics of Adaptive Networked Societies of Tiny Artefacts **2008**,		1
20	On the effect of user mobility and density on the performance of ad-hoc mobile networks		1
19	DAP: a generic platform for the simulation of distributed algorithms		1
18	Identifying Water Consumption Patterns in Education Buildings Before, During and After COVID-19 Lockdown Periods **2021**,		1
17	Data-Driven Intrusion Detection for Ambient Intelligence. *Lecture Notes in Computer Science*, **2019**, 235-251	0.9	1
16	Design, Analysis, and Experimental Evaluation of a New Secure Rejoin Mechanism for LoRaWAN Using Elliptic-Curve Cryptography. *Journal of Sensor and Actuator Networks*, **2021**, 10, 36	3.8	1
15	Observation and Analysis of Environmental Factors of Surface Waters: An Internet of Things Educational Approach **2019**,		1
14	Uncertainty Management for Wearable IoT Wristband Sensors Using Laplacian-Based Matrix Completion **2018**,		1
13	On Mining IoT Data for Evaluating the Operation of Public Educational Buildings **2018**,		1
12	A Security Model for Internet-Based Digital Asset Management Systems. *Lecture Notes in Computer Science*, **2008**, 326-329	0.9	0
11	The Dynamics and Stability of Probabilistic Population Processes. *Lecture Notes in Computer Science* , **2017**, 33-45	0.9	
10	A Glimpse at Paul G. Spirakis. *Lecture Notes in Computer Science*, **2015**, 3-24	0.9	
9	Adaptive Hierarchical Network Structures for Wireless Sensor Networks. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering*, **2012**, 65-80	0.2	
8	Adaptive techniques for proactive collision avoidance for multi-path data propagation in wireless sensor networks. *Performance Evaluation*, **2006**, 63, 1074-1093	1.2	
7	Probabilistic Protocols for Fair Communication in Wireless Sensor Networks. *Lecture Notes in Computer Science*, **2008**, 100-110	0.9	
6	Enhancing an Eco-Driving Gamification Platform Through Wearable and Vehicle Sensor Data Integration. *Lecture Notes in Computer Science*, **2019**, 344-349	0.9	

5	On Refining Design Patterns for Smart Contracts. *Lecture Notes in Computer Science*, **2020**, 228-239	0.9
4	Pioneering the Establishment of the Foundations of the Internet of Things. *Lecture Notes in Computer Science*, **2015**, 154-168	0.9
3	Fun with Games. *Lecture Notes in Computer Science*, **2010**, 4-15	0.9
2	The Computational Power of Simple Protocols for Self-awareness on Graphs. *Lecture Notes in Computer Science*, **2011**, 135-147	0.9
1	Internet of Everything **2021**, 21-56	