Kevin I-Kai Wang

List of Publications by Year
in descending order

99 papers	3,152 citations	236612 25 h-index	168136 53 g-index
100 all docs	100 docs citations	100 times ranked	2613 citing authors

#	Article	IF	Citations
1	Digital Twin-driven smart manufacturing: Connotation, reference model, applications and research issues. Robotics and Computer-Integrated Manufacturing, 2020, 61, 101837.	6.1	712
2	Deep-Learning-Enhanced Human Activity Recognition for Internet of Healthcare Things. IEEE Internet of Things Journal, 2020, 7, 6429-6438.	5.5	276
3	Two-Layer Federated Learning With Heterogeneous Model Aggregation for 6G Supported Internet of Vehicles. IEEE Transactions on Vehicular Technology, 2021, 70, 5308-5317.	3.9	152
4	Deep Correlation Mining Based on Hierarchical Hybrid Networks for Heterogeneous Big Data Recommendations. IEEE Transactions on Computational Social Systems, 2021, 8, 171-178.	3.2	139
5	A Multi-Mode Dead Reckoning System for Pedestrian Tracking Using Smartphones. IEEE Sensors Journal, 2016, 16, 2079-2093.	2.4	136
6	Hierarchical Adversarial Attacks Against Graph-Neural-Network-Based IoT Network Intrusion Detection System. IEEE Internet of Things Journal, 2022, 9, 9310-9319.	5.5	131
7	Energy-Efficient Smart Routing Based on Link Correlation Mining for Wireless Edge Computing in IoT. IEEE Internet of Things Journal, 2022, 9, 14988-14997.	5.5	117
8	Adaptive sliding window segmentation for physical activity recognition using a single tri-axial accelerometer. Pervasive and Mobile Computing, 2017, 38, 41-59.	2.1	104
9	Sensor data quality: a systematic review. Journal of Big Data, 2020, 7, .	6.9	97
10	Academic Influence Aware and Multidimensional Network Analysis for Research Collaboration Navigation Based on Scholarly Big Data. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 246-257.	3.2	97
11	Variational Few-Shot Learning for Microservice-Oriented Intrusion Detection in Distributed Industrial IoT. IEEE Transactions on Industrial Informatics, 2022, 18, 5087-5095.	7.2	82
12	Multi-Modality Behavioral Influence Analysis for Personalized Recommendations in Health Social Media Environment. IEEE Transactions on Computational Social Systems, 2019, 6, 888-897.	3.2	73
13	A Low-Cost INS and UWB Fusion Pedestrian Tracking System. IEEE Sensors Journal, 2019, 19, 3733-3740.	2.4	60
14	Edge-Enabled Two-Stage Scheduling Based on Deep Reinforcement Learning for Internet of Everything. IEEE Internet of Things Journal, 2023, 10, 3295-3304.	5.5	59
15	Federated Transfer Learning Based Cross-Domain Prediction for Smart Manufacturing. IEEE Transactions on Industrial Informatics, 2022, 18, 4088-4096.	7.2	58
16	Human Body Shadowing Effect on UWB-Based Ranging System for Pedestrian Tracking. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 4028-4037.	2.4	57
17	2D Federated Learning for Personalized Human Activity Recognition in Cyber-Physical-Social Systems. IEEE Transactions on Network Science and Engineering, 2022, 9, 3934-3944.	4.1	47
18	A Hybrid Indoor Localization and Navigation System with Map Matching for Pedestrians Using Smartphones. Sensors, 2015, 15, 30759-30783.	2.1	41

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19	A Resetting Approach for INS and UWB Sensor Fusion Using Particle Filter for Pedestrian Tracking. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 5914-5921.	2.4	35
20	Enhancing ontological reasoning with uncertainty handling for activity recognition. Knowledge-Based Systems, 2016, 114, 47-60.	4.0	34
21	An INS and UWB Fusion Approach With Adaptive Ranging Error Mitigation for Pedestrian Tracking. IEEE Sensors Journal, 2020, 20, 4372-4381.	2.4	34
22	Housing Risk Factors Associated with Respiratory Disease: A Systematic Review. International Journal of Environmental Research and Public Health, 2021, 18, 2815.	1.2	34
23	Ambient intelligence platform using multi-agent system and mobile ubiquitous hardware. Pervasive and Mobile Computing, 2009, 5, 558-573.	2.1	33
24	Toward embedded laboratory automation for smart lab-on-a-chip embryo arrays. Biosensors and Bioelectronics, 2013, 48, 188-196.	5.3	29
25	Editorial: Smart Cyber–Physical Systems: Toward Pervasive Intelligence systems. Future Generation Computer Systems, 2020, 107, 1134-1139.	4.9	29
26	System-level approach to the design of ambient intelligence systems based on wireless sensor and actuator networks. Journal of Ambient Intelligence and Humanized Computing, 2015, 6, 153-169.	3.3	27
27	Indoor Pedestrian Tracking Using Consumer-Grade Inertial Sensors With PZTD Heading Correction. IEEE Sensors Journal, 2018, 18, 5164-5172.	2.4	26
28	Cyberentity and its consistency in the cyber-physical-social-thinking hyperspace. Computers and Electrical Engineering, 2020, 81, 106506.	3.0	21
29	Expect the Unexpected: Unsupervised Feature Selection for Automated Sensor Anomaly Detection. IEEE Sensors Journal, 2021, 21, 18033-18046.	2.4	21
30	Ontology-based sensor fusion activity recognition. Journal of Ambient Intelligence and Humanized Computing, 2020, 11, 3073-3087.	3.3	19
31	Designing Dynamic and Collaborative Automation and Robotics Software Systems. IEEE Transactions on Industrial Informatics, 2019, 15, 540-549.	7.2	18
32	Towards industrial Internet of Things: An efficient and interoperable communication framework. , 2015, , .		16
33	A Service-Oriented Programming Approach for Dynamic Distributed Manufacturing Systems. IEEE Transactions on Industrial Informatics, 2020, 16, 151-160.	7.2	16
34	Analysis and selection of the Force Sensitive Resistors for gait characterisation. , 2015, , .		14
35	Robust Computer Vision Chess Analysis and Interaction with a Humanoid Robot. Computers, 2019, 8, 14.	2.1	14
36	SOSJ: A new programming paradigm for adaptive distributed systems. , 2015, , .		12

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37	SuperBE: computationally light background estimation with superpixels. Journal of Real-Time Image Processing, 2019, 16, 2319-2335.	2.2	12
38	A 6LoWPAN implementation for memory constrained and power efficient wireless sensor nodes. , 2013, , .		11
39	LWS: A LoRaWAN Wireless Underground Sensor Network Simulator for Agriculture Applications. , 2019, , .		11
40	A Distributed Service Framework for the Internet of Things. IEEE Transactions on Industrial Informatics, 2020, 16, 4166-4176.	7.2	11
41	Automated Bio Cybernetic System: A Lab-on-Chip case study. , 2012, , .		10
42	A unified framework for the design of distributed cyber-physical systems - industrial automation example. , 2015, , .		10
43	Dynamic online reconfiguration in manufacturing systems using SOSJ framework. , 2016, , .		10
44	System-level approach to the design of collaborative distributed systems based on wireless sensor and actuator networks. , 2013, , .		9
45	An enhanced pedestrian dead reckoning approach for pedestrian tracking using smartphones. , 2015, , .		9
46	Dynamic Reconfiguration and Adaptation of Manufacturing Systems Using SOSJ Framework. IEEE Transactions on Industrial Informatics, 2018, 14, 2353-2363.	7.2	9
47	Long range wide area network for agricultural wireless underground sensor networks. Journal of Ambient Intelligence and Humanized Computing, 2020, , 1.	3.3	9
48	Convolutional neural network acceleration with hardware/software co-design. Applied Intelligence, 2018, 48, 1288.	3.3	8
49	Miniaturized wireless sensor node for earthquake monitoring applications. , 2012, , .		7
50	A New Design Paradigm for Designing Reactive Pervasive Concurrent Systems with an Ambient Intelligence Example. , 2013, , .		7
51	An infrastructure for integrating heterogeneous embedded 6LoWPAN networks for Internet of Things applications. , 2013, , .		7
52	An intelligent hybrid communication system for a distributed renewable energy management. , 2013, , .		7
53	Using design space exploration for finding schedules with guaranteed reaction times of synchronous programs on multi-core architecture. Journal of Systems Architecture, 2017, 74, 30-45.	2.5	7
54	A Single RF Emitter-Based Indoor Navigation Method for Autonomous Service Robots. Sensors, 2018, 18, 585.	2.1	7

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55	Investigating fast re-identification for multi-camera indoor person tracking. Computers and Electrical Engineering, 2019, 77, 273-288.	3.0	7
56	Housing for Now and the Future: A Systematic Review of Climate-Adaptive Measures. Sustainability, 2021, 13, 6744.	1.6	7
57	FPGA-based Mixed-Criticality Execution Platform for SystemJ and the Internet of Industrial Things. , 2015, , .		6
58	Computer vision based chess playing capabilities for the Baxter humanoid robot. , 2016, , .		6
59	Smart computing and cyber technology for cyberization. World Wide Web, 2020, 23, 1089-1100.	2.7	6
60	Extending SOSJ framework for large-scale dynamic manufacturing systems. , 2016, , .		5
61	A Novel Accelerometer-Based Technique for Robust Detection of Walking Direction. IEEE Transactions on Biomedical Engineering, 2018, 65, 1740-1747.	2.5	5
62	Bipedal gait model for precise gait recognition and optimal triggering in foot drop stimulator: a proof of concept. Medical and Biological Engineering and Computing, 2018, 56, 1731-1746.	1.6	5
63	Adaptive Wireless Network Management with Multi-Agent Reinforcement Learning. Sensors, 2022, 22, 1019.	2.1	5
64	Application-aware adaptive parameter control for LoRaWAN. Journal of Parallel and Distributed Computing, 2022, 166, 166-177.	2.7	5
65	AWSAM-3: A low power miniaturised wireless sensor mote. , 2013, , .		4
66	Subtractive Clustering as ZUPT Detector. , 2014, , .		4
67	Extending SOSJ Framework for Reliable Dynamic Service-Oriented Systems (Short Paper). , 2015, , .		4
68	An Android-Based Mobile 6LoWPAN Network Architecture for Pervasive Healthcare. , 2015, , .		4
69	Detecting Turns and Correcting Headings Using Low-Cost INS. Journal of Navigation, 2018, 71, 189-207.	1.0	4
70	Accelerating SuperBE with Hardware/Software Co-Design. Journal of Imaging, 2018, 4, 122.	1.7	4
71	Associative memory and recall model with KID model for human activity recognition. Future Generation Computer Systems, 2019, 92, 312-323.	4.9	4
72	Real-time PDR based on resource-constrained embedded platform. , 2015, , .		3

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73	3D terrain mapping vehicle for search and rescue. , 2016, , .		3
74	Modelling diffusion impedance in the sensing of micron-sized particles. Sensors and Actuators B: Chemical, 2016, 237, 329-340.	4.0	3
75	Feature-Based Temporal Statistical Modeling of Data Streams from Multiple Wearable Devices. , 2017, , .		3
76	An INS and UWB Fusion-Based Gyroscope Drift Correction Approach for Indoor Pedestrian Tracking. Sensors, 2020, 20, 4476.	2.1	3
77	Hardware/Software Co-design for a Gender Recognition Embedded System. Lecture Notes in Computer Science, 2016, , 541-552.	1.0	3
78	What makes a healthy home? A study in Auckland, New Zealand. Building Research and Information, 2022, 50, 738-754.	2.0	3
79	IP-enabled smart sensor and actuator node for ambient intelligence systems. , 2013, , .		2
80	A Wearable Internet of Things Mote with Bare Metal 6LoWPAN Protocol for Pervasive Healthcare. , 2014, , .		2
81	A computationally efficient pipeline for camera-based indoor person tracking. , 2017, , .		2
82	Unsupervised image analysis for zebrafish embryogenesis using lab-on-a-chip embryo arrays. International Journal of Computer Applications in Technology, 2014, 50, 99.	0.3	1
83	Real-time detection of step direction based on plantar pressure pattern during walk. , 2017, , .		1
84	Report of the 2017 IEEE Cyber Science and Technology Congress. Applied Sciences (Switzerland), 2017, 7, 1299.	1.3	1
85	Wireless indoor localisation for autonomous service robot with a single emitter. , 2017, , .		1
86	From User Models to the Cyber-I Model: Approaches, Progresses and Issues. , 2018, , .		1
87	A System Level Simulator for Heterogeneous Wireless Sensor and Actuator Networks. , 2018, , .		1
88	Fast One-Shot Learning for Identity Classification in Person Re-identification and Tracking. , 2018, , .		1
89	Adaptive Duty Cycle MAC Protocol of Low Energy WSN for Monitoring Underground Pipelines. , 2019, , .		1
90	Fusing Appearance and Spatio-Temporal Models for Person Re-Identification and Tracking. Journal of Imaging, 2020, 6, 27.	1.7	1

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91	Dynamic duty cycle-based Wireless Sensor Network for underground pipeline monitoring. , 2015, , .		0
92	Intelligent Reconfigurable Gateway for Heterogeneous Wireless Sensor and Actuator Networks. , 2015, , .		0
93	Modelling impedance for 3D impedimetric biosensor. , 2015, , .		0
94	Preliminary development of an ultra low power electro-permanent magnet based actuator for microfluidic systems. , 2015, , .		0
95	An Enhanced Fast Converging and Energy-Efficient Flooding Time Synchronization Protocol based on TDMA for Wireless Sensor Network. , 2016, , .		0
96	Investigating How Hardware Architectures are Expressed in High-Level Languages for an SKA Algorithm. , 2018, , .		0
97	Integrated Modeling of Personal Character Using Personal Big Data. , 2019, , .		0
98	A System-Level Approach for Designing Context-Aware Distributed Pervasive Applications. Lecture Notes in Computer Science, 2013, , 288-298.	1.0	0
99	Median filters on FPGAs for infinite data and large, rectangular windows. ACM Transactions on Reconfigurable Technology and Systems, 0, , .	1.9	0