

Rajalakshmi Pachamuthu

List of Publications by Year in Descending Order

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Version: 2024-04-25

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105
papers

574
citations

11
h-index

17
g-index

136
ext. papers

796
ext. citations

3.8
avg, IF

4.42
L-index

#	Paper	IF	Citations
105	Deep-Learning-Based Multispectral Image Reconstruction from Single Natural Color RGB ImageEnhancing UAV-Based Phenotyping. <i>Remote Sensing</i> , 2022 , 14, 1272	5	2
104	LiDAR-INS/GNSS-Based Real-Time Ground Removal, Segmentation, and Georeferencing Framework for Smart Transportation. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021 , 70, 1-11	5.2	3
103	A deep learning based approach for classification of abdominal organs using ultrasound images. <i>Biocybernetics and Biomedical Engineering</i> , 2021 , 41, 779-791	5.7	0
102	Development of a Novel IoT-Enabled Power- Monitoring Architecture With Real-Time Data Visualization for Use in Domestic and Industrial Scenarios. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021 , 70, 1-14	5.2	6
101	Enhanced LoRa Data Rate through PATCH 2020 ,		1
100	A Novel Low-Complexity Compressed Data Aggregation Method for Energy-Constrained IoT Networks. <i>IEEE Transactions on Green Communications and Networking</i> , 2020 , 4, 717-730	4	4
99	Region of Interest and Car Detection using LiDAR data for Advanced Traffic Management System 2020 ,		1
98	Discrimination of filled and unfilled grains of rice panicles using thermal and RGB images. <i>Journal of Cereal Science</i> , 2020 , 95, 103037	3.8	2
97	Geo-referencing system for locating objects globally in LiDAR point cloud 2020 ,		2
96	CIG based Stress Identification Method for Maize Crop using UAV based Remote Sensing 2020 ,		1
95	LoRa-based Alert System for Public-safety 2019 ,		1
94	CNN based framework for representative detection of liver images for CAD and tele-sonography applications. <i>CSI Transactions on ICT</i> , 2019 , 7, 131-135	0.4	
93	Smartphone Based Acoustic Navigation Tool for IoT Networks. <i>Wireless Personal Communications</i> , 2019 , 108, 1547-1569	1.9	1
92	Multiview spatial compounding using lens-based photoacoustic imaging system. <i>Photoacoustics</i> , 2019 , 13, 85-94	9	9
91	Saturated Throughput Analysis of IEEE 802.11ad EDCA For High Data Rate 5G-IoT Applications. <i>IEEE Transactions on Vehicular Technology</i> , 2019 , 68, 4774-4785	6.8	7
90	A Real-Time Health 4.0 Framework with Novel Feature Extraction and Classification for Brain-Controlled IoT-Enabled Environments. <i>Neural Computation</i> , 2019 , 31, 1915-1944	2.9	1
89	Fast Object Segmentation Pipeline for Point Clouds Using Robot Operating System 2019 ,		3

88	On building a smarter ecosystem using the internet of intelligent things: progress and future challenges. <i>CSI Transactions on ICT</i> , 2019 , 7, 243-250	0.4	
87	Emotion Detection IoT enabled Edge-node for Citizen Security 2019 ,		2
86	Real Time LiDAR Point Cloud Compression and Transmission for Intelligent Transportation System 2019 ,		6
85	A Novel Feature Extraction Framework for Four Class Motor Imagery Classification using Log Determinant Regularized Riemannian Manifold. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2019 , 2019, 6754-6757	0.9	1
84	A Residual Phase Noise Compensation Method for IEEE 802.15.4 Compliant Dual-Mode Receiver for Diverse Low Power IoT Applications. <i>IEEE Internet of Things Journal</i> , 2019 , 6, 3437-3447	10.7	6
83	Multi-modal framework for automatic detection of diagnostically important regions in nonalcoholic fatty liver ultrasonic images. <i>Biocybernetics and Biomedical Engineering</i> , 2018 , 38, 586-601	5.7	2
82	Performance Analysis of CSMA/CA and PCA for Time Critical Industrial IoT Applications. <i>IEEE Transactions on Industrial Informatics</i> , 2018 , 14, 2281-2293	11.9	16
81	A Low Power Minimal Error IEEE 802.15.4 Transceiver for Heart Monitoring in IoT Applications. <i>Wireless Personal Communications</i> , 2018 , 100, 611-629	1.9	4
80	Automated quantification of ultrasonic fatty liver texture based on curvelet transform and SVD. <i>Biocybernetics and Biomedical Engineering</i> , 2018 , 38, 145-157	5.7	10
79	Novel Power Management Scheme and Effects of Constrained On-Node Storage on Performance of MAC Layer for Industrial IoT Networks. <i>IEEE Transactions on Industrial Informatics</i> , 2018 , 14, 2146-2158	11.9	14
78	A low power IoT network for smart agriculture 2018 ,		42
77	Novel Light Weight Compressed Data Aggregation using sparse measurements for IoT networks. <i>Journal of Network and Computer Applications</i> , 2018 , 121, 119-134	7.9	8
76	WebRTC based invariant scattering convolution network for automated validation of ultrasonic videos for IoT enabled tele-sonography 2018 ,		2
75	Two-sided residual refocusing for an acoustic lens-based photoacoustic imaging system. <i>Physics in Medicine and Biology</i> , 2018 , 63, 13NT03	3.8	6
74	Modeling and Analysis of IEEE 802.15.4 Multi-hop Networks for IoT Applications. <i>Wireless Personal Communications</i> , 2018 , 100, 429-448	1.9	3
73	A Novel Computer-Aided Diagnosis Framework Using Deep Learning for Classification of Fatty Liver Disease in Ultrasound Imaging 2018 ,		13
72	Classification of Nonalcoholic Fatty Liver Texture Using Convolution Neural Networks 2018 ,		5
71	Compact and Programmable Ultrasound Front-End Processing Module for Research Activities. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2018 , 2018, 921-924	0.9	

70	A Novel Classification for EEG Based Four Class Motor Imagery Using Kullback-Leibler Regularized Riemannian Manifold 2018 ,		4
69	Energy efficient wireless sensor networks utilizing adaptive dictionary in compressed sensing 2018 ,		4
68	A Secure Phase-Encrypted IEEE 802.15.4 Transceiver Design. <i>IEEE Transactions on Computers</i> , 2017 , 66, 1421-1427	2.5	16
67	IoT enabled smart and secure power monitor 2017 ,		7
66	Characterization of lens based photoacoustic imaging system. <i>Photoacoustics</i> , 2017 , 8, 37-47	9	11
65	Smartphone based automatic organ validation in ultrasound video. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2017 , 2017, 4289-4292	0.9	1
64	Random node sampling approach for energy efficient data gathering in wireless sensor networks 2017 ,		2
63	A novel system architecture for brain controlled IoT enabled environments 2017 ,		9
62	Deep scattering convolution network based features for ultrasonic fatty liver tissue characterization. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2017 , 2017, 1982-1985	0.9	5
61	Subjective liver ultrasound video quality assessment of internet based videophone services for real-time tele-ultrasonography 2017 ,		2
60	Computer Aided Abnormality Detection for Kidney on FPGA Based IoT Enabled Portable Ultrasound Imaging System. <i>Irbm</i> , 2016 , 37, 189-197	4.8	22
59	Performance analysis of IEEE 802.15.4 MAC layer: Prospect for multi-hop networks 2016 ,		1
58	Duration of stay based weighted scheduling framework for mobile phone sensor data collection in opportunistic crowd sensing. <i>Peer-to-Peer Networking and Applications</i> , 2016 , 9, 721-730	3.1	2
57	Smartphone based automatic abnormality detection of kidney in ultrasound images 2016 ,		4
56	Mobile phone based acoustic localization using Doppler shift for wireless sensor networks 2016 ,		3
55	Compressed sensing for different sensors: A real scenario for WSN and IoT 2016 ,		14
54	A reliable covert channel over IEEE 802.15.4 using steganography 2016 ,		6
53	Reconfigurable dual mode IEEE 802.15.4 digital baseband receiver for diverse IoT applications 2016 ,		5

52	Implementation of diagnostically driven compression algorithms via WebRTC for IoT enabled tele-sonography 2016,		3
51	A 1.5mA, 2.4GHz ZigBee/BLE QLMVF Receiver Frond End with Split TCAs in 180nm CMOS 2016,		1
50	A comparison of transmission line voltage stability indices 2016,		3
49	. <i>IEEE Internet of Things Journal</i> , 2015 , 2, 210-220	10.7	28
48	Reliability and Delay Analysis of Slotted Anycast Multi-Hop Wireless Networks Targeting Dense Traffic IoT Applications. <i>IEEE Communications Letters</i> , 2015 , 19, 727-730	3.8	5
47	System Architecture for Low-Power Ubiquitously Connected Remote Health Monitoring Applications With Smart Transmission Mechanism. <i>IEEE Sensors Journal</i> , 2015 , 15, 4532-4543	4	5
46	Integrated 16-Channel Transmit and Receive Beamforming ASIC for Ultrasound Imaging 2015,		1
45	Neural Network Based Short Term Forecasting Engine to Optimize Energy and Big Data Storage Resources of Wireless Sensor Networks 2015,		5
44	Sparseland model for speckle suppression of B-mode ultrasound images 2015,		1
43	Performance analysis of hybrid multiple radio IoT architecture for ubiquitous connectivity 2015,		1
42	Portable ultrasound scanner for remote diagnosis 2015,		1
41	Multi-level classification: A generic classification method for medical datasets 2015,		1
40	Compressive sensing ultrasound beamformed imaging in time and frequency domain 2015,		1
39	FPGA-Based Portable Ultrasound Scanning System with Automatic Kidney Detection. <i>Journal of Imaging</i> , 2015 , 1, 193-219	3.1	10
38	Affordable low complexity heart/brain monitoring methodology for remote health care. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2015 , 2015, 5082-5	0.9	4
37	3D localization technique with mobile robot for improving operability of remote-control devices 2015,		1
36	A reconfigurable medically cohesive biomedical front-end with $\Sigma\Delta$ ADC in 0.18 μ m CMOS. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2015 , 2015, 833-6	0.9	
35	Mobile phone based acoustic localization for wireless sensor networks 2015,		3

34	Real Time Power Capping with Smart Circuit Breaker to Maximize Power Utilization of Local Generator 2015 ,		1
33	Distributed compressed sensing for photo-acoustic imaging 2015 ,		1
32	Fast Region of Interest detection for fetal genital organs in B-mode ultrasound images 2014 ,		2
31	Deployment adviser tool for wireless sensor networks 2014 ,		5
30	A low complexity on-chip ECG data compression methodology targeting remote health-care applications. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2014</i> , 2014, 5944-7	0.9	1
29	FPGA based ultrasound backend system with image enhancement technique 2014 ,		4
28	Analytical model of adaptive CSMA-CA MAC for reliable and timely clustered wireless multi-hop communication 2014 ,		3
27	Effect of relay nodes and transmit power on end-to-end delay in multi-hop wireless ad hoc networks. <i>International Journal of Space-Based and Situated Computing, 2014</i> , 4, 26	0.3	9
26	Centroid based 3D localization technique using RSSI with a mobile robot 2014 ,		4
25	Automatic organ validation of b-mode ultrasound images for transmission to cloud 2014 ,		3
24	Context predictor based sparse sensing technique and smart transmission architecture for IoT enabled remote health monitoring applications. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2014</i> , 2014, 4151-4	0.9	5
23	Compression techniques for IoT enabled handheld ultrasound imaging system 2014 ,		2
22	Adaptive rule engine based IoT enabled remote health care data acquisition and smart transmission system 2014 ,		29
21	Novel sampling algorithm for Levy-walk based mobile phone sensing 2014 ,		3
20	Accurate and reliable 3-lead to 12-lead ECG reconstruction methodology for remote health monitoring applications. <i>Irbm, 2014</i> , 35, 341-350	4.8	6
19	Low complex, programmable FPGA based 8-channel ultrasound transmitter for medical imaging researches 2014 ,		2
18	FPGA based preliminary CAD for kidney on IoT enabled portable ultrasound imaging system 2014 ,		10
17	Context aware building energy management system with heterogeneous wireless network architecture 2013 ,		4

16	Accurate and reliable 3-lead to 12-lead ECG reconstruction methodology for remote health monitoring applications 2013 ,		10
15	Effect of Relay Nodes on End-to-End Delay in Multi-hop Wireless Ad-hoc Networks 2013 ,		4
14	CR based WSN for Field Area Network in Smart Grid 2013 ,		7
13	Hardware-software co-design of AES on FPGA 2012 ,		3
12	Real time hardware implementable spectrum sensor for Cognitive Radio applications 2012 ,		6
11	Design of feature extraction circuit for speech recognition applications 2012 ,		1
10	2011 ,		9
9	WSN based power monitoring in smart grids 2011 ,		20
8	Re-Routing at Critical Nodes to Enhance Performance of Wavelength Reassignment in All-Optical WDM Networks Without Wavelength Conversion. <i>Journal of Lightwave Technology</i> , 2008 , 26, 3021-3029 ⁴		6
7	Load balanced routing to enhance the performance of optical backbone networks 2008 ,		5
6	Analytical Performance Computation for all Optical Networks with Wavelength Conversion. <i>IETE Journal of Research</i> , 2008 , 54, 31-38	0.9	3
5	Routing wavelength and time-slot reassignment algorithms for TDM based optical WDM networks. <i>Computer Communications</i> , 2007 , 30, 3491-3497	5.1	5
4	Wavelength reassignment algorithms for all-optical WDM backbone networks. <i>Optical Switching and Networking</i> , 2007 , 4, 147-156	1.6	10
3	An Analytical Model for Wavelength-Convertible Optical Networks 2007 ,		2
2	Analytical Tool to Achieve Wavelength Conversion Performance in No Wavelength Conversion Optical WDM Networks 2007 ,		2
1	Routing Wavelength and Timeslot Reassignment Algorithms for TDM based Optical WDM Networks - Multi rate traffic demands 2006 ,		4