P Mohana Shankar

List of Publications by Year
in descending order

87 papers	3,865 citations	172207 29 h-index	133063 59 g-index
89 all docs	89 docs citations	89 times ranked	2540 citing authors

#	Article	IF	Citations
1	A review of fiber-optic biosensors. Sensors and Actuators B: Chemical, 2007, 125, 688-703.	4.0	582
2	A general statistical model for ultrasonic backscattering from tissues. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2000, 47, 727-736.	1.7	433
3	Advantages of Subharmonic Over Second Harmonic Backscatter for Contrast-To-Tissue Echo Enhancement. Ultrasound in Medicine and Biology, 1998, 24, 395-399.	0.7	191
4	Classification of ultrasonic B-mode images of breast masses using Nakagami distribution. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2001, 48, 569-580.	1.7	186
5	Ultrasonic tissue characterization using a generalized Nakagami model. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2001, 48, 1716-1720.	1.7	157
6	Bubble size measurements using the nonlinear mixing of two frequencies. Journal of the Acoustical Society of America, 1984, 75, 1473-1477.	0.5	147
7	Use of non-Rayleigh statistics for the identification of tumors in ultrasonic B-scans of the breast. IEEE Transactions on Medical Imaging, 1993, 12, 687-692.	5.4	146
8	A model for ultrasonic scattering from tissues based on the K distribution. Physics in Medicine and Biology, 1995, 40, 1633-1649.	1.6	132
9	Subharmonic backscattering from ultrasound contrast agents. Journal of the Acoustical Society of America, 1999, 106, 2104-2110.	0.5	113
10	Ultrasound speckle analysis based on the K distribution. Journal of the Acoustical Society of America, 1991, 89, 2992-2995.	0.5	110
11	Fading and Shadowing in Wireless Systems. , 2012, , .		106
12	Non-Rayleigh statistics of ultrasonic backscattered signals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1994, 41, 845-852.	1.7	95
13	Performance Analysis of Diversity Combining Algorithms in Shadowed Fading Channels. Wireless Personal Communications, 2006, 37, 61-72.	1.8	80
14	Detection of pathogen Escherichia coli O157:H7 AT 70cells/mL using antibody-immobilized biconical tapered fiber sensors. Biosensors and Bioelectronics, 2005, 21, 871-880.	5.3	76
15	Subharmonic generation from ultrasonic contrast agents. Physics in Medicine and Biology, 1999, 44, 681-694.	1.6	72
16	ROC analysis of ultrasound tissue characterization classifiers for breast cancer diagnosis. IEEE Transactions on Medical Imaging, 2003, 22, 170-177.	5.4	67
17	A compound scattering pdf for the ultrasonic echo envelope and its relationship to K and Nakagami distributions. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 339-343.	1.7	67
18	Classification of breast masses in ultrasonic B scans using Nakagami and K distributions. Physics in Medicine and Biology, 2003, 48, 2229-2240.	1.6	66

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19	Effects of geometry on transmission and sensing potential of tapered fiber sensors. Biosensors and Bioelectronics, 2006, 21, 2202-2209.	5.3	58
20	Fading and Shadowing in Wireless Systems. , 2017, , .		55
21	Label-free detection of DNA hybridization using gold-coated tapered fiber optic biosensors (TFOBS) in a flow cell at 1310nm and 1550nm. Sensors and Actuators B: Chemical, 2008, 131, 640-645.	4.0	54
22	Split-spectrum processing: analysis of polarity threshold algorithm for improvement of signal-to-noise ratio and detectability in ultrasonic signals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1989, 36, 101-108.	1.7	52
23	Characterization of ultrasonic B-scans using non-rayleigh statistics. Ultrasound in Medicine and Biology, 1995, 21, 161-170.	0.7	51
24	Comparisons of the Rayleigh and K -distribution models using in vivo breast and liver tissue. Ultrasound in Medicine and Biology, 1998, 24, 93-100.	0.7	49
25	The use of the compound probability density function in ultrasonic tissue characterization. Physics in Medicine and Biology, 2004, 49, 1007-1015.	1.6	43
26	Statistical Models for Fading and Shadowed Fading Channels in Wireless Systems: A Pedagogical Perspective. Wireless Personal Communications, 2011, 60, 191-213.	1.8	40
27	Subharmonic signal generation from contrast agents in simulated neovessels. Ultrasound in Medicine and Biology, 2004, 30, 199-203.	0.7	38
28	Use of the K-distribution for classification of breast masses. Ultrasound in Medicine and Biology, 2000, 26, 1503-1510.	0.7	36
29	Macrodiversity and Microdiversity in Correlated Shadowed Fading Channels. IEEE Transactions on Vehicular Technology, 2009, 58, 727-732.	3.9	35
30	Ultrasonic measurement of bubble cloud size profiles. Journal of the Acoustical Society of America, 1985, 78, 196-201.	0.5	32
31	Nonuniform phase distribution in ultrasound speckle analysis. I. Background and experimental demonstration. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1992, 39, 352-359.	1.7	32
32	Application of the compound probability density function for characterization of breast masses in ultrasound B scans. Physics in Medicine and Biology, 2005, 50, 2241-2248.	1.6	29
33	Studies on the use of non-Rayleigh statistics for ultrasonic tissue characterization. Ultrasound in Medicine and Biology, 1996, 22, 873-882.	0.7	28
34	Classification of breast masses in ultrasonic b-mode images using a compounding technique in the nakagami distribution domain. Ultrasound in Medicine and Biology, 2002, 28, 1295-1300.	0.7	28
35	Computer-aided classification of breast masses in ultrasonic B-scans using a multiparameter approach. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 1002-1009.	1.7	28
36	Use of frequency diversity and Nakagami statistics in ultrasonic tissue characterization. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2001, 48, 1139-1146.	1.7	27

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37	Studies on ultrasonic scattering from quasi-periodic structures. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1997, 44, 114-124.	1.7	26
38	Model protein detection using antibody-immobilized tapered fiber optic biosensors (TFOBS) in a flow cell at 1310nm and 1550nm. Sensors and Actuators B: Chemical, 2008, 129, 716-725.	4.0	25
39	A Nakagami-N-gamma Model for Shadowed Fading Channels. Wireless Personal Communications, 2012, 64, 665-680.	1.8	25
40	Statistical modeling of atherosclerotic plaque in carotid B mode images—a feasibility study. Ultrasound in Medicine and Biology, 2003, 29, 1305-1309.	0.7	20
41	Computer aided classification of masses in ultrasonic mammography. Medical Physics, 2002, 29, 1968-1973.	1.6	19
42	Classification of ultrasonic B mode images of the breast using frequency diversity and Nakagami statistics. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2002, 49, 664-668.	1.7	17
43	Maximal Ratio Combining (MRC) in Shadowed Fading Channels in Presence of Shadowed Fading Cochannel Interference (CCI). Wireless Personal Communications, 2013, 68, 15-25.	1.8	17
44	Measuring bacterial growth by tapered fiber and changes in evanescent field. Biosensors and Bioelectronics, 2006, 21, 1339-1344.	5.3	15
45	A statistical model for the ultrasonic backscattered echo from tissue containing microcalcifications. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 932-942.	1.7	15
46	Bubble sizing with high spatial resolution. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 1990, 37, 30-37.	1.7	13
47	Estimation of the Nakagami parameter from log-compressed ultrasonic backscattered envelopes (L). Journal of the Acoustical Society of America, 2003, 114, 70-72.	0.5	11
48	Speckle reduction in ultrasonic images through a maximum likelihood based adaptive filter. Physics in Medicine and Biology, 2006, 51, 5591-5602.	1.6	11
49	Pedagogy of Bayes' rule, confusion matrix, transition matrix, and receiver operating characteristics. Computer Applications in Engineering Education, 2019, 27, 510-518.	2.2	11
50	Performance of N*Nakagami cascaded fading channels in dual selection combining diversity. , 2011, , .		8
51	Statistical Analysis of Short Term Fading and Shadowing in Ultra-Wideband Systems. , 2010, , .		7
52	Error Rates in Dual Hop Wireless Links Operating in Cascaded Fading Channels. Wireless Personal Communications, 2014, 75, 1-9.	1.8	7
53	Applications of Coherent Optics and Holography in Biomedical Engineering. IEEE Transactions on Biomedical Engineering, 1982, BME-29, 8-15.	2.5	6
54	A Composite Shadowed Fading Model Based on the McKay Distribution and Meijer G Functions. Wireless Personal Communications, 2015, 81, 1017-1030.	1.8	6

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55	Statistics of Boundaries in Ultrasonic B-Scan Images. Ultrasound in Medicine and Biology, 2015, 41, 268-280.	0.7	6
56	Characterization of ultrasonic transducers using a fiberoptic sensor. Ultrasound in Medicine and Biology, 1994, 20, 645-653.	0.7	5
57	Using phase information in ultrasonic backscatter for in vivo liver analysis. Ultrasound in Medicine and Biology, 1998, 24, 79-91.	0.7	5
58	Comments on â€˜The effect of logarithmic compression on the estimation of the Nakagami parameter for ultrasonic tissue characterizationâ€™. Physics in Medicine and Biology, 2006, 51, L23-L26.	1.6	5
59	Pedagogy of chiâ€square goodness of fit test for continuous distributions. Computer Applications in Engineering Education, 2019, 27, 679-689.	2.2	5
60	Detection of binary images in noise. Optical and Quantum Electronics, 1979, 11, 133-140.	1.5	4
61	Lowâ€frequency oscillations of bubble plumes. Journal of the Acoustical Society of America, 1993, 93, 1362-1364.	0.5	4
62	Performance of Cognitive Radio in N*Nakagami Cascaded Channels. Wireless Personal Communications, 2016, 88, 657-667.	1.8	4
63	Tutorial overview of simple, stratified, and parametric bootstrapping. Engineering Reports, 2020, 2, e12096.	0.9	4
64	Formation and measurement of tapers in optical fibers. Review of Scientific Instruments, 1993, 64, 2650-2654.	0.6	3
65	Diversity in cascaded N*Nakagami channels. Annales Des Telecommunications/Annals of Telecommunications, 2013, 68, 477-483.	1.6	3
66	Pedagogy of diversity and data analytics: Theory to practice. Computer Applications in Engineering Education, 2019, 27, 1277-1285.	2.2	3
67	Quantitative measures of boundary and contrast enhancement in speckle reduction in ultrasonic B-mode images using spatial bessel filters. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 2086-2096.	1.7	2
68	An overview of shadowed fading wireless channels in terms of a cascaded approach. Physical Communication, 2015, 15, 59-65.	1.2	2
69	Introduction of data analytics in the engineering probability course: Implementation and lessons learnt. Computer Applications in Engineering Education, 2020, 28, 1072-1082.	2.2	2
70	System considerations for an optically controlled phased array antenna. , 0, , .		1
71	Modal redistribution and power loss in on-fibre devices. Optical and Quantum Electronics, 1989, 21, 321-329.	1.5	1
72	Tapered Fibers for Cell Studies. , 2005, , 63-75.		1

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73	Use of two-dimensional phase-only filters and compounding for speckle reduction and edge detection in ultrasonic B-scan images. Applied Optics, 2009, 48, 5589.	2.1	1
74	Use of phase diversity and modified phase congruence for edge enhancement in ultrasonic imaging. Signal, Image and Video Processing, 2013, 7, 317-324.	1.7	1
75	A Matlab workbook on the pedagogy of generalized eigenvectors. Computer Applications in Engineering Education, 2017, 25, 411-419.	2.2	1
76	Modeling of Fading and Shadowing. , 2012, , 193-312.		1
77	Concepts of Probability and Statistics. , 2012, , 7-108.		1
78	Noise in Coherent Optical Information Retrieval. IETE Journal of Research, 1982, 28, 95-99.	1.8	0
79	Pedagogy of solutions to a set of linear equations using a Matlab workbook. Computer Applications in Engineering Education, 2017, 25, 345-351.	2.2	0
80	Pedagogy of Random Variable Transformations: A Matlab Workbook. Journal of the Indian Society for Probability and Statistics, 2017, 18, 281-294.	0.3	0
81	Applications to Data Analytics and Modeling. , 2021, , 337-420.		0
82	Multiple Random Variables and Their Characteristics. , 2021, , 233-336.		0
83	Diversity Techniques. , 2012, , 313-416.		0
84	Concepts of Probability and Statistics. , 2017, , 9-212.		0
85	Diversity Techniques. , 2017, , 521-673.		0
86	Modeling of Fading and Shadowing. , 2017, , 299-520.		0
87	Pedagogy of transformation of a random variable, censoring, and truncation of data. Computer Applications in Engineering Education, 0, , .	2.2	0