

Tarikul Islam

List of Publications by Year in descending order

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96
papers

1,466
citations

361413

20
h-index

377865

34
g-index

97
all docs

97
docs citations

97
times ranked

1125
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive comparative study of DGA based transformer fault diagnosis using fuzzy logic and ANFIS models. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 590-596.	2.9	142
2	Smart Sensors and Internet of Things: A Postgraduate Paper. IEEE Sensors Journal, 2017, 17, 577-584.	4.7	79
3	A novel sol-gel thin film porous alumina based capacitive sensor for measuring trace moisture in the range of 2.5-25ppm. Sensors and Actuators B: Chemical, 2012, 173, 377-384.	7.8	76
4	A Digital Hygrometer for Trace Moisture Measurement. IEEE Transactions on Industrial Electronics, 2014, 61, 5599-5605.	7.9	52
5	A micro interdigitated thin film metal oxide capacitive sensor for measuring moisture in the range of 175-625 ppm. Sensors and Actuators B: Chemical, 2015, 221, 357-364.	7.8	50
6	Relaxation Oscillator-Based Active Bridge Circuit for Linearly Converting Resistance to Frequency of Resistive Sensor. IEEE Sensors Journal, 2013, 13, 1507-1513.	4.7	48
7	A time domain bridge-based impedance measurement technique for wide-range lossy capacitive sensors. Sensors and Actuators A: Physical, 2015, 234, 248-262.	4.1	48
8	Investigation of the Electrical Characteristics on Measurement Frequency of a Thin-Film Ceramic Humidity Sensor. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 694-702.	4.7	43
9	A Simple MOX Vapor Sensor on Polyimide Substrate for Measuring Humidity in ppm Level. IEEE Sensors Journal, 2015, 15, 3004-3013.	4.7	39
10	An Efficient Interface Circuit for Lossy Capacitive Sensors. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 829-836.	4.7	39
11	A sensitive and highly linear capacitive thin film sensor for trace moisture measurement in gases. Sensors and Actuators B: Chemical, 2016, 228, 658-664.	7.8	38
12	A Novel Cross-Capacitive Sensor for Noncontact Microdroplet Detection. IEEE Transactions on Industrial Electronics, 2019, 66, 4759-4766.	7.9	32
13	Organic vapour sensing by porous silicon: Influence of molecular kinetics in selectivity studies. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1648-1652.	2.7	29
14	An Oscillator-Based Active Bridge Circuit for Interfacing Capacitive Sensors With Microcontroller Compatibility. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2560-2568.	4.7	29
15	A Novel Sol-Gel γ -Al ₂ O ₃ Thin-Film-Based Rapid SAW Humidity Sensor. IEEE Transactions on Electron Devices, 2015, 62, 4242-4250.	3.0	28
16	A Relaxation Oscillator-Based Transformer Ratio Arm Bridge Circuit for Capacitive Humidity Sensor. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 3414-3422.	4.7	27
17	Impedance-to-Time Converter Circuit for Leaky Capacitive Sensors With Small Offset Capacitance. , 2019, 3, 1-4.		25
18	A Thin Film Porous Alumina-Based Cross-Capacitive Humidity Sensor. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 2269-2276.	4.7	25

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19	A Sensitive Inexpensive SAW Sensor for Wide Range Humidity Measurement. IEEE Sensors Journal, 2020, 20, 546-551.	4.7	25
20	Anodic aluminium oxide based humidity sensor for online moisture monitoring of power transformer. Sensors and Actuators B: Chemical, 2021, 329, 128908.	7.8	25
21	A highly precise cross-capacitive sensor for metal debris detection in insulating oil. Review of Scientific Instruments, 2020, 91, 025005.	1.3	21
22	Highly sensitive thin-film capacitive sensor for online moisture measurement in transformer oil. IET Science, Measurement and Technology, 2020, 14, 416-422.	1.6	20
23	A Passive Wireless Tag With Digital Readout Unit for Wide Range Humidity Measurement. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 1013-1020.	4.7	19
24	Modelling of breather for transformer health assessment. IET Science, Measurement and Technology, 2017, 11, 194-203.	1.6	19
25	A Novel Sol-gel Thin-Film Constant Phase Sensor for High Humidity Measurement in the Range of 50%–100% RH. IEEE Sensors Journal, 2015, 15, 2370-2376.	4.7	18
26	A Novel Application of the Cross-Capacitive Sensor in Real-Time Condition Monitoring of Transformer Oil. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	4.7	18
27	Design and Fabrication of Fringing Field Capacitive Sensor for Non-Contact Liquid Level Measurement. IEEE Sensors Journal, 2021, 21, 24812-24819.	4.7	18
28	Linearization of the sensors characteristics: a review. International Journal on Smart Sensing and Intelligent Systems, 2019, 12, 1-21.	0.7	18
29	Study of Long Term Drift of Aluminum Oxide Thin Film Capacitive Moisture Sensor. IEEE Transactions on Device and Materials Reliability, 2018, 18, 180-188.	2.0	17
30	High-Precision Capacitive Sensors for Intravenous Fluid Monitoring in Hospitals. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	17
31	AN-Z2V: Autonulling-Based Multimode Signal Conditioning Circuit for R-C Sensors. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 8763-8772.	4.7	16
32	A Linear Capacitive Sensor for ppm Moisture Measurement in SF ₆ Gas-Insulated Switchgear. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	16
33	A Novel Humidity Sensor Based on the Extension of Thompson and Lampard Theorem. IEEE Transactions on Electron Devices, 2015, 62, 4237-4241.	3.0	15
34	Condition Monitoring of Transformer Breather Using a Capacitive Moisture Sensor. IEEE Transactions on Industrial Electronics, 2020, 67, 9779-9789.	7.9	15
35	Design and Fabrication of an Inexpensive Capacitive Humidity Sensor for Smart Sub-Station Automation. IEEE Sensors Journal, 2020, 20, 6215-6223.	4.7	15
36	A Novel Linear Capacitive Temperature Sensor Using Polydimethylsiloxane. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 7887-7894.	4.7	15

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37	A nanoporous thin-film miniature interdigitated capacitive impedance sensor for measuring humidity. International Journal of Smart and Nano Materials, 2014, 5, 169-179.	4.2	14
38	Design and Modeling of MEMS-Based Trace-Level Moisture Measurement System for GIS Applications in Smart Grid Environment. IEEE Sensors Journal, 2017, 17, 7758-7766.	4.7	14
39	Cross Capacitance Sensor for Insulation Oil Testing. IEEE Sensors Journal, 2021, 21, 20980-20989.	4.7	14
40	A Single Chip Integrated Sol-Gel Thin Film LC Sensor for Measuring Moisture in ppm Level. IEEE Sensors Journal, 2014, 14, 1148-1153.	4.7	13
41	Sensitivity Enhancement of a PPM Level Capacitive Moisture Sensor. Electronics (Switzerland), 2017, 6, 41.	3.1	13
42	A CCII-based wide frequency range square/triangular wave generator. , 2015, , .		12
43	The Oxide Film-Coated Surface Acoustic Wave Resonators for the Measurement of Relative Humidity. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	12
44	A CCII-based relaxation oscillator as a versatile interface for resistive and capacitive sensors. , 2016, , .		11
45	Advanced Interfacing Techniques for the Capacitive Sensors. Smart Sensors, Measurement and Instrumentation, 2017, , 73-109.	0.6	11
46	Fringing Field Impedance Sensor for Hydration Monitoring and Setting Time Determination of Concrete Material. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 2131-2138.	4.7	11
47	An efficient signal conditioning circuit to piecewise linearizing the response characteristic of highly nonlinear sensors. Sensors and Actuators A: Physical, 2018, 280, 559-572.	4.1	10
48	Fabrication of an anodized porous alumina relative humidity sensor with improved sensitivity. Instrumentation Science and Technology, 2020, 48, 128-145.	1.8	10
49	Accuracy analysis of oscillator-based active bridge circuit for linearly converting resistance to frequency. , 2013, , .		9
50	An accurate digital converter for lossy capacitive sensors. Sensors and Actuators A: Physical, 2021, 331, 112958.	4.1	9
51	$\gamma\text{-Al}_2\text{O}_3$ -Coated Porous Silicon for Trace Moisture Detection. IEEE Sensors Journal, 2011, 11, 882-887.	4.7	8
52	A Simple Method on Transformer Principle for Early Age Hydration Monitoring and Setting Time Determination of Concrete Materials. IEEE Sensors Journal, 2018, 18, 7265-7272.	4.7	8
53	A Dual-Slope-Based Capacitance-to-Time Signal Conditioning Circuit for Leaky Capacitive Sensors. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	8
54	ANFIS based identification and location of paper insulation faults of an oil immersed transformer. , 2014, , .		7

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55	A medium range hygrometer using nano-porous thin film of \hat{A}_2 -Al ₂ O ₃ with electronics phase detection. IEEE Sensors Journal, 2011, , .	4.7	6
56	A Cross-Conductive Sensor to Measure Bottled Water Quality. , 2021, , .		6
57	ANFIS based identification and location of paper insulation faults of an oil immersed transformer. , 2014, , .		5
58	Innovative Technologies and Services for Smart Cities. Electronics (Switzerland), 2019, 8, 376.	3.1	5
59	Design and fabrication of non-contact fringing field capacitive sensor for liquid level measurement. , 2019, , .		5
60	Investigation of Chip Temperature on Response Characteristics of the Humidity Sensor From ppm to %RH. IEEE Transactions on Device and Materials Reliability, 2020, 20, 576-583.	2.0	5
61	A constant phase impedance sensor for measuring conducting liquid level. ISA Transactions, 2021, 115, 250-258.	5.7	5
62	Fabrication of High Frequency Surface Acoustic Wave (SAW) Devices for Real Time Detection of Highly Toxic Chemical Vapors. International Journal on Smart Sensing and Intelligent Systems, 2015, 8, 1601-1623.	0.7	5
63	Fractional order sensor for measuring the quality of milk. Materials Today: Proceedings, 2019, 18, 1077-1085.	1.8	4
64	A novel design of the Parallel Plate Capacitive Sensor for Displacement Measurement. , 2019, , .		4
65	Porous Silicon Based Moisture Detector in the ppmV Range. Sensor Letters, 2008, 6, 746-751.	0.4	4
66	Precision Active Bridge Circuit for Measuring Incremental Resistance with ANN Compensation of Excitation Voltage Variation. Journal of Sensor Technology, 2011, 01, 57-64.	1.0	4
67	Effect of Polyethylene Glycol in Porous Alumina Based Thin Film Capacitive Humidity Sensor and Its Modelling. Transactions of the Indian Ceramic Society, 2013, 72, 47-51.	1.0	3
68	A highly sensitive readout circuitry for a wide range thin film capacitive humidity sensors. , 2014, , .		3
69	A Direct AC Cross Conductive Sensor for Milk Quality Measurement. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	4.7	3
70	Surface Acoustic Wave (SAW) vapour sensor using 70 MHz SAW oscillator. , 2012, , .		2
71	A low cost polyimide based metal oxide film RH sensor. , 2014, , .		2
72	A simple analog interface for capacitive sensor with offset and parasitic capacitance. , 2015, , .		2

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73	A differential interface for trace moisture sensor. , 2015, , .		2
74	Design and Development of a Non-Contact Cross-Capacitive Micro Droplet Detector. , 2018, , .		2
75	Electrical circuit model of an aged ceramic humidity sensor. Materials Today: Proceedings, 2019, 18, 822-829.	1.8	2
76	Assistive sensing technology for the elderly health monitoring. , 2020, , 185-223.		2
77	Cross-Conductive Sensor for Humidity Measurement in Gas for Gas Insulated Switchgears Application. , 2021, , .		2
78	A SENSITIVE DIGITAL MOISTURE DETECTOR FOR NANOSTRUCTURED THIN FILM SENSOR. International Journal on Smart Sensing and Intelligent Systems, 2014, 7, 1059-1076.	0.7	2
79	Moisture measurement of transformer oil using thin film capacitive sensor. , 2014, , .		1
80	A semi flexible integrated wireless humidity sensor. , 2015, , .		1
81	A flexible low cost RH humidity sensor on plastic foil. , 2015, , .		1
82	Development of virtual humidity sensor system. , 2015, , .		1
83	Design and fabrication of humidity sensor for condition monitoring of breather of transformer. , 2019, , .		1
84	Determination of the relative humidity at the parts-per-million (ppm) level in gases by a nanoporous alumina thin-film on a surface acoustic wave (SAW) resonator. Instrumentation Science and Technology, 0, , 1-14.	1.8	1
85	Design and Fabrication of Fringing Field Interdigital Sensors for Physical Parameters Measurement. Smart Sensors, Measurement and Instrumentation, 2021, , 71-90.	0.6	1
86	An oscillator based circuit for interfacing imperfect capacitive sensors. AIP Conference Proceedings, 2020, , .	0.4	1
87	Design of a Microwave Planar Device for Humidity Detection. Lecture Notes in Electrical Engineering, 2022, , 433-441.	0.4	1
88	An Accurate Model of Breather for Moisture Estimation for Transformer Health Monitoring. Lecture Notes in Electrical Engineering, 2022, , 385-395.	0.4	1
89	Development of Active Bridge Technique for Measuring Low Capacitance Over Wide Frequency Range. IETE Journal of Education Online, 2005, 46, 19-25.	0.6	0
90	Oscillator-Based Active Bridge Circuit for Resistance Measurement. , 2014, , .		0

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91	Moisture measurement of transformer oil using thin film capacitive sensor. , 2014, , .		0
92	Artificial neural network based implementation of Oommen's curve. , 2014, , .		0
93	Artificial neural network based implementation of Oommen's curve. , 2014, , .		0
94	A simple non invasive technique for structural health monitoring. , 2015, , .		0
95	Structural Health Monitoring Using Impedance Sensor. , 2019, , .		0
96	Recent Development of Interfacing Circuits for the Capacitive Sensors. , 2021, , .		0