

Ravibabu Mulaveesala

List of Publications by Year in descending order

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114
papers

1,669
citations

331670

21
h-index

315739

38
g-index

116
all docs

116
docs citations

116
times ranked

495
citing authors

#	ARTICLE	IF	CITATIONS
1	Theory of frequency modulated thermal wave imaging for nondestructive subsurface defect detection. Applied Physics Letters, 2006, 89, 191913.	3.3	233
2	Pulse compression approach to infrared nondestructive characterization. Review of Scientific Instruments, 2008, 79, 094901.	1.3	107
3	Coded excitation for infrared non-destructive testing of carbon fiber reinforced plastics. Review of Scientific Instruments, 2011, 82, 054902.	1.3	80
4	Defect detection by pulse compression in frequency modulated thermal wave imaging. Quantitative InfraRed Thermography Journal, 2005, 2, 41-54.	4.2	68
5	QUADRATIC FREQUENCY MODULATED THERMAL WAVE IMAGING FOR NON-DESTRUCTIVE TESTING. Progress in Electromagnetics Research M, 2012, 26, 11-22.	0.9	65
6	Three-Dimensional Pulse Compression for Infrared Nondestructive Testing. IEEE Sensors Journal, 2009, 9, 832-833.	4.7	62
7	Frequency-modulated thermal wave imaging for non-destructive testing of carbon fiber-reinforced plastic materials. Measurement Science and Technology, 2011, 22, 104018.	2.6	54
8	Pulse Compression Approach to Nonstationary Infrared Thermal Wave Imaging for Nondestructive Testing of Carbon Fiber Reinforced Polymers. IEEE Sensors Journal, 2015, 15, 663-664.	4.7	46
9	Barker coded thermal wave imaging for defect detection in carbon fibre-reinforced plastics. Insight: Non-Destructive Testing and Condition Monitoring, 2011, 53, 621-624.	0.6	45
10	Applications of Barker coded infrared imaging method for characterisation of glass fibre reinforced plastic materials. Electronics Letters, 2013, 49, 1071-1073.	1.0	39
11	Implementation of frequency-modulated thermal wave imaging for non-destructive sub-surface defect detection. Insight: Non-Destructive Testing and Condition Monitoring, 2005, 47, 206-208.	0.6	37
12	Interface study of bonded wafers by digitized linear frequency modulated thermal wave imaging. Sensors and Actuators A: Physical, 2006, 128, 209-216.	4.1	36
13	Applications of non-stationary thermal wave imaging methods for characterisation of fibre-reinforced plastic materials. Electronics Letters, 2013, 49, 118-119.	1.0	35
14	Comparative Data Processing Approaches for Thermal Wave Imaging Techniques for Non-Destructive Testing. Sensing and Imaging, 2011, 12, 15-33.	1.5	32
15	Hilbert transform-based pulse compression approach to infrared thermal wave imaging for sub-surface defect detection in steel material. Insight: Non-Destructive Testing and Condition Monitoring, 2014, 56, 550-552.	0.6	32
16	An independent component analysis based approach for frequency modulated thermal wave imaging for subsurface defect detection in steel sample. Infrared Physics and Technology, 2019, 98, 45-54.	2.9	31
17	Barker-Coded Thermal Wave Imaging for Non-Destructive Testing and Evaluation of Steel Material. IEEE Sensors Journal, 2019, 19, 735-742.	4.7	31
18	Frequency modulated thermal wave imaging techniques for non-destructive testing. Insight: Non-Destructive Testing and Condition Monitoring, 2010, 52, 475-480.	0.6	27

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19	Suitability of frequency modulated thermal wave imaging for skin cancer detectionâ€”A theoretical prediction. <i>Journal of Thermal Biology</i> , 2015, 51, 65-82.	2.5	27
20	Infrared Thermal Wave Imaging for Nondestructive Testing of Fibre Reinforced Polymers. <i>Experimental Mechanics</i> , 2015, 55, 1239-1245.	2.0	25
21	Depth resolved pulse compression favourable frequency modulated thermal wave imaging for quantitative characterization of glass fibre reinforced polymer. <i>Infrared Physics and Technology</i> , 2020, 110, 103441.	2.9	23
22	Cross-correlation-based approach for thermal non-destructive characterisation of carbon fibre reinforced plastics. <i>Insight: Non-Destructive Testing and Condition Monitoring</i> , 2011, 53, 34-36.	0.6	21
23	NON-DESTRUCTIVE EVALUATION OF CONCRETE STRUCTURES BY NON-STATIONARY THERMAL WAVE IMAGING. <i>Progress in Electromagnetics Research Letters</i> , 2012, 32, 39-48.	0.7	21
24	PULSE COMPRESSION WITH GAUSSIAN WEIGHTED CHIRP MODULATED EXCITATION FOR INFRARED THERMAL WAVE IMAGING. <i>Progress in Electromagnetics Research Letters</i> , 2014, 44, 133-137.	0.7	20
25	Effect of Spectral Reshaping on Frequency Modulated Thermal Wave Imaging for Non-destructive Testing and Evaluation of Steel Material. <i>Journal of Nondestructive Evaluation</i> , 2016, 35, 1.	2.4	20
26	Complementary coded thermal wave imaging scheme for thermal non-destructive testing and evaluation. <i>Quantitative InfraRed Thermography Journal</i> , 2017, 14, 44-53.	4.2	19
27	Defect Detection Capabilities of Pulse Compression Based Infrared Non-Destructive Testing and Evaluation. <i>IEEE Sensors Journal</i> , 2021, 21, 7940-7947.	4.7	19
28	An efficient data processing approach for frequency modulated thermal wave imaging for inspection of steel material. <i>Infrared Physics and Technology</i> , 2019, 103, 103083.	2.9	18
29	Gaussian windowed frequency modulated thermal wave imaging for non-destructive testing and evaluation of carbon fibre reinforced polymers. <i>Infrared Physics and Technology</i> , 2019, 98, 125-131.	2.9	18
30	Application of golay complementary coded excitation schemes for non-destructive testing of sandwich structures. <i>Optics and Lasers in Engineering</i> , 2017, 93, 36-39.	3.8	17
31	Novel Analytical Approach for Estimation of Thermal Diffusivity and Effusivity for Detection of Osteoporosis. <i>IEEE Sensors Journal</i> , 2020, 20, 6046-6054.	4.7	16
32	Investigations on pulse compression favourable thermal imaging approaches for characterisation of glass fibreâ€”reinforce polymers. <i>Electronics Letters</i> , 2020, 56, 995-998.	1.0	16
33	Digitised Frequency Modulated Thermal Wave Imaging for Non-destructive Testing and Evaluation of Glass Fibre Reinforced Polymers. <i>Nondestructive Testing and Evaluation</i> , 2019, 34, 23-32.	2.1	15
34	Infrared Non-Destructive Characterization of Boiler Tube. <i>Sensor Letters</i> , 2008, 6, 312-318.	0.4	13
35	Effect of spectral shaping on defect detection in frequency modulated thermal wave imaging. <i>Journal of Optics (United Kingdom)</i> , 2015, 17, 025604.	2.2	12
36	Applications of Frequency Modulated Thermal Wave Imaging For Non-destructive Characterization. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	11

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37	Experimental investigation on noise rejection capabilities of pulse compression favourable frequency modulated thermal wave imaging. Electronics Letters, 2019, 55, 352-353.	1.0	11
38	Applicability of active infrared thermography for screening of human breast: a numerical study. Journal of Biomedical Optics, 2018, 23, 1.	2.6	11
39	Probability of defect detection in pulse compression favourable frequency modulated thermal wave imaging. Electronics Letters, 2019, 55, 789-791.	1.0	10
40	Coded thermal wave imaging technique for infrared non-destructive testing and evaluation. Nondestructive Testing and Evaluation, 2019, 34, 243-253.	2.1	10
41	Subsurface detail fusion for anomaly detection in non-stationary thermal wave imaging. Insight: Non-Destructive Testing and Condition Monitoring, 2017, 59, 553-558.	0.6	10
42	Probability of Detecting the Deep Defects in Steel Sample using Frequency Modulated Independent Component Thermography. IEEE Sensors Journal, 2020, , 1-1.	4.7	9
43	Application of image fusion for the IR images in frequency modulated thermal wave imaging for Non Destructive Testing (NDT). Materials Today: Proceedings, 2018, 5, 544-549.	1.8	8
44	Pulse Compression Favorable Thermal Wave Imaging Techniques for Non-Destructive Testing and Evaluation of Materials. IEEE Sensors Journal, 2021, 21, 12789-12797.	4.7	8
45	Numerical approach to binary complementary Golay coded infrared thermal wave imaging. Proceedings of SPIE, 2014, , .	0.8	7
46	Modelling of the frequency modulated thermal wave imaging process through the finite element method for non-destructive testing of a mild steel sample. Insight: Non-Destructive Testing and Condition Monitoring, 2015, 57, 266-268.	0.6	7
47	Non-invasive and non-ionizing depth resolved infra-red imaging for detection and evaluation of breast cancer: a numerical study. Biomedical Physics and Engineering Express, 2016, 2, 055004.	1.2	7
48	Infrared thermography for detection and evaluation of bone density variations by non-stationary thermal wave imaging. Biomedical Physics and Engineering Express, 2017, 3, 017006.	1.2	7
49	Digitized Frequency Modulated Thermal Wave Imaging for Detection and Estimation of Osteoporosis. IEEE Sensors Journal, 2021, 21, 14003-14010.	4.7	7
50	Pulse compression favorable frequency modulated thermal wave imaging for non-destructive testing and evaluation: an analytical study. IOP SciNotes, 0, , .	0.8	7
51	Linear frequency modulated thermal wave imaging for estimation of osteoporosis: an analytical approach. Electronics Letters, 2020, 56, 1007-1010.	1.0	7
52	Phase sensitive digitized frequency modulated thermal wave imaging and pulse compression for NDE applications. , 2006, , .		6
53	Nondestructive evaluation of concrete structures by nonstationary thermal wave imaging. Proceedings of SPIE, 2012, , .	0.8	6
54	InfraRed image correlation for non-destructive testing and evaluation of delaminations in glass fibre reinforced polymer materials. Infrared Physics and Technology, 2021, 116, 103803.	2.9	6

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55	Physical insights into principal component thermography. Insight: Non-Destructive Testing and Condition Monitoring, 2020, 62, 277-280.	0.6	6
56	Efficient pulse compression favourable thermal excitation scheme for non-destructive testing using infrared thermography: a numerical study. Electronics Letters, 2020, 56, 1003-1005.	1.0	6
57	Theory, modeling, and simulations for thermal wave detection and ranging. Proceedings of SPIE, 2013, , .	0.8	5
58	Pulse compression favourable aperiodic infrared imaging approach for non-destructive testing and evaluation of bio-materials. Proceedings of SPIE, 2017, , .	0.8	5
59	Defect detection capabilities of independent component analysis for Barker coded thermal wave imaging. Infrared Physics and Technology, 2020, 104, 103118.	2.9	5
60	Constrained Autoencoder-Based Pulse Compressed Thermal Wave Imaging for Sub-Surface Defect Detection. IEEE Sensors Journal, 2022, 22, 17335-17342.	4.7	5
61	Infrared Image Correlation for Non-destructive Testing and Evaluation of Materials. Journal of Nondestructive Evaluation, 2021, 40, 1.	2.4	5
62	Pulse compression favorable thermal wave imaging methods for testing and evaluation of carbon fibre reinforced polymer. , 2020, , .		5
63	Probability of defect detection in pulse compression favourable thermal excitation schemes for infrared non-destructive testing. Electronics Letters, 2020, 56, 998-1000.	1.0	5
64	Novel pulse compression favorable excitation schemes for infrared non-destructive testing and evaluation of glass fibre reinforced polymer materials. Composite Structures, 2022, 286, 115338.	5.8	5
65	Recent advances in thermal wave detection and ranging for non-destructive testing and evaluation of materials. Proceedings of SPIE, 2013, , .	0.8	4
66	Pulse compression approach to digitized frequency modulated infrared imaging for non-destructive testing of carbon fibre reinforced polymers. , 2014, , .		4
67	Testing and evaluation of concrete structures by thermal wave imaging. , 2015, , .		4
68	Testing and evaluation of glass fiber reinforced polymers by thermal wave imaging. , 2015, , .		4
69	An analytical approach for frequency modulated thermal wave imaging for testing and evaluation of glass fiber reinforced polymers. IOP SciNotes, 2021, 2, 014403.	0.8	4
70	Probability of defect detection in glass fibre reinforced polymers using pulse compression favourable frequency modulated thermal wave imaging. Infrared Physics and Technology, 2021, 113, 103616.	2.9	4
71	Thermal wave imaging for non-destructive testing and evaluation of reinforced concrete structures. Insight: Non-Destructive Testing and Condition Monitoring, 2018, 60, 252-256.	0.6	4
72	Thermal non-destructive testing and evaluation for subsurface slag detection: numerical modelling. Insight: Non-Destructive Testing and Condition Monitoring, 2020, 62, 264-268.	0.6	4

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73	Probability of detection of deep defects in steel samples using Barker coded independent component thermography. Electronics Letters, 2020, 56, 1005-1007.	1.0	4
74	Thermal nondestructive evaluation of scaling in boiler tubes. , 2007, , .		3
75	Signal and image processing techniques for digitized frequency modulated thermal-wave imaging for characterization of fiber-reinforced plastics. , 2011, , .		3
76	Thermal wave imaging techniques for inspection of plywood materials. Proceedings of SPIE, 2012, , .	0.8	3
77	Nondestructive testing and evaluation of composites by non-invasive IR Imaging techniques. , 2013, , .		3
78	Detection of Subsurface Skin Lesion Using Frequency Modulated Thermal Wave Imaging: A Numerical Study. , 2013, , .		3
79	Applications of digitized frequency modulated thermal wave imaging for bone diagnostics. , 2015, , .		3
80	Non-destructive evaluation of carbon fiber reinforced polymer using Golay coded thermal wave imaging. Infrared Physics and Technology, 2021, 118, 103908.	2.9	3
81	Efficient selection of independent components for inspection of mild steel sample using infrared thermography. Electronics Letters, 2020, 56, 990-993.	1.0	3
82	Matched excitation for thermal nondestructive testing of carbon fiber reinforced plastic materials. Proceedings of SPIE, 2012, , .	0.8	2
83	Non-stationary thermal wave imaging for nondestructive testing and evaluation. Proceedings of SPIE, 2014, , .	0.8	2
84	Breast cancer detection using frequency modulated thermal wave imaging. Imaging Science Journal, 2019, 67, 396-406.	0.5	2
85	Applications of Infrared Thermography for Non-destructive Characterization of Concrete Structures. , 0, , .		2
86	Frequency Modulated Thermal Wave Imaging for Infrared Non-destructive Testing of Mild Steel. Mapan - Journal of Metrology Society of India, 2021, 36, 389-393.	1.5	2
87	InfraRed image correlation for non-destructive testing and evaluation. , 2021, , .		2
88	Non-Destructive Testing by Means of Frequency Modulated Infrared Imaging. International Journal of Computer and Communication Engineering, 0, , 635-638.	0.2	2
89	Active Infrared Imaging for Estimation of Sub-Surface Features in a Steel Material. Procedia Computer Science, 2020, 171, 1204-1211.	2.0	1
90	Statistical Post-processing Approaches for Active Infrared Thermography: A Comparative Study. , 2021, , .		1

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91	Infrared non-destructive testing and evaluation for inspection of carbon fiber reinforced polymer materials. , 2021, , .		1
92	Analytical Study of Frequency Modulated Thermography for Defect Estimation in Carbon Fibre Reinforced Polymer. , 2021, , .		1
93	Investigations on probability of defect detection using differential filtering for pulse compression favourable frequency modulated thermal wave imaging for inspection of glass fibre reinforced polymers. IOP SciNotes, 2020, 1, 024407.	0.8	1
94	Independent component analysis for pulse compressed frequency modulated thermal wave imaging for inspection of mild steel. IOP SciNotes, 2020, 1, 034401.	0.8	1
95	Corrosion detection in mild steel using effective post processing technique for modulated thermal imaging: A numerical study. , 2021, , .		1
96	Digitized Frequency Modulated Thermal Wave Imaging for Testing and Evaluation of Steel Materials. Lecture Notes in Mechanical Engineering, 2022, , 159-166.	0.4	1
97	Thermal Non-destructive Testing and Evaluation: Coming of Age. Journal of Information Technology & Software Engineering, 2013, 03, .	0.3	0
98	Non-destructive testing of steel sample by non-stationary thermal wave imaging. , 2015, , .		0
99	Signal and image processing techniques for testing and evaluation of glass fibre reinforced polymers. Proceedings of SPIE, 2015, , .	0.8	0
100	A numerical approach for testing and evaluation of mild steel material by thermal wave imaging. , 2015, , .		0
101	Detection of slags in structural steel sample using InfraRed thermal wave imaging. Materials Today: Proceedings, 2021, 45, 4629-4632.	1.8	0
102	A comparative study on widely used data processing approaches for infrared non-destructive testing and evaluation of concrete structures. , 2021, , .		0
103	Guest Editorial Special Issue on Advances and Current Trends in Sensing Physiological Parameters for Human Wellness and Patient Monitoring. IEEE Sensors Journal, 2021, 21, 13965-13966.	4.7	0
104	Cross-correlation Based Compression Techniques for Frequency Modulated Thermal Wave Imaging. , 2010, , .		0
105	Non stationary Infrared Imaging for Non destructive Characterization. Journal of Information Technology & Software Engineering, 2011, 01, .	0.3	0
106	Non-Destructive Testing and Evaluation by Thermal Wave Detection and Ranging. , 2015, , .		0
107	Complimentary Coded Thermal Wave Imaging Scheme for Thermal NonDestructive Testing and Evaluation. , 2015, , .		0
108	Advances in Non-Stationary Frequency Modulated Thermal Wave Imaging for Non-Destructive Testing and Evaluation. , 2015, , .		0

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109	Aperiodic Thermal Wave Imaging Approach for Non-Destructive Testing and Evaluation of Steel Material: A Numerical Study. Journal of Nanoengineering and Nanomanufacturing, 2016, 6, 265-269.	0.3	0
110	InfraRed Non-Destructive Testing of Glass Fibre Reinforced Composite Material for Detection of Sub-Surface Delamination. Materials Focus, 2017, 6, 394-397.	0.4	0
111	Special Feature on Nondestructive Evaluation of Materials. Measurement Science and Technology, 2021, 32, 030102.	2.6	0
112	Matched Filtering with Gaussian Windowed Frequency Modulated Thermal Wave Imaging for Non-destructive Testing and Evaluation of Mild Steel Sample. , 2021, , .		0
113	Guest Editorial: Non-Destructive Testing. Electronics Letters, 2020, 56, 972-973.	1.0	0
114	Pulse Compression Favourable Thermal Wave Imaging Approach for Estimation of Osteoporosis: A Numerical Study. , 2022, , .		0