Martin Glavin

List of Publications by Year
in descending order

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127	3,801	147726	143943
papers	citations	31	57
		h-index	g-index

127	127	127	3227
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A survey of image processing techniques for plant extraction and segmentation in the field. Computers and Electronics in Agriculture, 2016, 125, 184-199.	3.7	379
2	Intra-Vehicle Networks: A Review. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 534-545.	4.7	239
3	Microwave Breast Imaging: Clinical Advances and Remaining Challenges. IEEE Transactions on Biomedical Engineering, 2018, 65, 2580-2590.	2.5	198
4	Rear-Lamp Vehicle Detection and Tracking in Low-Exposure Color Video for Night Conditions. IEEE Transactions on Intelligent Transportation Systems, 2010, 11, 453-462.	4.7	195
5	Automatic crop detection under field conditions using the HSV colour space and morphological operations. Computers and Electronics in Agriculture, 2017, 133, 97-107.	3.7	175
6	Compressed Sensing for Bioelectric Signals: A Review. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 529-540.	3.9	140
7	Accuracy of fish-eye lens models. Applied Optics, 2010, 49, 3338.	2.1	108
8	Echocardiographic speckle reduction comparison. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 82-101.	1.7	95
9	Improved image processing-based crop detection using Kalman filtering and the Hungarian algorithm. Computers and Electronics in Agriculture, 2018, 148, 37-44.	3.7	91
10	Wide-angle camera technology for automotive applications: a review. IET Intelligent Transport Systems, 2009, 3, 19.	1.7	79
11	Equidistant Fish-Eye Calibration and Rectification by Vanishing Point Extraction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2010, 32, 2289-2296.	9.7	75
12	Quasi-Multistatic MIST Beamforming for the Early Detection of Breast Cancer. IEEE Transactions on Biomedical Engineering, 2010, 57, 830-840.	2.5	72
13	Detection of pedestrians in far-infrared automotive night vision using region-growing and clothing distortion compensation. Infrared Physics and Technology, 2010, 53, 439-449.	1.3	63
14	Adaptive Dictionary Reconstruction for Compressed Sensing of ECG Signals. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 645-654.	3.9	63
15	Evaluation of Image Reconstruction Algorithms for Confocal Microwave Imaging: Application to Patient Data. Sensors, 2018, 18, 1678.	2.1	62
16	DATA INDEPENDENT RADAR BEAMFORMING ALGORITHMS FOR BREAST CANCER DETECTION. Progress in Electromagnetics Research, 2010, 107, 331-348.	1.6	61
17	Distance determination for an automobile environment using inverse perspective mapping in OpenCV. , 2010, , .		55
18	Audio quality assessment techniquesâ€"A review, and recent developments. Signal Processing, 2009, 89, 1489-1500.	2.1	54

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19	Equidistant <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.gif" overflow="scroll"><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mi>f</mml:mi><mml:mi>Î¸</mml:mi><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 450 737 T distortion centre estimation. Image and Vision Computing, 2010, 28, 538-551.		
20	Overcoming Occlusion in the Automotive Environmentâ€"A Review. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 23-35.	4.7	44
21	SUPPORT VECTOR MACHINES FOR THE CLASSIFICATION OF EARLY-STAGE BREAST CANCER BASED ON RADAR TARGET SIGNATURES. Progress in Electromagnetics Research B, 2010, 23, 311-327.	0.7	42
22	COMPARISON OF PLANAR AND CIRCULAR ANTENNA CONFIGURATIONS FOR BREAST CANCER DETECTION USING MICROWAVE IMAGING. Progress in Electromagnetics Research, 2009, 99, 1-20.	1.6	40
23	Hybrid Artifact Removal for Confocal Microwave Breast Imaging. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 149-152.	2.4	40
24	EEG compression using JPEG2000: How much loss is too much?. , 2010, 2010, 614-7.		39
25	Automotive standards-grade lane departure warning system. IET Intelligent Transport Systems, 2012, 6, 44.	1.7	39
26	A Blind-Zone Detection Method Using a Rear-Mounted Fisheye Camera With Combination of Vehicle Detection Methods. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 264-278.	4.7	39
27	Microwave Breast Imaging: experimental tumour phantoms for the evaluation of new breast cancer diagnosis systems. Biomedical Physics and Engineering Express, 2018, 4, 025036.	0.6	37
28	Prediction of paroxysmal atrial fibrillation using new heart rate variability features. Computers in Biology and Medicine, 2021, 133, 104367.	3.9	37
29	Review of geometric distortion compensation in fish-eye cameras. , 2008, , .		36
30	Vision-based detection and tracking of vehicles to the rear with perspective correction in low-light conditions. IET Intelligent Transport Systems, 2011, 5, 1-10.	1.7	36
31	The Effects of Lossy Compression on Diagnostically Relevant Seizure Information in EEG Signals. IEEE Journal of Biomedical and Health Informatics, 2013, 17, 121-127.	3.9	34
32	ARTIFACT REMOVAL ALGORITHMS FOR MICROWAVE IMAGING OF THE BREAST. Progress in Electromagnetics Research, 2013, 141, 185-200.	1.6	33
33	ROTATING ANTENNA MICROWAVE IMAGING SYSTEM FOR BREAST CANCER DETECTION. Progress in Electromagnetics Research, 2010, 107, 203-217.	1.6	31
34	Nightâ€time pedestrian classification with histograms of oriented gradientsâ€local binary patterns vectors. IET Intelligent Transport Systems, 2015, 9, 75-85.	1.7	31
35	Review of pedestrian detection techniques in automotive farâ€infrared video. IET Intelligent Transport Systems, 2015, 9, 824-832.	1.7	31
36	A novel image processing-based system for turbidity measurement in domestic and industrial wastewater. Water Science and Technology, 2018, 77, 1469-1482.	1.2	31

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37	INVESTIGATION OF CLASSIFIERS FOR EARLY-STAGE BREAST CANCER BASED ON RADAR TARGET SIGNATURES. Progress in Electromagnetics Research, 2010, 105, 295-311.	1.6	30
38	Sensitivity and Specificity Estimation Using Patient-Specific Microwave Imaging in Diverse Experimental Breast Phantoms. IEEE Transactions on Medical Imaging, 2019, 38, 303-311.	5.4	30
39	Automatic calibration of fish-eye cameras from automotive video sequences. IET Intelligent Transport Systems, 2010, 4, 136.	1.7	29
40	An evaluation of the effects of wavelet coefficient quantisation in transform based EEG compression. Computers in Biology and Medicine, 2013, 43, 661-669.	3.9	29
41	FDTD MODELING OF THE BREAST: A REVIEW. Progress in Electromagnetics Research B, 2009, 18, 1-24.	0.7	28
42	Open-source Software for Microwave Radar-based Image Reconstruction. , 2018, , .		28
43	Lossy compression of EEG signals using SPIHT. Electronics Letters, 2011, 47, 1017.	0.5	26
44	Evaluation of Features and Classifiers for Classification of Early-stage Breast Cancer. Journal of Electromagnetic Waves and Applications, 2011, 25, 1-14.	1.0	26
45	SPIKING NEURAL NETWORKS FOR BREAST CANCER CLASSIFICATION IN A DIELECTRICALLY HETEROGENEOUS BREAST. Progress in Electromagnetics Research, 2011, 113, 413-428.	1.6	25
46	Energy-efficient Compressed Sensing for ambulatory ECG monitoring. Computers in Biology and Medicine, 2016, 71, 1-13.	3.9	25
47	Differential Evolution Optimization of the SAR Distribution for Head and Neck Hyperthermia. IEEE Transactions on Biomedical Engineering, 2017, 64, 1875-1885.	2.5	25
48	TRANSMITTER-GROUPING ROBUST CAPON BEAMFORMING FOR BREAST CANCER DETECTION. Progress in Electromagnetics Research, 2010, 108, 401-416.	1.6	24
49	Prefiltered Beamforming for Early-Stage Breast Cancer Detection. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 500-503.	2.4	24
50	Parameter Search Algorithms for Microwave Radar-Based Breast Imaging: Focal Quality Metrics as Fitness Functions. Sensors, 2017, 17, 2823.	2.1	24
51	EFFECTS OF FIBROGLANDULAR TISSUE DISTRIBUTION ON DATA-INDEPENDENT BEAMFORMING ALGORITHMS. Progress in Electromagnetics Research, 2009, 97, 141-158.	1.6	22
52	BREAST CANCER DETECTION BASED ON DIFFERENTIAL ULTRAWIDEBAND MICROWAVE RADAR. Progress in Electromagnetics Research M, 2011, 20, 231-242.	0.5	22
53	Next generation wired intra-vehicle networks, a review. , 2013, , .		21
54	Diagnosing Breast Cancer with Microwave Technology: remaining challenges and potential solutions with machine learning. Diagnostics, 2018, 8, 36.	1.3	21

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55	CHANNEL-RANKED BEAMFORMER FOR THE EARLY DETECTION OF BREAST CANCER. Progress in Electromagnetics Research, 2010, 103, 153-168.	1.6	20
56	Support Vector Machine-Based Ultrawideband Breast Cancer Detection System. Journal of Electromagnetic Waves and Applications, 2011, 25, 1807-1816.	1.0	20
57	A PREPROCESSING FILTER FOR MULTISTATIC MICROWAVE BREAST IMAGING FOR ENHANCED TUMOUR DETECTION. Progress in Electromagnetics Research B, 2014, 57, 115-126.	0.7	18
58	NUMERICAL MODELLING FOR ULTRA WIDEBAND RADAR BREAST CANCER DETECTION AND CLASSIFICATION. Progress in Electromagnetics Research B, 2011, 34, 145-171.	0.7	17
59	Adaptive artifact removal for selective multistatic microwave breast imaging signals. Biomedical Signal Processing and Control, 2017, 34, 93-100.	3.5	17
60	SPIKING NEURAL NETWORKS FOR BREAST CANCER CLASSIFICATION USING RADAR TARGET SIGNATURES. Progress in Electromagnetics Research C, 2010, 17, 79-94.	0.6	16
61	Impact of compressed sensing on clinically relevant metrics for ambulatory ECG monitoring. Electronics Letters, 2015, 51, 323-325.	0.5	16
62	Heart rate variability feature selection method for automated prediction of sudden cardiac death. Biomedical Signal Processing and Control, 2021, 65, 102310.	3.5	16
63	A review of automotive infrared pedestrian detection techniques. , 2008, , .		14
64	Multiple-camera lane departure warning system for the automotive environment. IET Intelligent Transport Systems, 2012, 6, 223.	1.7	14
65	Prediction of Sudden Cardiac Death in Implantable Cardioverter Defibrillators: A Review and Comparative Study of Heart Rate Variability Features. IEEE Reviews in Biomedical Engineering, 2020, 13, 5-16.	13.1	13
66	Removal of non-uniform complex and compound shadows from textured surfaces using adaptive directional smoothing and the thin plate model. IET Image Processing, 2011, 5, 233.	1.4	12
67	Focal quality metrics for the objective evaluation of confocal microwave images. International Journal of Microwave and Wireless Technologies, 2017, 9, 1365-1372.	1.5	12
68	The potential of time-multiplexed steering in phased array microwave hyperthermia for head and neck cancer treatment. Physics in Medicine and Biology, 2018, 63, 135023.	1.6	12
69	PERFORMANCE AND ROBUSTNESS OF A MULTISTATIC MIST BEAMFORMING ALGORITHM FOR BREAST CANCER DETECTION. Progress in Electromagnetics Research, 2010, 105, 403-424.	1.6	11
70	Low power compression of EEG signals using JPEG2000. , 2010, , .		9
71	Shadow identification for digital imagery using colour and texture cues. IET Image Processing, 2012, 6, 148.	1.4	9
72	A Cloud-based Distributed Data Collection System for Decentralised Wastewater Treatment Plants. Procedia Engineering, 2015, 119, 464-469.	1.2	9

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73	Estimating average dielectric properties for microwave breast imaging using focal quality metrics. , 2016, , .		9
74	A multistage selective weighting method for improved microwave breast tomography. Computerized Medical Imaging and Graphics, 2016, 54, 6-15.	3.5	9
75	Development of Clinically Informed 3-D Tumor Models for Microwave Imaging Applications. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 520-523.	2.4	9
76	Comparing Radar-Based Breast Imaging Algorithm Performance with Realistic Patient-Specific Permittivity Estimation. Journal of Imaging, 2019, 5, 87.	1.7	9
77	EFFECTS OF DIELECTRIC HETEROGENEITY IN THE PERFORMANCE OF BREAST TUMOUR CLASSIFIERS. Progress in Electromagnetics Research M, 2011, 17, 73-86.	0.5	8
78	Improved Confocal Microwave Imaging of the breast using path-dependent signal weighting. , 2011, , .		8
79	A saliency weighted no-reference perceptual blur metric for the automotive environment. , 2013, , .		8
80	Hybrid testbed for simulating in-vehicle automotive networks. Simulation Modelling Practice and Theory, 2016, 66, 193-211.	2.2	8
81	Using image processing for determination of settled sludge volume. Water Science and Technology, 2018, 78, 390-401.	1.2	8
82	RFID Patient Tagging and Database System. , 0, , .		7
83	CONTRAST ENHANCED BEAMFORMING FOR BREAST CANCER DETECTION. Progress in Electromagnetics Research B, 2011, 28, 219-234.	0.7	7
84	Development of anatomically and dielectrically accurate breast phantoms for microwave imaging applications. , 2014, , .		7
85	Performance of leading artifact removal algorithms assessed across microwave breast imaging prototype scan configurations. Computerized Medical Imaging and Graphics, 2017, 58, 33-44.	3.5	7
86	Robustness of Time-Multiplexed Hyperthermia to Temperature Dependent Thermal Tissue Properties. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2020, 4, 126-132.	2.3	7
87	An Analysis of Driver Gaze Behaviour at Roundabouts. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 8715-8724.	4.7	7
88	A comparison of data-independent microwave beamforming algorithms for the early detection of breast cancer. , 2009, 2009, 2731-4.		6
89	Antenna configurations for ultra wide band radar detection of breast cancer. Proceedings of SPIE, 2009, , .	0.8	5
90	Efficient EEG compression using JPEG2000 with coefficient thresholding. , 2010, , .		5

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91	The effect of lossy ECG compression on QRS and HRV feature extraction. , 2010, 2010, 634-7.		5
92	A novel optimized parallelization strategy to accelerate microwave tomography for breast cancer screening. , 2014, 2014, 2456-9.		5
93	Avoiding unnecessary breast biopsies: Clinically-informed 3D breast tumour models for microwave imaging applications. , 2014, , .		5
94	Performance optimization for pedestrian detection on degraded video using natural scene statistics. Journal of Electronic Imaging, 2014, 23, 061114.	0.5	5
95	An Efficient Region of Interest Generation Technique for Far-Infrared Pedestrian Detection. , 2008, , .		4
96	Objective and subjective evaluations of quality for speckle reduced echocardiography. , 2009, 2009, 503-6.		4
97	THE EFFECTS OF COMPRESSION ON ULTRA WIDEBAND RADAR SIGNALS. Progress in Electromagnetics Research, 2011, 117, 51-65.	1.6	4
98	Development of breast and tumour models for simulation of novel multimodal PEM-UWB technique for detection and classification of breast tumours. , 2012, , .		4
99	Development of a wearable microwave bladder monitor for the management and treatment of urinary incontinence. Proceedings of SPIE, 2014, , .	0.8	4
100	Equalization of a dynamic channel with forward error correction using an adaptive precoder. , 0, , .		3
101	Classification of suspicious regions within ultrawideband radar images of the breast. , 2008, , .		3
102	PROTOTYPE ULTRA WIDEBAND RADAR SYSTEM FOR BLADDER MONITORING APPLICATIONS. Progress in Electromagnetics Research C, 2012, 33, 17-28.	0.6	3
103	Detailed evaluation of artifact removal algorithms for radar-based microwave imaging of the breast. , 2015, , .		3
104	Evaluation of Experimental Microwave Radar-Based Images: Evaluation Criteria. , 2018, , .		3
105	The Effects of Compression on the Detection of Atrial Fibrillation in ECG Signals. Applied Sciences (Switzerland), 2021, 11, 5908.	1.3	3
106	Confocal Microwave Imaging. Biological and Medical Physics Series, 2016, , 47-73.	0.3	3
107	Effects of Non-Uniform Quantization on ECG acquired using Compressed Sensing. , 2014, , .		3
108	Equalization of digital subscriber lines under dynamic channel conditions. Signal Processing, 2004, 84, 853-864.	2.1	2

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109	Comparison of A Planar and Finite Difference Time Domain Technique to Simulate the Propagation of Electromagnetic Waves in Biological Tissue. , 2006, , .		2
110	Design of a Personal Cardiovascular Monitoring System with ECG and Stethoscopic Analysis. , 2008, , .		2
111	EVOLVING SPIKING NEURAL NETWORK TOPOLOGIES FOR BREAST CANCER CLASSIFICATION IN A DIELECTRICALLY HETEROGENEOUS BREAST. Progress in Electromagnetics Research Letters, 2011, 25, 153-162.	0.4	2
112	Boundary detection in echocardiography using a Split Bregman edge detector and a topology preserving level set approach. , 2013, , .		2
113	An oriented gradient based image quality metric for pedestrian detection performance evaluation. Signal Processing: Image Communication, 2015, 31, 61-75.	1.8	2
114	Effects of Interpatient Variance on Microwave Breast Images: Experimental Evaluation. , 2018, 2018, 5660-5663.		2
115	Compressive sampling for time critical microwave imaging applications. Healthcare Technology Letters, 2014, 1, 6-12.	1.9	1
116	A comprehensive test framework to determine the spatial performance of camera-based vehicle detection algorithms. , 2014, , .		1
117	A simple boundary reinforcement technique for segmentation without prior. Pattern Recognition Letters, 2014, 46, 27-35.	2.6	1
118	Evaluating the influence of packet loss on visual quality of perception for high bandwidth automotive networks. Signal Processing: Image Communication, 2016, 43, 15-27.	1.8	1
119	Imaging for the Automotive Environment. , 2016, , 491-511.		1
120	The Effects of Breast Tissue Heterogeneity on Data-adaptive Beamforming. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2010, 6, 740-745.	0.4	1
121	Anatomy and Dielectric Properties of the Breast and Breast Cancer. Biological and Medical Physics Series, 2016, , 5-16.	0.3	1
122	A time-delayed DFE QAM adaptive precoder. , 2004, , .		0
123	Personal Interactive Bipedal Sym metry Re - education System to Aid the Recovery of Stroke Victims. , 2008, , .		0
124	Imaging and classification of breast cancer with multimodal PEM-UWB techniques. , 2013, , .		0
125	A massively parallel SIMD framework for fast 3D microwave tomography. , 2017, , .		0
126	Fourier Mellin transform characterisation in the automotive environment. Signal, Image and Video Processing, 2018, 12, 1587-1594.	1.7	0

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127	Imaging for the Automotive Environment. , 2015, , 1-18.		0