

Mohamed Deriche

List of Publications by Year in descending order

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Version: 2024-02-01

175
papers

2,449
citations

279701

23
h-index

289141

40
g-index

180
all docs

180
docs citations

180
times ranked

1833
citing authors

#	ARTICLE	IF	CITATIONS
1	Scale-space properties of the multiscale morphological dilation-erosion. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1996, 18, 38-51.	9.7	235
2	A bibliography of pixel-based blind image forgery detection techniques. Signal Processing: Image Communication, 2015, 39, 46-74.	1.8	127
3	Arabic sign language recognition using the leap motion controller. , 2014, , .		103
4	Classifiers Combination Techniques: A Comprehensive Review. IEEE Access, 2018, 6, 19626-19639.	2.6	93
5	Image-Based and Sensor-Based Approaches to Arabic Sign Language Recognition. IEEE Transactions on Human-Machine Systems, 2014, 44, 551-557.	2.5	91
6	Unveiling the Hidden Assumptions of Energy Detector Based Spectrum Sensing for Cognitive Radios. IEEE Communications Surveys and Tutorials, 2014, 16, 713-728.	24.8	82
7	3D registration using a new implementation of the ICP algorithm based on a comprehensive lookup matrix: Application to medical imaging. Pattern Recognition Letters, 2007, 28, 1523-1533.	2.6	79
8	A new approach for salt dome detection using a 3D multidirectional edge detector. Applied Geophysics, 2015, 12, 334-342.	0.1	59
9	Maximum likelihood estimation of the parameters of discrete fractionally differenced Gaussian noise process. IEEE Transactions on Signal Processing, 1993, 41, 2977-2989.	3.2	56
10	Subsurface Structure Analysis Using Computational Interpretation and Learning: A Visual Signal Processing Perspective. IEEE Signal Processing Magazine, 2018, 35, 82-98.	4.6	56
11	A new wavelet based efficient image compression algorithm using compressive sensing. Multimedia Tools and Applications, 2016, 75, 6737-6754.	2.6	51
12	Signal modeling with filtered discrete fractional noise processes. IEEE Transactions on Signal Processing, 1993, 41, 2839-2849.	3.2	50
13	A critical survey of state-of-the-art image inpainting quality assessment metrics. Journal of Visual Communication and Image Representation, 2017, 49, 177-191.	1.7	50
14	Towards the design of a consistent image contrast enhancement evaluation measure. Signal Processing: Image Communication, 2017, 58, 212-227.	1.8	46
15	An Intelligent Arabic Sign Language Recognition System Using a Pair of LMCs With GMM Based Classification. IEEE Sensors Journal, 2019, 19, 8067-8078.	2.4	46
16	A signer-independent Arabic Sign Language recognition system using face detection, geometric features, and a Hidden Markov Model. Computers and Electrical Engineering, 2012, 38, 422-433.	3.0	39
17	A texture-based interpretation workflow with application to delineating salt domes. Interpretation, 2017, 5, SJ1-SJ19.	0.5	39
18	Arabic Sign Language Recognition an Image-Based Approach. , 2007, , .		31

#	ARTICLE	IF	CITATIONS
19	A new mutual information based measure for feature selection. Intelligent Data Analysis, 2003, 7, 43-57.	0.4	30
20	Detection of Salt-dome Boundary Surfaces in Migrated Seismic Volumes Using Gradient of Textures. , 2015, , .		30
21	A novel fingerprint image compression technique using wavelets packets and pyramid lattice vector quantization. IEEE Transactions on Image Processing, 2002, 11, 1365-1378.	6.0	28
22	Deep Neural Networks with Extreme Learning Machine for Seismic Data Compression. Arabian Journal for Science and Engineering, 2020, 45, 1367-1377.	1.7	28
23	A new reference-free image quality index for blur estimation in the frequency domain. , 2009, , .		27
24	Nonlinear forward path tracking controller for helicopter with slung load. Aerospace Science and Technology, 2017, 69, 602-608.	2.5	27
25	A hybrid system for distortion classification and image quality evaluation. Signal Processing: Image Communication, 2012, 27, 948-960.	1.8	26
26	A Distributed Principal Component Analysis Compression for Smart Seismic Acquisition Networks. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 3020-3029.	2.7	26
27	A hybrid approach for salt dome detection in 2D and 3D seismic data. , 2015, , .		25
28	Salt-Dome Detection Using a Codebook-Based Learning Model. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1636-1640.	1.4	24
29	Wireless Sensor Networks for Pilgrims Tracking. IEEE Embedded Systems Letters, 2012, 4, 106-109.	1.3	23
30	A multi-classifier image based vacant parking detection system. , 2013, , .		23
31	A review on copy move image forgery detection techniques. , 2014, , .		23
32	Prototype Arabic Sign language recognition using multi-sensor data fusion of two leap motion controllers. , 2015, , .		21
33	An IoT-Based School Bus and Vehicle Tracking System Using RFID Technology and Mobile Data Networks. Arabian Journal for Science and Engineering, 2021, 46, 3087-3097.	1.7	21
34	A survey of image-based Arabic sign language recognition. , 2014, , .		20
35	A comparative study of texture attributes for characterizing subsurface structures in seismic volumes. Interpretation, 2018, 6, T1055-T1066.	0.5	20
36	Elimination of Water Signal by Postprocessing. Journal of Magnetic Resonance Series A, 1993, 101, 229-232.	1.6	17

#	ARTICLE	IF	CITATIONS
37	Arabic sign language recognition by decisions fusion using Dempster-Shafer theory of evidence. , 2013, , ,		17
38	Eigenspace Time Frequency Based Features for Accurate Seizure Detection from EEG Data. Irbm, 2019, 40, 122-132.	3.7	17
39	Feature selection using a mutual information based measure. , 0, , .		16
40	Trends and Challenges in Mono and Multi Biometrics. , 2008, , .		16
41	Automated salt-dome detection using an attribute ranking framework with a dictionary-based classifier. Interpretation, 2017, 5, SJ61-SJ79.	0.5	16
42	An optimal feature selection technique using the concept of mutual information. , 0, , .		15
43	Soft constraint satisfaction multimodulus blind equalization algorithms. IEEE Signal Processing Letters, 2005, 12, 637-640.	2.1	15
44	A critical look to some contrast enhancement evaluation measures. , 2015, , .		15
45	A Two-Stage Hierarchical Bilingual Emotion Recognition System Using a Hidden Markov Model and Neural Networks. Arabian Journal for Science and Engineering, 2017, 42, 5231-5249.	1.7	15
46	Preference-based smart parking system in a university campus. IET Intelligent Transport Systems, 2019, 13, 417-423.	1.7	15
47	Image based arabic sign language recognition. , 0, , .		14
48	Robust human face detection in complex color images. , 2005, , .		14
49	Feature Selection using Ant Colony Optimization. , 2009, , .		14
50	Arabie sign language recognition using the Microsoft Kinect. , 2016, , .		14
51	A new algorithm for EEG feature selection using mutual information. , 0, , .		13
52	A new histogram-based estimation technique of entropy and mutual information using mean squared error minimization. Computers and Electrical Engineering, 2013, 39, 918-933.	3.0	13
53	Robust Concurrent Detection of Salt Domes and Faults in Seismic Surveys Using an Improved UNet Architecture. IEEE Access, 2022, 10, 39424-39435.	2.6	13
54	A novel pitch estimation technique using the Teager energy function. , 0, , .		12

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55	Automatic fault tracking across seismic volumes via tracking vectors. , 2014, , .		12
56	A Novel Approach for Salt Dome Detection using A Dictionary-based Classifier. , 2015, , .		12
57	An IOT based sensing system for remote monitoring of PV panels. , 2019, , .		12
58	A Unified Approach to BER Analysis of Synchronous Downlink CDMA Systems with Random Signature Sequences in Fading Channels with Known Channel Phase. Eurasip Journal on Advances in Signal Processing, 2007, 2008, .	1.0	11
59	Wind Speed Forecasting Using the Stationary Wavelet Transform and Quaternion Adaptive-Gradient Methods. IEEE Access, 2021, 9, 127356-127367.	2.6	11
60	A comprehensive performance evaluation of objective quality metrics for contrast enhancement techniques. , 2016, , .		10
61	A high impedance fault detector using a neural network and subband decomposition. , 0, , .		9
62	A Novel Audio Coding Scheme Using Warped Linear Prediction Model and the Discrete Wavelet Transform. IEEE Transactions on Audio Speech and Language Processing, 2006, 14, 2039-2048.	3.8	9
63	Recognition of Arabic License Plates using NN. , 2008, , .		9
64	A novel approach for pileup detection in gamma-ray spectroscopy using deconvolution. Measurement Science and Technology, 2008, 19, 065601.	1.4	9
65	Characterization of migrated seismic volumes using texture attributes: a comparative study. , 2015, , .		9
66	Arabic Sign Language Recognition Using Deep Machine Learning. , 2021, , .		8
67	An eigenstructure approach to edge detection. IEEE Transactions on Image Processing, 1993, 2, 353-368.	6.0	7
68	An efficient quantization technique for wavelet coefficients of fingerprint images. Signal Processing, 1997, 62, 361-366.	2.1	7
69	A novel approach to speech segmentation using the wavelet transform. , 0, , .		7
70	Bearing fault diagnosis using wavelet analysis. , 2005, , .		7
71	Sigma Point Kalman Filters for multipath channel estimation in CDMA networks. , 2009, , .		7
72	Image distortion analysis and classification scheme using a neural approach. , 2010, , .		7

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73	An Image Quality Index Based on Mutual Information and Neural Networks. Arabian Journal for Science and Engineering, 2014, 39, 1983-1993.	1.1	7
74	Disributed principal component analysis for data compression of sequential seismic sensor arrays. , 2016, , .		7
75	An Intelligent System for Vehicle Access Control using RFID and ALPR Technologies. Arabian Journal for Science and Engineering, 2016, 41, 3521-3530.	1.1	7
76	On the Early Detection of COVID19 using Advanced Machine Learning Techniques: A Review. , 2021, , .		7
77	Hierarchical approach to formant detection and tracking through instantaneous frequency estimation. Electronics Letters, 1997, 33, 17.	0.5	6
78	A hybrid RFID-LPR system for vehicle access control during Pilgrimage season in Saudi Arabia. , 2012, , .		6
79	A two-threshold cooperative spectrum sensing algorithm using swarm intelligence. , 2013, , .		6
80	A memory-assisted lossless compression algorithm for medical images. , 2014, , .		6
81	Dual LMCs fusion for recognition of isolated Arabic sign language words. , 2017, , .		6
82	Ceed - A Database for Image Contrast Enhancement Evaluation. , 2018, , .		6
83	A Hybrid Unsupervised Segmentation Algorithm for Arabic Speech Using Feature Fusion and a Genetic Algorithm (July 2018). IEEE Access, 2018, 6, 43157-43169.	2.6	6
84	<title>Establishing perceptual limits for medical image compression</title>. , 2001, 4324, 204.		5
85	A universal Full Reference image Quality Metric based on a neural fusion approach. , 2010, , .		5
86	A Fast Geodesic Active Contour Model for Medical Image Segmentation Using Prior Analysis and Wavelets. Arabian Journal for Science and Engineering, 2014, 39, 1017-1037.	1.1	5
87	An information based framework for performance evaluation of image enhancement methods. , 2015, , .		5
88	Quantifying blur in colour images using higher order singular values. Electronics Letters, 2016, 52, 1755-1757.	0.5	5
89	Phase Congruency for image understanding with applications in computational seismic interpretation. , 2017, , .		5
90	A Two-Stage Hierarchical Multilingual Emotion Recognition System Using Hidden Markov Models and Neural Networks. , 2017, , .		5

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91	A Multitone Model-Based Seismic Data Compression. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 1030-1040.	5.9	5
92	A new approach to modeling excitation in very low-rate speech coding. , 0, , .		4
93	A new approach to low bit rate audio coding using a combined harmonic-multiband-wavelet representation. , 0, , .		4
94	A robust technique for harmonic analysis of speech. , 0, , .		4
95	Anti-Swing Nonlinear Path Tracking Controller for Helicopter Slung Load System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 134-141.	0.4	4
96	Seismic Data Compression Using Signal Alignment and PCA. , 2017, , .		4
97	A Novel Ranking Algorithm of Enhanced Images using a Convolutional Neural Network and a Saliency-based Patch Selection Scheme. , 2019, , .		4
98	New attributes for salt dome detection in 3D seismic data using higher order SVD. Journal of Applied Geophysics, 2019, 163, 108-116.	0.9	4
99	Color image segmentation by combining the convex active contour and the Chan Vese model. Pattern Analysis and Applications, 2019, 22, 343-357.	3.1	4
100	Multiple Events Detection In Seismic Structures Using A Novel U-Net Variant. , 2020, , .		4
101	An RFID-Based Monitoring and Localization System for Dementia Patients. , 2021, , .		4
102	A new audio coder using a warped linear prediction model and the wavelet transform. , 2002, , .		3
103	Combined source channel decoding for image transmission over fading channels. , 0, , .		3
104	2D-6 Automatic Detection of High Temperature Hydrogen Attack Defects from Ultrasonic A-Scan Signals. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	3
105	A real-time license plate recognition system for Saudi Arabia using LabVIEW. , 2012, , .		3
106	On the validity of Gaussian approximations to exact test statistics of energy detector based spectrum sensing for cognitive radios. , 2014, , .		3
107	Robust salt-dome detection using the ranking of texture-based attributes. Applied Geophysics, 2016, 13, 449-458.	0.1	3
108	Multi-operator spectrum sharing in next generation wireless communications networks: A short review and roadmap to future. , 2017, , .		3

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109	A detailed analysis of photovoltaic panel hot spot phenomena based on the bishop model. , 2017, , .		3
110	A Bilingual Emotion Recognition System Using Deep Learning Neural Networks. , 2018, , .		3
111	Fault Detection Using Attention Models Based on Visual Saliency. , 2018, , .		3
112	Self-Supervised Annotation of Seismic Images Using Latent Space Factorization. , 2020, , .		3
113	A Ubiquitous Telehealth System for the Elderly. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 159-166.	0.2	3
114	Hybrid Cooperative Energy Detection Techniques in Cognitive Radio Networks. Advances in Wireless Technologies and Telecommunication Book Series, 2015, , 1-37.	0.3	3
115	Adaptive-width approximation of events in temporal decomposition based speech coding. Electronics Letters, 1996, 32, 2189.	0.5	2
116	Riding the wave of new strategies in engineering education. , 0, , .		2
117	Performance analysis of normalized least mean p-norm lattice algorithm for alpha-stable processes. , 0, , .		2
118	A hybrid information maximisation (HIM) algorithm for optimal feature selection from multi-channel data. , 0, , .		2
119	Interpolative coding of speech parameters using hierarchical temporal decomposition. , 2003, 13, 433-456.		2
120	Analysis of multiple access interference in synchronous downlink CDMA systems with random signature sequences in AWGN and fading environments. , 2007, , .		2
121	The comprehensive ICP (CICP) algorithm and its application to the multidmoal registration of 3D surfaces of the heart. , 2008, , .		2
122	A novel approach for multipath channel estimation in CDMA networks using the Unscented Kalman Filter. , 2009, , .		2
123	A new scheme for no reference image quality assessment. , 2012, , .		2
124	Robust image segmentation based on convex active contours and the Chan Vese model. , 2014, , .		2
125	A fast no reference image quality assessment using laws texture moments. , 2014, , .		2
126	Variable Step-Size Transform Domain ILMS and DLMS algorithms with system identification over adaptive networks. , 2015, , .		2

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127	Implementation and evaluate the no-reference image quality assessment based on spatial and spectral entropies on the different image quality databases. , 2015, , .		2
128	An image compression algorithm using reordered wavelet coefficients with compressive sensing. , 2015, , .		2
129	Fault detection using seismic attributes and visual saliency. , 2016, , .		2
130	A color recognition system for the visually impaired people. , 2017, , .		2
131	Breast Density Classification Using a Bag of Features and an SVM Classifier. , 2017, , .		2
132	Bilateral Filters with Elliptical Gaussian Kernels for Seismic Surveys Denoising. , 2019, , .		2
133	An Optimal Set of Features for Multi-Class Heart Beat Abnormality Classification. , 2019, , .		2
134	Preliminary investigation into the use of the cross Wigner-Ville distribution to detect high impedance earth faults in power systems. , 2003, , .		1
135	Pose-Invariant Face Recognition Using Subspace Techniques. , 2005, , 169-200.		1
136	Intelligent Iris Recognition Using Neural Networks. , 2005, , 145-167.		1
137	On the performance of adaptive steerable antenna arrays in communication applications. , 2005, , .		1
138	A Noise Constrained Least Mean Fourth Adaptive Algorithm. , 2007, , .		1
139	Comparison of Derivative Based and Derivative Free Kalman Filters for Multipath Channel Estimation in CDMA Networks. , 2009, , .		1
140	Multuser channel estimation for closely spaced multipath CDMA signals using the unscented Kalman filter. International Journal of Ultra Wideband Communications and Systems, 2009, 1, 151.	0.0	1
141	A novel speaker identification algorithm using classifiers fusion. , 2010, , .		1
142	Statistical Modeling of Image Degradation Based on Quality Metrics. , 2010, , .		1
143	Real-time implementation of a deconvolution filter for gamma ray spectroscopy. Instruments and Experimental Techniques, 2011, 54, 30-36.	0.1	1
144	Multichannel feature selection using information maximization with application to multichannel EEG signals. Journal of Communications Technology and Electronics, 2011, 56, 838-846.	0.2	1

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145	A multilevel memory-assisted lossless compression algorithm for medical images. , 2015, , .		1
146	A novel approach for salt dome detection in seismic surveys using a hidden Markov model. , 2016, , .		1
147	On the performance of wavelet families in face recognition using a multilayer perceptron neural network classifier. , 2017, , .		1
148	On the performance of ensemble-based classifiers for Arabic speech recognition. , 2017, , .		1
149	A Multiclass Epilepsy Identification Technique Using Wavelet-Based Features. , 2018, , .		1
150	EPBT and CO ₂ emission from solar PV monocrystalline silicon. , 2018, , .		1
151	An Improved Revocable Fuzzy Vault Scheme for Face Recognition Under Unconstrained Illumination Conditions. Arabian Journal for Science and Engineering, 2019, 44, 7203-7217.	1.7	1
152	Blind noise estimation and denoising filter for recovery of microquake signals. Exploration Geophysics, 2019, 50, 502-513.	0.5	1
153	An IoT Based Inventory System for High Value Laboratory Equipment. , 2019, , .		1
154	Improving detection of linear FM signals in noise using adaptive lattice filters. Electronics Letters, 1997, 33, 1032.	0.5	1
155	IMPROVED VSF ALGORITHM FOR SMOOTH SURFACE RECONSTRUCTION FROM SPARSE MEDICAL DATA. Journal of Computing and Information Technology, 2007, 15, 123.	0.2	1
156	Dynamic Load Balancing At Individual Nodes In LAN. , 1988, , .		0
157	Low bit-rate audio coder using an M-band multiresolution filter bank. Electronics Letters, 1997, 33, 262.	0.5	0
158	Interpolation of pitch contour using temporal decomposition. International Journal of Speech Technology, 1998, 2, 215-225.	1.4	0
159	An improved model for speech excitation using time-frequency characterisation. , 0, , .		0
160	A novel algorithm for low bit rate speech compression using a hybrid LP-harmonics model. , 0, , .		0
161	Wideband audio compression using a combined wavelet and WLPC representation. , 0, , .		0
162	A hybrid LP-harmonics model for low bit-rate speech compression with natural quality. , 0, , .		0

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163	An algorithm for reducing the effect of compression/decompression techniques on fingerprint minutiae. , 2001, , .		0
164	A new algorithm for multi-channel EEG signal analysis using mutual information. , 2002, , .		0
165	Warped ARMA filters in high quality audio coding. , 2003, , .		0
166	Multi-Channel Subspace Mapping Using an Information Maximization Criterion. Multidimensional Systems and Signal Processing, 2004, 15, 117-145.	1.7	0
167	Effect of local measure on performance of the ant feature selection algorithm. , 2005, , .		0
168	A novel scalable audio coder based on warped linear prediction and the wavelet transform. , 2006, , .		0
169	A distortion-based ranking of image quality indices using mutual information. , 2010, , .		0
170	A fast Geodesic Active Contour model for medical images segmentation using prior analysis. , 2010, , .		0
171	CDMA multiuser radiolocation. , 2010, , .		0
172	An Efficient Algorithm for a Weighted Cooperative Spectrum Sensing in Cognitive Networks. , 2017, , .		0
173	Variable Step-Size Discrete Cosine Transform Diffusion LMS over Multi-task Networks. , 2018, , .		0
174	LMS for Truncate CSI Feedback in Massive MIMO. , 2019, , .		0
175	Closely Spaced Multipath Channel Estimation in CDMA Networks Using Divided Difference Filter. Communications in Computer and Information Science, 2009, , 634-644.	0.4	0