Pedro GÃ³mez Vilda

List of Publications by Year
in descending order

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Version: 2024-02-01

129	1,864	430874	289244
papers	citations	18 h-index	40 g-index

146	146	146	1180
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Specificities of phonation biomechanics in Down Syndrome children. Biomedical Signal Processing and Control, 2021, 63, 102219.	5.7	4
2	Sigma-Lognormal Modeling of Speech. Cognitive Computation, 2021, 13, 488-503.	5.2	3
3	A Neuromotor to Acoustical Jaw-Tongue Projection Model With Application in Parkinsonâ€™s Disease Hypokinetic Dysarthria. Frontiers in Human Neuroscience, 2021, 15, 622825.	2.0	1
4	Acoustic to kinematic projection in Parkinsonâ€™s disease dysarthria. Biomedical Signal Processing and Control, 2021, 66, 102422.	5.7	7
5	Acoustic Analysis of Phonation in Children With Smithâ€“Magenis Syndrome. Frontiers in Human Neuroscience, 2021, 15, 661392.	2.0	3
6	A novel pre-processing technique in pathologic voice detection: Application to Parkinsonâ€™s disease phonation. Biomedical Signal Processing and Control, 2021, 68, 102604.	5.7	16
7	Editorial: Multimodal Tracking of Functional Data in Parkinson's Disease and Related Disordersâ€“Speech and Language Neuromotor and Cognitive Assessment. Frontiers in Human Neuroscience, 2021, 15, 750075.	2.0	0
8	Monitoring ALS from speech articulation kinematics. Neural Computing and Applications, 2020, 32, 15801-15812.	5.6	4
9	An ICA-based method for stress classification from voice samples. Neural Computing and Applications, 2020, 32, 17887-17897.	5.6	7
10	Voice Characteristics in Smithâ€“Magenis Syndrome: An Acoustic Study of Laryngeal Biomechanics. Languages, 2020, 5, 31.	0.6	5
11	A Methodology to Differentiate Parkinsonâ€™s Disease and Aging Speech Based on Glottal Flow Acoustic Analysis. International Journal of Neural Systems, 2020, 30, 2050058.	5.2	3
12	MonParLoc: A Speech-Based System for Parkinsonâ€™s Disease Analysis and Monitoring. IEEE Access, 2020, 8, 188243-188255.	4.2	12
13	Artificial intelligence within the interplay between natural and artificial computation: Advances in data science, trends and applications. Neurocomputing, 2020, 410, 237-270.	5.9	121
14	Performance of Articulation Kinetic Distributions Vs MFCCs in Parkinsonâ€™s Detection from Vowel Utterances. Smart Innovation, Systems and Technologies, 2020, , 431-441.	0.6	2
15	Evaluating Parkinsonâ€™s Disease in Voice and Handwriting Using the Same Methodology. Series in Machine Perception and Artificial Intelligence, 2020, , 161-175.	0.1	2
16	Assessing an Application of Spontaneous Stressed Speech - Emotions Portal. Lecture Notes in Computer Science, 2019, , 149-160.	1.3	0
17	Evaluating Instability on Phonation in Parkinsonâ€™s Disease and Aging Speech. Lecture Notes in Computer Science, 2019, , 340-351.	1.3	1
18	Characterization of Parkinsonâ€™s disease dysarthria in terms of speech articulation kinematics. Biomedical Signal Processing and Control, 2019, 52, 312-320.	5.7	17

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19	Neuroacoustical Stimulation of Parkinsonâ€™s Disease Patients: A Case Study. Lecture Notes in Computer Science, 2019, , 329-339.	1.3	1
20	Neuromechanical Modelling of Articulatory Movements from Surface Electromyography and Speech Formants. International Journal of Neural Systems, 2019, 29, 1850039.	5.2	11
21	Vowel Articulation Dynamic Stability Related to Parkinsonâ€™s Disease Rating Features: Male Dataset. International Journal of Neural Systems, 2019, 29, 1850037.	5.2	7
22	Distinguishing Aging Clusters and Mobile Devices by Hand-Wrist Articulation: A Case of Study. Lecture Notes in Computer Science, 2019, , 11-21.	1.3	0
23	Biomechanical Description of Phonation in Children Affected by Williams Syndrome. Journal of Voice, 2018, 32, 515.e15-515.e28.	1.5	6
24	Changes in Phonation and Their Relations with Progress of Parkinsonâ€™s Disease. Applied Sciences (Switzerland), 2018, 8, 2339.	2.5	16
25	Monitoring Progress of Parkinson's Disease Based on Changes in Phonation: a Pilot Study. , 2018, , .		0
26	Estimating Facial Neuromotor Activity from sEMG and Accelerometry for Speech Articulation. , 2018, , .		0
27	Injection Laryngoplasty Using Autologous Fat Enriched with Adipose-Derived Regenerative Stem Cells: A Safe Therapeutic Option for the Functional Reconstruction of the Glottal Gap after Unilateral Vocal Fold Paralysis. Stem Cells International, 2018, 2018, 1-15.	2.5	18
28	Quantitative Analysis of Relationship Between Hypokinetic Dysarthria and the Freezing of Gait in Parkinsonâ€™s Disease. Cognitive Computation, 2018, 10, 1006-1018.	5.2	18
29	Biomarkers of Neurodegenerative Progression from Spontaneous Speech Recorded in Mobile Devices: An Approach based on Articulation Speed Estimation. , 2018, , .		1
30	Euclidean Distances as measures of speaker similarity including identical twin pairs: A forensic investigation using source and filter voice characteristics. Forensic Science International, 2017, 270, 25-38.	2.2	27
31	Phonation and Articulation Analyses in Laryngeal Pathologies, Cleft Lip and Palate, and Parkinsonâ€™s Disease. Lecture Notes in Computer Science, 2017, , 424-434.	1.3	3
32	Parkinson's disease monitoring by biomechanical instability of phonation. Neurocomputing, 2017, 255, 3-16.	5.9	17
33	Articulation Characterization in AD Speech Production. Biosystems and Biorobotics, 2017, , 861-866.	0.3	1
34	Parkinson Disease Detection from Speech Articulation Neuromechanics. Frontiers in Neuroinformatics, 2017, 11, 56.	2.5	43
35	Monitoring Parkinsonâ€™s Disease Rehabilitation from Phonation Biomechanics. Biosystems and Biorobotics, 2017, , 93-97.	0.3	1
36	Relating Facial Myoelectric Activity to Speech Formants. Lecture Notes in Computer Science, 2017, , 520-530.	1.3	8

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37	ALZUMERIC: A decision support system for diagnosis and monitoring of cognitive impairment. Loquens, 2017, 4, 037.	0.1	8
38	Study of several parameters for the detection of amyotrophic lateral sclerosis from articulatory movement. Loquens, 2017, 4, 038.	0.1	4
39	Phonatory and Articulatory Correlates in Kinematic Neuromotor Degeneration. Biosystems and Biorobotics, 2017, , 203-208.	0.3	3
40	Vowel Articulation Distortion in Parkinsonâ€™s Disease. Lecture Notes in Computer Science, 2017, , 21-31.	1.3	0
41	Biomedical applications of voice and speech processing. Loquens, 2017, 4, 035.	0.1	0
42	What voice tells us about genetic syndromes: The case of Williams syndrome. Loquens, 2017, 4, 039.	0.1	0
43	Monitoring Parkinson Disease from speech articulation kinematics. Loquens, 2017, 4, 036.	0.1	3
44	Kinematic Modelling of Dipthong Articulation. Smart Innovation, Systems and Technologies, 2016, , 53-60.	0.6	8
45	Phonation Biomechanics in Quantifying Parkinsonâ€™s Disease Symptom Severity. Smart Innovation, Systems and Technologies, 2016, , 93-102.	0.6	0
46	Assessing a Set of Glottal Features from Vocal Fold Biomechanics. Smart Innovation, Systems and Technologies, 2016, , 209-217.	0.6	0
47	Application of the Lognormal Model to the Vocal Tract Movement to Detect Neurological Diseases in Voice. Smart Innovation, Systems and Technologies, 2016, , 25-35.	0.6	5
48	Towards the search of detection in speechâ€relevant features for stress. Expert Systems, 2015, 32, 710-718.	4.5	9
49	Improving Speaker Recognition by Biometric Voice Deconstruction. Frontiers in Bioengineering and Biotechnology, 2015, 3, 126.	4.1	11
50	Robust and complex approach of pathological speech signal analysis. Neurocomputing, 2015, 167, 94-111.	5.9	101
51	Assessing a set of glottal features from vocal fold biomechanics for detecting vocal pathology. , 2015, , .		0
52	Analysis of emotional stress in voice for deception detection. , 2015, , .		2
53	Monitoring Parkinson's Disease from phonation improvement by Log Likelihood Ratios. , 2015, , .		0
54	Phonation biomechanic analysis of Alzheimer×³s Disease cases. Neurocomputing, 2015, 167, 83-93.	5.9	8

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55	Monitoring amyotrophic lateral sclerosis by biomechanical modeling of speech production. Neurocomputing, 2015, 151, 130-138.	5.9	15
56	Parkinsonâ€™s Disease Monitoring from Phonation Biomechanics. Lecture Notes in Computer Science, 2015, , 238-248.	1.3	4
57	Subject-independent acoustic-to-articulatory mapping of fricative sounds by using vocal tract length normalization. Revista Facultad De IngenierÃa, 2015, , .	0.5	1
58	A methodology for monitoring emotional stress in phonation. , 2014, , .		1
59	Biomechanical characterization of phonation in Alzheimer's Disease. , 2014, , .		1
60	Characterizing Neurological Disease from Voice Quality Biomechanical Analysis. Cognitive Computation, 2013, 5, 399-425.	5.2	26
61	Simulating the phonological auditory cortex from vowel representation spaces to categories. Neurocomputing, 2013, 114, 63-75.	5.9	8
62	Wavelet description of the Glottal Gap. , 2013, , .		0
63	Estimating Tremor in Vocal Fold Biomechanics for Neurological Disease Characterization. , 2013, , .		3
64	Gender Detection in Running Speech from Glottal and Vocal Tract Correlates. Lecture Notes in Computer Science, 2013, , 25-32.	1.3	1
65	Characterization of Speech from Amyotrophic Lateral Sclerosis by Neuromorphic Processing. Lecture Notes in Computer Science, 2013, , 212-224.	1.3	0
66	Combined unsupervised biclustering of microarray data. , 2012, , .		0
67	Two way clustering of microarray data using a hybrid approach. , 2011, , .		3
68	A hardware experimental platform for neural circuits in the auditory cortex. Proceedings of SPIE, 2011, , .	0.8	0
69	Neuromorphic detection of speech dynamics. Neurocomputing, 2011, 74, 1191-1202.	5.9	10
70	Glottal parameter estimation by wavelet transform for voice biometry. , 2011, , .		0
71	Neurological Disease Detection and Monitoring from Voice Production. Lecture Notes in Computer Science, 2011, , 1-8.	1.3	7
72	KPCA vs. PCA Study for an Age Classification of Speakers. Lecture Notes in Computer Science, 2011, , 190-198.	1.3	3

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73	GLOTTAL SOURCE ASYMMETRY ESTIMATION BY ICA. , 2011, , .		0
74	Neuromorphic Detection of Vowel Representation Spaces. Lecture Notes in Computer Science, 2011, , 1-11.	1.3	1
75	Monitoring Neurological Disease in Phonation. Lecture Notes in Computer Science, 2011, , 136-147.	1.3	0
76	Independent component analysis algorithms for microarray data analysis. Intelligent Data Analysis, 2010, 14, 193-206.	0.9	6
77	The Effectiveness of the Glottal to Noise Excitation Ratio for the Screening of Voice Disorders. Journal of Voice, 2010, 24, 47-56.	1.5	68
78	Pathological Likelihood Index as a Measurement ofÂthe Degree of Voice Normality and Perceived Hoarseness. Journal of Voice, 2010, 24, 667-677.	1.5	24
79	Modeling Short-Time Parsing of Speech Features in Neocortical Structures. Lecture Notes in Computer Science, 2010, , 159-168.	1.3	0
80	Time-frequency representations in speech perception. Neurocomputing, 2009, 72, 820-830.	5.9	15
81	Automatic detection of voice impairments from text-dependent running speech. Biomedical Signal Processing and Control, 2009, 4, 176-182.	5.7	41
82	Glottal Source biometrical signature for voice pathology detection. Speech Communication, 2009, 51, 759-781.	2.8	86
83	Analysis and Signal Processing of Oesophageal and Pathological Voices. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.7	6
84	Detection of Speech Dynamics by Neuromorphic Units. Lecture Notes in Computer Science, 2009, , 67-78.	1.3	1
85	Oligonucleotide Microarray Probe Correction by FixedPoint ICA Algorithm. Lecture Notes in Computer Science, 2009, , 988-991.	1.3	1
86	FPGA Implementation of an Adaptive Noise Canceller for Robust Speech Enhancement Interfaces. , 2008, , .		4
87	Automatic Detection of Laryngeal Pathology on Sustained Vowels Using Short-Term Cepstral Parameters: Analysis of Performance and Theoretical Justification. Communications in Computer and Information Science, 2008, , 228-241.	0.5	0
88	Mapaci: A Real Time e-Health Application to Assist Throat Complaint Patients. , 2007, , .		5
89	Evaluation of Voice Pathology Based on the Estimation of Vocal Fold Biomechanical Parameters. Journal of Voice, 2007, 21, 450-476.	1.5	33
90	Exploring Matrix Factorization Techniques for Classification of Gene Expression Profiles. , 2007, , .		1

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91	Genomic Microarray Processing on a FPGA for Portable Remote Applications. , 2007, , .		5
92	An improved watershed algorithm based on efficient computation of shortest paths. Pattern Recognition, 2007, 40, 1078-1090.	8.1	89
93	A Bio-inspired Architecture for Cognitive Audio. Lecture Notes in Computer Science, 2007, , 132-142.	1.3	3
94	Estimating the Dispersion of the Biometric Glottal Signature in Continuous Speech. , 2007, , 255-262.		0
95	Methodological issues in the development of automatic systems for voice pathology detection. Biomedical Signal Processing and Control, 2006, 1, 120-128.	5.7	141
96	An integrated tool for the diagnosis of voice disorders. Medical Engineering and Physics, 2006, 28, 276-289.	1.7	37
97	Dimensionality Reduction of a Pathological Voice Quality Assessment System Based on Gaussian Mixture Models and Short-Term Cepstral Parameters. IEEE Transactions on Biomedical Engineering, 2006, 53, 1943-1953.	4.2	260
98	Robust cDNA microarray image processing on a hand-held device. , 2006, , .		0
99	An FPGA-based genetic microarray processing device. , 2006, , .		0
100	Voice Pathology Detection by Vocal Cord Biomechanical Parameter Estimation. Lecture Notes in Computer Science, 2006, , 242-256.	1.3	5
101	Robust Preprocessing of Gene Expression Microarrays for Independent Component Analysis. Lecture Notes in Computer Science, 2006, , 714-721.	1.3	4
102	Robust Processing of Microarray Data by Independent Component Analysis. Lecture Notes in Computer Science, 2005, , 1051-1058.	1.3	0
103	DOA Detection from HOS by FOD Beamforming and Joint-Process Estimation. Lecture Notes in Computer Science, 2004, , 824-831.	1.3	0
104	Automatic Detection of Voice Impairments by Means of Short-Term Cepstral Parameters and Neural Network Based Detectors. IEEE Transactions on Biomedical Engineering, 2004, 51, 380-384.	4.2	213
105	Parallel Root-Finding Method for LPC Analysis of Speech. Lecture Notes in Computer Science, 2004, , 529-536.	1.3	1
106	A new superfast bit reversal algorithm. International Journal of Adaptive Control and Signal Processing, 2002, 16, 703-707.	4.1	7
107	A biological front-end processing for speech recognition. Lecture Notes in Computer Science, 1997, , 1058-1067.	1.3	0
108	Spoken-digit recognition using self-organizing maps with perceptual pre-processing. Lecture Notes in Computer Science, 1997, , 1203-1212.	1.3	3

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109	An automatic speech recognition system using timeâ€delays selfâ€organizing maps with physiological parametric extraction. Journal of the Acoustical Society of America, 1997, 102, 3165-3165.	1.1	1
110	A new algorithm for implementing a recursive neural network. Lecture Notes in Computer Science, 1995, , 252-259.	1.3	4
111	Drift problems in the automatic analysis of gamma-ray spectra using associative memory algorithms. IEEE Transactions on Nuclear Science, 1994, 41, 637-641.	2.0	17
112	A numerical method based on PadÃ©'s approximation to simulate and design a low-cost auditory filter for speech processing. Simulation Modelling Practice and Theory, 1993, 1, 17-29.	0.3	3
113	Application of neural network techniques in gamma spectroscopy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1992, 312, 167-173.	1.6	39
114	A new approach to automatic radiation spectrum analysis. IEEE Transactions on Nuclear Science, 1991, 38, 971-975.	2.0	53
115	Computable minimum lattice-like ARMA synthesis. IEEE Transactions on Circuits and Systems, 1988, 35, 577-583.	0.9	6
116	A PARCOR characterization of the ear for hearing aids. Proceedings of the IEEE, 1982, 70, 1464-1466.	21.3	5
117	Dynamic adjustment of the forgetting factor in adaptive filters for non-stationary noise cancellation in speech. , 0, , .		3
118	Non supervised neural net applied to the detection of voice impairment. , 0, , .		0
119	A divider-multiplier high level synthesis library element for DSP applications. , 0, , .		1
120	Speech enhancement and source separation supported by negative beamforming filtering. , 0, , .		4
121	Spectral perturbation parameters for voice pathology detection. , 0, , .		1
122	Low-pass frequency-domain filtering-of oligonucleotide microarray data images. , 0, , .		0
123	A reusable HMM soft-core for isolated word recognition. , 0, , .		2
124	Evidence of Glottal Source Spectral Features found in Vocal Fold Dynamics. , 0, , .		5
125	Biometrical Speaker Description From Vocal Cord Parameterization. , 0, , .		0
126	Combined Clustering Methods for Microarray Data Analysis. Advanced Engineering Forum, 0, 8-9, 508-515.	0.3	0

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127	PCA of perturbation parameters in voice pathology detection. , 0, , .		4
128	Neuromorphic Speech Processing. , 0, , 447-473.		0
129	A Matrix Factorization Classifier for Knowledge-Based Microarray Analysis. Advances in Soft Computing, 0, , 137-146.	0.4	0