Ricardo Gutierrez-Osuna

List of Publications by Year
in descending order

106	3,237	236833	175177
papers	citations	25	52
		h-index	g-index

106	106	106	2841
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Pattern analysis for machine olfaction: a review. IEEE Sensors Journal, 2002, 2, 189-202.	2.4	464
2	Attribute bagging: improving accuracy of classifier ensembles by using random feature subsets. Pattern Recognition, 2003, 36, 1291-1302.	5.1	402
3	Higher-Order Chemical Sensing. Chemical Reviews, 2008, 108, 563-613.	23.0	378
4	Development and Evaluation of an Ambulatory Stress Monitor Based on Wearable Sensors. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 279-286.	3.6	160
5	Using Heart Rate Monitors to Detect Mental Stress. , 2009, , .		106
6	Transient response analysis for temperature-modulated chemoresistors. Sensors and Actuators B: Chemical, 2003, 93, 57-66.	4.0	97
7	Transient response analysis of an electronic nose using multi-exponential models. Sensors and Actuators B: Chemical, 1999, 61, 170-182.	4.0	96
8	Foreign accent conversion in computer assisted pronunciation training. Speech Communication, 2009, 51, 920-932.	1.6	85
9	Web GIS in practice X: a Microsoft Kinect natural user interface for Google Earth navigation. International Journal of Health Geographics, 2011, 10, 45.	1.2	83
10	Fusion of Three Sensory Modalities for the Multimodal Characterization of Red Wines. IEEE Sensors Journal, 2004, 4, 348-354.	2.4	82
11	Speech-driven facial animation with realistic dynamics. IEEE Transactions on Multimedia, 2005, 7, 33-42.	5.2	52
12	Active temperature modulation of metal-oxide sensors for quantitative analysis of gas mixtures. Sensors and Actuators B: Chemical, 2013, 185, 201-210.	4.0	49
13	Audio/visual mapping with cross-modal hidden Markov models. IEEE Transactions on Multimedia, 2005, 7, 243-252.	5.2	46
14	Active Temperature Programming for Metal-Oxide Chemoresistors. IEEE Sensors Journal, 2010, 10, 1075-1082.	2.4	42
15	Removal of Respiratory Influences From Heart Rate Variability in Stress Monitoring. IEEE Sensors Journal, 2011, 11, 2649-2656.	2.4	41
16	A portable electronic nose based on embedded PC technology and GNU/Linux: hardware, software and applications. IEEE Sensors Journal, 2002, 2, 235-246.	2.4	39
17	Adaptive Microsensor Systems. Annual Review of Analytical Chemistry, 2010, 3, 255-276.	2.8	32
18	Speech-driven mobile games for speech therapy: User experiences and feasibility. International Journal of Speech-Language Pathology, 2018, 20, 644-658.	0.6	31

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19	Modeling of ultrasonic range sensors for localization of autonomous mobile robots. IEEE Transactions on Industrial Electronics, 1998, 45, 654-662.	5.2	30
20	Tabby Talks: An automated tool for the assessment of childhood apraxia of speech. Speech Communication, 2015, 70, 49-64.	1.6	30
21	Can voice conversion be used to reduce non-native accents?. , 2014, , .		29
22	A comparative study of game mechanics and control laws for an adaptive physiological game. Journal on Multimodal User Interfaces, 2015, 9, 31-42.	2.0	29
23	Golden speaker builder â€" An interactive tool for pronunciation training. Speech Communication, 2019, 115, 51-66.	1.6	29
24	Data driven articulatory synthesis with deep neural networks. Computer Speech and Language, 2016, 36, 260-273.	2.9	28
25	Physiological Modalities for Relaxation Skill Transfer in Biofeedback Games. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 361-371.	3.9	28
26	Habituation in the kiii olfactory model with chemical sensor arrays. IEEE Transactions on Neural Networks, 2003, 14, 1565-1568.	4.8	27
27	Processing of Chemical Sensor Arrays With a Biologically Inspired Model of Olfactory Coding. IEEE Transactions on Neural Networks, 2006, 17, 1015-1024.	4.8	27
28	A Control-Theoretic Approach to Adaptive Physiological Games. , 2013, , .		27
29	Contrast enhancement of gas sensor array patterns with a neurodynamics model of the olfactory bulb. Sensors and Actuators B: Chemical, 2006, 119, 547-555.	4.0	26
30	Foreign Accent Conversion Through Concatenative Synthesis in the Articulatory Domain. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 2301-2312.	3.8	26
31	Accent Conversion Using Phonetic Posteriorgrams. , 2018, , .		26
32	A dimensionality-reduction technique inspired by receptor convergence in the olfactory system. Sensors and Actuators B: Chemical, 2006, 116, 17-22.	4.0	23
33	Visual Biofeedback and Game Adaptation in Relaxation Skill Transfer. IEEE Transactions on Affective Computing, 2019, 10, 276-289.	5.7	23
34	A Review of Digital Innovations for Diet Monitoring and Precision Nutrition. Journal of Diabetes Science and Technology, 2023, 17, 217-223.	1.3	23
35	Gaming Away Stress: Using Biofeedback Games to Learn Paced Breathing. IEEE Transactions on Affective Computing, 2020, 11, 519-531.	5.7	21
36	Contactless Measurement of Heart Rate Variability from Pupillary Fluctuations. , 2013, , .		20

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37	Development of a Remote Therapy Tool for Childhood Apraxia of Speech. ACM Transactions on Accessible Computing, 2015, 7, 1-23.	1.9	20
38	Increasing the separability of chemosensor array patterns with Hebbian/anti-Hebbian learning. Sensors and Actuators B: Chemical, 2006, 116, 29-35.	4.0	19
39	Developing Objective Measures of Foreign-Accent Conversion. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 1030-1040.	3.8	19
40	ODOR MIXTURES AND CHEMOSENSORY ADAPTATION IN GAS SENSOR ARRAYS. International Journal on Artificial Intelligence Tools, 2003, 12, 1-16.	0.7	18
41	A comparison of acoustic coding models for speech-driven facial animation. Speech Communication, 2006, 48, 598-615.	1.6	18
42	Use of a gas-sensor array for detecting volatile organic compounds (VOC) in chemically induced cells. Analytical and Bioanalytical Chemistry, 2004, 378, 76-83.	1.9	17
43	Consistency and Validity of Self-reporting Scores in Stress Measurement Surveys. , 2012, 2012, 4895-8.		17
44	Reduction of non-native accents through statistical parametric articulatory synthesis. Journal of the Acoustical Society of America, 2015, 137, 433-446.	0.5	17
45	BioPad: Leveraging off-the-Shelf Video Games for Stress Self-Regulation. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 47-55.	3.9	17
46	Concentration normalization with a model of gain control in the olfactory bulb. Sensors and Actuators B: Chemical, 2006, 116, 36-42.	4.0	16
47	Flappy voice. , 2014, , .		15
48	ReBreathe: A Calibration Protocol that Improves Stress/Relax Classification by Relabeling Deep Breathing Relaxation Exercises. IEEE Transactions on Affective Computing, 2016, 7, 150-161.	5.7	14
49	A Longitudinal Evaluation of Tablet-Based Child Speech Therapy with Apraxia World. ACM Transactions on Accessible Computing, 2021, 14, 1-26.	1.9	14
50	Design and evaluation of classifier for identifying sign language videos in video sharing sites. , 2012, , .		13
51	Contrast enhancement and background suppression of chemosensor array patterns with the KIII model. International Journal of Intelligent Systems, 2006, 21, 937-953.	3.3	12
52	Detecting and Identifying Sign Languages through Visual Features. , 2016, , .		12
53	Accent conversion through cross-speaker articulatory synthesis. , 2014, , .		11
54	Surface Functionalization Utilizing Mesoporous Silica Nanoparticles for Enhanced Evanescent-Field Mid-Infrared Waveguide Gas Sensing. Coatings, 2021, 11, 118.	1.2	11

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55	Identifying Sign Language Videos in Video Sharing Sites. ACM Transactions on Accessible Computing, 2014, 5, 1-14.	1.9	10
56	Using Phonetic Posteriorgram Based Frame Pairing for Segmental Accent Conversion. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 1649-1660.	4.0	10
57	Accentron: Foreign accent conversion to arbitrary non-native speakers using zero-shot learning. Computer Speech and Language, 2022, 72, 101302.	2.9	10
58	Articulatory inversion and synthesis: Towards articulatory-based modification of speech. , 2013, , .		9
59	Playing with and without Biofeedback. , 2017, , .		9
60	Removal of Subject-Dependent and Activity-Dependent Variation in Physiological Measures of Stress. , 2012, , .		8
61	Speed-Accuracy Tradeoffs for Detecting Sign Language Content in Video Sharing Sites. , 2017, , .		8
62	Learning Structured Sparse Representations for Voice Conversion. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 343-354.	4.0	8
63	Detection of volatile organic compounds using mid-infrared silicon nitride waveguide sensors. Scientific Reports, 2022, 12, 5572.	1.6	8
64	Development of an Infrared Absorption Spectroscope Based on Linear Variable Filters. IEEE Sensors Journal, 2007, 7, 1183-1190.	2.4	7
65	Reducing the other-race effect through caricatures. , 2008, , .		7
66	Partial Reinforcement in Game Biofeedback for Relaxation Training. IEEE Transactions on Affective Computing, 2021, 12, 141-153.	5.7	7
67	The reverseâ€caricature effect revisited: Familiarization with frontal facial caricatures improves veridical face recognition. Applied Cognitive Psychology, 2009, 23, 733-742.	0.9	6
68	Detection of sign-language content in video through polar motion profiles. , 2014, , .		6
69	Towards a Distributed Digital Library for Sign Language Content. , 2015, , .		6
70	Exemplar selection methods in voice conversion. , 2017, , .		6
71	Neuromorphic Processing for Optical Microbead Arrays: Dimensionality Reduction and Contrast Enhancement. IEEE Sensors Journal, 2007, 7, 506-514.	2.4	5
72	Normalization of articulatory data through Procrustes transformations and analysis-by-synthesis. , 2014, , .		5

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73	Towards The Development of Subject-Independent Inverse Metabolic Models. , 2021, , .		5
74	Evaluating the Role of Breathing Guidance on Game-Based Interventions for Relaxation Training. Frontiers in Digital Health, 2021, 3, 760268.	1.5	5
75	Elimination of junk document surrogate candidates through pattern recognition. , 2007, , .		4
76	Active Chemical Sensing With Partially Observable Markov Decision Processes. , 2009, , .		4
77	Guest Editorial - Special issue on machine olfaction. IEEE Sensors Journal, 2012, 12, 3105-3107.	2.4	4
78	Relating Sensor Responses of Odorants to Their Organoleptic Properties by Means of a Biologically-Inspired Model of Receptor Neuron Convergence onto Olfactory Bulb. Studies in Computational Intelligence, 2009, , 93-108.	0.7	4
79	Preliminary Results From a Longitudinal Study of a Tablet-Based Speech Therapy Game. , 2020, , .		4
80	Estimating mental stress using a wearable cardio-respiratory sensor. , 2010, , .		3
81	Active analysis of chemical mixtures with multi-modal sparse non-negative least squares. , 2013, , .		3
82	Active wavelength selection for mixture identification with tunable mid-infrared detectors. Analytica Chimica Acta, 2016, 937, 11-20.	2.6	3
83	Predicting the meal macronutrient composition from continuous glucose monitors. , 2019, , .		3
84	High-Resolution Speech Signal Reconstruction in Wireless Sensor Networks. , 2009, , .		2
85	Energy-aware active chemical sensing. , 2010, , .		2
86	Reverse caricatures effects on three-dimensional facial reconstructions. Image and Vision Computing, 2011, 29, 329-334.	2.7	2
87	Active classification with arrays of tunable chemical sensors. Chemometrics and Intelligent Laboratory Systems, 2014, 132, 91-102.	1.8	2
88	Active wavelength selection for mixture analysis with tunable infrared detectors. Sensors and Actuators B: Chemical, 2015, 208, 245-257.	4.0	2
89	Classification of bisyllabic lexical stress patterns in disordered speech using deep learning. , 2016, , .		2
90	Deep breaths: An internally- and externally-paced deep breathing guide. , 2017, , .		2

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91	Voice Conversion Through Residual Warping in a Sparse, Anchor-Based Representation of Speech. , 2018, , .		2
92	Comparing Visual, Textual, and Multimodal Features for Detecting Sign Language in Video Sharing Sites. , 2018, , .		2
93	Postprandial concentration of circulating branched chain amino acids are able to predict the carbohydrate content of the ingested mixed meal. Clinical Nutrition, 2021, 40, 5020-5029.	2.3	2
94	Predicting the Macronutrient Composition of Mixed Meals From Dietary Biomarkers in Blood. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 2726-2736.	3.9	2
95	Active Sensing with Fabry-Perot Infrared Interferometers. , 2011, , .		1
96	Kernel oriented discriminant analysis for speaker-independent phoneme spaces. , 2008, , .		0
97	Quantification of Gas Mixtures with Active Recursive Estimation. , 2011, , .		0
98	Invited: Advances in Active and Adaptive Chemical Sensing. , 2011, , .		0
99	Data-driven Modeling of Metal-oxide Sensors with Dynamic Bayesian Networks. , 2011, , .		0
100	Context-sensitive intra-class clustering. Pattern Recognition Letters, 2014, 37, 85-93.	2.6	0
101	Odor assessment of automobile interior components using ion mobility spectrometry. , 2015, , .		0
102	Joint optimization of anatomical and gestural parameters in a physical vocal tract model. , 2015, , .		0
103	Mixture quantification in the presence of unknown interferences. , 2017, , .		0
104	Explanation of the perceptual oblique effect based on the fidelity of oculomotor control during saccades. , 2017, , .		0
105	A Metric Learning Approach for Personalized Meal Macronutrient Estimation from Postprandial Glucose Response Signals. , 2021, , .		0
106	Minimizing Residuals for Native-Nonnative Voice Conversion in a Sparse, Anchor-Based Representation of Speech. , 2022, , .		0