Ricardo Gutierrez-Osuna

List of Publications by Year
in descending order

106 papers	3,237 citations	236833 25 h-index	175177 52 g-index
106 all docs	106 docs citations	106 times ranked	2841 citing authors

#	Article	IF	Citations
1	A Review of Digital Innovations for Diet Monitoring and Precision Nutrition. Journal of Diabetes Science and Technology, 2023, 17, 217-223.	1.3	23
2	Accentron: Foreign accent conversion to arbitrary non-native speakers using zero-shot learning. Computer Speech and Language, 2022, 72, 101302.	2.9	10
3	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
4	Detection of volatile organic compounds using mid-infrared silicon nitride waveguide sensors. Scientific Reports, 2022, 12, 5572.	1.6	8
5	Minimizing Residuals for Native-Nonnative Voice Conversion in a Sparse, Anchor-Based Representation of Speech. , 2022, , .		0
6	Partial Reinforcement in Game Biofeedback for Relaxation Training. IEEE Transactions on Affective Computing, 2021, 12, 141-153.	5.7	7
7	Surface Functionalization Utilizing Mesoporous Silica Nanoparticles for Enhanced Evanescent-Field Mid-Infrared Waveguide Gas Sensing. Coatings, 2021, 11, 118.	1.2	11
8	A Longitudinal Evaluation of Tablet-Based Child Speech Therapy with Apraxia World. ACM Transactions on Accessible Computing, 2021, 14, 1-26.	1.9	14
9	Towards The Development of Subject-Independent Inverse Metabolic Models. , 2021, , .		5
10	A Metric Learning Approach for Personalized Meal Macronutrient Estimation from Postprandial Glucose Response Signals. , 2021, , .		0
11	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
12	Evaluating the Role of Breathing Guidance on Game-Based Interventions for Relaxation Training. Frontiers in Digital Health, 2021, 3, 760268.	1.5	5
13	Gaming Away Stress: Using Biofeedback Games to Learn Paced Breathing. IEEE Transactions on Affective Computing, 2020, 11, 519-531.	5.7	21
14	Learning Structured Sparse Representations for Voice Conversion. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 343-354.	4.0	8
15	Preliminary Results From a Longitudinal Study of a Tablet-Based Speech Therapy Game. , 2020, , .		4
16	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
17	Golden speaker builder â€" An interactive tool for pronunciation training. Speech Communication, 2019, 115, 51-66.	1.6	29
18	Predicting the meal macronutrient composition from continuous glucose monitors. , 2019, , .		3

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19	Visual Biofeedback and Game Adaptation in Relaxation Skill Transfer. IEEE Transactions on Affective Computing, 2019, 10, 276-289.	5.7	23
20	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
21	Voice Conversion Through Residual Warping in a Sparse, Anchor-Based Representation of Speech. , 2018, , .		2
22	Speech-driven mobile games for speech therapy: User experiences and feasibility. International Journal of Speech-Language Pathology, 2018, 20, 644-658.	0.6	31
23	Accent Conversion Using Phonetic Posteriorgrams. , 2018, , .		26
24	Comparing Visual, Textual, and Multimodal Features for Detecting Sign Language in Video Sharing Sites. , 2018, , .		2
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	Playing with and without Biofeedback. , 2017, , .		9
27	Mixture quantification in the presence of unknown interferences. , 2017, , .		0
28	Exemplar selection methods in voice conversion. , 2017, , .		6
29	Deep breaths: An internally- and externally-paced deep breathing guide. , 2017, , .		2
30	Explanation of the perceptual oblique effect based on the fidelity of oculomotor control during saccades. , 2017, , .		0
31	Speed-Accuracy Tradeoffs for Detecting Sign Language Content in Video Sharing Sites. , 2017, , .		8
32	Detecting and Identifying Sign Languages through Visual Features. , 2016, , .		12
33	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
34	Classification of bisyllabic lexical stress patterns in disordered speech using deep learning. , 2016, , .		2
35	Active wavelength selection for mixture identification with tunable mid-infrared detectors. Analytica Chimica Acta, 2016, 937, 11-20.	2.6	3
36	Data driven articulatory synthesis with deep neural networks. Computer Speech and Language, 2016, 36, 260-273.	2.9	28

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37	Reduction of non-native accents through statistical parametric articulatory synthesis. Journal of the Acoustical Society of America, 2015, 137, 433-446.	0.5	17
38	Tabby Talks: An automated tool for the assessment of childhood apraxia of speech. Speech Communication, 2015, 70, 49-64.	1.6	30
39	Odor assessment of automobile interior components using ion mobility spectrometry. , 2015, , .		0
40	Joint optimization of anatomical and gestural parameters in a physical vocal tract model. , 2015, , .		0
41	Towards a Distributed Digital Library for Sign Language Content. , 2015, , .		6
42	Active wavelength selection for mixture analysis with tunable infrared detectors. Sensors and Actuators B: Chemical, 2015, 208, 245-257.	4.0	2
43	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
44	Development of a Remote Therapy Tool for Childhood Apraxia of Speech. ACM Transactions on Accessible Computing, 2015, 7, 1-23.	1.9	20
45	Flappy voice. , 2014, , .		15
46	Detection of sign-language content in video through polar motion profiles. , 2014, , .		6
47	Accent conversion through cross-speaker articulatory synthesis. , 2014, , .		11
48	Normalization of articulatory data through Procrustes transformations and analysis-by-synthesis. , 2014, , .		5
49	Identifying Sign Language Videos in Video Sharing Sites. ACM Transactions on Accessible Computing, 2014, 5, 1-14.	1.9	10
50	Can voice conversion be used to reduce non-native accents?. , 2014, , .		29
51	Active classification with arrays of tunable chemical sensors. Chemometrics and Intelligent Laboratory Systems, 2014, 132, 91-102.	1.8	2
52	Context-sensitive intra-class clustering. Pattern Recognition Letters, 2014, 37, 85-93.	2.6	0
53	A Control-Theoretic Approach to Adaptive Physiological Games. , 2013, , .		27
54	Contactless Measurement of Heart Rate Variability from Pupillary Fluctuations. , 2013, , .		20

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55	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
56	Articulatory inversion and synthesis: Towards articulatory-based modification of speech. , 2013, , .		9
57	Active analysis of chemical mixtures with multi-modal sparse non-negative least squares. , 2013, , .		3
58	Design and evaluation of classifier for identifying sign language videos in video sharing sites. , 2012, , .		13
59	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
60	Guest Editorial - Special issue on machine olfaction. IEEE Sensors Journal, 2012, 12, 3105-3107.	2.4	4
61	Removal of Subject-Dependent and Activity-Dependent Variation in Physiological Measures of Stress. , 2012, , .		8
62	Consistency and Validity of Self-reporting Scores in Stress Measurement Surveys. , 2012, 2012, 4895-8.		17
63	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
64	Removal of Respiratory Influences From Heart Rate Variability in Stress Monitoring. IEEE Sensors Journal, 2011, 11, 2649-2656.	2.4	41
65	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
66	Reverse caricatures effects on three-dimensional facial reconstructions. Image and Vision Computing, 2011, 29, 329-334.	2.7	2
67	Quantification of Gas Mixtures with Active Recursive Estimation. , 2011, , .		0
68	Invited: Advances in Active and Adaptive Chemical Sensing. , 2011, , .		0
69	Active Sensing with Fabry-Perot Infrared Interferometers. , 2011, , .		1
70	Data-driven Modeling of Metal-oxide Sensors with Dynamic Bayesian Networks. , 2011, , .		0
71	Developing Objective Measures of Foreign-Accent Conversion. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 1030-1040.	3.8	19
72	Energy-aware active chemical sensing. , 2010, , .		2

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73	Estimating mental stress using a wearable cardio-respiratory sensor. , 2010, , .		3
74	Adaptive Microsensor Systems. Annual Review of Analytical Chemistry, 2010, 3, 255-276.	2.8	32
75	Active Temperature Programming for Metal-Oxide Chemoresistors. IEEE Sensors Journal, 2010, 10, 1075-1082.	2.4	42
76	High-Resolution Speech Signal Reconstruction in Wireless Sensor Networks. , 2009, , .		2
77	Active Chemical Sensing With Partially Observable Markov Decision Processes. , 2009, , .		4
78	The reverse‐caricature effect revisited: Familiarization with frontal facial caricatures improves veridical face recognition. Applied Cognitive Psychology, 2009, 23, 733-742.	0.9	6
79	Foreign accent conversion in computer assisted pronunciation training. Speech Communication, 2009, 51, 920-932.	1.6	85
80	Using Heart Rate Monitors to Detect Mental Stress. , 2009, , .		106
81	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
82	Higher-Order Chemical Sensing. Chemical Reviews, 2008, 108, 563-613.	23.0	378
83	Kernel oriented discriminant analysis for speaker-independent phoneme spaces. , 2008, , .		0
84	Reducing the other-race effect through caricatures. , 2008, , .		7
85	Elimination of junk document surrogate candidates through pattern recognition. , 2007, , .		4
86	Development of an Infrared Absorption Spectroscope Based on Linear Variable Filters. IEEE Sensors Journal, 2007, 7, 1183-1190.	2.4	7
87	Neuromorphic Processing for Optical Microbead Arrays: Dimensionality Reduction and Contrast Enhancement. IEEE Sensors Journal, 2007, 7, 506-514.	2.4	5
88	Concentration normalization with a model of gain control in the olfactory bulb. Sensors and Actuators B: Chemical, 2006, 116, 36-42.	4.0	16
89	Increasing the separability of chemosensor array patterns with Hebbian/anti-Hebbian learning. Sensors and Actuators B: Chemical, 2006, 116, 29-35.	4.0	19
90	A dimensionality-reduction technique inspired by receptor convergence in the olfactory system. Sensors and Actuators B: Chemical, 2006, 116, 17-22.	4.0	23

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91	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
92	A comparison of acoustic coding models for speech-driven facial animation. Speech Communication, 2006, 48, 598-615.	1.6	18
93	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
94	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
95	Speech-driven facial animation with realistic dynamics. IEEE Transactions on Multimedia, 2005, 7, 33-42.	5.2	52
96	Audio/visual mapping with cross-modal hidden Markov models. IEEE Transactions on Multimedia, 2005, 7, 243-252.	5.2	46
97	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
98	Fusion of Three Sensory Modalities for the Multimodal Characterization of Red Wines. IEEE Sensors Journal, 2004, 4, 348-354.	2.4	82
99	Attribute bagging: improving accuracy of classifier ensembles by using random feature subsets. Pattern Recognition, 2003, 36, 1291-1302.	5.1	402
100	Transient response analysis for temperature-modulated chemoresistors. Sensors and Actuators B: Chemical, 2003, 93, 57-66.	4.0	97
101	Habituation in the kiii olfactory model with chemical sensor arrays. IEEE Transactions on Neural Networks, 2003, 14, 1565-1568.	4.8	27
102	ODOR MIXTURES AND CHEMOSENSORY ADAPTATION IN GAS SENSOR ARRAYS. International Journal on Artificial Intelligence Tools, 2003, 12, 1-16.	0.7	18
103	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
104	Pattern analysis for machine olfaction: a review. IEEE Sensors Journal, 2002, 2, 189-202.	2.4	464
105	Transient response analysis of an electronic nose using multi-exponential models. Sensors and Actuators B: Chemical, 1999, 61, 170-182.	4.0	96
106	Modeling of ultrasonic range sensors for localization of autonomous mobile robots. IEEE Transactions on Industrial Electronics, 1998, 45, 654-662.	5.2	30