Tanja Schultz

List of Publications by Year
in descending order

185 papers	5,182 citations	331259 21 h-index	182168 51 g-index
194 all docs	194 docs citations	194 times ranked	3105 citing authors

#	Article	IF	Citations
1	Predicting Activation Liking of People With Dementia. Frontiers in Computer Science, 2022, 3, .	1.7	1
2	STAnet: A Spatiotemporal Attention Network for Decoding Auditory Spatial Attention From EEG. IEEE Transactions on Biomedical Engineering, 2022, 69, 2233-2242.	2.5	28
3	Multilingual speech recognition for GlobalPhone languages. Speech Communication, 2022, 140, 71-86.	1.6	6
4	Exploring Dementia Detection from Speech: Cross Corpus Analysis. , 2022, , .		1
5	Experts Versus All-Rounders: Target Language Extraction for Multiple Target Languages. , 2022, , .		1
6	Towards Closed-Loop Speech Synthesis from Stereotactic EEG: A Unit Selection Approach. , 2022, , .		5
7	Evaluation of an Engagement-Aware Recommender System for People with Dementia. , 2022, , .		0
8	I-CARE-An Interaction System for the Individual Activation of People with Dementia. Geriatrics (Switzerland), 2021, 6, 51.	0.6	12
9	End-to-End Multilingual Automatic Speech Recognition for Less-Resourced Languages: The Case of Four Ethiopian Languages. , 2021, , .		2
10	Real-time synthesis of imagined speech processes from minimally invasive recordings of neural activity. Communications Biology, 2021, 4, 1055.	2.0	46
11	3rd Workshop on Modeling Socio-Emotional and Cognitive Processes from Multimodal Data in the Wild. , 2021, , .		1
12	Motion Units: Generalized Sequence Modeling of Human Activities for Sensor-Based Activity Recognition. , 2021, , .		27
13	Speech Synthesis from Stereotactic EEG using an Electrode Shaft Dependent Multi-Input Convolutional Neural Network Approach. , 2021, 2021, 6045-6048.		6
14	Opportunities and Challenges for Using Automatic Human Affect Analysis in Consumer Research. Frontiers in Neuroscience, 2020, 14, 400.	1.4	13
15	DNN-Based Speech Recognition for Globalphone Languages. , 2020, , .		7
16	TSFEL: Time Series Feature Extraction Library. SoftwareX, 2020, 11, 100456.	1.2	226
17	Towards Speech Synthesis from Intracranial Signals. Springer Briefs in Electrical and Computer Engineering, 2020, , 47-54.	0.3	0
18	Intelligente und aufmerksamkeitssensitive Systeme in der Fahrradmobilität. Studien Zur Mobilitäts- Und Verkehrsforschung, 2020, , 143-158.	0.0	1

#	Article	IF	Citations
19	Platform for Studying Self-Repairing Auto-Corrections in Mobile Text Entry based on Brain Activity, Gaze, and Context. , 2020, , .		7
20	Modeling Socio-Emotional and Cognitive Processes from Multimodal Data in the Wild. , 2020, , .		4
21	SmartHelm: Towards Multimodal Detection of Attention in an Outdoor Augmented Reality Biking Scenario. , 2020, , .		6
22	Decoding Lip Movements During Continuous Speech using Electrocorticography. , 2019, , .		3
23	Perplexity â€" a new predictor of cognitive changes in spoken language? â€" results of the Interdisciplinary Longitudinal Study on Adult Development and Aging (ILSE). Linguistics Vanguard: Multimodal Online Journal, 2019, 5, .	1.7	4
24	Speech synthesis from ECoG using densely connected 3D convolutional neural networks. Journal of Neural Engineering, 2019, 16, 036019.	1.8	138
25	Interpretation of convolutional neural networks for speech spectrogram regression from intracranial recordings. Neurocomputing, 2019, 342, 145-151.	3.5	25
26	Adaptation of an EMG-Based Speech Recognizer via Meta-Learning. , 2019, , .		2
27	Speech Reveals Future Risk of Developing Dementia: Predictive Dementia Screening from Biographic Interviews. , 2019, , .		8
28	Improving Fundamental Frequency Generation in EMG-to-Speech Conversion Using a Quantization Approach. , 2019, , .		6
29	Decoding Mental Workload in Virtual Environments: A fNIRS Study using an Immersive n-back Task. , 2019, 2019, 3103-3106.		20
30	Augmented Reality Interface for Smart Home Control using SSVEP-BCI and Eye Gaze. , 2019, , .		27
31	Visual and Memory-based HCI Obstacles: Behaviour-based Detection and User Interface Adaptations Analysis. , 2019, , .		2
32	Generating Natural, Intelligible Speech From Brain Activity in Motor, Premotor, and Inferior Frontal Cortices. Frontiers in Neuroscience, 2019, 13, 1267.	1.4	76
33	Technik und Demenz. , 2019, , 239-255.		4
34	A Wearable Real-time Human Activity Recognition System using Biosensors Integrated into a Knee Bandage. , 2019, , .		12
35	Modeling Cognitive Processes from Multimodal Signals. , 2018, , .		4
36	Detecting Memory-Based Interaction Obstacles with a Recurrent Neural Model of User Behavior. , 2018, , .		5

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37	Selecting Features for Automatic Screening for Dementia Based on Speech. Lecture Notes in Computer Science, 2018, , 747-756.	1.0	10
38	Investigating static and sequential models for intervention-free selection using multimodal data of EEG and eye tracking. , 2018, , .		2
39	Towards Continuous Speech Recognition for BCI. Springer Briefs in Electrical and Computer Engineering, 2017, , 21-29.	0.3	8
40	Bremen Big Data Challenge 2017: Predicting University Cafeteria Load. Lecture Notes in Computer Science, 2017, , 380-386.	1.0	0
41	Introduction to the Special Issue on Biosignal-Based Spoken Communication. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 2254-2256.	4.0	2
42	Biosignal-Based Spoken Communication: A Survey. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 2257-2271.	4.0	117
43	Automatic classification of auto-correction errors in predictive text entry based on EEG and context information. , 2017, , .		9
44	Data-driven analysis of interactions between people with dementia and a tablet device. Current Directions in Biomedical Engineering, 2017, 3, 735-738.	0.2	1
45	Mechanisms within the Parietal Cortex Correlate with the Benefits of Random Practice in Motor Adaptation. Frontiers in Human Neuroscience, 2017, 11, 403.	1.0	15
46	Word segmentation and pronunciation extraction from phoneme sequences through cross-lingual word-to-phoneme alignment. Computer Speech and Language, 2016, 35, 234-261.	2.9	6
47	Automatic Speech Recognition from Neural Signals: A Focused Review. Frontiers in Neuroscience, 2016, 10, 429.	1.4	75
48	Intervention-free selection using EEG and eye tracking. , 2016, , .		10
49	An initial investigation into the real-time conversion of facial surface EMG signals to audible speech. , 2016, 2016, 888-891.		10
50	Towards direct speech synthesis from ECoG: A pilot study. , 2016, 2016, 1540-1543.		33
51	Starring into the void?. , 2016, , .		21
52	Increased gamma band power during movement planning coincides with motor memory retrieval. NeuroImage, 2016, 125, 172-181.	2.1	26
53	Model-Based Evaluation of Playing Strategies in a Memo Game for Elderly Users. , 2015, , .		27
54	Toward a Wireless Open Source Instrument: Functional Near-infrared Spectroscopy in Mobile Neuroergonomics and BCI Applications. Frontiers in Human Neuroscience, 2015, 9, 617.	1.0	51

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55	Dummy Model Based Workload Modeling. , 2015, , .		2
56	Direct conversion from facial myoelectric signals to speech using Deep Neural Networks. , 2015, , .		30
57	Investigating deep learning for fNIRS based BCI. , 2015, 2015, 2844-7.		52
58	Biomedical Engineering Systems and Technologies. Communications in Computer and Information Science, 2015, , .	0.4	1
59	Joint optimization for discriminative, compact and robust Brain-Computer Interfacing. , 2015, , .		1
60	Telemanipulation with force-based display of proximity fields. , 2015, , .		7
61	Hybrid fNIRS-EEG based discrimination of 5 levels of memory load. , 2015, , .		14
62	Brain-to-text: decoding spoken phrases from phone representations in the brain. Frontiers in Neuroscience, 2015, 9, 217.	1.4	195
63	Syntactic and Semantic Features For Code-Switching Factored Language Models. IEEE/ACM Transactions on Audio Speech and Language Processing, 2015, 23, 431-440.	4.0	44
64	Design and Evaluation of a Self-Correcting Gesture Interface based on Error Potentials from EEG. , 2015, , .		9
65	Advancing Muscle-Computer Interfaces with High-Density Electromyography. , 2015, , .		115
66	Pattern learning with deep neural networks in EMG-based speech recognition. , 2014, 2014, 4200-3.		35
67	Investigating Intrusiveness of Workload Adaptation. , 2014, , .		3
68	Enhancement of EMG-based Thai number words classification using frame-based time domain features with stacking filter. , 2014, , .		0
69	Combining feature extraction and classification for fNIRS BCIs by regularized least squares optimization. , 2014, 2014, 2012-5.		4
70	Multilingual deep neural network based acoustic modeling for rapid language adaptation. , 2014, , .		89
71	Connectivity based feature-level filtering for single-trial EEG BCIs. , 2014, , .		3
72	Compensation of recording position shifts for a myoelectric Silent Speech Recognizer. , 2014, , .		4

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73	Automatic speech recognition for under-resourced languages: A survey. Speech Communication, 2014, 56, 85-100.	1.6	320
74	Airwriting: a wearable handwriting recognition system. Personal and Ubiquitous Computing, 2014, 18, 191-203.	1.9	72
75	Tackling Speaking Mode Varieties in EMG-Based Speech Recognition. IEEE Transactions on Biomedical Engineering, 2014, 61, 2515-2526.	2.5	48
76	Continuous affective states recognition using functional near infrared spectroscopy. Brain-Computer Interfaces, 2014, 1, 113-125.	0.9	11
77	Adaptive cognitive technical systems. Journal of Neuroscience Methods, 2014, 234, 108-115.	1.3	17
78	Web-based tools and methods for rapid pronunciation dictionary creation. Speech Communication, 2014, 56, 101-118.	1.6	9
79	Hybrid fNIRS-EEG based classification of auditory and visual perception processes. Frontiers in Neuroscience, 2014, 8, 373.	1.4	98
80	Model-Based Identification of EEG Markers for Learning Opportunities in an Associative Learning Task with Delayed Feedback. Lecture Notes in Computer Science, 2014, , 387-394.	1.0	1
81	Application of Electrode Arrays for Artifact Removal in an Electromyographic Silent Speech Interface. Communications in Computer and Information Science, 2014, , 300-312.	0.4	0
82	Statistical machine translation based text normalization with crowdsourcing. , 2013, , .		3
83	Continuous Recognition of Affective States by Functional Near Infrared Spectroscopy Signals. , 2013, , .		21
84	Reliable subject-adapted recognition of EEG error potentials using limited calibration data. , 2013, , .		5
85	Compressed signal representation for inertial sensor signals. , 2013, , .		0
86	Locating user attention using eye tracking and EEG for spatio-temporal event selection. , 2013, , .		24
87	Airwriting. Xrds, 2013, 20, 50-55.	0.2	11
88	Classification of mental tasks in the prefrontal cortex using fNIRS. , 2013, 2013, 2160-3.		56
89	Rapid bootstrapping of a Ukrainian large vocabulary continuous speech recognition system. , 2013, , .		3
90	Neighbour selection and adaptation for rapid speaker-dependent ASR. , 2013, , .		3

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91	Subject-to-subject transfer for CSP based BCIs: Feature space transformation and decision-level fusion. , 2013, 2013, 5614-7.		5
92	Recurrent neural network language modeling for code switching conversational speech. , 2013, , .		53
93	Artifact removal algorithm for an EMG-based Silent Speech Interface. , 2013, 2013, 5750-3.		7
94	GlobalPhone: A multilingual text &amp; speech database in 20 languages. , 2013, , .		58
95	Mental workload during n-back taskâ€"quantified in the prefrontal cortex using fNIRS. Frontiers in Human Neuroscience, 2013, 7, 935.	1.0	245
96	Pronunciation Extraction from Phoneme Sequences through Cross-Lingual Word-to-Phoneme Alignment. Lecture Notes in Computer Science, 2013, , 260-272.	1.0	5
97	An Investigation of Code-Switching Attitude Dependent Language Modeling. Lecture Notes in Computer Science, 2013, , 297-308.	1.0	12
98	Biosignale-basierte Mensch-Maschine Schnittstellen. Automatisierungstechnik, 2013, 61, 760-769.	0.4	3
99	Airwriting. , 2012, , .		4
100	Vision-based handwriting recognition for unrestricted text input in mid-air. , 2012, , .		41
101	Towards single pass discriminative training for speech recognition. , 2012, , .		1
102	Speaking mode recognition from functional Near Infrared Spectroscopy. , 2012, 2012, 1715-8.		19
103	Modeling gender dependency in the Subspace GMM framework. , 2012, , .		2
104	Grapheme-to-phoneme model generation for Indo-European languages. , 2012, , .		17
105	Further investigations on EMG-to-speech conversion. , 2012, , .		13
106	Filling a glass of water: Continuously decoding the speed of 3D hand movements from EEG signals. , 2012, 2012, 4095-8.		5
107	A first speech recognition system for Mandarin-English code-switch conversational speech. , 2012, , .		81
108	Word segmentation through cross-lingual word-to-phoneme alignment. , 2012, , .		7

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109	Initial Experiments with Tamil LVCSR. , 2012, , .		2
110	Active learning for accent adaptation in Automatic Speech Recognition. , 2012, , .		10
111	Airwriting: Hands-Free Mobile Text Input by Spotting and Continuous Recognition of 3d-Space Handwriting with Inertial Sensors. , 2012, , .		83
112	Cross-Subject Classification of Speaking Modes Using fNIRS. Lecture Notes in Computer Science, 2012, , 417-424.	1.0	8
113	Estimation of fundamental frequency from surface electromyographic data: EMG-to-F<inf>0</inf>. , 2011, , .		9
114	Analysis of phone confusion in EMG-based speech recognition. , 2011, , .		11
115	An EEG Adaptive Information System for an Empathic Robot. International Journal of Social Robotics, 2011, 3, 415-425.	3.1	12
116	Multimodal person independent recognition of workload related biosignal patterns. , 2011, , .		11
117	Cross-language bootstrapping based on completely unsupervised training using multilingual A-stabil. , 2011, , .		26
118	Combined intention, activity, and motion recognition for a humanoid household robot. , 2011, , .		4
119	Silent speech interfaces. Speech Communication, 2010, 52, 270-287.	1.6	364
120	Modeling coarticulation in EMG-based continuous speech recognition. Speech Communication, 2010, 52, 341-353.	1.6	139
121	Speaker identification with distant microphone speech. , 2010, , .		6
122	Multimodal Recognition of Cognitive Workload for Multitasking in the Car. , 2010, , .		39
123	Airwriting recognition using wearable motion sensors. , 2010, , .		52
124	Multilingual a-stabil: A new confidence score for multilingual unsupervised training. , 2010, , .		12
125	Speaker-Adaptive Speech Recognition Based on Surface Electromyography. Communications in Computer and Information Science, 2010, , 271-285.	0.4	8
126	ICCHP Keynote: Recognizing Silent and Weak Speech Based on Electromyography. Lecture Notes in Computer Science, 2010, , 595-604.	1.0	7

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127	Online Workload Recognition from EEG Data during Cognitive Tests and Human-Machine Interaction. Lecture Notes in Computer Science, 2010, , 410-417.	1.0	20
128	Towards Semantic Segmentation of Human Motion Sequences. Lecture Notes in Computer Science, 2010, , 436-443.	1.0	2
129	An Adaptive Information System for an Empathic Robot Using EEG Data. Lecture Notes in Computer Science, 2010, , 151-160.	1.0	4
130	BiosignalsStudio: A Flexible Framework for Biosignal Capturing and Processing. Lecture Notes in Computer Science, 2010, , 33-39.	1.0	5
131	Towards emotion recognition from electroencephalographic signals. , 2009, , .		65
132	A multiplatform speech recognition decoder based on weighted finite-state transducers. , 2009, , .		2
133	The I4U system in NIST 2008 speaker recognition evaluation. , 2009, , .		18
134	Generalized Baum-Welch algorithm for discriminative training on large vocabulary continuous speech recognition system. , 2009, , .		8
135	Voice convergin: Speaker de-identification by voice transformation. , 2009, , .		23
136	Detecting bandlimited audio in broadcast television shows. , 2009, , .		0
137	Incorporating monolingual corpora into bilingual latent semantic analysis for crosslingual LM adaptation. , 2009, , .		1
138	Vietnamese large vocabulary continuous speech recognition. , 2009, , .		23
139	Speaker de-identification via voice transformation. , 2009, , .		23
140	HMM-based human motion recognition with optical flow data. , 2009, , .		23
141	Towards an EEG-based emotion recognizer for humanoid robots. , 2009, , .		55
142	Enhancement of human computer interaction with facial electromyographic sensors. , 2009, , .		15
143	Multilingual spoken language processing. IEEE Signal Processing Magazine, 2008, 25, 89-97.	4.6	26
144	Improving word segmentation for Thai speech translation. , 2008, , .		5

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145	Is voice transformation a threat to speaker identification?. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	18
146	Sentence segmentation and punctuation recovery for spoken language translation. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	17
147	Automatic Speech Recognition Based on Electromyographic Biosignals. Communications in Computer and Information Science, 2008, , 305-320.	0.4	2
148	Translating language with technology's help. IEEE Potentials, 2007, 26, 30-35.	0.2	0
149	Continuous Electromyographic Speech Recognition with a Multi-Stream Decoding Architecture. , 2007, , .		16
150	Correlated Latent Semantic Model for Unsupervised LM Adaptation. , 2007, , .		21
151	Far-Field Speaker Recognition. IEEE Transactions on Audio Speech and Language Processing, 2007, 15, 2023-2032.	3.8	58
152	Bilingual LSA-based adaptation for statistical machine translation. Machine Translation, 2007, 21, 187-207.	1.3	18
153	Speaker Characteristics. Lecture Notes in Computer Science, 2007, , 47-74.	1.0	11
154	A geometric interpretation of non-target-normalized maximum cross-channel correlation for vocal activity detection in meetings. , 2007, , .		6
155	Thai grapheme-based speech recognition. , 2006, , .		15
156	Speaker identification using multilingual phone strings. , 2002, , .		17
157	Improvements in non-verbal cue identification using multilingual phone strings. , 2002, , .		4
158	Language-independent and language-adaptive acoustic modeling for speech recognition. Speech Communication, 2001, 35, 31-51.	1.6	273
159	Towards continuous speech recognition using surface electromyography. , 0, , .		77
160	Initialization schemes for multilayer perceptron training and their impact on ASR performance using multilingual data. , 0, , .		18
161	Automatic error recovery for pronunciation dictionaries. , 0, , .		8
162	Speech-Based Detection of Alzheimer's Disease in Conversational German. , 0, , .		41

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163	Manual and Automatic Transcriptions in Dementia Detection from Speech. , 0, , .		36
164	Domain-Adversarial Training for Session Independent EMG-based Speech Recognition. , 0, , .		14
165	Investigating the Effect of Audio Duration on Dementia Detection Using Acoustic Features. , 0, , .		13
166	Crosscorrelation-based multispeaker speech activity detection. , 0, , .		16
167	Unsupervised language model adaptation using latent semantic marginals. , 0, , .		38
168	Sub-word unit based non-audible speech recognition using surface electromyography. , 0, , .		14
169	Example-based grapheme-to-phoneme conversion for Thai. , 0, , .		5
170	SPICE: web-based tools for rapid language adaptation in speech processing systems. , 0, , .		16
171	Wavelet-based front-end for electromyographic speech recognition. , 0, , .		5
172	Synthesizing speech from electromyography using voice transformation techniques. , 0, , .		22
173	Impact of different speaking modes on EMG-based speech recognition. , 0, , .		13
174	Impact of lack of acoustic feedback in EMG-based silent speech recognition. , 0, , .		17
175	Wiktionary as a source for automatic pronunciation extraction. , 0, , .		15
176	The 2010 CMU GALE speech-to-text system. , 0, , .		9
177	Rapid bootstrapping of five eastern european languages using the rapid language adaptation toolkit. , 0, , .		25
178	Rapid building of an ASR system for under-resourced languages based on multilingual unsupervised training. , 0, , .		24
179	Investigations on speaking mode discrepancies in EMG-based speech recognition. , 0, , .		10
180	Impact of different feedback mechanisms in EMG-based speech recognition. , 0, , .		6

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181	Enhanced polyphone decision tree adaptation for accented speech recognition. , 0, , .		8
182	BioKIT â€" real-time decoder for biosignal processing. , 0, , .		14
183	Continuous speech recognition from ECoG. , 0, , .		4
184	Investigating Objective Intelligibility in Real-Time EMG-to-Speech Conversion. , 0, , .		4
185	Comparative Analysis of Think-Aloud Methods for Everyday Activities in the Context of Cognitive Robotics. , 0, , .		3