

Yegnanarayana Bayya

List of Publications by Year in descending order

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181
papers

6,519
citations

61984

43
h-index

79698

73
g-index

185
all docs

185
docs citations

185
times ranked

2088
citing authors

#	ARTICLE	IF	CITATIONS
1	Epoch Extraction From Speech Signals. IEEE Transactions on Audio Speech and Language Processing, 2008, 16, 1602-1613.	3.2	497
2	Combining evidence from residual phase and MFCC features for speaker recognition. IEEE Signal Processing Letters, 2006, 13, 52-55.	3.6	331
3	Epoch extraction from linear prediction residual for identification of closed glottis interval. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1979, 27, 309-319.	2.0	219
4	Spectral Mapping Using Artificial Neural Networks for Voice Conversion. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 954-964.	3.2	171
5	Event-Based Instantaneous Fundamental Frequency Estimation From Speech Signals. IEEE Transactions on Audio Speech and Language Processing, 2009, 17, 614-624.	3.2	170
6	Extraction and representation of prosodic features for language and speaker recognition. Speech Communication, 2008, 50, 782-796.	2.8	169
7	Enhancement of reverberant speech using LP residual signal. IEEE Transactions on Speech and Audio Processing, 2000, 8, 267-281.	1.5	163
8	Determination of instants of significant excitation in speech using group delay function. IEEE Transactions on Speech and Audio Processing, 1995, 3, 325-333.	1.5	157
9	Prosody modification using instants of significant excitation. IEEE Transactions on Audio Speech and Language Processing, 2006, 14, 972-980.	3.2	156
10	Formant extraction from linear prediction phase spectra. Journal of the Acoustical Society of America, 1978, 63, 1638-1640.	1.1	152
11	Transformation of formants for voice conversion using artificial neural networks. Speech Communication, 1995, 16, 207-216.	2.8	146
12	Speech enhancement using linear prediction residual. Speech Communication, 1999, 28, 25-42.	2.8	145
13	Extraction of speaker-specific excitation information from linear prediction residual of speech. Speech Communication, 2006, 48, 1243-1261.	2.8	139
14	Significance of group delay functions in signal reconstruction from spectral magnitude or phase. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1984, 32, 610-623.	2.0	133
15	AANN: an alternative to GMM for pattern recognition. Neural Networks, 2002, 15, 459-469.	5.9	132
16	Characterization of Glottal Activity From Speech Signals. IEEE Signal Processing Letters, 2009, 16, 469-472.	3.6	115
17	A clustering algorithm using an evolutionary programming-based approach. Pattern Recognition Letters, 1997, 18, 975-986.	4.2	110
18	Extraction of vocal-tract system characteristics from speech signals. IEEE Transactions on Speech and Audio Processing, 1998, 6, 313-327.	1.5	110

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19	Determination of Instants of Significant Excitation in Speech Using Hilbert Envelope and Group Delay Function. IEEE Signal Processing Letters, 2007, 14, 762-765.	3.6	108
20	Significance of group delay functions in spectrum estimation. IEEE Transactions on Signal Processing, 1992, 40, 2281-2289.	5.3	101
21	Combining evidence from source, suprasegmental and spectral features for a fixed-text speaker verification system. IEEE Transactions on Speech and Audio Processing, 2005, 13, 575-582.	1.5	97
22	Speech processing using group delay functions. Signal Processing, 1991, 22, 259-267.	3.7	88
23	Group delay functions and its applications in speech technology. Sadhana - Academy Proceedings in Engineering Sciences, 2011, 36, 745-782.	1.3	85
24	Voiced/Nonvoiced Detection Based on Robustness of Voiced Epochs. IEEE Signal Processing Letters, 2010, 17, 273-276.	3.6	82
25	Formant extraction from group delay function. Speech Communication, 1991, 10, 209-221.	2.8	80
26	An iterative algorithm for decomposition of speech signals into periodic and aperiodic components. IEEE Transactions on Speech and Audio Processing, 1998, 6, 1-11.	1.5	80
27	Extracting the frequencies of the pinna spectral notches in measured head related impulse responses. Journal of the Acoustical Society of America, 2005, 118, 364-374.	1.1	79
28	Modeling durations of syllables using neural networks. Computer Speech and Language, 2007, 21, 282-295.	4.3	78
29	Single Frequency Filtering Approach for Discriminating Speech and Nonspeech. IEEE/ACM Transactions on Audio Speech and Language Processing, 2015, 23, 705-717.	5.8	74
30	Segmentation of Gabor-filtered textures using deterministic relaxation. IEEE Transactions on Image Processing, 1996, 5, 1625-1636.	9.8	72
31	Duration modification using glottal closure instants and vowel onset points. Speech Communication, 2009, 51, 1263-1269.	2.8	71
32	Processing of reverberant speech for time-delay estimation. IEEE Transactions on Speech and Audio Processing, 2005, 13, 1110-1118.	1.5	69
33	Intonation modeling for Indian languages. Computer Speech and Language, 2009, 23, 240-256.	4.3	65
34	Voice conversion. Speech Communication, 1989, 8, 147-158.	2.8	63
35	Effect of glottal dynamics in the production of shouted speech. Journal of the Acoustical Society of America, 2013, 133, 3050-3061.	1.1	63
36	Epoch extraction of voiced speech. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1975, 23, 562-570.	2.0	60

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37	Robustness of group-delay-based method for extraction of significant instants of excitation from speech signals. IEEE Transactions on Speech and Audio Processing, 1999, 7, 609-619.	1.5	60
38	Artificial neural networks for pattern recognition. Sadhana - Academy Proceedings in Engineering Sciences, 1994, 19, 189-238.	1.3	59
39	Perceived loudness of speech based on the characteristics of glottal excitation source. Journal of the Acoustical Society of America, 2009, 126, 2061-2071.	1.1	59
40	Radial basis function networks for fast contingency ranking. International Journal of Electrical Power and Energy Systems, 2002, 24, 387-393.	5.5	55
41	Supervised texture classification using a probabilistic neural network and constraint satisfaction model. IEEE Transactions on Neural Networks, 1998, 9, 516-522.	4.2	54
42	Activity Modeling Using Event Probability Sequences. IEEE Transactions on Image Processing, 2008, 17, 594-607.	9.8	52
43	Classification of sport videos using edge-based features and autoassociative neural network models. Signal, Image and Video Processing, 2010, 4, 61-73.	2.7	50
44	Epoch-based analysis of speech signals. Sadhana - Academy Proceedings in Engineering Sciences, 2011, 36, 651-697.	1.3	49
45	Spectro-temporal analysis of speech signals using zero-time windowing and group delay function. Speech Communication, 2013, 55, 782-795.	2.8	49
46	Epoch extraction from emotional speech using single frequency filtering approach. Speech Communication, 2017, 86, 52-63.	2.8	46
47	Finding Axes of Symmetry From Potential Fields. IEEE Transactions on Image Processing, 2004, 13, 1559-1566.	9.8	44
48	Speaker localization using excitation source information in speech. IEEE Transactions on Speech and Audio Processing, 2005, 13, 751-761.	1.5	43
49	Determining Number of Speakers From Multispeaker Speech Signals Using Excitation Source Information. IEEE Signal Processing Letters, 2007, 14, 481-484.	3.6	43
50	Speech enhancement using excitation source information. , 2002, , .		42
51	Voice conversion: Factors responsible for quality. , 0, , .		40
52	Study of the effects of vocal tract constriction on glottal vibration. Journal of the Acoustical Society of America, 2014, 136, 1932-1941.	1.1	35
53	Design of recursive group-delay filters by autoregressive modeling. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1982, 30, 632-637.	2.0	32
54	Source and system features for speaker recognition using AANN models. , 0, , .		32

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55	Determining Mixing Parameters From Multispeaker Data Using Speech-Specific Information. IEEE Transactions on Audio Speech and Language Processing, 2009, 17, 1196-1207.	3.2	32
56	Extraction of pitch in adverse conditions. , 0, , .		30
57	Study of characteristics of aperiodicity in Noh voices. Journal of the Acoustical Society of America, 2015, 137, 3411-3421.	1.1	29
58	Effectiveness of a periodic and aperiodic decomposition method for analysis of voice sources. IEEE Transactions on Speech and Audio Processing, 1998, 6, 12-23.	1.5	26
59	Multimodal person authentication using speech, face and visual speech. Computer Vision and Image Understanding, 2008, 109, 44-55.	4.7	26
60	On the use of phase of the Fourier transform for face recognition under variations in illumination. Signal, Image and Video Processing, 2010, 4, 353-358.	2.7	26
61	Recognition of Stop-Consonant-Vowel (SCV) Segments in Continuous Speech using Neural Network Models. IETE Journal of Research, 1996, 42, 269-280.	2.6	25
62	Autoassociative neural network models for language identification. , 0, , .		25
63	Design of ARMA digital filters by pole-zero decomposition. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1981, 29, 433-439.	2.0	24
64	Performance of an Event-Based Instantaneous Fundamental Frequency Estimator for Distant Speech Signals. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 1853-1864.	3.2	23
65	Intonation component of a text-to-speech system for Hindi. Computer Speech and Language, 1993, 7, 283-301.	4.3	22
66	Face Verification Using Template Matching. IEEE Transactions on Information Forensics and Security, 2007, 2, 636-641.	6.9	21
67	Speech analysis by pole-zero decomposition of short-time spectra. Signal Processing, 1981, 3, 5-17.	3.7	20
68	A constraint satisfaction model for recognition of stop consonant-vowel (SCV) utterances. IEEE Transactions on Speech and Audio Processing, 2002, 10, 472-480.	1.5	20
69	Unsupervised texture classification using vector quantization and deterministic relaxation neural network. IEEE Transactions on Image Processing, 1997, 6, 1376-1387.	9.8	19
70	Significance of image representation for face verification. Signal, Image and Video Processing, 2007, 1, 225-237.	2.7	19
71	Acoustic analysis of trill sounds. Journal of the Acoustical Society of America, 2012, 131, 3141-3152.	1.1	19
72	Analysis of singing voice for epoch extraction using Zero Frequency Filtering method. , 2015, , .		19

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73	Excitation Features of Speech for Emotion Recognition Using Neutral Speech as Reference. Circuits, Systems, and Signal Processing, 2020, 39, 4459-4481.	2.0	19
74	Synthesis of laughter by modifying excitation characteristics. Journal of the Acoustical Society of America, 2013, 133, 3072-3082.	1.1	18
75	Intelligibility of speech under nonexponential decay conditions. Journal of the Acoustical Society of America, 1975, 58, 853-857.	1.1	17
76	Speaker-specific mapping for text-independent speaker recognition. Speech Communication, 2003, 39, 301-310.	2.8	17
77	Extraction of Fundamental Frequency From Degraded Speech Using Temporal Envelopes at High SNR Frequencies. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 829-838.	5.8	17
78	Speaker verification: minimizing the channel effects using autoassociative neural network models. , 0, , .		16
79	Waveform estimation using group delay processing. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1985, 33, 832-836.	2.0	15
80	Language identification in noisy environments using throat microphone signals. , 0, , .		15
81	Prosodic manipulation using instants of significant excitation. , 2003, , .		14
82	Analysis and classification of phonation types in speech and singing voice. Speech Communication, 2020, 118, 33-47.	2.8	14
83	Backpropagation learning algorithms for classification with fuzzy mean square error. Pattern Recognition Letters, 1998, 19, 43-51.	4.2	13
84	Analysis of autoassociative mapping neural networks. , 0, , .		13
85	Significance of knowledge sources for a text-to-speech system for Indian languages. Sadhana - Academy Proceedings in Engineering Sciences, 1994, 19, 147-169.	1.3	12
86	Rough-fuzzy membership functions. , 0, , .		12
87	Extraction of fixed dimension patterns from varying duration segments of consonant-vowel utterances. , 0, , .		12
88	Study of robustness of zero frequency resonator method for extraction of fundamental frequency. , 2011, , .		12
89	Effectiveness of representation of signals through group delay functions. Signal Processing, 1989, 17, 141-150.	3.7	11
90	Signal reconstruction from partial data for sensor array imaging applications. Signal Processing, 1990, 19, 139-149.	3.7	11

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91	Word boundary hypothesization for continuous speech in Hindi based on F0 patterns. Speech Communication, 1996, 18, 21-46.	2.8	11
92	Significance of phase in single frequency filtering outputs of speech signals. Speech Communication, 2018, 97, 66-72.	2.8	11
93	A distance measure based on the derivative of linear prediction phase spectrum. , 0, , .		10
94	Feedforward neural networks configuration using evolutionary programming. , 0, , .		10
95	Fuzzy-rough neural networks for vowel classification. , 0, , .		10
96	Determination of glottal open regions by exploiting changes in the vocal tract system characteristics. Journal of the Acoustical Society of America, 2016, 140, 666-677.	1.1	10
97	Signal-dependent matching for isolated word speech recognition systems. Signal Processing, 1984, 7, 161-173.	3.7	9
98	Neural networks for contract bridge bidding. Sadhana - Academy Proceedings in Engineering Sciences, 1996, 21, 395-413.	1.3	9
99	Online text-independent speaker verification system using autoassociative neural network models. , 0, , .		9
100	Detection of glottal closure instant and glottal open region from speech signals using spectral flatness measure. Speech Communication, 2020, 116, 30-43.	2.8	9
101	Use of fuzzy mathematical concepts in character spotting for automatic recognition of continuous speech in Hindi. Fuzzy Sets and Systems, 1992, 46, 1-9.	2.7	8
102	Application of fuzzy-rough sets in modular neural networks. , 0, , .		8
103	Exploring features for audio clip classification using LP residual and AANN models. , 0, , .		8
104	Analysis of aperiodicity in artistic Noh singing voice using an impulse sequence representation of excitation source. Journal of the Acoustical Society of America, 2019, 146, 4446-4457.	1.1	8
105	Spectral and temporal manipulations of SFF envelopes for enhancement of speech intelligibility in noise. Computer Speech and Language, 2019, 54, 86-105.	4.3	8
106	Comparison of Glottal Closure Instants Detection Algorithms for Emotional Speech. , 2020, , .		8
107	Comparative study of nonlinear time warping techniques in isolated word speech recognition systems. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1983, 31, 1582-1586.	2.0	7
108	On improvement of performance of isolated word recognition for degraded speech. Signal Processing, 1984, 7, 175-183.	3.7	7

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109	Autoassociative Neural Network Models for Pattern Recognition Tasks in Speech and Image. Series in Machine Perception and Artificial Intelligence, 2002, , 283-305.	0.1	7
110	Interpretation of State Sequences in HMM for Activity Representation. , 0, , .		7
111	Modeling syllable duration in indian languages using support vector machines. , 0, , .		7
112	Neural network classifiers for language identification using phonotactic and prosodic features. , 0, , .		7
113	Speaker change detection in casual conversations using excitation source features. Speech Communication, 2008, 50, 153-161.	2.8	7
114	Time Delay Estimation from Mixed Multispeaker Speech Signals Using Single Frequency Filtering. Circuits, Systems, and Signal Processing, 2020, 39, 1988-2005.	2.0	7
115	Determination of glottal closure instants from clean and telephone quality speech signals using single frequency filtering. Computer Speech and Language, 2020, 64, 101097.	4.3	7
116	Studies in a Reverberation Room with a Highly Absorbing Sample. Journal of the Acoustical Society of America, 1972, 52, 465-470.	1.1	6
117	Real time face authentication system using autoassociative neural network models. , 2003, , .		6
118	Extraction and Utilization of Excitation Information of Speech: A Review. Proceedings of the IEEE, 2021, 109, 1920-1941.	21.3	6
119	Wave analysis of sound decay in rectangular rooms. Journal of the Acoustical Society of America, 1974, 56, 534-541.	1.1	5
120	Epoch extraction from linear prediction residual. , 0, , .		5
121	Measuring source-tract interaction from speech. , 0, , .		5
122	A maximum entropy approach to interpolation. Signal Processing, 1990, 21, 17-24.	3.7	5
123	Word boundary hypothesization in Hindi speech. Computer Speech and Language, 1991, 5, 379-392.	4.3	5
124	Neural network models for spotting stop consonant-vowel (SCV) segments in continuous speech. , 0, , .		5
125	Rough-fuzzy set theoretic approach to evaluate the importance of input features in classification. , 0, , .		5
126	Modular networks and constraint satisfaction model for recognition of stop consonant-vowel (SCV) utterances. , 0, , .		5

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127	Autoassociative neural network models for online speaker verification using source features from vowels. , 0, , .		5
128	Modeling syllable duration in Indian languages using neural networks. , 0, , .		5
129	Representation of images through group-delay functions. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1987, 35, 237-240.	2.0	4
130	Spotting consonant-vowel units in continuous speech using autoassociative neural networks and support vector machines. , 0, , .		4
131	Neural network models for combining evidence from spectral and suprasegmental features for text-dependent speaker verification. , 0, , .		4
132	Edge extraction using zero-frequency resonator. Signal, Image and Video Processing, 2012, 6, 287-300.	2.7	4
133	Extraction of formant bandwidths using properties of group delay functions. Speech Communication, 2014, 63-64, 70-83.	2.8	4
134	A neural network approach for speech activity detection for Apollo corpus. Computer Speech and Language, 2021, 65, 101137.	4.3	4
135	Effect of noise and distortion in speech on parametric extraction. , 0, , .		3
136	Performance of isolated word recognition system for confusable vocabulary. , 0, , .		3
137	Reconstruction from Fourier transform phase with applications to speech analysis. , 0, , .		3
138	Source-system windowing for speech analysis and synthesis. IEEE Transactions on Speech and Audio Processing, 1996, 4, 133-137.	1.5	3
139	A clustering algorithm using evolutionary programming. , 0, , .		3
140	Neural network models for preprocessing and discriminating utterances of consonant-vowel units. , 0, , .		3
141	Combining evidence from multiple modular networks for recognition of consonant-vowel units of speech. , 0, , .		3
142	Face verification using correlation filters and autoassociative neural networks. , 0, , .		3
143	Speaker-specific information from residual phase. , 0, , .		3
144	Acoustic model combination for recognition of speech in multiple languages using support vector machines. , 0, , .		3

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145	Spotting glottal stop in Amharic in continuous speech. Computer Speech and Language, 2012, 26, 293-305.	4.3	3
146	Group delay spectrogram of speech signals without phase wrapping. Journal of the Acoustical Society of America, 2022, 151, 2181-2191.	1.1	3
147	Texture classification using a probabilistic neural network and constraint satisfaction model. , 0, , .		2
148	Texture classification using a two-stage neural network approach. , 0, , .		2
149	Incorporation of fuzzy classification properties into backpropagation learning algorithm. , 0, , .		2
150	Real time face recognition system using autoassociative neural network models. , 0, , .		2
151	An algorithm for bandlimited signal interpolation. , 0, , .		1
152	Diffusion of decaying sound field in a reverberation room with a highly absorbing sample. Journal of the Acoustical Society of America, 1974, 56, 706-708.	1.1	1
153	Diffusion of Decaying Sound Field in a Reverberation Room with a Highly Absorbing Sample. Journal of the Acoustical Society of America, 1974, 55, 420-420.	1.1	1
154	Cascade realization of digital inverse filter for extracting speaker dependent features. , 0, , .		1
155	Performance of linear prediction analysis on speech with additive noise. , 0, , .		1
156	Processing of noisy speech using group delay functions. , 0, , .		1
157	Image reconstruction from multiple frames of sparse data. Multidimensional Systems and Signal Processing, 1993, 4, 167-179.	2.6	1
158	On timing in time-frequency analysis of speech signals. Sadhana - Academy Proceedings in Engineering Sciences, 1996, 21, 5-20.	1.3	1
159	Neural network models for recognition of consonant-vowel (C/sup n/V) utterances. , 0, , .		1
160	Constraint satisfaction model for enhancement of evidence in recognition of consonant-vowel utterances. , 2003, , .		1
161	Constraint satisfaction model for enhancement of evidence in recognition of consonant-vowel utterances. , 0, , .		1
162	AANN models for speaker recognition based on difference cepstrals. , 0, , .		1

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163	NVIBRS - News video indexing, browsing and retrieval system. , 0, , .		1
164	Vowel onset point based variable frame rate analysis for speech recognition. , 0, , .		1
165	Laplacian of smoothed image as representation for face recognition. , 2011, , .		1
166	Subsegmental level analysis of high arousal speech using the zero-time windowing method. Journal of the Acoustical Society of America, 2019, 145, 551-561.	1.1	1
167	On Improving the Accuracy and Robustness of Time Delay Estimation of Broadband Signals. Circuits, Systems, and Signal Processing, 0, , 1.	2.0	1
168	Computation of the Capacity of a Burst Noise Binary Symmetric Channel. IETE Journal of Research, 1973, 19, 320-322.	2.6	0
169	Epoch Extraction of Composite Signals. IETE Journal of Research, 1976, 22, 712-716.	2.6	0
170	Nearest neighbour decision rule for vowel and digit recognition. , 0, , .		0
171	Pole-zero decomposition: A new technique for design of digital filters. , 0, , .		0
172	Performance of isolated word recognition system for degraded speech. , 0, , .		0
173	Applications of Group Delay Functions in Speech Processing. IETE Journal of Research, 1988, 34, 20-29.	2.6	0
174	Significance of initial interpolation in band-limited signal interpolation. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1989, 37, 151-152.	2.0	0
175	Synthesizing Intonation for Indian Languages. , 0, , .		0
176	Prosodic manipulation using instants of significant excitation. , 0, , .		0
177	Neural network preprocessor for recognition of syllables. , 0, , .		0
178	Speech Enhancement using Source Features and Group Delay Analysis. , 0, , .		0
179	Neural network models for extracting complementary speaker-specific information-from residual phase. , 0, , .		0
180	Speech Communication and Signal Processing. Sadhana - Academy Proceedings in Engineering Sciences, 2011, 36, 551-553.	1.3	0

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181	PATTERN RECOGNITION ISSUES IN SPEECH PROCESSING. , 2001, , 531-558.		0