

## **BIBLIOGRAPHY**

- Abid S, Fnaiech F, & Najim M, (2001), "A fast feed forward training algorithm using a modified form of the standard backpropagation algorithm," *IEEE Trans. Neural Networks*, Vol.12, Pp: 424-430.
- Ahmad M, & Salam F.M, (1992), "Supervised learning using cauchy energy function," *Proc. 2nd Int. Conf. Fuzzy logic neural networks*, Iizuka, Japan, Pp: 721-724.
- Al Mojaly, M., Muhammad, G., & Alsulaiman, M. (2014), "Detection and classification of voice pathology using feature selection", In *2014 IEEE/ACS 11th International Conference on Computer Systems and Applications (AICCSA)*, Pp. 571-577.
- Alarifi, A., Tolba, A., Al-Makhadmeh, Z., & Said, W. (2018), "A big data approach sentiment analysis using greedy feature selection with cat swarm optimization-based long short-term memory neural networks", *The Journal of Supercomputing*, Pp: 1-16.
- Al-Nasheri, A., Muhammad, G., Alsulaiman, M., Ali, Z., Malki, K. H., Mesallam, T. A., & Ibrahim, M. F. (2018), "Voice pathology detection and classification using auto-correlation and entropy features in different frequency regions", *IEEE Access*, Vol. 6, Pp: 6961-6974.
- Amin, S. U., Hossain, M. S., Muhammad, G., Alhussein, M., & Rahman, M. A. (2019), "Cognitive Smart Healthcare for Pathology Detection and Monitoring", *IEEE Access*, 7, Pp: 10745-10753.
- Arjmandi, M. K., & Pooyan, M. (2012), "An optimum algorithm in pathological voice quality assessment using wavelet-packet-based features, linear discriminant analysis and support vector machine", *Biomedical Signal Processing and Control*, Vol. 7(1), Pp:3-19.
- Arjmandi, M. K., Pooyan, M., Mikaili, M., Vali, M., & Moqarehzadeh, A., (2011), "Identification of Voice Disorders Using Long-Time Features and Support Vector

- Machine With Different Feature Reduction Methods”, *Journal of voice: official journal of the Voice Foundation*, Vol. 25, Pp: 275-289.
- Awan, S. N., & Roy, N. (2009), “Outcomes measurement in voice disorders: application of an acoustic index of dysphonia severity”, *Journal of Speech, Language, and Hearing Research*, Vol. 52(2), Pp: 482-499.
- Azadi, H., Akbarzadeh-T, M. R., Kobravi, H. R., Sarcheshmeh, A. N., Shahsavanpthe, N., & Asgharzade, M. R. (2015), “Presentation of a new gender dependent feature selection approach for diagnosis of Parkinson disease using speech signal processing”, In *2015 IEEE - International Congress on Technology, Communication and Knowledge (ICTCK)*, Pp: 371-375.
- Baishya, A., & Kumar, P. (2018), “Speech De-noising using Wavelet-based Methods with Focus on Classification of Speech into Voiced, Unvoiced and Silence Regions”, In *2018 IEEE - 5th International Conference on Signal Processing and Integrated Networks (SPIN)*, Pp: 419-424.
- Benba, A., Jilbab, A., & Hammouch, A. (2014), “Hybridization of best acoustic cues for detecting persons with Parkinson's disease. In *2014 IEEE - Second World Conference on Complex Systems (WCCS)*, Pp: 622-625.
- Bhuta, T., Patrick, L., & Garnett, J. D. (2004), “Perceptual evaluation of voice quality and its correlation with acoustic measurements”, *Journal of voice*, Vol. 18(3), Pp: 299-304.
- Borovikova, D. V., Makukha, V. K., & Shevchenko, T. A. (2018), “Comparative Analysis of Acoustic Parameters of the Saarbruecken Database's Voice Records”, In *2018 IEEE - 19th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices (EDM)*, Pp: 6403-6406.
- Boyanov, B., & Hadjitodorov, S. (1997), “Acoustic analysis of pathological voices. A voice analysis system for the screening of laryngeal diseases”, *IEEE Engineering in Medicine and Biology Magazine*, Vol. 16(4), Pp: 74-82.

- Carvalho, R. T. S., Cavalcante, C. C., & Cortez, P. C. (2011), "Wavelet transform and artificial neural networks applied to voice disorders identification", In *Nature and Biologically Inspired Computing (NaBIC), IEEE - Third World Congress*, Pp: 371-376.
- Castellanos, G., Delgado, E., Daza, G., Sanchez, L. G., & Suarez, J. F. (2006), "Feature selection in pathology detection using hybrid multidimensional analysis", In *2006 International Conference of the IEEE Engineering in Medicine and Biology Society*, Pp: 5503-5506.
- Costa, S. C., Neto, B. G. A., Fachine, J. M., & Correia, S. (2008), "Parametric cepstral analysis for pathological voice assessment", In *Proceedings of the 2008 ACM symposium on Applied computing*, Pp: 1410-1414.
- Cui, R., Liu, M., & Alzheimer's disease Neuroimaging Initiative. (2019), "RNN-based Longitudinal Analysis for Diagnosis of Alzheimer's disease", *Computerized Medical Imaging and Graphics*.
- Davis B., (1979), "Acoustic Characteristics of Normal and Pathological Voices," in *Proceedings of Speech and Language: Advances in Basic Research and Practice*, Orland, Pp: 271-335.
- De Oliveira Rosa, M., Pereira, J. C., & Grellet, M. (2000), "Adaptive estimation of residue signal for voice pathology diagnosis", *IEEE Transactions on Biomedical Engineering*, Vol. 47(1), Pp: 96-104.
- Dejonckere, P. H., Bradley, P., Clemente, P., Cornut, G., Crevier-Buchman, L., Friedrich, G., & Woisard, V. (2001), "A basic protocol for functional assessment of voice pathology, especially for investigating the efficacy of (phonosurgical) treatments and evaluating new assessment techniques", *European Archives of Oto-rhinolaryngology*, Vol. 258(2), Pp:77-82.
- Delgado-Trejos, E., Castellanos, G., Sánchez, L. G., & Suárez, J. F. (2008), "Feature Selection in Pathology Detection using Hybrid Multidimensional Analysis", In *Encyclopedia of Healthcare Information Systems*, IGI Global, Pp: 587-593.

- Deshpande, P. S., & Manikandan, M. S. (2018), "Effective glottal instant detection and electroglottographic parameter extraction for automated voice pathology assessment", *IEEE Journal of biomedical and health informatics*, Vol. 22(2), Pp: 398-408.
- Dibazar, A. A., Berger, & T. W., Narayanan, S. S., (2006), "Pathological Voice Assessment," *EMBS '06. 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Pp: 1669-1673.
- Dundar, M. M., Badve, S., Raykar, V. C., Jain, R. K., Sertel, O., & Gurcan, M. N. (2010), "A multiple instance learning approaches toward optimal classification of pathology slides", In *2010 20th International Conference on Pattern Recognition*, Pp: 2732-2735.
- Eadie, T. L., & Doyle, P. C. (2005), "Classification of dysphonic voice: acoustic and auditory-perceptual measures", *Journal of Voice*, Vol. 19(1), Pp: 1-14.
- Ezzine, K., & Frikha, M. (2018), "Investigation of glottal flow parameters for voice pathology detection on SVD and MEEI databases", In *2018 4th International Conference on Advanced Technologies for Signal and Image Processing (ATSIP)*, Pp: 1-6.
- Fang, S. H., Tsao, Y., Hsiao, M. J., Chen, J. Y., Lai, Y. H., Lin, F. C., & Wang, C. T. (2018), "Detection of pathological voice using cepstrum vectors: A deep learning approach", *Journal of Voice*.
- Fex, B., Fex, S., Shiromoto, O., & Hirano, M. (1994), "Acoustic analysis of functional dysphonia: before and after voice therapy (accent method)", *Journal of Voice*, Vol. 8(2), Pp: 163-167.
- Fezari, M., Amara, F., & El-Emary, I. M. (2014), "Acoustic analysis for detection of voice disorders using adaptive features and classifiers", In *Proc. 2014th Int. Conf. on Circuits, Systems, and Control*.
- Firdos, S., & Umarani, K. (2016), "Disordered voice classification using SVM and feature selection using GA", In *2016 Second International Conference on Cognitive Computing and Information Processing (CCIP)*, Pp: 1-6.

- Fonseca, E. S., Guido, R. C., Scalassara, P. R., Maciel, C. D., & Pereira, J. C. (2007), “Wavelet time-frequency analysis and least squares support vector machines for the identification of voice disorders”, *Computers in Biology and Medicine*, Vol. 37(4), Pp: 571-578.
- Fonseca, E. S., Guido, R. C., Silvestre, A. C., & Pereira, J. C. (2005), “Discrete wavelet transform and support vector machine applied to pathological voice signals identification”, In *Seventh IEEE International Symposium on Multimedia (ISM'05)*, Pp: 5- 12.
- Fonseca, E.S. & Pereira, J.C., (2009), “Normal versus pathological voice signals”, *IEEE Engineering in Medicine and Biology Magazine*, Vol.28 (5), Pp: 44-48.
- Fredouille, C., Pouchoulin, G., Bonastre, J. F., Azzarello, M., Giovanni, A., & Ghio, A. (2005), “Application of Automatic Speaker Recognition techniques to pathological voice assessment (dysphonia)”, In *Interspeech* , Pp: 149-152.
- Garnavi, R., Mahapatra, D., Roy, P., Sedai, S., & Tennakoon, R. B. (2016), “Image Quality Classification for DR Screening Using Convolutional Neural Networks”, *Proceedings of the Ophthalmic Medical Image Analysis International Workshop*, Pp: 113-120.
- Gerratt, B. R., Kreiman, J., Antonanzas-Barroso, N., & Berke, G. S. (1993), “Comparing internal and external standards in voice quality judgments”, *Journal of Speech, Language, and Hearing Research*, Vol. 36(1), Pp: 14-20.
- Godino-Llorente, J. I., Gomez-Vilda, P., & Blanco-Velasco, M. (2006), “Dimensionality reduction of a pathological voice quality assessment system based on Gaussian mixture models and short-term cepstral parameters”, *IEEE transactions on biomedical engineering*, Vol. 53(10), Pp: 1943-1953.
- Gómez-García, J. A., Moro-Velázquez, L., & Godino-Llorente, J. I. (2019), “On the design of automatic voice condition analysis systems. part ii: Review of speaker recognition techniques and study on the effects of different variability factors”, *Biomedical Signal Processing and Control*, Vol. 48, Pp: 128-143.

- Hadjitodorov, S., & Mitev, P. (2002), "A computer system for acoustic analysis of pathological voices and laryngeal diseases screening", *Medical engineering & physics*, Vol. 24(6), Pp: 419-429.
- Hansen, J. H., Gavidia-Ceballos, L., & Kaiser, J. F. (1998), "A nonlinear operator-based speech feature analysis method with application to vocal fold pathology assessment", *IEEE Transactions on biomedical engineering*, Vol. 45(3), Pp: 300-313.
- Harar, P., Alonso-Hernandez, J. B., Mekyska, J., Galaz, Z., Burget, R., & Smekal, Z. (2017), "Voice pathology detection using deep learning: a preliminary study", In 2017 international conference and workshop on bioinspired intelligence (IWOBI), Pp: 1-4.
- Hirano, M., Hibi, S., Yoshida, T., Hirade, Y., Kasuya, H., & Kikuchi, Y. (1988), "Acoustic analysis of pathological voice: some results of the clinical application. *Acta otolaryngologica*", Vol. 105(5-6), Pp: 432-438.
- Hosseini, P. T., Almasganj, F., Emami, T., Behroozmand, R., Gharibzade, S., & Torabinezhad, F. (2008), "Local discriminant wavelet packet basis for voice pathology classification", In *2008 IEEE-2nd International Conference on Bioinformatics and Biomedical Engineering*, Pp: 2052-2055.
- [http://stimmdb.coli.uni-saarland.de/help\\_en.php4#menu](http://stimmdb.coli.uni-saarland.de/help_en.php4#menu)
- Huang, P. W., & Lee, C. H. (2009), "Automatic classification for pathological prostate images based on fractal analysis", *IEEE transactions on medical imaging*, Vol. 28(7), Pp: 1037-1050.
- J. I. Godino-Llorente, P. Gomez-Vilda, & M. Blanco-Velasco, (2006), "Dimensionality reduction of a pathological voice quality assessment system based on Gaussian mixture models and short-term cepstral parameters," *IEEE Trans. Biomed. Eng.*, Vol. 53, Pp:1943- 1953.

- Jia, W., Muhammad, K., Wang, S. H., & Zhang, Y. D. (2017), "Five-category classification of pathological brain images based on deep stacked sparse autoencoder", *Multimedia Tools and Applications*, Pp: 1-20.
- Kasuya, H., Ogawa, S., Kikuchi, Y., & Ebihara, S. (1986), "An acoustic analysis of pathological voice and its application to the evaluation of laryngeal pathology", *Speech Communication*, Vol. 5(2), Pp: 171-181.
- Kathirvalavakumar T, & Subavathi S.J, (2009), "Neighborhood-based modified backpropagation algorithm using adaptive learning parameters for training feedforward neural networks," *Neurocomputing*, Vol.72, Pp: 3915-3921.
- Kolachalama, V. B., Singh, P., Lin, C. Q., Mun, D., Belghasem, M. E., Henderson, J. M., & Chitalia, V. C. (2018), "Association of pathological fibrosis with renal survival using deep neural networks", *Kidney international reports*, Vol.3(2), Pp: 464-475.
- Kukharchik, P., Martynov, D, Kheidorov, I., & Kotov, O. (2007), "Vocal fold pathology detection using modified wavelet-like features and support vector machines", In *2007 15th European Signal Processing Conference*, Pp: 2214-2218.
- Kuresan, H., Samiappan, D., & Masunda, S. (2019), "Fusion of WPT and MFCC feature extraction in Parkinson's disease diagnosis", *Technology and Health Care*", (Preprint), Pp: 1-10.
- Markaki M. & Stylianou Y., (2009), "Using modulation spectra for voice pathology detection and classification," in Proc. IEEE EMBC'09, Minneapolis, Pp: 2514–2517.
- Markaki, M., & Stylianou, Y. (2011), "Voice pathology detection and discrimination based on modulation spectral features", *IEEE Transactions on audio, speech, and language processing*, Vol.19(7), Pp: 1938-1948.
- Martens, J. W., Versnel, H., & Dejonckere, P. H. (2007), "The effect of visible speech in the perceptual rating of pathological voices", *Archives of Otolaryngology-Head & Neck Surgery*, Vol. 133(2), Pp:178-185.

- Maryn, Y., De Bodt, M., & Roy, N. (2010), "The Acoustic Voice Quality Index: toward improved treatment outcomes assessment in voice disorders. *Journal of communication disorders*", Vol. 43(3), Pp: 161-174.
- Mehta, D. D., & Hillman, R. E. (2008), "Voice assessment: updates on perceptual, acoustic, aerodynamic, and endoscopic imaging methods", *Current opinion in otolaryngology & head and neck surgery*, Vol. 16(3), Pp: 211-220.
- Mesallam, T. A., Farahat, M., Malki, K. H., Alsulaiman, M., Ali, Z., Al-nasheri, A., & Muhammad, G. (2017), "Development of the Arabic voice pathology database and its evaluation by using speech features and machine learning algorithms", *Journal of healthcare engineering*, Pp: 342 - 351
- Moon, J., & Kim, S. (2018), "An approach on a combination of higher-order statistics and higher-order differential energy operator for detecting pathological voice with machine learning", In *2018 International Conference on Information and Communication Technology Convergence (ICTC)*, Pp: 46-51.
- Moran, R. J., Reilly, R. B., de Chazal, P., & Lacy, P. D. (2006), "Telephony-based voice pathology assessment using automated speech analysis", *IEEE Transactions on Biomedical Engineering*, Vol. 53(3), Pp: 468-477.
- Muhammad, G., & Melhem, M. (2014), "Pathological voice detection and binary classification using MPEG-7 audio features", *Biomedical Signal Processing and Control*, Vol. 11, Pp: 1-9.
- Muhammad, G., Alsulaiman, M., Mahmood, A., & Ali, Z. (2011), "Automatic voice disorder classification using vowel formants", In *Multimedia and Expo (ICME), 2011 IEEE International Conference*, Pp: 1-6.
- Muthusamy, H., Polat, K., & Yaacob, S. (2015), "Particle swarm optimization based feature enhancement and feature selection for improved emotion recognition in speech and glottal signals", *PloS one*, Vol.10(3), e0120344.

- Nayak, D. R., Dash, R., Majhi, B., & Prasad, V. (2017), "Automated pathological brain detection system: A fast discrete curvelet transform and probabilistic neural network-based approach", *Expert Systems with Applications*, Vol. 88, Pp: 152-164.
- Nayak, J., Bhat, P. S., Acharya, R., & Aithal, U. V. (2005), "Classification and analysis of speech abnormalities", *ITBM-RBM*, Vol. 26(5-6), Pp: 319-327.
- Niedzielska, G., Glijer, E., & Niedzielski, A. (2001), "Acoustic analysis of voice in children with moduli vocals", *International journal of pediatric otorhinolaryngology*, Vol. 60(2), Pp: 119-122.
- Paiva, J. S., Cardoso, J., & Pereira, T. (2018), "Supervised learning methods for pathological arterial pulse wave differentiation: A SVM and neural networks approach", *International journal of medical informatics*", Vol. 109, Pp: 30-38.
- Pan, X., Li, L., Yang, H., Liu, Z., Yang, J., Zhao, L., & Fan, Y. (2017), "Accurate segmentation of nuclei in pathological images via sparse reconstruction and deep convolutional networks", *Neurocomputing*, Vol. 229, Pp: 88-99.
- Parsa, V., & Jamieson, D. G. (2000), "Identification of pathological voices using glottal noise measures", *Journal of speech, language, and hearing research*, Vol. 43(2), Pp: 469-485.
- Parsa, V., & Jamieson, D. G. (2001), "Acoustic discrimination of pathological voice: sustained vowels versus continuous speech", *Journal of Speech, Language, and Hearing Research*, Vol. 44(2), Pp: 327-339.
- Pedraza, A., Gallego, J., Lopez, S., Gonzalez, L., Laurinavicius, A., & Bueno, G. (2017), "Glomerulus classification with convolutional neural networks", In *Annual Conference on Medical Image Understanding and Analysis*, Springer, Cham, Pp: 839-849.
- Peng, C., Chen, W., Zhu, X., Wan, B., & Wei, D. (2007), "Pathological voice classification based on a single Vowel's acoustic features", In *7th IEEE International Conference on Computer and Information Technology (CIT 2007)*, Pp: 1106-1110.

- Petrović-Lazić, M., Babac, S., Vuković, M., Kosanović, R., & Ivanković, Z. (2011), "Acoustic voice analysis of patients with vocal fold polyp", *Journal of Voice*, Vol. 25(1), Pp: 94-97.
- Pravena, D., & Dhivya, S. (2012), "Pathological voice recognition for vocal fold disease", *International journal of computer applications*, Vol. 47(13).
- Pribuisiene, R., Uloza, V., Kupcinskas, L., & Jonaitis, L. (2006), "Perceptual and acoustic characteristics of voice changes in reflux laryngitis patients", *Journal of voice*, Vol. 20(1), Pp: 128-136.
- Ritchings, R. T., McGillion, M., & Moore, C. J. (2001), "Pathological Voice Quality Assessment Using Artificial Neural Networks", In *Second International Workshop on Models and Analysis of Vocal Emissions for Biomedical Applications*.
- Ritchings, R. T., McGillion, M., & Moore, C. J. (2002), "Pathological voice quality assessment using artificial neural networks", *Medical engineering & physics*, Vol. 24(7-8), Pp: 561-564.
- Rose, M., Ferguson, A., Power, E., Togher, L., & Worrall, L. (2014), "Aphasia rehabilitation in Australia: Current practices, challenges, and future directions", *International Journal of Speech-Language Pathology*, Vol. 16(2), Pp: 169-180.
- Saeedi, N. E., Almasganj, F., & Torabinejad, F. (2011), "Support vector wavelet adaptation for pathological voice assessment", *Computers in biology and medicine*, Vol. 41(9), Pp: 822-828.
- Saeid Iranmanesh, Amin Mahadevi M, (2009), "Differential adaptive learning rate method for backpropagation neural networks," *World Academy of Science, Engineering and Technology*, Vol.50, Pp: 285-288.
- Saenz-Lechon, N., Godino-Llorente, J. I., Osma-Ruiz, V., & Gómez-Vilda, P. (2006), "Methodological issues in the development of automatic systems for voice pathology detection", *Biomedical Signal Processing and Control*, Vol. 1(2), Pp: 120-128.

- Sáenz-Lechón, N., Osmá-Ruiz, V., Godino-Llorente, J. I., Blanco-Velasco, M., Cruz-Roldán, F., & Arias-Londono, J. D. (2008), "Effects of audio compression in automatic detection of voice pathologies", *IEEE Transactions on Biomedical Engineering*, Vol. 55(12), Pp: 2831-2835.
- Sahidullah, M., & Saha, G. (2013), "A Novel Windowing Technique for Efficient Computation of MFCC for Speaker Recognition", *IEEE Signal Process. Lett.*, Vol. 20(2), Pp: 149-152.
- Saidi, P., & Almasganj, F. (2015), "Voice disorder signal classification using m-band wavelets and support vector machine", *Circuits, Systems, and Signal Processing*, Vol. 34(8), Pp: 2727-2738.
- Salehinejad, H., Valaee, S., Dowdell, T., Colak, E., & Barfett, J. (2018), "Generalization of deep neural networks for chest pathology classification in x-rays using generative adversarial networks", In *2018 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Pp: 990-994.
- Salhi, L., & Cherif, A. (2013), "Selection of pertinent acoustic features for detection of pathological voices", In *2013 5th International Conference on Modeling, Simulation and Applied Optimization (ICMSAO)*, Pp: 1-6.
- Scalassara P. R., Dajer M. E., Maciel C. D., Guido R. C., Pereira J. C., (2009), "Relative entropy measures applied to healthy and pathological voice characterization", *Applied Mathematics and Computation*, Vol. 207(1), Pp: 95-108.
- Sepandi, M., Taghdir, M., Rezaianzadeh, A., & Rahimikazerooni, S. (2018), "Assessing Breast Cancer Risk with an Artificial Neural Network", *Asian Pacific journal of cancer prevention: APJCP*, Vol. 19(4), Pp: 1017-1025.
- Shia, S. E., & Jayasree, T. (2017), "Detection of pathological voices using discrete wavelet transform and artificial neural networks", In *2017 IEEE International Conference on Intelligent Techniques in Control, Optimization and Signal Processing (INCOS)*, Pp: 1-6.

- Silva, D. G., Oliveira, L. C., & Andrea, M. (2009), "Jitter estimation algorithms for the detection of pathological voices", *EURASIP Journal on Advances in Signal Processing*, 2009, Pp: 9-15.
- Souza, T. A., Souza, M. A., Washington, C. D. A., Costa, S. C., Correia, S. E., & Vieira, V. J. (2015), "Feature selection based on binary particle swarm optimization and neural networks for pathological voice detection", In *2015 Latin America Congress on Computational Intelligence (LA-CCI)*, Pp: 1-6.
- Tavares, R., Monteiro, N., Correia, S., Costa, S. C., Neto, B. G. A., & Fechine, J. M. (2010), "Optimizing laryngeal pathology detection by using combined cepstral features". *Proc. 20th Int. Cong. on Acoustics, (ICA'2010)*, Sydney, Australia,
- Teixeira, J. P., Oliveira, C., & Lopes, C. (2013), "Vocal acoustic analysis–jitter, shimmer, and hnr parameters", *Procedia Technology*, Vol. 9, Pp: 1112-1122.
- Uloza, V., Saferis, V., & Uloziene, I. (2005), "Perceptual and acoustic assessment of voice pathology and the efficacy of endolaryngeal phonomicro surgery", *Journal of Voice*, Vol. 19(1), Pp: 138-145.
- Vasilakis, M., & Stylianou, Y. (2009), "Voice pathology detection based on short-term jitter estimations in running speech", *Folia Phoniatica et Logopaedica*, Vol. 61(3), Pp: 153-170.
- Vepa, J. (2009), "Classification of heart murmurs using cepstral features and support vector machines", In *2009 Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Pp:2539-2542.
- Verde, L., De Pietro, G., & Sannino, G. (2018), "Voice disorder identification by using machine learning techniques", *IEEE Access*, Vol. 6, Pp: 16246-16255.
- Villa-Canas, T., Belalcazar-Bolaños, E., Bedoya-Jaramillo, S., Garces, J. F., Orozco-Arroyave, J. R., Arias-Londono, J. D., & Vargas-Bonilla, J. F. (2012), "Automatic detection of laryngeal pathologies using cepstral analysis in Mel and Bark scales", In *2012 XVII Symposium of Image, Signal Processing, and Artificial Vision (STSIVA)*, Pp: 116-121.

- Walton, C., Carding, P., Conway, E., Flanagan, K., & Blackshaw, H. (2019), "Voice Outcome Measures for Adult Patients with Unilateral Vocal Fold Paralysis: A Systematic Review", *The Laryngoscope*, Vol. 129(1), Pp: 187-197.
- Wang, S., Du, S., Atangana, A., Liu, A., & Lu, Z. (2018), "Application of stationary wavelet entropy in pathological brain detection", *Multimedia Tools and Applications*, Vol. 77(3), Pp: 3701-3714.
- Wang, S., Du, S., Li, Y., Lu, H., Yang, M., Liu, B., & Zhang, Y. (2017), "Hearing loss detection in medical multimedia data by discrete wavelet packet entropy and single-hidden layer neural network trained by adaptive learning-rate backpropagation.", In *International Symposium on Neural Networks*, Springer, Cham, Pp: 541-549.
- Wang, S., Li, P., Chen, P., Phillips, P., Liu, G., Du, S., & Zhang, Y. (2017), "Pathological brain detection via wavelet packet tsallis entropy and real-coded biogeography-based optimization.", *Fundamenta Informatica*, Vol. 151(1-4), Pp: 275-291.
- Wang, X., Chen, H., Chang, C., Jiang, M., Wang, X., & Xu, L. (2017), "Study the therapeutic mechanism of Amomum compactum in gentamicin-induced acute kidney injury rat based on a back propagation neural network algorithm", *Journal of Chromatography B*, Vol. 1040, Pp: 81-88.
- Wilson .K, Raj. B, Smaragdis .P, and Divakaran .A, (2008), "Speech denoising using nonnegative matrix factorization with priors," in ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings, Pp: 4029–4032.
- Wu, K., Zhang, D., Lu, G., & Guo, Z. (2019), "Joint learning for voice-based disease detection", *Pattern Recognition*, Vol. 87, Pp: 130-139.
- Yu C.C, Liu B.D, (2002), "A backpropagation algorithm with adaptive learning rate and momentum coefficient," Proc.Int.Joint Conf. Neural networks (IJCNN'02), Vol.2, Pp: 1218-122.

- Yu X.H, Chen G.A, Cheng S.X, (1993), “Acceleration of backpropagation of learning using optimized learning rate and momentum,” *Electron.Lett*, Vol. 29(14), Pp: 1288-1289.
- Zhang, Y. D., Sui, Y., Sun, J., Zhao, G., & Qian, P. (2018), “Cat Swarm Optimization applied to alcohol use disorder identification”, *Multimedia Tools and Applications*, Pp: 1-22.
- Zhang, Y., & Jiang, J. J. (2008), “Acoustic analyses of sustained and running voices from patients with laryngeal pathologies”, *Journal of Voice*, Vol. 22(1), Pp: 1-9.
- Zhang, Y., Yang, J., Wang, S., Dong, Z., & Phillips, P. (2017), “Pathological brain detection in MRI scanning via Hu moment invariants and machine learning”, *Journal of Experimental & Theoretical Artificial Intelligence*, Vol. 29(2), Pp: 299-312.
- Zhang, Z., Xie, Y., Xing, F., McGough, M., & Yang, L. (2017), “Mazenet: A semantically and visually interpretable medical image diagnosis network”, In *Proceedings of the IEEE conference on computer vision and pattern recognition*, Pp: 6428-6436.
- Zhihong Man, Hong Ren Wu, Sophie Liu, Xinghuo Yu, (2006), “A new adaptive backpropagation algorithm based on Lyapunov stability theory for neural networks”, *IEEE Transactions on Neural Networks*, Vol.17, Pp: 1580-1591.