- [10] Mori, R.D., 1983. Computer Models of Speech Using Fuzzy Algorithms, Computer Models for Speech Understanding. U.S.A: Springer.
- [11] Zellner, BF. 1994. Fundamentals of Speech Synthesis and Speech Recognition Basic Concepts State of the Art and Future Challenges. Chichester, U.S.A.: Wiley.
- [12] Huang, X., Acero, A., and Hon, H. 2001. Spoken Language Processing_ A Guide to Theory, Algorithm, and System Development. U.S.A.: Prentice Hall.
- [13] Vorperian, H., Kent, R. 2007. "Vowel Acoustic Space Development in Children: A Synthesis of Acoustic and Anatomic Data". *Journal of Speech, Language, and Hearing Research* 50, no.6: 1510-1545.
- [14] Potamianos, A., and Narayanan, S. 2003. "Robust Recognition of Children's Speech". *IEEE Transactions on Speech and Audio Processing* 11, no.6: 603-616.
- [15] Lee, Li., and Richard, C. 1996. "Speaker Normalization Using Efficient Frequency Warping Procedures". In *CASSP*, *IEEE International Conference on Acoustics, Speech and Signal Processing Proceedings in* Atlanta, GA, USA, *May 9-9, 1996*, by IEEE. U.S.A.: IEEE, 353-356.
- [16] Benzeghiba, M., De, M.R., and Deroo, O et al. 2007. "Automatic Speech Recognition and Speech Variability: A review". *Speech Communication* 49, no.10-11(February): 763-786.
- [17] Lin,F., Wu, Y., and Zhuang Y et al. 2015. "Human Gender Classification: A Review". *International Journal of Biometrics* 8, no.34 (July): 275-300.
- [18] Bruce, V., Burton, A., and Hanna, E. 1993. "Sex Discrimination: How Do We Tell the Difference between Male and Female Faces?". *Perception* 22, no.2 (February): 131-152.
- [19] Hill, H., and Johnston, A. 2001. "Categorizing Sex and Identity from the Biological Motion of Faces". *Current Biology* 11, no.11 (June): 880-885.
- [20] O' Toole, A., Roark, D., and Abdi, H. 2002. "Recognizing Moving Faces: A Psychological and Neural Synthesis". *Trends in Cognitive Sciences* 6, no.6 (June): 261-266.

- [21] Golomb, B., Sejnowski, A., 1995. *Applications of Neural Networks, Sex Recognition from Faces Using Neural Networks*. San Diego, California: The Salk Institute for Biological Studies.
- [22] Thomas, V., Chawla, N., and Bowyer, K et al. 2017. "Learning to Predict Gender from Iris Images". In *IEEE Conference on Biometrics: Theory, Applications and Systems in Santa Rosa, CA, USA March 24-31 2017*, by IEEE. U.S.A.: IEEE, 1-5.
- [23] Afifi, M. 2019. "11K Hands: Gender Recognition and Biometric Identification Using a Large Dataset of Hand Images". *Multimedia Tools and Applications* 78, no.15 (September): 20835-20854.
- [24] Dong, Y., and Woodard, D. 2011. "Eyebrow Shape-based Features for Biometric Recognition and Gender Classification: A Feasibility Study". In 2011 International Joint Conference on Biometrics in Washington, D.C., USA, October 11-13, 2011, by IEEE. U.S.A.: IEEE, 1-8.
- [25] Nguyen, P., Tran, D., and Xuang, X. et al. 2013. "Age and Gender Classification Using EEG Paralinguistic Features". In *International IEEE/EMBS Conference on Neural Engineering, NER* in San Diego, California, USA, *November 6-8, 2013*, by IEEE. U.S.A: IEEE, 4-8.
- [26] Tripathy, R.K., Acharya, A., and Choudhary, S.K. 2012. "Gender Classification from ECG Signal Analysis using Least Square Support Vector Machine ". *American Journal of Signal Processing* 2, no.5 (February): 145-149.
- [27] Wisom, B., and Todd, P. 2015. "A Theoretical Integration of User Satisfaction and Technology Acceptance". *Information Systems Research* 16, no.1 (January): 85-102.
- [28] Tapia, J., Perez, C., and Bowyer, K. 2015. *Gender Classification from Iris Images Using Fusion of Uniform Local Binary Patterns*. Department of Computer Science and Engineering, University of Notre Dame, Indiana, U.S.A.
- [29] Pannu, A., and Student, M.T. 2008. "Artificial Intelligence and its Application in Different Areas". *Certified International Journal of Engineering and Innovative Technology* 4, no.10 (April): 2277-3754.

- [30] Pandit, H., and Shah, D. 2012. "The Model For Extracting A Portion Of a Given Image Using Color Processing". *International Journal of Engineering Research & Technology (IJERT)* 1, no.10 (December): 173-178.
- [31] Durrant, R., and Kaban, A. 2010. "Compressed Fisher Linear Discriminant analysis: Classification of Randomly Projected Data". In *Proceedings of the International Conference on Knowledge Discovery and Data Mining in New York, USA, 25–28 July 2010*, by Association for Computing Machinery. U.S.A.: Association for Computing Machinery, 15-24.
- [32] Abdi, H., and Williams, L. 2010. "Principal Component Analysis". Wiley Interdisciplinary Reviews: Computational Statistics 2, no.4 (July): 433-459.
- [33] Donahue, J., Jia, Y., and Vinyals, O. 2014. "DeCAF: A Deep Convolutional Activation Feature for Generic Visual Recognition". In 31st International Conference on Machine Learning, ICML in Beijing, China, May 14-15, 2014, by International Machine Learning Society (IMLS). China: International Machine Learning Society (IMLS), 988-996.
- [34] Szegedy, C., Liu, W., and Jia, Y. 2015. "Going Deeper with Convolutions". *Journal of Chemical Technology and Biotechnology* 91, no.8 (September): 2322-2330.
- [35] Krishevsky, A., Sutskever, I., and Hinton G. 2017. "ImageNet Classification with Deep Convolutional Neural Networks". *Communications of the ACM* 60, no.6 (March): 84-90.
- [36] Tivive, F., and Bouzerdoum, A. 2006. "A Gender Recognition System Using Shunting Inhibitory Convolutional Neural Networks". In *IEEE International Conference on Neural Networks Conference Proceedings in* Vancouver, BC, Canada, *July 16-21*, 2006, by IEEE. U.S.A.: IEEE, 5336-5341.
- [37] Gharehchopogh, F., Khaze, S., and Maleki, I. 2015. "A New Approach in Bloggers Classification with Hybrid of K-nearest Neighbor and Artificial

- Neural Network Algorithms". *Indian Journal of Science and Technology* 8, no.3 (February): 237-246.
- [38] Xie, Z., Gou, Z., and Qian, C. 2018. "Palmprint Gender Classification by Convolutional Neural Network". *IET Computer Vision* 12, no.4 (June): 476-483.
- [39] Fawaz,S.A., and Dia, A. 2017. "Introduction to Artificial Neural Network (ANN) Methods: What They are and How to Use Them". *Acta Chimica Slovenica* 41 (September): 327-327.
- [40] Das, D., Nix, D., and Picheny, M. 1998. "Improvements in Children's Speech Recognition Performance". In *Proceedings of the 1998 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP 98 in* Seattle, WA, USA, *May 15-15, 1998*, by IEEE. U.S.A.: IEEE, 433-436.
- [41] Perrachione, T., Tufo, S.D, Gabrieli et al. 2011. "Human Voice Recognition Depends on Language Ability". *Science* 333, no.6042 (July): 595.
- [42] Kessler, S., and Aleixandre, V. 1978. "Human Voice". *The Iowa Review* 9, no.1: 59-59.
- [43] Lee, S., Potamianos, A., and Narayanoa, S. 1999. "Acoustics of Children's Speech: Developmental Changes of Temporal and Spectral Parameters".

 The Journal of the Acoustical Society of America 105, no.3 (March): 1455-1488.
- [44] Kazemzadeh, A., You H., and Iseli M et al. 2015. "TBALL Data Collection: the Making of a Young Children's Speech Corpus". In *Interspeech Conference on Speech Communication and Technology in Lisbon, Portugal, September 4-8, 2005,* by International Speech Communication Association. Portugal: International Speech Communication Association, 1581-1584.
- [45] Kraljic, T., and Samuel, A. 2007. "Perceptual Adjustments to Multiple Speakers". *Journal of Memory and Language* 56, no.1 (January):1-15.
- [46] Kurzekar, P.K, Deshmukh, R.R, and Waghmare, B. 2014. "A Comparative

- Study of Feature Extraction Techniques for Speech Recognition System". *International Journal of Innovative Research in Science, Engineering and Technology* 3, no.12 (December): 95-99.
- [47] Bhimani, N.V. 2014. "Speaker Recognition System Based on MFCC and VQ Algorithms". *International Journal of Engineering Research & Technology (IJERT)* 3, no.2 (February): 772-774.
- [48] Mueen, F., Ahmed, A., and Sanaullah et al. 2002. "Speaker Recognition Using Artificial Neural Networks". In *IEEE Students Conference, ISCON '02. Proceedings in* Lahore, Pakistan, *August 16-17, 2002*, by IEEE. U.S.A.: IEEE, 99-102.
- [49] Ravikumar, K.M., Reddy, B., and Rajagopal, R. 2008. "Automatic Detection of Syllable Repetition in Read Speech for Objective Assessment of Stuttered Disfluencies". World Academy of Science, Engineering and Technology International Journal of Electrical and Computer Engineering 2,no.10 (January): 2142-2145.
- Oliveira, M.O., Bretas, A.S.2009. "Application of Discrete Wavelet Transform for Differential Protection of Power Transformers". In 2009 IEEE Bucharest PowerTech in Bucharest, Ronania, June 28-July 2, 2009, by IEEE. U.S.A.: IEEE, 349-369.
- [51] Campo, D., Quintero, O., and Bastidas M. 2016. "Multiresolution Analysis (Discrete Wavelet Transform) through Daubechies Family for Emotion Recognition in Speech". *Journal of Physics: Conference Series* 705, no.1 (December): 33-35.
- [52] Thakral, S., and Manhas, P. 2019. "Image Processing by Using Different Types of Discrete Wavelet Transform". *Communications in Computer and Information Science* 959, no.1 (May) ,499-507.
- [53] Breiman, L. 2001. "Statistical Modeling: The Two Cultures". *Statistical Science* 16, no.3: 199-231.
- [54] Abdalla M.T., Abobakr, H.M., and Gaafar,S et al. 2013. "DWT and MFCCs based Feature Extraction Methods for Isolated Word Recognition".

 International Journal of Computer Applications 69, no.20 (May): 21-25.

- [55] Ravikumar, K.M., Rajagopal, R., and Nagaraj, H.C. 2009. "An Approach for Objective Assessment of Stuttered Speech Using MFCC Features". *The International Congress for global Science and Technology, International Journal on Digital Signal Processing (DSP)* 9, no.1 (June): 19-24.
- [56] Kumar, R.D., Ganesh, A.B., and Sasikala, S. 2016. "Speaker identification system using Gaussian Mixture Model and Support Vector Machines (GMM-SVM) under Noisy Conditions". *Indian Journal of Science and Technology* 9, no.19 (May): 1-6.
- [57] Pondhu, L., and Kummari, G. 2018. "Performance Analysis of Machine Learning Algorithms for Gender Classification". In *Proceedings of the International Conference on Inventive Communication and Computational Technologies in* Coimbatore, India, *April 20-21, 2018*, by IEEE. U.S.A.: IEEE, 1-9.
- [58] Karthikeyan, K., and Mala, D.R. 2018. "Content Based Audio Classifier & Feature Extraction Using Ann Techniques". *International Journal of Innovative Research in Advanced Engineering (IJIRAE)* 5, no.4 (April): 106-116.
- [59] Raahul, A., Sapthagiri, R.,and Pankaj, K et al. 2017. "Voice based gender classification using machine learning". *IOP Conference Series: Materials Science and Engineering* 263, no.4 (March):0-9.
- [60] Safavi, S. 2015. Speaker Characterization using Adult and Children's Speech. England: Elsevier.
- [61] Kamble, B. 2016. "Speech Recognition Using Artificial Neural Network A Review". *Int'l Journal of Computing, Communications & Instrumentation Engg. (IJCCIE)* 3, no.1:1-4.
- [62] Ramteke, P.B., Dixit, A., and Supanekar, S. 2018. "Gender Identification from Children's Speech". In 2018 Eleventh International Conference on Contemporary Computing (IC3) in Noida, India, August 2-4, 2018, by IEEE. U.S.A.: IEEE, 1-6.

- [63] Lee, W. 2016. "Gender- related Frequency Characteristics in Children's Speech". *ISAPh 2016 International Symposium on Applied Phonetics* 14 (March): 56-61.
- [64] Khan,S., Ahmad, M., and Nazir, M. 2014. "A Comparative Analysis of Gender Classification Techniques". *Middle East Journal of Scientific Research* 20, no.1: 1-13.
- [65] Khan, S., Ahmad, M., and Nazir, M. 2016. "Human Gender Classification: a Review". *International Journal of Biometrics* 8, no.3/4 (January): 275.
- [66] Russell, S. J, Norvig.P. D. 2010. *Artificial Intelligence: A Modern Approach*. 3rd. ed. Malaysia: Pearson Education.
- [67] Nowozin, S., and Lampert, C. 2010. "Structured Learning and Prediction in Computer Vision". Foundations and Trends in Computer Graphics and Vision 6, no.3-4: 185-365.
- [68] Bastanlar, Y., and Ozuysal, M. 2014. "Introduction to Machine Learning". *Methods in Molecular Biology* 1107 (October): 105-128.
- [69] Kumar, J., Prabhakar, O., and Sahu, N. 2014. "Comparative Analysis of Different Feature Extraction and Classifier Techniques for Speaker Identification Systems: A Review". International Journal of Innovative Research in Computer and Communication Engineering 2, no.1 (January): 2760-2769.
- [70] Fayek, H., Lech, M., and Cavedon, L. 2017. "Evaluating Deep Learning Architectures for Speech Emotion Recognition". *Neural Networks* 92, Special Issue: 60-68.
- [71] Otterlo, M.V., Wiering, M. 2012. "Reinforcement Learning and Markov Decision Processes". U.S.A.: Springer Verlag.
- [72] Zupan, J. 1994. "The Capacity of Mel Frequency Cepstral Coefficients for Speech Recognition". *International Science Index, Computer and Informatics Engineering* 11, no.1 (June): 1100-1104.
- [73] Safavi, S., Russell, M., and Jancovic, P. 2018. "Automatic speaker, age-group

- and gender identification from children's speech". *Computer Speech and Language* 50, no.9 (January): 141-156.
- [74] Fawaz,S.A., and Dia, A. 2017. "Introduction to Artificial Neural Network (ANN) Methods: What They are and How to Use Them". *Acta Chimica Slovenica* 41 (September): 327-327.
- [75] Archana, G.S., and Malleswari, M. 2015. "Gender Identification and Performance Analysis of Speech Signals". In *Proceedings of* 2015 Global Conference on Communication Technologies (GCCT) *in Thuckalay, India, April 23-24, 2015*, by IEEE. U.S.A.: IEEE, 483-489.
- [76] Upadhyay, Y. 2019. "Introduction to FeedForward Neural Networks".

 Towards Data Science. March 2019 https://towardsdatascience.com/feed
 forward-neural-networks>
- [77] Gupta, P. 2017. "Decision Trees in Machine Learning". *Towards Data Science*. May 2017 < https://towardsdatascience.com/decision-trees-in-machine-learning>
- [78] Cutler, D., Edwards, T., and Beard, K et al. 2007. "Random Forests For Classification In Ecology". *Ecology* 88, no.11 (November): 2783-2792.
- [79] Sperandei, S. 2014. "Understanding Logistic Regression Analysis". Biochemical and Medical 24, no.1 (February): 12-18.
- [80] Shubbendu, S., Vijay, S. 2013. "Applicability of Artificial Intelligence in Different Fields of Life". *International Journal of Scientific Engineering and Research (IJSER)* 1, no.1 (September): 28-35.
- [81] Eberhardt, L., Breiwick, J. 2010. "Models for Population Growth Curves". ISRN Ecology 2012 (November): 1-7.
- [82] Beh-Hur, A., Horn, D., and Siegelmann, H.T. 2001. "Support Vector Clustering". *Journal of Machine Learning Research* 2, no.12 (January): 125-137.
- [83] Hsu, C., Chang, C., and Lin, C. 2008. "A Practical Guide to Support Vector

- Classification". BJU international 101. no.1:1396-1400.
- [84] Yang, Y., Li, J., and Yang, Y. 2015. "The Research of the Fast SVM Classifier Method". In 2015 12th International Computer Conference on Wavelet Active Media Technology and Information Processing, ICCWAMTIP in Chengdu, China, December 8-29, 2015, by IEEE. U.S.A.: IEEE, 121-124.
- [85] Gupta,P. 2017. "Decision Trees in Machine Learning". Towards Data Science. May 2017 < https://towardsdatascience.com/decision-trees-in-machine-learning>
- [86] Eberhardt, L., and Breiwick, J. 2013. "Learning the Naive Bayes Classifier with Optimization Models". *International Journal of Applied Mathematics and Computer Science* 23, no.4 (December): 787-795.
- [87] Ali, A., and Amin, M.Z. 2019. A Briefly Explanation of Decision Tree with Practical Implementation in Scikit Learn. California, U.S.A.: Wavy AI Research Foundation.