

# Literature Review - Tabular Format

Paper Name	Year	Method Used	Datasets Used	Results Obtained
10.pdf	2025	1D and 2D Convolutional Neural Networks, ADASYN	Private dataset of Arabic audio clips	Testing accuracy of 94.28%, Validation accuracy of 95.55%
1.pdf	2024	Multi-Kernel Extreme Learning Machine (MKELM) with a weighted classification scheme	FAE corpus	84.72% accuracy
2.pdf	2024	LSTM neural network on Mel spectrograms	In-house English speech database of four Arabic accents (Jordan, Iraq, Saudi Arabia, Tunisia)	79% recognition rate
5.pdf	2024	Adaptive deep learning model: Hamilton neural network classifier using features from multi-scale product analysis	Not explicitly named in the provided text	Significant performance gains compared to current HNN-based approaches
3c.pdf	2022	Fusion of multiple classifiers: ensemble of classifiers on short-term spectral features, i-vector classifier, and transformer models for linguistic features	Arabic Dialect Identification (ADI) dataset	82.44% classification accuracy
7.pdf	2021	Deep Neural Networks, combination of convolutional and recurrent layers, end-to-end training, beam search decoder with a tetra-gram language model	Aldiri, KACST, Isolated Words, Arabic News Channel, KSU, MGB-2	14% error rate
6.pdf	2020	Voting ensemble combining Naive Bayes, Logistic Regression, and Decision Tree classifiers	NADI shared task Twitter data set	F-measure of 27.17, 41.34, and 52.38 for different methodology and clustering configurations

4.pdf	2016	Classifier ensemble with linear Support Vector Machine base classifiers using character n-grams and word unigrams	Transcribed speech corpus from the Arabic Dialect Identification sub-task of the 2016 Discriminating between Similar Languages shared task	F1-score of 0.51
8.pdf	2014	Mel-frequency cepstral coefficients (MFCCs), wavelet transform, Support Vector Machine (SVM), K-Nearest Neighbor (K-NN), Naïve Bayes (NB)	Proprietary dataset of Jordanian and Egyptian dialect audio samples	Error rate of 9.78%
9.pdf	2012	Maximum Likelihood Linear Regression (MLLR), Maximum A-Posteriori (MAP) adaptation, grapheme-based acoustic models, phoneme sets normalization	Modern Standard Arabic (MSA) news broadcast speech, Egyptian Colloquial Arabic (ECA) corpus, Levantine Colloquial Arabic (LCA) corpus	Significant increase in recognition accuracy