Literature Review - Paragraph Format

1.pdf

Method: Multi-Kernel Extreme Learning Machine (MKELM) with a weighted classification scheme

Datasets: FAE corpus

Results: 84.72% accuracy

Literature Review:
This paper (1.pdf) employs Multi-Kernel Extreme Learning Machine (MKELM) with a weighted classification scheme methodology. The research utilizes FAE corpus for evaluation. The study achieves 84.72% accuracy. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

2.pdf

Method: LSTM neural network on Mel spectrograms

Datasets: In-house English speech database of four Arabic accents (Jordan, Iraq, Saudi Arabia, Tunisia)

Results: 79% recognition rate

Literature Review:

This paper (2.pdf) employs LSTM neural network on Mel spectrograms methodology. The research utilizes In-house English speech database of four Arabic accents (Jordan, Iraq, Saudi Arabia, Tunisia) for evaluation. The study achieves 79% recognition rate. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

2.pdf

Method: LSTM neural network on Mel spectrograms

Datasets: In-house English speech database of four Arabic accents (Jordan, Iraq, Saudi Arabia, Tunisia)

3c.pdf

Method: Fusion of multiple classifiers using acoustic i-vectors and linguistic features from transformer models

Datasets: Arabic Dialect Identification (ADI) dataset

Results: 82.44% classification accuracy

Literature Review:

This paper (3c.pdf) employs Fusion of multiple classifiers using acoustic i-vectors and linguistic features from transformer models methodology. The research utilizes Arabic Dialect Identification (ADI) dataset for evaluation. The study achieves 82.44% classification accuracy. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

3c.pdf

Method: Fusion of multiple classifiers using acoustic i-vectors and linguistic features from transformer models

Datasets: Arabic Dialect Identification (ADI) dataset

4.pdf

Method: Classifier ensemble with linear Support Vector Machine base classifiers using character n-grams and word unigrams

Datasets: Transcribed speech corpus from the Arabic Dialect Identification sub-task of the 2016 DSL shared task

Results: F1-score of 0.51

Literature Review:

This paper (4.pdf) employs Classifier ensemble with linear Support Vector Machine base classifiers using character n-grams and word unigrams methodology. The research utilizes Transcribed speech corpus from the Arabic Dialect Identification sub-task of the 2016 DSL shared task for evaluation. The study achieves F1-score of 0.51. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

5.pdf

Method: Hamilton neural network classifier using features from multi-scale product analysis (cepstral features, fundamental frequency, glottal instances)

Datasets: Not explicitly named in the provided text

Results: Significant performance gains compared to current HNN-based approaches

Literature Review:

This paper (5.pdf) employs Hamilton neural network classifier using features from multi-scale product analysis (cepstral features, fundamental frequency, glottal instances) methodology. The research utilizes Not explicitly named in the provided text for evaluation. The study achieves Significant performance gains compared to current HNN-based approaches. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

6.pdf

Method: Voting ensemble combining Naive Bayes, Logistic Regression, and Decision
Tree classifiers

Datasets: NADI shared task data set

Results: F-measure of 27.17, 41.34, and 52.38 for different methodology and
clustering configurations

Literature Review:

This paper (6.pdf) employs Voting ensemble combining Naive Bayes, Logistic Regression, and Decision Tree classifiers methodology. The research utilizes NADI shared task data set for evaluation. The study achieves F-measure of 27.17, 41.34, and 52.38 for different methodology and clustering configurations. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

7.pdf

Method: Deep Neural Networks, combination of convolutional and recurrent layers,
end-to-end training, beam search decoder with a tetra-gram language model

Datasets: Aldiri, KACST, Isolated Words, Arabic News Channel, KSU, MGB-2

Results: 14% error rate

Literature Review:
This paper (7.pdf) employs Deep Neural Networks, combination of convolutional and recurrent layers, end-to-end training, beam search decoder with a tetra-gram language model methodology. The research utilizes Aldiri, KACST, Isolated Words, Arabic News Channel, KSU, MGB-2 for evaluation. The study achieves 14% error rate. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

8.pdf

Method: Mel-frequency cepstral coefficients (MFCCs), wavelet transform, Support Vector Machine (SVM), K-Nearest Neighbor (K-NN), Naïve Bayes (NB)

Datasets: Proprietary dataset of Jordanian and Egyptian dialect audio samples

Results: Error rate of 9.78% for the proposed NFL method

Literature Review:

This paper (8.pdf) employs Mel-frequency cepstral coefficients (MFCCs), wavelet transform, Support Vector Machine (SVM), K-Nearest Neighbor (K-NN), Naïve Bayes (NB) methodology. The research utilizes Proprietary dataset of Jordanian and Egyptian dialect audio samples for evaluation. The study achieves Error rate of 9.78% for the proposed NFL method. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

9.pdf

Method: Maximum Likelihood Linear Regression (MLLR), Maximum A-Posteriori (MAP) adaptation, grapheme-based acoustic models, phoneme sets normalization

Datasets: Modern Standard Arabic (MSA) news broadcast speech corpus, Egyptian Colloquial Arabic (ECA) corpus, Levantine Colloquial Arabic (LCA) corpus

Results: Significant increase in recognition accuracy compared to baseline

Literature Review:

This paper (9.pdf) employs Maximum Likelihood Linear Regression (MLLR), Maximum A-Posteriori (MAP) adaptation, grapheme-based acoustic models, phoneme sets normalization methodology. The research utilizes Modern Standard Arabic (MSA) news broadcast speech corpus, Egyptian Colloquial Arabic (ECA) corpus, Levantine Colloquial Arabic (LCA) corpus for evaluation. The study achieves Significant increase in recognition accuracy compared to baseline. This work contributes to the field by demonstrating the effectiveness of the proposed approach.

10.pdf

Method: 1D and 2D Convolutional Neural Network

Datasets: Private dataset of Arabic audio clips

Results: Testing accuracy of 94.28%, Validation accuracy of 95.55%

Literature Review:

This paper (10.pdf) employs 1D and 2D Convolutional Neural Network methodology. The research utilizes Private dataset of Arabic audio clips for evaluation. The study achieves Testing accuracy of 94.28%, Validation accuracy of 95.55%. This work contributes to the field by demonstrating the effectiveness of the proposed approach.