VIGNAN INSTITUTE OF TECHNOLOGY AND SCIENCE
Near Ramoji Film City, Deshmukhi Village, Pochampally Mandal, Yadadri Bhuvanagiri Dist.
(Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad)
AN AUTONOMOUS INSTITUTION

Eamcet Code
VGNT
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Department of Computer Science and Engineering

IP PROJECT Presentation

Title:Artificial Neural Networks For Audio Classification

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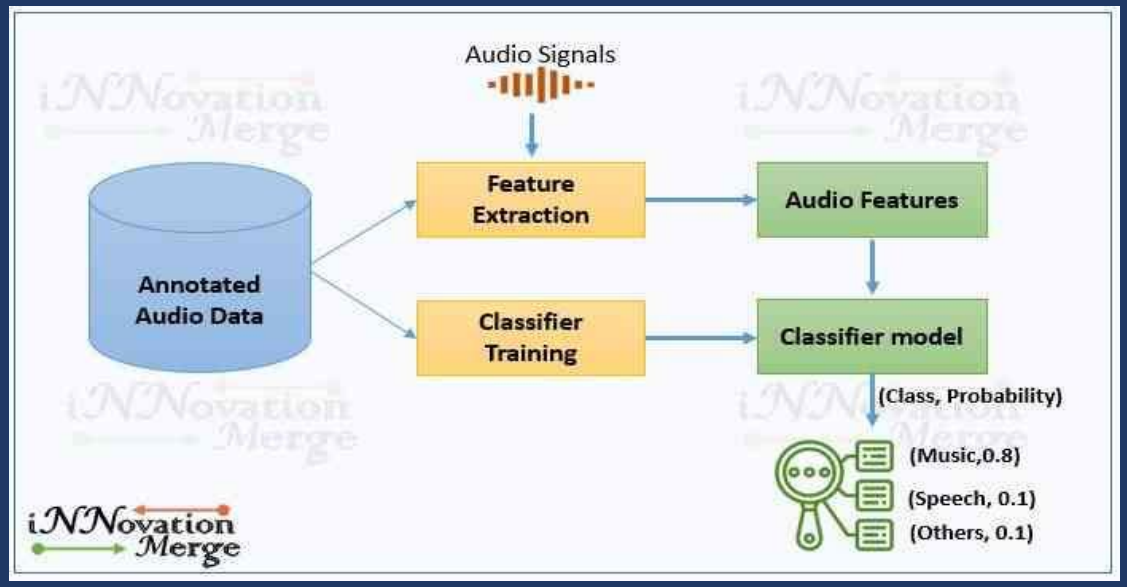
ABSTRACT:

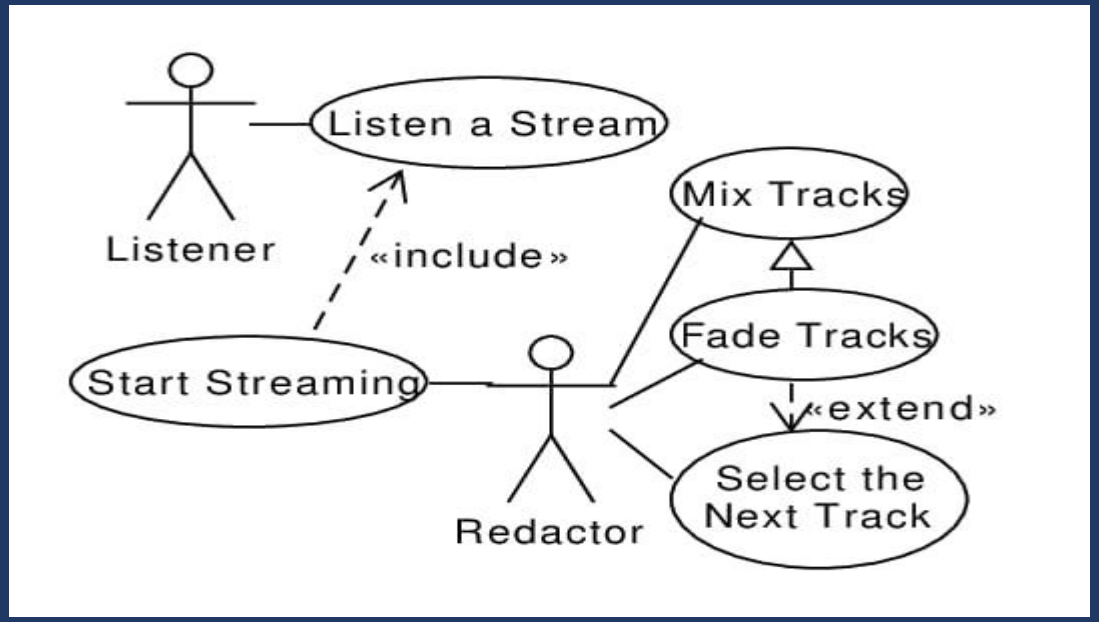
Audio classification stands out as a crucial application from speech recognition to environmental sound detection and biometric identification. This project aims to use an Artificial neural network, a machine learning algorithm, to identify and classify audio data into different classes. Urbansound8k dataset is used for training, Mel-frequency cepstral coefficients, and ReLU activation function has been used. Finally the trained model can classify the given audio file into its class.

SYSTEM ARCHITECTURE:

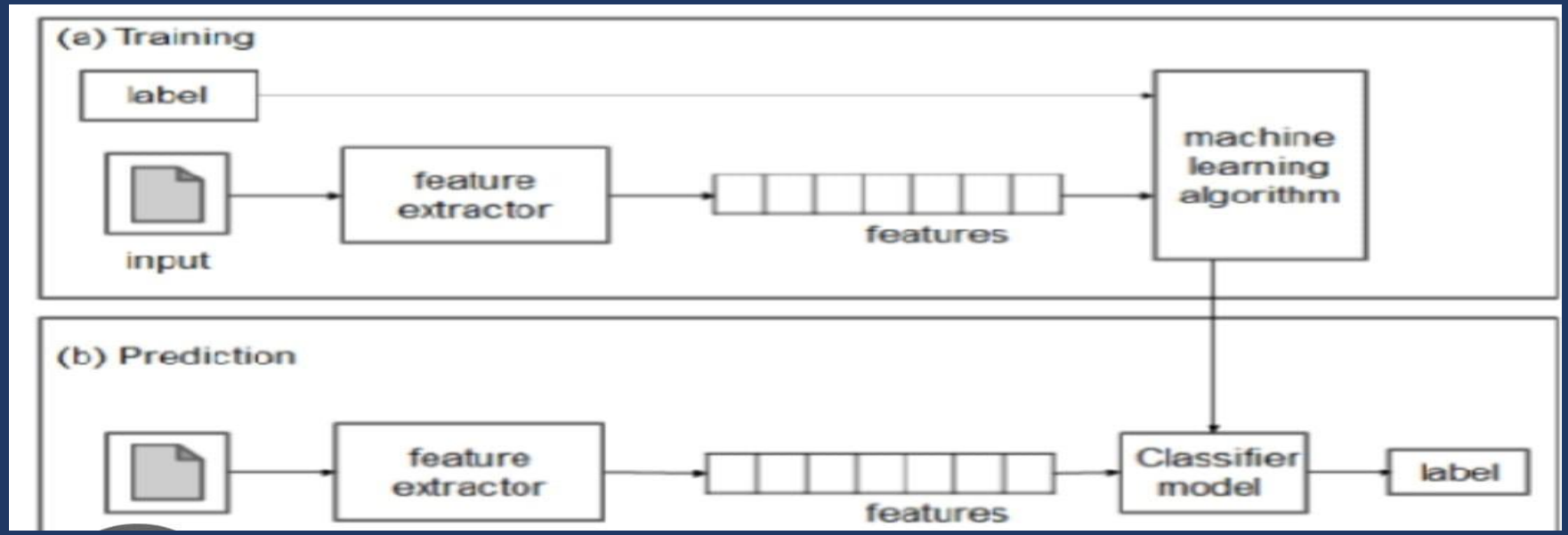


SYSTEM DESIGN:

USE CASE DIAGRAM:



CLASS DIAGRAM:



Conclusion:

our project on audio classification using artificial neural networks (ANN) demonstrated the effectiveness of deep learning techniques in accurately categorizing audio signals. Through careful data preprocessing and model training, we achieved a significant accuracy rate, showcasing the ANN's capability to learn complex patterns in audio features. This approach has promising applications in various fields, including music genre classification, speech recognition, and environmental sound analysis

Thank You !