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Speech Emotion Recognition Using Feedforward Neural Network

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Abstract: *Speech Emotion Recognition (SER) has garnered significant attention in recent years due to its applications in human-computer interaction, healthcare, customer service automation, and affective computing. This paper presents the design and implementation of a real-time Speech Emotion Recognition (SER) system using Feedforward Neural Networks (FNNs) for detecting and classifying emotions from speech signals. By utilizing the RAVDESS dataset, effective pre-processing techniques, and a well-structured FNN architecture, the system is trained to accurately recognize eight distinct emotions. The study outlines the methodology, implementation details, and real-time deployment of the system within a web application, highlighting its practical feasibility and potential applications*

Keywords: Speech Emotion Recognition (SER), Feedforward Neural Networks (FNN), Deep Neural Networks (DNN), Affective Computing, Human–Computer Interaction (HCI), Real-time Systems

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