FINAL YEAR PROJECT REPORT

EMOTION DETECTION USING AUDIO AND VIDEO FILES

In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)

By

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SUPERVISED

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FALL-2023

DECLARATION

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

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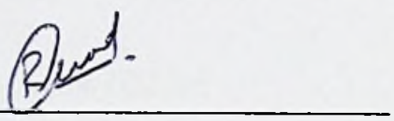
Signature : 

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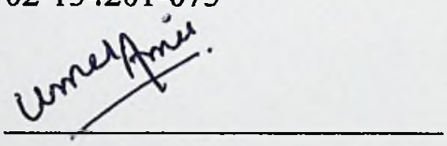
Signature : 

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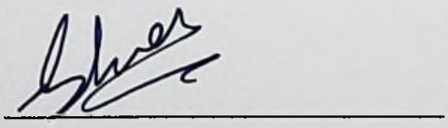
Signature : 

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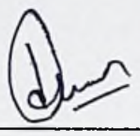
APPROVAL FOR SUBMISSION

We certify that this project report entitled "**EMOTION DETECTION USING AUDIO AND VIDEO FILES**" was prepared by **Rehmat Ali Shah Bukhari, Umer Bin Amir Sultani, SherAli Ahmar** has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Computer Science at Bahria University.

Approved by,

Signature : 

Supervisor : Miss Amna Iftikhar

Date : 24/01/24

Specially dedicated to

My beloved grandmother, mother and father

Rehmat Ali Shah Bukhari

My beloved grandmother, mother and father

Umer Bin Amir Sultani

My beloved grandmother, mother and father

Sher Ali Ahmar

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Additionally, our thanks go to our caring parents and friends for their supportive assistance and words of encouragement.

ABSTRACT

Human emotions play a critical role in interpersonal communication, influencing our decisions, actions, and reactions. The ability to accurately detect emotions can significantly enhance human-computer interaction, providing more empathetic and responsive systems. However, traditional methods of emotion detection, relying on facial expressions or textual data, often miss the nuanced cues embedded in the tonal variations of human speech. Consequently, there is a pressing need to develop efficient and accurate models capable of detecting emotions from speech, which can be particularly challenging given the subtlety and complexity of acoustic patterns associated with different emotions. This project seeks to bridge the gap between human emotions and machine understanding by devising a solution that can accurately detect emotions embedded in human speech. Recognizing the importance of catering to the emotional needs and states of users, our research has been geared towards ensuring that machines can not only comprehend but also respond aptly to the emotional cues present in speech. By successfully addressing this challenge, we aim to revolutionize human-machine interactions, making them more intuitive, empathetic, and responsive. Such advancements have profound implications, especially in sectors like healthcare, where understanding a patient's emotional state can influence treatment decisions, or in entertainment, where user experience can be enhanced manifold by tailoring content based on detected emotions. Furthermore, in the realm of personalized assistance, machines that can understand and respond to user emotions can provide a more tailored and enriching experience, paving the way for a future where our digital interactions are as nuanced and fulfilling as our human ones.

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