

# VISUAL-ECHO: AI Powered LIP READING MODEL

Project-III (IT208TPC31) report submitted to  
Guru Ghasidas Vishwavidyalaya  
in partial fulfilment for the award of the degree of  
Bachelor of Technology  
in  
Information Technology

by

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Under the supervision of  
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DEPARTMENT OF INFORMATION TECHNOLOGY  
GURU GHASIDAS VISHWAVIDYALAYA  
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**CERTIFICATE**

This is to certify that the project report entitled “**VISUAL-ECHO: AI Powered LIP READING MODEL**” submitted by ATULYA JAISWAL (20107012), PRAKHAR KUMAR GUPTA (20107046), SHIPRA SINGH (20107059) to Guru Ghasidas Vishwavidyalaya towards partial fulfilment of requirements for the award of degree of Bachelor of Technology in Information Technology is a record of bonafide work carried out by him under my supervision and guidance during April, 2024.

Date: 30/04/2024

Place: Bilaspur

**HEAD**

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# *Abstract*

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Degree for which submitted: **Bachelor of Technology**

Department: **Department of Information Technology**

Thesis title: **VISUAL-ECHO: AI Powered LIP**

**READING MODEL**

Thesis supervisor: **Mrs. ARADHANA SONI**

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Under this project we have attempted to develop a specialized assistive technology fully integrated with artificial intelligence for individuals with hearing impairments. Lip-reading is a useful skill for deaf people to comprehend spoken communication when sign language interpretation is either insufficient or inaccessible. The main objective of this project is to design and train a deep learning model capable of accurately interpreting lip movements and translating them into textual outputs. Evaluation of the AI based Lip-reading model will be conducted through rigorous testing and validation process, comparing its performance and output against human lip readers and existing lip reading software, if any. Overall, this project strives to harness the power of AI to enhance accessibility and inclusivity for the deaf community.