

Project Design Phase-I
Proposed Solution Template

Date	8 October 2023
Team ID	
Project Name	Lip Reading Using Deep Learning
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The problem to be solved is the challenge faced by individuals with hearing impairments and professionals working with audio in noisy environments. Conventional speech recognition systems struggle in such conditions, and obtaining transcribed audio data is expensive and time-consuming. The problem is to provide an accurate, efficient, and accessible solution for transcribing spoken language solely from video data, catering to the needs of these users.
2.	Idea / Solution description	The idea is to develop an end-to-end machine learning solution that leverages deep learning algorithms, such as neural networks, to transcribe spoken language from videos.
3.	Novelty / Uniqueness	The uniqueness of this project lies in its focus on lip reading and video-based speech transcription. The solution's novelty stems from the deep learning techniques used and the potential to provide real-time transcription to a broad audience.
4.	Social Impact / Customer Satisfaction	The project's social impact lies in its potential to benefit individuals with hearing impairments and professionals working in challenging audio environments.

5.	Business Model (Revenue Model)	<p>The business model can include various revenue streams, such as:</p> <p>Freemium Model: Offering a basic version for free and premium features at a subscription fee.</p> <p>Pay-Per-Use: Charging users for transcription services on a per-use basis.</p>
6.	Scalability of the Solution	<p>The solution is designed to be scalable, capable of accommodating a growing user base and an increasing number of video uploads. Scalability is achieved through efficient infrastructure and optimized deep learning models.</p>