.**Abstract**

Nepali community lacks the technology to be able to convert Nepali Speech to written text which has made us backward in adapting newer way of interacting with computer systems. While the services like Siri, Cortana and Google Now are on rise, we are still not able to use them in our local language – which is a problem, because not all of us are good English speakers and listeners. Lack of Nepali Speech Recognition Engine has also restricted the developers to use their mind in more innovative ways. Thus, to solve this problem, we are trying to create an automated speech recognition library to provide an interface to developer. We try to achieve this by adapting the current hidden markov model based English speech recognition system to Nepali. This can be done by applying the Nepali Grammar and Linguistics to a similar system. The basic flow can be summarized as: Getting User Speech Data, Extracting Phonemes, Analyzing Phoneme sequence and using probabilistic models to deduce whole words and sentences.

**Keywords:** *Automated Speech Recognition, Hidden Markov Model*

**Abbreviations**

ASR: Automated Speech Recognition

HMM: Hidden Markov Model

PC: Personal Computer

TTS: Text to Speech

**Table of Contents**

|  |  |
| --- | --- |
| Abstract | i |
| Abbreviations | ii |
| Table of Contents | iii |
| Introduction | 1 |
| Objectives | 1 |
| Scope | 2 |
| Literature Review | 2 |
| Methodology | 3 |
| Project Breakdown | 4 |
| References | 5 |