PROJECT PROPOSAL

1. Project Title:-

NeuraLingo: A Multilingual Chat Application

2. Project Scope:-

Machine Translation bridges communication barriers and eases interaction among people having different linguistic backgrounds. Machine Translation mechanisms exploit a range of techniques and linguistic resources for translation prediction. Neural machine translation (NMT), in particular, seeks optimality in translation through training of neural network.

This project implements recurrent neural networks to translate English into few well known languages such as Spanish, French, German, Italian and others. The aim of the project is to develop a chat application that helps people to chat using their own language without being concerned about the language barrier between them and other users. This will enhance effective communication. We are going to implement these by building our own NMT models whose accuracy are comparable to and even better than already available translation tools. The application will also have a translation feature that can be used to translate English into any language of the user's choice. The deep learning models for NMT is going to be implemented using Tensorflow and will be used in the application using an API. Our application will be used for translation of textual data only and not for speech translation. The scope of this project huge and this is going to revolutionize the way chat applications are being used so far.

3. Requirements:-

Hardware Requirements:

A minimum of 8 GB RAM, GPU with 2GB RAM, 30 GB Hard Drive Space

Software Requirements:
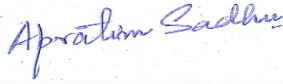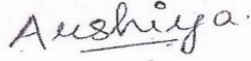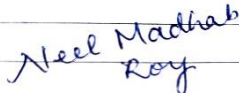
Python 3.7 or higher

Java

Jupyter/Colab Notebook

Numpy, Scikit-Learn, NLTK and other machine/deep learning libraries

Tensorflow/Keras deep learning framework

VSCode code editor/ Pycharm IDE

Android Studio IDE

STUDENTS DETAILS

Name	UID	Signature
Apratim Sadhu	19BCS6041	*Apratim Sadhu*
Arshiya Sarmai	19BCS6060	*Arshiya*
Sawan Sihag	19BCS6059	*Sawan Sihag*
Anmol Chopra	19BCS6069	*AChopra*
Neel Madhab Roy	19BCS6064	*Neel Madhab Roy*

APPROVAL AND AUTHORITY TO PROCEED

We approve the project as described above, and authorize the team to proceed.

Name	Title	Signature (with Date)
Dr. Monika Singh	Supervisor	