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| **Module Name** | | **Data Analytics Major Project** | |
| **Assessment** | | **Assessment Element – 010 - Project Proposal** | |
| **Module Code** | | **MOD007894** | |
| **Student ID** | | **2171181** | |
| **Full Name** | | **Kokhila Shanmugam Yuvan Bharathi** | |
| **Placement Provider** | |  | |
| **Placement Supervisor** | |  | |
| **Academic Supervisor** | |  | |
| **Project Title (15 words Max)** | | | |
| **Human Identification from spoken digits using Convolutional Neural Network** | | | |
| **Project Summary (200 words)** | | | |
| This project mainly involves the detection of humans based on their speech and accent. We have similar works already but now in this project, we are implementing speech recognition with the autoencoder and also trying to clean and increase the existing dataset. We are using Convolutional Neural Network to train the model with the dataset available globally. Through this project, we can generate a waveform and spectrogram of any audio files with autoencoders and also we can detect a person’s vocal speech. It is also helpful in detecting the speaker's accent and making the autoencoders work with various accents by increasing the dataset. Implementing autoencoders and increasing and cleaning the dataset is our major contribution to the existing speech recognition models. This project makes us automatically get the waveform of any audio and also helps detect the person with respect to his speech. Implementing the autoencoders with a high accuracy rate is the main implication of the project. | | | |
| **Project Aim (50 words)** | | | |
| The aim of the project is to design a convolutional neural network and implement an autoencoding human speech recognition system that helps in detecting the speaker in an audio file and also to convert those audio files into waveform signals using the Convolutional Neural Network and achieve the best accuracy with tuning the hyperparameters’ | | | |
| **Project Objectives (Outline 2 to 4 Objectives)** | | | |
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| **Methodology (200 words)** | | | |
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| **Expected Contribution (100 words)** | | | |
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| **Ethics Course Completion Certificate** | | | |
| A blue and white certificate  Description automatically generated with low confidence | | | |
| **Stage1 Research Ethics Submission Evidence** | | | |
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| **Research Plan** | | | |
|  | | | |
| **Signed and approved by:** | | | |
| **Academic Supervisor Feedback:** |  | | |
| **Academic Supervisor signature** |  | | **Date:** |
| **Placement Supervisor Feedback:** |  | | |
| **Placement Supervisor**  **signature** |  | | **Date:** |