HMR Institute of Technology and Management
Plot No. 326, Hamidpur, Delhi-110036

Department of Computer Science and Engineering

Weekly Progress Report (WPR)

Faculty Guide's Name:_____Mr. Anil Vats _____

MAJOR PROJECT TITLE: -____**Speech Emotion Recognition (SER)**_____

S. No.	Roll No.	Name	Group No	Overall Marks (out of 15)
1	41013302717	Parth	13	
2	41113302717	Abhishek Sharma	13	
3	41713302717	Kanishk Gupta	13	

Summary					
Date	**TARGETS SET FOR THE WEEK**	**ACHIEVEMENTS FOR THE WEEK**	**Marks**	**Signature of Students**	**Remark**
10/09/2020	To decide the technologies required and select the dataset	Choose the project technologies and relevant datasets successfully.			
17/09/2020	To Study Audio Signal Processing, Arduino hardware and Prepare the project pipeline	Studied about Audio Signal Processing, Arduino hardware and prepared the project pipeline			
24/09/2020	To Select Arduino Model, Display unit for the project, purchase required hardware parts	Selected the Arduino Model, LCD Display unit for the project, and purchased			

		required hardware parts successfully.			
1/10/2020	To Pre-process dataset, Learn Django Framework and create circuit diagram for Arduino	Pre-processed dataset, learned Django Framework, and made a circuit diagram for Arduino			
8/10/2020	To engineer features for the model, create the feature engineering pipeline, interfacing Arduino with LCD, and learn about the integration of Django with Front-End Frameworks and Data Science Pipeline.	Engineered features for the model, prepared the feature engineering pipeline, interface Arduino with LCD, and learned about the integration of Django with Front-end frameworks and Data Science Pipeline			
15/10/20	To select the appropriate algorithms for modeling, program application for controlling LCD via Arduino controller, and develop frontend UI for deployment application.	Selected and analyzed the appropriate algorithms for modeling, programmed application for controlling LCD via Arduino controller, and developed frontend UI for the deployment of the application.			
22/10/20	To prepare the Architecture of the	Prepared the model architecture, trained the model			

	model, train it, evaluate the model's performance and develop a python application for transmitting the data through the serial port.	according to it and performed the evaluation. Python Application Creation failed for the Arduino serial port due to encoding error.			
29/10/20	To Develop Django backend APIs for deployment of Arduino the result to the frontend application .	Developed Django backend APIs for deployment of the entire pipeline and rendered the result to the frontend application .			
05/11/20	To explore and read previous research works done on Speech Emotion Recognition	Explored and read previous research works done on Speech Emotion Recognition			
12/11/20	To update Model's Architecture and Data Science Pipeline according to the current research methodologies.	Update Model's Architecture and Data Science Pipeline according to the current research methodologies.			
19/11/20	To tune parameters and increase model's accuracy based on previously designed architecture, development of application to control	Successfully tuned model's parameters and increased the model's F1-Score to 87.25%. and developed an application for arduino using pyfirmata.			

	arduino LCD using pyfirmata.				
26/11/20	To optimize model's performance, Develop Flask API for sending and printing results on arduino from django Application.	Successfully optimized model's performance to prediction time of 0.3 seconds, developed Flask API for sending and printing results on arduino from django Application.			
03/12/20	To integrate the model with application, complete its UI and Backend operations to implement the arduino model.	Integrated the model with application, complete its UI and Backend operations to implement the arduino model.			
10/12/20	To Perform full project testing, analyzing response & request time to predict and display result to arduino and screen.	Performed full project testing, analyzing response & request time to predict and display the result to arduino and screen.			

Guide signature: Date: 15/12/2020