CSE-454: Data Warehousing and Data Mining Sessional
Term Projects Ideas

Member 1 ID	Member 2 ID	Project Name	Project Short Description
201714035	201714052	AI based Chatbot using NLP and deep neural network	It will be a conversational chatbot. The chatbot will work using both text and audio input.
201614108	201614102	Vehicle License Number Plate Recognition	The project will detect and recognize vehicle license number plate using machine learning.
201614101	201614111	Traffic sign recognition.	This project can be used for achieving accuracy where the vehicles should be able to interpret traffic signs and make decisions accordingly.
201714056	201714058	Fake news detection in context of Bangladesh	Detecting the Fake news using Machine Learning technique. Dataset will be news article id, article title, text of the article, author , unreliable or reliable label marking etc.
201714018		CaptionBoT	An Image Captioning Bot which will caption any image given to it.
201714023	201714059	Sentiment analysis for depression based on social media post	In this project sentiment will be analysed using Natural Language Processing on social media posts. .
201714021	201714024	Breast cancer detection.	We will use different types of classification and regression algorithm like logistic regression,svm, decision tress,random forest and embedded algorithm to detect if a peson has Breast cancer or not.
201714040	201714064	Object detection from image/image segmentation.	In this project we will detect various objects present in an image through robust and efficient Machine Learning algorithms
201614105	201614119	Military Car Recognition	The project will detect and recognize the military car using machine learning.
201614124	201614125	Real time face mask detector	This project will help to identify persons without facemask from a dataset of population.
201714042	201714051	Food Classification	A set of images of different types of food will be taken from a dataset. We will take an image as input , detect it and correctly categorize it into one of the pre-defined categories.
201714045	201714063	Real-time gender and age detection	To automatically predict the age of a person from an image or a video stream Dataset Used: For this python project, we'll use the Adience dataset.It has a total of 26,580 photos of 2,284 subjects in eight age ranges (as mentioned above) and is about 1GB in size. Data Mining Technique used: OpenCV and Deep Learning Input: Images from Adience dataset are first rescaled to 256 × 256 and a crop of 227 × 227 is fed to the network. Output: The prediction is made by taking the class with the maximal probability for the given test image. Here the classes are different range of ages.
201714011	201714012	Emojify	Basically in this project we will implement a model which inputs a sentence and finds the most appropriate emoji to be used with this sentence. Like, If the sentence is "Let's go and see the baseball game tonight" Then for the baseball emoji (□).
201714055	201714057	Speech emotion recognition	The objective of this project is to recognize human emotion and affective states from speech. This is capitalizing on the fact that voice often reflects underlying emotion through tone and pitch.
201714068	201714070	4. Covid 19 detection using chest X-ray	We will use convolutional neural networking(CNN) to analys chest X - ray and try to predict wheather the patient has covid 19 or not
201714010		Summarizer	Given a long text or passage it is hard to read those long emails or passage and so for making things this Natural Language Processing system creates summary of the passage based on the main context of the passage
201614100	201614118	Music genre recognition.	It describes a system for the automatic recognition of music genres, based exclusively on the audio content of the signal.
201714060	201714020	Heart Disease prediction using Artificial Neural Network (ANN)	A deep learning approach (Artificial Neural Network) to predict the presence of heart disease in a patient based on some attributes. A dataset from kaggle was found for building the deep learning model. Additionally the deep learning model will be deployed and it will be interactable from a web interface. Any user will able to use the web interface to predict the presence of heart disease.
201714002		Color Detection of Image with RGB Value	Color detection is the process of detecting the name of any color. Color detection is necessary to recognize objects, it is also used as a very important tool in various image editing and drawing apps. In this color detection Python project basing on csv (comma-separated values) file, I am going to build an application through which we can automatically get the name of the color by clicking any location on the image. For this, we will have a data file that contains the color name and its values.
201714022	201714014	Handwritten digits recognition using artificial neural network	Our goal is to construct and train an artificial neural network on thousands of images of handwritten digits so that it may successfully identify handwritten digits. The data that will be incorporated is the MNIST database which contains 60,000 images for training and 10,000 test images.
201514178	201714043	Ocular Disease Recognition using Eye Fundus Photographs	Using Ocular Disease Intelligent Recognition (ODIR) database of 5,000 patients with age, color fundus photographs from left and right eyes and doctors' diagnostic keywords from doctors This project will predict the patients into mentioned disease classifications (Normal (N), Diabetes (D), Glaucoma (G), Cataract (C), Age related Macular Degeneration (A), Hypertension (H), Pathological Myopia (M), Other diseases/abnormalities (O)). Data Reference : https://www.kaggle.com/andrewmvd/ocular-disease-recognition-odir5k
201714031	201714061	Image to Bangla Text conversion	we will convert an bangla written image file to text.
201714069	201714067	German to English Translation	Here given a passage in german the machine translate it to English language using NLP
201714006	201714008	Image Tagging	We will try to analylize the objects in the image and depending on the segmentation or object detection and surrounding of the objects we will try to generate a Tag for the objects in the image.
201714001	201714003	Obesity Detector	The project will predict obesity based on different health and family history using ML
201714007	201714009	Restaurant billing management system.	?