**29/01/2019**

* Visited IEE-xplore.
* Searched topics related to machine learning .
* Selected a topic named Enhancing Sketch –Based Image Retrieval by Re-Ranking: Based on machine learning and image processing(IEE transaction on image processing - January 2016)
* A sketch-based image retrieval often needs to optimize the tradeoff between efficiency and precision. Index structures are typically applied to large-scale databases to realize efficient retrievals.
* In this project, we propose an effective sketch-based image retrieval approach with re-ranking and relevance feedback schemes. We propose a system that uses several techniques, including relevant image grouping, re-ranking via visual feature verification (RVFV), and contour-based relevance feedback (CBRF).

**30/01/2019**

* Deeply gone through the paper and identified the techniques used.
* This topic based on image processing and data mining .
* Uses algorithm canny edge detection and shape detection .
* Canny edge detector is an edge detection operator that uses a multi-stage algorithm to detect a wide range of images.

**31/01/2019**

* Presented the topic infront of Rahulnath sir ,unfortunately the topic was rejected due to the irrelevance and the quality of the topic.
* Searched topics based on machine learning .
* Selected a topic Facial Expression Prediction And Forgery Detection
* It’s a combination of two papers.
* Forgery detection:manipulation of image.
* The main goal of this project is to development an application tool which help to detect Image forgery and also can predict Facial Expression.

**1/02/2019**

* The focus of the paper is to generate realistic facial expression images from a neural facial image. We generated a particular expression with the help of bilinear transformation with in the mesh warping technique.
* Bilinear transformation: The bilinear transform is used in digital signal processing and discrete-time control theory to transform continuous-time system representations to discrete-time and vice versa.
* Mesh warping: is a two-pass algorithm that accepts a source image and two 2-D arrays of coordinates S and D. The S coordinates are the control pixels in the source image. The D coordinates specify the location to which the S coordinates map.

**2/02/2019**

* Searched for the base papers.
* I got a reference paper on facial expression prediction and a transaction on image forgery.
* Read the papers.
* Identified the techniques used.

**3/02/2019**

* studied the papers.
* Searched for reference papers.

**4/02/2019**

* Presented the topic.
* Topic rejected.
* Searched for another topics.

**5/02/2019**

* Searched for IEE papers .
* Selected a topic named Facial Expression Recognition Using Salient Features And Convolutional Neural Network(journal paper).
* Download the paper .

**6/02/2019**

* Read the paper.
* Topic based on image processing and convolutional neural network.
* Facial expression recognition is the most natural way to extract human emotion.
* Typical expression recognition system consist of :
* Face image acquisition
* Feature extraction-LDRHP,LDSP,KPCA,GDA,LDRHP
* Training: CNN based deep learning
* Recognition

**7/02/2019**

* searched for reference papers.
* Compared the papers.
* Studied the paper.
* Edge detection algorithm is used in this paper for facial expression recognition.
* For proposed system iam going to use corner detection algorithm.
* For each phase the algorithm used was different.

**8/02/2019**

* Presented the topic with ppt.
* Accepted the topic.

**9/02/2019**

* Read the paper.
* Watched videos based on convolutional neural network.

**10/02/2019**

* Read reference papers.
* Jabid, M. H. Kabir, and O. Chae, ëëLocal directional pattern (LDP)ó A robust image descriptor for object recognition,íí in Proc. IEEE Int. Conf. Adv. Video Signal Based Surveill., Aug./Sep. 2010, pp. 482ñ487.
* . Mollahosseini, D. Chan, and M. H. Mahoor, ëëGoing deeper in facial expression recognition using deep neural networks,íí in Proc. IEEE Winter Conf. Appl. Comput. Vis. (WACV), Mar. 2016, pp. 1ñ10.

**11/02/2019**

* Read the reference papers and understood the terms that are discoursed in the main paper.

**12/02/2019**

* Identified the algorithms used in facial image recognition.
* The algorithms that are mainly used PCA(principal Component Analysis, ICA(Independent Component Analysis)
* Algorithm study.

**13/02/2019**

* searched the algorithms used in each phase.
* peformed a detailed study of convolutional neural network.
* watched videos on how actually neural network works.

**14/02/2019**

* Browsed blogs for more information.

**15/02/2019**

* searched how to perform convolution operation and watched a video based on it.

**16/02/2019**

* Browsed blogs for more information.

**17/02/2019**

* Identified merits of corner detection algorithm over edge detection.

**18/02/2019**

* comparitive study of edge detection algorithm and corner detection algorithm.

**19/02/2019**

* Analysed the corner detection algorithm.

**20/02/2019**

* searched how corner detection algorithm works.

**21/02/2019**

* searched for dataset

**22/02/2019**

* Have got an idea how to implement the system.
* Requirements of the system and implementation issues and possible solutions.

**23/02/2019**

* Analysed what should perform first.
* Download and insatll visual studio

**24/02/2019**

* searched how to perform image binarization.