

## Proposed Solution

<b>Date</b>	19 September 2022
<b>Team ID</b>	PNT2022TMID08310
<b>Project Name</b>	A Gesture based tool for sterile browsing of radiology images
<b>Maximum Marks</b>	4 Marks

## Problem Statement



## Solution / Idea Description

The Solution for the problem statement is to access and manipulate and navigate the images without the physical contact with the computers by using the Gesture tool-based browsing for images by using the CNN (Convolutional Neural Network), the deep learning algorithm. By using the CNN and Dense layer the data sets are trained and tested. The data sets here is the images of the hand gesture and positions which is used to access and manipulate the images without the physical contact with the computers. This solution is created as web application by using python and flask. The user can upload the images and they can work with the images by using the hand gestures. And this is done with the help of OpenCV which allows you to perform image processing and computer vision tasks. The solution flow here is once the

web cam captures the hand gestures then the images is processed with the help of the OpenCV and then the image is matched with the test and train data sets and according to the match of the data the starts to do the particular task which is assigned for the particular data.

### **Uniqueness / Novelty**

The novelty and Uniqueness of the project is that it had the better and simple method to work with the images. And this is the future technology for manipulating and work with the images in the companies and hospitals etc. It has the better understanding of user problem and better techniques and neural networks to process the images. It enables the simple and attractive user interface for the customers to work in the web application. Because of the advanced techniques in it the performance of the project is very massive. The image processing and identification is accurate and the result is dam correct in this solution project.

### **Social Impact / Customer Satisfaction**

It takes over the social responsibilities and Customer satisfaction to full fill the Customer needs in the various fields like Hospitals, Schools, Images workings etc. It helps the professionals to control over the images without the physical contact with the computers.

### **Financial Benefits**

Cost efficient to deploy this Software for health care department as well as in hospitals and can collaborate with government for health awareness camps.

### **Scalability Solution**

Better execution in accurate results, sensitivity, system architecture design and transparency and flexibility of the software.