PROPOSED SOLUTIONS

PROBLEM STATEMENT:

The surgeon needs to have access to the radiological images in the system in the operating room. It is possible for an infection to spread through their hands if they use the mouse or any other objects to zoom in or scroll through the photographs. In the Corona Era, touching an object can transmit an infection from one person to another.

IDEA / SOLUTION DESCRIPTION:

- To upload the image as input, the user engages with the user interface (UI).
- Different operations are applied to the input image depending on the various gesture inputs.
- After the model has analysed the gesture, the prediction with the operation done to the image is displayed on the user interface.

NOVELTY/ UNIQUENESS:

- In this project, we can control each image created by any person without having to train a model specifically for them.
- No extra equipment needs to be installed or worn.

SOCIAL IMPACT/ CUSTOMER SATISFACTION:

Principal problems with current technique:

- The requirement that the touch-screen monitor's plastic adhesive cover be changed every time a patient has surgery in order to maintain its sterility.
- The delay brought on by the surgeon's repeated trips to the main control wall and back to the patient's side.
- The surgeon picked hand gesture control because it relies on hand-based engagement, which he or she is most adept at.

This project will be:

- simple to use
- rapid response
- Unrestricted interface: The suggested system does not call for the surgeon to employ foot pedals, a microphone, or head-mounted sensors.
- Control over distance: The hand gesture is operable from up to five meters away from the camera.

BUSINESS MODEL (FINANCIAL BENEFIT):

To manipulate the visuals via gestures, no special equipment needs to be worn or used externally. the price is low.

SCALABILITY OF SOLUTION:

This gesture-based method of device control can be applied to any device, not just radiography pictures.