Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID35486
Project Name	Project - Gesture-based Tool for Sterile Browsing of Radiology Images
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The present-day use of doctor-computer interaction devices in the operation room to browse radiology images accompanies with the risk of getting infected and frequent movement to the computer which makes it uneasy. Therefore, it requires new modalities that support medical imaging manipulation while allowing doctors' hands to remain sterile, supporting their focus of attention, and providing fast response times.
2.	Idea / Solution description	Gesture based Tool for sterile browsing of radiology images is the proposed solution. This ensures contactless browsing of images and thus helps the doctors to reduce movement and improve focus. Reading gestures involves the recognition of images or recordings captured by the camera. Each gesture, when identified, is translated to a specific command in the controlled application.
3.	Novelty / Uniqueness	Standard image processing techniques do not yield great results, gesture recognition needs to be backed by artificial intelligence to unfold its full potential. Ideally, gesture recognition should be based on a photo of a still hand showing only a single gesture against a clear background in well-lit conditions. But real-life conditions are hardly ever like that. We don't always get the comfort to use solid, clear backgrounds when presenting gestures. The role of artificial intelligence in gesture recognition is, in part, to overcome some of the main technical issues associated with proper identification of gesture images
4.	Social Impact / Customer Satisfaction	Contributing the corporate social responsibility by providing better solutions to the healthcare and to patients
5.	Business Model (Revenue Model)	Can collaborate with diagnosis centres and hospitals and can collaborate with government for health awareness camps.

6.	Scalability of the Solution	With the addition of more radiology images data set can be expanded thus giving more efficient and effective detection of gestures and thereby improving the browsing features. The environment can be ensured to be sterile.