Project Design Phase-I
Proposed Solution Template

Date	20 September 2022
Team ID	PNT2022TMID18699
Project Name	Project - A Gesture-Based Tool for Sterile Browsing of Radiology Images
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Browsing through patient-specific image data, gathered from CT scans and MRI scans during a surgical procedure requires doctor-computer interaction that supports medical imaging manipulation while allowing the doctor's hand to remain sterile. However, traditional methods of human-computer interaction often fail to provide an efficient method of medical image manipulation while supporting users' focus of attention.
2.	Idea / Solution description	A vision-based hand gesture recognition system has been proposed for surgeons to interact with medical image viewers during an operation. The system interprets the real time user's hand gestures and translates it to appropriate commands which are then used for manipulation of radiology images.
3.	Novelty / Uniqueness	Introducing a hand-gesture for performing undo operation and improving the accuracy of Hand-gesture recognition
4.	Social Impact / Customer Satisfaction	Gesture-Based interaction provides an efficient, intuitive, accurate and safe means of interaction without affecting the quality of work. It also provides the ability to multitask.
5.	Business Model (Revenue Model)	The proposed model would be sought after by hospitals in lieu of existing unsterile tools in surgical suites and laboratories.
6.	Scalability of the Solution	The proposed solution can be extended for interacting with medical equipment, controlling visualization displays, and assisting patients in rehabilitation.