

**Project Design Phase I**  
**Proposed Solution Template**

<b>Date</b>	17.10.2022
<b>Team ID</b>	PNT2022TMID09880
<b>ProjectName</b>	A gesture-based tool for sterile browsing of radiology images
<b>MaximumMarks</b>	2 Marks

**Proposed Solution Template:**

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

<b>S.No</b>	<b>Parameter</b>	<b>Description</b>
1.	Problem Statement (Problem to be solved)	Pioneering work in this arena heavily applied traditional computer vision techniques for performing image preprocessing, hand detection, and hand tracking and used finite state machine for gesture classification [10, 11]. Some of them had poor usability and caused fatigue for the users [12]. A classical machine learning approach was taken by Achacon et al. [13]. Their system called REALISM included only a few gesture classes. They first performed hand detection with Haar-like features and cascade classifier then employed Principal Component Analysis and Euclidean Distance matching from the samples of the classes to perform classification.
2.	Idea/Solution description	A hand gesture system for MRI manipulation in an EMR image database called "Gestix" was tested during a brain biopsy surgery. This system is a real-time hand-tracking recognition technique based on color and motion fusion.
3.	Novelty/Uniqueness	This paper presents "Gestix," a vision-based hand gesture capture and recognition system that interprets in real-time the user's gestures for navigation and manipulation of images in an electronic medical record (EMR) database.

4.	SocialImpact/ CustomerSatisfaction	<p>Gas detection sensors are most commonly used to develop an IoT-powered system and identify the variation of toxic gases around an industrial facility. It helps benefit the factories and refineries by keeping them safe against any unexpected threats like explosions. Get real-time alerts about the gaseous presence in the atmosphere. It prevents hazards and explosions. With the product of this idea helps to ensure workers' health. An IoT-powered gas monitoring solution works through sensors that provide accurate data regarding the presence of toxic gases in the atmosphere. It is a very useful system to implement in the industries or plant facilities to avoid catastrophic explosions. With the help of a gas monitoring solution, you can successfully measure temperature and humidity in the atmosphere, which results in improved plant facilities and ensures employee safety.</p>
5.	Business Model(RevenueModel)	<p>gas leakage is detectable one. gas is a explosionable one that's why it requires more careful when handling it. LPG is a highly combustible substance and quickly forms explosive air- hydrocarbon mixture when suspected to atmospheric condition. Liquid leakages that may form in LPG systems can create combustible and explosive gas mixtures in large volumes from 250 unit. gas leakage detector provides a profit stability to the people who are having it. Because cost wise it becomes to low price in market even poor people can also use in this easy manner. Inhaling LPG vapor at high concentration even for a short time can cause fainting and death. Inhaling in nose and throat, headache and nausea, vomiting, dizziness and loss of consciousness. LPG vapour can cause fainting and choking in closed or poorly ventilated environments.</p>
6.	Scalability of the Solution	<p>Its ability to warn its stakeholders about the leakage of the LPG gas. The future aspects of this detector include the GSM module and a tripper circuit which increases the efficiency of the system and provides more safety to the users. This detector is implemented successfully and is easy to use and also a low cost product. Another advantage of this device is that even though if no one is there in the house and then gas leak occurs, GSM module is there to send immediate messages to the stakeholders regarding the gas leak and thus it lowers the intensity of accidents. GSM module in this device ensures better safety regarding the gas leaks.</p>