**Project Design Phase-I**

**Proposed Solution Template**

|  |  |
| --- | --- |
| Date | 19 October 2022 |
| Team ID | PNT2022TMID03497 |
| Project Name | 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 the proposed solution template.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | traditional methods of human-computer interaction fail to provide an efficient method of medical image manipulation supporting users' focus of attention. With the advent of Artificial Intelligence, a new mode of interaction, Gesture- based interaction is introduced. Gesture-Based interaction provides an efficient, intuitive, accurate and safe means of interaction without affecting the quality of work. |
| 2. | Idea / Solution description | In this Gesture based Desktop automation ,First the model is trained pre trained on the images of different hand gestures, such as a showing numbers with fingers as 1 ,2,3,4 . This model uses the integrated webcam to capture the video frame. The image of the gesture captured in the video frame is compared with the Pre-trained model and the gesture is identified. If the gesture predictes is 1 then images is blurred;2, image is resized;3,image is rotated etc |
| 3. | Novelty / Uniqueness | This is the first time gesture based sterile browsing of radiology image is used for medical purposes that uses AI and Machine learning |
| 4. | Social Impact / Customer Satisfaction | This solution can help society by decreasing the amount of touch surfaces which can spread diseases in a hospital environment. It would also provide a comfortable experience for the customer by being user-friendly to operate. |
| 5. | Business Model (Revenue Model) | We can sell this application as a whole or setup a server which customers can use and setup a subscription system for the API keys for using the server providing 2 opportunities for revenue at different levels. |
| 6. | Scalability of the Solution | The proposed solution is highly effective in the areas actions takes a great place in diagnostic centers to multispeciality hospitals |