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

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| Date | 1 October 2022 |
| Team ID | PNT2022TMID07752 |
| 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 proposed solution template.

| S.No. | Parameter | Description |
|---|---|---|
| 1. | Problem Statement (Problem to be solved) | The use of doctor-computer interaction devices in the operation room (OR) 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 | "*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. Navigation and other gestures are translated to commands based on their temporal trajectories, through video capture. |
| 3. | Novelty / Uniqueness | This interface prevented the surgeon's focus shift and change of location while achieving a rapid intuitive reaction and easy interaction. Data from two usability tests provide insights and implications regarding human-computer interaction based on nonverbal conversational modalities. |
| 4. | Social Impact / Customer Satisfaction | The hand gesture control system "*Gestix*" developed has helped the doctor to remain in place during the entire operation, without any need to move to the main control wall since all the commands were performed using hand gestures. |
| 5. | Business Model (Revenue Model) | The model will generate revenue through offering yearly subscription to user. |
| 6. | Scalability of the Solution | Since the model is implemented on hospitals, it can recognize data from two usability tests provide insights and implications regarding human-computer interaction based on nonverbal conversational modalities. |