PRIOR KNOWLEDGE

DATE	19 NOVEMBER 2022
TEAM ID	PNT2022TMID19223
PROJECT TITTLE	A GESTURE BASED TOOL FOR STERILE BROWSING OF RADIOLOGY IMAGES
TOTAL MARKS	2 MARKS

PRIOR KNOWLEDGE ABOUT GESTURE BASED TOOL FOR STERILE BROWSING FOR RADIOLOGY IMAGES:

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. 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. Navigation and other gestures are translated to commands based on their temporal trajectories, through video capture. "*Gestix*" was tested during a brain biopsy procedure. In the in vivo experiment, 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.

TOOLS USED IN THIS PROJECT:

- Google Collaboratory
- MATLAB
- Anaconda Prompt

PROGRAMMING USED IN THIS PROJECT:

- Python for application building.
- HTMNL for designing.

TECHNOLOGY USED:

- Machine Learning.

LIBRARY USAGE OF THIS PROJECT FROM PYTHON:

- NumPy
- Pandas