

G. Narayanamma Institute of Technology & Science

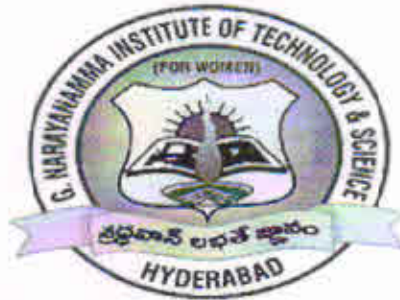
(For Women)

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(An ISO 9001:2015 Certified Institution)

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Hobby project on

AIR CANVAS

BY

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ABSTRACT

Based on today's scenario numerous applications are into existence in each and every domain on daily basis. In this corona virus pandemic circumstance, virtual mode of teaching is the new routine for all the students around the world. Due to this, teachers are facing difficulties in adapting the new mode of teaching. It may not be possible for every faculty to have access of personal computers and laptops. Even if they have computers, they may not be having a stylus pen or a notepad for writing on the screen. Using mouse or a keyboard in case of a pictorial or a diagrammatic representation is definitely a difficult task to perform.

So here comes an alternative where we can represent graphical, pictorial or even text data using an "air canvas". Air canvas is a hands-free computer vision digital drawing canvas utilizes OpenCV which involves deep learning and is a function of Artificial intelligence. The objective of an air canvas is to create a simple prototype for a drawing tool that uses hand gesture recognition software to paint on a screen. The direction of the brush is controlled completely using open source OpenCV software and modified to map the pointer finger onto the screen following a calibration screen to measure and record the color of the user's hand.

The idea is to ease the written explanation for teaching faculty in online teaching. It also creates a dustless classroom environment in offline classes as well while using projectors for students to study in. It will also be interesting for children to learn new concepts in a unique way. Most importantly, it is helpful in reducing the use of paper.

SYSTEM REQUIREMENTS:

Software Requirements:

Platform - Windows 10 or Windows 7

Front End - HTML, CSS, JAVA

Back End - PYTHON

Hardware Requirements:

Name of the Processor - Windows 10 intel® core™ i5

Hard Disk Capacity - 1TB

RAM Capacity - 8GB