



## VIVA-TECH INTERNATIONAL JOURNAL FOR RESEARCH AND INNOVATION

ANNUAL RESEARCH JOURNAL

ISSN(ONLINE): 2581-7280

---

### SIXTH SENSE TECHNOLOGY

Faisal Khan<sup>1</sup>, Nitin Jagdish<sup>2</sup>

<sup>1</sup>(MCA, VIVA Institute of Technology/ University of Mumbai, India)

<sup>2</sup>(MCA, VIVA Institute of Technology/ University of Mumbai, India)

---

**Abstract** Sixth Sense 'is a wearable touch function that enhances the real world around us with digital knowledge and allows us to use natural hand gestures to share that knowledge. This technology will definitely give the user a new way to see the world with the information in his or her hand cuffs listed under the 'wearable computing' section. The true power of Sixth Sense lies in its ability to connect the real world with the internet, and to cover information in the world itself. The important thing here is that Sixth Sense sees things around you, displays information automatically and allows you to access it any way you want, in a very simple way. This paper only gives you an introduction about the sense of the thumb. This paper acquaints you with the sixth sensor technology that provides the freedom to communicate with the digital world using hand gestures. The sixth sense prototype is made up of a pocket projector, mirror, cell parts, color symbols and a camera. Six sensor technology is about interacting with the digital world in the most efficient and direct way. Sixth Sense machines are very different from Computers; this will be a new topic for hackers and other people too. Everyone can get a general idea of sixth sense technology by looking at this paper.

**Keywords:** Sixth Sense, wearable computing, Augmented Reality, Gesture Recognition, Computer Vision

#### I. INTRODUCTION

Steve Mann is known as the "Father of Sixth Mental Technologies" who made a portable computer device in the 1990s. People know that the way humans interact with robots has been developed with the help of various technologies. Controlling robotic vehicles using touch is an outstanding way to improve integration. Human touch enhances robot interaction by making it standalone on input devices. The built-in camera system is used to capture real-time video capture. It combines technologies such as hand-touch detection, photography, processing, and deception. Color markers are used to determine the movement of the touch. By sending the touch commands the wireless Zigbee series 2 module is commonly used.

#### II. HEADINGS

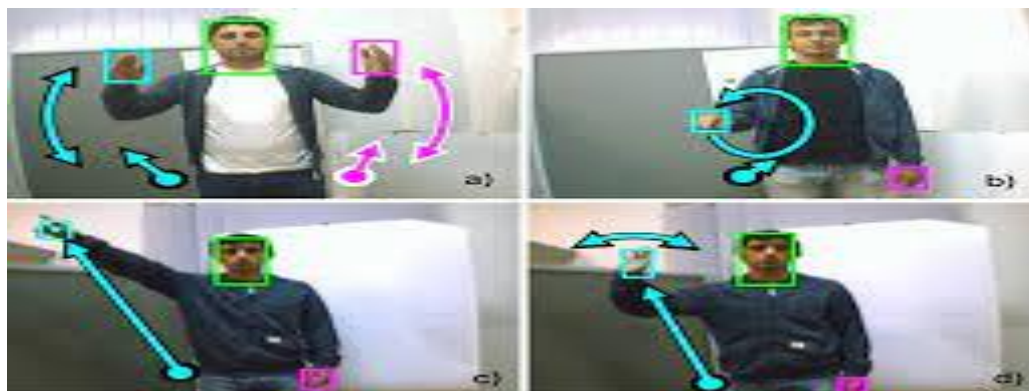
##### Augmented Reality

Augmented reality visual technology that allows the user to experience visual acuity added to the real world in real time. The unpopular reality of taxpayers we see adds graphics, sounds, bold response and the scent of the natural world as it exists.



### Gesture Recognition

It is a technology designed to translate human touch with the help of mathematical algorithms. Touch recognition technique is basically a special type of hand gloves that provides information about the shape of the hand and the flow of the figure.



### Computer Vision

Computer Vision is a technology in which equipment can translate the required information from an image. This technology encompasses a wide range of fields such as image processing, image analysis and machine vision. It involves a certain part of practical wisdom as pattern recognition .



### Radio Frequency Identification

Radio Frequency Identification systems transfer the ownership of an wireless device, using a radio magnetic waves. The main purpose of this technology is to enable data transfer through a portable device. This technology is widely used in fields such as tracking, supply chain management, manufacturing, payment system etc..



## APPLICATIONS

The Sixth Sense device has a large number of applications. The following are a few of the Sixth Sense Technology applications: -



### Viewing Map:

With the help of the map app the user can call any map of his choice and navigate by displaying the map in any location. With the help of a thumb and index finger, a user can zoom in, zoom out or give a selected map

### Taking Pictures:

Another use of Sixth Sense devices is the introduction of a touch camera. This camera captures the image of a local user looking at it by getting a private touch. After taking the desired number of photos we can display them anywhere and use touch to edit those images and rearrange them and resize them.

### Drawing Application:

The drawing app allows the user to draw in any position by following the movements of the user's index finger. User drawings can be saved and modified in any other location. The user can also navigate through various images and drawings using hand gestures.

### Interacting with Physical Objects:

The Sixth Sense program also helps to interact with the material we use best. Add material by displaying additional information about these features. For example, the action of drawing a circle on a user's wrist project a clock in the user's hand. Similarly a newspaper can show live video news or inspirational information can be provided on regular paper.



### III. METHODOLOGY

#### KEY FEATURES OF SIXTHSENSE

1. Sixth Sense is an easy-to-use interface that integrates digital information into the physical world with its objects, making the whole world your computer. Sixth Sense does not change human habits but causes computer and other machines to adapt to human needs.

3. Use hand gestures to interact with digital knowledge, supports multi-touch and multi-user interaction.  
 4. Direct access to data on the machine in real time. It is an open and cost-effective source and we can post ideas anywhere.

5. It is a portable touch-sensitive computer device that feeds our relevant information and transforms any space into an interactive display.

6. It is portable and easy to carry as we can wear it around our neck.

7. The device can be used by anyone who does not even have basic keyboard or mouse knowledge. No more need to carry a camera.

8. When we go on holiday, from now on it will be easy to take pictures with just your fingers

### IV. FIGURES AND TABLES

Application	Description
Make a Call	This Technology enables the user to make a call without using dialer
Get Flight updates	The device can tell whether the user is in delay or on time by looking at the tickets.
The Map	It allows the user to navigate a map that is displayed on a nearby surface by using our hand gestures, which is similar to the gestures supported by the multi-touch based system. The system allows the user to zoom in and zoom out.
3D Drawing Application	It lets the user draw on any surface by tracking the tip movements of the user's index finger.
The Clock	The user just needs to make a gesture of a circle on the wrist and the clock with the current time will be projected on the user's hand.
Motion Capture	Using fingers, the user can capture photos without carrying an extra gadget
Video Newspaper	This device also identifies the articles in the newspaper, retrieves the recent stories from the internet and then shows them on pages for individuals.
Book Information	For book lovers, it proved to be a blessing as you just open any book and find the ratings of the book, also move on any page and get additional information.

## V. CONCLUSION

As this technology emerges it may be new devices and as a result new markets will emerge. These technologies enable a person to account for, count and browse data for any piece of paper we can find around. Sixth Sense machines are very different from computers; this will be a new topic for hackers and other people too. The first thing is to provide security for Sixth Sense applications and devices. Many technologies came to die due to security threats.

There are some weaknesses that can reduce data accuracy. One of them was a palm wire keypad. Allows the user to dial a phone number using the keypad located in the palm of their hand. There will be an important market rival for Sixth Sense technology as it still requires some hardware involvement with the user.

## Acknowledgements

Thank you so much to my college for giving me this opportunity to make this project a success. Special thanks to Prof Nitesh Kumar for encouraging me to complete this research paper, he guided me and helped me through all the obstacles in research.

Without his help, it would not have been possible. And I present my commitment to our teachers who have given us a deeper understanding and knowledge of us, over the years. We are responsible for our parents and family members who are always very supportive and encouraging in each step.

## REFERENCES

1. <http://www.pranavmistry.com/projects/sixthsense/>
2. <http://dSPACE.cusat.ac.in/jspui/bitstream/123456789/2207/1/SIXTH%20SENSE%20TECHNOLOGY.pdf>
3. <http://en.wikipedia.org/wiki/SixthSense>
4. <http://www.engineersgarage.com/articles/sixth-sense-technology>
5. [http://www.ted.com/talks/pranav\\_mistry\\_the\\_thrilling\\_potential\\_of\\_sixthsense\\_technology.html](http://www.ted.com/talks/pranav_mistry_the_thrilling_potential_of_sixthsense_technology.html)