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Review on Sixth Sense Technology

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ABSTRACT: Sixth Sense Technology is the latest terminology. It is a mini-projector attached with a camera and cell phone which acts as the computer and connected to the cloud computing network and all the information stored on the network. Sixth Sense aims to more effortlessly integrate online information and knowledge into day by day life. The power or electricity used in sixth sense is obtained from green energy technology. This paper presents the study about the working function of sixth sense and green energy power system.

KEYWORDS: Cloud Network, Green Energy, Sixth Sense Technology.

I. INTRODUCTION

Sixth Sense Technology is the terminology that has proclaimed its occurrence in the technological arena. This expertise has emerged, which has its relation to the supremacy of these six senses. Our regular computers will shortly be able to sense the different feelings accumulated in the atmosphere and it is all a gift of the "Sixth Sense Technology" newly introduced. A technical term is defined as Extra Sensory Perception. It involves the response of information not gained through any of the five senses.

Sixth Sense is a wearable gesture based device that augments the physical world with digital information and let people to use natural hand gestures to interrelate with that information. Sixth sense technology uses green energy systems. Green energy is a technology, which obtain power from natural sources and cannot be depleted.

II. RELATED WORKS

Every one use their five natural senses which contain eye, ear, nose, tongue mind and body to recognize information that helps us to make decisions and chose the right actions to take[3]. But perhaps the most useful information that can help us to make the right assessment is not naturally perceivable with our five senses, namely the data, information and facts that mankind has accumulated about everything and which is increasingly all accessible online [4]. Even though the miniaturization of computing strategy allows us to carry computers in our pockets, keeping us frequently connected to the digital world, there is no association between our digital devices and communications with the physical world. Information is limited traditionally on paper or digitally on a screen. Sixth Sense bridges this gap, bringing insubstantial, digital information out into the real world, and allowing us to interact with this information via natural hand gestures. Sixth Sense collects information from its boundaries by flawlessly integrating it with certainty, and thus building the entire world into ones computer.

Green Energy is generated from another energy sources that get powered by a variety of natural events and cannot get depleted with utilize [5]. The three major sources of Green Energy are water, wind and solar energy that can boundary the dependence on fossil fuels considerably. Falling water has had been occupied by power dams so as to generate electricity. Although dams generate clean energy, they put down a negative impact on the ecosystems in nearby the area. Wind power is harnessed by means of wind mills where the movements are transformed into electricity [6]. The energy formed by wind mills is both renewable and clean. As well as solar energy is generated using solar panels that convert the sun's light into electricity that can be used in homes, industries, vehicles and can be used for further purposes[1][2].

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Green Energy models are total demand and supply systems based upon renewable energy unlike energy formed from fossil fuels and nuclear energy. Green Energy models consist of together supply and demand [7]. The shift from conservative fossil fuel and nuclear-based models to Green Energy systems requires well corresponding changes in the demand technologies for preservation of energy, development of efficiency in supply systems and incorporation of irregular green energy sources like wind power.

III. COMPONENTS OF SIXTH SENSE TECHNOLOGY

The hardware components are coupled in a pendant like mobile wearable device[8]. They are Camera, Projector, Mobile Component, Mirror and Color Markers.

A webcam captures and recognizes an object in outlook and tracks the user's hand gestures by means of computer-vision based techniques. It sends the information to the smart phone. The camera acts as a digital eye which considers what the user sees. The camera recognizes objects around us instantaneously, with the micro projector overlaying the information on any exterior, including the object itself or user hand[5].

A projector opens up communication and sharing. The project itself contains a battery within three hours of battery life. The projector projects illustrated information enabling surfaces, fortifications and physical objects around us to be used as interfaces. A miniature LED projector displays facts sent from the smart phone on any exterior in outlook object, wall, or person.

The mobile strategies like Smartphone in our pockets broadcast and receive voice and data anyplace and to anyone using the mobile network. A Smartphone runs the Sixth Sense software, and handles the relationship to the internet.

The procedure of the mirror is considerable as the projector dangles pointing downwards from the neck.

It is at the position of the user's fingers. Mark the user's fingers with red, yellow, green, and Blue Tape which helps the web camera to recognize gestures. The activities and arrangements of these makers are interpreted into gestures that proceed as interaction instructions for the projected application interfaces.

IV. FUNCTION OF SIXTH SENSE DEVICES

The hardware that makes Sixth Sense effort is a pendant like mobile wearable interface[8]. It has a camera, a mirror and a projector is in figure 1 and is attached wirelessly to a Bluetooth or 3G or wifi smart phone that can slide contentedly into one's pocket.

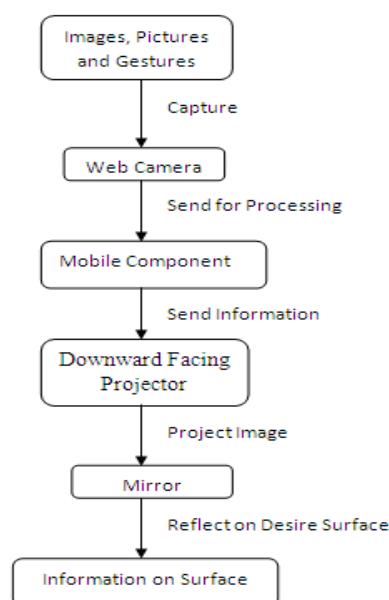


Figure 2. Function of Sixth Sense Technology

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The camera recognizes persons, images, pictures, gestures one makes with their hands information is sent to the Smartphone for handing out. The downward-facing projector projects the output picture on to the mirror. Mirror reflects picture on to the preferred surface. Hence the digital information is flowing from its boundaries and located in the physical world. Sixth sense technology entire hardware device is encompassed in a pendant-shaped mobile wearable device[6].

The incorporation of Green Energy sources with presented energy models at a large-scale involves gathering the some challenges. The challenges take account of the coordination of fluctuating in addition to irregular production of renewable energy all along with the rest of the system. Meeting these challenges is particularly important with regard to electricity systems for the reason that such systems have need of a precise balance between supply and demand. The large-scale integration of Green Energy and the scheming of 100% green power systems need a estimate of fluctuations in sources of renewable energy on an hour to hour base. It is also significant to comprise analysis of higher storage and conversion technologies in the models[7].

There are various forms of power obtained from green energy technology and used in sixth sense technology[8].

In solar power systems, the sun's radiation is wrapped up by solar cells. It is also well-known as photovoltaic cells. The development consists of the displacement and movement of electrons for absorbing sunlight and creating electricity. Subsequently there are solar energy systems that employ large-scale mirrors for heating water, or generating steam plus high temperatures, designed for revolving generators[9].

Generation of wind power is a effortless process, where a wind turbine transforms wind's kinetic energy to mechanical energy for generating electricity. This energy is passed throughout a generator for converting to electricity, and then it is transmitted throughout the grid. The distinctive thing about wind energy is that it offers incentives to farmers who offer their land for construction of wind turbines. This Green Energy source has the maximum potential only if extensive adoption because of large area of land has stable wind for harnessing[10].

Geothermal power is one more Green Energy source where underground heat is intent and used to build energy as soon as it rises at the surface. as the underground heat leads to the development of natural steam or else hot water, this energy is harnessed for operating a steam turbine for production of electricity.

A Extremely versatile type of Green Energy, biomass fuel is burnt to heat water in boilers plus a steam turbine is intended for creating electricity. Distinctive results are being gained from agricultural research, for example the use of cow manure in dairy farms for generating energy[11].

Approximately 73% of all the Green Energy is predicted to come from the power of water hydropower. Flowing water has mechanical energy, and as soon as water is forced through penstock for revolving a generator it helps to produce electricity[12]. Tidal energy and wave energy are further forms of green power formed from side to side wager. Research is at rest underway to harness energy from the motion of the ocean. The Bhakra Nangal Dam is the biggest dam at home India. Built on the Sutlej River is the second largest dam in Asia. Above 1,000 MV of electricity is generated from this dam that consists of 10 heavy turbines[13].

V. APPLICATIONS

The Sixth Sense prototype outfit several applications that exhibit the effectiveness feasibility and flexibility of the system. The Sixth Sense device has a huge number of applications.

One can use the Sixth Sense to assignment a keypad onto the hand is in figure 2, then use that effective keypad to make a call. Calling a number also will not be a immense task with the preface of Sixth Sense Technology. No mobile device are necessary, just type in the integer with the palm performing as the virtual keypad. The keys will approach up on the fingers.

The sixth sense also outfit map is in figure 3 which lets the user present the map on any physical surface and locate his destination and one can use his thumbs and index fingers to find the way the map, for example, to zoom in and out and do other controls.

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Figure 2. Make a call using hand



Figure 3. Call up a Map.

Sixth Sense have to do is sketch a circle on ones wrist is in figure 4 with their index finger to get a actual watch that gives us the correct time. Computer tracks the red marker cap or piece of ape, recognizes the gesture, and instructs the projector to flicker the image of a watch onto their wrist.



Figure 4. Check the Time

The Sixth Sense method also augments physical objects the user is interacting with by analytical information about these objects projected on them. In Figure 5, can explain video news or dynamic information can be provided on a regular Sixth sense Technology piece of paper. Therefore a piece of paper turns into a video demonstrate.

The drawing application is in figure 6, lets the user sketch on any surface by tracking the fingertip actions of the user's index finger[14][15].

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Figure 5. Multimedia Reading



Figure 6. Drawing

VI. CONCLUSION

This paper gives the overall function of sixth sense technology and discussed various green energy power used in sixth sense technology. In future, an effect of sixth sense technology and their rectifications will be analyzed.

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