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Review of Virtual Smart Phone

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Abstract –

The virtual smartphone is a ground breaking concept that transforms the way we use and interact with mobile devices. It utilizes virtual reality (VR) and augmented reality (AR) technologies to create an immersive and personalized smartphone experience.

Instead of relying on a physical device, the virtual smartphone is a digital interface projected onto VR or AR headsets. By wearing the headset, users can access and control their virtual smartphone through hand gestures or voice commands.

The virtual smartphone offers similar features to traditional smartphones, such as making calls, sending messages, browsing the internet, and using apps. What sets it apart is the ability to customize the interface, backgrounds, and appearance of the virtual smartphone, providing a unique and tailored experience.

One of the main advantages of the virtual smartphone is its adaptability. Since it doesn't depend on physical hardware, it can easily adjust to different form factors and screen sizes, allowing users to switch between smartphone, tablet, or desktop-like displays within the virtual environment.

However, the widespread adoption of virtual smartphones faces challenges. Accessible and affordable VR/AR hardware is needed, and privacy and security concerns must be addressed to protect user data within the virtual environment.

Introduction –

Virtual Smartphone, like its counterpart desktop virtualization, is a technology that separates operating systems and applications from the client devices that access them. However, while desktop virtualization allows users to remotely access Windows desktops and applications, virtual smartphone offers remote access to mobile operating systems such as Android. Virtual smartphone encompasses both full operating system virtualization, referred to as virtual mobile infrastructure (VMI), and user and application virtualization, termed mobile app virtualization. Remote mobile virtualization allows a user to remotely control an Android virtual machine (VM) or application. Users can access remotely hosted applications with HTML5-enabled web browsers or thin client applications from a variety of smartphones, tablets and

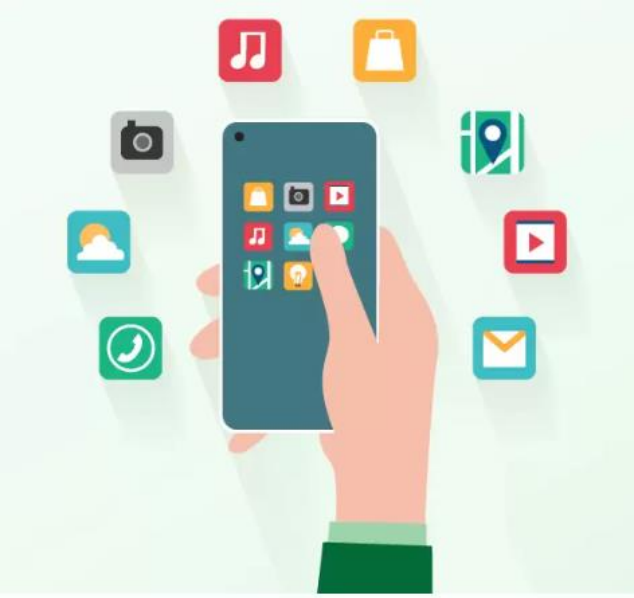
computers, including Apple iOS, Mac OS, Blackberry, Windows Phone, Windows desktop, and Firefox OS devices.

Technology :

Virtual smartphone being combination of hardware and software is a wearable device. VSP consists of tiny projectors, scanners, 4 micro projectors, ROM and RAM, LED indicators for device mode, processor unit, USB port and HD camera. Make call, receive call, chat system and copy data are technologies used by virtual smartphone.

Problem Statement :

In our day-to-day life we are surrounded by many different types of devices whose work is to provide us with information as quickly as possible but these devices seem to be kind of heavy and also sometimes inconvenient to travel with and therefore smartphones were invented to access the information wherever you go.Smartphones requires space and also has a threat of getting stolen easily so there should be something we can keep as a backup for the information on the Smartphone or something which can have less threat of getting stolen.To modern solution towards the problem is to get some device which act as wearables and also help youwith Information from all your devices so that you can have backup for your information as well as you can easily carry the device with you.

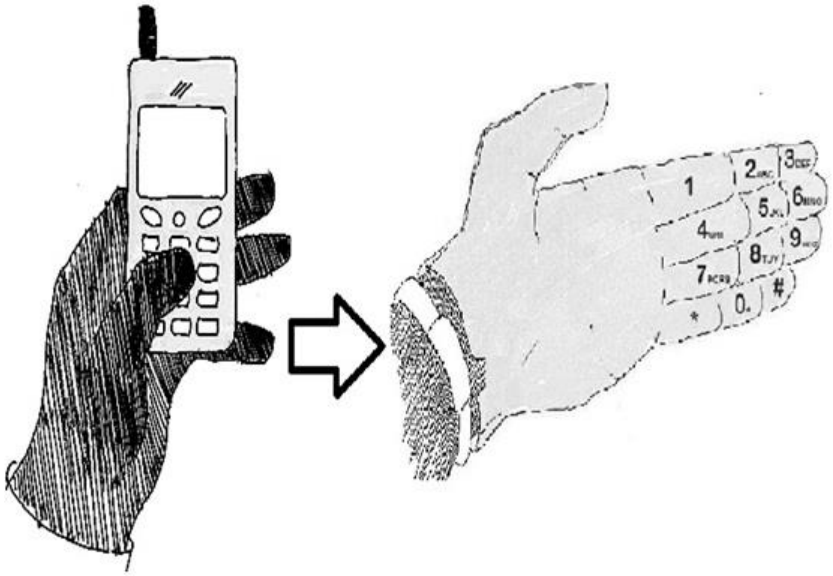


What is the use of security?

Today's cybercriminals have become more sophisticated, employees handle endless apps, and data has become currency. Enterprises are under pressure to make investments and strategy adjustments using mobile security solutions. But those aren't just for smartphones and tablets. Laptops, desktops, IoT, and non-standard devices can be managed just like their mobile counterparts. UEM platforms equipped with AI-driven threat intelligence and remediation must drive any endpoint security conversation.

Proposed Methodology :

We gather data from different type of resources like example Google search, blogging, research paper, news, personal observation related to this research topic and etc. after gathering all this information we put all this information into research paper. The particle filtering algorithm is used for detecting and tracking hand postures. Skin colour is included for getting better performance. Gesture recognition based Virtual Smart Phone keypad is displayed on hand using Augmented Reality. Through these features user can interact with the projected Graphical User Interface layer by hand gestures. By simply touching on the hand where the icon projected location, the algorithm helps detecting & tracking of hand gesture or finger gestures. So that, the system will interact with human without verbal communication. To provide a virtual level authentication a security we need to implement the secret sign, username and password to open the phone. Hand palm detection, finger print detection, face recognition we need to implement the biometric sincere in this watch like device. And the virtual smartphone which Generated on smartphone in that virtual smartphone using smartphone we can authentication are done.



Computer vision based algorithm :

Computer vision is the science and technology of machines that can see. As a scientific discipline, computer vision is concerned with the theory behind artificial systems that extract information from images. The image data can take many forms, such as video sequences, views from multiple cameras, or multi-dimensional data from a medical scanner. The software tracks the user's gestures using computervision based algorithms. The computer vision system for tracking and recognizing the hand postures that control the menus is based on a combination of multi-scale color feature detection, view based hierarchical hand models and particle filtering. The hand postures or states are represented in terms of hierarchies of multi-scale color image features at different scales, with qualitative interrelations in terms of scale, position and orientation. In each image, detection of multistage color features is performed.

Conclusion :

In conclusion, the virtual smartphone presents an exciting future for mobile devices. By leveraging VR and AR technologies, it offers a highly immersive, customizable, and versatile smartphone experience. With further advancements, virtual smartphones have the potential to redefine our relationship with technology and how we connect with others in the digital world.

Reference :

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