

A SUMMARY ON

“MEDICAL APPLICATIONS OF VIRTUAL REALITY”

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Medical Applications of Virtual Reality

Virtual Reality (VR) is a computer-generated environment with scenes and objects that appear to be real, making the user feel they are immersed in their surroundings. This environment is perceived through a device known as a Virtual Reality headset. Until very recently, we considered Virtual Reality as something that was very close, but it was still science fiction. However, today Virtual Reality is being integrated into many different areas of our lives, from video games to different industrial use cases and, of course, it is starting to be used in medicine. Despite being a technology that originated decades ago, many people are still unfamiliar with the concept of Virtual Reality. It is also quite common to confuse the term Virtual Reality with augmented reality. The main difference between the two is that VR builds the world in which we immerse ourselves through a specific headset. It is fully immersive and everything we see is part of an environment artificially constructed through images, sounds, etc. On the other hand, in augmented reality (AR), our own world becomes the framework within which objects, images, or similar are placed.

This seminar focuses on the medical applications of virtual reality with a gist of its working principle and its advantages in the medical field. Healthcare is one of the biggest adopters of VR, which encompasses robotic surgery, phobia treatment, surgery simulation, and skills training, to name a few. Many healthcare organizations across the globe have started making use of VR in their operations and have realized its benefits. The launch of Oculus Rift and HTC Vive has further augmented the usage of VR in various industries. Some of the key applications of virtual reality in medicine are Medical Education, as a training tool for physicians and students. Virtual Reality in Diagnostics is being used as a powerful diagnostic tool, which helps doctors and physicians to carry out accurate diagnoses. It is also used in mental illness treatment by providing a low-cost, flexible and low-risk solution to treat mental illnesses. By providing new ways to keep the body relaxed and calm, VR also helps in treating anxiety and panic attacks. Pain Management, Physical Fitness, and Therapy. Virtual Reality in Surgery, Autism treatment using VR, VR for the disabled, etc is other tremendous applications of the same.

Above are some of the ways how virtual reality is rapidly changing the healthcare world and is definitely going to play a huge role in our lives over the next couple of years, and it will change the way we live altogether. Virtual Reality is a technology that can impact every single industry, from healthcare to space, to construction, to travel. Since the metaverse is coming along, this technology is going to be extremely powerful very soon. Medical virtual reality is an area full of fascinating possibilities. Gamers aren't the only people who experience all the fun – clinical researchers and real-life medical specialists are excited about this technology, as well. Every day healthcare providers are finding new ways to improve people's lives. It is nice to see how such a technology can be so useful in the medical field. We should always develop new technology to help society.