**Title: HoloLens**

**Abstract:**

Our research paper examines the new technology of “holographic projections based Microsoft HoloLens”. It highlights the need of this technology, importance and how it represents the new wave in the future of technology and communication, the fields of life it will dramatically affect including business, education, telecommunication and healthcare. The paper also discusses the future of holographic technology and how it will prevail in the coming years highlighting how it will also affect and reshape many other fields of life, technologies and businesses.

HoloLens is essentially a holographic computer connected to an adjustable, cushioned inner headband, which can tilt HoloLens up and down, as well as forward and backward. It lets you see, hear and interact with holograms within an environment such as a living room or an office space. It is based on augmented reality.

Augmented reality (AR) is a live direct or indirect view of a physical, real-world environment whose elements are augmented by computer-generated sensory input such as sound, video, graphics or GPS data. The history of augmented reality can be traced back to 1990 and work undertaken by Professor Tom Caudell as part of a neural systems project at Boeing. This project was focused upon finding new ways to help the company's engineering process and involved the use of virtual reality. Augmented reality is the blending of virtual reality and real life, as developers can create images within applications that blend in with contents in the real world. With AR, users are able to interact with virtual contents in the real world, and are able to distinguish between the two.

**Conclusion:**

The premier device for Windows Holographic is Microsoft HoloLens. It is a smart-glasses headset that is cordless, self-contained Windows 10 computer. It uses advance sensors, a high-definition stereoscopic 3D optical head-mounted display, and spatial sound to allow to augmented reality applications, with a nature user interface that the user interact with trough gaze, voice and hand gestures that gives you ways to go beyond the screen, so see your world as a canvas, and gives you more natural way to interact. HoloLens is a thing where you can connect, create and explore like never before, create what you imagine, visualize your work, collaborate and explore. HoloLens with holographic processing unit, sensor fusion, power and grace, advanced optics, build in speakers, spatial sound gives you the new augmented or virtual world over real world. Now you can watch movies, play games, talk to Dad and mom on Skype, and so on in more realistic way.

**Prepared by:**

Dibyarth Shrivastava (EN18IITH01804)

Shrishty Priya (EN18IITH02066)

National Institute of Science & Technology,

Berhampur, Orissa

MAIL ID: [bishudks.so1996@gmail.com](mailto:bishudks.so1996@gmail.com)

[Shrishtypriya29@gmail.com](mailto:Shrishtypriya29@gmail.com)

Mob: 7978180617, 9040292047