EHB415E\_10827 HW4 040170232 Mehmet Deha Diker 26.12.2021

With the development of 5G and even 6G technologies in the future, data transfer speeds will increase a lot. The increase in data transfer rates will allow 2 hosts at very far distances to communicate with each other very quickly. Delays will be minimal and communication breakdowns over long distances will be a dust in the past.

So, what can we do as a result of the high data transfer rates and minimizing the delay? For example, in addition to transferring small-sized data, we will be able to transfer large-sized data very quickly. For example, Real-Time image transmission is one of the most bandwidth-consuming transmission methods. The "Augmented Reality (AR)" technology, which has recently entered our lives, can be given as a good example. Augmented Reality is changing the environment and objects that we see in the real world with data such as images and sounds in the computer environment and increasing their realism. It is very suitable for use in many fields such as education and entertainment industry.

Augmented Reality works and products were a big hit when they were first released. However, it does not attract as much attention as it used to be. Because Augmented Reality will be able to reveal its true potential with the widespread use of 5G technology. I think it will be used more widely in the coming years, increasing its power and importance. Currently, in various games, people can communicate realistically with each other in a virtual environment using this technology. Can you imagine what it would be like when they started doing this with real-life images? We will be able to move and interact with different objects in our real world or virtual reality in the virtual environment. For example, we have a room and we want to buy an armchair. We can select multiple armchairs from any store and add them there by hand and find out how it will look in our room before we actually buy the armchair. With high bandwidth and data transfer rates, more than one person can see the same environment at the same time and they can interfere too.

With Augmented Reality, we will not have to come together to meet and communicate with our friends in the years to come. We will be able to do most of our social activities without leaving our home. In a real environment in the real world, we will be able to see each other at the same time, watch our movements in 3D and do various activities together. Currently, we can do this in 2D with video chat, but the experience we get from the computer and phone screen will be very insufficient compared to the realistic experience offered by AR technology.