

Diary

Student Details

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Week: 14/06/20 to 19/06/20

Plan for the Week: (what was your plan for this week in terms of learning and project objectives)

1. Prepare a presentation on wireless video data transmission.
2. Study about WiFi Broadcast - Analog like transmission of live video data.
3. Research further on Orthogonal Frequency Division Multiplexing (OFDM) technology.

Learning Outcomes of the Week

About the PS 1 Station

1. Eclipse Instrumentation has one of the largest logistics and service network in the industry with network of 55 distributors in 22 states and local person in each zone.
2. Apart from surgical instruments they also deal with Laparoscopic Instruments, and OT Lights.
3. Eclipse's Team believes in customer satisfaction, service maintenance and homogenous culture.

About the Project Domain

1. There are three leading wireless broadcast link technologies – each based on a different transmission method-OFDM, Cellular Network Solutions ,Video over WiFi Links.
2. As of now camera controls are also to an extent through wired connections, so we need to eliminate these. Maximum difference of 37.5 kilometers can be there between the lengths of the paths if we use OFDM instead of conventional single-carrier modulation.

Skills Gained (Technical as well as soft skills)

1. Ability to maximize efficiency for product and suggest some good options available in the market using which the product could be more valuable to the customer.
2. Presentation Skills: Ability to present your point with proper examples is the best way one can explain through visuals and supported text.

Major Learning & Project Milestones

1. Customer Satisfaction should be the ultimate goal while building a technology. We should be cost effective so that our customer base is strong.
2. If we use correct technology we could save a lot of space, money as in case of using OFDM technology over conventional single carrier modulation.
3. The camera in Operation Theatre Lights is a great topic to research upon and is scalable. Our country needs more such devices to manufacture to improve medical situation in long run.

Major Challenges

1. There were very limited resources on new upcoming methods like a transceiver taking SDI input and giving HDMI output.
2. Understanding OFDM technology was a challenging task and it made me discover some great terminologies like Fast Fourier Transform(FFT),Cyclic Prefix.

Work Plan for Next Week

Working on some issues as will be instructed by the mentor and finding the future scalability and compatibility of camera in operation theatre lights and making it more cost effective and latent.