

# Weekly Team Meeting 10/31

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31 OCTOBER 2019 / 2:00 PM / VLSI Lab

## ATTENDEES

Dr.Li, Xueren Wang, Wei Hu, Zhicai Li, Yanqin Huang, Yuhang Dai

## AGENDA

- Show our test on node and LED
- Discuss our project proposition

## NOTES

- Our test on node and LED
  - The  $T_{fall}$  is too large due to the remaining current.
    - It is eliminated and generated square wave by using C-MOS inverter.
  - The current generated by Photodiode is too small.
    - We are planning to buy some PD with better performance.
- Discuss our project proposition
  - We need to more focus on PD circuit and improving LED light distance.
    - The dark current is in the datasheet of PD, it is useful for calculation.
- Talk with professor rezki.
  - We have a basic knowledge of how communication does work.
    - The data signal must be convolution by high frequency signal for transmitting high frequency signal, and this process is called modulation.
  - About the final step of PD circuit is low pass filter.
    - During the convoluted signal transmitting, it would also transmit some useless wave due to the polynomial in fourier transform. The LPF is to eliminating low frequency of demodulated signal, most of it are useless value and noise.

## ACTION ITEMS

1. Study and find the modulator for transmitter.

2. Testing and improve the circuits of transmitter and photodiode.
3. Study the code application of microcontroller.