# Aung Myin Kyaw (Max) weekly Research Progress Report

## Date : 01/09/2018 to 14/09/2018

- **Scope of the work:**
  - ✓ **Programming own application for CS100 spectrometer**

## ➢ Research Progress in last week

- ✓ Continuity of last week research on different functions of the Thorlabs functions provided

## ➢ Research Plan for next week

- ❖ Understanding the remaining functions and testing out different purposes.
- ❖ Writing of the research report for the raman spectrometer

# ➢ Research Progress in last week

- tlccs_getWavelengthData

```
CCS100.getWavelengthData(0, wavelength_Data, out min_Wave, out max_Wave);
```

Purpose - This function returns data for the pixel-wavelength correlation. The maximum and the minimum wavelength are additionally provided in two separate return values.
Note:
If you do not need either of these values you may pass NULL.
The value returned in Wavelength_Data_Array[0] is the wavelength at pixel 1, this is also the minimum wavelength, the value returned in Wavelength_Data_Array[1] is the wavelength at pixel 2 and so on until Wavelength_Data_Array[CCS_SERIES_NUM_PIXELS-1] which provides the wavelength at pixel CCS_SERIES_NUM_PIXELS (3648). This is the maximum wavelength.

# ➢ Research Progress in last week

The problem I faced with this function is that explanation of the function was not very clear. However, I am able to find the max and min wavelength that can be measured using the spectrometer.

Also through this function I found out that measuring the spectrometer uses a 1D CCD. Each pixel corresponding to the different wavelength.

http://bwtek.com/spectrometer-introduction/

Through reading this website, it gives me better understanding on how different spectrometer works.