

Senior Design Weekly Meeting #12

Meeting Minutes

11/25/2020 15:30 - 16:55

CM/TM: Dr. Honggang Zhang

Students: Zhuoming Huang, Lucas Lomba, Yue Sun, Alinson Sanquintin

- **Agenda**

1. SAR Experiments Related
2. Deep Learning Related
3. New weekly meeting schedule

- **Notes**

1. SAR Experiment related
 - a. Create a 3D intensity image: in range direction, the value of one voxel is the average of this bin and the next range bin at the same angle.
 - b. Use the Hawkeye synthesizer to generate radar data for CAD models of cars and boxes.
2. Deep Learning Related
 - a. GPU machines (cannot guarantee all the time)
<https://web.stanford.edu/class/cs224w/index.html#schedule>
 - b. Needs at least 3000 (the more the better) sets of data to train and test the model.
3. New weekly meeting schedule
 - a. Senior meeting changes back to Monday 3:30pm (without Lucas)
 - b. Meetings with Lucas on Wednesday 3:30pm

- **Follow-up**

1. Collected data with 64*24 virtual antennas in senior design room: three objects (chairs covered by cloth), two chairs are 3m apart and 4m away from the sensor, the other one is 2.5m away and about 1m to the right chair (horizontally). Intensity images look messy due to lots of reflectors.
2. Recollected data with phase difference due to movements of slider. (100~101 positions each slide, move the slider 10cm+2mm horizontally to collect the second set of data after the first set is collected, 50 overlapped positions)