**TMR4120 – Underwater Technology, Spring 2019**

**Accomplishments**

* Performed well in the final exam, A/A as final grade
* Reflected on course content actively in lectures and seminars
* Participated in TA sessions actively and analysed, discussed course-related contents and exercises
* Demonstrated well understanding of all sub-systems through all 12 exercises
* Mastered the wreck survey for M/S Helma research project
  + Developed the clear scope of work and objectives for the research project
  + Collected extensive historical background information on M/S Helma including similar ships and history of her
  + Inspected and reviewed the previous collected data by AUV Remus and ROV SF30K
  + Conducted a well-elaborated log analysis on previous side-scan sonar data as well as well-established video log analysis
  + Constructed a detailed plan for the field trip including 3 aspects:
    - Organised the onboard safe job analysis plan
    - Formulated essential preliminary side-scan plans for LAUV Fridtjøf
    - Inspected the operational plan for ROV SF30K
  + Participated in the rewarding field trip to Skogen wreck site and collected imperative data for post-analysis
  + Assessed and evaluated collected acoustic data and optic data
  + Post-analysed the side-scan sonar data and video data in deep understandings
  + Prepared well-content presentation material
  + Performed an impressive presentation in front of the class
* Overall, dedicated a self-motivated research work ethic, led to strong academic performance, anticipated to devote more in scientific researches

**Master thesis accomplishment**

* Set up the hardware simulation testing environment (i.e. sonar equipment and signal processing techniques)
* Diagnosed the current sensing model, learning and formulating a upgraded one