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