Welcome to the Systems Engineering Newsletter for the Fall quarter of the 2024 Academic Year!

This quarter, the SE Department graduated 26 Master of Science in Systems Engineering students, 2 Master of Science in Engineering Systems students, and 14 Master of Science in Systems Engineering Management students.

Seven of these students graduated with individual theses and one thesis was recognized as outstanding thesis (CPT Abigail Elise Staffnik, U.S. Army). The remaining students graduated upon successful completion of the team capstone projects (eight in total).

Three students (Mr. Michael Berger, Naval Information Warfare Center, Pacific, Ms. Patricia Gomez, Naval Surface Warfare Center, Port Hueneme Division, and Mrs. Tabitha R. Humphries, Naval Surface Warfare Center, Dahlgren Division) graduated with distinction, two students (Mrs. Tabitha R. Humphries, Naval Surface Warfare Center, Dahlgren Division, and LT Ronald William Ringwall, U.S. Navy) were recognized with the Meyer Award for Outstanding DL Student in Systems Engineering.

Don Muehlbach and Mark Rhoades were recognized with the Meyer Award in Systems Engineering for DL teaching.

On December 15\textsuperscript{th}, the Fall quarter’s 284 graduates, their families, faculty, staff, and guests attended the Fall Quarter Graduation Ceremony in King Hall. The commencement address was given by U.S. Navy Rear Adm. Kurt Rothenhaus, Ph.D., Chief of Naval Research and an NPS alumnus.

In the Fall quarter, SE faculty taught 33 resident and distance learning sections and kept advising 8 capstone project teams. They also continued guiding research of SE’s Ph.D. students, serving on a variety of departmental and schoolwide committees; participating in scientific conferences, working on completing the FY23 and commencing the FY24 reimbursable research projects.

I would like to thank all members of the SE department for their contributions and congratulate our fall graduates and their families once again. Please, spread the word about NPS and SE Department, and stay connected with your alma mater!
Dr. Joe Klamo, Dr. Anthony Pollman, and Dr. Douglas L. Van Bossuyt all recently were honored at a university promotion and tenure ceremony for their recent successful ascension to tenured associate professors. The Systems Engineering Department faculty gathered to celebrate with our newest associate professors and commemorate the day. Dr. Oleg Yakimenko made a statement on behalf of Dr. Pollman who passed away early last year shortly after the decision to confer tenure and promotion was made. Dr. Pollman’s absence is greatly felt by the department, but he is still with us in our hearts and minds, and his philosophy continues to guide the department.

Dr. Klamo and Dr. Van Bossuyt are excited to join the ranks of tenured associate professors where they have joined Dr. Andy Hernandez, Dr. Kristin Giammarco, and Dr. Gene Paulo. Both Dr. Klamo and Dr. Van Bossuyt are eager to continue their success at the Naval Postgraduate School and the Systems Engineering Department’s success as one of the premier systems engineering departments in the world. The department expects big things from Dr. Klamo and Dr. Van Bossuyt in the future.
Mr. Jason Bickford, R&D Director for the Naval Surface Warfare Center at Port Hueneme, and PhD student in the Systems Engineering Department at the Naval Postgraduate School received the Navy Civilian Service Commendation Medal from the Secretary of the Navy for leading key enabling research and development across NAVSEA focused on improving sustainment, repair, and warfighter readiness. The award was presented to Mr. Bickford by CAPT Holmes and Mr. Jeff Koe (SES), Commanding Officer and Technical Director of the Naval Surface Warfare Center at Port Hueneme on 11 December, 2023.
Dr. Ronald Giachetti conducted a three day short course for NUWC in Keyport on the topic of Design for Manufacturing and Assembly. The short course was attended by 24 engineers primarily from the in-service engineering group who support torpedo development, test, maintenance, and sustainment. The engineering group regularly deals with the design of new test equipment and parts, as well as must deal with a decreasing number of vendors. The intent of the short course was to refresh the team’s knowledge of manufacturing processes and production systems so as to specify designs that are easier and less expensive to produce. The course was held on location on November 2-3 and November 16th. The teams had two weeks to perform a producibility assessment of a part designed at NUWC Keyport. The teams then briefed their assessment and a panel including NPS faculty and Keyport management selected the team project that best applied the lessons learned from the short course.

The Systems Engineering Department can offer many customized short courses to the warfare centers in order to meet their education and training needs. If you are interested in learning more, contact Dr. Wally Owen or Dr. Warren Vanemen.

Angelica Santos-Luty and Dalton Anderson who won for their analysis of the T181 Fixed Wing Nose Cap
Faculty receives the Wayne E. Meyer Award

CAPT, USN (ret) Don Muehlbach, PhD was selected by the graduating students of cohort 311-222S to receive the Wayne E. Meyer Award for Teaching Excellence for December 2023 graduation. This was his 28th Meyer award in less than 14 years. He joined the NPS SE department faculty as a Professor of Practice in February 2009.

Student Stories

Students receive the Wayne E. Meyer Award

Tabitha Humphries is the daughter of a submariner. She has grown up around Naval bases in Oahu, Hawaii and Kings Bay, Georgia before settling in at her current home in Fredericksburg, Virginia. She graduated with a Bachelor’s of Science in Biology from University of Mary Washington in 2014. She worked as a software developer with CACI while working on a Bachelor’s of Science in Computer Science from Grantham University, which she received in 2016. In 2019 she took her current position with NSWC Dahlgren Division, working with the Submarine Launch Ballistic Missile (SLBM) program as a Group Leader and Project Lead.

She feels that the NPS SE program's focus on model-based engineering and mission engineering principles is very relevant in the current DoD environment as we move towards embracing a future in digital engineering. Her experience with model development has helped her provide direct contributions to our organization as we work to develop models of our system and work to design future capability updates.

Ms. Tabitha Humphries
Lieutenant Ron "Yogurt" Ringwall, a native of Alpharetta, GA, attended Auburn University where he commissioned through the Reserve Officer Training Corps and graduated with a B.S. in Biomedical Sciences in 2015. As a Naval Aviator, his first stop was Naval Air Station Pensacola where he would complete Introductory Flight Screening and Aviation Pre-Flight Indoctrination.

He would then move to Corpus Christi, TX in order to complete Primary Flight Training while flying the T-6 Texan II with the Rangers of VT-28, and Advanced Flight Training flying the T-44 Pegasus with the Wise Owls of VT-31. From there he would be selected to fly the E-6B Mercury at Tinker AFB, OK.

In 2018 his first sea tour would see him flying with the Ironmen of VQ-3, where he would qualify as an Air Refueling Pilot, Aircraft Commander, Functional Check Flight Pilot, Mission Commander, Mission Commander Evaluator, and Instructor Pilot while embarking on 17 independent detachments as the Officer in Charge. While not flying, LT Ringwall served as the Pilot Training and Readiness Officer, Quality Assurance Officer, and the Assistant Maintenance Officer.

In 2021 his career would see him stay in Oklahoma City and instruct at the Fleet Replacement Squadron of VQ-7. While there he would serve as the Assistant Operations Officer and the NATOPS Evaluator for the pilot position. He also took part in the acquisition process for the E-6B replacement and served as the Aircrew representative for numerous FST and PMA projects.

Lieutenant Ringwall has accumulated over 2000 hours in Naval aircraft and his awards include the Navy and Marine Corps Commendation Medal, the Navy and Marine Corps Achievement Medal, the Navy “Battle E”, and various other personal and unit awards. He is married to his wife Katie with whom he shares two sons, Greyson and Jack.
### Awards

#### Meyer Award for Outstanding DL Student in Systems Engineering

311-222S: Ms. Tabitha R. Humphries  
711-222P: LT Ronald William Ringwall

#### Meyer Award in Systems Engineering for DL Teaching

311-222S: CAPT Don Muehlbach, PhD  
711-222P: Mark M. Rhoades

#### Nominated for graduation with distinction (DL)

311-222S: Ms. Tabitha R. Humphries  
Mr. Michael Berger  
Ms. Patricia Gomez

### Graduations

#### Master of Science in Systems Engineering (Resident)

- CPT Abigail Elise Staffnik, USA  
- LT Jasmie Renee Arnold, USN  
- LT Marieme Gueye, USN  
- LT Kayla L. Lovelady, USN  
- LT Barada A. Moncravie, USN

#### Master of Science in Systems Engineering Management (Resident)

- MAJ Phillip B. Amey, USA  
- MAJ Robert E. Davis, USA  
- MAJ Alan Johnson, USA  
- CPT Luis D. Mejias, USA  
- MAJ Ryan A. Melkus, USA  
- MAJ Matthew A. Mellor, USA  
- MAJ Terence Koti Ngoh, USA  
- MAJ Michael C. Sims, USA  
- CPT Autumn A. Watson, USA

#### Master of Science in Systems Engineering (DL)

- LCDR Chad Henderson, USN  
- LT Anna Switzer, USN  
Mr. Michael Berger, Naval Information Warfare Center, Pacific  
Mr. Aaron Chan, Naval Surface Warfare Center, Port Hueneme Division  
Mrs. Fatou Cisse, Naval Facilities Engineering & Expeditionary Warfare Center  
Ms. Patricia Gomez, Naval Surface Warfare Center, Port Hueneme Division  
Mr. Desmond Harris, Naval Surface Warfare Center, Division Dahlgren  
Mr. John Thomas Holder IV, Naval Surface Warfare Center, Division Dahlgren  
Mrs. Tabitha R. Humphries, Naval Surface Warfare Center, Dahlgren Division
Mr. Jonathan K. Kutsunai, Naval Surface Warfare Center Port Hueneme Division
Mr. Jacob Laake, Naval Surface Warfare Center, Dahlgren Division
Ms. Nithisha S. Maganahalli, Naval Surface Warfare Center, Port Hueneme Division
Mr. Cary Francisco Martinez de Andino, Naval Surface Warfare Center, Port Hueneme Division
Mr. Erik William Meyer, Naval Surface Warfare Center, Dahlgren Division
Mr. Andrew M. Murray, Naval Surface Warfare Center Dahlgren Division
Ms. Nathaly D. Navarrete, Naval Surface Warfare Center, Port Hueneme Division, Virginia Beach Detachment
Mr. Preston Tyler Porter, Naval Ordnance Safety and Security Activity
Mr. Joffin J. Purakary, Naval Surface Warfare Center Dahlgren Division
Mr. Grant Liam Rodgers, Naval Surface Warfare Center, Dahlgren Division
Ms. Samantha Sperry, Naval Ordnance Safety and Security Activity

Master of Science in Engineering Systems (DL)
Mr. Andrew Adams Pompeii, Naval Surface Warfare Center, Division Carderock
Mr. Christopher M Vasquez, Naval Surface Warfare Center Dahlgren Division

Master of Science in Systems Engineering Management (DL)
CWO5 Rilin Philippe Desamours, USMC
CWO3 Joshua Michael Priestley, USMC
LT Fredrick Nathaniel Davies, USN
Mr. Scott Thomas Craft, Naval Air Weapons Station, China Lake
LT Ronald William Ringwall, USN

SE DL Capstone Team

Cohort 311-222S Team Beamwork

**Capstone Title:** ENGAGEMENT COORDINATION STRATEGIES FOR DIRECTED ENERGY SYSTEMS ABOARD NAVAL DESTROYERS

**Students:** Desmond X. Harris, Erik W. Meyer, Preston T. Porter, Joffin J. Purakary, Christopher M. Vasquez

**Advisors:** Bonnie Johnson and Mike Green

Cohort 311-222S One Navy Team

**Capstone Title:** ONE NAVY LAB: DEVELOPING A FRAMEWORK FOR ENHANCED COLLABORATION AND EFFICIENCY

**Students:** Fatou Cisse, Nithisha S. Maganahalli, Cary F. Martinez de Andino, Kemuel Torres-Martinez

**Advisors:** Douglas Van Bossuyt, Socrates Frangis, and Jason Bickford

Cohort 311-222S Team Stand In Squad

**Capstone Title:** ELLIS CLASS MULTI-MISSION RECONNAISSANCE CRAFT SQUADRONS IN COMPETITION AND CONFLICT

**Students:** Tabitha R. Humphries, Jacob C. Laake, Andrew A. Pompeii, Anna Switzer

**Advisors:** Eugene Paulo, Paul Beery, Wayne Porter

Cohort 311-222S Team Trogdor

**Capstone Title:** ASSET SUITABILITY ASSESSMENT IN SUPPORT OF OFFENSIVE MINING OPERATIONS

**Students:** John T. Holder IV, Andrew M. Murray, Jason P. Pinnow, Grant Rodgers, Samantha Sperry

**Advisors:** Paul Beery, Eugene Paulo, Richard Williams
Cohort 311-222S Team USV Sustainment

**Capstone Title:** UNMANNED SURFACE VESSEL LIFECYCLE SUSTAINMENT ENGINEERING INVESTIGATION

**Students:** Michael L. Berger, Aaron Chan, Patricia Gomez, Jonathan K. Kutsunai, Nathaly D. Navarrete

**Advisors:** Douglas Van Bossuyt and Donald Muehlbach

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Cohort 711 Team JACL 2.0

**Capstone Title:** A CAPABILITY ANALYSIS OF SHIP-BASED UAS FOR ARCTIC OPERATIONS

**Students:** Scott T. Craft, Fredrick N. Davies, Rilin P. Desamours, Joshua M. Priestley, Ronald W. Ringwall

**Advisors:** Douglas Van Bossuyt, Britta Hale, and Jonathan Lussier

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**Master of Science in Systems Engineering (Resident) Theses**

**CPT Abigail Elise Staffnik, USA**

**Thesis Title:** QUANTIFYING POLITICAL DISRUPTIONS ON FUEL SUPPLY CHAINS AND MILITARY MICROGRID OPERATIONS IN WEST AFRICA

**Advisors:** Emily Meierding (Co-Advisor), Ronald Giachetti (Co-Advisor), Douglas Van Bossuyt (Advisor)

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**LT Jasmaine Renee Arnold, USN**

**Thesis Title:** ENERGY SUPPORTABILITY ANALYSIS AND ENERGY KEY PERFORMANCE PARAMETER DEVELOPMENT FOR THE LARGE UNMANNED SURFACE VESSEL

**Advisors:** Mary McDonald (Co-Advisor), Stephen Upton (Second Reader), Alejandro Hernandez (Advisor)

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**LT Marieme Gueye, USN**

**Thesis Title:** ASSESSMENT OF THE NAVY SOLID ROCKET MOTOR PRODUCTION PROCESS

**Advisors:** Nicholas Dew (Co-Advisor), Oleg Yakimenko (Advisor), Paul Beery (Co-Advisor)

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**LT Kayla L. Lovelady, USN**

**Thesis Title:** OPERATIONAL ENERGY ANALYSIS OF THE LUSV AND ASSOCIATED SUPPORT IN FRASructure

**Advisors:** Mary McDonald (Second Reader), Stephen Upton (Co-Advisor), Alejandro Hernandez (Advisor)

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**LT Barada A. Moncravie, USN**

**Thesis Title:** SIMULATION MODELING TO EVALUATE THE IMPACT OF WORKFORCE DISTRIBUTION ON SUBMARINE DEPOT LEVEL MAINTENANCE

**Advisors:** Paul Beery (Advisor), Ronald Giachetti (Co-Advisor)

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**Master of Science in Systems Engineering Management (Resident) Capstone**

**Team: PostProcTech**

**Members:** MAJ Phillip B. Amey, USA, MAJ Alan Johnson, USA, CPT Luis D. Mejias, USA, MAJ Terence Koti Ngoh, USA

**Title:** DEVELOPING COMPUTATIONAL RESOURCES AND DATA CENTER ALTERNATIVES TO SUPPORT TRAC-MONTEREY MODELING AND SIMULATION

**Advisors:** Brian Wade (Co-Advisor), Nelson Emmons (Second Reader), Alejandro Hernandez (Advisor)
Team: SWEET C2 (System-Engineering Wargaming Effort to Enhance Tactics for Counter UAS and CDEW)

Members: MAJ Robert E. Davis, USA, MAJ Ryan A. Melkus, USA, MAJ Matthew A. Mellor, USA, MAJ Michael C. Sims, USA, CPT Autumn A. Watson, USA

Title: WARGAMING ANALYSIS OF HIGH ENERGY LASER (HEL) COUNTER-UNMANNED AERIAL SYSTEM (C-UAS) AND COUNTER DIRECTED ENERGY WARFARE (CDEW) STRATEGIES, TACTICS, AND SOLUTIONS

Advisors: Joseph Blau (Co-Advisor), Rolf Johnson (Second Reader), Bonnie Johnson (Advisor)

Systems Engineering Distance Learning Graduation Photos
Request for Alumni News!
The SE Department is interested in hearing how our alumni are doing. Please feel free to send the editor news items for inclusion in future newsletters.

If you would like to subscribe to the Systems Engineering Newsletter, please click here.

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