

SYSTEMS ENGINEERING DEPARTMENT NAVAL POSTGRADUATE SCHOOL



Systems Engineering Newsletter

December 2023

In This Issue:

- SE Spotlight
- Faculty News
- Student Stories
- Winter Quarter
 Awards and Graduations



Letter from the Chairman

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.



Systems Engineering Chairman
Dr. Oleg Yakimenko

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

On December 15th, 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!

Three Systems Engineering Professors Promoted and Tenured









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.

Navy Civilian Service Commendation Medal



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.

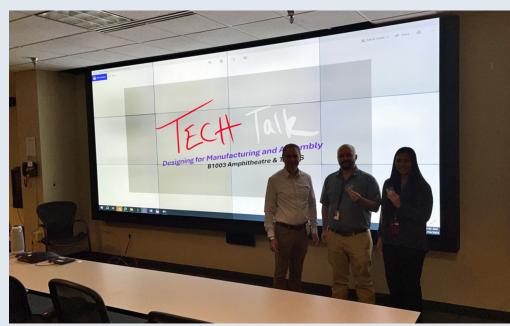
Faculty News

Short Course for NUWC in Keyport



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



Ms. Tabitha Humphries

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.



LT Ron Ringwall

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 2000hours 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 and Graduations

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 Jasmaine 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 SYS TEMS 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 COLLABORA TION 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 IN VESTIGATION

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

Advisors: Douglas Van Bossuyt and Donald Muehlbach

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

Master of Science in Systems Engineering (Resident) Theses

CPT Abigail Elise Staffnik, USA

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

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

LT Jasmaine Renee Arnold, USN

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

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

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)

LT Kayla L. Lovelady, USN

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

FRASTRUCTURE

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

LT Barada A. Moncravie, USN

Thesis Title: SIMULATION MODELING TO EVALUATE THE IMPACT OF WORKFORCE DISTRIBU

TION ON SUBMARINE DEPOT LEVEL MAINTENANCE

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

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)

9 <u>Return to Main Page</u>

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



10 <u>Return to Main</u>

Please direct questions or comments to the SE Newsletter Editor, Chiaki Gayle, at csgayle@nps.edu

Request for Alumni News!

The SE Department is interesting in hearing how our alumni are doing. Please feel free to send the <u>editor</u> news items for inclusion in future newsletters.

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

Dr. Oleg Yakimenko, Department Chair - oayakime@nps.edu

Dr. Andy Hernandez, Associate Chair for Operations - ahernand@nps.edu

Mark Stevens, Associate Chair for Instruction - mstevens@nps.edu

Dr. Wally Owen, Associate Chair for Distributed Learning & Outreach - wowen@nps.edu

Dr. Warren Vaneman, Deputy Associate Chair for Marketing, Outreach and Engagement - wvaneman@nps.edu

Mark Stevens, Academic Associate 308 Systems Engineering Analysis & 580 Systems Engineering - mstevens@nps.edu

Joel Hagan, Academic Associate 522 Systems Engineering Management - joel.hagan@nps.edu

Dr. Ray Madachy, Academic Associate 311 Systems Engineering (DL) - rjmadach@nps.edu

Dr. Katy Giles, Academic Associate 312 Aviation Systems Engineering (DL) & 711 Systems Engineering Management (DL) - kbgiles@nps.edu

Dr. Kristin Giammarco, Academic Associate 721 Systems Engineering Management (DL) & Program Officer 581, 582 - kmgiamma@nps.edu

Dr. Paul Beery, Academic Associate 722 Systems Engineering Management (DL) - ptbeery@nps.edu

Dr. Douglas Van Bossuyt, Academic Associate 581 Systems Engineering PhD & 582 Systems Engineering PhD (DL) - douglas.vanbossuyt@nps.edu

CDR Caleb MacDonald, Program Officer 380, 580, 522 - caleb.macdonald@nps.edu

Joseph Sweeney, Program Officer 311, 312,711,721,722 - jwsweene@nps.edu

Kathie Cain, Faculty Associate- Education - kmcain@nps.edu

Heather Hahn, Ed Tech Systems Engineering (DL) - hlhahn@nps.edu

This newsletter is a quarterly publication of the Department of Systems Engineering, NPS. Its contents do not necessarily reflect the official views of the U.S. government, the Department of Defense or the U.S. Navy, nor does it imply endorsement thereof.

Information may be subject to change without notice.



<u>Visit Our Systems Engineering Website!</u>



11 Return to Main