

CHRISTINA M. IVLER

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University of Portland,

5000 N. Willamette Blvd, Portland, OR, 97203

ACADEMIC APPOINTMENTS

Associate Professor, August 2017 – Present

Mechanical Engineering, Shiley School of Engineering

5000 N Willamette Blvd, University of Portland, Portland, OR

Teaches undergraduate courses in mechanical engineering and performs research in system identification and flight control. Key courses taught include numerical methods, mechanical (control) systems, dynamics, and material science laboratory. Additionally, currently working with 2 undergraduate students on system identification research. Current research efforts include system identification and control of an aerial hexacopter drone and a ground rover. Currently is in the role of Chair for mechanical engineering (Jan 2025 – present).

Adjunct Lecturer, January 2014 – June 2017

Santa Clara University, Santa Clara, CA

Mechanical Engineering Department

Teach undergraduate and graduate courses on an as needed part-time basis. Develop class notes, lecture 2xs a week, assign homework, write/grade midterms/finals, and hold office hours. Courses taught were vibrations, control systems, and system identification.

EDUCATION

PhD, Department of Aeronautics and Astronautics, Stanford University, January 2013

Dissertation Title: *Design and Flight Test of a Cable Angle Feedback Control Law to Improve Helicopter External Load Operations at Low Speed. Advisor: Dr. J. David Powell*

M.S., Aeronautical & Mechanical Engineering, University of California at Davis, June 2005

Thesis Title: *Nonlinear Dynamic Inversion of a Ducted Fan UAV, Advisor: Dr. Ron Hess*

B.S., Aeronautical & Mechanical Engineering, University of California at Davis, June 2003

PROFESSIONAL EXPERIENCE

Engineering Advisor and Consultant, Vita Inclinata Technologies, December 2018 – Present

Provides engineering expertise in slung load dynamics and control engineering methods/techniques to tech startup Vita Inclinata. Performs engineering consulting during summer as needed to support the company's research and development efforts periodically.

Engineering Advisor, ASKA: A Drive and Fly Company, March 2021 – present

Provides engineering expertise in flight dynamics and controls for electric vertical lift aircraft to eVTOL start up ASKA. Provides advise and feedback when requested and participates in meetings as needed.

Research Aerospace Engineer, June 2005 – July 2017

U.S. Army Research Development and Engineering Command, Moffett Field, CA

Aviation Development Directorate, Vehicle Dynamics and Control Tech Area

Performs fundamental and applied research in the area of advanced helicopter and fixed wing flight control concepts, handling qualities and system identification. Development of novel feedback control systems and concepts for aircraft such as cable angle feedback, rotor-state feedback, and control allocation methods. Flight test research control systems as appropriate to validate research feedback control concepts and system identification methods. Publication and presentation of research at technical conferences and in peer-reviewed journals. Acted as Principle Investigator on many projects, key examples are:

- Adaptive Vehicle Management Systems: Worked with Boeing to develop novel active cargo hook control system to damp out slung loads, in combination with cable angle feedback
- Development of system identification models from flight test data, control system design and flight testing of multi-rotor aircraft (indoor)
- In-house Laboratory Independent Research proposal and performed basic research on advanced/novel control allocation techniques for high speed rotorcraft, showing large reduction in actuator rate limiting.
- Rotor-state feedback control laws for improving helicopter gust response and handling qualities in turbulence, using laser measurement of the helicopter

COURSES TAUGHT

1. EGR 111: Engineering Computing with Applications
 - Spring 2021, Spring 2022, Spring 2023, Spring 2024
2. EGR 212/214: Dynamics
 - Spring 2018, Spring 2019, spring 2020, Spring 2021, Spring 2022, Spring 2023, Spring 2024, Spring 2025
3. ME 301/303: Numerical Methods
 - Fall 2017, Fall 2018, Fall 2019, Fall 2021, Fall 2022, Fall 2023, Fall 2025
4. ME 307: Dynamic Systems and Control
 - Fall 2021, Fall 2022, Fall 2023, Fall 2025
5. ME 312: Mechanics of Fluids II
 - Spring 2026
6. ME 351: Mechanical Systems

- Fall 2017, Fall 2018, Fall 2019
- 7. ME 372/072: Fluids Lab/Lecture
 - Spring 2026
- 8. ME 377: Dynamics Systems and Control Lab
 - Fall 2021
- 9. ME 491/412: Aerodynamics
 - Spring 2026
- 10. ME 491/449: Aircraft Dynamics and Control
 - Spring 2019, Spring 2020, Spring 2021, Spring 2023, Spring 2025
- 11. EGR 484: Multi-Disciplinary Capstone
 - Spring 2020
- 12. EGR/ME 083/084: Capstone Advising
 - Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024

SCHOLARLY WORK

***All while at UP are in bold font**

Books

1. **Powell, J.D., Emami-Naeini, A., Ivler, C.M., *Solutions Manual: Feedback Control of Dynamic Systems*, 9th Edition, Pearson Education, 2026.**
2. **Powell, J.D., Emami-Naeini, A., Ivler, C.M., *Feedback Control of Dynamics Systems*, 9th Edition, Pearson Education, New York, NY, March 2025.**
3. Tischler, M.B., Berger, T., Ivler, C.M., Mansur, H.M., *Practical Methods for Aircraft and Rotorcraft Flight Control Design Using Multi-Objective Parameter Optimization*, AIAA Education Series, Reston, VA, 2017.

Book Chapters

1. **Ivler C.M. Control System Optimization Methods in the Frequency Domain. In: Baillieu J., Samad T. (eds) Encyclopedia of Systems and Control. Springer, London, 2019**
2. **Emami-Naeini A., Ivler C.M., Powell J.D. Frequency-Response and Frequency-Domain Models. In: Baillieu J., Samad T. (eds) Encyclopedia of Systems and Control. Springer, London, 2019**
3. **Powell J.D., Ivler C.M., Emami-Naeini A. Classical Frequency-Domain Design Methods. In: Baillieu J., Samad T. (eds) Encyclopedia of Systems and Control. Springer, London, 2019**

Peer Reviewed Journal Articles

1. Walter, A., McKay, M., Niemiec, R., Gandhi, F., Ivler, C., "Hover Handling Qualities of Fixed-Pitch, Variable-RPM Quadcopters of Increasing Size," *Journal of the American Helicopter Society*, Vol. 67, October 2022.
2. Niemiec, R., Ivler, C., Farhan, G., Sanders, S., "Multirotor electric aerial vehicle model identification with flight data with corrections to physics-based models," *CAES Aeronautical Journal*, March 2022.
3. Ivler, C.M., Gowans, N., Marfise, C., "System Identification of Rover Dynamics: A Comparison of Three Model Structures," *International Journal of Modelling, Identification and Control*, Volume 40, No. 1, 2022.
4. Wolfand, J.M., Bieryla, K.A., Ivler, C.M., Symons, J., "Exploring an Engineer's Role in Society: Service Learning in a First-Year Computing Course," *IEEE Transactions in Education*, Feb 2022 (available online, forthcoming in print issue)
5. Ivler, C.M., Truong, K., Kerwin, D., Otomize, J., Parmer, D., Tischler, M.B., Gowans, N., "Development and Flight Validation of Proposed Unmanned Aerial System Handling Qualities Requirements," *Journal of the American Helicopter Society*, Vol. 67, No. 1, Jan 2022.
6. Ivler, C.M., Rowe, E.S., Martin, J., Lopez, M.J.S., Tischler, M.B., "System Identification Guidance for Multirotor Aircraft: Dynamic Scaling and Test Techniques," *Journal of the American Helicopter Society*, Vol. 66, No. 2, April 2021.
7. Cicolani, L., Ivler, C.M., Ott, C., Raz, R., Rozen, A., "Rotational Stabilization of Cargo Container Slung Loads," *Journal of the American Helicopter Society*, Vol. 50, No. 4, Oct. 2015.
8. Ivler, C.M., "A Constrained State-Space Coupling Numerator Solution and Application to UH-60 Helicopter Control Design," *AIAA Journal of Guidance, Dynamics and Control*, Vol. 38, No. 10, Oct. 2015.
9. Ivler, C.M., Tischler, M.B., Powell, J.D., "Cable Angle Feedback Control Systems to Improve Handling Qualities for Helicopters with External Loads," *Journal of the American Helicopter Society*, Oct. 2014, vol. 59.
10. Ivler, C.M., Tischler, M.B., "Case Studies of System Identification Modeling for Flight Control Design", *Journal of the American Helicopter Society*, January 2013, vol. 58.

Conference Papers

1. Godby, C., Ivler, C., Borek, U., Possedi, C., Pua, A., "Supervised Machine Learning for Identifying Motor Propeller System Failures Onboard Multicopters," *AIAA SciTech*, Orlando, FL, January, 2026.
2. Ivler, C.M., Vo, E., Schulze, C., Jones, M., "Validation of Scaled Automation Qualities, Framework for Group 1 to Group 3 Vertical Lift UAS," *AIAA SciTech*, Orlando, FL, Jan 2026.
3. Ivler, C.M., Geyer, W.P., "Outer Loop Requirements for Vertical Lift Unmanned Aerial System Automated Flying Qualities," *Vertical Flight Society 80th Annual Forum*, Montreal, Canada, May 7-9, 2024.
4. Wolfand JM, Bieryla KA, Ivler CM. "Engineering Identity through Litter Pickup as Service Learning" Paper presented at 2023 ASEE Annual Conference & Exposition, June 2023

5. Ivler, C.M., Geyer, W., Pua, A., Possedi, C., "Unmanned Aerial System Handling Qualities Framework Applicability to Heavy Gross Weight Mission-Configured UAS," Vertical Flight Society 79th Annual Forum, West Palm Beach, FL, May 16-18, 2023
6. Ivler, C.M., Russell, K., Gong, A., Berger, T., Lopez, M.J.S., "Toward a UAS Handling Qualities Specification: Development of UAS Specific MTEs," Vertical Flight Society 78th Annual Forum, Fort-Worth, TX, May 2022.

Received Best Paper Award in Handling Qualities Session at VFS 2022, Received Best Overall Gessow Paper Award for VFS 2022
7. Ivler, C.M., Vo, E., Hunter, W., Russell, K., Malpica, C., Withrow-Maser, "Handling Qualities Considerations in Control Allocation for Multicopters," Vertical Flight Society 78th Annual Forum, Fort-Worth, TX, May 2022.
8. Ivler, C.M., Sikora, D., "Real Time System Identification Methods for Estimation of Sling Length on the Load Stabilization System," Vertical Flight Society 77th Annual Forum, Virtual, May 2021.

Received Best Paper Award in Modeling and Simulation at VFS 2021
9. Truong, K., Gong, A., Berger, T., Tischler, M.B., Ivler, C.M., "Development of a Reconfigurable Control Equivalent Turbulence Model for Multirotor UAS," Vertical Flight Society 77th Annual Forum, Virtual, May 2021.
10. Ivler, C.M., Truong, K., Kerwin, D., Otomize, J., Parmer, D., Tischler, M., Gowans, N.B., "Development and Flight Validation of Proposed Unmanned Aerial System Handling Qualities Requirements," Vertical Flight Society 76th Annual Forum, Virtual, October 2020.
11. Walter, A., McKay, M., Niemiec, R., Gandhi, F., Ivler, C., "Hover Handling Qualities of Fixed-Pitch, Variable RPM Quadcopters with Increasing Rotor Diameter," Vertical Flight Society 76th Annual Forum, Virtual, October 2020.
12. Knapp, M.K., Ivler, C.M., Horn, J.F., Johnson, E.N., Bridges, D.O., Lopez, M.J.S., Tischler, M.B., Wagster, J.A., Cheung, K.K., "Development and Simulation of Damage Tolerant Control Laws for a Compound Helicopter," AIAA SciTech Conference Proceedings, Orlando, FL, January 2020.
13. Ivler C., Rowe, L., Martin J., Tischler, M.B., Lopez, M., "System Identification Guidance for Multirotor Aircraft: Dynamics Scaling and Test Techniques," Vertical Flight Society 75th Annual Forum, Philadelphia, PA, May 2019.
14. Ivler, C., Niemiec, R., Gandhi, F., "Multirotor Electric Aerial Vehicle Model Validation with Flight Data: Physics-Based and System Identification Models," Vertical Flight Society 75th Annual Forum, Philadelphia, PA, May 2019.
15. Walter, A., McKay, M., Niemiec, R., Gandhi, F., Jaran, C., Ivler, C., "Handling Qualities Based Assessment of Scalability for Variable-RPM Electric Multi-Rotor Aircraft", Vertical Flight Society 75th Annual Forum, Philadelphia, PA, May 2019.
16. Ivler, C.M., Goerzen, C.L., Wagster, J.A., Sanders, F.C., Cheung, K.K., Tischler, M.B., "Control Design for Tracking of Scaled MTE Trajectories on an IRIS+ Quadcopter," American Helicopter Society 74th Annual Forum Proceedings, Phoenix, Arizona, May 14-17, 2018.

17. Knapp, M.K., Ivler, C.M., Berrios, M.G., Berger, T., Tischler, M.B., “Kalman Filter Estimation of Rotor-State Flapping: An Optimization-based Approach with UH-60 Flight Test Data,” American Helicopter Society 73rd Annual Forum Proceedings, Fort Worth, TX, May 9-11, 2017.
 18. Ivler, C.M., Mansur, M.H., Morford, Z., Kalinowski, K., Knapp, M.E., “Flight Test of Explicit and Implicit Rotor-State Feedback Control Laws,” American Helicopter Society 72nd Annual Forum Proceedings, West Palm Beach, Florida May 17-19 2016.
 19. Bellandi, E., Ivler, C.M., Bourreza, A., Brewer, R., Enns, R., Hehr, R., “Design Refinements and Flight Test Stabilization of the AVMS Active External Load Stabilization System,” American Helicopter Society 72nd Annual Forum Proceedings, West Palm Beach, Florida May 17-19 2016.
 20. Ivler, C.M., Juhasz, O., “Evaluation of Control Allocation Techniques for a Medium Lift Tilt-Rotor” American Helicopter Society 71st Annual Forum Proceedings, Virginia Beach, Virginia, May 5-7 2015.
 21. Patterson, B.W., Ivler, C.M., Hayes, P.M., “External Load Stabilization Control Laws for an H-6 Helicopter Testbed,” American Helicopter Society 70th Annual Forum Proceedings, Quebec, Canada, May 20-22 2014.
 22. Ivler, C.M., “Development and Comparison of Explicit and Implicit Rotor-State Feedback Control System for a Fly-by-Wire UH-60,” American Helicopter Society Handling Qualities Specialists’ Meeting Proceedings, Hunstville, AL, February 19-20, 2014.
 23. Blanken, C.L, Tischler, M.B., Lusardi, J.A., Ivler, C.M., “Aeronautical Design Standard – 33 (ADS-33)... Past, Present, and Future,” American Helicopter Society Handling Qualities Specialists’ Meeting Proceedings, Hunstville, AL, February 19-20, 2014.
 24. Juhasz, O., Ivler, C.M., Tischler, M.B., Celi, R., “Control of a Large Flexible Tiltrotor Aircraft in Hover,” American Helicopter Society Handling Qualities Specialists’ Meeting Proceedings, Hunstville, AL, February 19-20, 2014.
 25. Cicolani, L., Ivler, C., Ott, C., Raz, R., Rosen, A., “Rotational Stabilization of Cargo Container Slung Loads”, Proceedings of the American Helicopter Society 69th Annual Forum, Phoenix, AZ, May 2013.
 26. Ivler, C.M, Powell, J.D., Tischler, M.B., Fletcher J.W., Ott, C., “Design and Flight Test of a Cable Angle/Rate Feedback Flight Control System for the RASCAL JUH-60 Helicopter,” Proceedings of the American Helicopter Society 68th International Forum, Fort Worth, TX, May 2012.
- Received Best Paper Award in Handling Qualities Session at AHS Forum 2012*
27. Juhasz, O., Celi, R., Ivler, C.M., Tischler, M.B., Berger, T., “Flight Dynamic Simulation Modeling of Large Flexible Tiltrotor Aircraft,” Proceedings of the American Helicopter Society 68th International Forum, Fort Worth, TX, May 2012.
 28. Ivler, C.M., Tischler, M.B, Powell, J.D., “Cable Angle Feedback Control Systems to Improve Handling Qualities for Helicopters with External Loads,” Proceedings of the AIAA Guidance, Navigation and Control Conference, August 2011, Portland OR.
 29. Fujizawa, B.T., Ivler, C.M., Tischler, M.B., Morales, E., Braddom, S.R., “In-Flight Simulation Control Law Design and Validation for RASCAL,” Proceedings of the American Helicopter Society International 66th Annual Forum, May 11-13 2010, Phoenix, AZ.
 30. Blanken, C.B., Decker W.B., Ivler C.M., et. al. “An investigation of rotorcraft stability-phase margin requirements in hover,” Proceedings of the American Helicopter Society International 65th Annual Forum, May 27-29 2009, Grapevine TX.

31. Tischler, M.B., Ivler, C.M., Mansur, H.M., Cheung, K.K., Berger, T., Berrios, M., "Handling-Qualities Optimization and Trade-offs in Rotorcraft Flight Control Design," RAeS Rotorcraft Handling Qualities Conference, November 4-6 2008, Liverpool, UK.
32. Ivler, C.M., Tischler, M.B., "System Identification Modeling for Flight Control Design," RAeS Rotorcraft Handling Qualities Conference, November 4-6 2008, Liverpool, UK.
33. Theodore, C., Ivler, C., Tischler, M.B., Field, E., Neville, R., Ross, H., "System Identification of a Large Flexible Transport Aircraft", AIAA Atmospheric Flight Mechanics Conference and Exhibit, August 18th- 21st 2008, Honolulu, Hawaii.
34. Quiding, C., Ivler, C.M., Tischler, M.B., "GenHel S-76C Model Correlation using Flight Test Identified Models," Proceedings of the American Helicopter Society 64th Annual Forum, April 29th – May 1st 2008, Montreal, Canada.
35. Downs, J., Prentice, R., Dalzell, S., Besachio, A., Ivler, C.M., Tischler, M.B., Mansur, M.H., "Control System Development and Flight Test Experience with the MQ-8B Fire Scout Vertical Take-Off Unmanned Aerial Vehicle (VTUAV)," Proceedings of the American Helicopter Society 63rd Annual Forum, May 1-3 2007, Virginia Beach, Virginia.
36. Christensen, K.T., Campbell K.G., Griffith, C.D., Ivler, C.M., Tischler, M.B., Harding, J.W., "Flight Control Development for the ARH-70 Armed Reconnaissance Helicopter Program," Proceedings of the American Helicopter Society 63rd Annual Forum, May 1-3 2007, Virginia Beach, Virginia.
37. Lawler, M.A., Ivler, C.M., Tischler, M.B., Shtessel, Y.B., "System Identification of the Longitudinal/Heave Dynamics for a Tandem-Rotor Helicopter Including Higher-Order Dynamics," AIAA Atmospheric Flight Mechanics Conference and Exhibit, August 21-24 2006, Keystone, Colorado.
38. Spaulding*, C.M., Mansur, M.H., Tischler, M.B., Hess, R.A., Franklin, J.A., "Nonlinear Inversion Control for a Ducted Fan UAV", AIAA Atmospheric Flight Mechanics Conference and Exhibit, August 15-18 2005, San Francisco, California.

Received Best Paper Award for the AIAA AFM Conference 2005

*Spaulding was Ivler's maiden name

Government Reports (Approved for Public Release, Available on DTIC)

1. Ivler, C., **Test Guide: Scaling Methods for Unmanned Aerial System Handling Qualities Evaluation, Technical Report, March 2026. (Submitted)**
2. Blanken, C.L., Tischler, M.B., Lusardi, J.A., Berger, T., Ivler, C.M., Leeman, R. **Proposed Revisions to Aeronautical Design Standard – 33E (ADS-33E-PRF), Toward ADS-33F-PRF, US Army DEVCOM, SPECIAL REPORT FCDD-AMV-19-01**

Dissertation and Theses

1. Ivler, C.M., *Design and Flight Test of a Cable Angle Feedback Control Law to Improve Helicopter External Load Operations at Low Speed*, PhD Dissertation, Stanford University, December 2012.
2. Spaulding, C.M.,* *Nonlinear Dynamic Inversion of a Ducted Fan UAV*, M.S. Thesis, University of California at Davis, June 2005.

*Spaulding was Ivler's maiden name

Solutions Manuals to Textbooks

1. Ivler, C.M., Berrios, M.G., Tischler, M.B., *Solutions Manual for Aircraft and Rotorcraft System Identification: Engineering Methods with Flight Test Examples*, 2nd Edition, AIAA 2012.
2. Ivler, C.M., Tischler, M.B., *Solutions Manual for Aircraft and Rotorcraft System Identification: Engineering Methods with Flight Test Examples*, AIAA 2006.

Received AHS SFBAC Velkoff Award for Outstanding Technical Publication

EXTERNAL GRANTS AWARDED

1. NAVAIR Subaward SBIR Phase 2.5, Scaling of UAS Flying Qualities, System Technology Inc, \$43,767.00, Awarded: July 01, 2024.
2. OSGC Affiliated Faculty Research Incubator Program: Evaluation of Control Allocation Techniques for Multicopter Aerial Vehicles, National Aeronautics & Space Administration (NASA), \$24,932.00, Awarded: 2021.
3. NASA Sub-award (SJSURF): Handling Qualities Evaluation Methods and Turbulence Modeling for Multirotor Vertical Lift UAS, National Aeronautics & Space Administration (NASA), \$13,397.00, Awarded: 2020.
4. Flight Control Design and Handling Qualities Evaluation Methods for Multirotor Vertical Lift UAS, National Aeronautics & Space Administration (NASA), \$32,906.00, Awarded: 2019.
5. Obstacle Avoidance Technologies for Unmanned Aerial Systems (UAS), Butine, \$5,000.00, Awarded: 2018.
6. Extension: System Identification Scalability Study for Multirotor Vertical Lift UAS, National Aeronautics & Space Administration (NASA), \$7,750.00, Awarded: 2018.
7. System Identification Scalability Study for Multi-rotor Vertical Lift Unmanned Aerial Systems, National Aeronautics & Space Administration (NASA), \$32,801.00, Awarded: 2018.
8. System Identification Methods for Flight Simulation Models of Small Unmanned Aerial Vehicles, Butine, \$4,300.00, Awarded: 2017.

PRESENTATIONS

1. Ivler, C.M., "How Small Drones Inform the Future of Air Mobility," Pillars Lecture, University of Portland, October 2025
2. Ivler, C.M., Kelly, D., Kian, C., "Unmanned Aircraft Handling Qualities Scaling Methodology and Application to Groups 13," 8th Annual UAS Handling Qualities Invited Workshop, Virtual, October 29, 2025
3. Godby, C., Ivler, C., Borek, U., Possedi, C., Pua, A., "Supervised Machine Learning for Identifying Motor Propeller System Failures Onboard Multicopters," AIAA SciTech, Orlando, FL, January, 2026.
4. Ivler, C.M., Vo, E., Schulze, C., Jones, M., "Validation of Scaled Automation Qualities, Framework for Group 1 to Group 3 Vertical Lift UAS," AIAA SciTech, Orlando, FL, Jan 2026.

5. Ivler, C.M., "A Scaled Automation Qualities Framework for Group 1 to Group 4 Unmanned Aerial Systems," United States Naval Test Pilot School, Patuxent River Naval Air Station, MD, May 2025.
6. Ivler, C.M., Geyer, W.P., "Outer Loop Requirements for Vertical Lift Unmanned Aerial System Automated Flying Qualities," Vertical Flight Society 80th Annual Forum, Montreal, Canada, May 7-9, 2024.
7. Wolfand JM, Bieryla KA, Ivler CM. "Engineering Identity through Litter Pickup as Service Learning" Paper presented at 2023 ASEE Annual Conference & Exposition, June 2023
8. Ivler, C.M., Geyer, W., Pua, A., Possedi, C., "Unmanned Aerial System Handling Qualities Framework Applicability to Heavy Gross Weight Mission-Configured UAS," Vertical Flight Society 79th Annual Forum, West Palm Beach, FL, May 16-18, 2023
9. Ivler, C.M., Russell, K., Gong, A., Berger, T., Lopez, M.J.S., "Gessow Best Paper: Toward a UAS Handling Qualities Specification: Development of UAS Specific MTEs," European Rotorcraft 48th Annual Forum, Winterthur, Switzerland, September 2023.
10. Ivler, C.M., Russell, K., Gong, A., Berger, T., Lopez, M.J.S., "Toward a UAS Handling Qualities Specification: Development of UAS Specific MTEs," Vertical Flight Society 78th Annual Forum, Fort-Worth, TX, May 2022.
11. Ivler, C.M., Vo, E., Hunter, W., Russell, K., Malpica, C., Withrow-Maser, "Handling Qualities Considerations in Control Allocation for Multicopters," Vertical Flight Society 78th Annual Forum, Fort-Worth, TX, May 2022.
12. Ivler, C.M., Russell, K., "Toward a UAS Handling Qualities Specification", UAS Handling Qualities Annual Workshop, NAVAIR/Systems Technology, Jan 2022.
13. Ivler, C.M., Sikora, D., "Real-Time System Identification Methods for Estimation of Sling Length on the Load Stabilization System," Vertical Flight Society International 77th Annual Forum, May 2021.
14. Ivler, C.M., Truong, K., Kerwin, D., Otomize, J., Parmer, D., Tischler, M.B., Gowans, N., "Development and Flight Validation of Proposed Unmanned Aerial System Handling Qualities Requirements," Presented at the Vertical Flight Society 76th Annual Forum, Oct. 6-8, 2020.
15. Ivler, C.M., 'Development and Flight Validation of Unmanned Aerial System Handling Qualities Requirements for Multicopters,' UAS Handling Qualities Workshop Invited Presentation at AIAA SciTech Conference, Orlando, FL, January 2020
16. Knapp, M.K., Ivler, C.M., "Development and Simulation of Damage Tolerant Control Laws for a Compound Helicopter," Presentation at AIAA SciTech Conference Proceedings, Orlando, FL, January 2019.
17. Ivler, C.M., Kerwin, D., Truong, K., Otomize, J., Parmer, D., "Development and Flight Validation of Unmanned Aerial System Handling Qualities Requirements for Multicopters," presented to the Aviation Development Directorate at NASA Ames Research Center, Moffett Field, CA, August 6th, 2019.
18. Ivler, C.M., Rowe, E.S., Martin, J., Tischler, M.B., Lopez, M.J.S., "System Identification Guidance for Multirotor Aircraft: Dynamic Scaling and Test Techniques," Proceedings of the 75th Annual Vertical Flight Society Forum, Philadelphia, PA, May 2019.

19. Ivler, C.M., Niemiec, R., Gandhi, F., Sanders, F., "Multirotor Electric Aerial Vehicle Model Validation w/ Flight Data: Physics-Based & System Identification Models," Proceedings of the 75th Annual Vertical Flight Society Forum, Philadelphia, PA, May 2019.
20. Ivler, C. "Scaling Methods for System Identification and Handling Qualities Analysis for Small-Scale Unmanned Aerial Systems," Mechanical, Aerospace and Nuclear Engineering Colloquium Series, Rensselaer Polytechnic Institute, Jan 23 2019.
21. Ivler, C.M., "Scaling and Scoring of ADS-33E Mission Task Elements for Unmanned Aerial Systems," AIAA SciTech, San Diego, CA, Jan 17th, 2019.
22. Ivler, C., Rowe, E., Martin, J., Marfise, C., Gowans, N., System Identification Methods Applied to a Hexacopter and a Rover, Presented to the Aviation Development Directorate at NASA Ames Research Center, Moffett Field, CA, August 2018.

SERVICE

School/Dept Service (while employed at UP)

1. Mechanical Engineering Professionalism Committee: Chair, September 2025 – May 2026
2. Mechanical Engineering Communications Task Force: Member, September 2023 – May 2024.
3. Mechanical Engineering Curriculum Review Task Force: Chair, October 2022 – May 2023.
4. Search Committee Member, Shiley School of Engineering: Mechanical Engineering Instructor Search Committee, 2021-2022, 2/15/2022 – present
5. Search Committee Member, Shiley School of Engineering: Computer Science Tenure Track Search Committee 2021 – 2022, 1/15/2022 – 5/1/2022.
6. Search Committee Member, Shiley School of Engineering: Electrical Engineering Tenure Track Search Committee 2021 – 2022, 10/1/2021 – 2/15/2022.
7. Search Committee Member, Shiley School of Engineering: Electrical Engineering Tenure Track Search Committee 2021 – 2022, 9/1/2019 – 5/1/2020.
8. Capstone Committee, Shiley School of Engineering, 9/1/2019 – 5/1/2020.

University Service (while employed at UP)

1. Faculty Welfare Committee, August 2025 – May 2028
2. Academic Senate, April 2022 – April 2025
3. Valedictorian Selection Committee, Spring 2022
4. Fulbright Committee, 9/1/2021 – present
5. NASA Oregon Space Grant Representative for University of Portland, 11/2019 - present
6. Mentor, Honors Program, 1/1/2018 – 5/5/2024
7. Committee Member, Mental Health Network, 1/1/2019 - 6/1/2021.

Professional Service (while employed at UP)

1. UAS Ad Hoc Committee on Automation Qualities Certification Methods, 9/1/2023 – present.

2. ASTM Working Group WK76067, Handling Evaluation for Aircraft with Indirect Flight Controls, 2/15/2022 – present.
3. Engineering Division Vice-Chair, Council for Undergraduate Research (CUR), 6/1/2022 - present.
4. Engineering Councilor, Council for Undergraduate Research (CUR), 5/1/2021 - present.
5. Committee/Session Chair, Vertical Flight Society Handling Qualities Technical Committee, 5/1/2020 - 6/1/2022.
6. Dissertation Committee for Praneet Vayalali (Dept of Aerospace Engineering), Rensselaer Polytechnic Institute Dissertation Committee, 11/2/2020 - 12/31/2021.
7. Member, Vertical Flight Society Handling Qualities Technical Committee, 5/1/2019 – present.
8. Peer Reviewer, AIAA Journal of Guidance, Control and Dynamics, 10/1/2018 - present
9. Peer Reviewer, Journal of Aerospace Engineering, 10/1/2017 - present
10. Peer Reviewer, Journal of the American Helicopter Society, 9/1/2017 – present
11. Peer Reviewer, Journal of Aircraft, 1/1/2023 – present.

Community Service (while employed at UP)

1. Board of Directors, Airways Science for Kids, 10/1/2018 - 10/1/2020.

AWARDS AND HONORS

1. **Gessow Best Paper Award, Vertical Flight Society Annual Forum 78, May 2022 (Ivler, Russell, Berger, Lopez and Gong, 2022).**
2. **Best Paper in Handling Qualities, Vertical Flight Society Annual Forum 78, May 2022 (Ivler, Russel, Berger, Lopez, and Gong, 2022)**
3. **Best Paper in Modeling and Simulation, Vertical Flight Society Annual Forum 77, May 2021 (Ivler and Sikora, 2021)**
4. U.S. Army Research and Development Achievement (RDA) Award, 2013 for external load cable angle feedback control laws research
5. AHS SF Bay Area Chapter Schroer's Award for Outstanding Rotorcraft Research, 2012 for external load cable angle feedback control laws research
6. Best Paper Award in Handling Qualities, 68th AHS Forum, 2012 for external load cable angle feedback research
7. Letter of Appreciation for Contributions and Support on Fire Scout from Northrop Grumman VP of engineering, Advanced Programs & Technology Division. 18 May 2011.
8. NASA Group Achievement Award, 2009 - Rotorcraft Stability and Control VMS Simulation Team
9. AHS SF Bay Area Chapter Velkoff Award for Outstanding Technical Publication 2006 – Solutions manual for Aircraft and Rotorcraft System Identification
10. AIAA Atmospheric Flight Mechanics Conference Best Paper Award 2005. For dynamic inversion of ducted fan UAV research

PROFESSIONAL MEMBERSHIPS

1. American Society of Testing and Materials, 2/1/2022 - present
2. Vertical Flight Society Member, 8/1/2017 - present
3. American Institute of Aeronautics and Astronautics (AIAA), 8/1/2017 – present