#### **Curriculum Vitae**

#### **Shane Moeykens**

Director of ARCSIM & Director of EPSCoR & Associate Graduate Faculty & Space Initiative Lead University of Maine 5717 Corbett Hall, Room 443 Orono, Maine Phone: 207-581-3399 Email: shane.moeykens@maine.edu

### **EDUCATION**

- M.B.A., Worcester Polytechnic Institute, 2006 Focus: Business strategy and technology management.
- Ph.D., Mechanical Engineering, Iowa State University, 1994 Research Focus: Heat transfer and multiphase flow. Sponsor: ASHRAE
- M.S., Mechanical Engineering, University of Maine, 1991 Research Focus: Computational fluid dynamics and gas turbine mixing. Sponsor: NASA
- B.S., Marine Systems Engineering, Maine Maritime Academy, 1987 *Minor: Nuclear Engineering*

## ACADEMIC APPOINTMENTS

Space Initiative Lead, University of Maine
Associate Graduate Faculty, University of Maine
Director of ARCSIM, University of Maine
Director of Maine EPSCoR, University of Maine
Interim Co-Director of CORE, University of Maine
Director of ARC, University of Maine
SEANET Research Theme Co-Lead, University of Maine
Interim Director of Compliance, University of Maine

## **OTHER APPOINTMENTS**

2013-2015	Senior Manager, Partnerships and Alliances, ANSYS, Inc.
2006-2013	Manager, Partnerships and Alliances, ANSYS, Inc.
2003-2006	Academic Product & Program Manager, Fluent Inc.

Technical (CAE Software) Sales Engineer, Fluent Inc.
Thermal Systems Technology Manager, The Trane Company
Thermal Systems Development Engineer, The Trane Company
Nuclear Plant Engineer, Knolls Atomic Power Laboratory (General Electric)

#### **PROFESSIONAL EXPERIENCE**

### • <u>University of Maine (2015-Present)</u>

- Space Initiative Lead: Responsible for leading the Space Initiative steering committee to define and review progress against goals, and plan future programs. The UMaine Space lead also participates in synergistic statewide events, organizes seed grant programs, and facilitates student awards and other forms of student support.
- Associate Graduate Faculty: Provide graduate student advising in the Department of Electrical and Computer Engineering (ECE) at the University of Maine, with emphasis on cybersecurity, Machine Learning, AI, and HPC.
- Director of Advanced Research Computing, Security, and Information Management (ARCSIM): Provide leadership and oversight for and integrated IT unit within the Office of the Vice President of Research at the University of Maine, comprised of three primary components: Advanced Research Computing - supports the research computing needs of the UMS research community; Security - dedicated to research-specific data security guidance, policy, and infrastructure; and Information Management - responsible for research funding data management and assisting faculty, staff, and administrators with their research and scholarship.
- Director of Maine EPSCoR: Provide professional leadership, vision, and program management for Maine EPSCoR. Maine EPSCoR implements large-scale, statewide infrastructure and other programs to expand innovative research, STEM education, workforce development, diversity, and cyberinfrastructure in key areas of importance to the state of Maine. Primary contributions and responsibilities include: statewide mentoring of faculty and scientists about EPSCoR programs (DOE, NASA, DOD, NSF, USDA) and related proposal development; designing and implementing education and outreach programs for the K-12 community in Maine; executing a multi-segment communications program with emphasis on conveying the impacts of EPSCoR sponsored research to both local and national audiences; fiscal and regulatory compliance oversight of UMaine-led NSF EPSCoR Research Infrastructure Improvement (RII) grants; and reviewing and co-writing UMaine-led EPSCoR proposals (e.g., Maine-eDNA, a five-year, \$24M RII Track-1 grant awarded in July 2019 NSF OIA-1849227).
- Interim Co-Director of Coordinated Operating Research Entities (CORE): Co-led the Coordinated Operating Research Entities or CORE organization within

the Office of the Vice President of Research at the University of Maine, which is an extensive set of major research facilities and resources organized as service centers to extend research related services to the University community, as well as to the outside world.

- **Director of Advanced Research Computing (ARC)**: Supported the advancement of research computing at the University of Maine. As a primary strategy, developed cost effective, federally compliant research computing services, leveraging both local and national partners. Target areas included high performance computing (HPC), data storage, visualization, training and consultation, and grant writing assistance.
- SEANET Research Theme Co-Lead: Co-led climate change research conducted under the NSF EPSCoR RII Track-1 grant, SEANET (NSF #11A-1355457), which focused on marine science and the implications of climate change for the emerging aquaculture sector. Primary responsibilities included: guiding junior faculty, post-docs and graduate students engaged in engineering research; fiscal oversight of 16 research projects; and leading project reporting to the federal sponsor.
- Interim Director of Compliance: This Office provides comprehensive regulatory guidance to the UMaine research community in areas including animal care, biosafety, export control, financial conflict of interest, human subjects, responsible conduct of research, and research misconduct. Served as Interim Director for six months, ensuring stability of ongoing compliance oversight, while concurrently recruiting a permanent replacement for the Director role.

## • ANSYS, Inc. / Fluent Inc. (2000-2015; Fluent Inc. acquired by ANSYS in 2006)

- Senior Manager, Partnerships and Alliances: Responsible for the execution of the ANSYS partnership program and business development activities with strategic, third-party technology and service suppliers. Managed \$50M IP portfolio. Provided technical, legal, and business leadership to ensure that academic and commercial third-party relationships were defined, implemented, and managed to facilitate ANSYS's growth.
- **Manager, Partnerships and Alliances**: Managed 100+ software partners with emphasis on the following areas: CAD/PLM, pre-processing, post-processing, and optimization. Responsible for co-marketing, co-selling, technology licensing, and the contractual frameworks enabling these activities. Certified in Product Management by Pragmatic Marketing (of Scottsdale, Arizona) in 2011.
- Academic Product & Program Manager: Managed the development and global release of Fluent's educational software packages. Concurrently, managed the development and release of commercial CAD interfaces. Managed relations, software distribution, and technical support for academic customers and partners in North America.
- **Technical Sales Engineer**: Conducted business development and technical sales activities within the power generation and environmental engineering sectors in

North America, working as part of an engineering services team. Recognized as Fluent's global sales leader in 2002.

## • <u>The Trane Company (1994-2000)</u>

- Thermal Systems Technology Manager: Led a multifaceted technology group responsible for applied research, product design, and technical services. Primary responsibilities included screening emerging technologies for in-house development, licensing, or acquisition, and serving as an engineering coach to M.S. and Ph.D. level staff.
- Thermal Systems Development Engineer: Conducted applied research in the areas of multiphase flow and heat transfer and contributed to product development: designed R-134a shell-and-tube condensers and evaporators; served as technical lead of plate heat exchanger technology, performing engineering design and leading technical collaborations with plate heat exchanger manufacturers Alfa Laval and SWEP; supported Trane's corporate purchasing group with the acquisition of heat transfer tubes and surfaces (\$50M+ per year) from Wieland Werke AG and Wolverine, Inc.

## • Knolls Atomic Power Laboratory (1987-1989)

- **Nuclear Plant Engineer**: Plant operations engineer and S8G (Trident) certified staff instructor, with responsibilities including operations and maintenance of the reactor core, reactor plant, steam generators, engine room, and auxiliary systems.
- Naval Nuclear Power School: Successfully completed the six-month officer's training program of the Naval Nuclear Power School in Orlando, Florida, finishing in the top 10% of the class of 88-02.

# PATENTS

- US Patent Number: 6,830,099, "Falling Film Evaporator Having an Improved Two-Phase Distribution System," awarded December 14, 2004.
- US Patent Number: 6,293,112, "Falling Film Evaporator for a Vapor Compression Refrigeration Chiller," awarded September 25, 2001.
- US Patent Number: 6,167,713, "Falling Film Evaporator Having Two-Phase Distribution System," awarded January, 2001.
- US Patent Number: 6,067,804, "Thermosiphonic Oil Cooler for Refrigeration Chiller," awarded May, 2000.

# **REFEREED JOURNAL PUBLICATIONS**

• "A Framework for Mitigating Malicious RLHF Feedback in LLM Training using Consensus Based Reward," Z. Haider, M.H. Rahman, V. Devabhaktuni, S. Moeykens,

and P. Chakraborty, <u>Scientific Reports</u>, Vol. 15, No. 9177, 2025. [doi: 10.1038/s41598-025-92889-70]

- "Cold Water Aquaculture Resilience, a Review of the Impact of Likely Scenarios in a Climate Change Vulnerable Ecological System," I. Bricknell, S. Birkel, T. Van Kirk, H. Hamlin, K. Duffy, S. Brawley, K. Capistrant-Fossa, K. Huguenard, C. Byron, G. Van Walsum, Z. Liu, L. Zhu, T. Johnson, G. Grebe, E. Taccardi, M. Miller, B. Preziosi, D. Brady, T. Bowden, C. Quigley, and S. Moeykens, <u>Reviews in Aquaculture</u>, Vol. 13, No. 1, 2021. [doi: 10.1111/raq.12483]
- "A Social-Ecological System Framework for Maine Aquaculture Research," T. Johnson, K. Beard-Tisdale, D. Brady, C. Byron, C. Cleaver, K. Duffy, N. Keeney, M. Kimble, M. Miller, S. Moeykens, M. Teisl, G. van Walsum, and J. Yuan, <u>Sustainability</u>, Vol. 11, No. 9, 2019. [doi: 10.3390/su11092522]
- "Multilevel Implementation of FlowLab in Engineering Fluids," W. Huebsch, S. Moeykens, I. Yavuz, and E. Ogretim, <u>Computers in Education Journal</u>, Volume 17, No. 1, 2007.
- "Using FlowLab, an Educational Computational Fluid Dynamics Tool, to Perform a Comparative Study of Turbulence Models," A. Parihar, A. Kulkarni, F. Stern, T. Xing, and S. Moeykens, <u>Computational Fluid Dynamics Journal</u>, Vol. 15, No. 1, 2006.
- "Hands-On CFD Educational Interface for Engineering Courses and Laboratories," F. Stern, T. Xing, D. Yarbrough, A. Rothmayer, G. Rajagopalan, S. Otta, D. Caughey, R. Bhaskaran, S. Smith, B. Hutchings, and S. Moeykens, <u>Journal of Engineering Education</u>, Vol. 95, No. 1, 2006.
- "Integration of Simulation Technology into Undergraduate Engineering Courses and Laboratories," F. Stern, D. Yarbrough, A. Rothmayer, G. Rajagopalan, D. Caughey, R. Bhaskaran, S. Smith, B. Hutchings, and S. Moeykens, <u>International Journal of Learning</u> <u>Technology</u>, Vol. 2, No. 1, 2006.

# **REFEREED CONFERENCE PROCEEDINGS**

- "Using FlowLab, a Computational Fluid Dynamics Tool, to Facilitate the Teaching of Fluid Mechanics," J. Cimbala, S. Moeykens, A. Kulkarni, and A. Parihar, <u>Proceedings of IMECE'04 – 2004 ASME International Mechanical Engineering Conference</u>, IMECE2004-59870, 2004.
- "Enhancing the Teaching of Fluid Mechanics and Transport Phenomena via FlowLab a Computational Fluid Dynamics Tool," J. Curtis, K. Henthorn, S. Moeykens, and M. Krishnan, <u>Proceedings of FEDSM'04 – 2004 ASME Heat Transfer/Fluids Engineering</u> <u>Summer Conference</u>, HT-FED2004-56164, 2004.
- "Development of Hands-On CFD Educational Interface for Undergraduate Engineering Courses and Laboratories," F. Stern, T. Xing, D. Yarbrough, A. Rothmayer, G. Rajagopalan, S. Otta, D. Caughey, R. Bhaskaran, S. Smith, B. Hutchings, and S. Moeykens, <u>Proceedings of the 2004 ASEE Annual Conference and Exposition</u>, ISSN 2153-5965, 2004.

- "Introducing Computational Fluid Dynamics to Undergraduate Engineers," S. Moeykens, M. Krishnan, J. Curtis, C. Petty, F. Stern, and A. Rothmayer, <u>Proceedings of the AIChE</u> <u>Annual Meeting</u>, 2003.
- "Spray Evaporation Heat Transfer Performance Data for R-123 in Tube Bundles Including Lubricant Effect Results," S. Moeykens, J. Kelly, and M. Pate, <u>ASHRAE</u> <u>Transactions</u>, Vol. 102, No. 2, 1996.
- "Effect of Lubricant on Spray Evaporation Heat Transfer Performance of R-134a and R-22 in Tube Bundles," S. Moeykens and M. Pate, <u>ASHRAE Transactions</u>, Vol. 102, No. 1, 1996.
- "Effects of Surface Enhancement, Film-Feed Supply Rate, and Bundle Geometry Upon Spray Evaporation Heat Transfer Performance," S. Moeykens, B. Newton, and M. Pate, <u>ASHRAE Transactions</u>, Vol. 101, No. 2, 1995.
- "The Effects of Nozzle Height and Orifice Size on Spray Evaporation Heat Transfer Performance for a Low-Finned Triangular-Pitch Tube Bundle with R-134a," S. Moeykens and M. Pate, <u>ASHRAE Transactions</u>, Vol. 101, No. 2, 1995.
- "Heat Transfer of R-134a in Single-Tube Spray Evaporation Including Lubricant Effects and Enhanced Surface Results," S. Moeykens, W. Huebsch, and M. Pate, <u>ASHRAE</u> <u>Transactions</u>, Vol. 101, No. 1, 1994.
- "Spray Evaporation Heat Transfer of R-134a on Plain Tubes," S. Moeykens and M. Pate, <u>ASHRAE Transactions</u>, Vol. 100, No. 2, 1994.
- "Three-Dimensional Calculation of the Mixing of Radial Jets from Slanted Slots with a Reactive Cylindrical Cross flow," N. Winowich and S. Moeykens, <u>AIAA Transactions</u>, Paper 91-2081, 1991.

# REPORTS

- "Collaborating for a Thriving Maine Forest Sector," K. Pugh, E. Uhrig, M. Fergusson, A. Weiskittel, S. Moeykens, and J. Saffeir, Maine Policy Review 33.1, <a href="https://digitalcommons.library.umaine.edu/mpr/vol33/iss1/8">https://digitalcommons.library.umaine.edu/mpr/vol33/iss1/8</a>, 2024.
- "Data frontiers: The intersection of emerging technologies and Maine's heritage industries," A. Herberger-Marino, A., S. Moeykens, P. Veazy, and A. Weiskittel, University of Maine, Center for Research on Sustainable Forests, 2023. <u>https://umaine.edu/epscor/wp-content/uploads/sites/25/2023/08/AI-report-final\_8.8.23.pdf</u>
- "Forest opportunities in Maine: Forest sector and rural community needs," A. Weiskittel, and S. Moeykens. University of Maine, Center for Research on Sustainable Forests, 2023. <u>https://umaine.edu/epscor/wp-</u> <u>content/uploads/sites/25/2023/10/FORMaine\_Forest\_Report\_final\_optimized.pdf</u>

### **CONFERENCE/WORKSHOP SHORT PAPERS & POSTERS**

- "Integrating Computational Transport Phenomena into the Undergraduate Chemical Engineering Curriculum," K. Koppula, A. Benard, C. Petty, N. Gandhi, A. Parihar, and S. Moeykens, presented at the AIChE Annual Meeting, November 15, 2006.
- "Multilevel Implementation of FlowLab in Engineering Fluids," W. Huebsch, S. Moeykens, I. Yavuz, and E. Ogretim, presented at 44<sup>th</sup> AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, January 9-12, 2006.
- "Using FlowLab, an Educational Computational Fluid Dynamics Tool, to Perform a Comparative Study of Turbulence Models," A. Parihar, A. Kulkarni, F. Stern, T. Xing, and S. Moeykens, presented at the 13<sup>th</sup> Annual Conference on Computational Fluid Dynamics, St. John's, Canada, July 31 – August 3, 2005.

## **PROFESSIONAL & LEADERSHIP ACTIVITIES**

- Emerging Centers Track Steering Committee Member, Campus Research Computing Consortium (CaRCC) (2025-Present): The Emerging Centers Track of CaRCC brings together members of research computing departments and aspiring centers to advance topics of importance to the research computing community.
- **EPSCoR/IDeA Foundation Board Member**, National EPSCoR/IDeA Foundation (2023-Present): The National EPSCoR/IDeA Foundation is a nonprofit that strives to increase the quality of research and research capacity within EPSCoR/IDeA jurisdictions like Maine. As a board member, helping to grow science and technology enterprises across the United States through improvements to university research infrastructure and jurisdictions' research competitiveness.
- Maine Innovation Economy Action Plan Coordinator, University of Maine (2022-Present): Responsible for updating Maine's science and technology plan, including facilitating collaborations with 20+ contributing authors, 30+ peer reviewers, and the state EPSCoR steering committee (aka, MIEAB).
- Aquaculture and Marine Technology Board Member, Maine Technology Institute (2016-Present): Evaluate proposals and development award applications, make funding recommendations, and contribute advice to the MTI Board of Directors in matters of policy.
- Maine NASA EPSCoR Technical Advisory Committee Member, Maine Space Grant Consortium (2015-Present): Evaluate proposals intended for advancement to NASA and make funding recommendations.
- **NSF Reviewer Panelist**, NSF (2024): Served as a reviewer on an NSF proposal review panel.
- 28<sup>th</sup> National EPSCoR Conference Program Committee Member, University of Maine (2023-2024): Responsible for planning and executing the 28<sup>th</sup> National EPSCoR conference, including all aspects of the technical program and meeting logistics. The event occurred in Omaha, Nebraska in October 2024 with 530+ attendees.

- 27<sup>th</sup> National EPSCoR Conference Program and Logistics Committee Chair, University of Maine (2020-2023): Responsible for planning and executing the 27<sup>th</sup> National EPSCoR conference, including all aspects of the technical program and meeting logistics. The event occurred in Portland, Maine in November 2022 with 430+ attendees.
- Mechanical Engineering Program Evaluator, ABET (2007-2023): Served as a volunteer Program Evaluator, working on behalf of ABET and the American Society of Mechanical Engineers (ASME). As part of an evaluation team, was responsible for evaluating Mechanical Engineering program curricula and advancing accreditation recommendations.
- Innovation Subcommittee (February 2020-2022): This subcommittee was charged with developing and implementing distinct, measurable tactics to help advance the ten-year innovation strategies, as outlined in the Governor's Ten-Year State Strategic Economic Development Plan.
- Mechanical Engineering External Advisory Board, University of Connecticut (2014-2015): Advised the Mechanical Engineering department on academic issues, trends, and future directions in engineering.
- ASHRAE Technical Committee (TC) 8.5 Member Liquid-to-Refrigerant Heat Exchangers (1994-2000):
  - Chair of ASHRAE Standard 24-2000 Revision Committee, "Methods of Test for Rating Liquid Coolers" (2000).
  - Authored 1089-RP work statement, "Flooded Evaporation Heat Transfer Performance Investigation for Tube Bundles Including the Effects of Oil Using R-410A and R-507A," and provided oversight of the award (1998-2000).
  - Authored 984-RP work statement, "The Effects of Inundation and Miscible Oil upon Condensation Heat Transfer Performance for Refrigerant HFC-134a," and provided oversight of the award (1997-1999).
  - Authored 977-RP work statement, "Evaporation of Ammonia Outside Smooth and Enhanced Tubes with Miscible and Immiscible oils," and provided oversight of the award (1997-1999).
  - TC 8.5 Standards Committee Chair (1996-1998)
- ASHRAE Technical Committee 1.3 Member Heat Transfer and Fluid Flow (1994-1998):
  - Co-authored 1067-RP work statement, "Single-phase Refrigerant Heat Transfer and Pressure Drop Characterization of High Reynolds Number Flow for Internally Finned Tubes Including the Effects of Miscible Oils," and provided oversight of the award (final report issued in 2003).
- Department/College/University Activities
  - **ARCSIM Advisory Board Chair**, University of Maine (2020-Present): The charge of the Advisory Board is to provide the Advanced Research Computing, Data Security, and Information Management (ARCSIM) group and the VPRDGS with key information specific to the research computing environment and related needs, and to make recommendations on matters related to research computing.

- University Research Council, University of Maine (2015-Present): Provide input to the Vice President for Research (VPR) on strategic issues related to research, scholarship, and creative achievement, with focus on topics such as indirect cost recovery, research activities, intellectual property creation, and technology transfer.
- IT & Computing Project Implementation Team (PIT) Leader, University of Maine (2023-2024): Led an interdepartmental committee of 20+ individuals tasked with specifying IT requirements, including HPC system requirements, for the Green Engineering and Materials (GEM) Laboratory, a new construction project associated with the UMaine Advanced Structures & Composites Center.
- Internal Advisory Board (IAB) Member, University of Maine (2021-2024): Provided guidance and oversight to UMaine-led NSF EPSCoR RII Track-2 INSPIRES project, which focuses on novel Big Data acquisition, integration, and analysis to inform Maine and the nation about how to approach challenges and opportunities related to the current and future integrity of the forest ecosystem.
- **Maine-eDNA Executive Committee**, University of Maine (2019-2025): Served on an executive leadership team consisting of the PI and Co-PIs, charged with overseeing a \$20M NSF EPSCoR RII Track-1 grant (OIA-1849227).
- **Coordinated Operating Research Entities (CORE) Leadership Team**, University of Maine (2020-2023): Served as an advisor for the management of a central repository of major research equipment and facilities, charged with federally compliant dissemination of these resources to Maine researchers.
- Black Bear Award for Extraordinary Impact Committee, University of Maine (2021-2022): Established criteria and selected awardees for significant impact to UMaine and Maine.
- **Faculty Mentor Award Committee**, University of Maine (2021): Established criteria and selected awardees for significant contribution to education as student mentors.
- Hunter Research Impact Award Committee, University of Maine (2021): Established criteria and selected graduate and undergraduate student awardees considering project submissions to the annual UMaine Student Symposium that best exemplify UMaine mission of teaching, research, and service through impacting Maine communities, citizens, and business.
- Joint Appointment Committee, University of Maine (2020-2021): Developed standard guidelines for creating and facilitating joint academic appointments at the University of Maine, including peer review committee formation and the creation and approval of promotion criteria.
- University of Maine Student Symposium Committee, University of Maine (2017-2021): Served on a leadership group charged with planning the annual student symposium, involving 2,000+ student presenters per year.
- **EPSCoR Project Administrator Council** (2019-2020): Working with Project Administrator leads from Alabama, Delaware, and Montana, developed and

disseminated training materials that were leveraged by EPSCoR jurisdictions to effectively and efficiently operate NSF EPSCoR RII programs.

- **SEANET Management Team**, University of Maine (2015-2020): Served on executive leadership team consisting of the PI and Co-PIs, charged with overseeing a \$20M NSF EPSCoR RII Track-1 grant (OIA-1355457).
- **Grand Challenge Ideas Lab**, University of Maine (2019): Facilitated interdisciplinary faculty group, with representation from four UMS campuses, in creating a telehealth pre-proposal, targeting \$1M of UMS Research Reinvestment Funds.
- Celebrating Scholarship Committee, University of Maine (2018): Served on planning committee charged with organizing and executing an on-campus event to recognize scholarly achievements by University of Maine faculty from 2015-2018.
- Search Committees
  - Chair, EPSCoR Project Coordinator (2025)
  - Chair, Senior IT Lead Research (2025)
  - Chair, Cybersecurity Specialist (2024)
  - Chair, EPSCoR Fiscal & Administrative Coordinator (2024)
  - Chair, Research Communications Manager (2023)
  - Chair, OVPR CORE Director (2023)
  - Chair, Maine EPSCoR Education, Outreach, and Diversity (EOD) Program Manager (2022)
  - Chair, Research Data Security Analyst (2022)
  - Member, Information Systems Analyst (2022)
  - Chair, Maine EPSCoR Financial Administrator (2022, 2018)
  - Chair, Maine-eDNA Research Coordinator (2022, 2020)
  - Member, Information Management Analyst (2021)
  - Chair, Technical Communications Specialist (2021)
  - Member, Nicholas M. Salgo Professor in the Maine Business School (2021)
  - Chair, Integrative Data Scientist (2021)
  - Member, OVPR Research Communications Coordinator (2021)
  - Member, CORE Operations Manager (2020)
  - Chair, Advanced Research Computing Project Manager (2019)
  - Member, Marketing and Communications Specialist (2019)
  - Chair, Office of Research Compliance Officer, Level 1 (2019)
  - Member, Research Information Management Systems Manager (2019, 2018)
  - Chair, Maine EPSCoR Reporting and Communications Coordinator (2019, 2016)
  - Member, Office of Research Compliance, Level 2 (2018)
  - Member, Research Communications Coordinator (2018)
  - Member, CORE General Manager (2018)

## AWARDS

- Senior personnel, US DOD/CMG, C5-23-1003-PROP-002, "Applying High Performance Computing to Large Area Additive Manufacturing (LAAM) Systems – Element 2," \$18,217,571, 5/20/2024-5/19/2026.
- Senior personnel, NSF OIA-2416915, "Collaborative Research: Research Infrastructure: ERISE RII: Enhancing Maine Forest Economy, Sustainability, and Technology (Maine-FOREST) Ecosystem to Accelerate Innovation," \$4,526,676, 8/1/2024-7/31/2028.
- PI, NSF OIA-2412130, "Collaborative Research: Research Infrastructure: ECORE RII: Strengthening Maine's Research Ecosystem and Pathways Through Strategic Capacity Building (Maine-SMART)," \$5,852,379, 5/15/2024-4/30/2028.
- Senior Personnel, US DOD/CMG, C5-23-1003, "Applying High Performance Computing to Large Area Additive Manufacturing (LAAM) Systems (ARP#4)," \$18,382,353, 6/02/2023-6/01/2025.
- Senior Personnel, NSF OIA-1849227, "RII Track-1: Molecule to Ecosystem: Environmental DNA as a Nexus of Coastal Ecosystem Sustainability for Maine (MaineeDNA)," \$20M, 7/1/2019-12/31/2024.
- Co-PI, NSF OIA-2241675, "Maine EPSCoR RII Track-1 Planning Grant," \$100,000, 2/15/2023-1/31/2024.
- Senior Personnel, NSF OIA-2038037, "27th Annual National EPSCoR Conference, Portland Maine," \$700,672, 10/1/2020-9/30/2023.
- Senior Personnel, NSF OIA-1355457, "RII Track-1: The Nexus of Coastal Social-Environmental Systems and Sustainable Ecological Aquaculture (SEANET)," \$20M, 8/1/2015-7/31/2019.

## **Other ACHIEVEMENTS**

- Fluent Inc. global sales leader in 2002.
- Recipient of Willis H. Carrier Award from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) in 1997.
- Recipient of the 1997 ASHRAE Symposium Paper Award.
- Propeller Club Award, 1987. Award recognized leading grade point average among graduating engineers in the class of 1987 at Maine Maritime Academy.