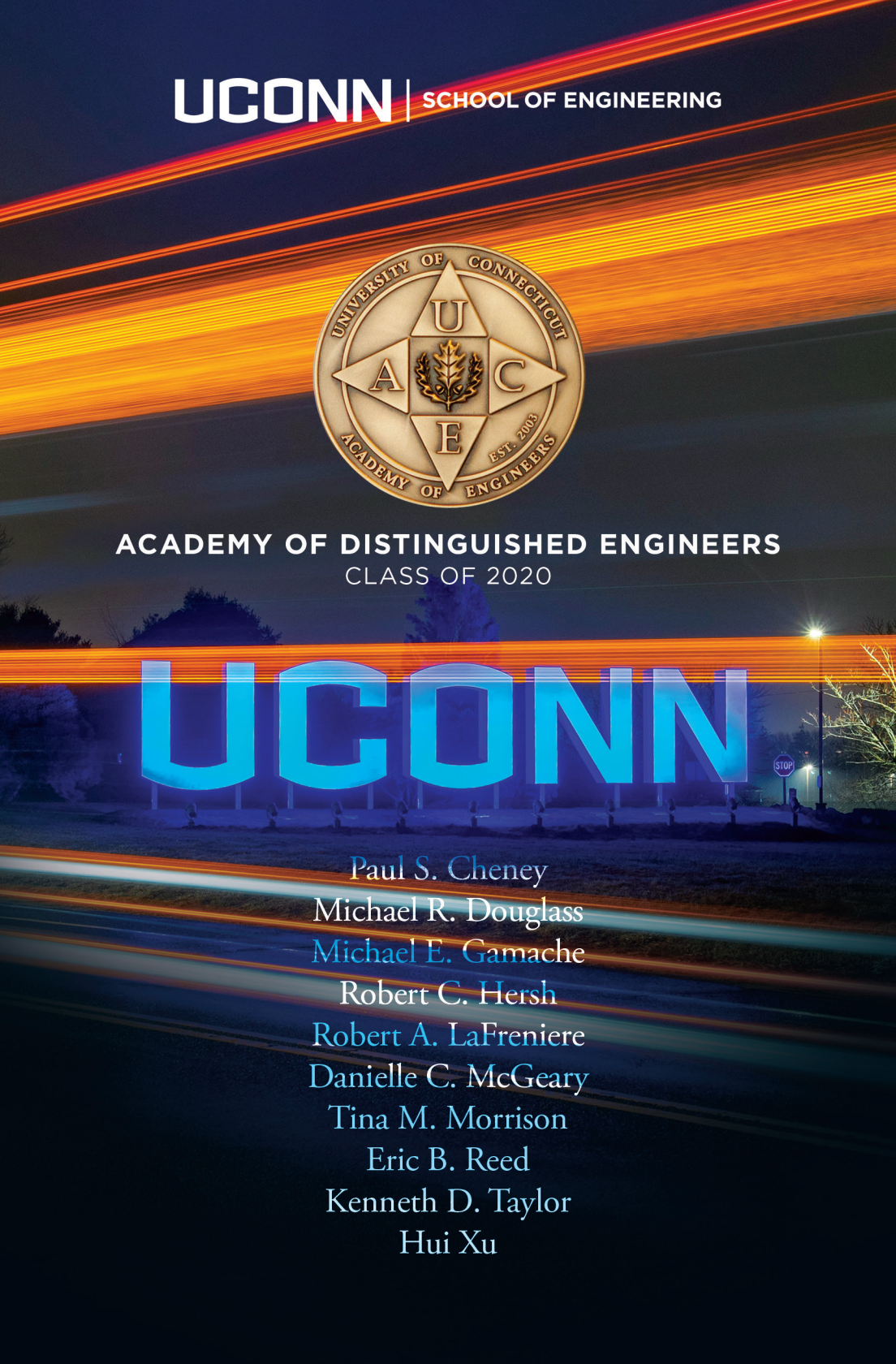
UCONN | SCHOOL OF ENGINEERING




# ACADEMY OF DISTINGUISHED ENGINEERS

CLASS OF 2020




Paul S. Cheney
Michael R. Douglass
Michael E. Gamache
Robert C. Hersh
Robert A. LaFreniere
Danielle C. McGeary
Tina M. Morrison
Eric B. Reed
Kenneth D. Taylor
Hui Xu

# Academy OF DISTINGUISHED ENGINEERS

These awards recognize School of Engineering alumni and friends for their exemplary contributions to the engineering profession through research, practice, education, policy, or service. As leaders and model citizens, these individuals bring honor to UConn Engineering.

# Paul S. Cheney

**COMPUTER SCIENCE, B.S. 1984**

Paul Cheney was born in the Boston area, moved to Connecticut when he was three and has lived here ever since. Cheney was raised in Simsbury and graduated from UConn in 1984 with a B.S. in Computer Science.

He has been working at Collins Aerospace (then Hamilton Standard) since February 1985, starting as an electrical project engineer working on jet engine control electronics. In 1989, he began the MBA program at Renssalaer Polytechnic Institute, graduating in 1992. Paul worked as a project engineer with increasing responsibilities until 1999 when he took a role as a program manager, responsible for both electronic and mechanical components of small gas turbine engines.

Cheney is currently the Value Stream Leader for the Pratt & Whitney Geared Turbofan and Operational Commercial Engine (engine program components), responsible for a $15M annual budget. Collins engine components include engine electronics, fuel components, speed and temperature sensors, actuators, harnesses and oil valves for these engines.

Cheney is an avid reader and enjoys mysteries, thrillers and historical fiction. His hobbies include tinkering with electronics, bike riding and enjoying the many craft beers in New England. He married Nancy in 1990 and they have two grown children.

# Michael R. Douglass

**ELECTRICAL ENGINEERING, B.S. 1979**

Mike Douglass is a distinguished member of the technical staff at Texas Instruments. He has been a reliability engineer with TI since 1979. Throughout his career, he has supported a variety of projects ranging from research and development to high-volume production. Products have included mission-critical military systems to commercial navigation equipment. In 1992, he joined DLP® Products to support reliability development of the Digital Micromirror Device (DMD) and DLP technology. The DMD was the world's first micro-electro-mechanical system (MEMS) used for display applications. It consists of up to 8,000,000 individually addressable micromirrors, as small as five microns square, fabricated on a SRAM substrate. It is considered the most complex and one of the most reliable MEMS devices in the world.

He and his wife Tammy, CEO of a technology nonprofit, have two children: Julia, a technology consultant with Deloitte, and Mark, a 4th generation electrical engineer now studying law at Southern Methodist University.

Douglass is a senior member of the IEEE, a senior member of SPIE, and a registered professional engineer in the State of Texas. He has published 14 technical papers, made numerous presentations nationally and internationally, chaired several technical conferences, and has three patents.

He received a B.S. in electrical engineering from the University of Connecticut in 1979 and an MBA from the University of Dallas in 1985.

# Michael E. Gamache

**MECHANICAL ENGINEERING AND MATERIALS SCIENCE, B.S. 1978**

Michael Gamache is the President and CEO of The Carlyle Johnson Machine Co. LLC, an industry leader in the design and manufacture of power transmission products, specializing in engineered solutions for specific applications in a variety of industries, including aerospace, military, power generation and health care.

Gamache began his engineering career at Carlyle, a Connecticut company founded in 1903. After ten years with Carlyle, he moved to Colt's Patent Firearms Manufacturing Company, where he held the position of Director of Engineering for five years. In 1996, he returned to rescue Carlyle from bankruptcy, achieving profitability within the first month of operations. Over the years, Gamache and his team have expanded Carlyle's product offerings through acquisitions and technological developments, including the introduction of unique controllers and frictionless non-contact seals.

Gamache graduated from the University of Connecticut in 1978 with a B.S. in mechanical engineering and materials science. He also holds an MBA from Rensselaer Polytechnic Institute. He is named as an inventor on six patents and has two registered software copyrights. He has authored articles for technical trade publications and testified during U.S. Senate subcommittee hearings on technical advancements.

# Robert C. Hersh

**CHEMICAL ENGINEERING, B.S. 1986**

Robert (Bob) Hersh is a partner at Grant Thornton LLP, a global professional services firm that serves clients with a full range of audit, tax and advisory services. Since graduating from the University of Connecticut, Hersh's primary focus has been helping companies improve performance with operational improvement and advanced technology.

Hersh started his career in the Hartford office of Arthur Andersen—now Accenture—where he served large aerospace and defense clients. He has also worked for Deloitte Consulting, Parker Hannifin and a software startup. During his career, Hersh has spent time as a manufacturing operations manager, strategic planner, and has led the implementation of global application systems in the ERP, PLM, EAM, CRM and MES functional areas. Using techniques such as JIT, LEAN, Six Sigma and Theory of Constraints, he has helped improve the operational and financial performance of his clients.

Hersh was admitted to the Partnership at Grant Thornton in 2013 and has held numerous leadership roles, including Advisory Practice lead for New York and New England. Currently, he is the national practice lead for Asset Intensive Industries, as well as the Infor ERP implementation lead for the Manufacturing and Distribution industries.

Hersh graduated from UConn in 1986 with a B.S. in chemical engineering and received his MBA from the University of Notre Dame in 1990.

# Robert A. LaFreniere

**MECHANICAL ENGINEERING, M.S. 1988**
**APPLIED MECHANICS, Ph.D. 1994**

Dr. Robert LaFreniere, a native of Newton, Massachusetts, joined the Maritime Sensors Program Management Office (MSPMO) in May 2020. Dr. LaFreniere is responsible for imaging and radio frequency (RF) systems and the delivery and continued improvement of submarine systems.

Prior to joining MSPMO, LaFreniere was the Director of the Tactical Analysis Group (TAG) for the Undersea Warfighting Development Center (UWDC). LaFreniere then served as the Scientific Director for UWDC. In this position, he was tasked to interface with academic and research and development activities to investigate emerging technologies and their applicability to UWDC efforts.

LaFreniere's service as a government civilian spans 33 years and a variety of rewarding assignments at the Naval Undersea Warfare Center (NUWC) including: Structural Analysis, Director of Materials Science Laboratory, Periscope Chief Engineer, Program Manager for CLUSTER BIGHT and Program Manager for TOPGATE. Following a move to NAVSEA 05N in 2012, he served as the Imaging and Electronic Warfare (I&EW) Technical Warrant Holder (TWH).

LaFreniere is married to his wife of 27 years. His hobbies include gardening, cycling and hockey and he holds a B.S. in mechanical engineering from Rutgers University, a M.S. in mechanical engineering from UConn, and a Ph.D. in Applied Mechanics, also from UConn.

# Danielle C. McGeary

**BIOMEDICAL ENGINEERING, B.S. 2007, M.S. 2009**

Danielle McGeary was named The Association for the Advancement of Medical Instrumentation's (AAMI) first Vice President of Healthcare Technology Management in 2018. McGeary's primary role at AAMI is to spread awareness about the Healthcare Technology Management (HTM) field and how essential HTM professionals are to the safe and effective delivery of patient care in healthcare. Her priorities also include bolstering the number of qualified HTM professionals and strengthening—and elevating—the field in general.

McGeary holds a bachelor's and master's degree in biomedical engineering from the University of Connecticut. She is a certified Project Manager and Healthcare Technology Manager, has authored and contributed to numerous articles that have appeared in AAMI's journal *BI&T* and the *Journal of Clinical Engineering*, and has served as president, vice president, and webmaster for the New England Society of Clinical Engineering for over ten years.

Prior to working at AAMI, McGeary was the Northeast Clinical Engineering District Manager for Aramark Healthcare Technologies from 2017-2018, Director of Clinical Engineering for the VA Boston and Bedford Healthcare Systems from 2012-2017 and the Equipment Planner and Clinical Engineer for Hartford Healthcare from 2008-2012. McGeary—who grew up in a small town in Massachusetts that boasts the longest named lake in the world, Lake Chargoggagoggmanchauggagoggchaubunagungamaugg—now resides in Foxboro, Massachusetts, has a one-year-old daughter, and is an avid runner and tennis player.


# Tina M. Morrison

**MECHANICAL ENGINEERING, B.S 2001, M.S. 2002**

Dr. Tina Morrison is currently the deputy director of the Division of Applied Mechanics in the U.S. Food and Drug Administration's Office of Science and Engineering Laboratories.

During her 12 years at the FDA, Morrison has been working to advance the role of computer modeling and simulation in medical device design and product evaluation. She chairs the FDA Modeling and Simulation working group and advises the Center for Devices and Radiological Health on simulation research and policy efforts. Additionally, Tina has led the development of pathways for enhancing modeling credibility and acceptance. For instance, she led the development a verification and validation standard for ASME, which culminated in 2018 with the first-ever set of evaluating procedures for computational modeling of medical devices, the ASME V&V 40 standard. Because of these efforts, Morrison was selected as the 2019 Federal Engineer of the Year for the FDA.

She chairs the ASME Verification and Validation Committee and is an associate editor for the *Journal on Verification, Validation and Uncertainty Quantification.* She is a mechanical engineer who completed a postdoctoral fellowship at Stanford University in cardiovascular biomechanics, earned her Ph.D. in theoretical & applied mechanics from Cornell University, and her M.S. and B.S. in mechanical engineering from the University of Connecticut.

# Eric B. Reed

**ELECTRICAL ENGINEERING, B.S. 1991, M.S 1995**

Eric Reed is the Senior Vice President for Information Technology at Cigna, leading the Global Infrastructure Services Group responsible for cloud services, application production support and infrastructure for Cigna and Express Scripts.

Prior to joining Cigna, Reed spent almost twenty-five years in engineering/product development and IT in a variety of businesses at GE. Reed joined GE's Edison Engineering Program in 1991 at GE Electrical Distribution and Control. In 1993, he progressed through a variety of technical and technology leadership roles, eventually leading all of engineering systems at GE Consumer & Industrial.

Reed joined GE Capital Corporate Financial Services in 2006 as the IT Managing Director for Marketing and Sales as well as Business Intelligence and Enterprise Architecture. He was then promoted to Chief Technology Officer (CTO) of GE Capital Solutions in 2008 and then CTO of GE Capital Americas in 2009. Reed was promoted to CTO of GE Capital in 2011 and Senior Vice President/CTO of GE Capital in 2013, where he led the centralization of infrastructure services as well as the development and adoption of private cloud.

Reed holds both B.S. and M.S. in electrical engineering from UConn. He is Six Sigma Green Belt and Master Black Belt certified and holds four patents.

# Kenneth D. Taylor

**ELECTRICAL ENGINEERING, B.S. 1971**
**BIOLOGICAL ENGINEERING, M.S 1974, Ph.D. 1981**

Dr. Kenneth Taylor earned a B.S. in electrical engineering in 1971, an M.S. and Ph.D. in biological engineering in 1974 and 1981, all from UConn. He also has a MBA from Rensselaer Polytechnic Institute and is a Registered Professional Engineer in the State of Connecticut.

After starting his career in the medical device industry, he spent 10 years at United Technologies Research Center (UTRC) working on a variety of projects ranging from automated gait analysis systems to non-destructive evaluation sensors.

After UTRC, he led the Technology Assessment Group at Pfizer Medical Devices and later joined Valleylab as VP, Research and Development. At Valleylab, he and his research team developed an RF-based vessel sealing system (Ligasure). The Ligasure system is used in a wide variety of medical procedures and can significantly reduce blood loss and procedure time.

He was also President, Colorado Operations, for Colorado MEDtech which provided custom design, development and manufacturing services, in-vitro diagnostics and therapeutic medical devices, medical software and MRI subsystems. He also served as the VP of Research and Development at Conmed Advanced Energy and was responsible for the development of a number of RF-based products.

During the course of his career he has taught medical imaging, biomedical instrumentation, and product development design at UConn, the Hartford Graduate Center and the University of Colorado (Boulder).

Currently he is President of Taylor Medical Technology and Consulting, an independent medical device product and technology development consulting business. Taylor is a life member of the Institute of Electrical and Electronics Engineers (IEEE) and a member of Sigma Xi and Tau Beta Pi.

# Hui Xu

**CHEMICAL ENGINEERING, Ph.D. 2005**

Dr. Hui Xu is currently Technical Director of Energy Conversion Materials at Giner, Inc., located in Newton, Massachusetts. In his capacity, he manages a group of 16 scientists and engineers, and oversees components design and system development for a variety of energy technologies including low or high temperature fuel cells, water electrolyzers, $CO_2$ conversion, $NH_3$ production, and high-energy solid-state batteries.

He is the principal investigator of multiple projects funded by the Department of Energy, Department of Defense, NASA, Department of Agriculture and industrial partners, worth $25 million. Xu is the receipt of Jose Giner Innovation Award in 2016 for developing high temperature alkaline water electrolysis technology. He was named a "Top Ten Innovator" by Innovation for Cool Earth Forum in 2018 for research on electrochemical ammonia synthesis coupled with renewable energy.

Xu is a recognized electrochemical technology innovator and has more than eighteen years of experience in electrode design, electrolyte development and electrochemical interface engineering. He has published nearly forty peer-reviewed papers and filed five patents. He is the executive member of Energy Technology Division (ETD) of the Electrochemical Society (ECS) and has initiated a dozen influential symposia for the ECS.

Xu earned a Ph.D. in chemical engineering from the University of Connecticut, pursued his postdoctoral studies at Los Alamos National Laboratory, and worked for Fuel Cell Energy, Inc. prior to joining Giner.

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We welcome your insight!

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