

Fall Gala

Fall Gala

CARING & SHARING

The Westin Southfield Detroit

smes



Welcome
Welcome

November 10, 2021

Evening Program

WELCOME REMARKS

Robert "Bob" Willig
SME Executive Director & CEO

OPENING REMARKS

Michael D. Packer, FSME
2021 SME President

AWARDS PRESENTATION

2021 Geoffrey Boothroyd Outstanding
Young Manufacturing Engineers

2021 M. Eugene Merchant Manufacturing
Medal of ASME/SME

2021 SME Excellence in
Manufacturing Training Award

SWEARING-IN CEREMONY

SME Officers and Newly Elected
International Directors

SME Education Foundation Officers and
Newly Elected International Directors

SME Member Council

DINNER SERVICE

FELLOWS PRESENTATION

2021 Class of SME Fellows

OUTGOING RECOGNITION

SME Education Foundation
President and Director

SME Member Council
Chair and Representatives

SME International Directors

2021 SME President

SPECIAL PRESENTATION

Dianne Chong, PhD, FSME, NAE
2022 SME President

CLOSING REMARKS

Robert "Bob" Willig
SME Executive Director & CEO



2021 Geoffrey Boothroyd Outstanding Young Manufacturing Engineers

In 2021, 14 Geoffrey Boothroyd Outstanding Young Manufacturing Engineers, age 35 or younger, are being recognized for their exceptional contributions and accomplishments in the manufacturing industry. Each year, the award is named in honor of a specific individual who has made lifelong contributions to manufacturing and SME. The 2021 award namesake is University of Massachusetts Professor Geoffrey Boothroyd, PhD, FSME, and founder of Boothroyd Dewhurst Inc.



Ethan Hughey

Powertrain Manufacturing Process Lead Engineer
Ford Motor Co.
Royal Oak, Michigan



Hughey is a manufacturing process lead engineer for crankshaft machining within the Round Parts Organization of Powertrain Manufacturing. In addition to responsibilities for delivering machining line solutions for crankshaft products, in 2020, he volunteered to support Project Apollo and the COVID-19 mask manufacturing efforts. Hughey holds two patents related to minimum quantity lubrication tooling technology. He holds a master's degree in engineering management from the University of Michigan Dearborn and a bachelor's degree in mechanical engineering from The Pennsylvania State University.

Outstanding Young Manufacturing Engineers



Miguel Saez, PhD
Senior Researcher
Manufacturing Systems Research Lab
General Motors Research & Development
Warren, Michigan



Saez is a senior researcher for General Motors Research and Development in the Manufacturing Systems Research Lab. In his current role, Saez is responsible for developing new technology in the field of robotics. His work aims to enable robot-to-robot collaboration to perform vehicle assembly operations using advanced perception and control methods. He holds a bachelor's degree in mechanical engineering from La Universidad del Zulia, Venezuela, a master's degree in automotive and manufacturing and a doctorate in mechanical engineering, both from the University of Michigan, Ann Arbor.

SME Excellence in Manufacturing Training Award

The SME Excellence in Manufacturing Training Award honors a manufacturer that demonstrates an exceptional commitment and dedication to upskilling the workforce, enhancing talent, and preparing new and incumbent employees for a successful career in the manufacturing industry. The ongoing workforce crisis in manufacturing motivated SME to document, celebrate and share best practices with others looking to make talent development a core strategic pillar.

The Boeing Co., and specifically its training arm, Production System Training, is an organization of approximately 300 training professionals who provide complex industrial skills and regulatory required certification training to Boeing's more than 50,000 employees around the globe. Its efforts, tied directly to business results, ensure new employees can perform precision fabrication and assembly work to the quality standards demanded by commercial, military and space programs needed by Boeing to deliver maximum satisfaction to customers and the public.

Within the PST team, standard work roles and responsibilities are defined and maintained to provide a consistent product to production customers. Thousands of courses are reviewed and updated yearly to maintain alignment to the current state of production and needed certifications. Curricula is a blend of online, instructor-led and hands-on learning.



M. Eugene Merchant Manufacturing Medal of ASME/SME

The M. Eugene Merchant Manufacturing Medal of ASME/SME is awarded to an individual who has had significant influence and responsibility for improving the productivity and efficiency (either by research or by implementation of research) of the manufacturing operation(s). This award was established in 1986 in honor of 1976–77 SME President M. Eugene Merchant.



K. Scott Smith, PhD, FSME
Group Leader for Intelligent Machine Tools
Oak Ridge National Laboratory
Knoxville, Tennessee



Smith leads Oak Ridge National Laboratory's advanced machining and machine tool research, focusing on developing systems, processes, sensors and controls. Prior to joining ORNL, he was a professor and chair of mechanical engineering at the University of North Carolina at Charlotte. Preceding Smith's work at the University of North Carolina, he served as the assistant director for technology at the U.S. Advanced Manufacturing National Program Office. Smith holds 11 patents, is one of 17 U.S. fellows of the CIRP (International Academy for Production Engineering), and in 2008, he was elected to the 2008 SME College of Fellows. Smith earned a doctorate in mechanical engineering from the University of Florida where his research focused on the dynamics of machine tools, vibrations and machine design.

2021 CLASS OF SME FELLOWS



RECIPIENTS are being honored this evening as key contributors to the social, technical and educational progress of manufacturing.

From the earliest stages of research and innovation through production application and implementation, SME Fellows are at the creative forefront of manufacturing. In addition, through teaching, leadership and guidance, they have helped many students and young professionals in their own pursuits of advanced manufacturing degrees and careers in manufacturing.

The 2021 honorees have made technological inroads in the areas of additive manufacturing; lightweight systems; competitive and sustainable manufacturing; data-enabled manufacturing; injection molding, nanocomposites, multifunctional materials, bio-based polymers and tissue engineering; machine tool design and building; and gear and seismic sensor manufacturing.

Sudarsanam Suresh Babu, PhD, FSME

University of Tennessee, Knoxville

Blair E. Carlson, PhD, FSME

General Motors R&D

Kevin Chou, PhD, FSME, PE

University of Louisville

Leslie J. Cohen, PhD, FSME

Cohen Aerospace Consulting

Fuewen "Frank" Liou, PhD, FSME

Missouri University of Science and Technology

Katherine C. "KC" Morris, FSME

National Institute of Standards and Technology

Jianjun Shi, PhD, FSME

Georgia Institute of Technology

Lih-Sheng "Tom" Turng, PhD, FSME

University of Wisconsin-Madison

Bob Winfough, PhD, FSME

Sercel Inc. (*retired*)



Sudarsanam Suresh Babu, PhD, FSME
UT/ORNL Governor's Chair of Advanced
Manufacturing Professor
University of Tennessee, Knoxville
Knoxville, Tennessee



Babu holds the UT/ORNL governor's chair professor in advanced manufacturing at the University of Tennessee, Knoxville and serves in the Department of Mechanical, Aerospace and Biomedical engineering. He has a joint professorship with the Department of Materials Science and Engineering. As a governor's chair, Babu has a joint appointment within Energy Science and Technology Directorate and in the Manufacturing Sciences Directorate at Oak Ridge National Laboratory. He leads basic and applied research in a wide range of additive and other advanced manufacturing processes including product design implications in collaboration with faculty and students at UT as well as with researchers at the Manufacturing Demonstration Facility at ORNL. Babu is also the director of the Bredesen Center for Interdisciplinary Graduate Research and Education. In 2020, he was appointed as a member of the National Science Board by the President of United States of America.



Blair E. Carlson, PhD, FSME
Senior Technical Fellow / Lab Group Manager
General Motors R&D
Ann Arbor, Michigan



Carlson is currently the lab group manager for the Light Weight Systems Manufacturing Group and a senior technical fellow at the GM Global R&D. His current focus is the joining of dissimilar materials. During his 30+ years of experience within GM, Carlson has had assignments in Sweden, Germany and China for both manufacturing engineering and research. Carlson is an industrial board member for the Technical Advisory Committee Member for Solid Phase Processing Science Initiative at Pacific Northwest National Laboratory and a member of the AWS R&D Committee. He is currently a guest research professor at the Shanghai Jiao Tong University and industrial committee member for doctoral students at the University of Michigan and Southern Methodist University. Carlson has contributed to 58 patents and 20 applications (with 15 in production), 113 journal and 66 conference publications.

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Kevin Chou, PhD, FSME, PE
Edward R. Clark Chair of Advanced Manufacturing
Department of Industrial Engineering
Speed School of Engineering
University of Louisville,
Louisville, Kentucky



Chou is the Edward R. Clark chair of Advanced Manufacturing and professor of Industrial Engineering in the Speed School of Engineering at the University of Louisville. He also served as the director of UofL's Additive Manufacturing Institute of Science and Technology from January 2019 to April 2020. Since April 2020, Chou, as a rotator, has been a program director (Advanced Manufacturing) in the Civil, Mechanical and Manufacturing Innovation Division of the Engineering Directorate at the National Science Foundation. His research and teaching interest is in broad manufacturing processes with a recent focus on metal additive manufacturing. Chou's research group has published over 180-refereed publications and been granted three patents. He is the recipient of 2016 SME RAPID Dick Aubin Distinguished Paper Award from SME's Additive Manufacturing Community. Chou is a fellow of ASME and SME.



Leslie J. Cohen, PhD, FSME
President
Cohen Aerospace Consulting
Los Angeles



Cohen is a casual employee of the Aerospace Corp. in the Space Materials Laboratory. He joined HITCO in 2001. Cohen served for 31 years at McDonnell Douglas where he held positions of increasing responsibility in technology operations and business development. As a senior director, Cohen directed all business development at Mental Disability Advocacy Center in the Russian Federation. He has published over 50 papers on advanced composite design and development, is a lecturer in advanced composites and has been awarded the USSR Gold Medal for Science and Technology. Cohen is a foreign member of the Russian Academy of Science, 1992 SME Jud Hall Composites Manufacturing Award winner, is a fellow of SAMPE and SME, and the recipient of the prestigious SAMPE George Lubin Memorial Award.



Fuewen “Frank” Liou, PhD, FSME
Michael and Joyce Bytnar Professor
Director of Manufacturing Engineering Program
Missouri University of Science and Technology
Rolla, Missouri



Liou is the Michael and Joyce Bytnar professor of Mechanical Engineering Department, Missouri University of Science and Technology. He has served as the director of the Manufacturing Engineering Program at Missouri S&T since 1999. Liou has published a book on rapid prototyping and engineering applications, along with over 350 technical papers. He has been the world’s leading researcher for the past two decades in the field of metal additive manufacturing, including hybrid additive and subtractive process integration, path planning, multiscale multiphysics process modeling and additive manufacturing process monitoring and control. Liou realized early on that since additive manufacturing was most suited for expensive parts with complex geometries, these two processes would need to be combined if precision engineering components were to be fabricated. His contributions span the entire range of the field from fundamental academic discovery to industrial implementation. Liou’s research has been funded by AFRL, Army, DOE, DoEdu, NASA, NAVAIR, NSF and many industrial partners. Several related papers have been awarded as the best papers, including “Nature: Scientific Report.” He has received several teaching, research and service awards. Liou received the SME Frederick W. Taylor Research Medal in 2020. He is an ASME and SME fellow.

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Katherine C. "KC" Morris, FSME
Information Modeling and Testing Group Leader
National Institute of Standards and Technology
Falls Church, Virginia



Morris is a research science and technology leader at the National Institute of Standards and Technology. She applies her background in computer science, information modeling and knowledge representation to solve industrial challenges in the manufacturing sector while ensuring that new practices lead to more competitive and sustainable manufacturing. Morris leads an award-winning team that contributes to smart and sustainable manufacturing systems from the shop floor through integration with the enterprise and supply chain. She serves on the executive committee of ASTM International's E60 Committee on Sustainability, is vice-chair of ASTM E60.13 on Sustainable Manufacturing, is a technical expert to ISO TC 184 on Automation systems and integration and serves on the board of directors for the North American Manufacturing Research Institution of SME (NAMRI | SME).



Jianjun Shi, PhD, FSME
The Carolyn J. Stewart Chair and Professor
Georgia Institute of Technology
Marietta, Georgia



Shi is the Carolyn J. Stewart chair and professor in the School of Industrial and Systems Engineering and School of Mechanical Engineering at the Georgia Institute of Technology. Shi's research interests include data-enabled manufacturing, system informatics and control. His methodologies integrate system informatics, advanced statistics and control theory, and fuse engineering systems models with data science methods for design and operational improvements of manufacturing systems. Shi has received numerous awards, including the ASQ Shewhart Medal (2021), NAMRI | SME S.M. Wu Research Implementation Award (2021), the ASQ Brumbaugh Award (2019), IISE David F. Baker Distinguished Research Award (2016) and IIE Albert G. Holzman Distinguished Educator Award (2011). Shi is a fellow of ASME, IISE, INFORMS, ISI, SME, an Academician of the International Academy for Quality and a member of National of Academy of Engineering of the USA.



Lih-Sheng “Tom” Turng, PhD, FSME
Kuo K. and Cindy F. Wang Professor
University of Wisconsin–Madison
Madison, Wisconsin



Turng’s research encompasses injection molding, nanocomposites, multifunctional materials, bio-based polymers and tissue engineering. He has received numerous grants from NSF, DOD, USDA, EPA and NIH. Turng was the principal investigator of four SBIR Phase I and Phase II awards during his tenure in the industry. He holds the Kuo K. and Cindy F. Wang professorship and the Vilas Distinguished Achievement professorship at UW–Madison. Turng is the co-director of the Polymer Engineering Center and Group Leader at the Wisconsin Institute for Discovery, a fellow member of the American Society of Mechanical Engineers and the Society of Plastics Engineers, the recipient of the 2018 Wisconsin Alumni Research Foundation Innovation Award and an Honored Service Member of SPE. Thanks to the hard work of his students and co-workers, Turng has published over 290 journal papers and 250 conference presentations, has 12 best paper awards and 19 patents and patent applications.

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Bob Winfough, PhD, FSME
Vice President, Product Development (*retired*)
Sercel Inc.
Houston



Winfough is recently retired from an enjoyable manufacturing career spanning multiple manufacturing industries, including machine tool design and building, gear and seismic sensor manufacturing. He worked as an equity shareholder for over 40% of his career in small privately held manufacturing companies. Winfough has specialty in drive and axis design, milling process mechanics, sensor development, design and application. Winfough has designed and implemented dynamics solutions in each industry including high-speed, high-power aluminum aircraft milling machines, parallel kinematic machines, a gearless gear shaper and hobbing machines. He has designed implemented tuned and constrained layer dampers, polymer concrete constructions, linear motor systems and high-precision positioning systems positioning to micron accuracy. Winfough is a previous recipient of the 2000 SME Outstanding Young Manufacturing Engineer Award. He has served frequently reviewing journal published papers while authoring more than 20 refereed publications.




Congratulations Congratulations

Since SME's formation in 1932, its esteemed community of presidents have been an important part of the organization's history and an integral part of its future.

SME presidents are leaders in manufacturing and academia who contribute their technical expertise and valuable career experiences to the organization and industry.



Dianne Chong
PhD, FSME, NAE
2022 SME President



For information regarding the SME international Awards & Recognition Program, visit sme.org/awards.

Nominations may be submitted to nominations@sme.org.

The deadline to submit SME Fellows nominations is **Dec. 1 of each year.**

The deadline to submit Honor Awards nominations is **Aug. 1 of each year.**