

Pathways into Engineering

Committee

Dianne Chong

Member

Dianne Chong was vice president of Research and Technology in the Boeing Engineering, Operations & Technology organization, leading special projects that impacted processes and program integration for the Boeing Enterprise. Before this she was the vice president of materials, manufacturing, structures & support, responsible for the development and support of manufacturing processes and program integration. She has also served as director of Materials & Process Technology for Boeing Commercial Airplanes. Dr. Chong was previously director of Strategic Operations and Business for IDS Engineering, where she was the lead director defining and implementing a solid strategy for all Boeing Engineering. She has also been the department head/team leader of MSE, liaison, and process control groups in Phantom Works and Integrated Defense Systems. She has served as the St. Louis representative to Military Handbook 5, where she chaired the aerospace users' group and titanium casting group. She has been a member of the National Materials Advisory Board and ASM International board of trustees, and was president of ASM International in 2007–2008. She is currently a member of the Minerals, Metals & Materials Society (TMS), American Institute of Aeronautics and Astronautics (AIAA), ASM International, Society of Manufacturing Engineers (SME; where she serves on the board of directors), Society of Women Engineers (SWE), Beta Gamma Sigma, and Tau Beta Pi. In addition to being a fellow of ASM International and SME, she has been recognized for managerial achievements, as a diversity change agent, and as an outstanding alumna of the University of Illinois (2006). She has received numerous technical and diversity awards. Dr. Chong received bachelor's degrees in biology and psychology, master's degrees in physiology and metallurgical engineering, and a PhD in metallurgical engineering, all from the University of Illinois at Urbana-Champaign. She also completed an executive master of manufacturing management at Washington University.

Tejal A. Desai

Member

Nicholas M. Donofrio

Member

Nicholas M. Donofrio is an IBM Fellow and a 44-year IBM veteran who retired as IBM's Executive Vice President of Innovation and Technology. He was also vice chair of the IBM International Foundation and chair of the board of governors for the IBM Academy of Technology. Outside of IBM, he has been dedicated to education and career advancement for underrepresented minorities and women. He was board chair of the National Action Council for Minorities in Engineering (NACME) from 1997 through 2002, and was on the board of directors for INROADS, a nonprofit that trains minority youth for careers in business and industry. Among numerous other honors, including membership in the NAE, he was awarded the 2003 Rodney D. Chipps Memorial Award by the Society of Women Engineers (SWE).

Daniel Z. Frank

Member

Dr. Daniel Frank is a Lecturer at Arizona State University's Polytechnic campus. He earned his PhD in Mechanical Engineering at the University of Florida in 2018. His dissertation work focused on learning how the Diné (Navajo) understand the experience of making and how that could be leveraged to design a culturally-contextualized makerspace for the Diné community. For over a decade he has been promoting engineering education in Native American communities such as the Navajo Nation. He currently volunteers with the Si Se Puede Foundation where he mentors students primarily from populations that are traditionally marginalized in the engineering field.

Darin Gray

Member

Karen Lozano

Member

Iva Moss

Member

Iva Moss is a PhD Candidate investigating how STEM is embedded into Arapaho culture. She is also an adjunct professor who teaches Native American Studies at Central Wyoming College, and she serves as a teacher-mentor for the Indigenous Knowledge for Effective Education Program at the University of Idaho. Iva is a former STEM educator for School District #38 in Wyoming where she taught both middle and high school students. She was selected as the 2020 National Teacher of the Year by the National Johnson O'Malley Association. Iva holds a master's degree in natural science and middle level mathematics from the University of Wyoming.

Brissa Y. Quiroz-Enriquez

Member

Dr. Brissa Quiroz is the University Relations Lead for Microsoft, providing support to Hispanic Serving Institutions and Historically Black Colleges. Prior to her role at Microsoft, Dr. Quiroz was a full-time Engineering Lecturer and served as the Director of the Valley Industry Partnership for Cooperative Education in the Lyles College of Engineering at Fresno State University. In that role, she developed and supported strategic relationships with agricultural and manufacturing companies throughout California and Central Valley by working to fulfill their employment needs with engineering and construction management student interns. She was the President of the Society of Women Engineers San Joaquin Valley Section and was on the Board of Directors for the ASEE Corporate Industry Partnership Division. Dr. Quiroz has a BS degree in Industrial Engineering from The University of Texas at El Paso (2002), an MS degree in Industrial Technology from California State University, Fresno (2004) and a PhD in Environmental Science and Engineering from The University of Texas at El Paso (2013).

Mike Soltys

Member

Mike Soltys is an engineer, educator, and data scientist. He has a diverse skill-set focusing on product design and prototyping, including CAD, Arduino microcontrollers, Raspberry Pi, Basic Manufacturing (Lathe/Mill), 3D printing, Laser cutting, and JavaScript web programming. He is also an expert in experimental system design, statistics and data analysis, laser induced fluorescence, and image processing.

Dr. Soltys is an instructor for the Engineering Plus degree program at the University of Colorado Boulder, where he serves as part of the Teach Engineering team to develop engineering-related curriculum targeting K-12 students. Mike holds a Ph.D. in engineering from the University of Colorado and has an extensive background in research and experimental design. During his time in graduate school, Mike worked for three years with an NSF-funded program to teach engineering design at the high school level. He is passionate about engineering education at all grade levels, and is a leader in bringing engineering education research into practice at CU. He is also interested in broadening participation, and in addition to other outreach he conducts lab demos 2-3 times yearly for the BOLD (Broadening Opportunity through Leadership and Diversity) Center targeting women and minority students.

Paula G. Todd

Member

Paula Garcia Todd has made significant contributions in drug delivery through her work at Dow Chemical, DuPont, and now as Global Strategic Manager at IFF (International Flavors & Fragrances). Over the past decade she has also volunteered on boards and organizations focused on increasing the number of female and under-represented students in STEM fields, especially engineering. She has developed new K-12 programs and has been active in diversity, equity, and inclusion advocacy within industry, working through women's and Latinx employee resources groups. In 2019, she was named a AAAS IF/THEN® Ambassador by the American Association for the Advancement of Science for her devoted work in STEM outreach. She holds a Bachelor of Science and Master of Science in Chemical Engineering from the Pennsylvania State University.

Sarah Vigmostad

Member

Stephanie Lynn H. Zeiger

Member

Bunmi A. Esho

Co-Chair

Bunmi Esho is Vice President of Programs at the Endless OS Foundation (EOSF), a global nonprofit focused on digital equity, and Advisor to STEM Next Opportunity Fund's Family Engagement Project. Prior to that, Bunmi was Director of Strategic Partnerships at Techbridge Girls, leading the strategy for building national partnerships and served as the California Executive Director, leading program operations, fundraising and strategic planning for the California region. She has nearly 20 years of experience in the corporate, nonprofit and education sectors, in the United States and abroad, focusing on the critical intersection between community, education and STEM. Her community leadership roles have included Education Co-Chair at Full Circle Fund, RightOn! Education Advisor and 4.0 Angel Syndicate. Bunmi holds degrees in chemical engineering and education.

Sharon L. Nunes

Co-Chair

Dr. Sharon Nunes retired from IBM in 2012 after spending 28 years in several areas of IBM's businesses: Research, Development, Manufacturing, CHQ, Business Development and Sales. During her career, Sharon helped to launch two global businesses for IBM: Life Sciences (2001), and Big Green Innovations (2006) which became one of the cornerstones of IBM's Smarter Planet program. Sharon merged her background in Materials Science and Engineering, with her knowledge of Information Technology to anticipate new business needs and convince her superiors to invest in new growth areas for the business. Together with clients and partners, Sharon's mission at IBM was to demonstrate how information technology played a critical role in helping to solve the world's problems. At IBM, Dr. Nunes held numerous executive positions, but is most proud of the recognition she received for mentoring women and early-career employees. In 2004, she was awarded IBM's Fran Allen Mentoring Award and in 2006 was named a National Association of Female Executives (NAFE) "Women of Excellence" national award winner for her impact in mentoring technical women. In 2009, Sharon was recognized as a Women's History Month Honoree as one of the "Women Taking the Lead to Save our Planet" and was inducted into the WITI (Women in Technology International) Hall of Fame. While at IBM, Sharon was a leader in the IBM Global Women's Council and co-chair of the global "Women in Technology" committee at IBM. Dr. Nunes received her Ph.D. in Materials Science in 1983 from the University of Connecticut. She has held numerous board positions over the past fifteen years and is currently an emeritus member of the Board of Directors for the University of Connecticut Foundation, a member of the Engineering Advisory Board at the University of Connecticut and a member of the Project Advisory Board for Idaho's "Managing Idaho's Landscapes for Ecosystem Services" NSF EPSCoR Research Infrastructure Improvement award.

Katherine L. Shirey

Co-Chair

Monica Gomez

Ex Officio Member