

Issues at the Intersection of Engineering and Human Rights: A Symposium

Committee

Charles F. Bolden, Jr.

Co-Chair

The Honorable Charles F. Bolden, Jr. is the Founder & CEO Emeritus of The Charles F. Bolden Group LLC. After being nominated by President Barack Obama and confirmed by the U.S. Senate, he became the twelfth Administrator of NASA from 2009 to 2017. As NASA Administrator, he oversaw the transition from the Space Shuttle program to a new era of space exploration focused on the International Space Station and technology development. During his 14 years as an astronaut, he logged more than 680 hours in space during four space shuttle missions, twice as commander and twice as pilot. After graduating from the United States Naval Academy in 1968, Bolden was commissioned as a second lieutenant in the Marine Corps then promoted to his final rank of major general in July 1998. He also served as Deputy Commander of U.S. Forces in Japan and later as Commanding General of the 3rd Marine Aircraft Wing at Marine Corps Air Station Miramar in San Diego, California, from 2000 to 2002 before retiring from the Marine Corps in 2003. One of his professional research interests is using aeronautics and space exploration to inspire today's students to become tomorrow's leaders who can foster collaboration between government, academia, and the private sector, as well as increased international cooperation in addressing the most pressing challenges facing humanity. Bolden earned a B.S. degree from the U.S. Naval Academy in electrical science in 1968 and a M.S. in Systems Management from the USC in 1977. He was elected to the NAE in 2020 and is currently co-chair of NAE's CESER Advisory committee alongside serving as a member in numerous other engineering boards and committees.

Colleen (Betsy) Elisabeth Popken

Co-Chair

Betsy Popken is the Executive Director of the Human Rights Center at UC Berkeley School of Law. She leads a team conducting a human rights impact assessment and model evaluation of large language models, directs HRC's Climate Justice program, and spearheads HRC's work on international peace negotiations. She teaches courses at Berkeley Law on Technology & Human Rights and International Peace Negotiations. Betsy is regularly interviewed by technology companies conducting due diligence to assess the human rights risks of their products and services. She has written and speaks extensively on the intersection of AI and human rights. Betsy co-founded and co-led the Business & Human Rights practice at the law firm Orrick, Herrington & Sutcliffe LLP, where she helped clients tackle human rights issues raised by emerging technologies. Betsy worked on United Nations-mediated peace and ceasefire negotiations in Darfur, Syria, and Yemen through the Public International Law & Policy Group, where she led work supporting the Syrian opposition negotiation team in peace negotiations in Geneva. Betsy previously served on the World Economic Forum's Responsible Use of Technology Steering Committee and taught at Stanford Law School. Betsy received her J.D. from USC, her LL.M. from the London School of Economics (LSE), and her B.A. from UCLA.

Davis Chacón-Hurtado

Member

Davis Chacón-Hurtado is an Assistant Professor in the Department of Civil and Environmental Engineering and the Human Rights Institute at the University of Connecticut. He co-directs the Engineering for Human Rights Initiative, which aims to promote and advance interdisciplinary research in engineering with a focus on societal outcomes and to develop a curriculum at the intersection of human rights and engineering. Before his current role, Dr. Chacón-Hurtado worked as a Civil Engineer in the design and construction of infrastructure aimed at advancing social and economic development in rural areas of the Andean region of Peru. His research interests include transportation equity, environmental justice, human rights, engineering education, and economic resilience. Dr. Chacón-Hurtado grew up in Cusco, Peru, where he obtained his B.S. in Civil Engineering at the University of San Antonio Abad of Cusco. He completed his Ph.D. in Transportation and Infrastructure Systems at Purdue University and earned an MSCE degree from the University of Puerto Rico at Mayagüez, where he worked on incorporating community preferences into infrastructure designs as part of a project focused on Appropriate Technology.

Glen T. Daigger

Member

Glen T. Daigger is a Professor of Engineering Practice at the University of Michigan and President and Founder of One Water Solutions, LLC, a water engineering, and innovation firm. He has previously served as Senior Vice President and Chief Technology Officer for CH2M HILL (now Jacobs) for 35 years, and as Professor and Chair of Environmental Systems Engineering at Clemson University. Actively engaged in the water profession through major projects, and as author or co-author of more than 200 technical papers, five books, and several technical manuals, he has advised many of the major cities of the world. He is a Distinguished Member of the American Society of Civil Engineers (ASCE), a Distinguished Fellow of IWA, and a Fellow of the Water Environment Federation (WEF). Dr. Daigger received his B.Sc.E. degree, his M.S.C.E. degree, and his Ph.D. degree, all in environmental engineering, from Purdue University. A member of several professional societies, Dr. Daigger was elected to the National Academy of Engineering in 2003 and the Chinese Academy of Engineering in 2019. He has participated in numerous NAE advisory groups, roundtables, and committees related to urban sustainability and water and environmental research systems.

Wesley L. Harris

Member

Wesley L. Harris is Charles Stark Draper Professor of Aeronautics and Astronautics at the Massachusetts Institute of Technology (MIT), where he was previously associate provost (2008-2013) and head of the Department of Aeronautics and Astronautics (2003-2008). Dr. Harris is former Head of Aero Astro, became the very first Director of MIT's Office of Minority Education, and most recently served as the Associate Provost for Faculty Equity. In addition to numerous teaching and administrative duties since, he has been a champion of diversity efforts at the Institute. His contributions include creating methods for measuring and improving student achievement and initiating programs that meet the needs of black students. Before coming to MIT, he was a NASA associate administrator (1993-1995); vice president and chief administrative officer of the University of Tennessee Space Institute (1990-1993); and dean of the School of Engineering and professor of mechanical engineering at the University of Connecticut, Storrs (1985-1990). Dr. Harris has done academic research associated with unsteady aerodynamics, aeroacoustics, rarefied gas dynamics, sustainment of capital assets, and chaos in sickle cell disease, and made seminal contributions in each field. He earned a Bachelor of Science degree (with honors) in aerospace engineering from the University of Virginia in 1964, and master's and PhD degrees in aerospace and mechanical sciences from Princeton University in 1966 and 1968 respectively. He was elected to the National Academy of Engineering in 1995 and currently serves as Vice President of NAE and a Member of the Committee on Human Rights of the NAS, NAE, and NAM. He has also served on numerous National Research Council committees and councils since 1989 such as The National Associates Program, Executive Committee of the NAE Council, Governing Board of the National Research Council, NAE Awards Committee.

Deb A. Niemeier

Member

Deb Niemeier is the Clark Distinguished Chair in Energy and Sustainability at the University of Maryland, College Park; she serves as a professor in the Dept. of Civil and Environmental Engineering and an affiliate professor in the College of Information Studies and the Dept of Atmospheric and Oceanic Science. Her research focuses on the identification of vulnerable populations and environmental/health disparities in the built environment. She studies risks associated with outcomes in the intersection of social and demographic characteristics, housing and infrastructure with environmental hazards such as air quality, disasters, and more broadly climate change. She is currently serving as co-chair of the Advisory Committee to the US Global Climate Research Program. She is a Fellow of the American Association for the Advancement of Science (AAAS) for “distinguished contributions to energy and environmental science study and policy development;” a Guggenheim Fellow for foundational work on pro bono service in engineering and a member of the National Academy of Engineering. She was elected to the American Philosophical Society in 2020. She recently received the Perry L. McCarty Founders Award (2022) and 2023 Bower Award and Prize for Achievement in Science.