Organizing Committee

Ali Mirchi (Co-Chair)
Associate Professor of Water Resources Engineering
Oklahoma State University
Stillwater, Oklahoma
United States

Dr. Ali Mirchi is an Associate Professor of Water Resources Engineering in the Department of Biosystems and Agricultural Engineering at Oklahoma State University, U.S. He holds a Ph.D. in civil engineering from Michigan Technological University, a Master's in water resources from Lund University, and a B.S. in civil engineering-water resources from the University of Tabriz. He applies systems modeling techniques—including system dynamics simulation and watershed hydrologic modeling—to advance the understanding of coupled human-natural systems at different scales, with the goal of deriving policy insights that promote water sustainability. Dr. Mirchi is currently involved in research projects in the U.S. and the MENA region, investigating adaptive water resources management strategies in response to population growth, competing demands, and climatic extremes. He serves as an associate editor for the Journal of Water Resources Planning and Management and Earth's Future.

Monica C. Santa-Maria (Co-Chair)
Director of the Research Directorate
Professor in the Department of Civil and Environmental Engineering
University of Engineering and Technology (UTEC)
Lima, Peru

Dr. Monica C. Santa-Maria holds a B.S. and Professional Degree in Biology/Biotechnology from La Molina National Agrarian University (Lima, Peru). She received a Fulbright Scholarship to pursue doctoral studies in the USA. She obtained her PhD from North Carolina State University in topics related to biotechnology, where she was awarded Phi Kappa Phi Honor Society membership for Academic Excellence. She conducted postdoctoral work in the Biological and Agricultural Engineering Department at the University of California in Davis. Upon returning to Peru, she worked as research associate and visiting scholar at La Molina National Agrarian University, collaborating with the Graduate School in Biological Engineering. At the same time she co-founded and was Director of Biotecnologia de Alimentos SAC, a Biotech Company in Lima, until 2019, when she joined UTEC to manage the Research Directorate and become a Professor in the Department of Civil and Environmental Engineering. Dr. Santa-Maria's expertise is in molecular

biology, genetics, genomics and biological systems engineering. Her research currently focuses on using cellulose-based biopolymers for environmental applications, treatment of contaminated waste and effluents using biological systems, environmental monitoring using DNA-based methods, and measuring biological entities in wastewater (wastewater-based epidemiology). She has produced several publications, patents, and has received various awards throughout her career.

Zulma M. Cucunubá
Assistant Professor of Infectious Disease Epidemiology
Pontificia Universidad Javeriana
Bogotá, Colombia

Dr. Zulma M. Cucunubá is an Assistant Professor of Infectious Disease Epidemiology at Pontificia Universidad Javeriana in Bogotá, Colombia, and an Honorary Lecturer at the MRC Centre for Global Infectious Disease Analysis at Imperial College London. She holds a medical degree, a master's in public health, and a PhD in infectious disease epidemiology, with postdoctoral training at the Vaccine Impact Modeling Consortium and the MRC Centre for Global Infectious Disease Analysis at Imperial College London, UK. Dr. Cucunubá's research focuses on using statistical and mathematical models to understand the spread of infectious diseases and assess the impact of interventions, particularly in Latin America. Her work spans a range of infectious diseases, including COVID-19, vector-borne diseases such as Chagas, malaria, dengue, chikungunya, Zika, emerging pathogens, and vaccine-preventable infections. Her research has been instrumental in informing decision-making processes across the Latin American region. As a co-leader of the Epiverse TRACE-LAC initiative, Dr. Cucunubá is dedicated to developing open-source software, conducting analytics, and delivering training programs to support public health responses to crises. She has made significant contributions to the development and validation of models for various vector-borne and vaccine-preventable diseases. Dr. Cucunubá is also actively engaged in global health initiatives, collaborating with organizations such as the Pan American Health Organization (PAHO), the World Health Organization (WHO), and global modeling consortia, including the Vaccine Impact Modeling Consortium (VIMC) and the NTD Modelling Consortium (NTD-MC). She is a member of the Lancet Commission for Strengthening Modelling and the WHO Pandemic Hub Collaboratory Technical Advisory Group (CTAG).

Cristián Escauriaza
Associate Professor of Hydraulic and Environmental Engineering
Pontificia Universidad Católica de Chile
Santiago, Chile

Cristián Escauriaza is an Associate Professor of Hydraulic and Environmental Engineering at the Pontificia Universidad Católica de Chile and during 2023-2024 he has been the Shimizu Visiting Professor in the Department of Civil & Environmental Engineering at Stanford University. He received his PhD from the University of Minnesota and a MSc from the Georgia Institute of Technology. Cristián's research focuses on the study of complex flows in nature for a wide range of scales, and on the characterization of transport processes in engineering and earth sciences, including sediment transport and morphodynamics, via numerical simulations, nonlinear dynamics, and statistical analyses. He is associate researcher of the Center for Integrated Disaster Risk Management (CIGIDEN) and scientific leader of the marine energy center MERIC. He serves as associate editor of the Journal of Geophysical Research-Earth Surface and the ASCE Journal of Hydraulic Engineering.

Guadalupe G. González
Professor
Technological University of Panama
Panama City, Panama

Dr. González is Panamanian, a graduate of the Technological University of Panama, where she obtained a bachelor's degree in Electromechanical Engineering. Additionally, she holds a PhD in Electrical Engineering from Texas A&M University. From 2019 to 2024, Dr. González served as the Director of Electricity at the National Energy Secretariat, where she was responsible for developing and implementing energy policies in Panama, specifically those related to the electricity sector. In this role, Dr. González represented Panama in various organizations, including serving as a deputy member of the Regional Electricity Market Director's Council (CDMER), a deputy member of the Council of Ministers of Energy of the Central American Integrated System (SICA), a member on the Latin American Energy Organization (OLADE) Board of Experts, and a technical expert for IRENA.

She is an energy specialist consultant and professor in the Faculty of Electrical Engineering at the Technological University of Panama (UTP), where she also directs the SMARTS-E Research Program. In addition to her daily work, Dr. González is a member of scientific associations such as the Panamanian Committee of the World Energy Council, where she is part of the Board of Directors. She is also a senior member of the IEEE (Institute of Electrical and Electronics Engineers) and has volunteered in various roles within the IEEE Panama Section and internationally. Currently, she serves on the IEEE Power & Energy Society board as a representative for Latin America and the Caribbean. Her areas of interest include energy policy and regulation, energy planning, electric mobility, distributed generation, smart cities, women's empowerment in the energy sector, sustainable engineering, renewable energy systems, and energy system modeling. Dr. González has published multiple articles in indexed journals and conference proceedings at the national and regional levels.

Miguel González Mendoza
Associate Professor
Tecnológico de Monterrey
Monterrey, México

Miguel González Mendoza holds a BSc in Electronics from Tecnologico de Monterrey, Mexico, MSc and PhD degrees in Artificial Intelligence from the Institut National des Sciences Appliquées (INSA) in Toulouse, France. Interest in Machine Learning, Deep Learning and Computer Vision applications, in which he has advised 16 PhD thesis and 32 Master's Thesis. Author of more than 120 articles in JCR, congresses and book chapters. As consultant, Dr. Miguel Gonzalez has been collaborating in the design of strategy for IT Service Management within HP (2006-2010) and IBM Mexico (2011-2017) and defining cooperation mechanisms in multidisciplinary teams in Science and Technology for cooperation in Information and Communication Technologies between Mexico and Europe (2005-2020). From 1999 to 2004 he was research assistant, then postdoc at the Laboratory for Analysis and Architecture of Systems (LAAS-CNRS) in Toulouse, France. Since 2004, he has been working as professor at the Computer Science Department at Tecnologico de Monterrey. Coordinator of several national research projects (CONACYT) since 2005. Local coordinator of six European Projects FP6, FP7 (2005-2015) and four on H2020 and Horizon Europe (2018-). Currently, Miguel is an Associate Editor of the Computing journal, Springer. Member of the Mexican National Research System, SNI, rank II (Jan 2016), member since 2006. President of the Mexican Society for Artificial Intelligence (2016-2018), Vice-president (2015-2016), Secretary (2011-2014), member of the board since 2008. Regular Member of the Mexican Academy of Sciences (since 2019). Regular Member of the Mexican Academy of Computing (since 2015). Young Scientist at the World Economic Forum for New Champions in Tianjin China in September 2012.

Helena Lage Ferreira
Associate Professor
University of São Paulo
São Paulo, Brazil

Helena Lage Ferreira, veterinarian, virologist, Associate Professor at the University of São Paulo, President of the Brazilian Society for Virology (2023-2024), School Director of the Latin American Biotechnology Center (CABBIO), Consultant for the Poultry Health National Program at the Brazilian Ministry of Agriculture, Livestock, and Food Supply, Sao Paulo State Secretary of Agriculture, and the Ministry of Science, Technology, and Innovation. Her research focuses on animal viruses and their impact on veterinary and public health.

Pedro Rau
Director of the Center for Water Research and Technology (CITA)
Department of Natural Sciences and Mathematics
University of Engineering and Technology (UTEC)
Lima, Peru

Director of the Center for Water Research and Technology (CITA) of University of Engineering and Technology (UTEC). Associate Professor at the Department of Civil and Environmental Engineering and Principal Investigator at CITA. PhD in Hydrology at the University of Toulouse (France). Author of renowned publications in peer-reviewed journals and specialist in topics of Hydroclimatology, Mountain Hydrology, Watershed Hydrology and Hydrological Engineering. Master's degree in Environment at the Institut National Polytechnique de Toulouse (France) and in Water Resources at the National Agrarian University La Molina (Peru). Civil Engineer from the National University of Engineering (UNI) with more than 15 years of professional experience in scientific collaboration projects and engineering consulting related to water resources engineering and management.

Viviana Siless
Full-time professor and Researcher of AI
University Torcuato Di Tella
Buenos Aires, Argentina

Viviana Siless is a full-time professor and researcher of AI at the School of Business at the University Torcuato Di Tella. She obtained her master's degree in Computer Science at the University of Buenos Aires Argentina, and her Ph.D. from the University Paris-Sud/INRIA. She spent 6 years as a postdoctoral fellow at the Martinos Center, MGH, Harvard Medical School. Her research work in computational neuroimaging focused on improving the diagnosis of neurological diseases by using MRI. Her work focused on unsupervised hierarchical clustering, graph matching, multi-modal 3D surface generation, multi-modal registration, and deep learning for data harmonization and vessel generation. Viviana is the CTO and co-founder of Quipu, a startup that aims to improve liquidity in the informal economies of LatAm, specifically Colombia. Quipu utilizes AI for creating credit worthiness evaluations based on alternative data, and blockchain for crowdfunding and disbursement of loans.

Carolina Toranza
Associate Professor in the Forestry Department
University of the Republic
Montevideo, Uruguay

Professor Carolina Toranza is an Associate Professor in the Forestry Department in the Faculty of Agriculture at the University of the Republic, Uruguay. Specializing in ecology, her research focuses on biodiversity, species distribution, and the conservation of native forests, with an emphasis on understanding and mitigating the impacts of global change. Dr. Toranza has conducted extensive research on national biodiversity, climate change, and invasive species in Uruguay, reflected in numerous publications and invited presentations. She also supervises theses and leads research on forest diversity, invasive species control, and riparian forest restoration. Additionally, she is a member of the National Invasive Alien Species Committee, representing the university in national discussions on invasive species.

Jesús M. Velázquez
Associate Professor in the Department of Chemistry
University of California, Davis
Davis, California
United States

Jesús M. Velázquez is an Associate Professor in the Department of Chemistry at the University of California, Davis. He received his B.Sc. in Chemistry from the University of Puerto Rico at Cayey, after which he pursued his doctoral degree in Chemistry at the State University of New York at Buffalo. Prof. Velázquez was a post-doctoral research scientist in the Division of Chemistry and Chemical Engineering at the California Institute of Technology. Since the beginning of his independent career at UC Davis in 2016, he has received multiple prestigious recognitions for his research program, including the University of California CAMPOS Scholar distinction (2016), two separate Scialog Fellowships (2017 and 2020), a National Science Foundation Career Award (2020), Cottrell Scholar Award (2020), the C&EN Talented 12 (2021), APS Stanford R. Ovshinsky Sustainable Energy Fellowship Award (2021), the Camille Dreyfus Teacher-Scholar Award (2022), and the Alfred P. Sloan Research Fellowship (2023). Prof. Velázquez's research and education efforts have been featured in journal special issues such as the Journal of Materials Chemistry Emerging Investigator, I&EC Research's 2021 Class of Influential Researchers Issue, Journal of Chemical Education-Diversity, Equity, Inclusion, and Respect in Chemistry Education Research and Practice as well as Chemistry of Materials "Up and Coming" early career scientist.

Ximena Velez-Zuazo
Marine Molecular Ecologist and Research Associate
Center for Conservation and Sustainability
Smithsonian's National Zoo and Conservation Biology Institute
Lima, Peru

Dr. Ximena Velez-Zuazo is a marine molecular ecologist and research associate at the Center for Conservation and Sustainability within the Smithsonian's National Zoo and Conservation Biology Institute. With over 20 years of experience in conservation projects across Latin America and the Caribbean, Ximena is committed to preserving aquatic ecosystems. She collaborates closely with scientists and stakeholders to implement long-term monitoring programs, aiming to assess and mitigate the impact of port infrastructure on these fragile environments. Her work focuses on identifying best practices and developing science-based solutions for biodiversity conservation, reducing the environmental footprint of development projects, and promoting sustainable infrastructure frameworks. Ximena's expertise in conservation genetics allows her to explore the full scope of marine biodiversity and understand the dynamics of threatened species populations. Ximena has published over 50 scientific and popular articles. She has mentored >30 students and provided training to conservation practitioners from both the private and government sectors throughout Peru and Latin America. Ximena also leads the MarineGEO coastal observatory in Peru and is a member of the IUCN Specialist Groups for sea turtles and sharks.