ASCE INSPIRE 2023
November 16-18, 2023 | Arlington, VA

DAY	TIME/DURATION	EVENT(S)						
Wed Nov 15		Pre-Conference Day - Wednesday, Nov 15						
	8:00am-5:00pm						Renaissance - Studio F | Workshop Next Generation Community Resilience Modeling with IN-CORE (9:00-12pm), John W. van de Lindt & Jong Sung Lee	
	2:00pm-4:00pm	Committee Meeting (Kennedy) - Hyatt Regency Committee on Sustainability 1pm-5pm	Committee Meeting (Jefferson) - Hyatt Regency IRD officially meeting 1-5pm	Committee Meeting (Lincoln) - Hyatt Regency CACC 1pm-5pm	Renaissance Hotel - Studio C | Workshop Design, Selection and Prioritization of Climate Resilient Infrastructure WSP Sponsored	Renaissance - Studio F |Workshop DesignSafe-CI Workshop (1:00-4:00pm)		
	1:00pm-5:00pm	NIST TOUR (Registration Required)						
Thurs Nov 16		DAY 1: Thursday, Nov 16						
	7:00am-7:00pm	Registration Open; Breakfast from 7:30am - 8:15am - Hyatt Regency Independence Foyer						
	8:30am-10:00am	This session will be recorded Washington A Track 2: T21	Potomac 2 Track 1: T11	Potomac 4 Track 6: T61	Potomac 6 Track 3: T31	Conference Theater Track 4: T41	Washington B Track 5: T51	Independence A Track 7: TM
		*Infrastructure Improvement Approaches for Infrastructure Moderator: Kyle McKay	*Natural and Nature Based solutions in the Coastal Environment I Moderator: Cathy Cardno	*Practical Matters Moderator: Radhi Majmudar	*Functional Recovery and Resilience Co-Moderators: Dustin Cook and Keri Ryan	*Working with Federal Agengies for Climate Resilience Moderator: Dan Walker	*Compound Flooding in a Non-stationary World Moderator: Gerarda Shields	Track 7: (Exhibit Hall) TM 9:00am-12:00pm Stand-up Session #1
		Accelerating Use of Hybrid Infrastructure Systems in Water Resources, Kyle McKay, US Army Corps of Engineers (428) Seismic Performance of a Tunnel Under Extreme Environmental Effects, Juan Mayoral Villa, National Autonomous University of Mexico (400) Network Resilience-based Design under Imprecise Probability with Machine Learning Techniques, Yan Shi, Leibniz Universitat Hannover (171) Weighted Rail Network Topological Analysis: Efficiency and Eccentricity, Sherief Elsibaie, University of Maryland (227) Systemic Seismic Risk Assessment of Urban Emergency Response Systems, Astha Poudel, Universite Grenoble Alpes (263)	Ecologically Engineered Solutions for Resilient Port Infrastructure, Jorge Gutierrez Martinez , ECOncrete (042) Incorporating Sea Level Rise in Coastal Infrastructure Design, Scott Douglass, South Coast Engineers (262) Miami-Dade County PROS, Matheson Hammock Park Seawall Project, Melissa Burns, GHD (395) Designing Salt Marsh Landscapes for Flood Protection, Matthew Bilskie, University of Georgia (457) Resilience Implications Where Land and Water Meet, Paul Tschirky, APTIM (456) A Non-stationary, Risk-based Approach for Determining Facility Design Specifications Under Sea-level Rise, D.J. Rasmussen, WSP (362)	The Importance of using the Envision framework during the early planning phase to successfully develop and implement a Sustainability Management Plan, Nikole Meade, Parsons Corporation (115) Lessons from the First Envision Verified Project in the Houston Region, Michael Bloom, 5engineering (127) Arlington County's Flood Risk Assessment Management Plan – Integrating Climate Resilience into Infrastructure Planning, Enrique Lopezcalva, Jacobs (186) Effectiveness risk mitigation actions on reductions in business interruption and long-term recovery: Lumberton, NC case study, Jennifer Helgeson, NIST (494)	Functional Recovery: a Catalyst for Community Resilience, Dustin Cook, NIST (051) Resilient Nonstructural Systems for Fully Resilient Buildings, Keri Ryan, University of Nevada Reno (118)	Best Practices for Measuring & Reporting Sustainability, Resiliency, and Equity Outcomes of Bilateral Infrastructure Law and Inflation Reduction Act Infrastructure Investments, Lisa Woods, Alpha 3 Consulting, LLC (242) Working with Federal agencies to Advance Climate Resilience through Natural Infrastructure: What the Practitioner Needs to Know, Dan Walker, EA Engineering, Science, and Technology, Inc. (517) Mark Osler, NOAA Senior Advisor for Coastal Inundation and Resilience Dan Walker, Ph.D., A.M. ASCE, EA Engineering, Science, and Technology, Inc. (PBC) and U. of Maryland, College Park Panelists: Jeffrey L. Payne, Ph.D., Director, NOAA Office of Coastal Management Janan Reilly, Mitigation Specialist, FEMA Community Infrastructure Resilience Branch Mindy Simmons, Senior Policy Analyst for USACE in Planning Division Kris May, Ph.D., P.E., M. ASCE, CEO/Founder/Principal, Climate Adaptation at Pathways Climate Institute Sam Whitin, CERP, A.M. ASCE, EA Engineering, Science, and Technology, Inc. (PBC) Joel Farrier, P.E., M. ASCE, Regional Director, Burns and McDonnell	Compound Flooding in a Non-stationary World: A primer for practice, Gerarda Shields, New York City College of Technology - CUNY (031) A network lens on the resilience of installations to climate and compound extremes, Auroop Ganguly, Northeastern University (132) Introduction & Background: Needs and Significance for the Manual of Practice for Compound Flooding: Rolf Olsen Hydrodynami Process-Based Models of Compund Flooding: Liv Herdman (video??) Statistical Models of Compound Flooding: Carlo de Michele and Gianfausto Salvadori Linking statistical and process based models: Hamed Moftakhari and Amir AghaKouchak Analysis of Local and changing conditions: Julie Pietrzak and Rolf Olsen Risk and Uncertainty Analysis: Obey and Gerarda Shields A Networked lens on the resilience of installations to climate and compound extremes (a case study): Auroop Ganguly	Please note: All speakers may record their presentation for the ASCE Virtual Library. Information on how to do so can be found on https://ascelibrary.org/conferenc evideoresources.
	10:00am - 11:30am	Reenaissance - Studio C | Workshop Open to all Attendees ASCE PUBs: How to Publish Workshop		Renaissance - Studio F | Workshop | Open to all Attendees Mega City 2070: A Collaborative Exercise in Generating Ideas and Stimulating Conversations on the Distant Future, *Muhammad Amer* (340)				
	10:00am-10:15am	Coffee Break Sponsored by Ducks Unlimited - Indpendence Foyer						
	10:15am-11:45am	This session will be recorded Washington A Track 5: T52	Potomac 2 Track 1: T12	Potomac 4 Track 2: T22	Potomac 6 Track 3: T32	Conference Theater Track 4: T42	Washington B Track 6: T62	
		*Incorporating Future Climate into ASCE Codes and Standards, Carol Considine, Old Dominion University (255) Moderator: Carol Cosidine	*Natural and Nature Based solutions in the Coastal Environment II Moderator: Juan Carlos Lam	*Community Level Hazard and Resilience Modeling Moderator: Louise Comfort	*Applications of Functional Recovery Moderator: Abbie Liel	*Decorbonization of the Built Environment Moderator: Teresa Vangeli, WSP	*Sustainability Education Moderator: Cliff Davidson	
		Determination of Climatic Design Loads in a Nonstationary Future Climate, Sihan Li, RWDI (156) Possible Inclusion of Climate Impacts for Non-Hurricane Wind Speeds in ASCE 7, Frank Lombardo, University of Illinois (158)	Life cycle considerations for Swan Island, Chesapeake Bay, Maryland, Emily Russ, US Army Corps of Engineers (414) Trails as Resilient Infrastructure, Emily Lauderdale and Jeff Ciabotti , Toole Design Group (064) Assessing nature-based coastal flood risk management measures in back bay environments, Candice Piercy, US	Managing wildfire risk in dynamic contexts using sociotechical digital twin and serious games, Kenichi Soga, Louise Comfort, University of Pittsburgh (133) A Socio-Physical Comprehensive Post-Hazard Functionality Model for Buildings, Omar Nofal, Florida International University (138) - not included in email to Louise	Innovations for Improving the Functional Recovery of Buildings after Severe Earthquakes, Justin Marshall, DuraFuse Frames (422) Weighted Freight Rail Network Topological Analysis by Hazardous Commodity Volumes and Population at Risk, Yujie Mao, University of Maryland (010)	Automated Thermal Zoning and Multi-Objective Optimization of Embodied and Operational Energy and Carbon Emission of Buildings, Maryam Abbasi kamazani, Texas A&M University (180) Building back greener: Residential building decarbonization opportunities following floods and other disasters, Linda Waters, University of Maryland	Thought Leadership: The Human in the Engineer, Justin Waples (009) Resilience of School Systems Subjected to Mainshock-Aftershock Earthquake Event, Emad Hassan, Colorado State University (274) Sustainability in the Architectural Engineering	

		Opportunities and challenges for deriving design loads for infrastructure planning based on downscaled climate models, Marie Buhl, University of California Merced (228)	Army Corps of Engineers (259) A Resilient Texas Coastline – Aligning Our Natural and Built Infrastructure for the Future, Chris Levitz, AECOM (323) A Web Application for Assessing Ecological Functions of Riparian Zones, Samantha Wiest, US Army Corps of Engineer; Colton Shaw, Bennett Aerospace (386) St. Johns County, FL Hurricanes Matthew and Irma Fema Emergency Berm Restoration Project, Tom Gillespie, GHD (410) Washington State Ferries Sea-level Rise Vulnerability, Abigail Gertz, Mott MacDonald, LLC. (223)	Validation of Indicators for Community Resilience Assessment Methodology, Donghwan Gu, NIST (088) Coupled agent-based and hazard consequence model for evaluating policies to increase community resilience, Dylan Sanderson, Oregon State University (289) Resilience capacity of civil structures and infrastructure systems, Cao Wang, University of Wollongong (032)	How a medium-sized wastewater utility aims to be the 'Greenest Plant', Emily Corwin, Fairfield-Sisun Sewer District (041) Potential for achieving post-earthquake functional recovery for existing buildings, with lessons for other hazards, Abbie Liel, University of Colorado Boulder (420)	(205) The Many Faces of Embodied Carbon – The Changing Role of Embodied Carbon Calculations Through the Design Stages of Bridge Projects, Dan Bergsagel, Schlaich Bergermann Partner (215) Novel Approaches to Decarbonization in the Built Environment, Emily Kunkel, Thornton Tomasetti (222)	Industry: Lessons Learned from the AEI Build Sustain Community, Kristen Parrish, Arizona State University (301) Resilient Design in Undergraduate Education: Current Practice in US Universities and Recommendations for Improvement, Kyle Kershaw, Rose-Hulman Institute of Technology (435)	
	11:45am-12:00pm	**Transition Break**						
	12:00pm-1:30pm				**INSPRIRE 2023 Opening Luncheon** **Keynote: Pamela Williams, Assistant Administrator, Grant Programs Directorate | Resilience, FEMA**			
	1:30pm-1:45pm	**Transition Break**						
	1:45pm-2:45pm	**This session will be recorded** **Washington A** **Track 6: T63**	**Potomac 2** **Track 1: T13**	**Potomac 4** **Track 2: T23**	**Potomac 6** **Track 3: T33**	**Conference Theater** **Track 4: T43**	**Washington B** **Track 5: T53**	**Independence A** **Track 7: (Exhibit Hall) TA**
		***Federal Leadership in Sustainable and Resilient Infrastructure** **Moderator: Antoinette Quagliata**	***Appraisal of the climate resilience dividend: a catalyst for supporting investments in infrastructure, Rallis Kourkoulis, Grid Engineers (220)** **Moderator: Rallis Kourkoulis**	***Designing Infrastructure for Resilience** **Moderator: Terri McAllister, NIST**	***You cannot unknow this: Climate Wishing** **Moderator: Ann Kosmal** **CHANGE FROM PRINTED PROGRAM**	***Future World Vision's Innovative Approach to Adaptive Future Planning** **Moderator: Muhammad Amer**	***The Engineering Consultant: Responsible Practice – Incorporating SLR in Engineering Design within the Coastal Environments**	**Please note: All speakers may record their presentation for the ASCE Virtual Library. Information on how to do so can be found on https://ascelibrary.org/conferenc evideoresources.**
		U.S.DOT in Action – Policies, Programs, and Practical Strategies for Sustainable and Resilient Transportation Infrastructure, **Antoinette Quagliata, Dewberry** (106)	PANELISTS **Guillermo Franco**, Managing Director, Global Head of Cat Risk Research, Guy Carpenter, USA **Sissy Nikolaou**, Earthquake Engineering Group Leader for the Materials and Structural Systems Division at the National Institute of Standards and Technology (NIST), USA **Petros Lekkakis**, Finacial Advisor and Co Founder, Wavelength Infrastructure, USA **Oceane Keou**, Senior Transport Specialist, The World Bank Group	Designing Infrastructure for Resilience, **Terri McAllister, NIST** (286) Design of Conventional Buildings for Tornadoes: New Requirements in ASCE 7-22 and the 2024 IBC, Marc Levitan, NIST (060)	You cannot unknow this: Climate Wishing, Ann Kosmal, US General Services Corporation (108)	Future World Vision's Innovative Approach to Adaptive Future Planning, **Gerald Buckwalter, Terry Niemeyer**(101) Greenhouse Gas Emissions, Inventories, and Goals – Transportation Agencies Travelling to a Carbon-Free Future, **David Nowak, Dewberry** (090)	The Engineering Consultant: Responsible Practice – Incorporating SLR in Engineering Design within the Coastal Environments, **Paul Carroll, Stantec** (093) Panelists: Paul Carroll (Stantec) Chris Lashley (Stantec) Joe Barsugli (NOAA-CIRES) Tori Tomizcek (USNA)	
	2:00pm-4:00pm	**Renaissance - Studio C |Workshop | Open to all Attendees** **Workshop for Sustainable Leaders, *Alex Rosenheim* (426) (2:00pm-4:00pm)**						
	2:45pm-3:00pm	**Transition/Break**						**Track 7: (Exhibit Hall) TA** **2:45pm-5:45pm** **Stand-up Session #2**
	3:00pm-4:30pm	**This session will be recorded** **Washington A** **Track 5: T54**	**Potomac 2** **Track 1: T14**	**Potomac 4** **Track 2: T24**	**Potomac 6** **Track 3: T34**	**Conference Theater** **Track 4: T44**	**Washington B** **Track 6: T64**	
		***Implementing climate resilience and adaptation** **Moderator: Savina Carluccio**	***Natural and Nature Based Solutions in Practice** **Moderator: Eduardo Parra**	***Infrastructure and Building Model Resilience Studies** **Moderator: Daniel Cox**	***Performance of Communities and Infrastructure under Natural Hazards** **Moderator: Guirong Yan**	***Embodied & Operational Carbon in Climate Adaptation** **Moderator: Chris Senseney**	***Measuring and Asessing Disasters and Risk in Infrastrcucture** **Moderator: Craig Hebebrand**	
		Accelerating implementation of climate resilience and adaptation in the transportation sector, Katie Momber, Savina Carluccio International Coalition for Sustainable Infrastructure (349) Projecting Lower Colorado River Basin Water Deliveries under Future Climate Change, Yuchuan Lai, Tetra Tech Lafayette (047) Modeling Heat Diffusion in Urban Environment using Physics-informed Deep Learning, Chao Fan, Clemson University (159) Quantifying Flood Risks to MnDOT Bridges and Culverts under Climate Change – Dodge County Case Study, Christopher Dorney, WSP and Kristoffer Langlie, MN DOT (418)	REEFS: Reef Engineering to Enhance Future Structures, Borja Reguero, University of California Santa Cruz (086) Implementing a Nature-Based Shoreline Resilience Design at Heron's Head Park, Erica Petersen, Port of San Francisco (161) A Sustainable and Resilient Approach for Beach Restoration and Coastal Planning – Challenges and Opportunities for Caribbean Beach Tourism, Felix Juzgado, Geosyntec Consultants, Inc. (254) Nature-based design for resiliency purposes – Case Study: using bivalves to decrease scour in place of traditional means, Joanna Quiah, Burns & McDonnell (396) Large-Scale Physical Model to Quantify Overtopping Performance of Hybrid Green-Gray Coastal Infrastructure, Margaret Libby, Oregon State University (421)	Model-data validation and uncertainty quantification of the IN-CORE and HAZUS-MH damage models for buildings impacted by Hurricane Ian (2022) at Fort Myers Beach, Florida, Mehrshad Amini, Oregon State University (512) Registered Follow-Up w Amini Tool to Model Water Supply Outage and Restoration, ~~Sina Naeimi~~, Rachel Davidson, University of Delaware Newark (231) Equity Considered Infrastructure Retrofitting for the Electric Distribution Network, Abigail Beck, University of Illinois (028) A Practical Framework for Infrastructure Resilence, Ahmet Ozman, Black & Veatch Corporation (541)	Coupling of mesoscale model with engineering LES to investigate tornado-community interaction for climate change adaptation, Guirong Yan, Missouri University of Science and Technology (510) Tools Facilitating Climate Change Risk Assessment for Infrastructure, Sarah-Claude Bourdeau-Goulet, Ouranos (080) Hurricane wind performance and vulnerability mitigation strategies for informally constructed houses in Puerto Rico, Abbie Liel, University of Colorado Boulder (102) Longitudinal study of the December 2021 tornado outbreak to validate recovery models, Blythe Johnston, Colorado State University (266) Probabilistic Modeling of Hurricane-Induced Debris Impacts for Coastal Community Resilience Analysis, Kooshan Amini, Rice University (303) Registered	Embodied Carbon Education: Scaling Climate Action Across the Structural Engineering Profession, Michael Cropper, Thornton Tomasetti (248) A Guide to Navigate Environmental Product Declarations of Construction Materials, Laura Micheli, Vulcraft (261) Calculating the Embodied and Operational Carbon Footprint in Concrete Buildings: A Case Study Simulation to Mitigate Carbon Footprint, Mahtab Kouhirostamkolaei (544) Mahtab Kouhi Rostamkolaei, Maryam Kouhirostami???, University of Florida Open wins - How an open approach is critical to efficiently manage carbon in large infrastructure projects, Rodrigo Fernandes, Bentley Systems (550) Translating Organizational Sustainability Commitments into Infrastructure Project Performance Objectives, Actions, and Metrics, Sara Tomashitis, Burns & MacDonnell (275)	Climate Action for Engineers: A Primer on Climate Change Policy and Governance, Adam Eaton, WSP (037) Role of Post-Disaster Federal Payouts on Flood Insurance in the U.S., Arkaprabha Bhattacharyya, Purdue University (183) Barriers to Social Media Use for Disasters within Transportation, Gabriela Yanez Gonzalez, University of Nebraska-Lincoln (229) A Risk-Averse Mitigation Planning Framework for Resilient Communities, Tasnim Faiz, NIST (249) Wholistic Approaches to Sustainable and Resilient Interdependent Infrastructures: Social and Behavioral Measures to Identify and Manage Abrupt Physical System Changes, Rae Zimmerman, New York University (390) Filling gaps in the measurement of community	

					Post-Earthquake Functionality Recovery Models for Highway Bridges in China: A Nationwide Survey Study on Expert Opinions, Xiaowei Wang, Tongji University (135)	Climate change-adapted design for durable and sustainable masonry cavity-wall construction: overview of a transformative research project at McGill University, Lindsay Saad, McGill University (282)	resilience: indicators for physical systems, Maria Dillard, NIST(417)	
	4:30pm-4:45pm	**Transition**						
	4:45pm-5:45pm	**This session will be recorded Washington A Track 3: T35**	**Potomac 2 Track 1: T15**	**Potomac 4 Track 2: T25**	**Potomac 6 Track6: T65**	**Conference Theater Track 4: T45**	**Washington B Track 5: T55**	
		***Climate Change and the Built Environment Moderator: Terri McAllister**	***MAAPnext-Let's MAP A Path Forward for Resilience Moderator: Ataul Hannan**	***Hurricane Policy Support through Integration of Disciplinary Contributions Moderator: Rachel Davidson**	***Embedding ESG into Infrastructure Moderator:Will Peterson**	***Commiting to Decarbonization Moderator: Lauren Alger/Mike Gryniuk**	**ASCE-EWRI Actions to Support Safe and Resilient Infrastructure in the Face of a Changing Climate Moderator: Shirely Clark**	
		From Climate Data to Implementation in Design, **Terri McAllister, NIST** (287) Findings of the Special Project on the Effect of Climate Change on the Built Environment, **Paolo Bocchini, Lehigh University** (258)	MAAPnext-Let's MAP A Path Forward for Resilience, **Ataul Hannan, Harris County Flood Control District** (071)	Hurricane policy support through integration of disciplinary contributions, **Rachel Davidson, University of Delware** (099)	Implementing Organizational Change to Embed ESG in Water Systems, **Emily Corwin, Fairfield-Sisun Sewer District** (459)	Structural Engineers commit to net-zero embodied carbon by 2050, **Michael Gryniuk, Cora Structural; Bianca Augustin, ASCE** (325) Infrastructure 2050, **Lauren Alger, STV Inc.** (292)	ASCE-EWRI Actions to Support Safe and Resilient Infrastructure in the Face of a Changing Climate, **Shirley Clark, Penn State University** (471) **(Contact EWRI staff - mari could participate in this!)**	
	6:30pm-8:00pm	**Opening Reception in Exhibit Hall**						
Friday		**DAY 2: Friday, Nov 17**						
	7:30am-6:30pm	**Registration Open - Independence Foyer**						
	7:30am-8:00am	**Light breakfast - Hall of Inspiration**						
	8:15am-9:45am	**Day 2 - Plenary Session Dr. Rick SPINRAD - NOAA National Climate Assessment 5 (NCA5) Panel**						
	9:45am-10:00am	**Coffee Break Sponsored by GHD Services - Indpendence A**						
	10:00am-11:15am	**This session will be recorded Washington A Track 4: F41**	**Potomac 2 Track 1: F11**	**Potomac 4 Track 2: F21**	**Potomac 6 Track 3: F31**	**Conference Theater Track 6: F61**	**Washington B Track 5: F51**	**Independence A Track 7: (Exhibit Hall) FM**
		***Energy Transformation Moderator: Chuck Hookham**	***Tools to Support Engineering Practice: Guides and Standards Moderator: Alan Scott**	***Adaptation for Future Climate Conditions Moderator: Paolo Bocchini**	***Modeling Complex Systems for Improved Resilience Moderator: Craig Davis**	***Addressing Environmental Justice and Equity Moderator: Jennifer Gora**	***Incorporating Community Perspectives in Resilience and Adaptation Moderator: Shane Crawford and Grace Yan**	**10:00am-1:00pm Stand-Up Session #3**
		Clean, Resilient AND Sustainable Energy - Is This Achievable and By When?, Chuck Hookham, CMS Energy (044) Impacts of energy transformation on coal rail transportation: estimates and projections for the period 2005-2050, Yujie Mao, University of Maryland (061) US Department of Energy (DOE) Strategic Planning, Coordination, and RD&D Priorities for National-Scale CO2 Transport Infrastructure, Kevin Dooley. US Department of Energy (110) Lithium: The Race for North American EV Dominance But at What Cost to the Industry?, Nicholas Albergo, GHD (174) Analytics and Quantification of Risk Tolerance and Attitude in the Economics of Electric Power and Gas Utilities, Bilal Ayyub, University of Maryland (175)	The New ASTM Property Resilient Assessment Guide, What Does It Really Mean for Commercial Real Estate Due Diligence and Climate Change Reporting? Alan Scott, Coastal Risk Consulting, LLC. (055) Towards Performance-Based Design Standards for Engineering With Nature: Emergent Vegetation and Hybrid Systems, Tori Tomiczek, United States Naval Academy (241) Life-cycle Cost Analysis of Urban Stream Restoration, Liya Abera, US Army Engineer Research and Devlopment Center (298) Performance-Based Design Methodology for Emergent Vegetation Systems, Kayla Ostrow, Oregon State University (387)	Planning for Future Conditions: Emerging methods for Decision Making Under Deep Uncertainty and Implementation of Dynamic Adaptive Pathways, Jayantha Obeysekera, Florida International University (173) Abbie Liel, Professor at University of Colorado at Boulder, and chair of the ASCE 7-28 chapter on future conditions (waiting for the abstract) Navigating future uncertainty in coastal multi-hazard risk through spatially sequenced adaptation pathways towards a managed retreat: a New Zealand case study, Rick Kool	Physical-Socio-Economic Systems Integration for Community Resilience-Informed Decision-Making and Policy Selection, Lisa Wang, Colorado State University (119) Accelerating Digital Transformation with Open Standards for Infrastructure, Roger Grant, National Institute of Building Sciences (333) Advancing Flood-Resilient Standards, Design and Construction, John Ingargiola, FEMA (288) Military Installation Resilience in the San Diego Region, Laura Wagner-Bartz and Kevin McKeehan, HNTB Corporation (280) A Framework to Engineer Infrastructure Resilience Through Assessment, Management and Governance, Craig Davis, CA Davis Engineering (125)	Environmental Justice and Community Impact Assessment Practitioner Experiences at State DOTs in the United States, Collin Yarbrough, Southern Methodist University (195) Water Utilities and Equity in Disasters: A Systematic Literature Review, Joseph Toland, University of Illinois Chicago (213) Environmental Justice: Considerations for Future Infrastructure Developments, Eric Sokol, Burns & MacDonell (239) Measuring Resilience in Low-Income and Vulnerable Communities: Case Studies Evaluating the Effectiveness of Resilience Hubs, Denise Smith, Hummingbird Firm (419) Green Gentrification: The Unintended Consequence of Urban Greening, Leo Gianetta and Kyle Waldron, Maracon Oil (484)	Equitable resilience and climate change adaption, Guirong Yan, Missouri University of Science and Technology (452) - Eric Letvin from FEMA - Dr. Jiqiu Yuan from NIBS - Dr. Natalie Enclade from Buildstrong - Dr. Jacqueline Meszaros, Program Director of Disaster Resilience Research Grants (DRRG) - Abigail Rice, DoD Climate Action Team Program Analyst Using time-dependent community recovery data from Hurricane Matthew to inform equitable resilience planning, Shane Crawford (109) Maria Dillard, Ph.D., National Institute of Standards and Technology Leonardo Duenas-Osorio, Ph.D., Rice University Michelle Meyer, Ph.D., Texas A&M University Jennifer Helgeson, Ph.D., National Institute of Standards and Technology	**Please note: All speakers may record their presentation for the ASCE Virtual Library. Information on how to do so can be found on https://ascelibrary.org/conferencevideoresources.**
	11:30am-1:00pm	**Lunch In Hall of Inspiration**						
	11:45am-5:00pm	**Hyatt Regency - Regency Ballroom EF | Workshop | Open to all Attendees ASCE Workshop on Nature-based Solutions**				**Sponsored by EA Engineering, ASCE EWRI, ASCE COPRI, and Committees of the Committee on Technical Advancement**		
	1:00pm-5:00pm	**Technical Tours** **Kingman Island and Co|Hitt Lab**						
	1:00pm-5:00pm	**Renaissance - Studio F | Workshop | Open to all Attendees Developing Sustainable Procurement Guidelines and Policies: An Interactive Workshop, Jennifer Ninete (126)**						

1:00pm-2:00pm	**This session will be recorded Washington A Track 2: F22**	**Potomac 2 Track 1: F12**	**Potomac 4 Track 6: F62**	**Potomac 6 Track 3: F32**	**Conference Theater Track 4: F42**	**Washington B Track 5: F52**	
	*** Open-Source Platforms for Resilience Assessment of Communities and Regions to Natural Hazards (157) Moderator: John van de Lindt**	***Sustainable Infrastructure Planning Moderator: Radhi Majmudar**	***Using Envision to advance sustainable Transporation Moderator: Antoinette Quagliata**	***Emerging Technology Contributions to Infrastructure Resilience Moderator: Kenichi Soga**	***Decarbonization: Industry Perspectives Moderator: Eric Sokol**	***Partnering for Military Installation Resilience Moderator: Andrea Sweigart**	
	Presentation #1-20 mins: The Computational Modeling and Simulation Center (SimCenter) – Matthew De Jong and Adam Zsarnoczay Presentation #2-20 mins: The Interconnected Networked Community Resilience Modeling Environment (IN-CORE) - (John W. van de Lindt & Jong Lee) Presentation #3-10 mins: Pyrecodes: An open-source software for regional recovery simulation and resilience assessment of the built environment, **Nikola Blagojevic, ETH Zurich** (151)	Adaptive Reuse, **Radhi Majmudar, Severud Associates** (548) Brian Falconer, PE Severud Associates Cosema (Connie) Crawford, PE ASTM North Amer Pat Arnett, PE Silman, A TY Lin Company	**Envision: Using Envision to Advance Sustainable Transportation: A Case Study of 495Next Express Lanes, Antoinette Quagliata, Dewberry (351)**	Emerging Technologies' Contributions to Civil Infrastructure System Resilience, **Kenichi Soga, University of California Berkeley (134)** Learning From Stress: Decision Making In Dynamic Events**, Louise Comfort, University of California Berkeley;** Human-Cyber-Physical Security for Resilient Civil Infrastructure Operations in a Changing World **Pingbo Tan, Carnegie Melon University;** Urban flood risk perception using augmented reality technology and field testing with the public, **ZhiQiang Chen, University of Missouri-Kansas City;** Three Pathways for Future-Proofing the Next Generation of Lifeline Systems**, Chris Ford, Stanford University**	Industry Perspectives: A Discussion on Decarbonization in the Utility Sector, **Eric Sokol, Burns & MacDonnell** (343) Cris Liban, Chuck Hookham Carbon Reduction related to goods movement and different transportation modes, **Dave Chester** (507)	Partnering for Military Installation Resilience, **Andrea Sweigart, AECOM** (363) Chris Landgraf, Northern Virginia Regional Commission, Program Manager - Military Installation Resilience Dr. Shane Parson, PE, CFM, Natural Hazard and Climate Change Modeling Analyst, AECOM Peggy Tadej, Northern Virginia Regional Commission Melissa Hess, AECOM Andrea Sweigart, AICP, Principal Planner, AECOM	
2:00pm-2:15pm	**Transition**						
2:15pm-3:45pm	**This session will be recorded Washington A Track 3: F33**	**Potomac 2 Track 1: F13**	**Potomac 4 Track 2: F23**	**Potomac 6 Track 6: F63**	**Conference Theater Track 4: F43**	**Washington B Track 5: F53**	**Track 7: (Exhibit Hall) 2:00pm-5:30pm Please note: All speakers may record their presentation for the ASCE Virtual Library. Information on how to do so can be found on https://ascelibrary.org/conferencevideoresources.**
	***Natural Hazard Impacts on Infrastructure Moderator: Milad Roohi**	**Lightning Session: New Technology to support Climate Adaptation and Resilience Moderator: Omar Nofal**	***Climate Resiliency and Future Scenarios for Design Moderator: Jennifer Helgeson**	***Social Equity in Infrastructure Moderator: David Totman**	***Energy Use in Systems Moderator: Theresa Harrison**	***Climate risk trends in commercial and residential construction Moderator: Helena Ariza**	
	Advances and Future Needs for Collaborative Networks for Natural Hazards and Disasters Research, Jennifer Bridge, University of Florida (403) Interdependent Physical Infrastructure and Social Systems Modeling for Seismic Resilience Assessment of Salt Lake County, Omar Sediek, Colorado State University (121) Minimal Sensing and Data Fusion for Structural Seismic Risk and Resilience Modeling, Milad Roohi, University of Nebraska-Lincoln (514) Investigation Of Resiliency in Modular Construction, Maryam Kouhirostami, University of Florida (488)	Advances in Optical Remote Sensing for Global Flood Disaster Mapping towards Operational Readiness, ZhiQiang Chen, University of Missouri Kansas City (199) Present and future flooding in Annapolis, MD: monitoring and numerical modeling, Liliana Velasquez-Montoya, United States Naval Academy (225) Sensitivity and Uncertainty Analysis in Resilience Modeling of Costal Freight Networks, Anibal Tafur, Rice University (252) Risk assessment for infrastructure vulnerable to flood hazard in the Great Lake region, Chengcheng Tao, Purdue University (483) Rapid Flood Inundation Mapping and Consequence Estimation along Rivers and Coasts using the Life Safety Risk Index (LSRI) Web Tool, Garrett Menichino, US Army Corps of Engineers (185) Assurance of Resilient Coastal Communities in a Changing Climate, Mohamed Abdelhafez, Colorado State University (197) Jean Lafitte Shoreline Protection Project For SAV Habitat Restoration: Numerical Modeling, Rebecca Aiken, Stantec (404)	Walking the Talk: Practical Tips for Climate Resilient Design, Aditya Bhagath and Julie Pietrzak, Thornton Tomasetti (501) Projecting Tropical Cyclones Change Trend under Future Climate Scenarios, Guirong Yan, Missouri University of Science and Technology (449) Creating Sustainable Urban Mass Transit Systems in Developing Economies, Diana Diaz, Tongji University (011) Interacting Sociotechnical impact of natural hazards, Louise Comfort, University of Alabama at Birmingham (204)	Creating Equitable Access with The Lily Pad Neighborhood Mobility Hub, Gerarda Shields, New York City College of Technology - CUNY (017) Climate Equity: Building Social Sustainability through Sustainability Frameworks, Johnna S. Keller, Parsons (113) Measuring Inequities in Post-Disaster Accessibility to Schools, Seyyed Amin Enderami, University of Kansas (198) Flood Interventions for Socially Equitable Community Resilience, Catie Hood, Colorado State University (224) Identifying Performance Metrics to Support the Integration of Social Equity in Asset Management, Rebecca Atadero, Colorado State University (441) Public Policies for Construction and Professional Services Contracting to Advance Diversity, Equity, and Inclusion, Erica Peterson, Port of San Francisco (464) Exploration of biasedness and inequities in infrastructure resilience modeling, Raul Rincon, Rice University (469)	Automated Mobility Platforms (AMPs) Systems for Passenger Movement in Airport, Campus, and Large Facilities Locations, Stanley Young, National Renewable Energy Laboratory (451) Two Modeling Methods Applied to an Extensive Green Roof in Syracuse, New York, Cliff Davidson, Syracuse University (492) Investigating the Impact of EPA Emergency Fuel Waivers on the Air Quality and Retail Fuel Prices after Hurricane Sandy, Dr. Mohsen Shahandashti, University of Texas Arlington (150)	Climate Risk Trends in Commercial Real Estate Finance and Property Insurance - Implications for Enhancing Resilience in Commercial Real Estate As Part of Community Infrastructure, Holly Neber, Katie Wholey, Jenna Kirkpatrick Howard, AEI Consultants (424) + Assessment of Residential Construction due to Sea Level Rise and Saltwater Intrusion, Monique Head, University of Delaware (439) Enabling Next Generation of Infrastructure Professionals through a Global Academic Network, Wasi Alam, Coalition for Disaster Resilient Infrastructure (304) Panelists: Holly Neber, Katie Wholey, Jenna Kirkpatrick Howard, AEI Consultants (424) Monique Head, University of Delaware (439) Allan Scott, Coastal Risk Consulting Wasi Alam, Coalition for Disaster Resilient Infrastructure (304)	
3:45pm-4:00pm	**Coffee Break Sponsored by Ardurra - Indpendence A**						
4:00pm-5:30pm	**This session will be recorded Washington A Track 5: F54**	**Potomac 2 Track 1: F14**	**Potomac 4 Track 2: F24**	**Potomac 6 Track 3: F34**	**Conference Theater Track 4: F44**	**Washington B Track 6: F64**	
	***Using Standards and Frameworks for Sustainable and Resilient Infrastructure Moderator: Terry Neimeyer**	***Natural Infrastructure and Engineering With Nature Training and Education Moderator: Brian Bledsoe**	***Quantifying the Effect of Natural Hazards using Advanced Models Moderator: Katsuchiro Goda**	***Mitigation though Monitoring and Inspection Moderator: Milad Roohi**	***Sustainable and Resilient Renewable Energy Application Moderator: Sihan Li**	***Human Factors in Resilient Design Moderator: Craig Hebebrand**	
	ASCE/COS 73-23 Sustainability Standard and Envision Framework – Companion Tools, Terry Neimeyer; Cris Liban, Anthony Kane, Maria Lehman A Framework to Establish Lifeline	Natural Infrastructure and Engineering With Nature Training and Education, Brian Bledsoe, University of Georgia (405) Nature-based Solutions Workforce Development and Training – Principles and Opportunities, Brian Bledsoe, PhD, PE, FASCE - University of Georgia, Institute for Resilient Infrastructure Systems	A Network Modelling-Based Approach for Quantifying Flood Resilience of Urban Rail Transit Systems, Wei Bi, University of Cambridge (201) Development of Tsunami Frequency-Fatality Numbers (F-N) Curve for Coastal Communities Subjected to Cascadia Subduction Earthquakes, Katsuichiro Goda	Application of Artificial Intelligence, Remote Sensing, and 3D Printing for the Sustainability of Civil Infrastructure, Ainalem Nega, Curtin University (062) Examining FEMA's Building Resilient Infrastructure and Communities Grant Program, Camille Crain and Jonathan Chipperfield, FEMA (372)	A Probabilistic Method to Assess the Risk of Contamination-Induced Insulator Flashover, Gitanjali Bhattacharjee, Exponent (200) An Optimized Target Reliability Index for Solar PV Structures Considering Excess Mortality due to Structural Failure Related Power Outage, Brian	An Evolutionary, System-of-Systems Approach to Societal Challenges of the Anthropocene, John Little, Virginia Tech (208) Designing for Resilience: Pedagogical Models for Engaging Infrastructural Design Problems with a User-Centric Mindset, Chris Ford, Stanford	

		Infrastructure System Service Recovery Goals for Seismic Resilience, Craig Davis & Ayse Hortacsu (221)	Facilitating Continuing Education for Practicing Professionals on Nature-based solutions, S. Kyle McKay, PhD, PE and Candice Piercy, PhD, PE - USACE Engineer Research and Development Center Planting the Seeds: An Undergraduate Syllabus for Engineering With Nature and Coastal Resilience, Tori Tomiczek (Johnson), PhD - United States Naval Academy Building a Practice-Based Education and Training Pathway for Future NbS Practitioners, Ellen Herbert, PhD and Tamara Jameson, PE – Ducks Unlimited	Western University (049) The Diagonal Approximated Signature as New Surrogate Modeling Approach for Continuous-State Systems in the Context of Resilience Optimization, Niklas R. Winnewisser, Leibniz University Hanover (302) A deep learning-based interpretation of seismic demand models using mechanistic representations, Mohsen Zaker Esteghamati, Utah State University (070) Subset simulation for efficient seismic reliability analysis of lifeline networks, Dongkyu Lee, Seoul National University (111) Enhancing bridge infrastructure flood resilience through fluid-structure interaction modeling, Chengcheng Tao, Purdue University (112)	Optimal design and life-long adaptation of civil infrastructure under climate change and uncertain demands, Gordon Warn, Penn State University (360) (15 min) Improving Geostationary-Satellite-based Prediction of Wildfire Spread by Directional Rate of Spread Adjustment Factor, Seungmin Yoo, Seoul National University (167)	Skourup, EVS, Inc. (247) The Convergence of Vehicle Electrification and Automation – Enabling SustainableAutomated Mobility Districts, Sam Lott, National Renewable Energy Laboratory (392) Managing RNG: Achieving the Highest Return, John Willis, Brown and Caldwell (402) Developing Renewable Energy Applications for Water Treatment Technologies and Transmission, Scott Struck, National Renewable Energy Laboratory (542)	University (296)	**Please note: All speakers may record their presentation for the ASCE Virtual Library. Information on how to do so can be found on https://ascelibrary.org/conferenc evideoresources.**
	5:45pm-7:30pm	**Networking Happy Hour and Game Night in Hall of Inspiration**						
		DAY 3: Saturday, Nov 18						
	7:30am-8:00am	Light breakfast & Registration Open - Independence Foyer						
	8:00am-9:30am	**This session will be recorded Washington A Track 6: S61**	**Potomac 2 Track 1: S11**	**Potomac 4 Track 2: S21**	**Potomac 6 Track 3: S31**	**Conference Theater Track 4: S41**	**Washington B Track 5: S51**	
		***Fostering Sustainability in Education Moderator: Steve Fisher**	***Coastal Resilience and Adaptation to Climate Change for Native Alaskan Villages in the Arctic, Moderator: Taber Midgley, EA Engineering, Science, and Technology, Inc. (160) (panel session)**	**Digital Solutions for Resilience Moderator: Barton Treece**	**Innovations in Infrastructure Moderator: John Kuprenas**	***Resource Recovery, Remediation, and Resilience Moderator - Dave Chester**	**No Presentations**	**Breakfast and then tear-down**
		ASCE Global Sustainability Fostering Education and Implementing UN Sustainable Development Goals, Stephen Fisher and Savina Carluccio, Tetra Tech (511) Engineering education for sustainable develpment, Tom Siller, Colorado State University (059) Prepare to Engineer Tomorrow, Starting Today with Responsible Innovation, Norma Jean Mattei (316) Sustainability Collaboration - COS Education and Technical Committees Discussion, Joel Farrier, Burns & McDonnell (458)	Quantifying the Benefits of Nature-Based Design in Federal Flood Management Infrastructure, Matt Chambers (369) Integrating Traditional Knowledge with Nature-Based Solutions to Protect Point Hope, Alaska Shoreline, Ellen Jessup McDermott Perspectives from the Mayor of an Arctic Village in the North Slope of Alaska, Mayor Tariek Oviok Engineering With Nature to Enhance Environmental Resilience to Coastal Erosion and Flooding at Point Hope, AK, Lauren Bosche, US Army Engineer Research and Development Center (073)	A digital twin of the I-90 Homer Hadley Memorial floating bridge: Evaluating emerging technology for asset management and operations on one of the most complex bridges in the world., Barton Treece, University of Washington (365) (20 min) An Efficient Adaptive Importance Sampling Method for Probabilistic Seismic Hazard Analysis, Zeinab Farahmandfar, NIST (535) Climate adaptation heroes: How digital solutions can help cities and communities adapt to climate change, Rodrigo Fernandes, Bentley Systems (549) Integrating BIM and GIS for disaster management in Smart Cities: Key Benefits and Challenges, Danish Kumar, University of Wyoming (137) 3D Printed Pseudo-Ductile FRP Composites for Resilient Infrastructure, Shreya Vemuganti, University of Oklahoma (148)	Innovation Avenues for Large Infrastructure Programs, John Kuprenas, AECOM (353) Floodplain Analysis for Military Preparedness in the face of Climate Change and Extreme Weather Events – Need, Limitations, Benefits and Methodology, Shukran Sahaar, Colorado State University (357) Case Study - Repurposing 1940's Navy Wharf Infrastructure into Public Urban Waterfront Space, Samuel Cortes, Simpson Gumpertz & Heger(470) 3D Printed Concrete Structures: Design Principles and Experimental Validations, Petros Sideris, Texas A&M University (381)	South Bend, Indiana: Carbon Neutral 2050, Theresa Harrison, ASCE Committee on Sustainability (331) Food Waste & Organics: Evolving Resource Recovery Practices, Eric Weiss, Burns & McDonnell (352) Climate Change as Related to Site Remediation and Remedy Resilience, Rick Wice, Battelle Memorial Institute (243) EV Charge Point Utilisation Modelling: Its Critical Importance in The Future of The Transition to EV, Zunaid Vawda, WSP (311)		
	9:30am-9:45am	**Transition**						
	9:45am-11:15am	**This session will be recorded Washington A Track 6: S62**	**Potomac 2 Track 1: S12**	**Potomac 4 Track 2: S22**	**Potomac 6 Track 3: S32**	**Conference Theater Track 4: S42**	**Washington B Track 5: S52**	
		***Global & Social Issues Moderator: David Totman**	***Sustainability and Communities Moderatoor: Chuck Hookham**	***Resilience Modeling to Support Decision-making Moderator: DJ Rasmussen**	*** Envision is a Journey, Not a Destination Moderator: Anthony Kane**	***What the Carbon? Building a Sustainable Materials Future with Embodied Carbon Data Moderator - Tiffany Reed-Villarreal**	***The Emerging ASCE NOAA partnership and its implications for engineering practice Moderators: Dan Walker, EA**	**NO EXHIBIT HALL**
		COP28 Themes and Priorities: Reflections and Insights from the Engineering Community, Savina Carluccio, International Coalition for Sustainable Infrastructure (238) Convergent Engineering Systems: A System-of-Systems Approach for Implementing UN Sustainable Development Goals, John Little, Virginia Tech (279) Building Equity into Infrastructure through Transformational Social Change, Ana Tijerina Esquino, Mott MacDonald (335)	Resilient housing and sustainable infrastructure systems development in coastal communities in the Americas, Daniel Campbell, Caribbean Engineering and Design Consultants Ltd (082) Building Long-Term Sustainability and Resiliency into Water Quality Driven Projects: Project Example: Los Penasquitos Lagoon Restoration and Water Quality Project, David Pohl, Burns & McDonnell Engineering, Inc. (461) Beyond ASCE 73 – Evolving Standards for Resilient Communities, Moderator: Chuck Hookham, Brad McCoy, and Karen Kabbes	Navigating Infrastructure Resilience with Advanced Simulations, Jürgen Hackl, Princeton Seismic Multi-hazard Multi-Disciplinary Resilience Modeling for Community-Level Structural Retrofit Decision Making, Milad Roohi, University of Nebraska-Lincoln (515) Risk-informing the prediction of the probability of extended loss of power to major infrastructure and facilities, Romney Duffey and Enrico Zio, Mines Paris-PSL University and Politecnico Milano (533)	Envision is a journey, not a destination: Progression through an Envision scope, Jennifer Ninete, HDR Inc. (319)	What the Carbon? Building a Sustainable Materials Future with Embodied Carbon Data, (430) Tiffany Reed-Villarreal, National Ready Mixed Concrete Association (NRMCA) - Brian M. Killingsworth, National Ready Mixed Concrete Association (NRMCA) - Daniel J Figola, Advanced Drainage Systems, Inc (ADS) - Sean Augustino, Arup	**Engineering, Science, and Technology; Ben De Angelo (NOAA)** (384) - Panelists: Joe Pica (NOAA) Allyson Leider (NASA) John Ingargiola (FEMA) Don Scott (SEI) Shirley Clark (EWRI) Norma Jean Mattei (COPRI)	

	11:15am-11:30am	**Transition**
	11:30-1:00pm	**Closing Plenary Lunch** **Dr. Michel Bruneau & Closing Remarks**
ASCE INSPIRE 2023 Complete! Thank you for coming! We hope you are leaving *inspired!*		