Stand-up Sessions in Hall of Inspiration
Location: Independence A (exhibit hall)

Stand-up poster sessions will be held:

- Thursday morning (9:00am-1:00pm)
- Thursday afternoon (2:45pm-5:45pm)
- Friday morning (10:00am-1:00pm)
- Friday afternoon (2:45pm-5:45pm)

Hanging your poster

Thursday, November 16:

- Stand-up Session #1 – posters can be put up in Independence A between 8:00am and 9:00am, when the session begins. Posters must be taken down by 1:30pm (or will be removed by staff).
- Stand-up Session #2 – posters can be put up in Independence A between 1:30pm and 2:45pm, when the session begins. Posters must be taken down by 8:00pm (or will be removed by staff).

Friday, November 17:

- Stand-up Session #3 posters can be put up in Independence A between 7:30am and 10am, when the session begins (the exhibit hall opens at 7:30am). Posters must be taken down at 1:00pm (or will be removed by staff).
- Stand-up Session #4 posters can be put up in Independence A between 1:30pm and 2:45pm, when the session begins. Posters must be removed by 7:30pm (or will be removed by staff).

Boards with thumb-tacks will be provided. Please see the following details on each poster session to know what heading to use in hanging your poster.
Stand-up Session #1
Emerging Technologies
Thursday, November 16
9:00am-1:00pm ET

Emerging Technologies Innovations

Infrastructure Digitalization

Technical Assessment

Energy Efficiency & Power Production

Emerging Technologies Innovations

A new Post-Installed Reinforcement System to Extend Life Time of Existing Structures as Contribution to Sustainability, Johannes Lechner

Auto-design-based optimizations of prestressed frames using an ANN-based Hong-Lagrange algorithm, Won-Kee Hong

Clean and Green in Staten Island: Design of the Department of Sanitation Garage, Aydin Pekoz

Deep Learning-Based Automated Pavement Layer Thickness Detection Using GPR Data, Da Hu

Digital Twin of Large Steel Frame Structures Condition Assessment, Gbandi Nikabou

Hazard Mapping and Modeling of Wildfires: An Oklahoma Case Study, Richard Campos

Incorporating Advanced Imaging Techniques for Climate-Resilient Geotechnical Asset Management, Rakesh Salunke

Multiple-Drones-Multiple-Trucks Routing Problem for Disruption Assessment, Alireza Ermagun

SafeSwim: Integrating real-time monitoring and modeling for near-term predictions of water quality, Nancy Wohlleb

Segmenting, Characterizing, and Geo-registering Bridge Cracks via Drone-acquired Images, Da Hu

Use of Nuclear Magnetic Resonance (NMR) and Gravimetric Scanning Platforms to Perform Underground Location of Any Element in the Periodic Table, Michael Edgerly

Infrastructure Digitalization

Computational Modeling Of Cured-In-Place Structural Liner For Aged Pipeline Rehabilitation, Chengcheng Tao

Deep Learning-based Metrics for Measuring Sustainability of County-Owned Bridges in the U.S., Mi Geum Chorzepa
Multi-robot Teaming To Make Digital Twin Models For Infrastructure Health Monitoring Applications, Kiyarash Aminfar

Ontology for an End-To-End Digital Twin Model for Infrastructure Asset Management, Mehrdad Ghyabi

Technical Assessment

A Design Optimization Model For Utilizing Vacant Buildings As The Infrastructure Of Temporary Housing, SeogJae Choi

An Integrated Physics-Inspired Data-Driven Model In Support Of Carbon Emission Reduction In Built Environments, Navid Goudarzi

Application of Natural Rubber Latex for Improving Dynamic Response of Sand, Veena U

Deep Learning-Based Data-Driven Modeling Of Compound Urban Flooding, Shima Kasaei

Exploring limitations of marsh restoration for flood reduction in legacy salt ponds, Rae Taylor-Burns

Flood Hazard Assessment of Transportation Infrastructure Using Remote Sensing and Machine Learning, Amir Javid

Forecast Informed Reservoir Operations (FIRO), Joe Forbis

Self-Learning Graph Neural Networks for Modeling and Predicting Disaster-Induced Flow Redistributions in Civil Infrastructure Systems, Yang Liu

Energy Efficiency & Power Production


Pump Optimization: An Application of the AVEVA PI System, Ethan Smith

Solar Array Pile Optimization, Yingbor Liao

Sustainable Water Management in the Unconventional Oil and Gas Industry, Huishu L
Stand-up Session #2
Environmental Performance
Thursday, November 16
2:45pm-5:45pm ET

Climate-readiness
Nature-based Design
Sustainability
Water

Climate Readiness
Calibration of Concrete Bridge Condition Deterioration for Climate Change Impact Evaluation, Ao Du
Climate Change Readiness, “How do we get started?”, Alan Falk
Climate Readiness – Sea Level Rise Preparedness, Balkis Hassane
Emergency communication strategies during tropical cyclones "Back to Back" Eta and Iota and potential insights for refining communication practices in Guatemala, Sergio Arnoldo Garcia
Evaluating the flooding level impacts on urban metro networks and travel demand: behavioral analyses, agent-based simulation, and large-scale case study, Yili Tang
Extreme wind and snow loads for Alaska in projected future climates, Sihan Li
Probabilistic Coastal Compound Flood Hazard Analysis Based on Multi-tier Bayesian Network, Ziyue Liu
The Resilience Performance Assessment (RPA), an innovative solution to measure the benefits of adaptation investments for infrastructures, buildings, and territories, Nina Jirouskova
Spillway Width and Stream Power: Predicting Erodible Embankments Using Machine Learning Technique, Sanjeeta Ghimire
State of Climate Projections and Next Steps for Stormwater Wastewater Resilience Planning, Michael Mak
The Impact Of Sea-Level Rise And Roadway Flooding On Workforce Accessibility For US Coastal Military Installations, Behnam Tahmasbi
Too Salty? – Potential for Standardization of Saltwater Intrusion Testing in Building Materials, Tiana Thorp
Winter De-icing Operations of Permeable Interlocking Concrete Pavements Compared to Asphalt Pavements, William Horr
Nature-based Design

A Transformative Approach to Repair Highway Slope using Vetiver Grass, Fariha Rahman

Green-Gray Solutions for a Resilient North Brazil Shelf, Emily Corwin

Nature-based Design Standards: Past, Present, and Future, Emily Corwin

Wave Attenuation Performance Of Emergent Reef Type Breakwaters And Oyster Shell Bags, Georgette Tso

Sustainability

Considerations For Low-Income And Underserved Communities When Developing Guidance For Extreme Hazard Event Preparedness, Jazalyn Dukes

Delivering decarbonization and sustainability gains during construction through non-intrusive subsurface imaging, Bret Simon

Evaluating the Environmental Performance of Manufactured Housing Through a Comprehensive Life Cycle Assessment, Maryam Kouhirostami

Evaluating Thermal Load And Pollutants Dispersion For Buildings In A Small Commercial-Industrial Area To Achieve An Optimal Design, Navid Goudarzi

Fluor’s Net Zero 2023: Challenges and Opportunities, Lyudmyla Brady

Materials Testing Technicians Intern Program for Jamaica and the Caribbean, Michael Edgerly

Socioeconomic Value Of Salt Marsh Ecosystems For People And Property In Georgia, Matthew Bilskie

Sustainable Infrastructure Virtual Learning Network: A Model For Exchanging Knowledge Among Experts And Practitioners, Emily Corwin

Teaching Young Dogs New Tricks – Embedding Resilience and Decarbonization Learning Into Structures Courses for Architects, Dan Bergsagel

Water

A Case Study of Re-Analyzing Three Condominiums Facing Condemnation or the fury of the Gulf of Mexico, Mark E Haas

Legacy Soil Compaction and Its Impacts on Stormwater Modeling and Predictions of Flooding, Shirley Clark

Non-Invasive 3D Imaging and Sensor Data-based Diagnosis of Water Treatment Plant Filter Integrity, Pengkun Liu

Proactive Seismic Rehabilitation Decision-Making For Water Pipe Networks Considering Transient Strains And Earthquake-Induced Geotechnical Instability, Mohsen Shahandashti
Stand-up Session #3
Materials & Systems
Friday, November 17
10:00am-1:00pm ET

Materials
Measurement & Maintenance
Resilient Infrastructure Systems 1
Resilient Infrastructure Systems 2

Materials

100% Recycled Asphalt Mixtures as Base Course for Parking Lots, Fabricio Leiva

A Data-Driven Approach To Evaluate The Mechanical Properties Of Recycled Aggregate Concrete, Srishti Banerji

A Step Towards Upcycling Keratinous Feather Waste Into Economically Sustainable Flame-Retardant Adjuvants For Polymeric Composites, Avishek Mishra

Asphalt Rejuvenation Potential of Tire Pyrolysis Oil Evaluated by NMR Relaxometry and DSR Testing, Rebecca Herndon

Enhancing Building Envelopes’ Thermal Inertia: A Novel Approach for Incorporating Phase Change Materials into Construction Materials while Maintaining Strength, Marina Garcia Lopez-Arias

Reusing Elements and Assemblies – Case studies in Applying Circular Economy Principles to Stairs and Bridges, Dan Bergsagel

Utilization of Waste Plastic Bags to Improve Bitumen Properties: A Sustainable Solution, Muhammad Faheem Afzal

Measurement & Maintenance

A Comparative Study Of Envision Achievement On APD Transportation Projects, Catherine T. Sheane

A Flexible Approach To Manage Evolving Infrastructure Systems, Mauricio Sanchez-Silva

Cleaning Equipment to Restore Surface Infiltration Rates of Permeable Interlocking Concrete Pavements, William Horr

Existing Structure - A Regulatory Antagonism?, Robert Hertle

Numerical Analysis of Soldier Pile Tieback Wall Using Iteration Method, Santiago Aguilar

Planning Your Sustainability Trip, a Transit Agency Perspective, Jennifer Ninete
Supra- and Sub-Resilience of Smart Infrastructure Systems: New Paradigm of Gains and Losses, Sviatoslav Timashev

The Effects of the Envision Process on a Large-Scale Northeast Coastal Resiliency Capital Infrastructure Project, Matthew Nayer

The Evolution of Resilience and Sustainability as Key Concepts in Research, Policy, and Engineering Discourse, Yinglin Ye

Resilient Infrastructure Systems 1

Assessment and Prediction of Water Supply Network Reliability Under Information Shortage Using Artificial Neural Networks, Sviatoslav Timashev

Bayesian Network Framework to Model Seismic Failure Modes for an Embankment Dam System, Michelle Bensi

Case Studies of Thrust Restraint Analysis of Buried Pipelines Considering Effects of Temperature, Earthquake, and the Poisson’s Effect of Internal Pressure, Tianye Yang

Examination Of Statistical Downscaling Methods For Pavement Climate Modelling Applications, Austin Jarrell

Hurricane-Induced Surge And Inland Flooding Effects On Localized Near-Surface Wind Flows In Suburban Coastal Communities, Chengcheng Tao

The Resilience Of Transmission Lines In The Wind Storm In May 2022 Passing South Ontario, Sihan Li

Tunnel Performance Under Extreme Environmental Effects, Juan Manuel Mayoral Villa

Uncertainty in Vulnerability of Transportation Networks with Variable Demand, Alireza Ermagun

Resilient Infrastructure Systems 2

Damage-Spread and Condition-Rating Predictions of Bridge Deck with Material Degradation Models, Hyunjin Jung

Evaluation of Factors on the Concrete Breakout Strength of Bridge System Considering the Constant Dead Load, Ju-Hyun Park

Household Adaptations To And Impacts Of Infrastructure System Service Interruptions: A Los Angeles, California case study, Rithika Dulam

Lock-in: Origination and Significance within Infrastructure Systems, Alysha Helmrich

Seismic Risk Assessment Of Water Transmission Infrastructure Crossing Earthquake Faults, Yi Peng

Structural Chokepoints of Agri-Food Supply Chains in the United States, Deniz Berfin Karakoc

Quantifying causal impacts of transmission line failures on disaster resilience of power grids, Youngjun Kwonmehrd
Stand-up Session #4
Finance & Policy
Friday, November 17
2:45pm-5:45pm ET

Infrastructure Risk Assessment 1

Infrastructure Risk Assessment 2

Public Policies & Government Action

Social Justice, Ethics, Equity & Health

Infrastructure Risk Assessment

3D Printed Hempcrete Structures - Combining Automation, Sustainability and Resilience, Petros Sideris

Appraising situation awareness in social media data for wildfire response, zihui ma

Detecting Social and Spatial Inequalities in Power System Critical Failures, Natalie Coleman

Feasibility Study of a Fully Compliant Nonlinear Energy Sink for Vibration Mitigation, Zeeshan Qaiser

Integration of Geospatial Correlation for Rapid Highway Inundation Identification Following Flooding, Wenying Ji

Machine Learning-Based Risk Assessment For Bridge Infrastructure, Chengcheng Tao

Rapid Loss Estimation Of Multi-Hazard Earthquake-Tsunami Impacts For Improved Disaster Response And Recovery, Yao Li

Reliability Assessment Of Pile-Founded T-Walls Considering Soil Spatial Variability In The Face Of Flooding Hazards, Lei Wang

Residential Flood-Resistant Construction Appraisal Addendum: Framework, Case Study Findings and Path Forward, Stuart Adams

Risk assessment models for pipeline infrastructure failure, Chengcheng Tao

Infrastructure Risk Assessment 2

AI-aided modeling and rapid recovery for networked infrastructure systems under natural hazards, Jürgen Hackl

An International Examination of Risk Communication Protocol and Best Practices Across Communication Modes and Hazard Types, Emina Herovic

Quantitative Assessment of Post-disaster Transportation Network Recovery Plans and Resilience Tactics, Fang Wei
Validation of Compounding Hazards: Pathway Towards Enhancing Disaster Resilience Models, Pegah Farshadmanesh


Seismic Assessment of Non-Engineering Defects in Reinforced Concrete Structures with Scaled-Down Shake Table Test, Ali Javed

Analysis of Natural Disasters and COVID-19 Pandemic Complex Impacts on Distribution of PPP Loans, Azin Al Kajbaf

Uncertainty Analysis of Hurricane Forecasts to Support Probabilistic Risk Assessments of Critical Infrastructure, Kaveh Faraji Najarkolaie

Consideration of Pitting Corrosion for the Seismic Fragility Assessment of Bridges with Short Lap-spliced Columns, Hyojoon An

Public Policies & Government Action

Case Study of Buy Clean Colorado Implementation for I-76 Highway Construction Project, Christopher Senseney and Daniel Donado

Designing Resilient Infrastructure Systems to Support Socioeconomic Functions, Jennifer Helgeson

Entropy Analysis of Social Unrest After Large Urban Infrastructure Accidents, Sviatoslav Timashev

Social Justice, Ethics, Equity & Health

How the UNSDGs Can Be Employed To Promote Social Justice, Equity, And Health On A Local Scale, Theresa Harrison

Consideration of Equity and Climate Change in Infrastructure Design and Community Resilience, Gabriela Yanez Gonzales

Employers’ Satisfaction Level Towards Graduates With Oil and Gas University Qualifications, Zhassulan Dairov

The Impacts of Power Outages on an Electricity Dependent Society: A Systematic Review, Adam Andresen

Bridging the gap? A Proposed Study Of The Effect Of Gateway And Reconnection Infrastructure On Gentrification And Displacement Indicators, Collin Yarbrough

Bringing Clean Mobility Options To Populations Most Affected By Inequitable Infrastructure Investment: A Case Study In St. Louis, Missouri And The “Delmar Divide”, Stanley Young

Community-Based Risk Mapping Against Vector-Borne Disease Outbreak using Mobile phone Microscope and Geospatial Technology, Ali Javed

Doing Bad Things for Good Reasons: An Examination of Unethical Pro-Organizational Behavior Among Professional Workers, Kyle Payne