

## UCT 2022 Primary Education Program

| <b>Tues.<br/>Jan. 25</b> | <b>Room 202B<br/>Track I-A: Sewer<br/>Construction/Rehab</b>                              | <b>Room 202A<br/>Track I-B: NASSCO<br/>Sewer Operations</b> | <b>Room 202C<br/>Track II<br/>Waterworks</b>                                                    | <b>Room 202D<br/>Track III<br/>Microtunneling/Tunneling</b>                             | <b>Room 203A<br/>Track IV-A<br/>HDD</b>                                       | <b>Room 203B<br/>Track IV-B<br/>HDD</b>                                        | <b>Room 204A<br/>Track V-A<br/>Damage Prevention &amp; Safety</b>                       | <b>Room 203C<br/>Track VI<br/>Power &amp; Gas Utility</b>                                       |
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| 8:30-8:55                | Pipeline Inline Inspection: Basic Principles                                              | Remaining Useful Life: Gravity Pipe Assets                  |                                                                                                 | Pilot Tube Method of Guided Boring in Memphis                                           | Unique Design Re-Routes Critical Force Main while Minimizing Community Impact | Nozzle Selection for Optimum Tooling Performance & Life                        | From Best Practices to Next Practices: Addressing Inefficiencies in 811                 | Virtual Reality Prepares Field Workers to Monitor, Protect Gas Assets                           |
| 9:00-9:25                | Force Main Assessment & Rehabilitation                                                    |                                                             | Open Cut, Tunneling, Ground Condition in Construction Risk Assessment of Houston 108" Waterline | Why Tunnel When you can Open Cut? Debunking the Myth Tunneling is Always More Expensive | HDD Pipeside Efficiencies and Innovations                                     | City of Frisco's HDD with 20" Fusible PVC Pipe to Mitigate Construction Impact | Safe Use of High-Pressure Jetting Equipment in Surcharged Wastewater Collection Systems |                                                                                                 |
| 9:30-9:55                | Multiple Trenchless Methods Offer Cost, Time Savings for El Paso Water                    |                                                             | Going Far with CMAR: Diving into Raw Water Pipeline Design, Construction for NTMWD              | Houston's 72" Water Line from Emancipation Ave. to Tuam St.                             | Gyro Navigation (DrillGuide) and Intersects                                   | Benefits of Using Clean Drilling Fluid                                         | Growing Importance of As-Builts                                                         | Acoustic Methods to Detect Infrastructure Cross Bores                                           |
| 10:00-10:25              | Siphon with Bends Restored with UV Technology                                             | Lateral Ownership: Pros & Cons                              | Overcoming Adversity on Critical Water Main CIPP to Achieve Project Success                     | Tunnel Condition Assessment: State of the Practice                                      | Lake Erie Outfall Project                                                     | Rock Bore Using Segmented PVC Pipe                                             | Subsurface Investigation Methodology: New Industrial Standard                           | New Solutions for Isolating Gas Distribution Pipelines                                          |
| 10:30-10:55              | Engineer is the Gatekeeper to Quality, Long-Term CIPP                                     |                                                             | Urban Construction of Large-Diameter Water Lines                                                | Design-Build Technical Concept for 72" Microtunnel Pressure Pipe                        | Supporting the Workforce with Evolution of HDD Technology                     | Fusion Gyro: Innovative Hybrid Advancement in Gyro-Steering Systems            | Accounting for Underground Utility Vaults                                               | Fiber Optic Leak, ROW Intrusion Detection: Challenges & Mitigations from Operator's Perspective |
| 11:00-11:25              | Advancements in Spray-Applied Lining: Current & Emerging Pipe Rehabilitation Technologies | Artificial Intelligence: NASSCO Guidelines                  | Pipeline Construction Inspection Guidelines                                                     | Replacement of Failed Corrugated Metal Pipe                                             | Pipeline Owner/Operator Roundtable: Round 2                                   | As-Built Mapping of Critical Pipeline Crossings                                |                                                                                         | Review of States' Regulatory Damage Prevention Programs                                         |
| 11:30-11:55              | Going Trenchless to Replace Sewer Line Under Fairgrounds, Water Park                      |                                                             | Non-Disruptive, Close-Fit Pressure Pipe Rehab is Best-Fit Solution for Critical Tunnel Project  | Latest on Direct Pipe, E-Power Pipe: Case Studies & Outlook                             |                                                                               | Optimizing Composite Technology to Provide Range of Pipe Repair Solutions      | Reducing Consequences of Gas Pipeline Damage                                            |                                                                                                 |

| <b>Wed.<br/>Jan. 26</b> | <b>Room 202C<br/>Track I-C<br/>Sewer Construction &amp; Rehabilitation</b>                 | <b>Room 202A<br/>Track I-D</b>                                                                | <b>Room 202B<br/>Track I-E<br/>Sewer/Water</b>                                | <b>Room 202D<br/>Track VII<br/>Asset Management</b>                                                            | <b>Room 204A<br/>Track VIII: Women in<br/>Underground Utilities</b>                                         | <b>Room 203A<br/>Track IX: Fiber<br/>Forecast/Operations</b>              | <b>Room 203B<br/>Track IV-C<br/>HDD</b>                      | <b>Room 203C<br/>Track V-B<br/>Damage Prevention/ Safety</b>                           | <b>Room 204B<br/>Track X-A<br/>Emerging Technology</b>                                   |
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| 8:30-8:55               | Interceptor Design in Alluvial Floodplain                                                  | NASSCO's CIPP & Styrene Emissions Best Practices                                              | Landmark Year for Sewer/Water Infrastructure                                  | Good Asset Management Starts with Comprehensive Knowledge                                                      |                                                                                                             | KEYNOTE: Fiber Construction Forecast: FTTP, 5G                            | Panel Discussion: Gyro Steering Tool Technology              | Pre-Engineered Shoring Systems for Cross-Trench Utility Challenges                     | Advantages of Onsite-Manufactured Pipe for HDD Installations                             |
| 9:00-9:25               | City of Hurst Replaces Critical Sewer Interceptor via Minimally Invasive Pipe Bursting     |                                                                                               | Condition Assessment Framework to Evaluate Spray-Applied Renewed Culverts     | Computer Vision AI & Cloud Computing in Sewer Inspection: Driving Regulatory Compliance & Sound Asset Planning | Women in Engineering: Past, Present, Future                                                                 |                                                                           |                                                              | Micro-/Macro-Trenching Opportunities for Fiber Installation?                           | Hydro-Excavation Best Practices for Maximum ROI                                          |
| 9:30 -9:55              | CIPP Curing Monitoring System: Improving Installation Quality, Verifying Cure Completeness |                                                                                               | Large-Diameter Storm Outfall Rehabilitation with Geopolymer Lining in Houston | Cleaning can be a Bitter Pill to Swallow; Smart Tech Cure Lowers Costs, SSOs                                   | Developing, Comparing Prediction Models for Sanitary Sewer Condition Assessment using Multinomial Logistics | Women-Run Team Designs, Constructs 60" Tunnel under Houston Neighborhoods | HDD Contractors Roundtable                                   | Geophysics: Important Tools in Subsurface Imaging                                      | Acoustic-Based Pipeline Condition Assessment Offers Cost-Effective, Efficient Inspection |
| 10:00-10:25             | Diversify your Lateral & Mainline Rehabilitation Program                                   | Hidden Capacity in Wastewater Interceptors? Non-Uniform Flow Modeling's Impact on Pipe Sizing | Inverted Siphon Design: How Low Should I Go?                                  | Everything is Easier by the Foot: Unit Costing by Linear Foot                                                  | Women Lead Response to Challenges on Dallas Water Utilities 36" Interceptor                                 |                                                                           | Safe use of Pneumatic Plugs                                  | Advancements in Quality Control with Air-Vortex-Applied Coating Systems                |                                                                                          |
| 10:30-10:55             | Inexpensive I&I Reduction Verification for Small System                                    | Current State of Practice: DOT/ Municipal Storm Sewer Inspection, Evaluation Acceptance       | Gyroscopic Mapping Technology Locates Utility in Congested Urban Area         | Quantitative Risk Assessment of Large-Diameter Interceptors                                                    | Introduction to 'Leading Women of Damage Prevention'                                                        |                                                                           | Annular Pressure Monitoring: How it's Improving the Industry | The Key to Damage Prevention Starts with SUE                                           | Evolution of Excavation Shoring: Where we Were, What's Possible                          |
| 11:00-11:25             | UV Lateral Lining                                                                          | Structural Testing of CMP with Polymeric Resin Chemistry                                      | Pump Station Discharge Pipe Rehabilitation with FRP                           | Capturing Lost Revenue from Large Meters                                                                       | How Industry Partners can Help Stop Human Trafficking                                                       |                                                                           | HDD Hall of Fame Forum                                       | Testing, Evaluating Polymeric Spray-Applied Linings for Gravity, Pressure Applications |                                                                                          |
| 11:30-11:55             | Growth by the Numbers: Projected Sewershed Growth                                          |                                                                                               |                                                                               |                                                                                                                |                                                                                                             |                                                                           |                                                              | Leverage Ease-of-Use Machine Technology to Maximize Underground Utility Construction   |                                                                                          |

| <b>Thurs., Jan. 27</b> | <b>Room 101<br/>Track I-F: Sewer/Water Construction &amp; Rehab</b>                                 | <b>Room 104<br/>Track X-B: Emerging Technology</b>                         | <b>Room 103AB<br/>Track XI: Engineering Ethics</b> |
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| 8:30-8:55              | Advanced Condition Assessment on Gravity Sewers                                                     | Basalt Fiber Reinforcement Eradicates Corrosion Concerns in Concrete Pipes | Engineering Ethics                                 |
| 9-9:25                 | Equipment, Methods for Solving Hard Blockages & Common CIPP Installation Failures in 3" to 8" Pipes | Monoform+ and Monoform HEX                                                 |                                                    |
| 9:30-10                |                                                                                                     | Composites: The Future of Manhole Covers                                   |                                                    |