Day 1 - Tuesday, April 20, 2021

Eastern Time Zone

9:00 AM - 1:20 PM

Welcome and Introduction of Plenary Speaker - Edward F. Boyle by Thomas Costabile - ASME Executive Director/COO (Dave Schlesinger, Technical Program Chair to Introduce Tom)

Room 1: Plenary Session - Edward F. Boyle - VP, Engineering, Norfolk Southern Railway

Room 2: Workshop - Data Science in Transportation - Dr. Emilio Barcelos

Room 3: Technical Paper Publication: JRC2021-60407 - Optimal Positioning of Wayside Wire Fall Prevention - Dr. Emilio Barcelos

Break

Plenary Q&A - Moderated by Mehdi Ahmadian, Virginia Tech

1:30 PM - 2:20 PM

Track 05-01: Planning and Development

Track Chair: Jeffrey Gordon, Federal Railroad Administration; Co-Chair Bryan Schlake, Penn State Altoona


Authors: Michael Blackburn, nationally recognized subject matter expert in rail systems


Authors: Aash Aminzadeh - WSP, Yan He - WSP Canada

Track 04-01: Service Quality and Operations Research

Track Chair: Clark Cheng, NSF; Co-Chair: Rapik Saat, AAR

Technical Paper Publication: JRC2021-58210 - Study of Prestressed Concrete Prisms Using a Parallel Computing Algorithm

Authors: Mohali O. - Western New England University, Abhishekh D. - Western New England University, Chonghoon Lee - Western New England University


Track Chair: David Thornton, Canadian Pacific Railway

Technical Paper Publication: JRC2021-58215 - Field Investigation of Broken Cut Spikes on San Diego Trolley Using Instrumented Spike at Fast

Authors: Yin Gao - Transportation Technology Center, Mike McHenry - Transportation Technology Center, Inc., Waggoner Brian - Transportation Technology Center, Inc., Jai Badhwar - Federal Railroad Administration

2020 Presentation: JRC2021-60499 - Railhead for Welding Aluminum-to-Aluminum: From Carbide System to Aluminum System

Authors: David Gauthier - NobleClad, Eddgar Vidal - NobleClad

Reyev K. Kondyrev - NobleClad

Track 03-01: Signal and Train Control

Track Chair: Jeff Ozhoush, MIT

Technical Paper Publication: JRC2021-58206 - Laboratory and Numerical Investigations on the Performance of Flowable Soil as a Sustainable Backfill for Railway Bridge Transition

Authors: Tad-Woo Lee - Korea Railroad Network Authority, Tri Ho Minh Le - Kumsan National University, Dai Won Park - Kumsan National University, Jang-Woo Seo - Kumsan National University

2020 Presentation: JRC2021-58167 - Influence of Coupler Features in Longitudinal Side Impact Evaluation of Rail Vehicles Equipped With Centre Buffer Couplers

Authors: Om Prakash Yadav - Indian Institute of Technology Kanpur, Nalwaket S. Tyagi - Indian Institute of Technology Kanpur

2020 Presentation: JRC2021-58341 - Stabilization of Ballast Using Polyaniline Under Various Coal Fouling Conditions

Authors: Dinesh Gundavanwar - Indian Institute of Technology Patna, Hussain Syed Karmulwala - Indian Institute of Technology Patna
**TRACK 01 - RAILROAD INFRASTRUCTURE ENGINEERING**

**Track Chair:** Deb Mishra, Oklahoma State University

10:00 AM - 12:15 PM

10:00 AM - 12:00 PM

- **Technical Paper Presentation:** JRC2021-58014 - Development of Predictive Analytics Using Machine Learning for the Detection of Learning Centered Defects in Rail Ties

12:00 PM - 02:00 PM

- **Technical Paper Presentation:** JRC2021-58347 - Transportation Resilience Models for Supply Chain Analysis Using Complex Network Theory (CNF)

**Break**

**Track 11-01: RAILROAD HISTORY**

**Track Chair:** Jeffrey Gordon, Federal Railroad Administration

02:00 PM - 04:15 PM

02:00 PM - 02:15 PM

- **Technical Paper Presentation:** JRC2021-58376 - Keeping Lider Security on Track

**Track 02: RAILROAD SAFETY AND SECURITY**

**Track Chair:** Dave Schlesinger, Parsons

02:15 PM - 04:30 PM

02:15 PM - 02:30 PM

- **Technical Paper Presentation:** JRC2021-58377 - Multimodal Mobility Framework: Seamless Mobility Experience

**Break**

**Track 03: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Mehdi Ahmadian, Virginia Tech; Co-Chair: Milad Hosseinipour, Parsons

02:30 PM - 04:45 PM

02:30 PM - 02:45 PM

- **Technical Paper Presentation:** JRC2021-58341 - Multimodal Mobility Framework: Seamless Mobility Experience

**Break**

**Track 04: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Brian Donohue, WSP

04:45 PM - 06:00 PM

04:45 PM - 04:54 PM

- **Technical Paper Presentation:** JRC2021-58378 - Multimodal Mobility Framework: Seamless Mobility Experience

**Track 05: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Deb Mishra, Oklahoma State University

04:54 PM - 06:15 PM

04:54 PM - 05:15 PM

- **Technical Paper Presentation:** JRC2021-58379 - Multimodal Mobility Framework: Seamless Mobility Experience

**Break**

**Track 06: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Dave Schlesinger, Parsons

05:15 PM - 07:30 PM

05:15 PM - 05:30 PM

- **Technical Paper Presentation:** JRC2021-58380 - Multimodal Mobility Framework: Seamless Mobility Experience

**Break**

**Track 07: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Brian Donohue, WSP

05:30 PM - 07:45 PM

05:30 PM - 05:45 PM

- **Technical Paper Presentation:** JRC2021-58381 - Multimodal Mobility Framework: Seamless Mobility Experience

**Break**

**Track 08: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Mehdi Ahmadian, Virginia Tech; Co-Chair: Milad Hosseinipour, Parsons

05:45 PM - 08:00 PM

05:45 PM - 05:54 PM

- **Technical Paper Presentation:** JRC2021-58382 - Multimodal Mobility Framework: Seamless Mobility Experience

**Break**

**Track 09: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Brian Donohue, WSP

05:54 PM - 08:15 PM

05:54 PM - 06:09 PM

- **Technical Paper Presentation:** JRC2021-58383 - Multimodal Mobility Framework: Seamless Mobility Experience

**Break**

**Track 10: RAILWAY AND TRANSPORTATION INFRASTRUCTURE**

**Track Chair:** Deb Mishra, Oklahoma State University

06:09 PM - 08:25 PM

06:09 PM - 06:24 PM

- **Technical Paper Presentation:** JRC2021-58384 - Multimodal Mobility Framework: Seamless Mobility Experience
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Room 1</th>
<th>Room 2</th>
<th>Room 3</th>
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<tbody>
<tr>
<td>12:15 PM</td>
<td>Technical Paper Publication: JRC2021-58433 - An Experimental Study of</td>
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<td></td>
<td>the Influence of the Amount of Top-of-Rail Friction Modifiers on Traction</td>
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<tr>
<td></td>
<td>Authors: Yu Pan - Virginia Tech, Ahmad Radmehr - Virginia Tech, Mehdi Ahmadian - Virginia Tech</td>
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<td></td>
<td>Technical Paper Publication: JRC2021-58391 - A Statistical Approach to</td>
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<td></td>
<td>Evaluating Wheel-Rail Contact Dynamics</td>
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<tr>
<td></td>
<td>Authors: SeyedMohammad Hosseini - Virginia Polytechnic Institute and State University, Ahsan Hussainian - Virginia Polytechnic Institute and State University, Ahmad Radmehr - Virginia Polytechnic Institute and State University</td>
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<tr>
<td></td>
<td>Authors: Ahmad Radmehr - Virginia Tech, Ahsan Hussainian - Virginia Tech, Ali Tajaddini - Federal Railroad Administration</td>
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<tr>
<td>1:45 PM</td>
<td>Technical Paper Publication: JRC2021-58486 - Thermal Effects on Wheel Performance Based on Twin Disc Testing</td>
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<tr>
<td></td>
<td>Authors: Ding Cong Li - TCL, Monique Stewart - Federal Railroad Administration</td>
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<td>Author: Karina Jacobson - USDOT-Volpe Ctr, Michael Curick, USDOT-Volpe Ctr</td>
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<td>2:30 PM</td>
<td>Technical Paper Publication: JRC2021-58484 - Forward-Looking Infrared Radiometry (FLIR) Application for Detecting Ballast Fouling</td>
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<tr>
<td></td>
<td>Authors: SeyedMohammad Hosseini - Virginia Polytechnic Institute and State University, Yousif Tawarneh - University of Texas Rio Grande Valley, Martin Amaro - University of Texas Rio Grande Valley</td>
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<td>Author: Jack Huang - High Tech Pressure Safety</td>
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<td></td>
<td>Author: Mohammad Assadi - University of Tehran, Mehdi Ahmadian - Virginia Tech</td>
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<td></td>
<td>Author: Chris Lautner - National Research Council Canada, Changlin Dao - National Research Council Canada, Yan Liu - National Research Council Canada, Isabella Roy - Transport Canada</td>
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<td></td>
<td>Authors: SeyedMohammad Hosseini - Virginia Polytechnic Institute and State University, Ahsan Hussainian - Virginia Polytechnic Institute and State University, Ahmad Radmehr - Virginia Polytechnic Institute and State University</td>
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<tr>
<td></td>
<td>Authors: Yu Pan - Virginia Tech, Timothy Meda - Virginia Tech, Carvel Holton - Virginia Tech, Mehdi Ahmadian - Virginia Tech</td>
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**Note:** The above table represents a snippet of the detailed schedule for a session on railroad track interaction and infrastructure engineering. Each entry includes the time, event title, and authors/organizations involved, providing a structured overview of the presentations and discussions planned for the session.