# Transportation Infrastructure Conference

## TENTATIVE PROGRAM

**Theme:** sustainable and resilient transportation infrastructure  
**Monday, April 22, 2019**  
**St. Pat's Ballroom, Havener Center, Missouri University of Science and Technology, Rolla, MO**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 8:30 – 8:50 | Welcome – Kamal H. Khayat, Chairman, Missouri S&T  
Opening Remarks – Jennifer Harper, Research Administrator, MoDOT |
|         | **Morning Sessions (St. Pat’s A/B)**  
**Moderator: Suzie Long, Missouri S&T** |
| 8:50 – 9:30 | Kyle Riding, University of Florida (keynote)  
Make your concrete last: Strategies for durable construction |
| 9:30 – 9:50 | Mohammed ElGawady, Missouri S&T  
Assessment and Repair of Axially Loaded Steel Piles |
| 9:50 – 10:10 | Onur Kalan, Center for Urban Science & Progress, New York University (invited speaker)  
Probabilistic Life Cycle Cost Analysis Methodology and Implementation Framework for New Construction Materials and Technologies |
| 10:10 – 10:40 | **BREAK / STUDENT POSTER SESSION (Miner Lounge)** |
| 10:40 – 11:20 | William Buttlar, Chair of Flexible Pavement Technology, University of MO, Columbia (keynote)  
Innovating Asphalt Paving Materials Through Performance Testing |
| 11:20 – 11:40 | Magdy Adbelrahman, Missouri S&T  
Understanding of the Interaction of Recycled Tire Rubber with Asphalt |
| 11:40 – 12:00 | Guney Olgun, Missouri S&T  
Ground-Source Bridge Deck Deicing Using Integrated Energy Foundations |
| 12:00 – 1:00 | **LUNCH / STUDENT POSTER SESSION (St. Pat’s C)** |
|         | **Afternoon Sessions (St. Pat’s A/B)**  
**Moderator: Lesley Sneed, Missouri S&T** |
| 1:00 – 1:40 | Kamal Khayat, CIES Director, Endowed Professor of Civil Engineering, Missouri S&T (keynote)  
Development and Performance of Cost-Effective Ultra-High Performance Concrete for Infrastructure Applications |
| 1:40 – 2:00 | Hongyan Ma, Missouri S&T  
Acid-Base Cements For Extremely Durable Construction And Repair: Reaction, Microstructure And Properties |
| 2:00 – 2:20 | Aditya Kumar, Missouri S&T  
Ensemble and Hybrid Machine Learning Models for High-Fidelity Prediction and Optimization of Properties of Cementitious Systems |
| 2:20 – 2:50 | **BREAK / STUDENT POSTER SESSION (Miner Lounge)** |
|         | **Session #4:**  
**Moderator: Dave Ahlvers, MoDOT** |
| 2:50 – 3:30 | David Ahlvers, State Construction & Materials Engineer, MoDOT (keynote)  
MoDOT's Approach for Sustaining Bridge and Pavement Conditions |
| 3:30 – 3:50 | Ólafur Wallevik, Innovation Center Iceland & Reykjavik University (keynote)  
TBD |
| 3:50 – 4:00 | Winners of Poster Competition and Closing Remarks – Dave Ahlvers and Kamal Khayat |