# 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

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<th>Time</th>
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| 8:30 – 8:50| **Welcome** – Kamal H. Khayat, Chairman, Missouri S&T  
Opening Remarks – Jennifer Harper, Research Administrator, MoDOT |                                                                           |                                                                                                                                       |
| 8:50 – 10:40| **Morning Sessions (St. Pat's A/B)**                                    | Kyle Riding, *University of Florida* (keynote)  
Make your concrete last: Strategies for durable construction | Mohammed ElGawady, *Missouri S&T*  
Assessment and Repair of Axially Loaded Steel Piles  
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 – 12:00| **Afternoon Sessions (St. Pat's A/B)**                                   | William Buttlar, *Chair of Flexible Pavement Technology, University of MO, Columbia* (keynote)  
TBD | Magdy Abdelrahman, *Missouri S&T*  
A Threshold to Utilize Guayule Resin as a New Binder in Flexible Pavement Industry  
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)                         |                                                                           |                                                                                                                                       |
| 1:00 – 2:50| **Session #3**                                                          | 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  
Hongyan Ma, *Missouri S&T*  
Acid-Base Cements For Extremely Durable Construction And Repair: Reaction, Microstructure And Properties  
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)                        |                                                                           |                                                                                                                                       |
| 2:50 – 3:30| **Session #4:**                                                          |                                                                           |                                                                                                                                       |
| 3:30 – 4:00| **Winners of Poster Competition and Closing Remarks – Dave Ahlvers and Kamal Khayat** |                                                                           |                                                                                                                                       |