



PROGRAM SCHEDULE

June 23, 2017

7:30 AM – 9:00 AM: Breakfast – ARMS 1028

9:00 AM – 9:30 AM: Keynote lecture – ARMS 1021 “Transportation Infrastructure Asset Management in the New Millennium: Challenges and Opportunities” ***Professor Kumares C. Sinha, Olson Distinguished Professor, Purdue University***

9:30 AM – 10:45 AM: Presentations moderator: Tariq Usman Saeed

9:30 AM – 9:45 AM: Estimating the First Hitting Time for Track Geometry Degradation
Silvia Galvan-Nunez and Nii Attoh-Okine (U Delaware)

9:45 AM – 10:00 AM: Modelling Tamping Recovery using Copula-Based Approach
Emmanuel Martey, Nii Attoh-Okine (U Delaware)

10: 00 AM – 10: 15 AM: A Comparison of Two Resilience Metrics for Transportation infrastructure
YuanChi Liu (U Delaware)

10:15 AM – 10:30 AM: Pareto Efficiency Analysis of Private Toll Road Markets: Leveraging PPPs to Finance Investments in Infrastructure
Hang Shu, Pablo L. Durango-Cohen (Northwestern University)

10: 30 AM – 10:45 AM: Implementation of Electrical Resistance Measurement to Quantify Asphalt Emulsion-Based Chip Seal Curing Times
M.A. Montoya, J.E. Haddock, W.J. Weiss (Purdue University)

10: 45 AM to 11:00 AM: Break – ARMS 1028

11:00 AM – 12:15 PM: Presentations moderator – ARMS 1021: Abdullah Jalal Nafakh

11: 00 AM – 11:15 AM: An Overview of the Accelerated Pavement Testing Program: A Virginia Case Study
Freddie Salado, Gerardo Flintsch (VA Tech)

11:15 AM – 11:30 AM: Analysis of WisDOT’s Maintenance Quality Assurance Program
Javier Luis Vidal Carreras, Teresa M. Adams (U Wisconsin)

- 11:30 AM – 11:45 AM: Vibration Analysis for Health Condition Assessment of the Reinforced Concrete Girders
Ali Hafiz, Thomas Schumacher (Portland State University)
- 11:45 AM – 12:00 PM: Inspection System for RC Slabs of Expressway Bridges Focused on the Frequency of Generation of Potholes
Yohei Ninomiya, Kiyoyuki Kaito (Osaka University)
- 12:00 PM – 12:15 PM: Principal Component Analysis in the Evaluation of Track Quality Index (TQI)
Lasisi Ahmed, Nii Attoh-Okine (U Delaware)
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12:15 PM – 1:30 PM: Lunch/Poster sessions/Sponsors Display - ARMS 1103 - Atrium

1:30 PM – 2:30 PM: Presentations moderator – ARMS 1021: Arash Reza Habibi-Soureh

- 1:30 PM – 1:45 PM: Data Analysis of Steel Bridge Infrastructure including Climate and Traffic Effects
Tian Bai (U Delaware)
- 1:45 PM – 2:00 PM: Viability of Citizen Science for Infrastructure Condition Assessment at the Neighborhood Level
Isaac C. OtiI, Nasir G. Gharaibeh (Texas A&M)
- 2:00 PM – 2:15 PM: Pavement Macrotecture: Current State of the Practice
Vincent Bongioanni (VA Tech)
- 2:15 PM – 2:30 PM: Geopolymer Concrete can be the Solution for Sustainable Infrastructure
Lateef Assi, Mustafa Jasim, Kealy Carter, Pual Ziehl (U of SC)
- 2:30 PM – 2:40 PM: *Closing Remarks*
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2:30 PM to 3:00 PM: Break – ARMS 1103

3:00 PM – 5:15 PM: Tours of Infrastructure Labs (Bowen, Center for Aging Infrastructure)

Departure from the North West Entry of ARMS Building (Stadium Avenue)

5:15 PM – 6:15 PM: Opportunity to Tour the Campus

6:30 PM – 7:30 PM: Social Time and Dinner (PMU Faculty West Lounge – Second Floor)

7:30 PM – 8:45 PM: Closing Speeches and Awards Reception

“The ASCE Report Card: Does it Make the Grade?” *Professor Jon D. Fricker, Professor of Civil Engineering, Purdue University*

“Infrastructure and Commerce” *Mr. Mark R. Holden, CEO and Member of the Board of Directors, A&R Logistics, Inc.*

Poster Presentations

- (1) Multiobjective Optimization of Lane and Shoulder Widths at Rural Two-Lane Highways
Sikai Chen, Samuel Labi, Paul V. Preckel, Yu Qiao, Qiang Bai, Wubeshet Woldemariam
- (2) Cost and Fuel Usage Optimization of Activating Solution Based Silica Fume Geopolymer Concrete
Lateef Assi, Mustafa Jasim, Kealy Carter, Paul Ziehl
- (3) The U.S. Interstate Highway Bridge Maintenance Performance Assessment
SeyedAli Ghahari, Saeed AlQadhi, Samuel Labi
- (4) Improving the Electric Vehicle Charging Station Network for Use in Trans-National Transportation
Arash Habibi-Soureh, Thomas Hall, Tariq Saeed
- (5) Development of Probabilistic Design Approach for Freeze Thaw Resistance of Concrete
Warda Ashraf, Michal A. Glinicki, Jan Olek
- (6) Predicting Deterioration and Service Life of Indiana Bridges: Accounting for Material Type, Design Type, Functional Class and Climate
Tariq Usman Saeed, Samuel Labi, Kumares C. Sinha
- (7) Forecasting of Highway Revenues under Various Options
Abdullah Nafakh, Samuel Labi, Kumares C. Sinha
- (8) Updating State and Local Highway Cost Allocation and Revenue Attribution – A Case Study for Indiana
Yu Qiao, Samuel Labi, Kumares C. Sinha
- (9) Overweight-Vehicle Research that Led to Indiana’s New Trucking Law (Act 1481)
Sikai Chen, Samuel Labi, Kumares C. Sinha

June 24, 2017



8: 30 AM - Chicago Trip on us – Departure from the North West Entry of ARMS Building (in Stadium Avenue)

9:30 AM - Arrive at the Chicago Navy Pier

10:00 AM - Depart for the Riverboat Architecture Tour

11:15 AM - Arrive back the Chicago Navy Pier

1:00 PM - Lunch at Lou Malnati's Chicago - River North 439 North Wells Street, Chicago

2:00 PM - North Michigan Avenue

3:00 PM - A walk through Michigan Avenue to the Millennium Park, Chicago

5:45 PM - Spot time at the Millennium Park, 201 E Randolph St, Chicago

6:00 PM - Depart for Purdue University Physics Building 525 Northwestern Ave.

9:00 PM - Drop off at Purdue University North West Entry of ARMS Building (in Stadium Avenue).