The Frontiers of Artificial Intelligence-Empowered Methods and Solutions to Urban Transportation Challenges

Phase II: Best Practice, Education, and Workforce Development

Workshop Synopsis

With quickly growing quantity and variety of transportation data, artificial intelligence (AI) technologies are revolutionizing transportation research from system management to automated vehicle and infrastructure control. Emerging AI technologies combined with other analytical methods will lead to improved scientific understandings, transformative informed decisions, and innovative, proactive management solutions of urban transportation infrastructure systems (UTIS). In this workshop, researchers, practitioners, and educators from transportation and computer science disciplines will be invited to explore the frontiers of emerging AI technology best practices and workforce development for addressing urban transportation challenges. The workshop aims to identify the emerging implementation, workforce development, and education needs and challenges and further stimulate transformative research and applications in both transportation and AI communities.

Workshop Agenda

Time Slots	Phase II Workshop Event
8:00am-8:15am	Opening Remarks: Yueyue Fan (NSF CIS Program Director)
8:15am-9:00am	Keynote: Joe Conway (Director for Transportation Workforce Development at FHWA)
9:05am-10:25am	**Session Phase II-I: Emerging AI Technology Applications in Transportation Practices** Moderator: Lili Du, Associate Professor, Univ. of Florida Speakers: Ted Trepanier INRIX), Lian Ji (AECOM), Mecit Cetin (Old Dominion Univ.), and Balaji Yelchuru (Accenture).
10:40am-12:00pm	**Session Phase II-II: AI Technology Training Program Development** Moderator: Scott Washburn, Professor, Univ. of Florida Speakers: Alina Zare (Univ. of Florida), Mo Malakoutian (Amazon), Natarajan "Jana" Janarthanan (WSDOT), and Emmanuel Posadas (City of Gainesville)
12:00pm-1:00pm	Luncheon and Poster Session
1:00pm-2:20pm	**Session Phase II-III: New Generation Workforce Development for AI-empowered UTIS** Moderator: Heng Wei, Professor, Univ. of Cincinnati Speakers: David Kuehn (FHWA), Amer Muhammad (ASCE), Larry Rilett (Auburn Univ.), and Ahmed Abdul-Rahim (Univ. of Idaho)
2:35pm-3:35pm	**Session Phase II-IV: Roundtable Discussions: Gains and Lessons from Existing Practices and Identify Future Direction** Group Leaders: Samiul Hasan, Osama Osman, & Xianfeng Yang
3:35pm-4:00pm	Flash Presentation (Gaps of AI workforce and education), Discussion Reporting and Closing Remarks

When: December 15, 2022
Where: Hilton University of Florida Conference Center Gainesville (1714 SW 34th Street Gainesville, Florida)

Sponsor: National Science Foundation
Register here.

Organizing Committee

Dr. Yinhai Wang (Chair), Univ. of Washington
Dr. Lili Du (Chair), Univ. of Florida
Dr. Hani S. Mahmassani, Northwestern University
Dr. Kai Li, Princeton University
Dr. Xianfeng Yang, Univ. of Maryland
Dr. Yaw Adu-Gyamfi, Univ. of Missouri – Columbia
Dr. Osama Osman, Leidos
Dr. Samiul Hasan, Univ. of Central Florida
Dr. Zhe Jiang, Univ. of Florida
Dr. Simon Du, Univ. of Washington

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ASCE-T&DI Connected and Automated Vehicles Impacts Committee
TRB AED50 Committee on Artificial Intelligence and Advanced Computing Applications
TRB AEP40-4 Subcommittee on Emerging Technologies in Network Modeling
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University of Washington
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Southeastern Transportation Research, Innovation, Development and Education Center (STRIDE)

For more details, scan the QR code or ***click here for workshop website.***