

SAMUEL LABI

Sam Labi's research is motivated by evolving trends on the natural and anthropogenic landscapes which are increasingly characterized by emergent threats (aging infrastructure, funding limitations, and infrastructure vulnerability) and opportunities (technological advancements, interdisciplinary synergies, and data analytics).

As such, his engineering research areas include:

- connected automated vehicles (market forecasts, human factors, cab-driving simulation, microsimulation, and controls algorithms);
- impact analysis and evaluation methodologies for innovative materials and processes in infrastructure management;
- legislative policy development and evaluation regarding efficient and equitable fee structures for vehicle use on highways;
- infrastructure preparations to support next-generation transportation (electric, autonomous, connected, shared, and airborne vehicles)
- methodologies and electronic tools including software packages for constrained multiple-criteria optimization of infrastructure development resources and analysis of investment performance tradeoffs;
- infrastructure project and construction management, cost functions, highway project finance, and transportation equity.

Overall, Dr. Labi believes strongly in big-picture thinking. His work is geared towards development that not only fosters infrastructure resilience and economic wellbeing but also promotes sustainable development, ecological preservation, and social and environmental justice including intergenerational fairness and human dignity, and basic human rights.

*"To serve is beautiful, but only if it is done with joy and a whole heart and a free mind."
— Eckhart Tolle*

A brief bio

Dr. Samuel Labi (Ph.D. 2001, Purdue) is a professor at Purdue' Lyles School of Civil Engineering. He is currently the director of the Smart Transport and Infrastructure Research Lab (STIR-LA), the FHWA Center of Excellence in Project Finance (Midwest Region), the USDOT Next-generation Transportation Systems Center (NEXTRANS), and he is associate director of the USDOT Center for Connected & Automated Transportation (CCAT).

He has authored textbooks: *Transportation Decision Making* (2008) and *Civil Engineering Systems* (2014) both published by Wiley and adopted at several universities worldwide for course instruction; and research articles in reputable journals; book chapters; refereed conference articles; and research reports. He has given presentations at conferences, and invited lectures or presentations at special events.

His journal editorial roles include assistant/associate editor, guest editor, and editorial board member, for journals including *Computer-Aided Civil & Infrastructure Engineering*, *Safety Science*, *Infrastructure Systems*, and *Risk & Uncertainty Part A*. Also, he chairs ASCE's Transportation & Development Council, and is immediate past chair of T&DI's committee on Economics & Finance and past vice-President of the Transportation Research Forum.

Dr. Labi has served as major advisor for PhD students that have graduated (of these, 14 are in academic positions at reputable universities worldwide) and M.S. students that have graduated. He currently serves as major advisor for Ph.D. students and M.S. students. His students have earned several research awards some internal (Purdue) and others external.

His major external research awards include American Society of Tests and Materials (ASTM)'s Mather Award (2007) for outstanding paper in concrete materials, TRB's K.B. Woods (2008) for outstanding journal paper in design & construction, ASCE's Frank Masters Award (2014) for outstanding and innovative work in transportation systems, TRB's Grant Mickel (2019) award for outstanding journal paper in operations & maintenance, and the Joe Sussman best paper award in *Frontiers* journal (2021).

"We are not what we know but what we are willing to learn."

— Mary Catherine Bateson

His “impact” (hopefully ...)

Textbooks for instruction: His textbooks are being used at universities worldwide: *Transportation Decision Making* (8 universities, current knowledge), and *Introduction to Civil Engineering Systems* (12 universities, current knowledge), rated in 2020 as “among the 18 best civil engineering book of all time”, by bookauthority.org, featured on CNN and Forbes.

Research impact on transportation legislation and policy: Carried out research requested by Indiana state legislature; provided technical input towards two new pieces of legislation on transport policy; the laws were passed in Years 2015 and 2017. Currently working on research to serve as input for a proposed new legislation on overweight-truck policy in Year 2024.

Research impact on dispute resolution at state government level: Carried out research that helped resolve issues or disputes between public organizations and private-sector interests, including work for Illinois auditor-general (2012) and Rhode Island attorney-general (2018).

Expert guidance provided to international development agencies upon invitation: The World Bank -- assessed highway design policy in India (2012) and Rwanda (2017). Advised the World Bank on the development a Center of Excellence in Infrastructure, Rwanda (2017).

Professional Committee roles: Chair, ASCE’s Transportation and Development (T&DI) Council on Planning & Development; Past Chair, T&DI’s Economics & Finance Committee.

Research awards from international organizations, institutions, and journals: ASTM’s Mather award (2007); TRB’s K.B. Woods award (2008); ASCE’s Frank Masters award (2014); AASHTO’s High Value Research award (Team award) (2014), TRB’s Grant Mickel award (2018), Frontiers Journal’s Sussman best-paper award (2021).

Journal articles/citation statistics: approximately: **165** journal articles, **7,900** Google Scholar citations; *h*-index **46**; *i10*-index **162**.

Research funding: approximately: **50** projects; **\$12M** (directly responsible for **\$8M**).

Doctoral student mentorship: Graduated: **25** M.S. students and **27** PhD’s (**14** currently of them are professors at various levels at reputable universities worldwide. His students have earned at least **50** national, international, & internal (Purdue) research awards.

Associate Editor/Editorial Board: Appointed in these roles for at least 3 journals: Safety Science; Infrastructure Systems; ASCE-ASME Journal of Risk/Uncertainty; and Computer Aided Civil & Infrastructure Engineering.

*“An impression thrills a few people for a moment. An impact changes society for a lifetime.”
— Craig D. Lounsbrough*

Positions held

Jul 2022	Present	Director, Midwest Branch, FHWA Center of Excellence in Project Finance Purdue.
Jul 2018	Present	Director, NEXTRANS Transportation Center, Purdue University
Jul 2018	Present	Assoc. Director, Center for Connected & Automated Vehicles, Purdue University
Aug 2001	Present	Visiting, Assistant, Associate, Full Professor: Lyles School of Civil Eng, Purdue.
Aug 2023	Feb 2024	Director, Purdue AI Racing Initiative
Aug 2006	Aug 2007	Visiting Scholar, Dept. of Civil Eng., Massachusetts Inst. of Technology (MIT)
Aug 2001	Aug 2005	Visiting Professor, Lyles School of Civil Engineering, Purdue University
Aug 1995	Aug 2001	Grad. Research Asst., School of Civil Engineering, Purdue University
Oct 1987	Aug 1995	Civil Engineer, Conterra Consultants International

“Success could be measured not by the positions that we have reached in life but by the obstacles which we have overcome.” -- Booker T. Washington



Awards

that came his way ...

- **Joseph M. Sussman Best Paper Prize**, Frontiers in the Built Environment journal, 2021. Co-recipients: Mohammad Miralinaghi and Sania Seilabi.
- **D. Grant Mickle Award** for Transportation Research Board (TRB) best journal paper in the area of operations and maintenance, 2018. Co-recipients: Jon D. Fricker and Julie Qiao.
- **Frank Masters Award** for innovations and contributions to the advancement of the knowledge and practice of transportation engineering, American Society of Civil Engineers (ASCE), 2014.
- **Best Paper Award**, 10th International Conference of the Institute for Infrastructure Resilience and Reconstruction (I3R2) Conference, 2014. Co-recipients: Michelle Dojutrek, Eric Dietz.
- **AASHTO Award for Best High Value Research Project**, U.S. Region 3, team award, 2014.
- **Bravo Award (Purdue University)** for authoring a textbook on civil engineering systems with profound impact on civil engineering curricula at Purdue and other universities, 2014.
- **Roy and Myrna Wansik Award for Research Leadership**, Purdue University, 2011.
- **K.B. Woods Award** for Transportation Research Board (TRB), best journal paper in Design and Construction. Co-recipient: Chuanxin Fang, 2008.
- **Bryant Mather Award** for Best Paper in Concrete Materials, awarded by the American Society of Testing and Materials (ASTM) at TRB 86th Annual Meeting, Washington D.C., 2007.
- **Milton Pikarski Award**, for Best National Ph.D. Dissertation in Transportation (Science and Technology category) by the Council of University Transportation Centers (CUTC) 2002

"Never chase awards. Let them chase you."

Courses taught

Summary: 16 regular courses taught (some taught multiple times), 2001-present

<u>Course Name</u>	<u>Course Nr.</u>	<u>Years</u>	<u>Institution</u>
Economics, Ethics & Case Histories in Civil Engineering	CE 394	2001	Purdue
Stochastic Concepts and Methods in Civil Engineering	CE 392	2002	Purdue
Introduction to Civil Engineering Systems Design	CE 398	2003-present	Purdue
Highway Infrastructure Management Systems	CE 568	2004-present	Purdue
Evaluation of Transportation Systems	CE 561	2001-present	Purdue
Project Management (graduate)	CEE 1.401	2007	MIT
Project Management (undergraduate)	CEE 1.040	2007	MIT
Introduction to Careers in Engineering (undergraduate)	CE 103	2009, 2010	Purdue
Smart Mobility (undergraduate)	CE 299	2018-present	Purdue
Human-Centered Considerations in Road Vehicle Automation	CE 597	2019	Purdue
Traffic Congestion Pricing: Theories and Applications to Smart Mobility	CE 597	2019	Purdue
Machine Learning and Artificial Intelligence for Autonomous Vehicle Operations I	CE 597	2020	Purdue
Machine Learning and Artificial Intelligence for Autonomous Vehicle Operations II	CE 597	2020	Purdue
Study Abroad Singapore	CE 497	2019, 2022	Purdue
Vertically Integrated Project for the Autonomous Motorsports Purdue (AMP), https://engineering.purdue.edu/VIP/teams/amp	47920	2022 - present	Purdue
Vertically Integrated Project for the Artificial Intelligence Maritime Maneuver Indiana Collegiate Challenge (AIMM ICC) https://engineering.purdue.edu/VIP/teams/nswc-aimm	47920	2023 - present	Purdue

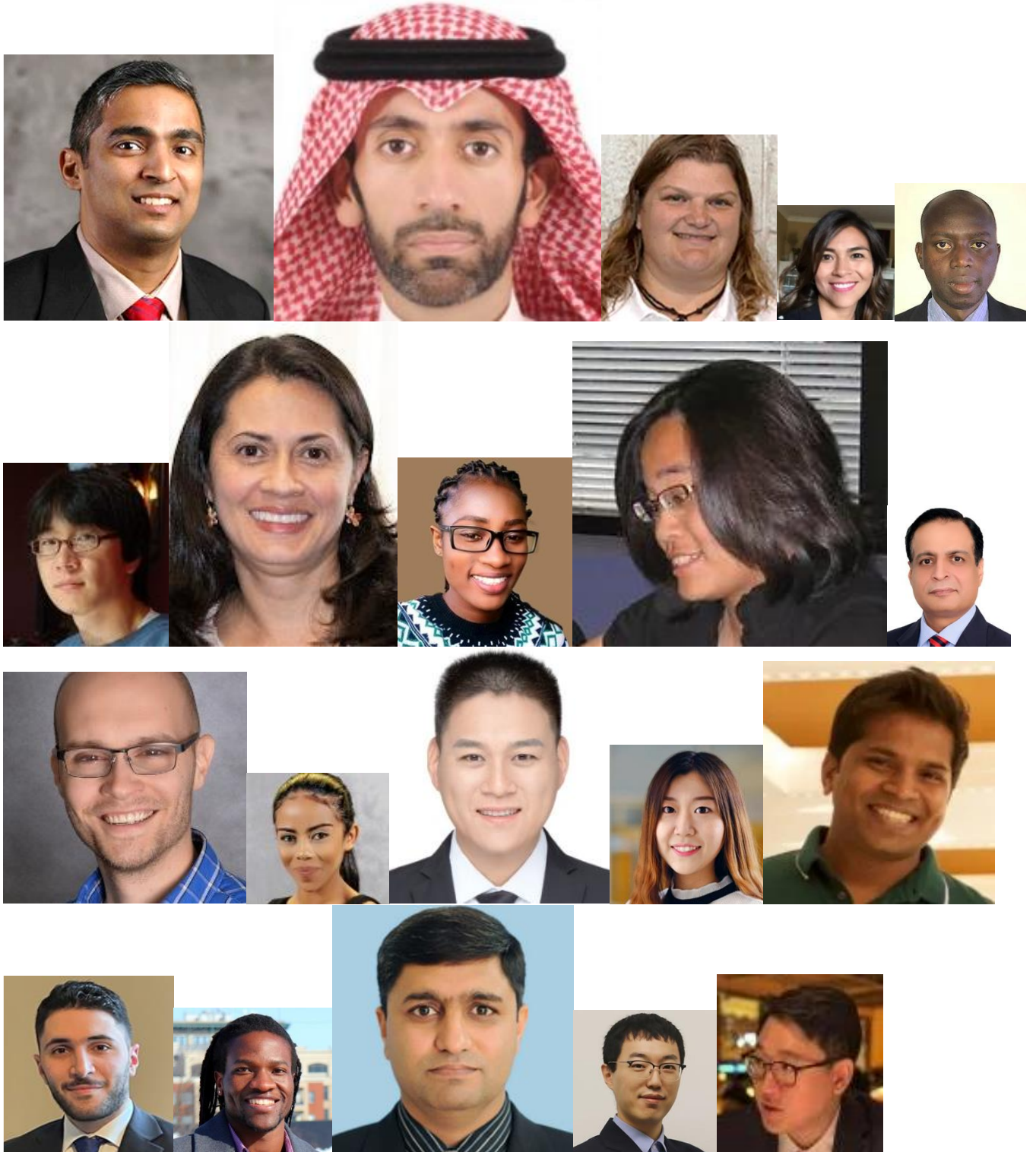
“A good teacher is like a candle—it consumes itself to light the way for others.”

– Mustafa Kemal Atatürk

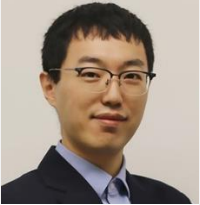






Courses Taught at Other Locations

<u>COURSE NAME</u>	<u>INSTITUTION</u>	<u>YEARS</u>
Workshop on Planning, Programming and Systems Evaluation	Indianapolis Traffic Center	Dec. 11-13, 2007
Workshop on Transportation Asset Management	Southeast University, Nanjing, China	May 8-10, 2012
Optimization in Infrastructure Asset Management (to students from various universities worldwide)	Georgia Tech, Atlanta	Summer 2012
Workshop on Highway Capacity Manual (to INDOT employees)	Purdue University	June 27-29, 2012
Optimization in Infrastructure Asset Management (to students from various universities worldwide)	Virginia Tech, Blacksburg	Summer 2014
Civil Systems and Infrastructure Management (to Brazilian Students)	Purdue University	June 16 -July 31, 2014
Workshop on Highway Capacity Manual (to INDOT employees)	Purdue University	June 10-12, 2015
Civil Systems and Infrastructure Management (to Brazilian Students)	Purdue University	June 16 -July 31, 2015
Optimization in Infrastructure Asset Management (to students from various universities worldwide)	Oklahoma State University	June 6-17, 2016
Civil Systems and Infrastructure Management (to Brazilian Students)	Purdue University	June 16 -July 31, 2016
Civil Systems and Infrastructure Management (to visiting students from King Khalid University, Saudi Arabia)	Purdue University	Summer 2017
Civil Systems and Infrastructure Management (to visiting students from King Khalid University, Saudi Arabia)	Purdue University	Summer 2018
Civil Systems and Infrastructure Management (to visiting students from King Khalid University, Saudi Arabia)	Purdue University	Summer 2019
Optimization in Infrastructure Asset Management (to students from various universities worldwide)	Purdue University	Summer 2017
Optimization in Infrastructure Asset Management (to students from various universities worldwide)	University of Delaware	Summer 2019
Optimization in Infrastructure Asset Management (to students from various universities worldwide)	University of Delaware	Summer 2021
Optimization in Infrastructure Asset Management (to students from various universities worldwide)	University of Delaware	Summer 2023


***Interlude: A few past students
(part of the new generation of educators & practitioners)***





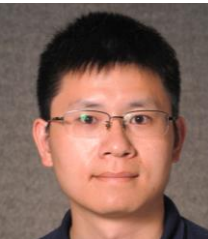


Graduated PhD Students in Academic Positions

	<u>NAME</u>	<u>YEAR</u>	<u>CURRENT POSITION</u>	<u>INSTITUTION</u>
	Sikai Chen	2019	Assistant Professor	University of Wisconsin-Madison
	Shubham Agrawal	2018	Assistant Professor	Clemson University
	Yuntao Ross Guo	2019	Assistant Professor	Tonji University, Shanghai
	Saeed Al-Qadhi	2018	Assistant Professor	Kind Khalid University, Saudi Arabia
	Majed Alinizzi	2017	Vice President for business development and community partnership	Qassim University, Saudi Arabia
	Jackeline Murillo Hoyos	2016	Associate Professor, Vice Dean for academic Affairs	Valle University, Colombia
	Nathee Athigakunagorn	2015	Associate Professor	Kasetsart University, Thailand

Graduated PhD Students in Academic Positions (continued)

	<u>NAME</u>	<u>GRADUATING YEAR</u>	<u>CURRENT POSITION</u>	<u>INSTITUTION</u>
	Wubeshet Woldemariam	2015	Associate Professor	Purdue University NW
	Matthew Volovski	2015	Associate Professor	Manhattan College, New York
	Rafizur Arman	2014	Assistant Professor	North-South University, Bangladesh
	Ahmed Anwaar	2012	Associate Professor	National Institute of Science and Technology, Pakistan
	Qiang Bai	2012	Professor	Chang An University, China
	Muhammad B. Khurshid	2010	Professor	National Institute of Science and Technology, Pakistan
	Muhammad Irfan	2010	Professor, Principal & Dean, School of Civil & Environmental Engineering	National Institute of Science and Technology, Pakistan

Former post-doctoral fellows currently in academic positions

	<u>NAME</u>	<u>POSTDOC YEARS</u>	<u>CURRENT POSITION</u>	<u>INSTITUTION</u>
	Sikai Chen	2019-2022	Assistant Professor	University of Wisconsin-Madison, WI
	Mohammad Miralinaghi	2017-2022	Assistant Professor	Illinois Institute of Technology, IL
	Jian Wang	2017-2018	Professor	South-east University, China
	Yuntao Ross Guo	2019-2020	Assistant Professor	Tonji University, Shanghai
	Dustin Souders	2018-2020	Assistant Professor	Clemson University, SC

Current students

NAME

DEGREE, YEAR STARTED

RESEARCH TOPIC & AWARDS



Richard Ajagu

MS, Started 2024

Demand analytics for next generation vehicles.



Deepak Benny

PhD, Started 2022

Novel concepts in infrastructure finance to address current and future challenges.
Awards:
2023 Radwan Graduate Fellowship
AISIM 2024 Outstanding Paper Award



Isaiah Mwamba

PhD, Started 2019

The confluence of emerging vehicle technologies and infrastructure funding policy: Adequacy and equity impacts of innovative financing in an era of automation, connectivity, and electrification



Dong Yoon Song

PhD, Started 2018

Understanding the psychological effects of real-time travel information on route choice behavior and travel satisfaction



Bortiorakor Alabi

MS, Started 2020
(Non-thesis)

Sustainability practices in aviation facility management







Yujie Li

PhD, Started 2020

Control design for connected and autonomous vehicles in transportation ecosystems

Current Students (continued)

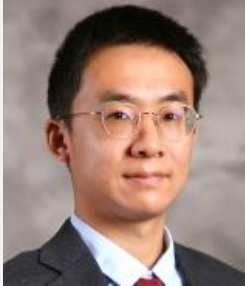
	<u>NAME</u>	<u>DEGREE, YEAR STARTED</u>	<u>RESEARCH TOPIC & AWARDS</u>
	Mohammadhosein Pourgholamali	PhD, Started 2024	Dissertation Topic: TBA
	Andres Moreno	PhD, Started 2023 (Intended move to ME in Jan 2025)	Dissertation Topic: Software and systems development and integration for high-speed vehicle operations
	David Orlando Holguin	MS, Started 2023	Dissertation Topic: Sustainability considerations in infrastructure development
	Fahad Alqatani	PhD, Started 2022	Econometric analysis of pedestrian crash frequency and severity at signalized and non-signalized intersections

Past (Graduated) students

NAME

DEGREE & YEAR

THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS



Frank Jiqian Dong

PhD 2024

Learning-based planning for connected and autonomous vehicles: Towards information fusion and trustworthy AI

Awards:

- (1) IEEE Conference paper award
- (2) 2023 Eldon Yoder Memorial Research Award, Lyles School of Civil Engineering
- (3) Outstanding PhD Dissertation award, Lyles School of Civil Engineering, Purdue University



Aishwarya Sharma

MS 2024

Multi-criteria decision analysis for human-like decision making in autonomous vehicle operations

Ross Fellow, Purdue University



Zainab A. Saka

MS 2023

Lidar placement optimization using a multi-criteria approach

Awards:

- Ross Fellow, Purdue University
2023 WTS Helene M. Overly Memorial national scholarship



Mohammadhosein Pourgholamali

MS 2023

Robust design of electric charging infrastructure locations under travel demand uncertainty and driving range heterogeneity

Awards:

- (1) 2023 Best M.S. Thesis award, Lyles School of Civil Engineering.
- (2) Outstanding MS thesis award, College of Engineering, Purdue University



Rayne Runjia Du

PhD 2023

Safety and mobility improvement of mixed traffic using optimization- and learning-based methods

Awards:

- (1) ITE Elevator Pitch award
- (2) IEEE Conference paper award

Past students (continued)

NAME **DEGREE** **THESIS RESEARCH TOPIC,**
& YEAR **AWARDS, HONORS, AND POSITIONS**



Paul Young Ha **PhD 2023** **Enhancing traffic efficiency of mixed traffic using control-based and learning-based connected and autonomous systems**
 Awards:
 (1) ITE Elevator Pitch award
 (2) IEEE Conference paper award



Abdullah Nafakh **PhD 2023** **A framework for enhancing pedestrian service at signalized intersections**
 Awards:
 (1) Outstanding Student of the Year Award, USDOT's University Transportation Centers Program
 (2) Professional Development Scholarship, Lyles School of Civil Engineering



Sania Seilabi **PhD 2022** **Lane management in the era of connected and autonomous vehicles considering sustainability**
 Awards:
 2021 Sussman Best Paper Prize from the Frontiers in the Built Environment journal









Hanna Kemaw **MS 2022** **The price of longevity - Empirical evidence from road pavements (Non-thesis report)**








Shuya Zong **MS 2022** **An application of unmanned aerial vehicles in intersection traffic monitoring**

Past students (continued)

	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Seyed Ali Ghahari	PhD 2021	A blueprint for detecting and measuring inefficiencies at infrastructure agencies Awards (sample): (1) Cox Memorial Award, (2) Magoon Award for Excellence in Teaching. (3) Radwan Fellowship. (4) MIT Short Program scholarship. (5) NSF Grant for Making Academic Change Happen workshop
	Isaiah Mwamba	MS 2021	Consequences new transport technologies on highway expenditures, revenues & equity Awards: (1) USDOT Eisenhower Graduate Fellowship Award (2) Student Engagement award, Civil Engineering Graduate School, Purdue.
	Amir Davatgari	MS 2021	Location planning for electric charging stations and wireless facilities in the era of autonomous vehicles Award: 2021 Sussman Best Paper Prize from the Frontiers in the Built Environment journal
	Mahmood Tabesh	MS 2020	Parking facility location and user pricing in the era of autonomous vehicle operations Award: 2021 Sussman Best Paper Prize from the Frontiers in the Built Environment journal
	Tara Radvand	MS 2020	Sustainable routing guidance for a road network with work zones during the connected and automated vehicles era
	Shubham Agrawal	PhD 2020	Developing/evaluating real-time information delivery systems for travelers

Past students (continued)

	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Runjia Du	MS 2020	Collision avoidance framework for autonomous vehicles under crash imminent situations
	Paul Young Joun Ha	MS 2019	Sustainability considerations for AV-exclusive lane deployment
	Yujie Li	MS 2019	Non-thesis
	Yuntao Ross Guo	PhD 2019	Using emergent technologies to influence short- and long-term travel decisions
	Julie Yu Qiao	PhD 2019	<p>Quantitative analysis of bundling effects on highway project cost, duration, and bidding competition</p> <p>Awards:</p> <ul style="list-style-type: none"> (1) TRB's Grant D. Mickle award for best TRR journal paper in design and construction, 2018. (2) Nellie Munson Award for Excellence in Teaching – College of Engineering, Purdue University (3) AISIM 14 best conference presentation award

Past students (continued)

NAME **DEGREE** **THESIS RESEARCH TOPIC,**
& YEAR **AWARDS, HONORS, AND POSITIONS**

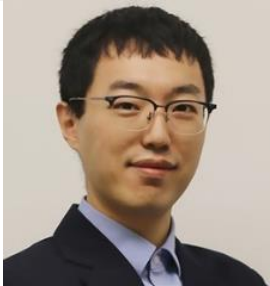


Tariq S. Usman **PhD**
2019

Identifying and timing highway infrastructure needs to accommodate connected and autonomous vehicles

Awards:

(1) International Road Federation Fellow Award 2016. (2) American Public Transportation Foundation Scholarship 2017. (3) ENO (National Center for Transportation) Future Leaders Award 2017. (4) ThinkSwiss Research Fellowship. (5) Radwan Graduate Fellowship. (6) American Society of Civil Engineers' Jack E. Leisch Fellowship Award (7) Donnon Doctoral Fellowship, Purdue University. (8) Outstanding graduate student award, Purdue University College of Engineering.



Sikai Chen **PhD**
2019

Roadway crash factors & design implications: new evidence in the traditional operating environment and insights into emerging environments.

Awards:

(1) Prize for best PhD dissertation (national competition), awarded by the Council of University Transportation Centers and American Road and Transportation Builders Association. (2) Magoon Award for Excellence in Teaching – College of Engineering, Purdue University. (3) Summer Research Grant for Civil Engineering – Purdue University Research Foundation (4) Bilisland Doctoral Fellowship, Purdue University. (5) Nominated by Purdue as one of 5 Purdue doctoral students for the 2019-2020 Schmidt Science Fellows program. (6) 2019 Best dissertation award, Lyles School of Civil Engineering








Nathan Shelhamer **MS**
2019

Transit demand prediction at suburban areas

Past students (continued)

	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Saeed Al-Qadhi	PhD 2018	Evaluating alternative pavement materials using deterministic and probabilistic approaches
	Nafakh Abdullah	MS 2018	A statistical spatial analysis of the first-mile-last-mile problem in public transportation
	Majed Alinizzi	PhD 2017	Optimizing the maintenance & rehabilitation schedules of interdependent infrastructure systems
	Julie Yu Qiao	MS 2015	A system-of-system design for sustainable transportation across multiple modes Awards: [Best MS non-thesis research report (Neville Parker national award), Council of University Transportation Centers, USA]
	Zhibo Zhang	PhD 2016	Scheduling infrastructure rehabilitation and maintenance using dynamic thresholds






Past students (continued)

	NAME	DEGREE & YEAR	THESIS RESEARCH TOPIC, <u>AWARDS, HONORS, AND POSITIONS</u>
	Peng Jiao	MS 2016	Dynamic green split optimization in intersection signal design for urban street network
	Jackeline Murillo Hoyos	PhD 2016	Developing condition-based triggers for bridge deck maintenance and rehabilitation treatments
	Trevor Klatko	MS 2015	A framework for VMT estimation
	Milhan Moomen	MS 2015	Enhanced bridge deterioration models for the bridge management
	Nathee Athigakunagorn	PhD 2015	Using real options theory for highway intervention scheduling






Past students (continued)

	<u>NAME</u>	<u>DEGREE & YR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Wubeshet Woldemariam	PhD 2015	Development of measures of network connectivity and accessibility for project evaluation
	Matthew Volovski	PhD 2015	Spatial analysis of passenger vehicle use and ownership/impact on highway infrastructure funding sustainability
	Stephanie Everett	PhD 2015	Auctions approach for overweight truck permitting
	Rafizur Arman	PhD 2014	Managing risks in highway winter operations using options theory
	Michelle Dojutrek	PhD 2014	A multiple criteria evaluation procedure for security investments
	Vinay Varadarajan	M.S., 2014	Impacts of overweight trucks on infrastructure (non-thesis)






Past students (continued)

NAME	DEGREE & YEAR	THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS
	Tao Liao MS, 2012	Climate Data for Infrastructure Management (Non-thesis)
	Ahmed Anwaar PhD 2012	Pavement damage cost estimation using highway agency maintenance, rehabilitation, and reconstruction strategies
	Zhibo Zhang MS 2012	Evaluating long-term leasing of toll roads based on probabilistic and multiple-criteria techniques
	Ashish Samdariya MS 2012	Probabilistic and multiple-criteria techniques in evaluating alternative reinforcement materials for increasing bridge deck life
	Eleni Bardaka MS 2012	Mixed linear modeling techniques for enhancing pavement performance predictions Awards: Edward J. Cox Memorial Transportation Scholarship Zimmerman Innovation Award




Past students (continued)

	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Qiang Bai	PhD 2012	Trade-off analysis in multi-objective optimization for transportation asset management Awards: Best doctoral dissertation (national award, The Pikarski prize), Council of University Transportation Centers, USA
	Apichai Issariyanukula	PhD 2011	A probabilistic methodology for estimating transportation project costs using Bayesian models
	Kevin Ford	PhD 2011	Incorporating highway asset life expectancy into long-term planning—risk-based, probabilistic approach
	Michelle Dojutrek	MS 2011	An elemental decomposition & bi-criteria method for asset valuation
	Matthew Volovski	MS 2011	Econometric models for pavement routine maintenance expenditure



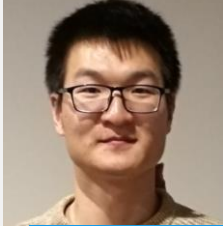




Past students (continued)

	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Muhammad B. Khurshid	PhD 2010	A framework for establishing optimal performance thresholds for highway asset interventions
	Muhammad Irfan	PhD 2010	A framework for developing optimal pavement life-cycle activity profiles
	Amanda Cope	MS 2009	Multiple-criteria life-cycle evaluation of alternative bridge deck reinforcement materials
	Essa Mahmodi	MS 2008	Integrating preventive maintenance into bridge management systems
	Siew Hwee Kong	MS 2007	Aggregate cost modeling of transit capital investment, operations, and maintenance <small>Awards: Edward J. Cox Memorial Transportation Scholarship Award</small>

Past students (continued)

	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Geoffrey Lamptey	MS 2004	Optimal scheduling of pavement preventive maintenance using life cycle cost analysis (co-advised with Kumares Sinha)
	Myriam Rodriguez	MS 2004	An assessment of preservation needs of state highway bridges in Indiana (co-advised with Kumares Sinha) Awards: Best M.S. Thesis, national award, given by the Council of University Transportation Centers (CUTC) and American Association of Road and Transportation Builders (ARTBA), at TRB Annual Conference, January 2004, Washington, DC
	Claire Bordat	MS 2004	An analysis of cost overruns and time delays in INDOT projects (co-advised with Kumares Sinha)

Past Visiting Scholars

	<u>Name</u>	<u>Visiting from ...</u>	<u>Year</u>
	Penglin Song	Hong Kong Polytechnic University	2022
	Tao Zhuoqun (Jeremy)	Chang An University	2018
	Yingjie Deng	Tongji University	2017
	Zongxin Tang	Southeast University	2016
	Murilo Assad Crudo Marostica	Brazil	IIE/Brazil Scientific Mobility Program, 2016
	Carolina Bastos Almeida	Brazil	IIE/Brazil Scientific Mobility Program, 2016
	Marco Bortolotto	Brazil	IIE/Brazil Scientific Mobility Program, 2016



Paolo Diniz

Brazil

IIE/Brazil Scientific Mobility
Program, 2016



**Rian das Dores
de Miranda**

Brazil

IIE/Brazil Scientific Mobility
Program, 2016



**Gabriela
Azevedo**

Brazil

IIE/Brazil Scientific Mobility
Program, 2015



Ana Castillo

Brazil

IIE/Brazil Scientific Mobility
Program, 2015



Jefferson Pedro

Brazil

IIE/Brazil Scientific Mobility
Program, 2015

PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers (ASCE)

Chair, Transportation and Development Council, 2023-Present
Chair, Economics and Finance Committee, 2017-2023
Chair, Planning, Economics, & Finance Committee , 2015-2016
Member, Highway Pavements Committee, 2018-Present



Transportation Research Forum (TRF)

Member, 2017-Present
Vice President, 2017-2018



Transportation Research Board (TRB)

Asset Management Committee
Secretary, 2014-2022.
Member, 2012-2022
Bridge Management Committee
Member, 2012-2021



Institute of Transportation Engineers (ITE)

Member



American Planning Association (APA)

Member



American Planning Association

American Association for the Advancement of Sciences (AAAS)

Member



Institute for Operations Research and the Management Sciences (INFORMS)

Member

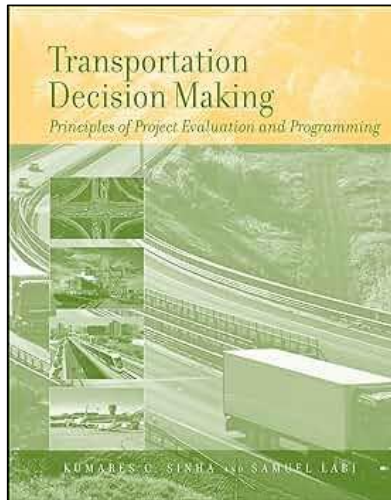


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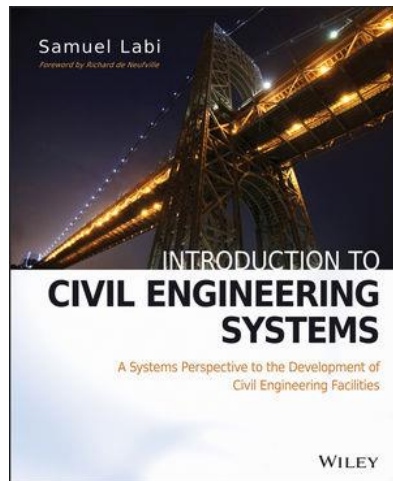


TEXTBOOKS



Sinha, K.C., and Labi, S. (2007). **Transportation Decision Making – Principles of Project Evaluation and Programming**, Wiley & Sons

Is/has/had been adopted as main, supporting, or resource text by universities in countries including: USA (Univ. of Nevada Las Vegas, Univ. of Massachusetts Lowell, Morgan State Univ., Portland State Univ.), Albania (Polytechnic University of Tirana), Ghana (Univ. of Sci. & Tech.), Pakistan (National Univ. of Sciences and Technology), and Canada (Carleton Univ.), etc.



Labi, S. (2014). **Introduction to Civil Engineering Systems**, Wiley & Sons

Is/has/had been adopted as main, supporting, or resource text by universities in countries including: China (SEU), Poland (Warsaw Univ. of Technology), UK (Univ. of London), Turkey (IYTE); USA (Air Force Institute of Technology at the Wright-Patterson AFB, MIT, Southern Methodist University, University of Colorado, UMass, Stanford, UT Tyler, UC Davis), and Guatemala (Univ. of San Carlos).



Sinha, K.C., and Labi, S. (2024). **Principles of Asset Management for Transportation Infrastructure**

To be released 2025

Interlude:

Poland university professor and students pose with their “favorite” textbook



Warsaw University of Technology, Poland, 2016

Introduction to Civil Engineering Systems, Wiley & Sons, Labi, S. (2014).

PREFACE TO THE BOOK (written by Professor Richard de Neufville, MIT):

Labi's *Introduction to Civil Engineering Systems* fills an important gap. The previous lack of a current text on the subject has been most unfortunate. It is clear that the proper development of our infrastructure requires a holistic, coherent understanding of all the important elements that will make our products successful. Civil engineers have a responsibility for the entire life cycle of what we build: from planning, through design, to the management of the facility over its useful life. A civil engineering curriculum should thus provide its students with the opportunity to learn how to consider carefully the range of issues in civil engineering systems. This text now provides a basis for such a capstone course.

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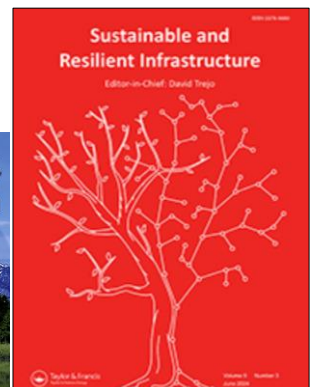
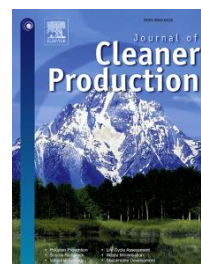
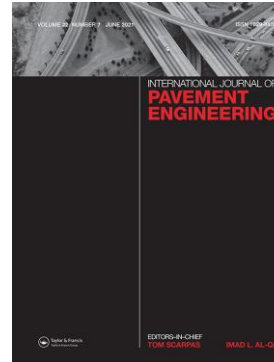
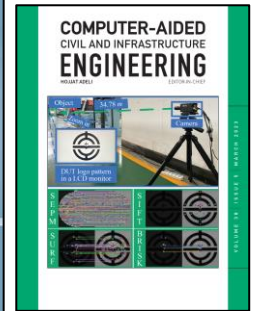
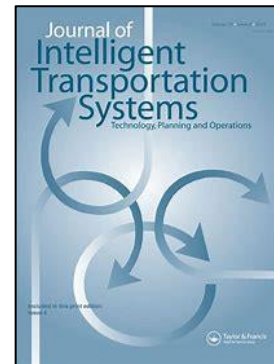
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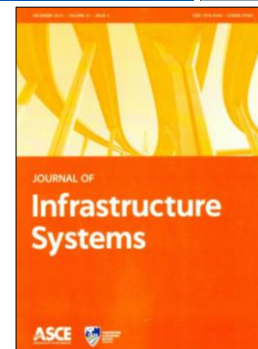
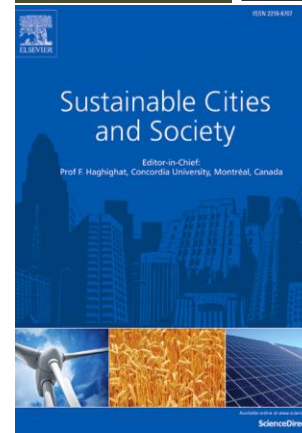
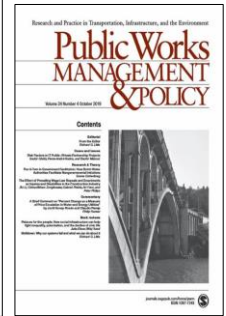
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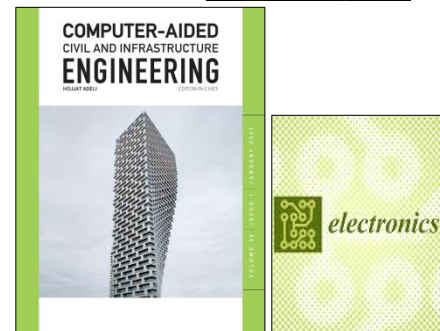
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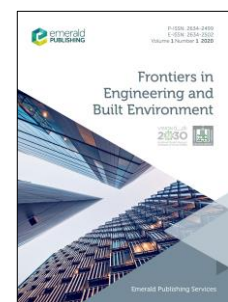
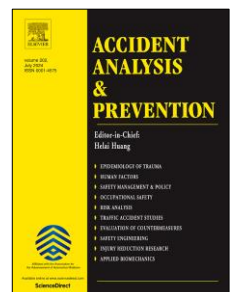
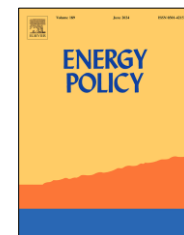
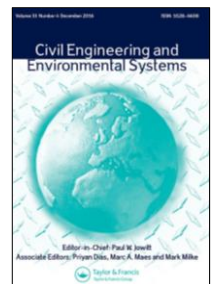
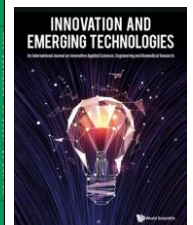
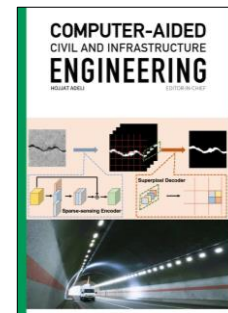
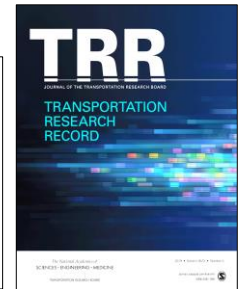
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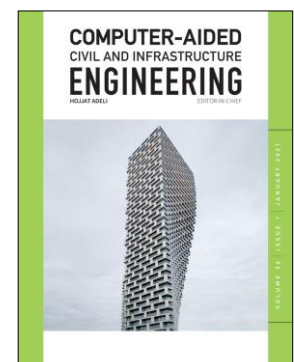
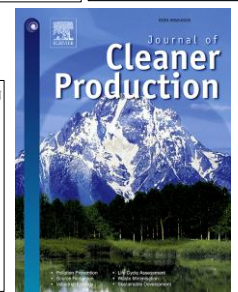
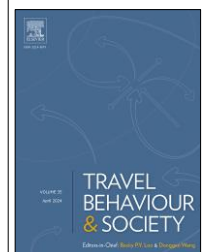
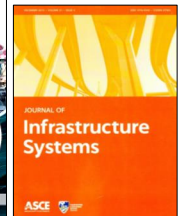
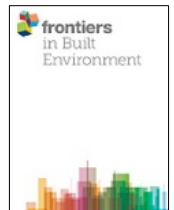
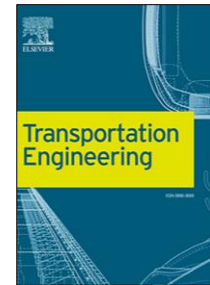
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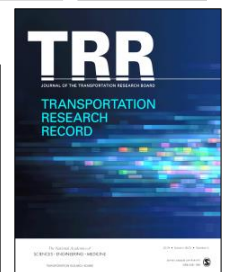
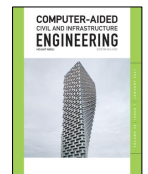
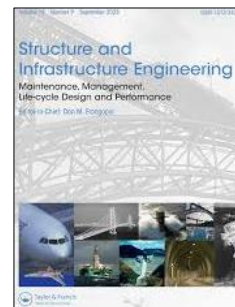
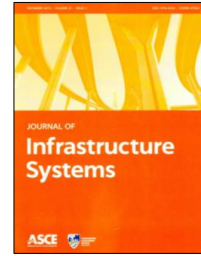
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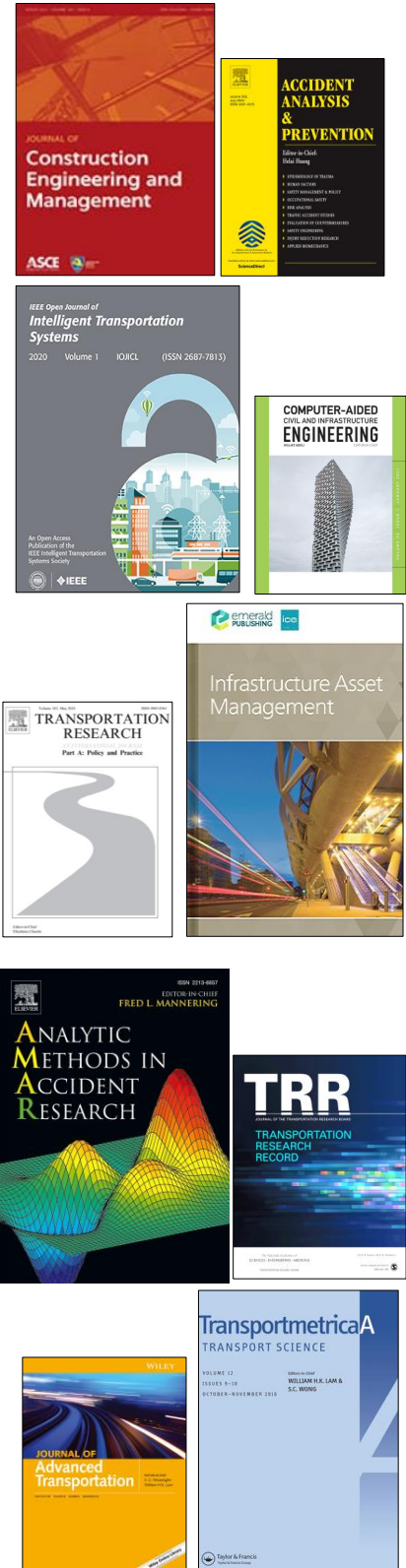
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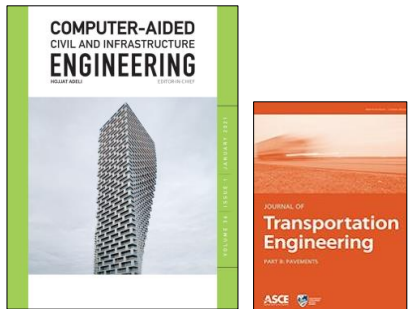
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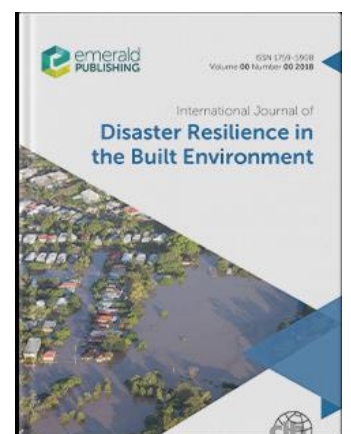
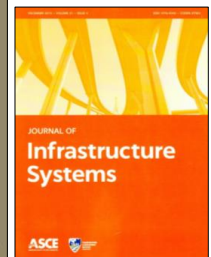
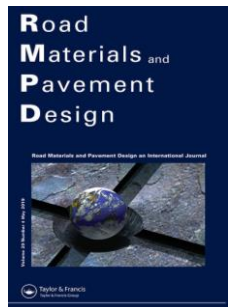
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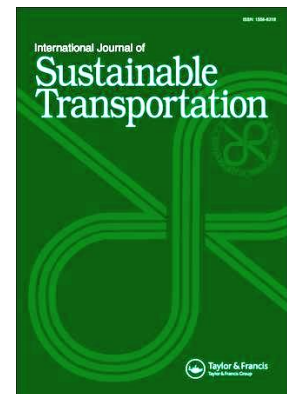
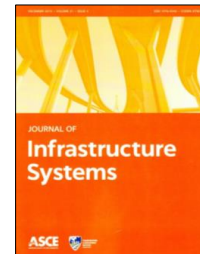
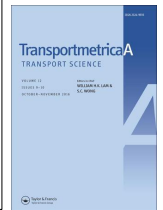
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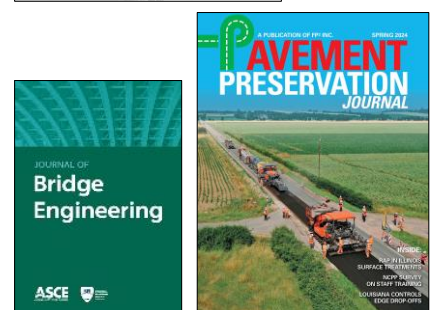
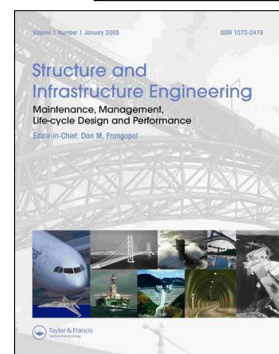
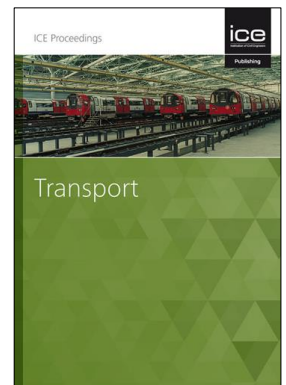
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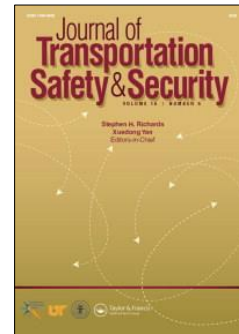
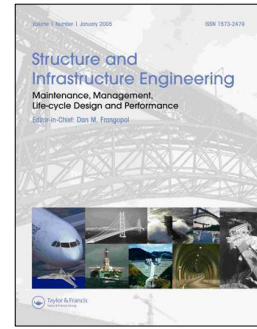
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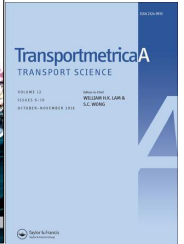
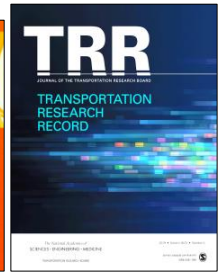
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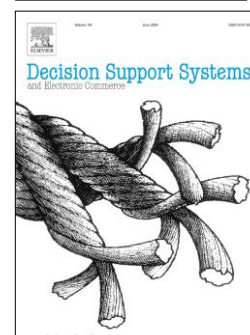
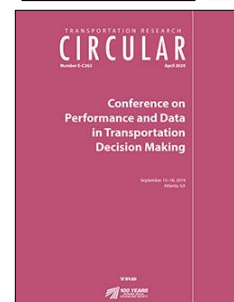
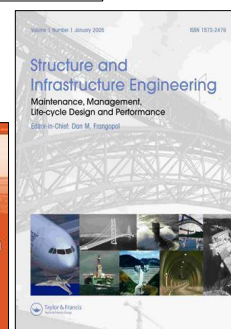
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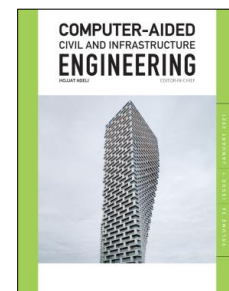
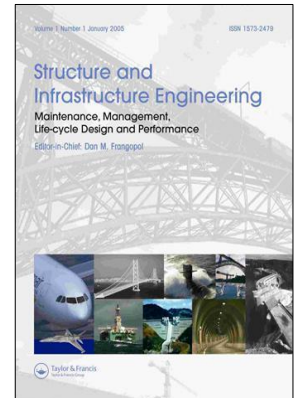
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Invited Speeches & Lectures

18. Labi, S., Mwamba, I. Efficiency & equity of highway cost allocation: Threats & opportunities in the age of vehicle autonomy, connectivity, and electric propulsion, Transportation Asset & Infrastructure Management Conference, Center for Integrated Asset Management for Multimodal Transportation Infrastructure Systems (CIAMTIS), Larson Transportation Institute (LTI), University Park, PA., October 26, 2021.
17. Labi, S. Needs Assessment for Local Roads, LTAP Conference on Asset Management, October 20-21, 2021, W. Lafayette, IN.
16. Ramaswamy, R., Labi, S. Local Roads Asset Management Systems (LoRAMS). LTAP Conference on Asset Management, October 20-21, 2021, W. Lafayette, IN.
15. Li, Y., Labi, S. Resolving Phantom Traffic Jams with CAV controllers, CCAT Research Review Series Episode 10, Center for Connected and Automated Transportation, Ann Arbor, MI, August 20, 2021.
14. Chen, S., Labi, S. Crash Avoidance for Autonomous Vehicles, CCAT Research Review Series Episode 2, Center for Connected and Automated Transportation, Ann Arbor, MI, February 28, 2020.
13. Labi, S. (2019), Preparing our Infrastructure for Connected and Autonomous Vehicle Operations: Challenges and Opportunities, Keynote Lecture, 2019 International Conference on Smart Cities (2019 ICSC), Seoul, July 17–19, 2019.
12. Labi, S. M. Miralinaghi, W. Woldemariam, D. Abraham, Infrastructure Repair Project Scheduling Considering the Impacts to Neighboring Businesses and Roadway Users: A Proposed Solution Methodology, 3rd International Symposium on Infrastructure Asset Management (SIAM3), NYU Abu Dhabi Conference Center, Abu Dhabi, UAE, March 31, 2019.
11. Labi, S. Climate Change and Civil Infrastructure Resilience, Engineering Seminar Series, University de Valle, Cali, Colombia, June 7, 2018.
10. Labi, S. The Infrastructure Resilience-Sustainability Nexus: The Climate Change Perspective, Climate Change Adaptation Workshop, University of Bogotá, Colombia, June 5, 2018.
9. Labi, S. (2017). Infrastructure Deterioration Modeling: The Factor Moment Approach, Transportation Engineering Seminar Series, University of Nevada, Las Vegas, March 15, 2017.
8. Labi, S. Infrastructure Deterioration Modeling: The Factor Moment Approach, 2nd International Symposium of Infrastructure Asset Management (SIAM), Zurich Switzerland, June 29-30, 2017.
7. Sinha, K.C., Labi, S. (2016). The Evolution of Pavement Design and Current Status of MEPDG Implementation, 8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), Singapore, July 27–29, 2016.
6. Labi, S., Usman, T.S., Volovski, M., Al-Qadhi, S., (2015). Impacts of Driverless Vehicle Operations on the Man-Made environment. Keynote Address. 1st International Conference on Mechanical and Transportation Engineering (ICMTE '15). April 23–25, Kuala Lumpur, Malaysia.

5. Bardaka, E., Labi, S., Haddock, J. (2012). A Comparative Evaluation of Alternative Prediction Techniques for Highway Pavement Treatment Service Life, September 19, 2012, national webinar sponsored by the Transportation Asset Management Committee, Transportation Research Board of the National Academy of Sciences.
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3. Labi, S. Multiple-objective Optimization and Applications in Facility Preservation and Materials Selection, Bruce Podwal Seminar Series, City College of New York, March 11, 2008.
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Interlude: Conference Photos



Conference Presentations

301. Mwamba, I. C., Labi, S. (2023). Highway financing in the era of ECAVs: Equity implications of distance-based user fee structures. 109th Road School Conference, Purdue University, West Lafayette, IN, USA.
300. Dong, J., Labi, S. (2023). End-to-end Transformer for explainable autonomous driving. 5th Bridging Transportation Researchers (BTR5), online conference, August 2023.
299. Dong, J., Chen, S., Li, Y., Du, R., Labi, S. (2023). Explainable autonomous driving system with end-to-end attention model. ASCE International Conference on Transportation and Development (ICTD), Austin, TX, USA., June 2023.
298. Seilabi, S.E., Pourgholamali, M., Correia, G., He, X., Miralinaghi, M., and Labi, S. (2023). Managing dedicated lanes for connected and autonomous vehicles to address bottleneck congestion considering morning peak commuter departure choices, Transportation Research Board 102nd Annual Meeting, Washington, D.C.
297. Dong, J., Chen, S., Chen, T., Miralinaghi, M., Labi, S. (2023). End-to-end transformer for explainable autonomous driving, TRB 102nd Annual Meeting. Washington, D.C., January 2023.
296. Dong, J., Chen, S., Ye, Z., Labi, S. (2023). Model-based reinforcement learning for connected autonomous vehicles under safety imminent situation, TRB 102nd Annual Meeting, January 9-14, Washington, D.C.
295. Dong, J., Chen, Q., Qu, D., Lu, H., Ganlath, A., Yang, Q., Chen, S., Labi, S. (2023). LiDAR-based cooperative relative localization, 35th International Conference on Intelligent Vehicle Symposium (IV). IEEE.
294. Mwamba, I. C., Labi, S. (2022). Assessing and quantifying the impacts of vehicle automation, electrification, and connectivity on highway expenditures, revenues, and user equity, Presented at the 101st Transportation Research Board (TRB) Annual Meeting, January 9-14, Washington, DC.
293. Seilabi, S.E., Labi, S. (2022). Robust design of CAV-dedicated lanes considering CAV demand uncertainty and lane reallocation policy” 4th International Symposium on Infrastructure Asset Management (SIAM4), June 4, Northwestern University, Evanston, IL.
292. Mwamba, I., Labi, S. Gkritza, K., Sinha, K. (2022). Vehicle autonomy, connectivity, and electric propulsion: consequences on highway expenditures, revenues, and equity, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
291. Zong, S., Chen, S., Labi, S. (2022). UAV-based intersection collision risk management, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
290. Hessam, A., Miralinaghi, M., Labi, S. (2022). Optimal and reliable sensor deployment for OD matrix estimation using data from different sensor types, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
289. Miralinaghi, M., Labi, S. (2022). Highway bottleneck congestion mitigation in mixed traffic using multiagent reinforcement learning, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.

286. Zong, S., Chen, S., Labi, S. (2022). Enhancing the quality of traffic monitoring videos by removing rain streaks using self-supervised learning, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
287. Li, Y. Chen, S., Labi, S. (2022). Considering human drivers' behavioral heterogeneity and perception-reaction time delay in the context of flow stabilization using vehicle connectivity and automation, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
286. Miralinaghi, M., Labi, S. (2022). A synergy of ridesharing and tradable credit scheme: A morning commute problem, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
285. Miralinaghi, M., Labi, S. (2022). Bi-level optimization of short-term road projects scheduling considering day-to-day traffic evolution, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
284. Dong, J., Chen, S., Labi, S. (2022). Model Based Reinforcement Learning for Connected Autonomous Vehicle Maneuvers in Crash-imminent Situations. ASCE International Conference on Transportation and Development (ICTD), Seattle, WA, USA., May 31–June 3, 2022.
283. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Labi, S. (2022). A DRL-based urban traffic dynamic rerouting framework with fog-cloud architecture, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
282. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Labi, S. (2022). A cooperative multi lane-change framework for connected autonomous vehicles in a mixed-traffic environment, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
281. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Labi, S. (2022). Building explainable autonomous driving systems with image transformer, 2022 ASCE International Conference on Transportation and Development, Seattle, Washington, May 31–June 3, 2022.
280. Seilabi, S. E., Pourgholamali, M., Correia, G., Miralinaghi, M., Labi, S. (2022). Robust design of CAV-dedicated lanes considering CAV demand uncertainty and lane reallocation policy. Transportation Research Board 101st Annual Meeting, Washington, DC.
279. Dong, C., Konstantinou, T., Gkritza, K., Labi, S. (2022). Agent-based simulation model for electric vehicle long-distance trips in the state of Indiana, Transportation Research Board 101st Annual Meeting, Washington, DC.
278. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Labi, S. (2022). Estimating IRI based on pavement distress type, density, and severity: Insights from machine learning techniques, Transp. Research Board 101st Annual Meeting, Washington, DC.
277. Zong, S., Chen, S., Labi, S. (2022). Using UAVs for vehicle tracking and collision risk assessment at intersections, Transp. Research Board 101st Annual Meeting, Washington, DC.

276. Zong, S., Chen, S., Labi, S. (2022). Towards Safer Transportation: A Self-supervised learning approach for traffic video deraining, Transp. Research Board 101st Annual Meeting, Washington, DC.
275. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Labi, S. (2022). Development and testing of an image transformer for explainable autonomous driving systems, Transp. Research Board 101st Annual Meeting, Washington, DC.
274. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Labi, S. (2022). Reason induced visual attention for explainable autonomous driving. Transp. Research Board 101st Annual Meeting, Washington, DC.
273. Pourgholamali, M., Correia, G., Seilabi, S.E., Miralinaghi, M., and Labi, S. (2022). Robust design of electric charging locations under travel demand uncertainty and driving range heterogeneity, Purdue Road School, March 2022, West Lafayette, IN
272. Pourgholamali, M., Ha, P., Miralinaghi, M., Seilabi, S.E., Labi, S. (2022). Sustainability considerations in AV-exclusive lane deployment. Transportation Research Board 101st Annual Meeting, Washington, DC.
271. Mwamba, I. C., Labi, S (2021). Efficiency & equity of highway cost allocation: Threats & opportunities in the age of vehicle autonomy, connectivity, and electric propulsion, Transportation Asset & Infrastructure Management Conference, US Region 3 UTC, Morgan State University, MD, USA.
270. Pyrialakou, V. D., Hajibabae, P., Farrokhar, L., Labi, S. (2021). Service performance evaluation based on peer comparison: are efficient agencies always effective and are larger agencies always preferable? Presented at the TRB 24th National Conference on Rural Public and Intercity Bus Transportation, October 25, 2021, virtual.
269. Guo, Y., Peeta, S., Labi, S. (2021). Impacts of attitudinal factors and prospective roadway designs on autonomous vehicle adoption and vehicle fuel choice. Transportation Research Board 100th Annual Meeting, Washington, DC.
268. Ghahari, S., Alabi, B.N.T., Queiroz, C., Labi, S., McNeil, S. (2021). Corruption propensity and mitigation at the various phases of infrastructure development – An exploratory discussion. Transportation Research Board 100th Annual Meeting, Washington, DC.
267. Seilabi, S. E., Davatgari, A., Miralinaghi, M., Labi, S. (2021). Total road closure or partial closure – Insights for road project scheduling. Transportation Research Board 100th Annual Meeting, Washington, DC.
266. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Steinfeld, A., Labi, S. (2021). A framework for controlling connected autonomous vehicle movements using deep reinforcement learning and spatially-weighted data integration. Transp. Research Board 100th Annual Meeting, Washington, DC.
265. Li, Y., Chen, S., Du, R., Ha, P., Dong, J., Labi, S. (2021). Using empirical trajectory data to design connected autonomous vehicle controllers for traffic stabilization. Transportation Research Board 100th Annual Meeting, Washington, DC.
264. Li, Y., Chen, S., Ha, P., Dong, J., Du, R., Steinfeld, A., Labi, S. (2021). Collision avoidance framework for autonomous vehicles under crash imminent situations. Transportation Research Board 100th Annual Meeting, Washington, DC.

263. Du, R., Chen, S., Li, Y., Dong, J., Ha, P., Labi, S. (2021). A cooperative control framework for cav lane change in a mixed traffic environment. Transportation Research Board 100th Annual Meeting, Washington, DC.
262. Du, R., Chen, S., Li, Y., Ha, P., Dong, J., Labi, S. (2021). Collision avoidance framework for autonomous vehicles under crash imminent situations. Transportation Research Board 100th Annual Meeting, Washington, DC.
261. Ha, P., Chen, S., Dong, J., Du, R., Labi, S. (2021). Leveraging the capabilities of connected and autonomous vehicles and multi-agent reinforcement learning to mitigate highway bottleneck congestion. Transportation Research Board 100th Annual Meeting, Washington, DC.
260. Miralinaghi, M., Tabesh, M., Correia, G. H. de A., Seilabi, S. E., Davatgari, A., and Labi, S. (2021). Robust design of electric charging locations under travel demand uncertainty and driving range heterogeneity. Transportation Research Board 100th Annual Meeting, Washington, DC., 21–03594.
259. Miralinaghi, M., Correia, G. H. de A., Seilabi, S. E., and Labi, S. (2021). Managing urban vehicular emissions through the efficient design of electric charging station infrastructure. Transportation Research Board 100th Annual Meeting, Washington, DC., 21–03592.
258. Miralinaghi, M., Davatgari, A., Tabesh, M., T., Correia, G. H. de A., Seilabi, S. E., and Labi, S. (2020). Minimizing urban vehicular emissions through the efficient design of electric charging station network, Next-generation Transport Systems Conference, W. Lafayette, IN.
257. Mwamba, I., and Labi, S. (2020). Economic and financial implications of EV infrastructure and operations, Next-generation Transport Systems Conference, W. Lafayette, IN.
256. Miralinaghi, M., Tabesh, M., T., Correia, G. H. de A., Seilabi, S. E., Davatgari, A., and Labi, S. (2020). Parking facility location and user pricing in the era of autonomous vehicle operations, Next-generation Transport Systems Conference, W. Lafayette, IN.
255. Miralinaghi, M., Tabesh, M., T., Correia, G. H. de A., Seilabi, S. E., Davatgari, A., and Labi, S. (2020). Robust design of electric charging locations under travel demand uncertainty and driving range heterogeneity, Next-generation Transport Systems Conference, W. Lafayette, IN.
254. Li, Y., Chen, S., Du, R., Ha, P., Dong, J., Labi, S. (2020). Smoothing mixed traffic flow using vehicle connectivity and autonomy features. 2020 Conference on Next Generation Transport System (NGTS 2020), Virtual, December 28-31, 2020.
253. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Steinfeld, A., Labi, S. (2020). Information integration using deep reinforcement learning for CAV operations and control. 2020 Conference on Next Generation Transport System (NGTS 2020), Virtual, December 28-31, 2020.
252. Ha, P., Chen, S., Dong, J., Du, R., Li, Y., Labi, S. (2020). Using deep reinforcement learning techniques to mitigate traffic bottlenecks. 2020 Conference on Next Generation Transport System (NGTS 2020), Virtual, December 28-31, 2020.
251. Du, R., Chen, S., Li, Y., Ha, P., Dong, J., Labi, S. (2020). Model predictive control based AV collision-avoidance framework in mixed traffic conditions. 2020 Conference on Next Generation Transport System (NGTS 2020), Virtual, December 28-31, 2020.

250. Miralinaghi, M., de Almeida Correia, G. H., Seilabi, S. E., and Labi, S. (2020). Designing a Network of Electric Charging Stations to Mitigate Vehicle Emissions.” Institute of Electrical and Electronics Engineers (IEEE) 2020 Forum on Integrated and Sustainable Transportation Systems (FISTS), Delft, South Holland Province, Netherlands, 2020.
249. Dong, J., Chen, S., Ha, P., Du, R., Li, Y., Labi, S. (2020).A deep reinforcement learning based framework for information fusion and control for connected and autonomous vehicle. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
248. Du, R., Chen, S., Li, Y., Dong, J., Ha, P., Labi, S. (2020).A cooperative control framework for lane changing AV considers the mixed traffic flow. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
247. Du, R., Chen, S., Li, Y., Ha, P., Dong, J., Labi, S. (2020).Control framework for autonomous vehicles collision avoidance based on model predictive control under mixed traffic flow. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
246. Li, Y., Chen, S., Du, R., Ha, P., Dong, J., Labi, S. (2020).Leveraging trajectory-data calibrated car-following models and vehicle connectivity and autonomy to stabilize mixed traffic flows. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
245. Dong, J., Chen, S., Ha, P., Li, Y., Du, R., Steinfeld, A., Labi, S. (2020).A deep reinforcement learning based multi-agent control system for vehicular networks. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
244. Li, Y., Chen, S., Ha, P., Dong, J., Du, R., Steinfeld, A., Labi, S. (2020).Leveraging vehicle connectivity and autonomy to stabilize flow in mixed traffic conditions. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
243. Ha, P., Chen, S., Du, R., Dong, J., Li, Y., Labi, S. (2020). Vehicular connectivity and its impacts on next generation transportation. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
242. Ha, P., Chen, S., Dong, J., Du, R., Li, Y., Labi, S. (2020).Congestion mitigation in physical bottlenecks via deep reinforcement learning. The 2020 INFORMS Annual Meeting. Virtual, November 7-13, 2020.
241. Feng, J., Du, R., Chen, S., Ye, Z., Wang, J., Labi, S. (2020). Evaluation of an Automated People Mover in Downtown Indianapolis. The Transportation Research Board (TRB) 99th Annual Meeting. Washington, D.C., USA. January 12-16, 2020
240. Chen, S., Leng, Y., Labi, S. (2020). Direct Characterization of the Driving Environment using a Deep Learning Algorithm for Purposes of Autonomous Driving Simulation. The Transportation Research Board (TRB) 99th Annual Meeting. Washington, D.C., USA. January 12-16, 2020
239. Alabi, B., Saeed, T., Keller, J., Labi, S. (2019), Predicting the Likelihood and Intensity of Airport Ground Delay Programs: An Econometric Analysis, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
238. Tabesh, M., Miralinaghi, M., Labi, S. (2019), Location of Parking Facilities in the Era of Autonomous Vehicles, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.

236. Ha, Y.J., Miralinaghi, M., Labi, S. (2019), Developing a Sustainable Transport System Under Electric and Autonomous Vehicles Dedicated Lane Deployment Scheme, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
235. Radvand, T., Miralinaghi, M., Labi, S., Alinizzi, M. (2019). Electric Charging Infrastructure Deployment the Past the Present and the Future, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
234. Alabi, B., Keller, J., Labi, S. (2019), Drivers' Perception of Headways in the Operations of Connected and Autonomous Vehicles, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
233. Alabi, B., Keller, J., Labi, S. (2019), Theoretical Constructs For Assessing The Long-term Effectiveness of Airport Infrastructure Interventions, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
232. Alabi, B., Keller, J., Saeed, T., Labi, S. (2019), Evaluating Stakeholder-driven Criteria For Airfield Pavement Investment, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
231. Alabi, B., Keller, J., Labi, S. (2019), Assessing Models for Reducing Rate Of Pavement Deterioration In Crack Sealing Treatments, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
230. Guo, Y., Souders, D., Benedyk, I., Peeta, S., Labi, S. (2019), Understanding the Impacts of Wireless Charging and Dedicated Autonomous Vehicle Lanes on Autonomous Vehicle Adoption and Vehicle Fuel Type Choice, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
229. Chen, S., Leng, Y., Labi, S. (2019), A Deep Learning Based Framework for Connected and Autonomous Vehicle Simulation, 2019 INFORMS Annual Meeting Seattle, WA, Oct 20–23, 2019.
228. Guo, Y., Labi, S., Souders, D., Benedyk, I., Li, Y., Peeta, S. (2019), Can roadway designs and operational policies influence millennial autonomous vehicle adoption: a driving simulator study, 2019 International Conference on Smart Cities (2019 ICSC), Seoul, July 17–19, 2019.
227. Li, Y., Peeta, S., Labi, S. (2019), Drivers' Perception of Headways in the Operations of Connected and Autonomous Vehicles, 2019 International Conference on Smart Cities (2019 ICSC), Seoul, July 17–19, 2019.
226. Ha, Y.J., Miralinaghi, M., Chen, S., Alinizzi, M., Labi, S. (2019), Developing a Sustainable Transport System under Electric and Autonomous Vehicles Dedicated-Lane Deployment Scheme, 2019 International Conference on Smart Cities (2019 ICSC), Seoul, July 17–19, 2019.
225. Alabi, B.N.T., Alinizzi, M., Labi, S.(2019), Elements Of Municipal Infrastructure Management in an Era of Smart Cities, 2019 International Conference on Smart Cities (2019 ICSC), Seoul, July 17–19, 2019.
224. Ha, Y.J., Miralinaghi, M., Chen, S., Labi, S. (2019). Developing a Sustainable Transportation System Under Electric and Autonomous Vehicles Dedicated Lane Deployment Scheme, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.
223. Ghahari, S., Ghotbi, S., Assi, L., (2019). 4. Hydrogen Fueling System Challenges and Opportunities for the Fully Automated Vehicles, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.
222. Guo, Y., Benedyck, I., Souders, D., Labi, S., Peeta, S. (2019). Paving the Way for Autonomous Vehicles in a Multi-Modal Transportation Environment: Impacts of Roadway Design and Policy on AV Adoption and

Mode Choice, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

221. Woldemariam, W., Labi, S., Faiz, A. (2019). Connectivity as a Performance Measure for Transport Project Evaluation, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

220. Qiao, Y., Tabesh, M. T., Alabi, B.N.T., Labi, S., (2019). Using Duration Models to Analyze Autonomous Vehicle Driver Take-Over Time, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

219. Saeed, T.U., Alabi, B.N.T., Labi, S., Miralinaghi, M., Sinha, K.C. (2019). Preparing Highway Infrastructure for the Emerging Era of CAVs, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

218. Labi, S., Miralinaghi, M., Tabesh, M. T., (2019). Parking Facility Location in the Era of Automated Vehicles s, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

217. Labi, S., Qiao, Y., Tabesh, M. T., Alabi, B.N.T. (2019). Modeling Autonomous Vehicle Driver Take-Over Propensity Using Econometric Methods, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

216. Labi, S., Saeed, T.U., Alabi, B.N.T. (2019). Driver and Passenger Trust of Vehicle Automation and Connectivity, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

215. Saeed, T.U., Alabi, B.N.T., Labi, S., Miralinaghi, M., Sinha, K.C., Volovski, M. (2019). Anticipated Changes in Highway Agency Expenditures and Revenues, and User Equity in the CAV Era, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

214. Miralinaghi, M., Seilabi, S., Labi, S. (2019). Promoting the Usage of Electric Vehicles Through The Efficient Design of Charging Station Network, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

213. Alabi, B., Saeed, T., Labi, S. (2019). Driver and Passenger Trust of Vehicle Automation and Connectivity, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

212. Yamany, M., Abraham, D., Labi, S. (2019). Probabilistic Modeling of Pavement Performance Using Markov Chains: A State-Of-The-Art Review, ASCE International Conference on Transportation & Development (ICTD), Alexandria VA, June 9–12, 2019.

211. Alabi, B., Keller, J., Saeed, T.U., Labi, S. (2019), Stakeholder-driven sustainability criteria for evaluating airfield pavement investments, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.

210. Labi, S., Saeed, T., Sinha, K.c. (2019), Urban infrastructure management in an era of smart cities Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.

209. Alabi, B., Alinizzi, M., Guo, Y., Labi, S. (2019), Urban infrastructure management in an era of smart Cities, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
208. Li, Y., Saeed, T., Alinizzi, M., Chen, S., Labi, S. (2019), Sustainability-related performance measures – Relevance in an era of smart transportation, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
207. Chen, Y., Saeed, T., Volovski, M., Labi, S. (2019), Emergence of big data in smart transportation: big reasons, big challenges, and bigger opportunities, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
206. Tabesh, M., Radvand, T., Miralinaghi, M., Alabi, B., Qiao, Y., Labi, S. (2019), Using duration models to analyze autonomous vehicle driver take-over time, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
205. Tabesh, M., Miralinaghi, M., Labi, S. (2019), Location of the parking facilities in the era of autonomous vehicles., 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
204. Chen, Y., Labi, S., Peeta, S. (2019), Modeling spatiotemporal information flow propagation in a vehicle-to-vehicle communications environment considering communication delays, 2019 Next Generation Transportation Systems (NGTS) Conference, w. Lafayette, IN, May 31, 2019.
203. Chen, S., Leng, Y., Labi, S. (2019). Self-characterization of roadway environments using machine learning – opportunity for enhanced and realistic simulation of AV operations, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
202. Agrawal, S., Labi, S. (2019). Modeling electric vehicle battery lifespan using multi-paradigm modeling framework, 2019 Next Generation Transportation Systems (NGTS) Conference, w. Lafayette, IN, May 31, 2019.
201. Guo, Y., Labi, S. (2019), Impacts of personalized accessibility information on residential location choice and travel behavior, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
200. Chen, S., Leng, Y., Labi, S. (2019). A deep learning algorithm for simulating autonomous driving: considering prior knowledge and temporal information, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
199. Li, Y., Labi, S. (2019). Drivers perception of headways in the operations of connected and autonomous vehicles, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
198. Ghahari, S., Alinizzi, M., Ghotbi, S., Labi, S. (2019), Feasibility of using CAV monitoring capabilities to combat corruption related to infrastructure project delivery, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.
197. Ghahari, S., Labi, S. (2019), The future of electric automated fleets and contribution to sustainable development, 2019 Next Generation Transportation Systems (NGTS) Conference, W. Lafayette, IN, May 31, 2019.

196. Ghahari, S., Alabi, B., Alinizzi, M., Alqadhi, S., Chen, S., Labi, S. (2019). The Bridge Investment-Performance Nexus at An Aggregate Level – Accounting for Situational and Measurement Biases, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
195. Miralinaghi, M., Woldemarian, W., Agyeman, A., Abraham, D., Labi, S. (2019). Network-Level Scheduling of Construction Projects Considering User And Business Impacts, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
194. Amekudzi-Kennedy, A., Singh, P., Labi, S. (2019). Transportation Asset Valuation: Pre-, Peri- and Post-4th Industrial Revolution, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
193. Chen, S., Ghahari, S., Labi, S. (2019). Assessing Performance Outcomes And Ranking Of Jurisdictions – A Nonparametric Efficiency Approach For Asset Management, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
192. Qiao, J., Fricker, J., Labi, S. (2019). Hazard-Based Duration Models for Predicting Actual Duration of Highway Projects Using Non-parametric and Parametric Survival Analysis, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
191. Qiao, J., Fricker, J., Labi, S. (2019). The Influence of Project Bundling on Maintenance of Traffic (MOT) Costs Across Highway Project Types, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019. This paper was subsequently given the Grant D. Mickle Award for best paper in operations and maintenance, awarded by the Transportation Research Board of the National Academies (TRB), 2019.
190. Miralinaghi, M., Labi, S. (2019). Optimizing the Selection and Scheduling of Multi-Class Projects, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
189. Miralinaghi, M., Labi, S. (2019). Equity and Emissions Considerations in Autonomous Vehicle Dedicated Lane Deployment Scheme, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
188. Ghahari, S., Chen, S., Labi, S. (2019). Quantifying the Relationship between Funding Levels and Performance using Interstate Highway Bridge Data, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
187. Qiao, Y., Kemaw, H., Fricker, J., Labi, S. (2019). Post-Treatment Performance and Treatment Costs across Pavement Types and Road Functional Classes: Some Empirical Observations, 98th Annual Meeting of the Transportation Research Board, Washington, DC, January 13–17, 2019.
186. Ghahari, S., Nadepajouh, N., Ghotbi, S., Labi, S. (2018). Is Corruption Influenced by Human Development Index and Transparency? A Global Spatial Assessment Using GIS, Purdue GIS Conference, DOI:10.13140/RG.2.2.10752.89608, November 1, 2018.
185. Saeed, T., Labi, S., Sinha, K. (2018). Roadway Geometric Design and Highway Infrastructure Preparedness for Autonomous Vehicle Operations, 2018 Automated Vehicles Symposium, San Francisco, CA.

184. Nafakh, A., Chen, S., Saeed, T., Labi, S., Ha, Y.J., (2018). Evaluation of an Automated People Mover In Downtown Indianapolis, ASCE International Conference on Automated People Movers and Automated Transit Systems, Tampa, FL, April 29 – May 2, 2018.
183. Ha, Y. J., Ghahari, S., Marfo, A., Labi, S. (2018). Hyperloop Systems: An Ex Ante Evaluation, ASCE International Conference on Automated People Movers and Automated Transit Systems, Tampa, FL, April 29 – May 2, 2018.
182. Ha, Y.J., Ghahari, S., Marfo, A., Labi, S. (2018). Evaluation of Automated Transit Systems: Assessment Criteria, ASCE International Conference on Automated People Movers and Automated Transit Systems, Tampa, FL, April 29 – May 2, 2018.
181. Ghahari, S., Labi, S., Ghotbi, S., Alinizzi, M. (2018). Leveraging Advanced Technologies for Fighting Corruption in Infrastructure Project Delivery, ASCE International Conference on Transportation & Development (ICTD), Pittsburgh, PA, July 15–18, 2018.
180. Saeed, T., Alabi, B., Alinizzi, M., Labi, S., Sinha, K. (2018). Preparing our Highways to Accommodate CAVs: Emerging Roadway Design and Infrastructure Management, 2018 Global Symposium On Connected And Automated Vehicles, Ann Arbor, MI, March 7–8, 2018.
179. Agbelie, B., Labi, S., Sinha, K.C. (2018). Impact Analysis of a Legislative Initiative on Highway Financing - An Indiana Case Study, 97th Annual Meeting of the Transportation Research Board, Washington, DC, January 7–11, 2018.
178. Ghahari, S.A., Volovski, M., Labi, S. (2018). Estimation of Annual Bridge Repair Expenditure – An Exploratory Analysis using Fixed and Random Effects Specifications, 97th Annual Meeting of the Transportation Research Board, Washington, DC, January 7–11, 2018.
177. Fricker, J., Qiao, Y., Labi, S. (2018). Bundling Bridge and Other Highway Projects, 97th Annual Meeting of the Transportation Research Board, Washington, DC, January 7–11, 2018.
176. Ghahari, S.A, Labi, S. (2018). Assessing the Relative Performance of Highway Bridge Decks Across States – A Preliminary Aggregate Analysis, 97th Annual Meeting of the Transportation Research Board, Washington, DC, January 7–11, 2018.
175. Chen, S., Saeed, T., Labi, S. (2018). Comparative analysis of safety impacts of pavement surface roughness at two-lane and multi-lane highways: accounting for heterogeneity and seemingly unrelated correlation across crash severities, 97th Annual Meeting of the Transportation Research Board, Washington, DC, January 7–11, 2018.
174. Tho, L., Zhu, F., Sagir, F., Ukkusuri, S., Labi, S. (2018). Evaluating the Impacts of Time-of-Day Tolling: Case Study of Indiana Roadways, 97th Annual Meeting of the Transportation Research Board, Washington, DC, January 7–11, 2018.
173. Labi, S. (2017). Infrastructure Deterioration Modeling: The Factor Moment Approach, 2nd International Symposium of Infrastructure Asset Management (SIAM), Zurich Switzerland, June 29-30.
172. Ghahari, S.A., Qiao, Y. Labi, S. (2017). How well are we doing relative to other States? Interstate Highway Bridge Spending and Performance Comparisons across the States of the Union. 103rd Purdue Road School Transportation Conference, USA.

171. Ghahari, S.A. Qiao, Y. Labi, S. (2017). An Exploratory Aggregate Analysis of Interstate Highway Bridge Deck Expenditure and Condition, 11th International Bridge and Structures Management Conference. Mesa, AZ.
170. Labi, S. Ghahari, S.A. Montgomery, S. Sultana, A. Saeed, T. (2017). The Resilience-Sustainability Nexus: Navigating the Maze, 2017 MAIREINFRA – International Conference on Maintenance and Rehabilitation of Constructed Infrastructure Facilities. Seoul, South Korea,
169. Montgomery, S., Labi, S., Haddock, J. (2017). Effect of Load Transfer Restoration Treatment with Diamond Grinding on Rigid Pavement Serviceability, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
168. Volovski, M., Labi, S., Brennan, T., Sinha, K.C. (2017). Spatial Analysis of VMT and Fuel Sales Attributed to Vehicles Registered Out of State, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
167. Chen, S., Labi, S., Qiao, Y., Preckel, P., Bai, Q., Woldemariam, W. (2017). Multiobjective Optimization of Lane and Shoulder Widths at Rural Two-Lane Highways, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
166. Fricker, J.D., Labi, S., Xiong, Y. (2017). Bundling or Grouping Pavement and Bridge Projects: Analysis and Strategies, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
165. Qiao, Y., Saeed, T.U., Labi, S., Sinha, K.C. (2017). Modeling Maintenance, Rehabilitation, and Replacement Decisions of Highway Bridge Managers: Exploratory Analysis, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
164. Zhang, Z., Labi, S., Fricker, J.D., Qiao, Y., Agbelie, B., Sinha, K.C. (2017). Poster: Developing Condition-Based Triggers for Bridge Deck Maintenance and Rehabilitation Treatments, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
163. Agbelie, B., Labi, S., Fricker, J.D., Qiao, Y., Zhang, Z., Sinha, K.C. (2017). Poster: Decision Tree for Steel Bridge Painting, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
162. Qiao, Y., Labi, S., Fricker, J.D., Zhang, Z., Agbelie, B., Sinha, K.C. (2017). Poster: Developing Condition-Based Triggers for Pavement Maintenance Rehabilitation and Replacement Treatments: A Framework, 96th Annual Meeting of the Transportation Research Board, Washington, DC, January 8–12, 2017.
161. Labi, S., Alqadhi, S.D., Saeed, T.U. (2016). Mathematical Constructs for Assessing the Effectiveness of Environmental Remediation Actions. Civil Engineering Conference in the Asia Region CECAR 7. Waikiki, Oahu, Hawaii, August 30 - September 2, 2016.
160. Alqadhi, S.D., Saeed, T.U., Labi, S. (2016) Evaluation of Alternative Materials for Interstate Highway Pavement Construction Using Life-Cycle Costing and Multiple Criteria Analysis. Civil Engineering Conference in the Asia Region CECAR 7. Waikiki, Oahu, Hawaii, August 30 - September 2, 2016.

159. Sinha, K.C., Labi, S. (2016). The evolution of pavement design and current status of MEPDG Implementation, 8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), Singapore, July 27–29, 2016.
158. Klatko, T., Agbelie, B., Labi, S. (2016). Multi-Dimensional Characterization of Scale Economies in Pavement Rehabilitation and Reconstruction, 8th International Conference on Maintenance & Rehabilitation of Pavements, Singapore, July 27–29, 2016.
157. Chen, S., Usman, T., Al-Qadhi, S., Labi, S. (2016). Safety Impacts of Pavement Rehabilitation at Multi-Lane Highways, 8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), Singapore, July 27–29, 2016.
156. Al-Qadhi, S., Murillo Hoyos, J., Qiao, Y., Labi, S. (2016). Effectiveness Measurement of Pavement Rehabilitation: Constructs and Comparison of Current Findings to Existing Literature, 8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), Singapore, July 27–29, 2016.
155. Zhang, D., Usman, T.S., Murillo Hoyos, J., Labi, S. (2016). Impact of Initial (Pre-Rehabilitation) Condition on Pavement Rehabilitation Cost, 8th International Conference on Maintenance and Rehabilitation of Pavements, Singapore, July 27–29, 2016.
154. Labi, S. (2016). Infrastructure Deterioration Modeling – The Factor Moment Approach, International Conference on Transportation & Development, Houston, Texas, June 26–29, 2016.
153. Abhishek, A., Qiao, Y., Chen, S., Labi, S. (2016). Poster: Addressing Uncertainty in Bridge Projects – Estimating the Cost Escalation Pathway Likelihood and Overrun Severities for Infrastructure Expansion Contracts, International Conference on Transportation & Development, Houston, Texas, June 26–29, 2016.
152. Labi, S. (2016). The Tri-Zone Concept: Exploring the Relationships between the Intensity of Safety Features and Safety Performance, International Conference on Transportation & Development, Houston, Texas, June 26–29, 2016.
151. Roshandeh, A., Everett, S., Athigakunagorn, N., Labi, S. (2016). A Methodology for Assessing the Impacts of Overweight Truck Operations on Traffic Safety and Mobility, International Conference on Transportation & Development, Houston, Texas, June 26–29, 2016.
150. Taylor, B., Qiao, Y., Bowman, M., Labi, S. (2016). Cost-effectiveness of a Systemwide Program for Bridge Deck Condition Monitoring using NDT, 8th International Conference on Bridge Maintenance, Safety and Management (IABMAS 2016), Foz do Iguacu, Brazil, June 16–30, 2016.
149. Qiao, Y., Usman, T.S., Moomen, M., Alqadhi, S., Labi, S. (2016). Discrete-outcome deterioration modeling of concrete and steel bridges using National Bridge Inventory (NBI) Database, 8th International Conference on Bridge Maintenance, Safety and Management (IABMAS 2016), Foz do Iguacu, Brazil, June 16–30, 2016.
148. Qiao, Y., Usman, T.S., Labi, S. (2016). Exploring the applications of computational engineering tools in bridge management systems, 8th International Conference on Bridge Maintenance, Safety and Management (IABMAS 2016), Foz do Iguacu, Brazil, June 16–30, 2016.

147. Klatko, T., Saeed, T.U., Labi, S., Sinha, K., Fricker, J. (2016). Poster: Estimating Local Road VMT – A Comparative Analysis of Spatial Interpolation Techniques, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
146. Pyrialakou, DV., Zhang, Z., Labi, S., Gkritza, K. (2016). Assessment of the Efficiency, Effectiveness, and Overall Performance of Rural Transit Systems, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
145. Volovksi, M., Arman, M., Labi, S. (2016). Developing Statistical Limits for Using the Light Weight Deflectometer in Construction Quality Assurance, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
144. Athigakunagorn, N., Everett, S., Roshandeh, A., Labi, S., Sinha, K.C. (2016). Assessing the Impact of a State’s Overweight-Vehicle Legislation on Highway Bridge Infrastructure, Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016
143. Roshandeh, A., Everett, S., Athigakunagorn, N., Labi, S., Sinha, K.C. (2016). Assessing the Impacts of Overweight Truck Operations on Traffic Safety and Mobility, Presented at the 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016
142. Agbelie, B., Volovski, M., Bardaka, E., Zhang, Z., Labi, S., Sinha, K.C. (2016). Updating State and Local Highway Cost Allocation and Revenue Attribution, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
141. Agbelie, B., Labi, S., Sinha, K. (2016). Evaluation of Highway Financing Options on the Basis of User Equities, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
140. Qiao, Y., Zhang, Z., M., Usman, T., Labi, S. (2016). Modeling Deterioration of Bridge Components Using Binary Probit with Random Effects, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
139. Moomen, M., Saeed, T., Qiao, Y., Labi, S. (2016). An Empirical Analysis of Concrete Bridge Superstructure Condition: Influential Factors and Deterioration Prediction, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
138. Murillo-Hoyos, J., Lavrenz, S., Usman, T., Volovski, M., Labi, S. (2016). Service Life & Condition Rating Prediction of Steel Bridges: New Evidence using Three-Stage Least Squares Modeling, 95th Annual Meeting of the Transportation Research Board, Washington, DC, January 10–14, 2016.
137. Agbelie, B., Labi, S., Sinha, K.C., Saeed, T.U., (2015). Allocating the Life Cycle Costs of Steel Bridges to Overweight Vehicles – A Case Study, 8th International Symposium on Steel Bridges: Innovation & New Challenges 2015, Istanbul, Turkey, September 14–16, 2015.
136. Labi, S., Lavrenz, S., Volovski, M., Hoyos, J.M., Saeed, T.U., (2015). Service Life Prediction of Steel Bridges. 8th International Symposium on Steel Bridges: Innovation & New Challenges 2015, Istanbul, Turkey, September 14–16, 2015.
135. Saeed, T.U., Al-Qadhi, S., Labi, S. (2015). The expected impacts of driverless vehicle operations on roadway infrastructure: A discussion, 30th Annual Conference of Transport Chicago, June 12, 2015, Chicago, Illinois.

134. Labi, S., Saeed, T.U., Volovski, M., Al-Qadhi, S., (2015). An exploratory discussion of the impacts of driverless vehicle operations on the man-made environment. Keynote Address. 1st International Conference on Mechanical and Transportation Engineering (ICMTE '15), Kuala Lumpur, Malaysia, April 23–25, 2015.
133. Saeed, T.U., Issariyanukula, A., Ahmed, A., Hoyos, J.M., Labi, S., Sinha, K.C. (2015). Poster: Enhanced Prediction of Transportation Costs using a Risk-Based Approach. 56th Annual Transportation Research Forum, Georgia Institute of Technology, Atlanta, GA, March 12–14, 2015.
132. Saeed, T.U., Ahmed, A., Hoyos, J.M., Labi, S., Sinha, K.C. (2015). Poster: Investigating the Changes of Marginal Pavement Damage Cost to Key Variables, 56th Annual Transportation Research Forum, Georgia Institute of Technology, Atlanta, GA, March 12–14, 2015.
131. Nantung, T., Labi, S., Ahmed, A., Agbelie, B., Lavrenz, S. (2015). Innovations Worth Deploying Now: High Value Research Results, Presented in Session for Innovations Worth Deploying Now: High Value Research Results, 94th Annual Meeting, Transportation Research Board, Washington, DC, January 11–15, 2015.
130. Bai, Q., Labi, S., Li, Z., Sinha, K.C. (2015). A Methodology for Uncertainty-Based Trade-off Analysis in Multiobjective Optimization for Transportation Asset Management, 94th Annual Meeting of the Transportation Research Board, Washington, DC, January 11–15, 2015.
129. Ahmed, A., Murillo Hoyos, J., Labi, S. (2015). Estimation of Pavement Maintenance and Rehabilitation Marginal Cost by Heavy Vehicles - A Random Parameter Regression Model Approach, 94th Annual Meeting of the Transportation Research Board, Washington, DC, January 11–15, 2015.
128. Ye, Q., Labi, S. (2015). Poster: Breakeven Analysis for the Choice of Optimum Bridge Deck Reinforcement Material based on Service Life Uncertainty, 94th Annual Meeting of the Transportation Research Board, Washington, DC, January 11–15, 2015.
127. Dojutrek, M., Labi, S. (2015). A Fuzzy Approach for Assessing Bridge Infrastructure Security, 94th Annual Meeting of the Transportation Research Board, Washington, DC, January 11–15, 2015.
126. Woldemariam, W., Murillo Hoyos, J., Labi, S. (2015). Estimating Pavement Maintenance Expenditure for Rural Interstates: Artificial Neural Network Approach, 94th Annual Meeting of the Transportation Research Board, Washington, DC, January 11–15, 2015.
125. Zhang, Z., Agbelie, B., Labi, S. (2015). Efficiency Measurement of Interstate Highway Bridge Replacement and Rehabilitation Using Data Envelopment Analysis, 94th Annual Meeting of the Transportation Research Board, Washington, DC, January 11–15, 2015.
124. Everett, S., Athigakunagorn, N., Roshandeh, A., Labi, S., Sinha, K.C. (2015). A Geographic Information Systems (GIS) Tool for Enhancing Overweight-Vehicle Permitting Administration, 94th Annual Meeting of the Transportation Research Board, Washington, DC, January 11–15, 2015.
123. Dojutrek, M.S., Labi, S., Dietz, J.E. (2014). A Fuzzy Approach for Assessing Transportation Infrastructure Security. Proceedings of the 5th International Conference of Complex Systems Design and Management, Paris, France, November 12–14, 2014
122. Ahmed, A., Labi, S. (2014). Impact of Vehicle Travel Characteristics on LOS: A Comparative Analysis of Rural and Urban Freeways, 27th Annual Conference of International Chinese Transportation Professionals Association (ICTPA), Beijing, China, May 25–27, 2014.

121. Dojutrek, M.S., Labi, S., Dietz, J.E. (2014). A Multi-Criteria Methodology for Measuring the Resilience of Transportation Assets and Prioritizing Security Investments, 10th International Conference of the Institute for Infrastructure Resilience and Reconstruction (I3R2), W. Lafayette, IN, May 20–22. Received the best paper award.
120. Agbelie, B., Labi, S., Sinha, K.C. (2014). Analysis and Forecasting of Highway Revenues from Traditional and Potential Sources in Indiana, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
119. Zhang, Z., Labi, S., Sinha, K.C. (2014). Evaluating Long-Term Leasing of Toll Roads Based on Value for Money Framework and Multiple-Criteria Technique, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
118. Murillo-Hoyos, J., Arman, M., Labi, S. (2014). An Econometric Analysis of Transit Rolling Stock Costs of Motorized Bus and Demand Response Modes, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014. January 12–16, 2014.
117. Woldemariam, W., Labi, S. (2014). A Framework for Network Accessibility for Purposes of Network Level Road Maintenance Planning, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
116. Ahmed, A., Lavrenz, S., Labi, S. (2014). Establishing Equitable Heavy Vehicle Fees for Highway Usage and Consequences of Deviations from the 4th Power Law, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
115. Dojutrek, M., Labi, S. (2014). Elemental Decomposition and Multi-Criteria Method for Valuing Transportation Infrastructure, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
114. Volovski, M., Labi, S. (2014). Prediction of Routine Highway Expenditures - Accounting for Spatial and Temporal Heterogeneity using Random-Effects Panel-Data Modeling, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
113. Liao, TG., Volovski, M., Labi, S. (2014). Using Kriging Estimation to Enhance Climate Data for Transportation Asset Management, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
112. Bardaka, E., Zhang, Z., Labi, S., Sinha, K.C. (2014). Cost-Effectiveness Evaluation of Short-Term Performance Warranty Contracts: Case Study of Indiana Pavement Warranty Contracts, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
111. Bardaka, E., Labi, S., Haddock, J. (2014). Verifying the Service Life of Asset Interventions Using Enhanced Econometric Techniques: A Case Study for Indiana, 93rd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2014.
110. Ahmed, A., Khurshid, M.B., Irfan, M., Labi, S. (2013). Marginal Pavement Damage Cost Estimation Using Field Data – Issues and Opportunities, 17th IRF World Meeting & Exhibition, Riyadh, Saudi Arabia, November 10–13, 2013.

109. Murillo-Hoyos, G. J., Labi, S., Sinha, K.C. (2013). Criteria for Evaluating Innovative and Non-Traditional Materials for Highway Pavement Construction, 17th IRF World Meeting & Exhibition, Riyadh, Saudi Arabia, November 10–13, 2013.
108. Makwana, P., Athigakunagorn N., Murillo Hoyos G. J., Labi S., Sinha K.C. (2013). Rural two-lane highway safety improvement programming using constrained network-level optimization, 4th International Road Safety and Simulation International Conference (RSS 2013), Rome, Italy, October 23–25, 2013.
107. Athigakunagorn, N., Murillo Hoyos G. J., Labi S., Sinha, K.C. (2013). Cost-effectiveness Analysis of Shoulder Widening using Real Options, 4th International Road Safety and Simulation International Conference (RSS 2013) Rome, Italy, October 23–25, 2013.
106. Lavrenz, S., Murillo-Hoyos, J., Labi, S. (2013). Long-term Effectiveness of Civil Infrastructure Interventions, 11th International Conference on Structural Safety & Reliability (ICCOSAR 2013), Columbia University, New York, NY, June 16–20, 2013.
105. Ford, K.M., Arman, M., Labi, S., Sinha, K., Thompson P.D., Shirole A.M. (2013). Estimating the life expectancies of civil engineering infrastructure, 11th International Conference on Structural Safety & Reliability (ICCOSAR 2013), Columbia University, New York, NY, June 16–20, 2013.
104. Liao, T., Labi, S. (2013). Environmental Parameters for Infrastructure Modeling: Updating Existing Data on Spatial Distribution of the Climatic Conditions in the Continental USA, 92nd Annual Meeting of Transp. Research Board, Washington, DC, January 13–17, 2013.
103. Woldemariam, W., Labi, S. (2013). Proposed Performance Measure for Bridge Management: Contribution to Network Connectivity and Accessibility, 92nd Annual Meeting of Transportation Research Board, Washington, DC, January 13–17, 2013.
102. Agbelie, B., Labi, S., Noureldin, S., Sinha, K.C. (2013). Linking Interstate Pavement Preservation Investment to Performance: Exploratory Aggregate Analysis, 92nd Annual Meeting of Transportation Research Board, Washington, DC, January 13–17, 2013.
101. Agbelie, B., Labi, S., Sinha, K.C. (2013). Methodology to Estimate Added Bridge Costs due to Overweight Trucks, 92nd Annual Meeting of Transportation Research Board, Washington, DC, January 13–17, 2013.
100. Zhang, Z., Arman, M., Labi, S. (2013). Efficiency Measurement of Interstate Highway Pavement Maintenance Using Data Envelopment Analysis, 92nd Annual Meeting of Transportation Research Board, Washington, DC, January 13–17, 2013.
99. Zhang, Z., Bai, Q., Labi, S., Sinha, K.C. (2013). General Framework for Evaluating Long-Term Leasing of Toll Roads: Case Study of Indiana I-90, 92nd Annual Meeting of Transportation Research Board, Washington, DC, January 13–17, 2013.
98. Arman, M., Labi, S. (2013). Measuring Efficiency of Indiana Fixed-Route Transit Agencies Using Data Envelopment Analysis, 92nd Annual Meeting of Transportation Research Board, Washington, DC, January 13–17, 2013.
97. Ford, K.M., Labi, S., Arman, H., Sinha, K.C., Shirolé, A., Thompson, P. (2012). Incorporating Risk into Asset Management Decisions: Impact of Uncertain Climatic Effects on Long-Term Asset Needs, 9th National Conference on Transportation Asset Management, San Diego, CA, April 16–18, 2012.

96. Bardaka, E., Labi, S., Haddock, J. (2012) Forecasting the Life of Asset Preservation Treatments: A Comparative Evaluation of Alternative Tools and Techniques, 9th National Conference on Transportation Asset Management, San Diego, CA, April 16–18, 2012.
95. Dojutrek, M., Labi, S. (2012). Incorporating Asset Values in Investment Evaluation and Decision Making, 9th National Conference on Transportation Asset Management, San Diego, CA, April 16–18, 2012.
94. Thompson, P.D., Ford, K.M., Arman, H.R., Labi, S., Sinha, K.C., Shirolé, A. (2012). Estimating Life Expectancy of Highway Assets, 9th National Conference on Transportation Asset Management, San Diego, CA, April 16–18, 2012.
93. Liao, T., Mbakogu, E., Nguyen, N.T., Refai, S., Akinbade, Y., Bardaka, E., Labi, S. (2012). Analyzing the Spatial Distributions of Climatic Condition in the Continental USA for Infrastructure Management Purposes, 53rd Annual Transportation Research Forum, Tampa, FL, March 15–17, 2012.
92. Murillo Hoyos, J., Arman, M., Labi, S. (2012). Performance Modeling and Cost Assessment of Transit Systems, 53rd Annual Transportation Research Forum, Tampa, FL, March 15–17, 2012.
91. Labi, S., Bai, Q., Samdariya, A., Ahmed, A., Bardaka, E. (2012). Generalized Needs Assessment Scenarios for Transportation Infrastructure, 53rd Annual Transp. Research Forum, Tampa, FL, March 15–17, 2012.
90. Ahmed, A., Bai, Q., and Labi, S. (2012). Marginal pavement damage cost estimation using highway agency maintenance, rehabilitation and reconstruction (MR&R) strategies. In: 53rd Annual Transportation Research Forum, Tampa, FL, March 15–17, 2012.
89. Ahmed, A., Murillo Hoyos, J., Samdariya, A., Labi, S. (2012). The Use of Econometric Models to Estimate Initial Rest Periods for Purposes of Highway Pavement Preservation Scheduling, 53rd Annual Transportation Research Forum, Tampa, FL, March 15–17, 2012.
88. Murillo Hoyos, J., Arman, M., Labi, S. (2012). Effectiveness Evaluation of Transit Systems in Indiana, 98th Annual Road School, Purdue University, W. Lafayette, IN, March 6–8, 2012.
87. Dojutrek, M., Labi, S. (2012). Highway Asset Valuation for Indiana, 98th Annual Road School, Purdue University, W. Lafayette, IN, March 6–8, 2012.
86. Bai, Q., Labi, S., Sinha, K.C (2012). Multiobjective Optimization for Project Selection in Network-Level Bridge Management Incorporating Nonlinear Utility Functions Using the Concept of Holism, 91st Annual Meeting of Transportation Research Board, Washington, DC, January 22–26, 2012.
85. Bai, Q., Labi, S., Sinha, K.C (2012). Trade-off Analysis for Multiobjective Optimization in Transportation Asset Management by Generating Pareto Frontiers Using Extreme Points Nondominated Sorting Genetic Algorithm, 91st Annual Meeting of Transportation Research Board, Washington, DC, January 22–26, 2012.
84. Arman, M., Labi, S., Sinha, K.C. (2012). Assessment of Operational Performance of Public Transit Agencies Using Data Envelopment Analysis Technique, 91st Annual Meeting of Transportation Research Board, Washington, DC, January 22–26, 2012.
83. Ahmed, A., Labi, S., Sinha, K.C. (2012). Pavement Damage Cost Estimation for Heavy-Vehicle Charging: Synthesis of Past Research and Opportunities for Enhancement, 91st Annual Meeting of Transp. Research Board, Washington, DC, January 22–26, 2012.

82. Labi, S., Ceylan, H. (2012). Pavement Performance Prediction with LTPP Data, 91st Annual Meeting of Transportation Research Board, Washington, DC, January 22–26, 2012.
81. Sinha, K.C., Labi, S., Bai, Q. (2012) Uncertainties in Transportation infrastructure development and management, International Symposium on Engineering under Uncertainty: Safety Assessment & Management, Bengal Engineering and Science University, India, January 1–7, 2012.
80. Bai, Q., Labi, S., Sinha, K.C. (2011). Generating Safety-Performance Pareto Frontiers for Tradeoff Analysis in Asset Management Using the Extreme Points NSGA II Technique, 3rd International Conference on Road Safety & Simulation, Indianapolis, IN, September 14–16, 2011.
79. Lamptey, G., Samdariya, A., Labi, S., Sinha, K.C. (2011). Indiana’s Safety Management System Software Package (SMSS) – A Review, 3rd International Conference on Road Safety and Simulation, Indianapolis, IN, September 14–16, 2011.
78. Agbelie, B., Labi, S. (2011). Safety Countermeasures at Rural Two-Lane Roads: Do Their Effectiveness Differ By Functional Class? 3rd International Conference on Road Safety and Simulation, Indianapolis, IN, September 14–16, 2011.
77. Bai, Q., Ahmed, A., Labi, S., Irfan M., Khurshid, M.B. (2011). Establishing efficient project-level strategies for pavement maintenance and rehabilitation considering multiple objectives using data envelopment analysis, 2011 Mid-Continent Transportation Research Symposium, Ames, IA, USA, August 18–19, 2011.
76. Kumar, I., Labi, S. (2011). Assessing the Vulnerability of Indiana’s Highway Bridges to Hazards, 1st International Conference on Vulnerability and Risk Analysis and Management (ICVRAM), College Park, MD, April 11–13, 2011.
75. Labi, S., Bai, Q., Ahmed, A. Anastasopoulos P. (2011). Quantifying System Vulnerability as a Performance Measure for Systems Investment Evaluation and Decision-making, 1st International Conference on Vulnerability and Risk Analysis and Management (ICVRAM), College Park, MD, April 11–13, 2011.
74. Samdariya, A., Bai, Q., Cope, A., Kim, C., Labi, S., Frosch, R.J. (2011) Increasing Bridge Deck Service Life: Multiple-Criteria Life-Cycle Evaluation of Alternative Materials for Bridge Deck Reinforcement, 97th Annual Road School, W. Lafayette, IN. March 8–11, 2011.
73. Bai, Q., Labi, S., Sinha, K.C., Thompson, P.D. (2011) Bridge User Cost Estimation Methods – Closing the Gaps, 97th Annual Road School, West Lafayette, IN, March 8–11, 2011.
72. Patidar, V., Labi, S., Morin, T., Thompson, P.D., Sinha, K.C. (2011). Evaluating Alternative Solution Methods and Algorithms for Multi-Criteria Bridge Management at the Network Level, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
71. Bhargava, A., Ford, K., Labi, S., Sinha, K.C. (2011). Evolution of Cost Estimates across Highway Project Development Phases: Identifying the Patterns and Influential Factors using Econometric Techniques, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
70. Khurshid, M.B., Irfan, M. Ahmed, A., Labi, S. (2011). Quantifying the Consequences of Hastened or Deferred Interventions, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.

69. Bai, Q., Labi, S., Sinha, K.C., Thompson, P.D. (2011) Bridge User Cost Estimation, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
68. Bai, Q., Labi, S. (2011). Tradeoff Analysis for Multiobjective Optimization in Transportation Asset Management by Generating Pareto Frontiers Using Extreme Points NSGA II, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
67. Labi, S., Thompson, P.D., Shirolé, A., Sinha, K.C. (2011) Equations for Quantitative Assessments of the Long-Term Effectiveness of Bridge Actions, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
66. Anastasopoulos, P., Volovsk, M., Islam, M., Powell, J., Labi, S. (2011). Comparative Evaluation of Public-Private Partnerships in Roadway Preservation, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
65. Ahmed, A., Anastasopoulos, P., Islam, M., Labi, S. (2011). Road Fatalities, Health Service Quality, And Motorization Level: An Empirical Analysis Using Aggregate Country-level Data, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
64. Ahmed, A., Anastasopoulos, P., Volovski, G., Labi, S. (2011). Passenger Car Equivalents Based On Lagging Headways: Some New Evidence Using A System of Equations Approach, 90th Annual Meeting of Transp. Research Board, Washington, DC, January 23–27, 2011.
63. Anastasopoulos, P., Bhargava, A., Labi, S., Mannering, F.L. (2011). Empirical Assessment of the Likelihood and Duration of Highway Project Time Delays, 90th Annual Meeting of Transportation Research Board, Washington, DC, January 23–27, 2011.
62. Long, M.K., Fitzpatrick, V., Labi, S. (2010). Climate Change Impacts on Civil Engineering Structures – An Exploratory Discourse, 2010 Midwest Regional Summit on Regional, Population and Health Economics, Purdue University, W. Lafayette, IN, August 10–11, 2010.
61. Cope, A., Labi, S., Fang, C. (2010). An Empirical Life-Cycle Assessment of the Relative Cost-effectiveness of Alternative Materials for Reinforcing Bridge Decks, 5th International Conference on Bridge Maintenance, Safety & Management (IABMAS2010), Philadelphia, PA, July 11–15, 2010.
60. Bai, Q., Bhargava, A., Ong, G.P., Labi, S., Sinha, K.C., Thompson, P.D. (2010) A Framework for Comprehensive Estimation of User Costs for Bridge Management: A Synopsis of Existing Practices and Discussion of New Considerations, 5th International Conference on Bridge Maintenance, Safety and Management (IABMAS2010), Philadelphia, PA, July 11–15, 2010.
59. Ahmed, A., Labi, S., Shields, T. (2010). LTPP Flexible Pavement Rehabilitation Treatment Effectiveness Analysis using SPS-5 data, 6th Annual Inter-University Symposium on Infrastructure Management, University of Delaware, Newark, DE, June 18–19, 2010.
58. Cope, A., Labi, S. (2010). Feasibility of Stainless Steel as a Bridge Deck Reinforcement Material: Sensitivity of Life-Cycle Evaluation Outcome with Respect to Key Analysis Variables, 89th Annual Meeting, Transportation Research Board, Washington, DC, January 10–14, 2010.

57. Irfan, M., Khurshid, M.B., Ahmed, A., Labi, S. (2010) Estimation of Planning-Level Asset Preservation Costs – A Case Study involving Flexible Pavement Treatments, 89th Annual Meeting, Transportation Research Board, Washington, DC, January 10–14, 2010.
56. Khurshid, M.B., Irfan, M., Labi, S. (2010). Poster. Establishment of Optimal Performance Thresholds for Highway Asset Interventions – A Framework and Case Study, 89th Annual Meeting, Transportation Research Board, Washington, DC, January 10–14, 2010.
55. Ong, G.P., Ford, K., Arman, M. Labi, S., Sinha, K.C (2010). Evaluating Expected Service Lives for Highway Assets: Data Requirements, Availability and Quality, Data Analysis Working Group (DAWG) Forum, 89th Annual Meeting, Transportation Research Board, Washington, DC, January 10–14, 2010.
54. Li, Z., Labi, S., Karlaftis, M.G. (2010). Poster. Project-Level Life-Cycle Benefit-Cost Analysis Evaluation of Highway Safety Hardware Improvements, 89th Annual Meeting, Transportation Research Board, Washington, DC, January 10–14, 2010.
53. Irfan,, M., Khurshid, M.B., Bai, Q., Labi, S. (2010) Establishing Optimal Pavement Life-Cycle Profiles at Project Level: Framework for Different Categories of Cost and Treatment Types, 89th Annual Meeting, Transportation Research Board, Washington, DC, January 10–14, 2010.
52. Bai, Q., Labi, S., Noureldin, S., Steckler, B., Unkefer, D., Keefer, D. (2009) Asset Management Trade-Off Analysis – The Experience of the Indiana DOT in Developing a Framework and Computer Tool, 8th National Conference on Asset Management, Portland, OR, October 19–22, 2009.
51. Khurshid,, M.B., Irfan, M., Labi, S. (2009). A Framework for Establishing Optimal Performance Thresholds for Highway Asset Interventions, 5th Annual Inter-University Symposium on Infrastructure Management, University of Iowa, Iowa City, IA, June 19–20, 2009.
50. Irfan, M., Khurshid, M.B., Labi, S. (2009). Parametric Estimation of Planning-Level Asset Preservation Costs – A Case Study in Flexible Pavement Assets, 5th Annual Inter-University Symposium on Infrastructure Management, University of Iowa, Iowa City, IA, June 19–20, 2009.
49. Labi, S. (2009). New Course in Engineering Systems at Purdue University - Introduction to Civil Engineering Systems Design, Second International Conference on Engineering Systems at MIT, Cambridge, MA, June 15-17, 2009.
48. Bai, Q., Labi, S., Noureldin, S. (2009). Transportation Asset Management Research, 95th Annual Road School of the Joint Transportation Research Program, W. Lafayette, IN, March 10–12, 2009.
47. Irfan, M., Khurshid, M.B., Labi, S. (2009) Service Life of Thin HMA Overlay Using Different Performance Indicators, 88th Annual Meeting, Transportation Research Board, Washington, DC, January 11–15, 2009.
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1. Giraud, T., Choivichien, V., Labi, S., Sinha, K.C. The Development of a Highway Tort Liability Management System for the Indiana Department of Transportation., FHWA/IN/JTRP-2003/20, for the U.S. Department of Transportation, February 2004.

Research Grants

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: An analysis of cost and time overruns of INDOT contracts
Duration of Funding	08/15/02 – 08/14/04
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Life cycle cost analysis for INDOT pavement design procedures
Duration of Funding	01/15/04 – 06/15/06
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: An assessment of highway financing needs in Indiana
Duration of Funding	01/15/04 – 01/14/06
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Procedures for the estimation of pavement and bridge preservation costs for fiscal planning and programming
Duration of Funding	01/15/04 – 01/14/06
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Ramp metering & high occupancy vehicle facilities: Synthesis study
Duration of Funding	01/15/04 – 12/31/05
Agency/Title of Grant:	National Academy of Sciences/National Research Council Subaward: Multiple objective optimization for bridge management systems
Duration of Funding	02/01/04 – 03/01/06
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Influence of speed on highway safety.
Duration of Funding	08/01/05 – 07/31/07
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Ex poste evaluation of transportation projects.
Duration of Funding	08/15/05 – 08/14/06
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Alternatives to fuel tax
Duration of Funding	01/15/06 – 12/15/08
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Update of bridge management system for Indiana
Duration of Funding	01/15/06 – 02/14/09

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Trade-off analysis methodology for asset management
Duration of Funding	01/15/07 – 12/31/08

Agency/Title of Grant:	Nextrans Transportation Center/ US Dept. of Transportation. Subaward: Uncertainty-based tradeoffs for integrated transp. investment
Duration of Funding	02/01/08 – 08/01/09

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Forecasting of highway revenues under various options
Duration of Funding	01/01/09 – 12/12/10

Agency/Title of Grant:	NEXTRANS Transportation Center/ US Dept. of Transportation Subaward: Feasibility of dynamic congestion pricing as a revenue source
Duration of Funding	01/15/09 – 06/15/10

Agency/Title of Grant:	National Academy of Sciences/National Research Council Subaward: Remaining service life of highway assets
Duration of Funding	04/15/09 – 04/14/11

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: A synthesis of truck weight permitting
Duration of Funding	10/01/09 – 06/01/10

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Evaluation of various strategies to increase bridge deck service life
Duration of Funding	01/15/10 – 01/31/14

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: A methodology for highway asset valuation in Indiana
Duration of Funding	01/15/10 – 05/14/11

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Costs and revenues associated with overweight trucks in Indiana
Duration of Funding	08/15/10 – 08/14/12

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT: Subaward: Service lives of selected pavement rehabilitation treatments
Duration of Funding	11/01/10 – 12/31/12

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Enhancement, and implementation of tradeoff analysis methodology
Duration of Funding	01/01/11 – 08/31/12

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Updates to Indiana fuel tax and registration revenue projections
Duration of Funding	05/18/12 – 08/15/12
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Developing statistical limits for the light weight deflectometer, in construction quality assurance
Duration of Funding	06/01/12 – 12/01/13
Agency/Title of Grant:	Nextrans Transportation Center/ US Dept. of Transportation Subaward: Using regional freight traffic assignment modeling to quantify pavement damage variability
Duration of Funding	10/01/12 – 10/01/13
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Strategies for bundling of transportation projects along a corridor
Duration of Funding	02/15/13 – 02/14/15
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Indiana state highway cost allocation and revenue attribution Study
Duration of Funding	03/15/13 – 05/04/15
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Impact of HB-1481 on Indiana's highway revenue generation, asset degradation, modal distribution, and economic development and competitiveness
Duration of Funding	06/15/13 – 10/14/14
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Cost benefit analysis and implementation of NDT testing of INDOT bridge decks
Duration of Funding	01/01/14 – 12/31/15
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Strategic scheduling of infrastructure repair and maintenance
Duration of Funding	03/01/14 – 08/31/16
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Estimation and prediction of statewide annual VMT by vehicle class and highway category
Duration of Funding	03/01/14 – 08/31/16

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Models to support bridge management
Duration of Funding	04/15/14 – 08/14/15
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Evaluating the impacts of time-of-day tolling on Indiana roadways
Duration of Funding	10/01/14 – 09/30/16
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Effects of bridge surface and pavement maintenance activities on asset rating
Duration of Funding	10/15/15 – 10/14/17
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Ohio River Bridge, ORB, project after action review of procurement models
Duration of Funding	6/15/2017 to 6/14/2019
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Capital program cost optimization through contract aggregation process
Duration of Funding	1/1/2017 to 3/31/2018
Agency/Title of Grant:	Center for Connected/Automated Transportation (CCAT)/ United States Dept of Transportation Subaward: Design/management of highway infrastructure to accommodate CAVs
Duration of Funding	11/30/2016 to 9/30/2018
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Indiana House Bill 1002 impact analysis
Duration of Funding	01/25/2017 to 3/31/2017
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Updating asset risk and vulnerability assessment for INDOT
Duration of Funding	12/09/2016 to 6/08/2018
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Evaluating the impacts of time-of-day tolling on Indiana roadways Part II – Cost expansion
Duration of Funding	06/30/16–06/15/17
Agency/Title of Grant:	Center for Connected/Automated Transportation (CCAT)/ United States Dept of Transportation Subaward: Changes in highway agency expenditures and revenue in an era of CAVs
Duration of Funding	11/30/2017 to 9/30/2018

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Cost-effectiveness of converting signalized arterials to free-flow facilities
Duration of Funding	12/01/2017 to 06/31/2019
Agency/Title of Grant:	Local Technical Assistance Program/ PASER rating analysis
Duration of Funding	06/15/2018 to 06/15/2019
Agency/Title of Grant:	United States Dept of Transportation: Subaward: Center for Connected/Automated Transportation (CCAT) Year 3
Duration of Funding	10/01/2018 to 09/30/2019
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Conduit project
Duration of Funding	06/30/2019 to 06/30/2020
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Synthesis study on best practices for mapping and coordinating detours for maintenance of traffic, including risk assessment/management for duration of traffic control activities
Duration of Funding	11/01/2019 to 02/28/2021
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Safety, mobility, and cost benefits of closing one direction of interstate in rural areas during construction work
Duration of Funding	11/01/2019 to 02/28/2021
Agency/Title of Grant:	United States Dept of Transportation: Subaward: Center for Connected/Automated Transportation (CCAT) Year 4
Duration of Funding	10/01/2019 to 09/30/2020
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: A strategic assessment of needs and opportunities for wider adoption of renewable energy and electrification in Indiana
Duration of Funding	8/1/2020 to 12/31/2021
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Integrating transformative technologies in Indiana's transportation operations
Duration of Funding	8/17/2020 to 12/31/2022

Agency/Title of Grant:	United States Dept of Transportation: Subaward: Center for Connected/Automated Transportation (CCAT) Year 5
Duration of Funding	10/01/2020 to 09/30/2021

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Heavy fleet and facilities optimization
Duration of Funding	11/01/2020 to 10/31/2021

Agency/Title of Grant:	Local Technical Assistance Program of Indiana Subaward: Financial needs for local agency highway and street departments
Duration of Funding	11/15/2020 to 11/14/2021

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Overweight divisible loads
Duration of Funding	6/7/2021 to 6/6/2023

Agency/Title of Grant:	United States Dept of Transportation: Subaward: Center for Connected/Automated Transportation (CCAT) Year 6
Duration of Funding	10/01/2021 to 09/30/2022

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Center for Excellence in Project Finance
Duration of Funding	01/20/2022 to 12/20/2022

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: INDOT project change orders – root causes and recommendations
Duration of Funding	11/1/2022 to 10/31/2023

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Electric vehicles: public perceptions, expectations, and willingness-to-pay across highway user groups (vehicle classes)
Duration of Funding	8/15/2022 to 08/14/2024

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Evaluation of the accuracy of non-destructive testing methods for the condition assessment of bridge decks and integration into the asset management program
Duration of Funding	09/01/2022 to 8/31/2024

Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Assessing the asset management programs of locals including bridge & pavement conditions
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Duration of Funding	08/01/2023 to 11/30/2024
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: The business case for sustainable road infrastructure development
Duration of Funding	09/01/2023 to 04/30/2025
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Dwight David Eisenhower Transportation Fellowship Program (DDETFP) Graduate Fellowship
Duration of Funding	01/01/2023 to 08/31/2023
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Center for Excellence in Project Finance
Duration of Funding	01/20/2023 to 12/31/2023
Agency/Title of Grant:	Purdue University College of Engineering: Purdue AI Racing Initiative, Year 1
Duration of Funding	08/01/2023 to 07/31/2026
Agency/Title of Grant:	United States Dept. of Transportation Subaward: New Center for Connected and Automated Transportation, for Safety, Cybersecurity, and Equity (CCAT-SCE)
Duration of Funding	11/15/2023 to 03/14/2024
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Updating cost allocation and revenue attribution
Duration of Funding	12/01/2023 to 05/31/2024
Agency/Title of Grant:	United States Dept. of Transportation/Indiana DOT Subaward: Reducing the dependency on chlorides & impacts
Duration of Funding	01/01/2024 – 04/30/2025

Software Packages & Electronic Tools Developed for Engineering Practice

RM-LCCA (Reinforcement Material Life Cycle Cost Analysis, Version 2013).

Collaborators: Ashish Samdariya, Chungwook Sim, Robert Frosch.

Client: U.S. Department of Transportation/The Indiana Department of Transportation.

Electronic Tool for Life Expectancy Estimation of Highway Assets, 2012

Collaborators: Ford, K., Arman, H.R., Labi, S., Sinha, K.C., Shirolé, A., Thompson, P.D.

Client: National Cooperative Highway Research Program, National Academy of Sciences, Washington, DC.

TRADE-IN 2012 – Asset Management Trade-off Analysis Software Package, 2012

Collaborators: Bai, Q.

Client: U.S. Department of Transportation/The Indiana Department of Transportation

INDOTREV 2010 - Revenue Forecasting Software Package, 2010

Collaborators: Bai, Q., Agbelie, B., Sinha, K.C., McCullouch, B.

Client: U.S. Department of Transportation/The Indiana Department of Transportation

IBMS 2009 Version: Software Package for the Indiana Bridge Management System, 2009

Collaborators: Bhargava, A., Bai, Q., Sinha, K.C. McCullouch, B., Kang, W.

Client: U.S. Department of Transportation/The Indiana Department of Transportation

MOO-BMS (A Tool for Multi-objective Optimization for Bridge Management, 2007)

Collaborators: Patidar, V., Sinha, K.C., Thompson, P., Hyman, W.A., Shirolé, A.

Client: National Cooperative Highway Research Program, National Academy of Sciences, Washington, DC.

RealCost-IN (Life-cycle Cost Analysis for INDOT Pavement Design Procedures, 2004).

Collaborators: Lamptey, G. Ahmad, M.Z., Sinha, K.C.

Client: U.S. Department of Transportation/The Indiana Department of Transportation

SMSS (Highway Safety Management in Indiana, 2004)

Collaborators: Lamptey, G. Sinha, K.C.

Client: U.S. Department of Transportation/The Indiana Department of Transportation

SERVICE TO THE UNIVERSITY

1. Service at Purdue

1. Helping to coordinate external speakers for transportation engineering seminars. 2008-present.
2. Application review for prospective transportation graduate students, 2009-present
3. Ph.D. Qualifying Exams Coordinator, Transportation and Infrastructure Systems Group, School of Civil Engineering, Purdue University, 2008 – present
4. Membership of administrative committees at Purdue University for Campus appeals, Community standards, and Scholastic readmissions (2008-2012).
5. Faculty Advising:
 - Advisor of the ASCE Student Chapter of Purdue University, 2012-present.
 - Advisor of the Vietnamese Students Association, 2013.
 - Advisor of the Xperience-Afrika student organization, 2014.
 - Advisor of Autonomous Motorsports Purdue (AMP). Helped organize first national autonomous Go-Kart racing competition at Purdue Grand Prix Track, June 2023.

2. Major Committees on Campus

1. Staff Awards Committee, member, Lyles School of Civil Engineering, Purdue University, 2005-6.
2. Awards Committee, member, Purdue University Ismail Interdisciplinary Travel Grant, 2009–present
3. College of Engineering Strategic Plan Team 6c: Creativity and Risk – Technology Ethics, Global Impacts & Policy Think Tank, member, 2009.
4. College of Engineering “Systems Collaboratory” Initiative, 2009.
4. Scholastic Delinquencies and Readmissions Committee, member, Purdue University, 2008–2012.
5. Campus Appeals Board, member, Purdue University, 2009–2012.
6. Community Standard Board, member, Purdue University, 2010–2012.
7. Internal Awards Committee, member, Lyles School of Civil Engineering, Purdue University, 2015–present.

(a) Professional and Government Committees

- Planning & Development Council, ASCE Transp. & Development Institute: (Chair, 2023 – present)
- Economics and Finance Committee, ASCE Transp. & Development Institute: (Chair, 2016 – 2023; Member, 2009 to 2016; Vice chair 2015 – 2016)
- Infrastructure Systems Committee, ASCE Transp. & Development Institute: (Member, 2013 to present); Chair of research subcommittee
- Highway Pavement Committee, ASCE Transp. & Development Institute: (Member, 2009 to present)
- Advanced Technologies Committee, ASCE Transp. & Development Institute: (Member, January 2009 to 2018)
- Bridge Management Committee (AD40), Transportation Research Board: (Member, January 2009 to present)
- Asset Management Committee (ABC40/AJE30), Transportation Research Board: (Member December 2011 - present); Secretary of the committee
- Technical Council on Life-Cycle Performance, Safety, Reliability & Risk of Structural Systems, ASCE Structural Engineering Institute: (Elected member, January 2009 to 2014).
- Ghana Transportation Professionals Forum of North America: (Founding member and Inaugural President, 2014-2015)
- Maintenance Management Systems Committee (AKT70), Transportation Research Board: (Member, January 2021 to present)

(b) Review of Civil Engineering Department Programs

- Texas State University, 2016
- Georgia Institute of Technology, 2021

(c) Panel Membership of National Research Organizations

Panel member, National Cooperative Highway Research Program Project F13-08, Guidelines for Decision Making for Repair vs. Replacement of Highway Maintenance Equipment, Transportation Research Board, National Academies of Science, Engineering, and Medicine.

Panel member, National Cooperative Highway Research Program Project 48-07, Investment Prioritization Methods for Low Volume Roads, Transportation Research Board, National Academies of Science, Engineering, and Medicine.

(d) Review of Dissertations (External Reviewer)

USA

CUTC-ARTBA Best thesis awards program, 2012 – present

International

Indian Institute of Technology Madras, 2020

Indian Institute of Technology Delhi, 2020

IIT Titupati, 2021
Thapar Institute of Engineering & Technology, India, 2021
Indian Institute of Technology Bhubaneswar, India, 2015
Hong Kong Polytechnic University, 2021 – present.

(e) Review of Proposals for Research Organizations

Mitacs Accelerate
Singapore National Science Foundation (NSF)
National Institute of Technical Teachers Training and Research, Chennai, India
King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia
Qatar National Research Fund (QNRF)

(f) Faculty Promotion Document Evaluations

19 institutions worldwide, including ETH Zurich, Switzerland; Hong Kong Polytechnic University; Delft University; Tsinghua University; University of Maryland; University of Central Florida; University of British Columbia; and University of Florida.

(g) Editorial Work for Journals

Editorial Board Member

- **ASCE Journal of Infrastructure Systems**, 2009 to present.
- **ASCE Journal of Risk and Uncertainty**, also Associate Editor, 2009 to present.
- **Computer Aided Civil and Infrastructure Engineering**, 2009 to present.
- **Frontiers in Engineering & Built Environment**, Emerald Publishing, King Khalid Univ., 2020 to present.
- **Journal of Intelligent and Connected Vehicles** (Tsinghua University, IEEE), 2021 to present.
- **Journal of Road Engineering**, KeAi/Elsevier, 2021 to present.
- **International Journal of Transportation Science & Technology**, 2023 to present.

Associate Editor

- ASCE Journal of Infrastructure Systems (2018 – present)

Assistant Editor

- Journal of Safety Science, 2018 to present.

Guest Editor of Special Issues of Journals

- **ASCE JIS: Special Issue on “Economics and finance in civil infrastructure development: New contexts, methodologies, and case Studies.”** Co-editors: Ananth Iyer, Rui Marques, and Panos Anastasopoulos, 2018.

- **Frontiers in the Built Environment: Special Issue on Planning for Autonomous and Connected Vehicles**, Co-editors: Mohammad Miralinaghi, Raymond Ong, Feng Zhu, Panos Anastasopoulos, 2019.
- **Journal of Advanced Transportation: Special Issue on Electric Vehicles: Planning and Operations**, Co-editors: Mohammad Miralinaghi, 2021.
- **Transportation Research Record: Nexus of Energy Implications, Travel Demand and Infrastructure Planning and Management for Alternative-Fuel Vehicles**, Co-editors: Mohammad Miralinaghi, Sponsored by the following TRB committees: Integrated Modeling Subcommittee of the Transportation Demand Forecasting Committee, Transportation Energy Committee, Economic Development and Land Use Committee, Transportation Demand Management Committee, Alternative Fuel and Technologies Committee, 2021-2022
- **ASCE Journal of Infrastructure Systems: Special Collections on Road Infrastructure Preparation for the Connected and Autonomous Vehicles Era**; Co-editors: Mohammad Miralinaghi, 2021.
- **Sustainability Journal: Special Issue on “Smart Cities—The Role of Transportation, Artificial Intelligence and Big Data**; Co-editors: Sikai Chen, Ali Karimodini, Hua Liang Teng, 2021.
- **Computer-aided Civil & Infrastructure Engineering (CACAIIE) Special Issue on Adaptations of emerging transport technologies towards smart infrastructure**, Co-editors: Kaan Ozbay, Xiaobo Qu, Toshiyuki Yamamoto, 2021
- **ASCE Journal of Infrastructure Systems: Special Collections on Infrastructure Preparations for the Emerging Era of Transformative Transportation Technologies – Automated, Connected, and Electric**; Co-editors: Bryan Adey, Eric Donnell, Mohammad Miralinaghi, 2022.

(h) Leadership of International Research Organizations

Chair, International Scientific Advisory Board, The Regional Transport Research and Education Center (TRECK), The Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

(i) Reviewer for Journal Papers:

Journal of Transportation and Statistics (since 2003); ASCE Journal of Transportation Engineering (since 2003); Elsevier’s Automation in Construction (since 2005); Transportation Research Record (since 2005); Computer-Aided Civil and Infrastructure Engineering (since 2006); ASCE Journal of Infrastructure Systems (since 2006); Elsevier’s Decision Support Systems Journal (since 2007); ASCE Journal of Computing in Civil Engineering (since 2008); ASCE Journal of Bridge Engineering (since 2007); International Journal of Pavement Engineering (since 2009); Structure & Infrastructure (since 2009); ASCE Journal of Management in Engineering (since 2010); Emerald’s Facilities Journal (since 2010); Structural Engineering (since 2009)); Transportation Research Part A – Policy and Practice (since 2010); Advances in Construction (since 2011); Elsevier’s Engineering Structures (since 2011); Journal of the Operations Research Society (since 2012); Elsevier’s Journal of Transport Policy (since 2013); Journal of Intelligent Transportation Systems (since 2013); ASCE Journal of Construction Engineering and Management (since 2014); ASCE Journal of Risk and Uncertainty (since 2014), ASCE Journal of Structural Engineering (since 2014); European Journal of Transport and Logistics (since 2014); European Journal of Pavements (since 2014); Sustainability (since 2014); ASCE Journal of Urban Planning and Development (since 2015); Journal of the Society for Risk Analysis (since 2015); Transportation Research Part C – Emerging Technologies (since 2020).

(j) Reviewer of Conference Papers

ASCE ICTD Annual Series

World Conferences on Intelligent Transportation Systems

TRB International Conferences on Bridge Management

Annual Meetings of the Transportation Research Board

10th International Conference on Application of Statistics and Probability in Civil Engineering; (ICASP10), Tokyo, Japan, 2007

International Conferences on Managing Pavements (ICMPA) (since 2011)

International Conferences on Vulnerability and Risk Analysis and Management (ICVRAM) and International Symposia on Uncertainty Modeling and Analysis series (ISUMA) (since 2010)

International Conferences on Application of Advanced Technologies in Transportation (AATT) (2008)

1st International Conference on Transportation Decision Making: Issues, Tools, Models and Case Studies, 2008, Venice, Italy; International Conference on the Capacity of Transport Systems: Arcs, Nodes, Services and Technologies, 2009, Venice, Italy

International Conferences on Road Safety and Simulation (Indianapolis, September 2011, and Rome, October 2013).

(k) Conference Organization/Planning

Member, Technical Program Committee (2006), 12th International Conference on Information Quality (ICIQ 2006), MIT, Cambridge, MA. November 2006.

Member, Scientific Committee (2007-2008), 10th International Conference on Application of Advanced Tech. in Transp. (AATT 2008), Greece, May 2008.

Member, Scientific Committee (2008), International Conference on Transportation Decision-making: Issues, Tools, Models and Case Studies, Venice, November 14-15, 2008.

Member, Scientific Committee (2009), International Conference on The Capacity of Transport Systems: Arcs, Nodes, Services and Technologies, Venice, November 5-6, 2009.

Chair, Design and Analysis Session, 5th International Conference on Bridge Maintenance, Safety and Management (IABMAS2010), Lehigh University, Bethlehem, PA, July 10-14, 2010.

Member, Program Committee (2009), International Conference on Vulnerability and Risk Analysis and Management (ICVRAM), ASCE Council on Disaster Risk Management (CDRM), University of Maryland, College Park, MD, April 11-13, 2011.

Member, Program Committee (2022), International Conference on Transportation and Development (ICTD), American Society of Civil Engineers (ASCE), Seattle, WA, May 31-June 3, 2022.

Member, Program Committee (2023), International Conference on Transportation and Development (ICTD), American Society of Civil Engineers (ASCE), Austin, TX, June 14-17, 2023.

Member, Program Committee (2024), International Conference on Transportation and Development (ICTD), American Society of Civil Engineers (ASCE), Atlanta, GA, June 15-18, 2024.

(l) Workshops/Seminars Organization

- Purdue University Annual Road School, West Lafayette, IN, 2002-2009.
- Highway Capacity Workshops for personnel of the Indiana Department of Transportation, 2012.
- National Bootcamp series on Infrastructure Management: GeorgiaTech, Virginia Tech, Oklahoma State, Delaware.

(m) Community Involvement

The Wabash Area Lifetime Learning Association (WALLA), an organization that provides social and educational opportunities for elderly persons in Tippecanoe and surrounding counties in Indiana.