

SAMUEL LABI



Sam Labi's research in infrastructure systems is motivated by evolving trends on the natural and anthropogenic landscapes and their interactions with infrastructure. These interactions 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 research areas include:

- Connected and automated transport systems (market forecasts, human factors, simulation, and AI-enhanced algorithms for perception, navigation, and control);
- Infrastructure preparations to support next-generation transportation systems (electric, autonomous, connected, shared, and airborne vehicles);
- Impact analysis and evaluation methodologies for innovative materials and processes in infrastructure systems;
- Legislative policy development and evaluation to foster efficient and equitable fee structures for vehicular use of highway systems;
- 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 engineering, highway project finance, and transportation user equity.

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.

"One finger cannot pick a stone."

— Akan Proverb

A brief bio

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

He has authored two textbooks (*Transportation Decision Making* [2008] and *Civil Engineering Systems* [2014]) published by Wiley and adopted at several universities worldwide for course instruction; research articles in reputable journals; book chapters; refereed conference articles; and research reports. He has given numerous presentations at conferences and invited lectures or presentations worldwide. Also, he has served as major advisor for several PhD students that are currently professors at reputable universities worldwide. His students have earned several research awards, some internal (Purdue) and mostly, external.

Dr. Labi has played prominent editorial roles in reputable journals including assistant/associate editor, guest editor, and editorial board member, for several reputable journals. He is the current chair of American Society of Civil Engineers (ASCE)'s Transportation & Development (T&D) Council, immediate past chair of T&D Institute's committee on Economics & Finance, and past vice-president of the Transportation Research Forum (TRF).

His work has been recognized internationally through major research awards including the American Society of Tests & 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; the Joe Sussman best paper award in Frontiers journal (2021); the Matthew Karlaftis best paper award in Journal of Infrastructure Systems (2021); top paper award in the Journal of Road Engineering (2024); and ASCE's Wilbur Smith (2025) award for his contributions to the enhancement of the role of the civil engineer in highway engineering.

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

— Mary Catherine Bateson

His “impact”

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 that supported 3 pieces of legislation related to road transportation policy. These laws were passed in 2015, 2017, and 2022.

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), ASCE Wilbur Smith Award (2025), Journal of Road Engineering best paper award (2025).

Journal articles/citation statistics: approx. 170 journal articles, 8,800 Google Scholar citations; *h*-index 50; *i10*-index 170.

Research funding: approximately: 50 projects; \$15M (directly responsible for \$10M).

Doctoral student mentorship: Graduated: 30 MS students and 31 PhD’s (15 currently of them are professors at various levels at reputable universities worldwide. His students have earned at least 90 research awards (national, international, & internal [Purdue]).

Associate Editor/Editorial Board (past or present): Computer Aided Civil & Infrastructure Engineering; Safety Science; Journal of Intelligent & Connected Vehicles; Infrastructure Systems; Frontiers in Engineering & Built Environment; Journal of Road Engineering; International Journal of Transportation Science & Technology; Nature Sustainable Transport and Mobility (Guest), ASCE/ASME Journal of Risk & Uncertainty; Infrastructure Asset Management (Guest).

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

Positions held

Jul 2022	Present	Campus Director, Midwest Branch, Build America Center (FHWA Center of Excellence in Project Finance)
Jul 2018	Present	Director, NEXTRANS Transportation Center, Purdue University
Jul 2018	Present	Associate Director, USDOT Center for Connected & Automated Vehicles
Aug 2001	Present	Various professor roles (Visiting, Assistant, Associate, and Full): Lyles School of Civil Engineering, Purdue University.
Aug 2023	Feb 2024	Director, Purdue AI Racing Initiative, Purdue University.
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 Assistant, School of Civil Engineering, Purdue University
Oct 1987	Aug 1995	Civil Engineer, Conterra Consultants International

"Success is measured not by the positions that we have reached in life but by the obstacles which we have overcome." -- Booker T. Washington



Major awards that came his way ...

- **Journal of Road Engineering, Top Paper Award, 2024.** Co-recipients: Mohammadhosein Pourgholamali, Kumares Sinha.
- **Wilbur Smith Award** for special contributions to the enhancement of the civil engineer's role in highway engineering, American Society of Civil Engineers, 2025.
- **Mary Zimmerman Award** for promoting creative thinking and outreach, Purdue University, 2024, Co-recipient: Richard Ajagu.
- **Matthew Karlaftis best paper award** in ASCE Journal of Infrastructure Systems, 2021, Co-recipients: Sikai Chen, Mohd Miralinaghi, Jiaxiao Feng, Zhirui Ye, & Jinling Chai.
- **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 operations and maintenance, 2018. Co-recipients: Jon D. Fricker & Julie Qiao.
- **Frank Masters Award** for innovations and contributions to the advancement of the knowledge and practice of transportation engineering, ASCE, 2014.
- **Best Paper Award**, 10th International Conference, Institute for Infrastructure Resilience & Reconstruction 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 (CE) systems with profound impact on CE 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 & Materials (ASTM) at TRB 86th Annual Meeting, Washington D.C., 2007.
- **Milton Pikarski Award**, for Best National Ph.D. Dissertation in Transportation (Science & Technology category) by the Council of University Transportation Centers 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

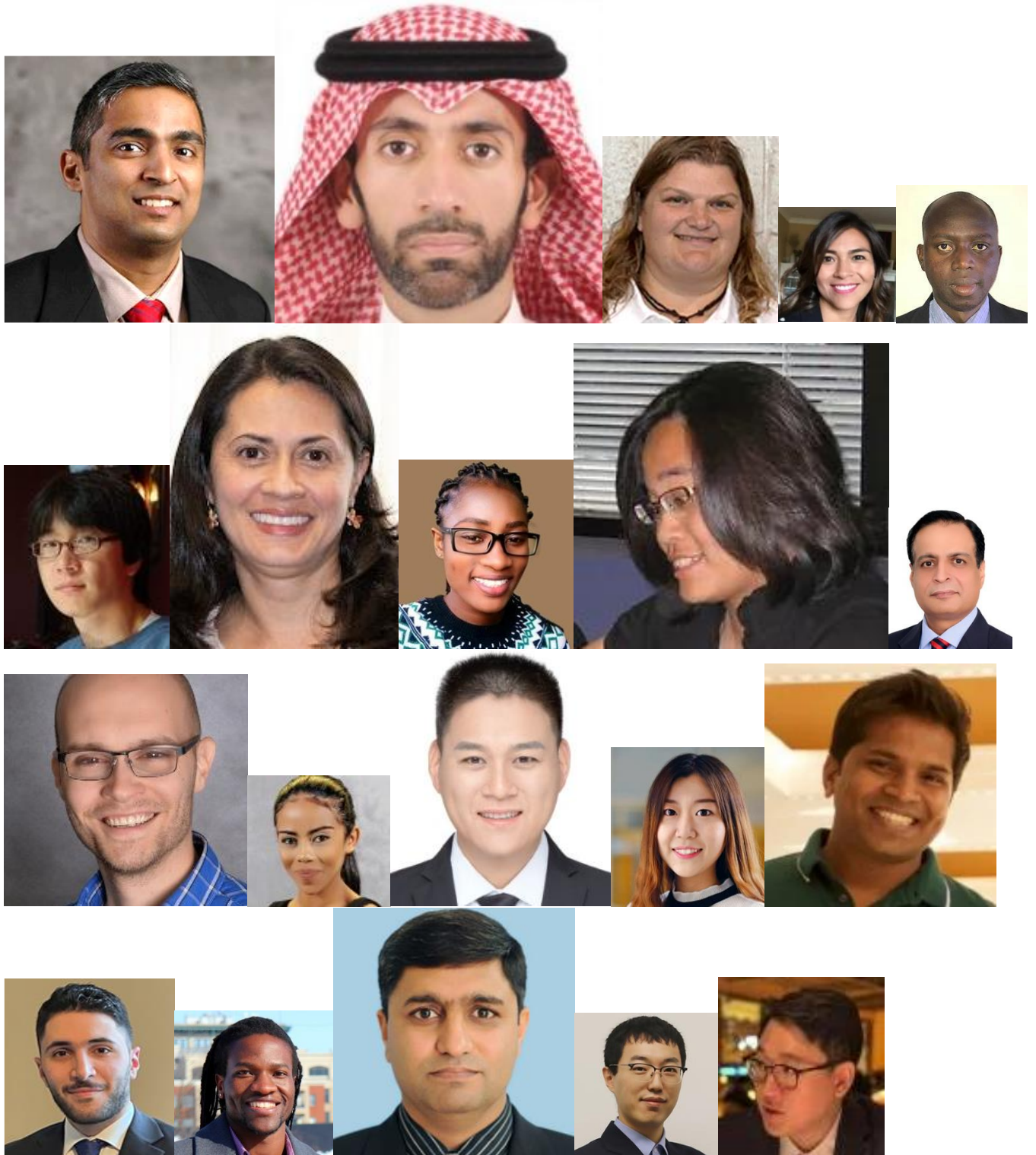
“A good teacher is like a candle—it consumes itself to light the way for others.”

– 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)



Students' Awards


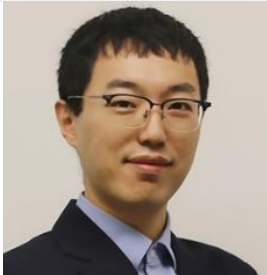


1. 2004 Cox Memorial Award, Indiana Institute of Transportation Engineers (Kong Siew Hwee)
2. 2005 Charley Wootan Award -- Prize for best M.S. thesis (national competition), awarded by the Council of University Transportation Centers and American Roads and Transportation Builders Association (ARTBA) (Marcela Rodriguez)
3. 2011 Cox Memorial Award, Indiana Institute of Transportation Engineers (Michelle Dojutrek)
4. Best paper award, 11th International Contest on LTPP Data Analysis, FHWA, USDOT (Eleni Bardaka)
5. 2011 Magoon Award for Excellence in Teaching, Lyles School of Civil Engineering, Purdue University (Michelle Dojutrek)
6. 2015 First Place Award, International Road Federation (IRF) Annual International Essay Competition (Matt Volovski)
7. 2012 Milton Pikarsky Award -- Prize for best PhD dissertation (national competition), awarded by the Council of University Transportation Centers and American Roads and Transportation Builders Association (ARTBA) (Qiang Bai)
8. 2012 Cox Memorial Award, Indiana Institute of Transportation Engineers (Eleni Bardaka)
9. 2013 Selectee, New Faces of Civil Engineering, American Society of Civil Engineers (Kevin Ford)
10. 2014 WTS Staley Leadership Legacy Graduate Award (Eleni Bardaka)
11. 2014 WTS International Leadership Legacy Scholarship (Eleni Bardaka)
12. 2014 Mary Ann Zimmerman Award, Lyles School of Civil Engineering, Purdue University (Eleni Bardaka)
13. 2014 Interdisciplinary Excellence Award, Purdue. (Matt Volovski)
14. 2014 AASHTO Best High Value Research Project in Region 3 of the United States (Anwaar Ahmed)
15. 2014 Best Paper Award, 10th International Conference of the Institute for Infrastructure Resilience & Reconstruction (I3R2). (Michelle Dojutrek)
16. 2014 Yoder Memorial Award, Lyles School of Civil Engineering, Purdue. (Matt Volovski)
17. 2016 International Road Federation (IRF) Fellow Award (Tariq Saeed).
18. 2016 Neville Parker Award -- Prize for best M.S. Non-thesis report (national competition), awarded by the Council of University Transportation Centers and American Roads and Transportation Builders Association (ARTBA) (Yu Qiao)
19. 2016 Fulbright Award to attend MIT Advanced Study Program. (Tariq Saeed)
20. 2016 ThinkSwiss Research Award for research fellowship at ETH Zurich. (Tariq Saeed)
21. 2016 Magoon Award for Excellence in Teaching, College of Engineering, Purdue University. (Sikai Chen)
- 2016 Student Travel Grant Award, Climate Change Research Center, Purdue University (Tariq Saeed)
22. 2017 American Public Transportation Foundation Scholarship (Tariq Saeed)
23. 2017 ENO (National Center for Transportation) Future Leaders Award (Tariq Saeed)
24. 2017 Essam and Wendy Radwan Graduate Award (Tariq Saeed)
25. 2017 Selectee, Annual Youth Summit at the World Bank Headquarters (Ali Ghahari)
26. 2017 MIT Award for Modeling & Simulation of Transportation Networks workshop (Ali Ghahari)
27. 2017 Foundation of the Association of Energy Engineers (FAEE) travel grant award for World Energy Engineering Congress attendance (Ali Ghahari)
28. 2017 AISIM 14 best conference presentation award (Tariq Saeed)
29. 2018 Essam and Wendy Radwan Graduate Award (Ali Ghahari)

Students' Awards (continued)






30. 2018 Summer Research Grant for Civil Engineering - Purdue University Research Foundation (PRF) (Sikai Chen)
31. 2018 TRB's Grant D. Mickle award for best TRR journal paper in design and construction (Julie Yu Qiao)
32. 2018 Nellie Munson Award for Excellence in Teaching - College of Engineering, Purdue University (Julie Yu Qiao)
33. 2018 American Society of Civil Engineers' Jack E. Leisch Fellowship Award (Tariq Saeed)
34. 2018 Donnon Doctoral Fellowship, Purdue University (Tariq Saeed)
35. 2018 Bilsland Doctoral Fellowship, Purdue University (Sikai Chen)
36. 2018 Cox Memorial Award, Indiana Institute of Transportation Engineers (Trevor Moore)
37. 2018 ITS Michigan Scholar Award for best student poster (Dongyoon Song)
38. 2018 Schmidt Science Fellows program Purdue finalist (Sikai Chen and Tariq Saeed)
39. 2019 Outstanding graduate student award, Purdue University College of Engineering (Tariq Saeed)
40. 2019 College of Engineering Outstanding Research Award, Purdue University College of Engineering (Tariq Saeed)
41. 2019 Graduate Student Engagement Award (ICM) (Abdullah Nafakh)
42. 2019 NSF Emerging Educator Award for Making Academic Change Happen workshop (Ali Ghahari)
43. 2018 Essam and Wendy Radwan Graduate Award (Tariq Saeed)
44. 2019 Essam and Wendy Radwan Graduate Award (Tariq Saeed)
45. 2019 Georgia Tech Conference Travel Grant from NSF on Nano Technology (Ali Ghahari)
46. 2019 Best poster presentation award, NGTS Annual Conference (Bortiorakor Alabi)
47. 2019 Best PhD dissertation award, Lyles School of Civil Engineering (Sikai Chen)
48. 2019 Gill Endowment Fund for Civil Engineering (Shubham Agarwal)
49. 2019 Outstanding Student of the Year Award, USDOT's University Transportation Centers (UTC) Program (Abdullah Nafakh)
50. 2019 Editor's Choice Award from the Springer journal "Maritime Economics & Logistics" (Irina Bedyk)
51. 2020 ITE Elevator Pitch award (Paul Ha and Rayne Du)
52. 2020 Eisenhower Graduate Fellowship Award, FHWA, USDOT (Isaiah Mwamba)
53. 2020 WTS Indianapolis Helene M. Overly Memorial national scholarship (Bortiorakor Alabi)
54. 2020 Cox Memorial Award, Indiana Institute of Transportation Engineers (Ali Ghahari)
55. 2021 Cox Memorial Award, Indiana Institute of Transportation Engineers (Bortiorakor Alabi)
56. 2021 Sussman Best Paper Prize from the Frontiers in the Built Environment journal (Sanja Seilabi)
57. 2021 IRF Executive Fellowship award (Bortiorakor Alabi)
58. 2021 Journal of Infrastructure Systems (JIS) Editor's Choice paper (Tariq Saeed, Bortiorakor Alabi)
59. 2021 IEEE ITS Conference paper award (Paul Ha, Frank Dong and Rayne Du)
60. 2021 Spring Student Engagement award, Civil Engineering Graduate School, Purdue University (Ali Ghahari)
61. 2021 Fall Student Engagement award, Civil Engineering Graduate School, Purdue University (Isaiah Mwamba)

62. 2021 Lyles Teaching Fellowship, Lyles School of Civil Engineering, Purdue University (Sania Seilabi)
63. 2021 Professional Development Scholarship, Lyles School of Civil Engineering (Abdullah Nafakh)
64. 2022 College of Engineering - Outstanding Service Scholarship Award (Abdullah Nafakh)
65. 2022 Purdue Lyles School of Civil Engineering, Townsend Endowment Travel Fund (Paul Ha)
66. 2022 STV Civil Engineering Grad Assistantship Endowment (Runjia Rayne Du)
67. 2022 Essam and Wendy Radwan Graduate Fellowship (Bortiorakor Alabi)
68. 2022 Graduate Student Engagement Award (Abdullah Nafakh)
69. 2023 STV Civil Engineering Grad Assistantship Endowment (Hosein Pourgholamali)
70. 2022 Eisenhower Graduate Fellowship Award, FHWA, USDOT (Isaiah Mwamba)
71. 2023 Outstanding M.S. Thesis Award, Lyles School of Civil Engineering (Hosein Pourgholamali)
72. 2023 WTS Indianapolis Helene M. Overly Memorial national scholarship (Zainab Saka)
73. 2023 Essam and Wendy Radwan Graduate Fellowship (Deepak Benny)
74. 2023 Best paper presentation award, NSF IRES US Korea program (Bortiorakor Alabi)
75. 2023 Outstanding Fellow award, NSF IRES US Korea program (Bortiorakor Alabi)
76. 2023 Eldon Yoder Memorial Research Award, Lyles School of Civil Engineering (Frank Jiqian Dong)
77. 2023 Journal of Infrastructure Systems (JIS) Editor's Choice paper (Hosein Pourgholamali)
78. 2024 Kinnier Graduate Scholarship, Lyles School of Civil Engineering, Purdue University (Hosein Pourgholamali)
79. 2024 Distinguished M.S. Thesis Award, The College of Engineering (Hosein Pourgholamali)
80. 2024 Mary Ann Zimmerman Award, Lyles School of Civil and Construction Engineering, Purdue (Richard Ajagu)
81. 2024 Best Doctoral Dissertation Award, Lyles School of Civil Engineering, Purdue University (Frank Jiqian Dong)
82. 2024 Eldon J. Yoder Memorial Award (Lyles CCE) (Hosein Pourgholamali)
83. 2024 Purdue University Bravo Award (Deepak Benny and Hosein Pourgholamali)
84. 2024 Young Professionals in Infrastructure Fellowship, YPI New York (Deepak Benny)
85. 2024 International Road Federation (IRF) Fellowship Award (Deepak Benny)
86. 2024 AISIM Best symposium paper award (Deepak Benny)
87. 2024 Transportation Research Forum (TRF) best conference paper award (Deepak Benny)
88. 2023 Transportation Research Forum (TRF) best conference paper award (Isaiah Mwamba)
89. 2024 Nellie Munson Teaching Assistant Award (Mohammadhosein Pourgholamali)
90. 2024 Journal of Road Engineering Top Paper Award (Mohammadhosein Pourgholamali)
91. 2025 Lyles School of Civil and Construction Engineering's Outstanding Service Award (David Holguin)
92. 2025 Spring Independent Graduate Research Scholarship (Lyndsey Harris)
93. 2025 Eno Leaders Development Conference (LDC) Fellow (Deepak Benny)
94. 2025 Best paper in the Planning & Development category, 2025 ASCE International Conference of Transportation and Development (Hosein Pourgholamali)






Graduated PhD Students in Academic Positions

	<u>NAME</u>	<u>GRADUATING YEAR</u>	<u>CURRENT POSITION</u>	<u>INSTITUTION</u>
	Fahad Alqahtani	2025	Assistant Professor	King Fahd University
	Sikai Chen	2019	Assistant Professor	University of Wisconsin-Madison
	Shubham Agrawal	2019	Assistant Professor	Clemson University
	Yuntao Ross Guo	2019	Assistant Professor	Tonji University, Shanghai
	Saeed Al-Qadhi	2018	Assistant Professor	Kind Khalid University, Saudi Arabia



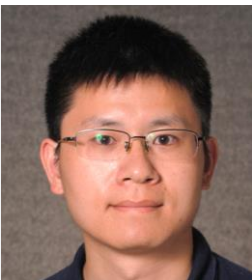


Graduated PhD Students in Academic Positions (continued)

<u>NAME</u>	<u>GRADUATING YEAR</u>	<u>CURRENT POSITION</u>	<u>INSTITUTION</u>
	Majed Alinizzi	2017 Associate Professor, 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
	Wubeshet Woldemariam	2015 Associate Professor	Purdue University NorthWest
	Matthew Volovski	2015 Associate Professor	Manhattan College






Graduated PhD Students in Academic Positions (continued)

	<u>NAME</u>	<u>GRADUATING YEAR</u>	<u>CURRENT POSITION</u>	<u>INSTITUTION</u>
	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>POST-DOC YEARS</u>	<u>CURRENT POSITION</u>	<u>INSTITUTION</u>
	Sikai Chen	2019-2022	Assistant Professor	University of Wisconsin-Madison
	Mohammad Miralinaghi	2017-2022	Assistant Professor	Illinois Institute of Technology
	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





Current Students

	<u>NAME</u>	<u>DEGREE, & YEAR STARTED</u>	<u>RESEARCH TOPIC & AWARDS</u>
	Yansong Qu	PhD, 2024	Algorithm development for autonomous vehicle operations
	Jiancong Chen	PhD, 2024	Algorithm development for autonomous vehicle operations
	Lyndsey Harris	MS, 2023	Stakeholder impacts of construction work zones. Awards: WTS Award, 2025
	Richard Ajagu	MS, Started 2024	Systems perspectives of autonomous systems implementation, research, and education. Award: 2024 Zimmerman Prize for Research Innovation
	Yujie Li	PhD, Started 2020	Control design for connected and autonomous vehicles in transportation ecosystems

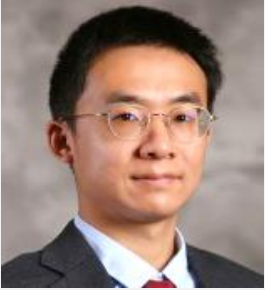




Current Students (continued)

	<u>NAME</u>	<u>DEGREE, YEAR STARTED</u>	<u>RESEARCH TOPIC & AWARDS</u>
	Hosein Pourgholamali	PhD, Started 2023	A framework for consolidating urban transportation systems for urban freight delivery
	Deepak Benny	PhD, Started 2022	Innovative infrastructure finance. Awards: 2023 Radwan graduate fellowship; AISIM 2024 Outstanding paper award
	Isaiah Mwamba	PhD, Started 2019	Highway cost allocation, emerging vehicle technologies, and infrastructure funding policy
	Bortiorkor Alabi	MS, Started 2020 (non-thesis)	Sustainability practices in aviation facility management
	Andres Moreno	PhD, Started 2023 (Intended move to ME/ECE 08/2025)	Software and systems development and integration for high-speed vehicle operations (ME/ECE)






Past (Graduated) students

	<u>NAME</u>	<u>DEGREE, YEAR GRADUATED</u>	<u>THESIS RESEARCH TOPIC & AWARDS</u>
	Fahad Alqahtani	PhD, 2025	Understanding the psychological effects of real-time travel information on route choice behavior and travel satisfaction
	Dong Yoon Song	PhD, 2025	Understanding the psychological effects of real-time travel information on route choice behavior and travel satisfaction
	David Orlando Holguin	MS, 2025	Sustainability considerations in infrastructure development
	Jiaming Wang	MS, 2024 (with S. Sundaram)	Mobile Energy Disseminator







Past students (continued)

<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	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; (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
	Hosein 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)

<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	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
	Shuya Zong MS 2022	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>
	SeyedAli 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)

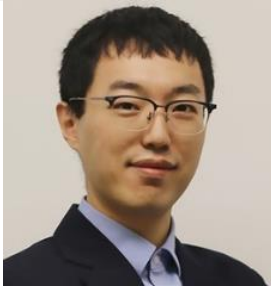
	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	Runjia Du	MS 2020	Collision avoidance framework for autonomous vehicles under crash imminent situations
	Paul Young Joun Ha	MS 2019	Sustainability considerations for AV-exclusive lane deployment
	Yujie Li	MS 2019	Headway perception for autonomous vehicles
	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)

<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
-------------	------------------------------	---



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)

	<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, 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 (co-advisor)
	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)

<u>NAME</u>	<u>DEGREE & YEAR</u>	<u>THESIS RESEARCH TOPIC, AWARDS, HONORS, AND POSITIONS</u>
	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>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


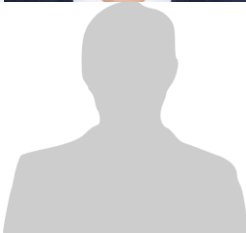
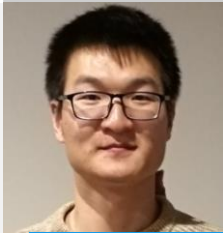




Past students (continued)

	<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 Awards: Edward J. Cox Memorial Transportation Scholarship Award

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

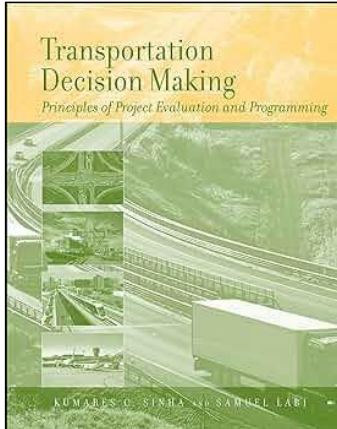


Sigma Xi (the Scientific Research Society)

Member

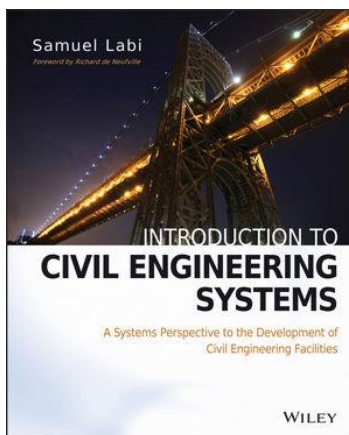


TEXTBOOKS AUTHORED



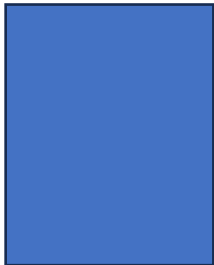
Sinha, K.C., and Labi, S. (2007). **Transportation Decision Making – Principles of Project Evaluation and Programming**, Wiley & Sons

Adopted as the 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

Adopted as the 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. (2026). **Principles of Transportation Infrastructure Asset Management**, Elsevier

To be released 2026



Labi, S. (2026). **Introduction to Civil Engineering Systems**, 2nd Edition, Wiley & Sons

To be released 2026

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. 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.”

Journal Publications

173. Charbel, G., Assaad, R., Qiao, Y., Labi S. (2025). **A Competitive Bidding Framework for Predicting the Level of Competition and Determining Optimal Bidding Strategies for Bundled Transportation Infrastructure Projects: Integrating Machine Learning and Probabilistic Modeling**, Innovative Journal of Construction Engr. & Management.

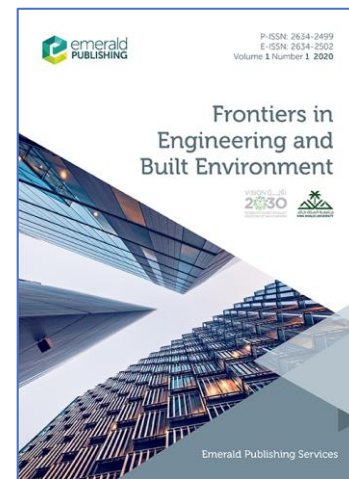
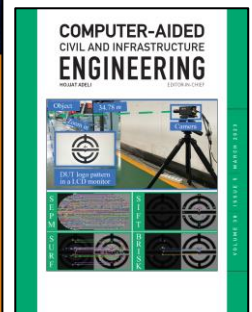
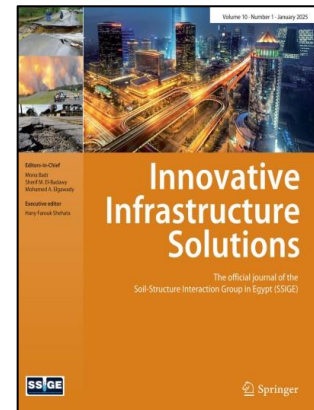
172. Yamany, M.S., Abraham, D.M., Ventresca, M., Nantung, T., Labi S. (2025). **Probabilistic optimization of pavement preventive maintenance using multi-objective genetic algorithm**, Innovative Infrastructure Solutions 10 (5), 194

171. Seilabi, S.E., Saneii, M., Pourgholamali, M., Miralinaghi, Labi, S. (2025). **Reinforcement Learning-based Approach for Urban Road Project Scheduling Considering Alternative Closure Types**, Computer-Aided Civil & Infrastructure Engineering, 40(6), 721 - 740.

170. Ha, Y.J., Filipovska, M., Chen, S., & Labi, S. (2025). **Autonomous Vehicle Fleet Operations with Constrained Entropy-Based Dynamic Autonomous Vehicle Routing: Insights for Environmentally Conscious Shared Mobility**. Multimodal Transportation, 100236.

169. Alabi, B., Du, R., Guo, R, Alinizzi, M. & Labi, S. (2025). **A Framework for Incorporating Smart City Concepts into the Management of Municipal Infrastructure**. Frontiers in Engineering and Built Environment, 5(2), 109-12.

168. Seilabi, S.E., Pourgholamali, M., Miralinaghi, M., Homem de Almeida Correia, G., Li, Z., & Labi, S. (2024). **Sustainable Planning of Electric Vehicle Charging Stations: A Bi-Level Optimization Framework for Reducing Vehicular Emissions in Urban Road Networks**. Sustainability, 17(1), 1.



Journal Publications (continued)

167. Seilabi, S.E., Pourgholamali, M., Miralinaghi, M., Correia, G., Labi, S. (2024). **Optimizing Dedicated Lanes and Tolling Schemes for Connected and Autonomous Vehicles to Address Bottleneck Congestion Considering Morning Commuter Departure Choices**, Journal of Intelligent Transportation Systems, doi.org/10.1080/15472450.2024.2408024

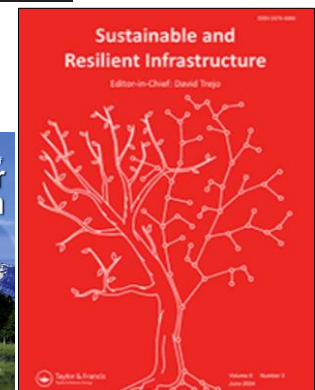
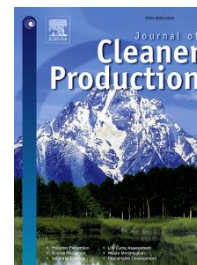
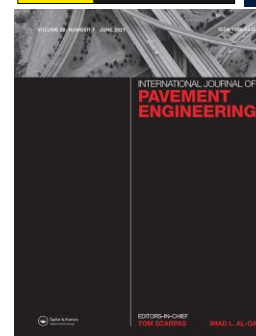
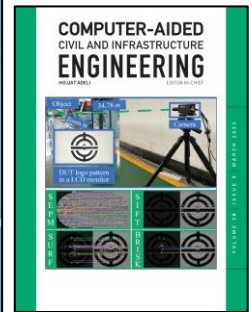
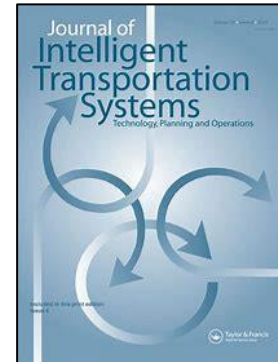
165. Song, P., Sze, N.N., Chen, S., Labi, S. (2024). **Correcting for endogeneity of crash type in crash injury severity at highway ramp areas**, Accident Analysis & Prevention 208, 107785.

164. Ghahari, S.A., Queiroz, C., Labi, S., McNeil, S. (2024). **The role of engineering ethics in mitigating corruption in infrastructure systems delivery**, Science & Engineering Ethics 30 (4), 1-19.

163. Athigakunagorn, N., Limsawasd, C., Mano, D., Khathawatcharakun, P., Labi, S. (2024). **Promoting sustainable policy in construction: Reducing greenhouse gas emissions through performance-variation based contract clauses**, Journal of Cleaner Production 448, 141594

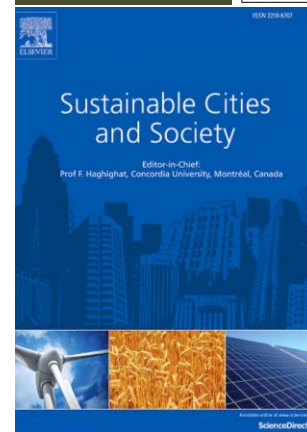
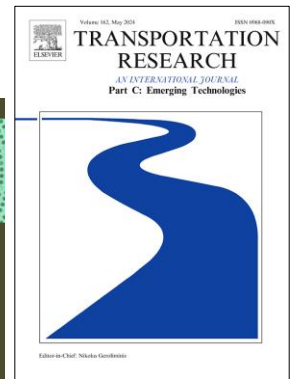
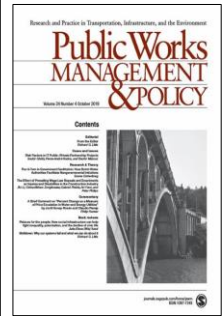
162. Elshaboury, N., Yamany, M.S., Labi, S., Smadi, O. (2024). **Enhancing Local Road Pavement Condition Prediction Using Bayesian-Optimized Ensemble Machine Learning and Adaptive Synthetic Sampling Technique**, International Journal of Pavement Engineering 25(1), 2365957.

161. Decha, E., Athigakunagorn, N., Limsawasd, C., Labi, S. (2024). **Real options analysis application for floodgate operation to control salinity intrusion in agricultural areas**, Sustainable & Resilient Infrastructure, 9(3), 278-292.



Journal Publications (continued)

160. Sinton, J., Cervini, G., Gkritza, K., Labi, S., Song, Z. (2024). **Examining electric vehicle adoption at the postal code level in US states**, Transportation Research Part D: Transport and Environment, 127, 104068
159. Ghahari, S.A., Queiroz, C., Labi, S., McNeil, S. (2024). **Corruption propensity and mitigation at different phases of infrastructure development**, Public Works Management & Policy 29 (1), 5-44
158. Qiao, Y., Nafakh, MA.J., Alinizzi, M., Fricker, J.D., Labi, S. (2024). **Sensitivity of cost overrun propensity and severity to highway project bundling**, Journal of Management in Engineering 40 (2), 05023011
157. Seilabi, S.E., Pourgholamali, M., de Almeida Correia, G.H., Labi, S. (2023). **Robust design of CAV-dedicated lanes considering CAV demand uncertainty and lane reallocation policy**, Transportation Research Part D: Transport and Environment 121, 103827
156. Dong, J., Chen, S., Miralinaghi, M., Chen, T., Li, P., Labi, S. (2023). **Why did the AI make that decision? Towards an explainable artificial intelligence (XAI) for autonomous driving systems**, Transportation Research Part C: Emerging Technologies 156, 104358
155. Pourgholamali, M., Miralinaghi, M., Seilabi, S.E., Labi, S. (2023). **Sustainable deployment of autonomous vehicles dedicated lanes in urban traffic networks**, Sustainable Cities and Society 99, 104969
154. Ha, P., Chen, S., Dong, J., Labi, S. (2023). **Leveraging vehicle connectivity and autonomy for highway bottleneck congestion mitigation using reinforcement learning**, Transportmetrica A: Transport Science, 21(1), 2215338.
153. Labi, S., Saneii, M., Tarighati Tabesh, M., Pourgholamali, M., Miralinaghi, M. (2023). **Parking infrastructure location design and user pricing in the prospective era of autonomous vehicle operations**, Journal of Infrastructure Systems 29 (4).



Journal Publications (continued)

152. Chen, S., Zong, S., Chen, T., Huang, Y., Chen Y., Labi, S. (2023). **A taxonomy for autonomous vehicles considering ambient road infrastructure**, Sustainability 15 (14), 11258

151. Du, R., Chen, S., Dong, J., Chen, T., Fu, X., Labi, S. (2023). **Dynamic urban traffic rerouting with fog-cloud reinforcement learning**, Computer-Aided Civil and Infrastructure Engineering, 39(6), 793-813.

150. Pourgholamali, M., Labi, S., Sinha, K.C. (2023). **Multi-objective optimization in highway pavement maintenance and rehabilitation project selection and scheduling: A state-of-the-art review**, Journal of Road Engineering 3(3), 239-251.

149. Pourgholamali, M., Correia, G., Tabesh, M., Seilabi, S.E., Miralinaghi, M., Labi, S. (2023). **Robust design of electric charging infrastructure locations under travel demand uncertainty and driving range heterogeneity**, Journal of Infrastructure Systems 29(2), 04023016, 1-13.

148. Labi, S., Pourgholamali, M., Nafakh, A., Mwamba, I., (2023). **Statistical assessment of foreign trip impact on cultural competency – A framework and case study**, CILMAR HUB-ICL, <https://hubicl.org/members/6564/projects>.

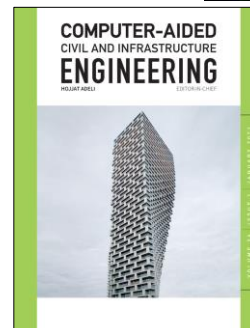
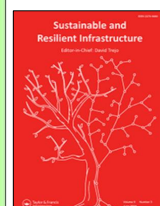
147. Konstantinou, T., Labi, S., Gkritza, K. (2023). **Assessing highway revenue impacts of electric vehicles using a case study**, Research in Transportation Economics, 100(1), 101248

146. Singh, P., Amekudzi-Kennedy, A., Ashuri, B., Chester, M., Labi, S., Wall, T.A. (2023). **Developing adaptive resilience in infrastructure systems: an approach to quantify long-term benefits**, Sustainable and Resilient Infrastructure, 8(1), 26-47.

145. Zong, S., Chen, S., Alinizzi, M., Labi, S. (2022). **Leveraging UAV capabilities for vehicle tracking and collision risk assessment at road intersections**, Sustainability 14 (7), 4034

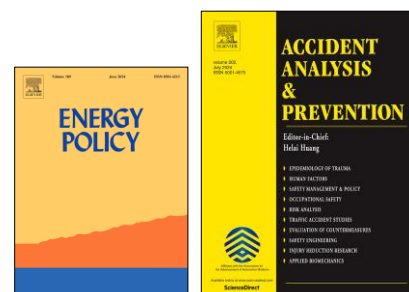
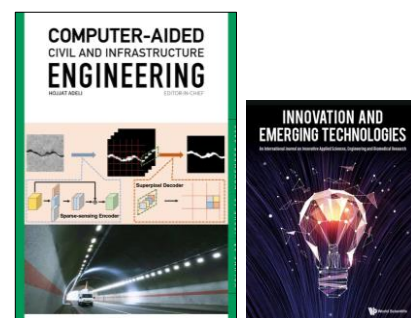
144. Qiao, Y., Chen, S., Alinizzi, M., Alamaniotis, M., Labi, S. (2022). **IRI estimation based on pavement distress type, density, and severity: efficacy of machine learning and statistical techniques**, Journal of Infrastructure Systems 28 (4), 04022035.

143. Dong, J., Chen, S., Miralinaghi, M., Chen, T., Labi, S. (2022). **Development and testing of an image transformer for explainable autonomous driving systems**, Journal of Intelligent and Connected Vehicles 5 (3), 235-249



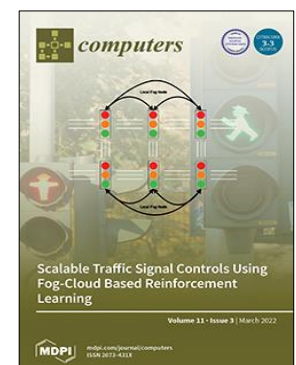
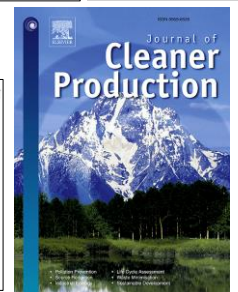
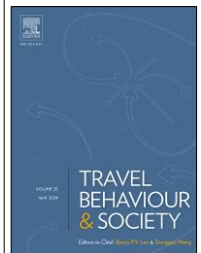
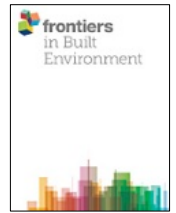
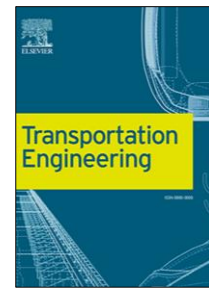
Journal Publications (continued)

142. Morshedi, M., Padhye, S., Mwamba, I., Kang, K., Labi, S., Hastak, M. (2022). **Suitability assessment of detour routes for road construction projects: Framework and case studies**, Journal of Management in Engineering 39 (2), 04022077
141. Chen, D., Kang, K., Koo, D.D., Peng, C., Gkritza, K., Labi, S. (2023). **Agent-based model of electric vehicle charging demand for long-distance driving in the state of Indiana**, Transportation Research Record, 2677 (2), 555-563
140. Saneii, M., Kazemeini, A., Seilabi, S.E., Miralinaghi, M., Labi, S. (2022). **A methodology for scheduling within-day roadway work zones using deep neural networks and active learning**, Comp.-Aided Civil & Infra. Eng. 38 (9), 1101-1126
139. Labi, S., Sinha, K.C. (2022). **Emerging transportation innovations: Promises and pitfalls**, Innovation and Emerging Technologies, 9, 2240001, 1-9
138. Ha, P., Chen, S., Du, R., Labi, S. (2022). **Scalable traffic signal controls using fog-cloud based multiagent reinforcement learning**, Computers 11 (3), 38.
137. Du, R., Chen, SPD., Li, Y., Alinizzi, M., Labi, S. (2022). **A framework for lane-change maneuvers of CAVs in a mixed-traffic environment**, Electronics 11 (9), 1350.
136. Guo, Y., Souders, D., Labi, S., Peeta, S., Benedyk, I., Li, Y. (2021). **Paving the way for autonomous vehicles: Understanding autonomous vehicle adoption and vehicle fuel choice under user heterogeneity**, Transp. Res. Part A: Policy and Practice 154, 364-398
135. Labi, S. (2021). **Measuring the benefits of civil systems connectivity and automation—a discussion in the context of highway transport**, Civil Engineering & Environmental Systems, 39(1), 27-47.
134. Kumar, I., Tyner, W.E., Labi, S., Sinha, K.C. (2021). **The answer my friend is blowin' in the wind: A stochastic assessment of wind farms financial feasibility and economic efficiency**, Energy Policy 159, 112598
133. Ghahari, S.A., Queiroz, C., Labi, S., McNeil, S. (2021). **Cluster forecasting of corruption using nonlinear autoregressive models with exogenous variables (NARX)—An artificial neural network analysis**, Sustainability 13 (20), 11366
132. Miralinaghi, M., Davatgari, A., Seilabi, S.E., Labi, S. (2021). **Contract bundling considerations in urban road project scheduling**, Computer-Aided Civil & Infrastructure Engineering, doi.org/10.1111/mice.12740
131. Chen, T., Sze, N.N., Chen, S., Labi, S., Zeng, Q. (2021). **Analyzing the main and interaction effects of commercial vehicle mix and roadway attributes on crash rates using a Bayesian random-parameter Tobit model**, Acc. Analysis & Prev. 154, 106089
130. Qiao, Y., Labi, S., Fricker, J. (2021). **Does highway project bundling policy affect bidding competition? Insights from a mixed ordinal logistic model**, Transportation Research Part A: Policy/Practice 145, 228-242



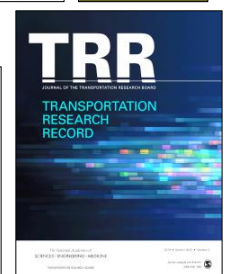
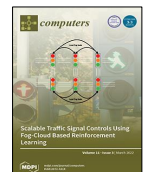
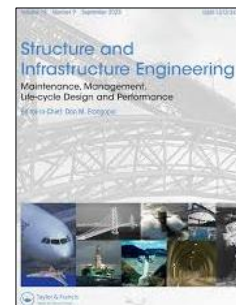
Journal Publications (continued)

129. Li, Y., Chen, T., Chen, S., Labi, S. (2021). **Tradeoffs between safe/comfortable headways versus mobility-enhancing headways in an automated driving environment: preliminary insights using a driving simulator experiment**, *Frontiers in Engineering and Built Environment*, 1(2), 173-187.
128. Ghahari, S.A., Chen, S., Labi S. (2021). **A nonparametric efficiency methodology for comparative assessment of infrastructure agency performance**, *Transportation Engineering*, Elsevier, 10009
127. Ha, P., Chen, S., Du, R., Dong, J., Li, Y., Labi, S. (2021). **Vehicle connectivity and automation: A sibling relationship**, *Frontiers in Built Environment* 6, 590036, 1-12.
126. Chen, T., Sze, N.N., Chen, S., Labi, S. (2021). **Urban road space allocation incorporating the safety and construction cost impacts of lane and footpath widths**, *Journal of Safety Research* 75, 222-232.
125. Saeed, T.U., Alabi, B.N.T., Labi, S. (2021). **Preparing road infrastructure to accommodate connected and automated vehicles: System-level perspective**, *Journal of Infrastructure Systems* 27 (1), 06020003, Editors Choice paper, 2021.
124. Bai, Q., Miralinaghi, M., Labi, S., Sinha, K.C. (2021). **Methodology for analyzing the trade-offs associated with multi-objective optimization in transportation asset management under uncertainty**, *Computer-Aided Civil & Infrastructure Engineering* 36 (4), 381-401.
123. Chen, T., Guo, Y., Zhou, X., Labi, S., Zhu, S. (2021). **Understanding electric bike riders' intention to violate traffic rules and accident proneness in China**, *Travel Behavior & Society* 23, 25-38.
122. Yamany, M., Abraham, D., Labi, S. (2021). **Comparative analysis of Markovian methodologies for modeling infrastructure system performance**, *Journal of Infrastructure Systems* 27 (2), 04021003.
121. Qiao, Y., Du, R., Labi, S., Fricker, J., Sinha, K.C. (2021). **Policy implications of standalone timing versus holistic timing of infrastructure interventions: Findings based on pavement surface roughness**, *Transportation Research Part A: Policy & Practice* 148, 79-99.
120. Alabi, B.N.T., Saeed, T.U., Amekudzi-Kennedy, A., Keller, J., Labi, S. (2021). **Evaluation criteria to support cleaner construction and repair of airport runways: A review of the state of practice and recommendations for future practice**, *Journal of Cleaner Production* 312(1), 127776.



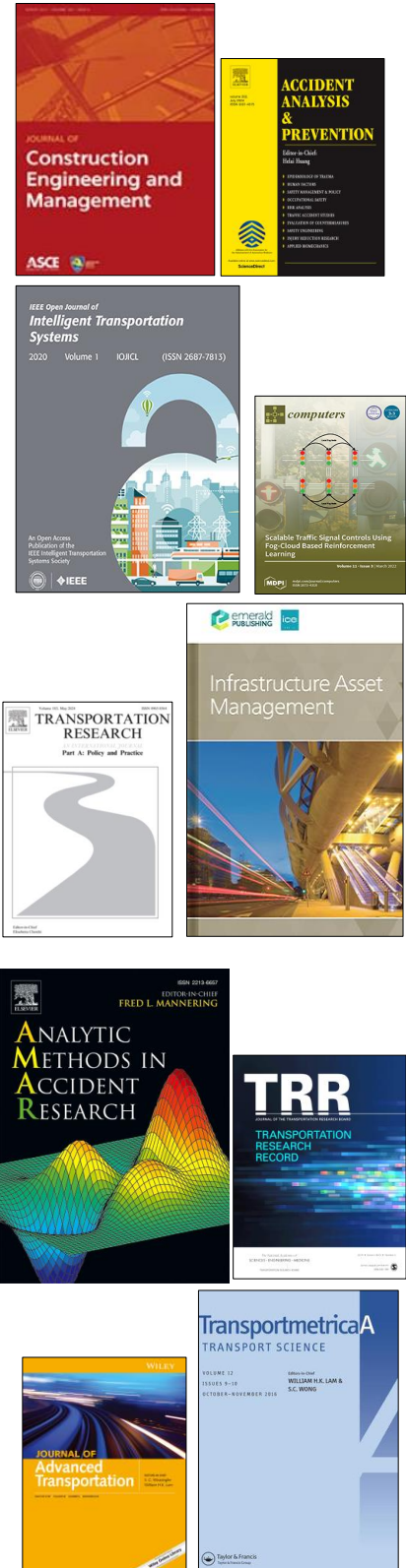
Journal Publications (continued)

119. Dong, J., Chen, S., Li, Y., Du, R., Steinfeld, A., Labi, S. (2021). **Space-weighted information fusion using deep reinforcement learning: The context of tactical control of lane-changing autonomous vehicles and connectivity range assessment**, Transportation Research Part C: Emerging Technologies 128, 103192.
118. Chen, S., Dong, J., Ha, P., Li, Y., Labi, S. (2021). **Graph neural network and reinforcement learning for multi-agent cooperative control of connected autonomous vehicles**, Computer-Aided Civil & Infrastructure Engineering 36 (7), 838-857.
117. Feng, J., Chen, S., Ye, Z., Miralinaghi, M., Labi, S., Chai, J. (2021). **Repositioning shared urban personal transport units: considerations of travel cost and demand uncertainty**, Journal of Infrastructure Systems 27 (3), 04021011.
116. Agbelie, B., Volovski, M., Labi, S., Sinha, K.C. (2021). **Anticipated user equity impacts of a proposed transportation infrastructure finance legislation: Case study in Indiana**, Journal of Infrastructure Systems 27 (3), 05021007.
115. Saeed, T.U., Burris, M., Labi, S., Sinha, K.C. (2020). **An empirical discourse on forecasting the use of autonomous vehicles using consumers' preferences**, Technological Forecasting & Social Change 158,120130 .
114. Miralinaghi, M., Seilabi, S.E., Chen, S., Hsu, Y.T., Labi, S. (2020). **Optimizing the selection and scheduling of multi-class projects using a Stackelberg framework**, European Journal of Operational Research 286(2), 508-522
113. Seilabi, S., Tabesh, M., Davatgari, A., Miralinaghi, M., Labi, S. (2020). **Promoting autonomous vehicles using travel demand and lane management strategies**, Front. Built Environ., 6, 560116, 1-14, Joe Sussman Award for best paper, 2020.
112. Lavrenz, S., Saeed, T.U., Murillo-Hoyos, J., Volovski, M., Labi, S. (2019). **Can interdependency considerations enhance forecasts of bridge infrastructure condition? Evidence using a multivariate approach**, Structure and Infrastructure Engineering, 16(1), 1177-1185.
111. Miralinaghi, M., Woldemariam, W., Abraham, D.M., Chen, SG., Labi, S., Chen, Z. (2019). **Network-level scheduling of construction projects considering user and business impacts**, Computer-Aided Civil and Infrastructure Engineering 35, 650–667.
110. Labi, S., Faiz, A., Saeed, T., Alabi, B.N.T., Woldemariam, W. (2019). **Connectivity, accessibility, and mobility relationships in the context of low-volume road networks**, Transportation Research Record, 2673(1), 717-727.



Journal Publications (continued)

109. Chen, S., Leng, Y., Labi, S. (2019). **Deep learning algorithm for simulating autonomous driving considering prior knowledge and temporal information**, Computer-Aided Civil and Infrastructure Engineering 35(4), 305-321.
108. Ghahari, S.A., Alabi, B.N.T., Alinizzi, M., Alqadhi, S., Chen, S., Labi, S. (2019). **Examining relationship between infrastructure investment and performance using state-level data**, Journal of Infrastructure Systems 25 (4), 04019026.
107. Qiao, J., Fricker, J.D., Labi, S. (2019). **Effects of bundling policy on project cost under market uncertainty: a comparison across different highway project types**, Transportation Research Part A, 130(1), 606-625.
106. Amekudzi-Kennedy, A., Labi, S., Singh, P. (2019). **Transportation asset valuation: pre-, peri- and post- 4th industrial revolution**, Transportation Research Record 2673(12), 163-172.
105. Qiao, J., Labi, S., Fricker, J.D. (2019). **Hazard-based duration models for predicting actual duration of highway projects using non-parametric and parametric survival analysis**, Journal of Management in Engineering 35(6), 04019024.
104. Qiao, J., Labi, S., Fricker, J. (2019). **The influence of project bundling on maintenance of traffic costs across highway project types**, Journal of Construction Engineering and Management 145(8), 05019010.
103. Chen, S., Saeed, T., Alinizzi, M., Labi, S. (2019). **Safety sensitivity to roadway characteristics: A comparison across highway classes**, Accident Analysis & Prevention, 123(1), 39-50.
102. Qiao, J., Labi, S., Fricker, J.D. (2019). **Quantifying the similarity between different project types based on their pay item compositions: Application to Bundling**, Journal of Construction Engineering and Management, 145(9), 04019053.
101. Feng, J., Zhirui, Y., Wang, C., Xu, M., Labi, S. (2018). **An integrated optimization model for energy saving in metro operations**, IEEE Transactions on Intelligent Transportation Systems, 99, 1-11.
100. Alinizzi, M., Chen, S., Labi, S., Kandil, A. (2018). **A methodology to account for one-way infrastructure interdependency in preservation activity scheduling**, Computer-Aided Civil and Infrastructure Engineering, 33(11), 905-925.
99. Qiao, Y., Saeed, T., Chen, S., Nateghi, R., Labi, S. (2018). **Insights on infrastructure repair policy using discrete choice models**, Transportation Research Part A: Policy and Practice 113, 491-508.
98. Ghahari, S., Ha, Y.J., Chen, S., Alinizzi, M., Agbelie, B., Labi, S. (2018). **Inputs for bridge painting decision support**, Infrastructure Asset Management 5(2), 56-74.



Journal Publications (continued)

97. Qiao, Y., Fricker, J.D., Labi, S., Mills, T. (2018). **Bundling bridge and other highway projects**, Patterns and Policies, Transportation Research Record 2672(12), 167-178. Received the Grant D. Mickle Award for best paper in operations and maintenance, awarded by the Transportation Research Board of the National Academies, Washington, DC.

96. Qiao, Y., Labi, S., Fricker, J.D., Sinha, K.C. (2018). **Costs and effectiveness of standard treatments applied to flexible and rigid pavements**, Infrastructure Asset Management, 6(1), 1-49.

95. Qiao, Y., Taylor, B., Bowman, M., Labi, S. (2018). **Feasibility of a long-term NDT program for system-wide monitoring of bridge deck condition**, Infrastructure Asset Management, 5(3), 1-48.

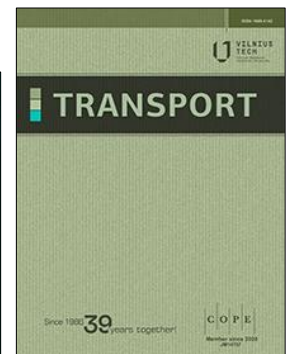
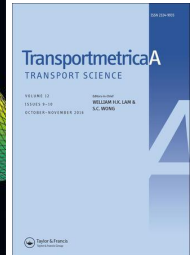
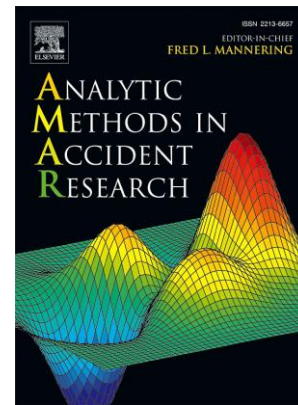
94. Tang, Z., Chen, S., Cheng, J., Ghahari, S., Labi, S. (2018). **Highway design and safety consequences: a case study of interstate highway vertical grades**, Journal of Advanced Transportation, 492614.

93. Chen, S., Usman, T., Labi, S. (2017). **Impact of road-surface condition on rural highway safety: A multivariate random-parameters negative binomial approach**, Analytic Methods in Accident Research, 16, 75-89,

92. Chen, S., Usman, T., Aqadhi, S.D., Labi, S. (2017). **Safety impacts of pavement surface roughness at two-lane and multi-lane highways: accounting for heterogeneity and seemingly unrelated correlation across crash severities**, Transportmetrica A: Transport Science, 15(1), 18–33.

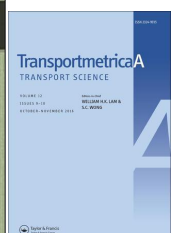
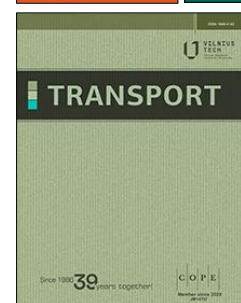
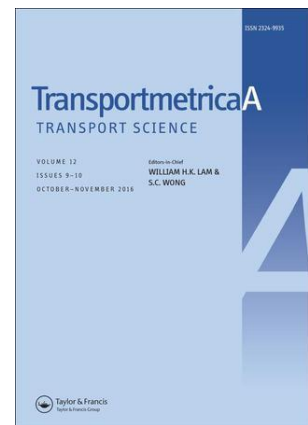
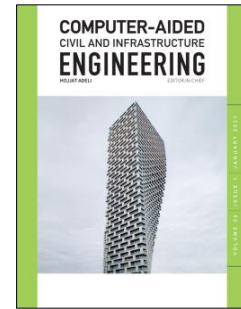
91. Agbelie, B., Labi, S., Fricker, J., Qiao, J., Zhang, Z., Sinha, K.C. (2017). **Lifecycle decision framework for steel bridge painting**, Journal of Bridge Engineering, 22(11), 06017004.

90. Ahmed, A., Saeed, T.U., Labi, S. (2015) **Estimation of rest periods for newly constructed/reconstructed pavements**, Transport, 31(2), 183-191.



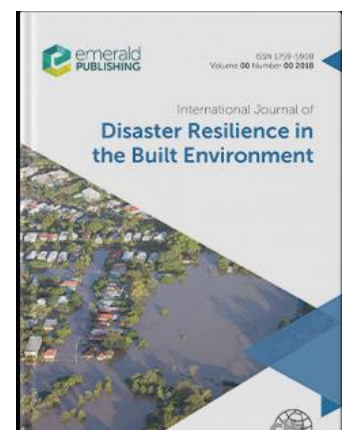
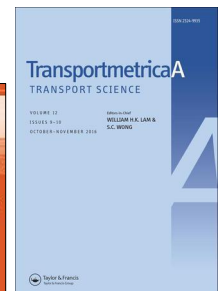
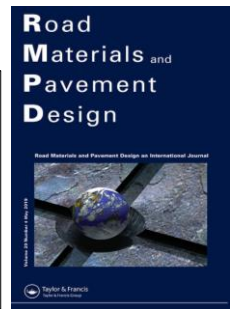
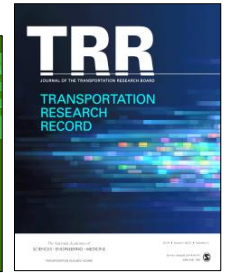
Journal Publications (continued)

89. Bhargava, A., Labi, S., Chen, S., Saeed, T. Sinha, K.C. (2017). **Predicting cost escalation pathways and overrun/underrun severities of infrastructure projects using risk-based econometric modeling and Monte Carlo simulation: a methodology and case study**, Computer-Aided Civil and Infrastructure Engineering 32, 620–640.
88. Montgomery, S., Labi, S., Haddock, J. (2017). **Load transfer restoration with diamond grinding on rigid pavements: short-term and long-term effectiveness**, Journal of Transportation Engineering, Part B: Pavements 144(1)
87. Labi, S., Chen, S., Preckel, P., Qiao, Y., Woldemariam, W. (2017). **Rural two-lane highway shoulder and lane width policy evaluation using multiobjective optimization**, Transportmetrica Part A: Transport Science, 1–16.
86. Saeed, T.U., Qiao, Y., Chen, S., Gkritza, K., Labi, S. (2017). **Methodology for probabilistic modeling of bridge infrastructure condition: accounting for improvement effectiveness and incorporating random effects**, Journal of Infrastructure Systems 23(4), 04017030.
85. Bai, Q., Ahmed, A. Labi, S., Sinha, K.C. (2017) **Traffic volume benchmarks for major arterial widening versus expressway construction - an exploratory approach**, Journal of Transportation Engineering Part A Systems 143(8), 04017040.
84. Liao, T., Kumar, I., Dojutrek, M., Labi, S. (2017). **Updating secondary climate attributes for purposes of transportation infrastructure management**, Journal of Infrastructure Systems 24(1), 04017040.
83. Sinha, K.C., Labi, S. Agbelie, B., (2017). **Transportation infrastructure asset management in the new millennium: continuing issues, and emerging challenges and opportunities**, Transportmetrica Part A: Transport Science 13(7), 591–606.
82. Klatko, T., Saeed, T.U., Volovski, M., Labi, S., Fricker, J., Sinha, K.C. (2017). **Addressing the local road VMT estimation problem using spatial interpolation techniques**, Journal of Transportation Engineering, Part A Systems 143(8), 04017038.
81. Ahmed, A., Saeed, T., Murillo Hoyos, J., Labi, S. (2017). **Pavement repair marginal costs – accounting for heterogeneity using random-parameter regression**, ASCE Journal of Infrastructure Systems, 23(4), 04017012.



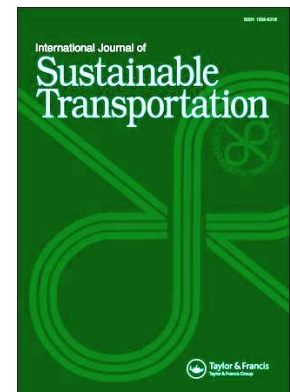
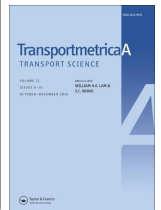
Journal Publications (continued)

80. Saeed, T., Moomen, M., Ahmed, A., Murillo Hoyos, J., Volovksi, M., Labi, S. (2017). **Performance evaluation and life prediction of highway concrete bridge superstructure across design types**, Journal of Performance of Constructed Facilities, 31(5), 04017052.
79. Xiong, Y., Fricker, J.D., Labi, S. (2017). **Bundling or grouping pavement and bridge projects: analysis and strategies**, Transportation Research Record 2613, 37–44.
78. Agbelie, B., Labi, S., Sinha, K.C. (2017). **Estimating the marginal costs of bridge damage due to overweight vehicles using a modified equivalent vehicle methodology and in-service data on life-cycle costs and usage**, Transportation Research Part A: Policy and Practice, 95, 275–288.
77. Volovksi, M., Labi, S., Sommer, K., Noureldin, S., Walker, R. (2017). **Developing statistical limits for using the light weight deflectometer in construction quality assurance**, Road Materials & Pavement Design, 19(4), 783–802.
76. Volovksi, M., Murillo Hoyos, J., Saeed, T., Labi, S. (2017). **Estimation of routine maintenance expenditures for highway pavement segments: accounting for heterogeneity using random-effects models**, Journal of Infrastructure Systems 143(5), 04017006.
75. Agbelie, B., Labi, S., Sinha, K.C. (2016). **Charging mechanisms for road use: an interface between engineering and public policy**, National Academy of Engineering Bridge Journal, 46(2), 39–46.
74. Bardaka, E., Zhang, Z., Labi, S., Sinha, K.C., Mannering, F.L. (2016). **A statistical assessment of the cost effectiveness of highway pavement warranty contracts**, Journal of Infrastructure Systems 22(3), 04016017.
73. Qiao, Y., Moomen, M., Zhang, Z., Agbelie, B., Labi, S., Sinha, K.C. (2016). **Modeling the deterioration of bridge components using binary probit techniques with random effects**, Transportation Research Record 2550, 96–105.
72. Murillo Hoyos, J., Volovski, M., Labi, S. **Rolling stock purchase cost for rail and road public transportation: random-parameter modelling and marginal effect analysis**, Transportmetrica A: Transport Science 12(5), 436–457.
71. Dojutrek, M., Dietz, E., Labi, S. (2016). **A multi-criteria methodology for measuring the resilience of transportation assets**, International Journal of Disaster Resilience in the Built Environment 7(3), 290–301. Received Best Paper Award, 10th International Conference of the Institute for Infrastructure Resilience and Reconstruction (I3R2) Conference.



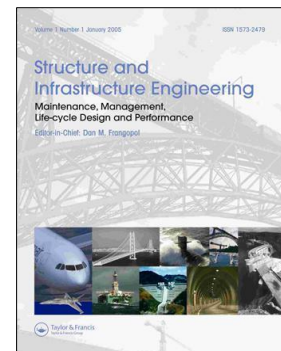
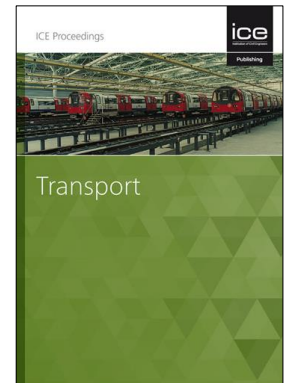
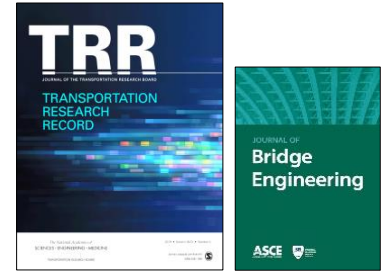
Journal Publications (continued)

70. Agbelie, B., Volovski, M., Bardaka, E., Zhang, Z., Labi, S., Sinha, K.C. (2016). **Updating state and local highway cost allocation and revenue attribution – A case study for Indiana**, Transportation Research Record 2597, 1–10.
69. Woldemariam, W., Murillo Hoyos, J., Labi, S. (2016). **Estimating annual maintenance expenditure for infrastructure: an artificial neural network approach**, Journal of Infrastructure Systems, 22(2), 04017052.
68. Everett, S., Athigakunagorn, N., Roshandeh, A., Labi, S., Sinha, K.C. (2015). **A geographic information systems (GIS) tool for enhancing overweight-vehicle permitting administration**, Transportation Research Record 2478, 76–81.
67. Ahmed, A., Lavrenz, S., Labi, S. (2015). **Specification of highway user fees for overweight trucks: consequences of deviations from the 4th power law**, International Journal of Sustainable Transportation, 10(6), 567–577. DOI:10.1080/15568318.2015.1014779.
66. Zhang, Z., Agbelie, B., Labi, S. (2015). **Efficiency measurement of interstate highway bridge replacement and rehabilitation using data envelopment analysis**, Transportation Research Record 2481, 1–9.
65. Agbelie, B., Labi, S., Sinha, K.C., Nouredin, S. (2015). **Linking interstate pavement preservation investment to performance: an exploratory aggregate analysis**, Journal of Infrastructure Systems 21(4), 04015004-8–11.
64. Murillo Hoyos, J., Athigakunagorn, N., Labi, S. (2015). **Rural two-lane highway safety improvement programming using constrained network-level optimization**, Transportation Research Part C, 50, 106–116.
63. Bai, Q., Ahmed, A., Li, Z., Labi, S. (2015). **A hybrid pareto frontier generation method for trade-off analysis in transportation asset management**, Computer-Aided Civil and Infrastructure Engineering 30(3), 163–180.
62. Volovski, M., Dojutrek, M., Labi, S. (2015). **Using Kriging estimation to enhance geospatial climate data integrity for infrastructure management**, Transportation Research Record 2440, 60–68.
61. Dojutrek, M., Volovski, M., Labi, S. (2015). **A Proposed Elemental Decomposition and Bi-Criteria Method for Asset Valuation**, Transportation Research Record 2460, 137–141.
60. Ahmed, A., Khurshid, M., Labi, S. (2014). **Impact of vehicle characteristics on level of service: a comparative analysis of rural and urban freeways**, International Journal of Civil, Environmental, Structural, Construction, and Architectural Engineering, 8(11), 1151–1155.



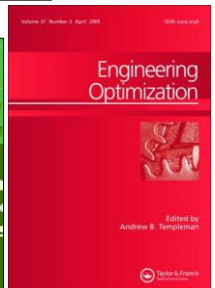
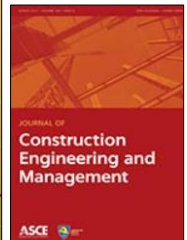
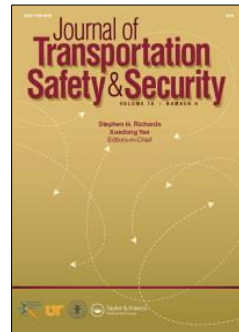
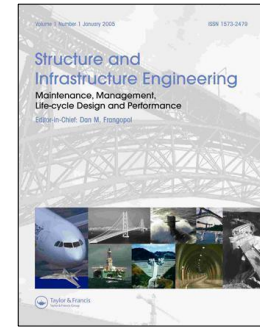
Journal Publications (continued)

59. Ahmed, A., Khurshid, M.B., Irfan, M., Labi, S. (2014). **Marginal pavement damage cost estimation using field data: issues and opportunities**, IRF Examiner, 4, 6–12.
58. Khurshid, M.B., Irfan, M. Ahmed, A., Labi, S. (2015). **A framework for assessing the consequences of deferred or hastened highway asset interventions**, Structure and Infrastructure Engineering 11(3), 282–296.
57. Bardaka, E., Labi, S., Haddock, J. (2014). **Using enhanced econometric techniques to verify the service life of asset interventions**, Transportation Research Record 2431, 16–23.
56. Ahmed, A., Bai, Q., Lavrenz, S., Labi, S. (2014). **Estimating the marginal cost of pavement damage by highway users based on practical schedules for pavement maintenance, rehabilitation and reconstruction**, Structure and Infrastructure Engineering 11(8), 1–14.
55. Ahmed, A., Bai, Q., Labi, S. (2014). **Pavement damage cost estimation for heavy-vehicle charging – a synthesis of past research and opportunities for enhancement**. Institute of Civil Engineering (ICE) Transport 168(1), 1–11.
54. Khurshid, M. B., Irfan, M., Ahmed, A., Labi, S. (2014). **Multidimensional benefit-cost evaluation of asphaltic concrete overlays of rigid pavements**, Structure & Infrastructure Engineering 10(6), 792–810.
53. Anastasopoulos, P., Volovski, M., Labi, S. (2013). **Preservation: are public private partnerships cutting costs?** Pavement Preservation Journal 6(3), 33–35.
52. Arman, M.H., Labi, S., Sinha, K. (2013). **Perspectives of the operational performance of public transportation agencies with data envelopment analysis technique**, Transportation Research Record 2351, 30–37.
51. Zhang, Z., Bai, Q., Labi, S., Sinha, K.C. (2013). **Framework for evaluating long-term leasing of toll roads: case study of Indiana I-90**, Transportation Research Record 2345, 83–91
50. Bai, Q., Labi, S., Sinha, K.C., Thompson, P. (2013). **Multi-objective optimization for project selection in network-level bridge management incorporating decision-maker's preference using the concept of holism**, Journal of Bridge Engineering (18)9, 879–889.
49. Ahmed, A., Labi, S., Li, Z., Shields, T. (2013). **Aggregate and disaggregate evaluation of the effectiveness of LTPP SPS-5 flexible pavement rehabilitation treatments**, Structure & Infrastructure Engineering (9)2, 172–187.



Journal Publications (continued)

48. Cope, A., Bai, Q., Samdariya, A., Labi, S. (2013). **Assessing the efficacy of stainless steel for bridge deck reinforcement under uncertainty using Monte Carlo simulation**, Structure & Infrastructure Engineering (9)7, 643–647.
47. Ong, G., Fitzpatrick, V., Labi, S., Sinha, K. (2012). **Hazard-based analysis of highway project development times**, Journal of Transportation Eng., (138)10, 1259–1268.
46. Bai, Q., Labi, S., Sinha, K.C., Thompson, P.D. (2012). **Bridge user cost estimation – a synthesis of existing methods and addressing the issues of multiple counting, workzones, and traffic capacity limitation**, Structure & Infrastructure Engineering (9)9, 849–859.
45. Ahmed, A., Anastasopoulos, P., Ong, G.P., Labi, S., Islam, M. (2012). **Factors affecting highway safety, health care services, and motorization - an exploratory empirical analysis using aggregate data**. Journal of Transportation Safety and Security (4)2, 94–115.
44. Anastasopoulos, P., Labi, S., Bhargava, A., Mannering, F.L. (2012). **Empirical assessment of the likelihood and duration of highway project time delays**, Journal of Construction Engineering and Management (138)3, 390–398.
43. Bai, Q., Labi, S., Sinha, K.C. (2012). **Tradeoff analysis for multiobjective optimization in transportation asset management by generating Pareto frontiers using extreme points NSGA II**, Journal of Transportation Engineering (138)6, 798–808.
42. Irfan, M., Khurshid M.B., Bai, Q., Morin, T.L., Labi, S. (2011). **Establishing optimal project-level strategies for pavement maintenance and rehabilitation – a framework and case study**. Journal of Engineering Optimization, 44(5), 565–589.
41. Ahmed, A., Van Boxel, D., Volovski, M., Anastasopoulos, A., Labi, S., Sinha, K.C. (2011). **Passenger car equivalents based on lagging headways: some new evidence using a system of equations approach**, ITE Transportation Journal (2)1, 1–18.
40. Khurshid, M.B., Irfan, M., Labi, S. (2011). **Optimal performance threshold determination for highway asset interventions: analytical framework and application**. Journal of Transportation Engineering (137)1, 128–139.
39. Irfan, M., Khurshid, M., Ahmed, A., Labi, S. (2011). **Scale and condition economies in asset preservation cost function - a case study involving flexible pavement treatments**. Journal of Transportation Engineering (138)2, 218–228.
38. 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**, Transportation Research Record 2220, 38–47.



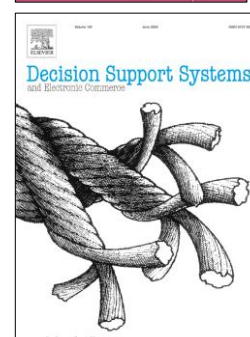
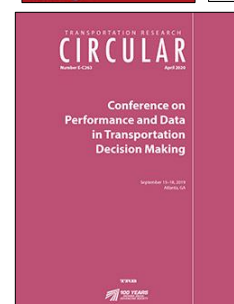
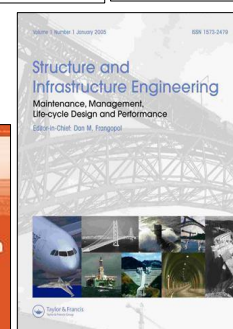
Journal Publications (continued)

37. Anastasopoulos, P., Karlaftis, M., Labi, S., Mannering, F. (2011). **Exploratory state-level assessment of pavement roughness**, ASCE Journal of Infrastructure Systems 17(4), 200-215.
36. Labi, S. (2011). **Efficacies of roadway safety improvements across functional sub-classes of rural two-lane highways**, Journal of Safety Research (42)4, 231–239.
35. Irfan, M., Khurshid, M.B., Anastasopoulos, P., Labi, S., Moavenzadeh, F. (2011). **Planning-stage estimation of highway project duration based on anticipated project cost, project type, & contract type**. International Journal of Project Management 29, 78–92.
34. Irfan, M., Khurshid, M.B., Ahmed, A., Labi, S. (2010). **Estimating treatment costs at the planning stage**, Pavement Preservation Journal 4, 36–37.
33. Anastasopoulos, P., Volovski, M., Islam, M., Powell, J., Labi, S. (2010). Evaluation of public-private partnerships in preservation, Transportation Research Record 2235, 1–19.
32. Anastasopoulos, P., Labi, S., McCullough, B., Karlaftis, M., Moavenzadeh, F. (2010). **Influence of highway project characteristics on contract type selection – an empirical assessment**, Journal of Infrastructure Systems (16)4, 323–333
31. Li, Z., Labi, S., Karlaftis, M.G., Kepaptsoglou, K., Abbas, M., Zhou, B., Madanu, S. (2010). **Project-level life-cycle cost analysis evaluation of safety hardware improvements**. Transportation Research Record 2160, 1–11.
30. Anastasopoulos, P., Labi, S., Bhargava, A., Bordat, C., Mannering, F. (2010). **Frequency of change orders in highway construction using alternate count-data modeling methods**. ASCE Journal of Construction Engineering and Management (136)8, 886-893.
29. Lamptey, G., Singh, L., Labi, S., Sinha, K.C. (2010). **Systematic framework for incorporating safety in network-level transportation planning and programming**, ASCE Journal of Transportation Engineering (136)5, 436-447.
28. Anastasopoulos, P., Labi, S., McCullough, B. (2010). **Analyzing duration and prolongation of performance-based contracts using hazard-based duration and zero-inflated random parameters Poisson models**, Transportation Research Record 2136, 11–19.
27. Bhargava, A., Anastasopoulos, P., Labi, S., Sinha, K., Mannering, F. (2010). **A three-stage least squares analysis of time and cost overruns in construction contracts**, ASCE Journal of Construction Engineering and Management (136)11, 1207-1218



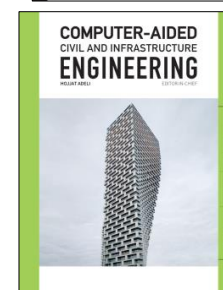
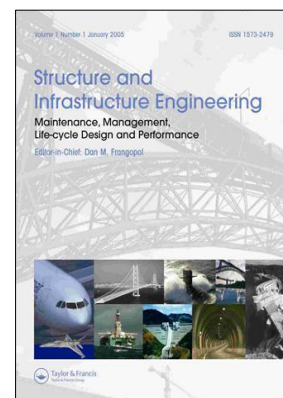
Journal Publications (continued)

26. Anastasopoulos, P., Florax, R., Labi, S., Karlaftis, M.G. (2010). **Contracting in highway maintenance and rehabilitation: are spatial effects important?** Transportation Research Part A: Policy and Practice 44, 136–146.
25. Sinha, K.C., Patidar, V., Li, Z., Labi, S. Thompson, P.D. (2009). **Establishing the weights of performance criteria – case studies in transportation facility management**, Journal of Transportation Engineering (135)5, 619–631.
24. Irfan, M., Khurshid, M., Labi, S., Flora, W. (2009). **Evaluating the cost-effectiveness of flexible rehabilitation alternatives using different performance criteria**, Journal of Transportation Engineering (135)10, 753–763.
23. Khurshid, M.B., Irfan, M., Labi, S. (2009). **An analysis of the cost-effectiveness of rigid pavement rehabilitation treatments**. Structure & Infrastructure Engineering, 7(9), 715–727.
22. Khurshid, M.B., Irfan, M., Labi, S. (2009). **Comparing methods for evaluating pavement interventions – discussion & case study**, Transportation Research Record 2108, 25–36.
21. Irfan, M., Khurshid, M.B., Labi, S. (2009). **Service life of Thin HMA overlay using different performance indicators**, Transportation Research Record 2108, 37–45.
20. Thompson, P.D., Sinha, K.C., Labi, S., Patidar, V. (2008). **Multi-objective optimization for bridge management systems**, In Transportation Research E-Circular, 195–209.
19. Gkritza, K., Labi, S. (2008) **Estimating cost discrepancies in highway contracts: a multi-step econometric approach**, ASCE Journal of Construction Engineering and Management (134)12, 953–962.
18. Hamideh, A., Oh, J., Labi, S., Mannering, F.L. (2008). **Public acceptance of local government transportation sales taxes**, State & Local Government Review (40)3, 150-159.
17. Lamptey, G., Labi, S., Li, Z. (2008). **Decision support for optimal scheduling of highway pavement preventive maintenance within resurfacing cycle**, Decision Support Systems (46)1, 376–387.
16. Gkritza, K., Sinha, K.C., Labi, S., Mannering, F.L. (2008). **Influence of highway construction projects on economic development**, Annals of Regional Sci. 42, 545–563.
15. Oh, J., Labi, S., Sinha, K.C. (2007). **Evaluation of self-financing highway pricing schemes-numerical analysis for Indiana**, Transportation Research Record 1966, 25–33.



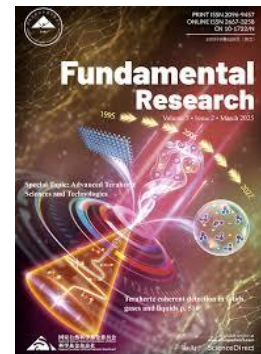
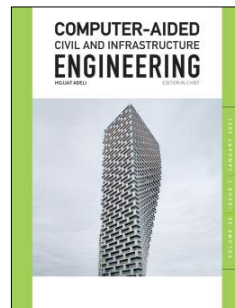
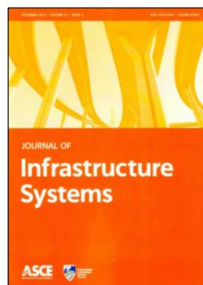
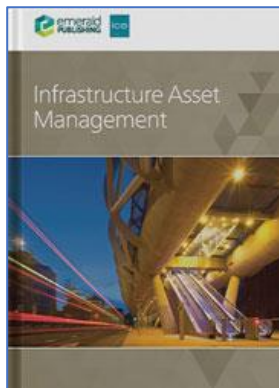
Journal Publications (continued)

14. Patidar, V., Labi, S., Sinha, K., Thompson, P., Hyman, W., Shirolé, A. (2007). **Performance measures for bridge management**, Transp. Research Rec. 1991, 43–53.
13. Fang, C., Labi, S. (2007). **Evaluating the static segregation resistance of hardened self-consolidating concrete using image processing technology**, Transportation Res. Rec. 2020, 1–9. Received the Transportation Research Board's 2007 K.B. Woods Award for best paper in Design & Construction.
12. Pasupathy, R., Labi, S., Sinha, K.C. (2007). **Optimal reconstruction periods for stochastically-deteriorating infrastructures**, Computer-Aided Civil & Infrastructure Engineering (22)6, 389–399.
11. Singh, P., Labi, S., Sinha, K.C. (2007). **Cost-effectiveness of warranty projects in Indiana**, Journal of Construction Engineering and Management (133)3, 217–224.
10. Labi, S., Lamptey, G., Kong, S. (2007). **Effectiveness of micro-surfacing treatments**, Journal of Transportation Engineering (133)5, 298–307.
9. Rodriguez, M. M., Labi, S., Li, Z. (2006). **Enhanced bridge replacement cost models for Indiana's bridge management system**, Transportation Research Record 1958, 13–23.
8. Labi, S., Rodriguez, M. M., Sinha, K.C. (2006). **Assessing preservation needs for a bridge network**, Structure & Infrastructure Engineering, 4(3), 221–223.
7. Lamptey, G., Labi, S., Sinha, K. (2005). **Sensitivity of optimal network safety needs to key safety management inputs**, Transportation Research Record 1922, 52–61.
6. Labi, S., Lamptey, G., Konduri, S., Sinha, K.C. (2005). **Long-term effectiveness of thin hot mix asphaltic concrete overlay treatments**, Transportation Research Record 1940, 3–13.
5. Labi, S., Sinha, K.C. (2005). **Life-cycle evaluation of pavement preventive maintenance**, Journal of Transportation Engineering (131)10, 744–751.
4. Labi, S., Sinha, K.C. (2004). **Effectiveness models for seal coating on highway pavements**, Journal of Transportation Engineering (130)1, 14–23.
3. Labi, S., Sinha, K.C. (2003). **Measures of short-term effectiveness of highway pavement maintenance**, ASCE Journal of Transportation Engineering (129)6, 673–683.
2. Konduri, S., Labi, S., Sinha, K.C. (2003). **Incident occurrence models for freeway incident management**, Transportation Research Record 1856, 125–134.
1. Labi, S., Sinha, K.C. (2002). **Grassroots perspectives of pavement preventive maintenance – a state-of-practice survey in Indiana**, International Journal of Pavements (1)3, 44–57.



Journal Editorials

6. McNeil, S., Adey, B., Anastasopoulos, P., Chu, J.C., Derrible, S., Durango-Cohen, P., Francis, R., Kruschwitz, S., Labi, S., Li, J., Manuel, L., Marques, R.C., Reilly, A., Tesfamariam, S., Sanford, K.L. (2025). Journal of Infrastructure Systems: Thirty Years and an Opportunity to Refocus. **Journal of Infrastructure Systems** 31(10, 01824001
5. Huang, J., Labi, S., Kulsar B.A., Gao, Y., Monreal, C.O., Wu, F., He, Z., Qu, X. (2024). Intelligent Vehicles and Smart Transportation, **Fundamental Research** 1, 4(5), 979–980. doi: 10.1016/j.fmre.2024.08.004
4. Labi, S., Lee, H.D., Derrible, S. (2022). Smart Cities: Infrastructure, Air Quality, Disaster Response, and Data Management, **Journal of Infrastructure Systems** 28 (4), 02022001
3. Labi, S., Anastasopoulos, P., Miralinaghi, M., Ong, G.P., Zhu, F. (2021). Advances in Planning for Emerging Transportation Technologies: Towards Automation, Connectivity, and Electric Propulsion, **Frontiers in Built Environment** 7, 666246.
2. Labi, S. (2021). An influential journal elevating the civil engineering profession and raising its image in the engineering league. **Computer-Aided Civil & Infrastructure Engineering**, 36(10), 1227-1228.
1. Labi, S., Saeed, T.U., Faiz, . (2019). Highway infrastructure and decision-making: challenges and opportunities, **Infrastructure Asset Management**, 6(4), 206.



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.
4. Labi, S., Murillo-Hoyos, J., Sinha, K.C. (2011). **Emerging and Non-Traditional Pavement Materials And Criteria for their Evaluation**, Presentation at International Seminar on New Generation Pavement Structure and Material, Tonji University People's Republic of China.
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.
2. Sinha, K.C., Labi, S. (2008). **Transportation Decision-Making in a Changing World: Current Challenges and Future Prospects and Challenges**, Presentation at the 1st International Conference on Transportation Decision Making: Issues, Tools, Models and Case Studies, Venice, Italy, November 13–14.
1. Sinha, K.C., Labi, S. (2002). **Does a Stitch in Time Really Save Nine? The Role of Highway Pavement Preventive Maintenance**, Presentation at the 4th International Conference on Road and Airfield Pavement Technology, Kunming, People's Republic of China.

Interlude



F- 1/10TH (Rally) Race car, Transportation computational lab, Purdue University, Spring 2025



F-1 autonomous race car testing, Las Vegas Raceway Track, Winter 2024



Autonomous go kart, International Competition, Purdue University, Summer, 2025



F-1 autonomous race car and team, Spring 2023



Autonomous boat, US Navy-sponsored Regional Competition, Trine University, April 2025

Sam Labi is advising 4 initiatives in autonomous vehicle education at Purdue. In each initiative, team members carry out sensor stack assembly and testing of the vehicle at engineered guideways. In 2 of these initiatives, the students also fabricate the vehicle from scratch. In all initiatives, students use the opportunity to learn valuable lessons related to the building of autonomous transport vehicle systems and how to troubleshoot practical issues related to autonomous vehicle localization, path planning and navigation, controls, and vehicle dynamics. These are critical safety- and mobility-related considerations in the emerging and exciting future of connected and autonomous transportation.

Refereed Conference Papers

78. Ghosh S, Chen YH, Huang, CH Jameel ASMM, El Gamal, A Labi S.(2024). Weighted Branch Aggregation Based Deep Learning Model for Track Detection in Autonomous Racing. The Second Tiny Papers Track, 12TH International Conference on Learning Representations (ICLR). Vienna Austria. May 7-11, 2024.
77. 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. Anchorage, AL, USA., June 2023.
76. Du, R., Han, K., Gupta, R., Chen, S., Labi, S., Wang, Z. (2023). Driver monitoring-based lane-change prediction: A personalized federated learning framework, 2023 IEEE Intelligent Vehicles Symposium (IV), 1-7.
75. Dong, J., Chen, Q., Qu, D., Lu, H., Ganlath, A., Yang, Q., Chen, S., Labi, S. (2023). LiDAR-based Cooperative Relative Localization, 2023 IEEE Intelligent Vehicles Symposium (IV), 1-8.
74. 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, pp. 95-100, doi: 10.1109/FISTS46898.2020.9264883.95–100.
73. Labi, S. (2019) Preparing our Infrastructure for Connected and Autonomous Vehicle Operations: Challenges and Opportunities, 2019 International Conference on Smart Cities (2019 ICSC), Seoul, July 17–19, 2019.
72. Zhang, Z., Labi, S., Sinha, K.C. (2017). Evaluating Long-Term Leasing of Toll Roads Based on Value for Money Framework and Multiple-Criteria Technique, Proceedings of the 2nd International Conference on Public-Private Partnerships, Eds. Zhang, Z., Queiroz, C., Walton, M., 425-438, Austin, TX, May 26–29, 2015.
72. Taylor, B., Qiao, Y., Bowman, M., Labi, S. (2016). Cost-effectiveness of a system-wide program for bridge deck condition monitoring using NDT, Maintenance, Monitoring, Safety, Risk and Resilience of Bridges and Bridge Networks, Eds: Bittencourt, T.N., Frangopol, D.M., Beck, A. CRC Press.
71. Qiao, Y. Moomen, M. Zhang, Z. Saeed, T.U., Agbelie, B., Labi S. (2016). Accounting for observation-specific correlation in deterioration modeling of bridge components using binary probit models with random effects, Maintenance, Monitoring, Safety, Risk and Resilience of Bridges and Bridge Networks, Eds: Bittencourt, T.N., Frangopol, D.M., Beck, A. CRC Press.
70. Saeed, T.U., Qiao, Y., Moomen, M., Labi, S., Ahmed, A. (2016). Discrete-outcome modeling of bridge component deterioration: Accounting for the effects of maintenance and observation-specific correlation using random effects, Maintenance, Monitoring, Safety, Risk and Resilience of Bridges and Bridge Networks, Eds: Bittencourt, T.N., Frangopol, D.M., Beck, A. CRC Press.
69. Agbelie, B., Volovski, M., Bardaka, E., Zhang, Z., Labi, S., Sinha, K.C. (2016). Updating State And Local Highway Cost Allocation And Revenue Attribution – A Case Study For Indiana, CD ROM, 95th Annual Meeting of the Transportation Research Board, Washington, DC, 16-4368.
68. Agbelie, B., Labi, S., Sinha, K.C. (2015). Allocating the Life Cycle Costs of Steel Bridges to Overweight Vehicles – A Case Study, Istanbul, Turkey, 193–200.
67. Lavrenz, S., Murillo Hoyos^G, J., Volovski, M., Usman^G, T.S., Labi, S. (2015). Service Life Prediction of Steel Bridges. Procs., 8th International Symposium on Steel Bridges: Innovation & New Challenges 2015 (SBIC-2015), Istanbul, Turkey, 667–674.
66. Labi, S., Usman, T.S., Volovski, M., Al-Qadhi, S. (2015). An exploratory discussion of the impacts of driverless vehicle operations on the man-made environment. Proceedings of the 1st International Conference on Mechanical and Transportation Engineering, Kuala Lumpur, Malaysia, 9–15.

65. Usman, T.S., Issariyanukula, A., Ahmed, A., Hoyos, J.M., Labi, S., Sinha, K.C. (2015). Enhanced Prediction of Transportation Project Costs Using a Risk-Based Approach. 56th Annual Transportation Research Forum, Georgia Institute of Technology, USA, 39.
64. Usman, T.S., Ahmed, A., Hoyos, J.M., Labi, S., Sinha, K.C. (2015). Investigating the Changes of Marginal Pavement Damage Cost to Key Variables using Sensitivity Analysis. 56th Annual Transportation Research Forum, Georgia Institute of Technology, USA. 2015, 37.
63. 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. New York: Springer, 207–224.
62. Sinha, K.C., Labi, S., Bai, Q. (2013). Uncertainties in Transportation Infrastructure Development and Management, Procs., International Symposium on Engineering under Uncertainty: Safety Assessment and Management (ISEUSAM-2012), Springer India, 55–71.
61. Ford, K.M. Arman, M. Labi, S. Sinha, K.C. Thompson P.D., Shirole A.M. (2013). Estimating the life expectancies of civil engineering infrastructure, Procs., 11th International Conference on Structural Safety & Reliability (ICCOSAR 2013), Columbia University, New York, MS-LC17.
60. Lavrenz, S., Murillo-Hoyos, J., Labi, S. (2013). Long-term effectiveness of civil infrastructure interventions, Procs., 11th International Conference on Structural Safety & Reliability (ICCOSAR 2013), Columbia University, New York, NY, MS-LC18.
59. Khurshid, M., Irfan, M. Ahmed, A., Labi, S. (2011). Quantifying the Consequences of Hastened or Deferred Interventions, CD ROM, 90th Annual Meeting of Transp. Res. Board, Washington, DC, 11-2348.
58. Anastasopoulos, A., Volovski, M., Islam, M., Powell, J., Labi, S. (2011). Comparative Evaluation of Public-Private Partnerships in Roadway Preservation, CR-ROM, 90th Annual Meeting of Transp. Research Board, Washington, DC, 11-2812.
57. Kumar, I., Labi, S. (2011). Assessing the Vulnerability of Indiana's Highway Bridges to Hazards, Proceedings, 1st International Conference on Vulnerability and Risk Analysis and Management (ICVRAM)/5th International Symposium on Uncertainty Modeling and Analysis (ISUMA 2011), organized by the ASCE Council on Disaster Risk Management (CDRM), University of Maryland, College Park, MD, p. 7.
56. Labi, S., Bai, Q., Ahmed, A., Anastasopoulos, P. (2011). Quantifying System Vulnerability as a Performance Measure for Systems Investment Evaluation and Decision-making, Procs., International Conference on Vulnerability and Risk Analysis and Management, ASCE Council on Disaster Risk Management (CDRM), University of Maryland, College Park, MD, 754–763.
55. Cope, A., Labi, S., Fang, C. (2010). An Empirical Life-Cycle Assessment of the Relative Cost-effectiveness of Alternative Materials for Reinforcing Bridge Decks, Proceedings of the 5th International Conference on Bridge Maintenance, Safety & Management, Eds: Frangopol, D.M., Sause, R., Kusko, C.S., Philadelphia, PA, 607–608.
54. Bai, Q., Labi, S., Ong, G.P., Bhargava, A., 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, Proceedings of the 5th International Conference on Bridge Maintenance, Safety and Management (IABMAS2010), Eds: Frangopol, D.M., Sause, R., Kusko, C.S., Philadelphia, PA, 222–223.
53. Ahmed, A., Labi, S., Shields, T. (2010). LTPP Flexible Pavement Rehabilitation Treatment Effectiveness Analysis using SPS-5 data, CD ROM Proceedings of the 6th Annual Inter-University Symposium on Infrastructure Management, University of Delaware, Newark, DE. Ed: Qiang Joshua Li, 1–4.
52. Khurshid, M.B., Irfan, M., Labi, S. (2010) Establishment of Optimal Performance Thresholds for Highway Asset Interventions – A Framework and Case Study, Published in CD ROM, proceedings titled: 89th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 10-3688.

51. Li, Z., Labi, S., Karlaftis, M.G., Kepaptsoglou, K., Abbas, M., Zhou, B., Madanu, S. (2010). Project-Level Life-Cycle Benefit-Cost Analysis Evaluation of Highway Safety Hardware Improvements, Published in CD ROM, proceedings titled: 89th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 10-1591.
50. Khurshid, M.B., Irfan, M., Labi, S. (2009). A Framework for Establishing Optimal Performance Thresholds for Highway Asset Interventions, Proceedings of the 5th Annual Inter-University Symposium on Infrastructure Management, University of Iowa, Iowa City, IA, Ed: Hosin Lee, 75–93.
49. Irfan, M., Khurshid, M.B., Labi, S. (2009). Parametric Estimation of Planning-Level Asset Preservation Costs – A Case Study in Flexible Pavement Assets, Proceedings of the 5th Annual Inter-University Symposium on Infrastructure Management, University of Iowa, Iowa City, IA, Ed: Hosin David Lee, 94–108.
48. Labi, S., Ford, K. (2009). New Course in Engineering Systems at Purdue University-Introduction to Civil Engineering Systems Design, Proceedings of the Second International Conference on Engineering Systems at MIT, Cambridge, MA, S3B–1–9.
47. Irfan, M., Khurshid, M.B., Labi, S. (2009) Service Life of Thin HMA Overlay Using Different Performance Indicators, Published in CD ROM, proceedings titled: 88th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed, 09-2359.
46. Bai, Q., Labi, S., Noureldin, S. (2009). Transportation Asset Management Research, Published in CD ROM, proceedings titled: 95th Annual Road School of the Joint Transportation Research Program, W. Lafayette, IN, 1–14.
45. Khurshid, M.B., Irfan, M., Labi, S. (2009). Comparing the Methods for Evaluating Pavement Interventions, Published in CD ROM, proceedings titled: Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. 09-2661.
44. Irfan, M., Khurshid, M.B., Labi, S. (2009). An Econometric Analysis of the Influence of Highway Project Size, Project Type, and Contract Type on Contract Duration, Published in CD ROM, proceedings titled: Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 09-3797.
43. Labi, S., Li, Z., Patidar, V., Sinha, K.C., Thompson, P. (2009). Establishing a Common Scale for Measuring and Combining Different Impact Types and Program Areas – A Discussion and Case Studies in Bridge and Asset Management, Published in CD ROM, proceedings titled: 88th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 09-3601 .
42. Cope⁶, A., Labi, S., Fang, C. (2009). Does Stainless Cost Less? Feasibility of Stainless Steel as a Reinforcement Material for Bridge Decks on the Basis of Life-cycle Costing, Published in CD ROM, proceedings titled: 88th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. P. nr. 09-3658.
41. Anastasopoulos, P., Labi, S., Karlaftis, M., Mannering, F. (2009). Exploring Relationships Between Aggregate Pavement Performance, and Surface Geology, Climate and Expenditure: Econometric Analysis of State-Level Data, Published in CD ROM, 88th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC, 09-2216.
40. Anastasopoulos, P., Labi, S., McCullough, B. (2009). Analyzing Duration and Prolongation of Performance-based Contracts Using Hazard-based Duration and Zero-Inflated Random Parameters Poisson Models, Published in CD ROM, proceedings titled: 88th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: TRB, 09-2212.
39. Anastasopoulos, P. Labi, S., McCullough, B. (2009). Identifying Appropriate Contract Type for Highway Maintenance and Rehabilitation Projects, Published in CD ROM, proceedings titled: 88th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 09-2203.

38. Labi, S., Sinha, K.C. (2008). Transportation Decision-Making in a Changing World: Current Challenges and Future Prospects and Challenges, proceedings of the 1st International Conference on Transportation Decision Making: Issues, Tools, Models and Case Studies, Venice, Italy, Eds: Cappelli, A., and Nocera, S., 1–14.
37. Irfan, M., Khurshid, M.B., Labi, S., Sinha, K.C. (2008). Cost-Effectiveness of Rehabilitation Alternatives – The Case for Flexible Pavements, proceedings of the 7th International Conference on Managing Pavements (ICMPA-7), Calgary, Canada, Eds: Hawnt, T., and Cowe, L., 105–106.
36. Khurshid, M.B., Irfan, M., Labi, S., Sinha, K.C. (2008). A Comparison of Two Types of Overlay Treatment for PCC Pavements, proceedings of the 7th International Conference on Managing Pavements (ICMPA-7), Calgary, Canada, Eds: Hawnt, T., and Cowe, L., 96–97.
35. Thompson, P.D., Sinha, K.C., Labi, S., Patidar, V. (2008). Multi-objective Optimization for Bridge Management, Proceedings of the 10th International Bridge and Structure Management Conference, Buffalo, New York, 195–209.
34. Gkritza, K., Sinha, K.C., Labi, S., Mannering, F.L. (2008). Economic Development and Highway Project Decision-Making, proceedings of the 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, Ed: Karlaftis, M.G., 140–147.
33. Bhargava, A., Anastasopoulos, P., Bordat, C., Labi, S., Mannering, F. (2008). An Analysis of Cost and Time Overruns of Construction Contracts Using Three Stage Least Squares, proceedings of the 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, Ed: Karlaftis, M.G., 610–616.
32. Bhargava, A., Anastasopoulos, P., Labi, S., Sinha, K., Mannering, F. (2008). A Simple Model for Predicting Delay at Actuated Signalized Intersections for Long-Term Planning Purposes, proceedings of the 10th International Conference on Applications of Advanced Technologies in Transportation, Greece, Ed: Karlaftis, M.G., 595–600.
31. Adom, R. Giraud, T., Labi, S. Sinha, K.C. (2008). A Framework for Managing the Tort Liability Risks Associated with the Use of Transportation Infrastructure, Published CD ROM, proceedings titled: 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, Ed: Karlaftis, M.G. 581–587.
30. Lamptey, G., Singh, L., Labi, S., Sinha, K.C. (2008). Incorporating Safety Management in Network-level Planning - A Framework, Software Package, and Case Study, published in CD ROM, proceedings titled: 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, Ed: Karlaftis, M.G. p. nr. 573.
29. Labi, S. Patidar, V., Li, Z., Sinha, K.C. (2008). Development of Weights to Reflect the Relative Importance of Transportation Performance Criteria, published in CD ROM, proceedings titled: 87th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 08-3044.
28. Khurshid^G, M.B., Irfan^G, M., Labi, S., Sinha, K. (2008). Effectiveness of Asphaltic Concrete Overlays of Rigid Highway Pavements Using LTPP SPS-6 Data, published in CD ROM, proceedings titled: 87th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 08-2995.
27. Kong, S., Labi, S. Fang, C., Itsung, T. (2008). Estimating Planning-level Costs of Rolling Stock and Fixed Facilities for Light Rail Transit Systems, published in CD ROM, proceedings titled: 87th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 08-3020.
26. Bhargava, A., Anastasopoulos, P., Mannering, F., Sinha, K., Labi, S. (2008). Analyzing Time Delay of Highway Construction Transportation Contracts: An Exploratory Study, Published in CD ROM, proceedings titled: Conference of the American Statistical Association, Denver, CO.

25. Labi, S. Mahmodi, I.M., Fang, C., Nunoo, C. (2007). Cost-Effectiveness of Microsurfacing & Thin HMA Overlays, published in CD ROM, proceedings titled: 86th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 07-3265.
24. Fang, C., Labi, S. (2007). Evaluating the Static Segregation Resistance of Hardened Self-Consolidating Concrete using Image Processing Technology, published in CD ROM, proceedings titled: 86th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 07-3339. The corresponding journal paper received the 2007 K.B. Woods Best Paper in Design and Construction.
23. Oh, J., Labi, S., Sinha, K.C. (2007). Implementation and Evaluation of Self-Financing Highway Pricing Schemes – Numerical Analysis for the State of Indiana, published in CD ROM, proceedings titled: 86th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 07-2258.
22. Gkritza, K., Rodriguez M. M., Labi, S., Li, Z. (2007). Development of Bridge Preservation Cost Models for Planning, Programming, and Budgeting, published in CD ROM, proceedings titled: 86th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 07-1894.
21. Gkritza, K., Labi, S., Mannering, F.L., and Sinha, K.C. (2006). Economic Development Effects of Highway Added-Capacity Projects, Proceedings of the Transportation and Economic Development Conference (TED), Little Rock, AR, p. 20.
20. Thompson, P.D., Patidar, V., Labi, S., Sinha, K., Hyman, W.A., Shirolé, A. (2006). Multi-objective Optimization for Bridge Management, published in CD ROM, proceedings titled: Third International Conference on Bridge Maintenance, Safety and Management, Porto, Portugal, Published as: Advances in Bridge Maintenance, Safety Management, and Life-Cycle Performance and Costs, Eds: da Sousa Cruz, P.J., Frangopol, D.M., Canhoto Neves, L.C.
19. Oh, J., Singh, P., Labi, S., Sinha, K.C. (2006). Warranty Practice in Pavement Construction, Published in CD ROM, proceedings titled: 85th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 06-2869.
18. Mannering, F., Oh, J., Labi, S., Hamideh, A. (2006). An Econometric Analysis of Post-Election Opinion Surveys: Understanding Public Acceptance of Local Transportation Sales Taxes, Published CD ROM, proceedings titled: 85th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board, 06-3084.
17. Labi, S., Kong, S., Lamptey, G., Nunoo, C. (2006). Long-term Benefits of Microsurfacing Applications in Indiana, published in CD ROM, proceedings titled: 85th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 06-2390.
16. Gkritza, K., Labi, S. (2006). Likelihood of Occurrence, Magnitude and Rate of Cost Discrepancies in Highway Contracts, Published CD ROM, proceedings titled: 85th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 06-2447.
15. Rodriguez, M. M., Labi, S., Li, Z. (2006). Enhanced Bridge Replacement Cost Models for Indiana's Bridge Management System, published in CD ROM, proceedings titled: 85th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 06-3093.
14. Labi, S., Rodriguez M. M., Shah, H., Sinha, K. C. (2006). A Performance-Based Approach for Estimating Bridge Preservation Funding Needs, published in CD ROM, proceedings titled: 85th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 06-2634.

13. Singh, P., Oh, J., Labi, S., Sinha, K.C. (2005). The Benefits of Pavement Warranty Practice in Indiana, USA, published in CD ROM, proceedings titled: 5th International Conference on Road and Airfield Pavement Technology, Seoul, Korea, Ed: Yong-Joo Chopp, 620–636.
12. Lamptey, G., Oh, J., Labi, S., Sinha, K.C. (2005). Pavement Rehabilitation and Maintenance Strategies, published in CD ROM, proceedings titled: 5th International Conference on Road and Airfield Pavement Technology, Seoul, Korea, Ed: Y. Chopp, 654–667.
11. Lamptey, G., Labi, S., Sinha, K.C. (2005). Investigating the Sensitivity of Optimal Network Safety Needs to Key Safety Management Inputs, Published in CD ROM, proceedings of the 84th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 05-2007.
10. Lamptey, G., Labi, S., Sinha, K.C. (2005). Optimization of Preventive Maintenance within Intervals of Pavement Rehabilitation, published in CD ROM, proceedings titled: 84th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 05-2473.
9. Labi, S., Lamptey, G., Konduri, S., Sinha, K.C. (2005). Analysis of Long-Term Effectiveness of Thin HMA Overlays, published in CD ROM, proceedings titled: 84th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 05-2381.
8. Rodriguez, M., Gkritza, K., Labi, S., Sinha, K.C. (2005). Factors Affecting Bridge Deck Deterioration in Indiana, published in CD ROM, proceedings titled: 84th Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 05-2522.
7. Labi, S., Sinha, K.C. (2004). Cost and Effectiveness Models for Selected Preventive Maintenance Treatments, published in CD ROM, proceedings titled: 83rd Annual Meeting of Transportation Research Board, Washington, DC. Ed: The Transportation Research Board (TRB), 04-4793.
6. Labi, S., Pasupathy, R., Sinha, K.C. (2004). Optimal Performance Thresholds for Reconstruction in Infrastructure Asset Management, published in CD ROM, proceedings titled: 83rd Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 04-5176.
5. Lamptey, G., Labi, S., Sinha, K.C. (2004). A Framework for Safety Management System in Indiana, Published in CD ROM, proceedings titled: 83rd Annual Meeting of Transportation Research Board, Washington, DC. Ed: The Transportation Research Board (TRB), 04-4654.
4. Lamptey, G., Labi, S., Sinha, K.C. (2004). Development of Pavement Rehabilitation & Maintenance Strategies for Life-Cycle Cost Analysis, Published in CD ROM, proceedings titled: 83rd Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB), 04-4615.
3. Konduri, S., Labi, S., Sinha, K.C. (2003). Statistical Models for Freeway Incident Management, Published in CD ROM, proceedings titled: 82nd Annual Meeting of Transportation Research Board of the National Academies, Washington, DC. Ed: The Transportation Research Board (TRB).
2. Labi, S., Sinha, K.C. (2003). Life-Cycle Evaluation of Highway Pavement Preventive Maintenance, Published in CD ROM, proceedings titled: 82nd Annual Meeting of Transportation Research Board, Washington, DC. Ed: The Transportation Research Board (TRB), 03-4491.
1. Labi, S., Sinha, K.C. (2002). Does a Stitch in Time Really Save Nine? The Role of Highway Pavement Preventive Maintenance, Proceedings of the 4th International Conference on Road and Airfield Pavement Technology, Kunming, People's Republic of China, Eds: Peoples Communications Publishing House, 38–51.

Conference Presentations

380. Benny, D., Labi, S. (2025). Revenue Demand Modeling for Electric Vehicle (EV) Charging Infrastructure, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

376. Harris, L., Mwamba, I., Labi, S. (2025). The Lack of Widespread Adoption of EVs, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

378. Pourgholamali, M., Song, D., Labi, S. (2025). Decision support framework for bridge deck repair based on NDT test results, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

377. Song, D., Pourgholamali, M., Labi, S. (2025). Financial assessment of proposed systemwide Bridge Deck NDT Monitoring in Indiana, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

376. Fasate, J., Labi, S. (2025). Adaptive Sensor Fusion for Autonomous Driving: A DGConv-Based Approach, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

375. Chen, J., Qu, Y., Chen, S., Labi, S. (2025). A Novel Co-optimization Framework for Autonomous Driving Simulation in Large-scale Urban Scenarios, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

374. Qu, Y., Chen, J., Huang, Z., Sheng, Z., Chen, Y-J, Chen, S., Labi, S. (2025). Towards Safe and Efficient Autonomous Driving: A Synergistic Approach with Human Expertise and Multimodal Large Language Models, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

373. Kemaw, H., Labi, S. (2025). Assessment of Local Road Funding Needs at a Midwestern US State, presented at the International Conference on Transportation & Development (ICTD 2025), June 8-11, Glendale, AZ.

372. Qu Y., Chen, J., Chen, S., Labi, S. (2025). DriveSafer: Enhancing World Model-based Autonomous Driving with Safety-Guided Vision-Language Models (VLMs), presented at the 11th Midwest Workshop on Control and Game Theory (MWCGT), April 26, 2025, Urbana Champaign, IL.

371. Chen, J., Qu, Y., Chen, S., Labi, S. (2025). A novel co-optimization framework for autonomous driving simulation in large-scale urban scenarios, presented at the 11th Midwest Workshop on Control and Game Theory (MWCGT), April 26, 2025, Urbana Champaign, IL.

370. Chen, J., Chen, S., Labi, S. (2025). A novel co-optimization framework for autonomous driving simulation in large-scale urban scenarios, presented at the IEEE Systems Council Student Event, April 9, 2025. Online symposium.

369. Sawhney, S., Kim, T., Tseng, I., Ghosh, S., Labi, S. (2025). Depth estimation model for autonomous driving, presented at the Spring 2025 Undergraduate Student Research Conference, Purdue University, W. Lafayette, April 8-11, 2025.

368. Gagvani, M.N., Mohan, S., Nena, Z.T., da Paixao, F. Ghosh, S., Labi, S. (2025). NeuralRace: Autonomous racing through neural perception, presented at the Spring 2025 Undergraduate Student Research Conference, Purdue University, W. Lafayette, April 8-11, 2025.
367. Tadros, M.M., Eissa, A.A.S., Omar, S.O., Warsy, B.Y.Z., Roshdi, O.A., Abousheishaa, B., Nair, R.R., Moreno, A., Labi, S. (2025). Real-time motion prediction and overtaking in multi-agent autonomous racing using deep neural networks, presented at the Spring 2025 Undergraduate Student Research Conference, Purdue University, W. Lafayette, April 8-11, 2025.
366. Lugo, A., Popescu, A., Pulujkar, S., Sinha, S., Song, E., Moreno, A. Labi, S. (2025). Data transformation and cleaning for autonomous vehicles: Ensuring Compatibility with AV-24 platform and enhanced performance on deep neural networks, presented at the Spring 2025 Undergraduate Student Research Conference, Purdue University, W. Lafayette, April 8-11, 2025.
365. Jayaraman, R., Khalid, A., Patterson, J., Kumar, P.V., Moreno, A. Labi, S. (2025). Race line optimization in autonomous racing using quantum annealing, presented at the Spring 2025 Undergraduate Student Research Conference, Purdue University, W. Lafayette, April 8-11, 2025.
364. Kim, J., Quintanilla, A.L., Choi, C., Moreno, A. Labi, S. (2025). Racing line optimization with adaptive grip estimation, presented at the Spring 2025 Undergraduate Student Research Conference, Purdue University, W. Lafayette, April 8-11, 2025.
363. Gan, J.Z., McDevitt, G., Chen, R., Moreno, A. Labi, S. (2025). High-fidelity environmental perception through lidar structuring and multi-modal sensor fusion for autonomous vehicles, presented at the Spring 2025 Undergraduate Student Research Conference, Purdue University, W. Lafayette, April 8-11, 2025.
362. Pourgholamali, M. Miralinaghi, M. Talebpour, A. Labi, S. (2025). Consolidation of urban freight transportation and public transit systems: A generic strategic framework using continuum approximation. Presented at the 66th Annual Meeting of the Transportation Research Forum (TRF), St. Louis, MO, April 10-11, 2025.
361. Benny, D., Labi, S., Mwamba, C. I., & Song, D. Y. (2025). Revenue recovery assessment and tool. Presented at the 66th Annual Meeting of the Transportation Research Forum (TRF), St. Louis, MO, April 10-11, 2025.
360. Holguin, D., Gkritza, K., Sinha, K., Labi, S. (2025). Economic and financial considerations at each phase of transportation development in Indiana, presented at the JTRP Executive Committee Poster Session, Indiana State Library, February 19, 2025, Indianapolis, IN.
359. Pourgholamali, M., Miralinaghi, M., Labi, S. (2025). Consolidation of urban freight transportation and public transit systems: A generic strategic framework using continuum approximation, 104th Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
358. Holguin-Mejia, D., Labi, S., Gkritza, K., Sinha, K. (2025). Sustainability in road infrastructure: a phase-wise review of indicators and assessment methods, 104th Annual Meeting of the Transportation Research Board (TRB), Washington, DC.

357. Cui, Q., Pai., S.S., Benny, D., Labi, S. (2025). State highway infrastructure financing using matching funds from the IJA, 104th Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
356. Pourgholamali, M., Miralinaghi, M., Talebpour, A., Labi S. (2025). Consolidation of urban freight transportation and public transit systems: A generic strategic framework using continuum approximation, 104th Annual Meeting, Transportation Research Board (TRB), Washington, DC.
355. Ghosh, S., Chen, Y.H., Huang, C.H., Jameel, A.S.M.M., El Gamal, A., Labi, S. (2024). Weighted branch aggregation based deep learning model for track detection in autonomous racing, Presented at the 12th International Conference on Learning Representations (ICLR 2024), May 7-11, 2024, Vienna, Austria.
354. Pannunzio, A., Moreno, A., Brown, E., Yang, H., Song, Y., Modali, H., Ajagu, R., Ye, A., Shaffer, A., Mar, M., Dong, J., Sabu, J., Williams, D., Sundaram, S., Shaver, G., Labi, S. (2024). Autonomous vehicle performance at high speeds: Purdue AI Racing. Robotics and Intelligent Systems Expo (RISE 2), February, Purdue University, WL, IN.
353. Yang, H., Moreno, A., Pannunzio, A., Modali, H., Ajagu, R., Labi, S. (2024). Robotics challenges in high-speed autonomous racing. Robotics and Intelligent Systems Expo (RISE 2), February, Purdue University, West Lafayette, IN.
352. Seilabi, S., Pourgholamali, M., Miralinaghi, M., Correia, G., Labi S. (2024). Enhancing traffic flow with connected and autonomous vehicle dedicated lanes: A system-optimal tolling approach. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
351. Wang, J., Dong, J., Chen, S., Sundaram, S., Labi, S. (2024). Deep reinforcement learning based framework for mobile energy disseminator dispatching to charge on-the-road electric vehicle. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
350. Seilabi, S., Pourgholamali, M., Miralinaghi, M., Correia, G.H.A., Labi, S. (2024). Enhancing traffic flow with connected and autonomous vehicle dedicated lanes: A system-optimal tolling approach. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
349. Benny, D, Saeel, S.P., Labi, S., Cui, Q. (2024). Addressing Federal Grant Match Challenges using an Optimization Model. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
348. Dong, J., Chen, S., Du, R., Labi, S. (2024). Transfusor: Transformer diffusor for controllable human-like generation of vehicle lane changing trajectories. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
347. Ha, P., Filipkova, M., Chen, S., Du, R., Labi, S. (2024). A deep reinforcement learning based autonomous vehicle fleet control with constrained entropy-based dynamic routing. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
346. Song, P., Sze, N.N., Chen, S., Labi, S. (2024). Correcting for endogeneity between crash injury severity & crash type at freeway ramp areas using a hierarchical bayesian bivariate ordered approach. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.

345. Arefkhani, H., Shafahi, Y., Miralinaghi, M., Pourgholamali, M., Labi, S. (2024). Reliable observation of origin-destination matrix considering sensor failure phenomenon. 103rd Annual Meeting of the Transportation Research Board (TRB), Washington, DC.
344. S. Seilabi, M. Pourgholamali, M. Miralinaghi, G. Correia, S. Labi. Enhancing Traffic Flow with Connected and Autonomous Vehicle Dedicated Lanes: A System-Optimal Tolling Approach. TRB Annual Meeting 2024.
343. H. Arefkhani, Y. Shafahi, M. Miralinaghi, M. Pourgholamali, S. Labi. Reliable Observation of Origin-Destination Matrix Considering Sensor Failure Phenomenon. TRB Annual Meeting 2024, Washington, DC.
342. M. Pourgholamali, M. Miralinaghi, and S. Labi. Sustainable Deployment of Autonomous Vehicle Dedicated Lanes in Urban Traffic Networks. Purdue Road School Transportation Conference and Expo 2024, W. Lafayette, IN.
341. M. Pourgholamali, A. Sharma, Z. Ye, H. Arefkhani, S. Labi. Epidemiologic-based Modeling of the effectiveness of transportation-related pandemic control policies; a comparison in CAV and traditional eras. ASCE T&DI International Conference on Transportation and development 2024.
340. David Holguin-Mejia, Chishala I. Mwamba, Deepak Benny Konstantina Gkritza, Samuel Labi; Purdue University; Electric Propulsion and Vehicle Automation: Challenges and Opportunities of the Sibling Relationship. Poster Presentation. Next-Generation Transport System Conference 4 (NGTS-4). September 21-22, 2024. Purdue University. West Lafayette, Indiana.
339. David Holguin-Mejia, Konstantina (Nadia) Gkritza, Kumares C. Sinha, Samuel Labi. Sustainable Development in Road Infrastructure Development: Opportunities and Business Case. Poster Presentation. Next-Generation Transport System Conference 4 (NGTS-4). September 21-22, 2024. Purdue University. West Lafayette, Indiana.
338. Deepak Benny, David Holguin-Mejia, Kenny Chandra Wijaya, Chishala I. Mwamba, Konstantina Gkritza, Samuel Labi. Planning and Designing for Connected and Automated Vehicles: The Evolution of Automated Vehicles (AVs) in the Context of Advancing Electric Mobility. Poster presentation. 2024 Joint ITE International and Mid-Colonial District Annual Meeting. July 21-24, 2024. Philadelphia, Pennsylvania.
337. David Holguin-Mejia, Kenny Chandra Wijaya, Chishala I. Mwamba, Deepak Benny, Konstantina Gkritza, Samuel Labi. Electric Propulsion and Vehicle Automation: Challenges and Opportunities of the Sibling Relationship. Poster presentation. International Conference on Transportation & Development – ASCE. June 15-18, 2024. Atlanta, Georgia.
336. David Holguin-Mejia, Jason Flatto, Konstantina (Nadia) Gkritza, Kumares C. Sinha, Samuel Labi. Sustainable Development in Road Infrastructure Development: Opportunities and Business Case. Poster presentation. International Conference on Transportation & Development – ASCE. June 15-18, 2024. Atlanta, Georgia.

335. David Holguin-Mejia, Jason Flatto, Konstantina (Nadia) Gkritza, Kumares C. Sinha, Samuel Labi. Sustainable Development in Road Infrastructure Development: Opportunities and Business Case. Podium Presentation. Annual Inter-University Symposium on Infrastructure Management (AISIM). May 17, 2024. Boulder, Colorado.
334. Deepak Benny, David Orlando H. M. ,Chishala I. Mwamba, Jelin Sabu, Samuel Labi. Highway Revenue Impacts in the Era of Electric Vehicles. Podium Presentation. 65th Annual Transportation Research Forum. April 4, 2024. Arlington, Virginia.
333. Ghosh, S., Chen, Y.H., Huang, C.H., Jameel, A.S.M.M., El Gamal, A., Labi, S. (2024). Weighted branch aggregation based deep learning model for track detection in autonomous racing, Presented at the 12th International Conference on Learning Representations (ICLR 2024), May 7-11, 2024, Vienna, Austria.
332. Benny, D., Saeel, M., Labi, S. (2024). State highway infrastructure financing using matching funds from the IJIA. Annual Inter-University Symposium on Infrastructure Management (AISIM), University of Colorado, Boulder, co, May 17.
331. Benny, D., Mwamba, I., & Labi, S. (2024). EV Charging Infrastructure P3s: Revenue Models & Investment Strategies. Virtual presentation at the Young Professionals in Infrastructure Fellowship event.
330. Benny, D., Mwamba, I., & Labi, S. (2024). Navigating the Road Ahead: Strategies for Implementing Electric Vehicle Fees. Presentation at the IRF Global R2T Conference 2024, held in Orlando, Florida.
329. Benny, D., Mwamba, I., Holguin Mejia, D. O., & Labi, S. (2024). Highway Cost Allocation, Revenue Attribution and Equity Trends in the era of Electric Vehicles. Presentation at the IRF Global R2T Conference 2024, held in Orlando, Florida.
328. Benny, D., Mwamba, I., & Labi, S. (2024). Highway revenue impacts from varying market shares of Electric AVs. Poster Presentation at the Next-Generation Transport Systems Conference (NGTS-4), Purdue University, West Lafayette, Indiana.
327. Benny, D., & Queiroz, C. (2024). Public-Private Partnership Projects (PPPs): Bridging Infrastructure Finance Gaps & OPBRC for Transport Sector, Workshop conducted at the 9th International Conference on Sustainable Transportation & Smart Innovations, Tanzania, Africa
326. Benny, D., Alabi, B.N.T., Labi, S., & Queiroz, C. (2024). Financial Model for Airport Public-Private Partnership projects (PPPs): Bridging Infrastructure Finance Gaps , Presented at the 9th International Conference on Sustainable Transportation & Smart Innovations, Tanzania, Africa
325. Benny, D., Holguin Mejia, D. O., & Labi, S. (2024). Evolution of automated vehicles (AVs) in the context of advancing electric mobility. Poster presented at the ITE International Annual Meeting, Philadelphia, PA.
324. Benny, D., (2024). Panelist - Developing future leaders in infrastructure. Presentation at the ARTBA Public Private Partnerships (P3s) in Transportation Conference, American Road and Transportation Builders Association, Washington, DC

323. Benny, D., Mwamba, I., & Labi, S. (2024). Electric vehicle (EV) fee structures: Best practices, alternatives, and case study evaluation. Presentation at the ASCE - International Conference on Transportation and Development: ICTD 2024, Atlanta, GA.
322. Benny, D., Pai, S, Cui, Q, & Labi, S. (2024). An optimization model for maximizing federal grants for state DOTs. Presentation at the ASCE - International Conference on Transportation and Development: ICTD 2024, Atlanta, GA.
321. Benny, D., Pai, S, Cui, Q, & Labi, S. (2024). State highway infrastructure financing using matching funds from the IIJA. Presentation at the 18th Annual Inter-University Symposium on Infrastructure Management (AISIM), University of Colorado, Boulder. [Best Paper Award].
320. Benny, D., Pai, S, Cui, Q, & Labi, S. (2024). An optimization model for maximizing federal grants for state DOTs. Presentation at the 65th International Meeting of the Transportation Research Forum, Arlington, VA. [Runner-up for best presentation].
319. Benny, D., Mwamba, I., Holguin Mejia, D. O., Sabu, J., & Labi, S. (2024). Highway revenue impacts in the era of electric vehicles. Presentation at the 65th International Meeting of the Transportation Research Forum, Arlington, Virginia.
318. Benny, D., Pai, S, Cui, Q, & Labi, S. (2024). Optimizing federal grant matching programs with state/local projects to support infrastructure finance. Virtual presentation at the Symposium on Infrastructure Asset Management (SIAM), University of New South Wales, New South Wales, Australia.
317. Benny, D., Yu, J., Xiong, Y., & Labi, S. (2024). Project bundling in infrastructure contracts: Issues, benefits, and limitations. Presentation in the Modernizing Infrastructure Webinar Series, Build America Center, College Park, MD.
316. Benny, D., Mwamba, I, & Labi, S. (2024). Electric vehicle fee structures: Best practices, alternatives, and case study evaluation. Poster presented at the 4th IEEE Forum for Innovative Sustainable Transportation Systems, Riverside, CA.
315. Benny, D., Pai, S, Cui, Q, & Labi, S. (2024). Addressing federal grant match challenges using an optimization model. Presented at the Transportation Research Board Annual Meeting, Washington, DC.
314. Benny, D., Mwamba, I, & Labi, S. (2023). Highway revenue impacts from varying market shares of Electric AVs. Poster presented at the Indianapolis Motorsports & Mobility Day and Mobility Research Conference, Indianapolis, IN.
313. Benny, D., Pai, S, Cui, Q, Labi, S. (2023). Infrastructure Investments and Jobs Act: Approaches in identifying matching funds by State DOTs for availing Federal grants. Presented at the ASCE – International Conference on Transportation and Development, Austin, TX
312. Alabi, B.N.T., Benny, D., Labi, S., Faiz, A. (2023). Performance-based Contracts for Road Maintenance- Lessons Learned. Presented at the 11th IRF Caribbean Regional Congress, Bahamas.
311. Benny, D., Labi, S. (2023). Techniques for maximizing federal grants for State Highway agencies by optimal allocation of matching funds. Presented at the Indiana LTAP: Local Transportation Asset Management Conference, Indiana, USA

310. Benny, D., Labi, S. (2023). Addressing matching-fund challenges in the IIJA era - Solutions & best practices for State DOTs. Poster presented at the 109th Purdue Road School, Indiana, USA
309. Mwamba, I., Benny, D., Labi, S. (2023). Prescriptions for anticipated adversities in highway agency finance in the era of electric vehicles. Presented at the 64th International Meeting of the Transportation Research Forum, Chicago, USA [Best Paper Award]
308. Benny, D., Labi, S. (2023). Solutions for State Highway Agencies to Satisfy Matching-Funds Challenges in the IIJA Era. Presented at the 64th International Meeting of the Transportation Research Forum, Chicago, USA
307. Benny, D., Labi, S. (2023). Transportation infrastructure finance: Challenges associated with state transportation agencies in identifying matching funds. Presented at the Virtual Inter-University Symposium on Infrastructure Management, Northwestern University, Chicago, USA
306. 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.
305. Dong, J., Labi, S. (2023). End-to-end Transformer for explainable autonomous driving. 5th Bridging Transportation Researchers (BTR5), online conference, August 2023.
304. 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.
303. Y. Qiao, M. Alinizzi, M. Pourgholamali, J. Fricker, S. Labi. A Data-Driven Analysis of the Relationships Between Project Bundling and Time Delay. TRB Annual Meeting 2023.
302. S. Seilabi, M. Saneii, M. Pourgholamali, M. Miralinaghi, S. Labi. Evaluation of Schedule and Full Versus Partial Link Closure Options for Urban Network Road Projects: Methodology and Case Study. TRB Annual Meeting 2023.
301. S. Seilabi, M. Pourgholamali, M. Miralinaghi, G. Correia, X. He, S. Labi. Managing Dedicated Lanes for Connected and Autonomous Vehicles to Address Bottleneck Congestion Considering Morning Peak Commuter Departure Choices. TRB Annual Meeting 2023.
300. M. Pourgholamali, G. Correia, S. Seilabi, M. Miralinaghi, S. Labi. Robust Design of Electric Charging Infrastructure Locations under Travel Demand Uncertainty and Driving Range Heterogeneity. Purdue Road School Transportation Conference and Expo 2023.
299. M. Pourgholamali, G. Correia, S. Seilabi, M. Miralinaghi, S. Labi. Robust Design of Electric Charging Infrastructure Locations under Travel Demand Uncertainty and Driving Range Heterogeneity. ASCE T&DI International Conference on Transportation and development 2023.
298. M. Pourgholamali, M. Miralinaghi, S. Labi. Parking Infrastructure Redistribution and Pricing in the Era of Autonomous Vehicles. Transportation Research Forum 2023.

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 de-raining, 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., Hajibabaei, P., Farrokhhvar, 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., Nadehajouh, 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., ZhangG, Z., AgbeliePD, 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 Transportation 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.

46. Khurshid, M.B., Irfan, M., Labi, S. (2009). Comparing the Methods for Evaluating Pavement Interventions, 88th Annual Meeting of Transportation Research Board, Washington, DC, January 11–15, 2009.
45. Irfan, M., Khurshid, M.B., Labi, S. (2009). Econometric Analysis of the Influence of Highway Project Size, Project Type, and Contract Type on Contract Duration, 88th Annual Meeting, Transportation Research Board, Washington, DC, January 11–15, 2009.
44. Li, Z., Labi, S., Patidar, V., Sinha, K.C., Thompson, P. (2009). Establishing a Common Scale for Measuring and Combining Different Impact Types and Program Areas – A Discussion and Case Studies in Bridge and Asset Management, 88th Annual Meeting, Transportation Research Board, Washington, DC, January 11–15, 2009.
43. Cope, A., Labi, S., Fang, C. (2009). Poster. Does Stainless Cost Less? Assessing the Feasibility of Stainless Steel as a Reinforcement Material for Bridge Decks on the Basis of Life-cycle Costing, 88th Annual Meeting, Transportation Research Board, Washington, DC, January 11–15, 2009.
42. Anastasopoulos, P., Labi, S., Karlaftis, M., Mannering, F.L. (2009). Exploring Relationships Between Aggregate Pavement Performance, Surface Geology, Climate, Expenditure: Econometric Analysis of State-Level Data, 88th Annual Meeting., Transportation Research Board, Washington, DC, January 11–15, 2009.
41. Anastasopoulos, P., Labi, S., McCullough, B. (2009). Analyzing Duration and Prolongation of Performance-based Contracts Using Hazard-based Duration and Zero-Inflated Random Parameters Poisson Models, 88th Annual Meeting of Transportation Research Board, Washington, DC, January 11–15, 2009.
40. Anastasopoulos, P., Labi, S., McCullough, B. (2009). Identifying Appropriate Contract Type for Highway Maintenance and Rehabilitation Projects, 88th Annual Meeting, Transportation Research Board, Washington, DC, January 11–15, 2009.
39. Labi, S., Sinha, K.C. (2008). Transportation Decision-Making in a Changing World: Current Challenges and Future Prospects and Challenges, 1st International Conference on Transportation Decision Making: Issues, Tools, Models and Case Studies, Venice, Italy, November 13–14, 2008.
38. Thompson, P.D., Sinha, K.C., Labi, S., Patidar, V. (2008). Multi-objective Optimization for Bridge Management, 10th International Bridge and Structure Management Conference, Buffalo, New York, October 20–22, 2008.
37. Bhargava, A., Anastasopoulos, P., Mannering, F., Sinha, K.C., Labi, S. (2008). Analyzing Time Delay of Highway Construction Transportation Contracts: An Exploratory Study, Conference of the American Statistical Association, Denver, CO, August 3–7, 2008.
36. Irfan, M., Khurshid, M.B., Labi, S., Sinha, K.C. (2008). Cost-Effectiveness of Rehabilitation Alternatives – The Case for Flexible Pavements, 7th International Conference on Managing Pavements (ICMPA-7), Calgary, Canada, June 23–28, 2008.
35. Khurshid, M.B., Irfan, M., Labi, S., Sinha, K.C. (2008). A Comparison of Two Types of Overlay Treatment for PCC Pavements, 7th International Conference on Managing Pavements (ICMPA-7), Calgary, Canada, June 23–28, 2008.

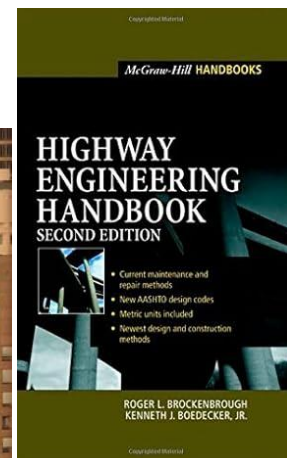
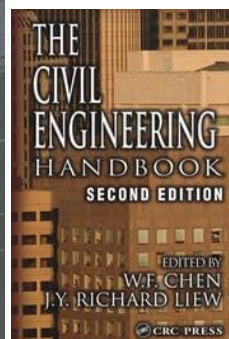
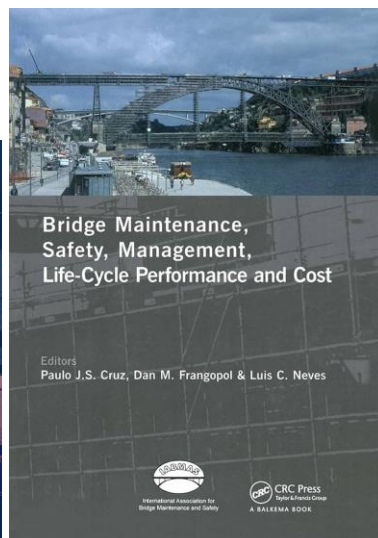
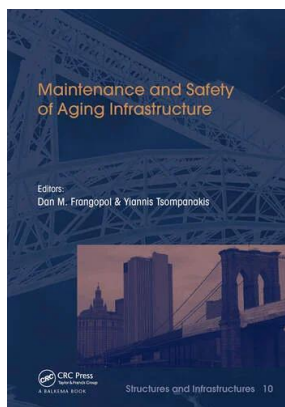
34. Gkritza, K., Sinha, K.C., Labi, S., Mannering, F.L. (2008). Economic Development and Highway Project Decision-Making, 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, May 27–31, 2008.
33. Bhargava, A., Anastasopoulos, P., Bordat, C., Labi, S., Mannering, F. (2008). An Analysis of Cost and Time Overruns of Construction Contracts Using Three Stage Least Squares, 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, May 27–31, 2008.
32. Bhargava, A., Anastasopoulos, P., Labi, S., Sinha, K.C., Mannering, F.L. (2008). A Simple Model for Predicting Delay at Actuated Signalized Intersections for Long-Term Planning Purposes, 10th International Conference on Applications of Advanced Technologies in Transportation, Greece, May 27–31, 2008.
31. Adom, R., Giraud, T., Labi, S., Sinha, K.C. (2008). A Framework for Managing the Tort Liability Risks Associated with the Use of Transportation Infrastructure, 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, May 27–31, 2008.
30. Lamptey, G., Singh, L., Labi, S., Sinha, K. (2008). Incorporating Safety Management In Network-level Planning - A Framework, Software Package, and Case Study, 10th International Conference on Applications of Advanced Technologies in Transportation (AATT 2008), Athens, Greece, May 27–31, 2008.
29. Labi, S. (2008). Uncertainty-Based Tradeoff Analysis for Integrated Transportation Investments, 94th Annual Road School, W. Lafayette, IN, March 24–26, 2008.
28. Labi, S., Patidar, V., Li, Z., Sinha, K.C. (2008). Development of Weights to Reflect the Relative Importance of Transportation Performance Criteria, 87th Annual Meeting, Transportation Research Board, Washington., DC, January 13–17, 2008.
27. Khurshid,, M.B., Irfan, M., Labi, S., Sinha, K.C. (2008). Effectiveness of Asphaltic Concrete Overlays of Rigid Highway Pavements Using LTPP SPS-6 Data, 87th Annual Meeting, Transportation Research Board, Washington, DC, January 13–17, 2008.
26. Kong, S., Labi, S., Fang, C., Itsung, T. (2008). Estimating the Planning-level Costs of Rolling Stock and Fixed Facilities for Light Rail Transit Systems, 87th Annual Meeting, Transportation Research Board, Washington, DC, January 13–17, 2008.
25. Labi, S., Mahmodi, I.M., Fang, C., Nunoo, C. (2007). Cost-Effectiveness of Microsurfacing and Thin HMA Overlays, 86th Annual Meeting, Transportation Research Board, Washington, DC, January 21–25, 2007.
24. Fang, C., Labi, S. (2007). Evaluating the Static Segregation Resistance of Hardened Self-Consolidating Concrete using Image Processing Technology, 86th Annual Meeting, Transportation Research Board, Washington, DC, January 21–25, 2007. (Recipient of the Mather Award for best paper in concrete materials).
23. Oh, J., Labi, S., Sinha, K.C. (2007). Implementation and Evaluation of Self-Financing Highway Pricing Schemes – Numerical Analysis for the State of Indiana, 86th Annual Meeting of Transportation Research Board, Washington, DC, January 21–25, 2007.
22. Gkritza, K., Rodriguez, M. M., Labi, S., Li, Z. (2007). Development of Bridge Preservation Cost Models for Planning, Programming, and Budgeting, 86th Annual Meeting, Transportation Research Board, Washington, DC, January 21–25, 2007.

21. Thompson, P.D., Patidar, V., Labi, S., Sinha, K., Hyman, W.A., Shirolé, A. (2006) Multi-objective Optimization for Bridge Management, Presented at IABMAS'06 - Third International Conference on Bridge Maintenance, Safety and Management, Porto, Portugal, July 16–19, 2006.
20. Gkritza, K., Labi, S., Mannering, F.L., and Sinha, K.C. (2006). Economic Development Effects of Highway Added-Capacity Projects, Transportation and Economic Development Conference (TED), Little Rock, AR, March 29–31, 2006.
19. Oh, J., Singh, P., Labi, S., Sinha, K.C. (2006). Warranty Practice in Pavement Construction – An Assessment of the Costs and Benefits, 85th Annual Meeting of Transportation Research Board, Washington, DC, January 22–26, 2006.
18. Mannering, F., Oh, J., Labi, S., Hamideh, A. (2006). An Econometric Analysis of Post-Election Opinion Surveys: Understanding Public Acceptance of Local Transportation Sales Taxes, 85th Annual Meeting, Transportation Research Board, Washington, DC, January 22–26, 2006.
17. Labi, S., Kong, S., Lamptey, G., Nunoo, C. (2006). Long-term Benefits of Microsurfacing Applications in Indiana, 85th Annual Meeting of Transp. Research Board, Washington, DC, January 22–26, 2006.
16. Gkritza, K., Labi, S. (2006). Poster. Likelihood of Occurrence, Magnitude and Rate of Cost Discrepancies in Highway Contracts, 85th Annual Meeting of Transp. Research Board, Washington, DC, January 22–26, 2006.
15. Rodriguez, M., Labi, S., Li, Z. (2006). Enhanced Bridge Replacement Cost Models for Indiana's Bridge Management System, 85th Annual Meeting of Transp. Research Board, Washington, DC, January 22–26, 2006.
14. Labi, S., Rodriguez M. M., Shah, H., Sinha, K. C. (2006). A Performance-Based Approach for Estimating Bridge Preservation Funding Needs, 85th Annual Meeting of Transportation Research Board, Washington, DC, January 22–26, 2006.
13. Singh, P., Oh, J., Labi, S., Sinha, K.C. (2005). The Benefits of Pavement Warranty Practice in Indiana, USA, Presentation and Proceedings, 5th International Conference on Road and Airfield Pavement Technology, Seoul, Korea, May 10–12, 2005.
12. Lamptey, G., Oh, J., Labi, S., Sinha, K.C. (2005). Pavement Rehabilitation and Maintenance Strategies, Presentation and Proceedings, 5th International Conference on Road and Airfield Pavement Technology, Seoul, Korea, May 10–12, 2005.
11. Lamptey, G., Labi, S., Sinha, K.C. (2005). Investigating the Sensitivity of Optimal Network Safety Needs to Key Safety Management Inputs, 84th Annual Meeting of Transportation Research Board, Washington, DC, January 9–13, 2005.
10. Lamptey, G., Labi, S., Sinha, K. (2005). Optimization of Preventive Maintenance within Intervals of Pavement Rehabilitation, 84th Annual Meeting of Transp. Research Board, Washington, DC, January 9–13, 2005.
9. Labi, S., Lamptey, G., Konduri, S., Sinha, K.C. (2005). Analysis of Long-Term Effectiveness of Thin HMA Overlays, 84th Annual Meeting of Transportation Research Board, Washington, DC, January 9–13, 2005.

8. Rodriguez, M., Gkritza, K., Labi, S., Sinha, K.C. (2005). Factors of Bridge Deck Deterioration in Indiana, 84th Annual Meeting of Transportation Research Board, Washington, DC, January 9–13, 2005.
7. Labi, S., Sinha, K.C. (2004). Cost and Effectiveness Models for Selected Preventive Maintenance Treatments, 83rd Annual Meeting of Transportation Research Board, Washington, DC, January 11–15, 2004.
6. Labi, S., Pasupathy, R., Sinha, K.C. (2004). Optimal Performance Thresholds for Reconstruction in Infrastructure Asset Management, 83rd Annual Meeting of Transportation Research Board, Washington, DC, January 11–15, 2004.
5. Lamptey, G., Labi, S., Sinha, K.C. (2004). Poster. A Framework for Safety Management System in Indiana, 83rd Annual Meeting of Transportation Research Board, Washington, DC, January 11–15, 2004.
4. Lamptey, G., Labi, S., Sinha, K.C. (2004). Development of Pavement Rehabilitation and Maintenance Strategies for Life-Cycle Cost Analysis, 83rd Annual Meeting, Transportation Research Board, Washington, DC, January 11–15, 2004.
2. Labi, S., Sinha, K.C. (2003). Life-Cycle Evaluation of Highway Pavement Preventive Maintenance, 82nd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2003.
3. Konduri, S., Labi, S., Sinha, K.C. (2003). Statistical Models for Freeway Incident Management, 82nd Annual Meeting of Transportation Research Board, Washington, DC, January 12–16, 2003.
1. Labi, S., Sinha, K.C. (2002). Does a Stitch in Time Really Save Nine? The Role of Highway Pavement Preventive Maintenance, 4th International Conference on Road and Airfield Pavement Technology, Kunming, People's Republic of China, April 23–25, 2002.

Chapters in Books

6. Lavrenz, S., Murillo HoyosG, J., Labi, S. (2014). **“Constructs for Quantifying the Long-term Effectiveness of Civil Infrastructure Interventions in Maintenance and Safety of Aging Infrastructure,”** Structures and Infrastructures Book Series, Vol. 10, Frangopol, D., Tsompanakis, Y., Eds. CRC Press.
5. Sinha, K.C., Labi, S., Ong, R. (2010) **“Transportation Decision-Making in a Changing World: Current Challenges and Future Prospects,”** in Feasibility Decisions in Transportation Engineering and Economics, Editors: Cappelli, A., and Nocera, S., McGraw-Hill.
4. Thompson, P.D., Patidar, V., Labi, S., Sinha, K., Hyman, W.A., Shirolé, A. (2006). **Multi-objective optimization for bridge management, Chapter 278, Advances in Bridge Maintenance, Safety Management, and Life-Cycle Performance,** Eds. P.J. da Sousa Cruz, D.M. Frangopol, L.C. Canhoto Neves, CRC Press, 735–736.
3. Labi, S., Sinha, K.C. (2006) **“Highway Engineering,”** Science & Technology, McGraw Hill.
2. Labi, S., Li, Z., Sinha, K.C. (2002) **“Highway Infrastructure Management,”** Civil Engineering Handbook, 2nd Edition. (Editor: W.F. Chen), CRC Press, p. 66.1 – 66.34.
1. Labi, S., Sinha, K.C. (2001) **“Highway Engineering,”** Science & Technology, McGraw Hill.



Technical Reports

69. Gowda, M.K., Fehr, W., Balmos, A., Hong, D., Ajagu, R., Krogmeier, J., Abbas, M., Labi, S. (2023). **Economical acquisition of intersection data to facilitate CAV operations – Phase II (Implementation)**, CCAT Report #71, Center for Connected and Automated Transportation, Purdue University, W. Lafayette, IN.

68. Ajagu, R., Song, D., Mejia, D. H., Benny, D., Pourgholamali, M., Mwamba, I. C., Sinha, K., & Labi, S. (2025). Assessing the asset management programs of locals: Bridges and pavement condition, Tech. Rep. FHWA/IN/JTRP-2025/02, Joint Transportation Research Program, W. Lafayette, IN.

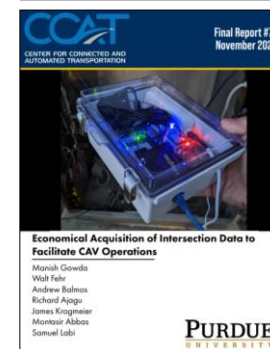
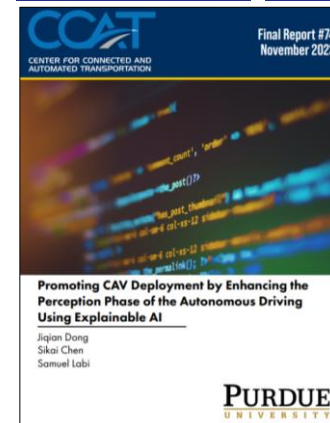
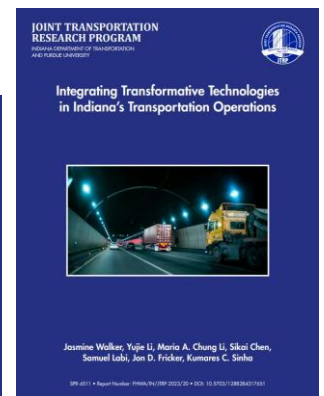
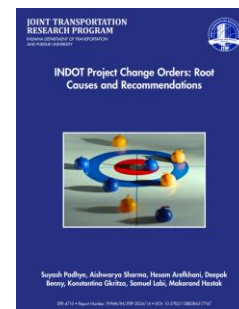
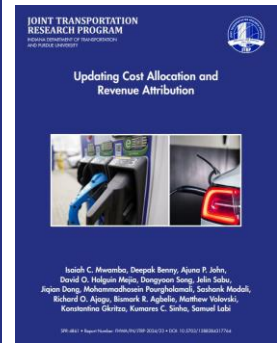
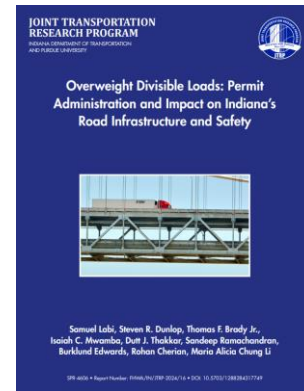
67. Labi, S., Dunlop, S. R., Brady, T. F., Jr., Mwamba, I. C., Thakkar, D. J., Ramachandran, S., Edwards, B., Cherian, R., & Chung Li, M. A. (2024). **Overweight divisible loads: Permit administration and impact on Indiana's road infrastructure and safety**, JTRP Publ. No. FHWA/IN/JTRP-2024/16). W. Lafayette, IN.

66. Padhye, S., Sharma, A., Arefkhani, H., Benny, D., Gkritza, K., Labi, S., & Hastak, M. (2024). **INDOT project change orders: Root causes and recommendations**, JTRP Publ. No FHWA/IN/JTRP-2024/14). W. Lafayette, IN.

65. Mwamba, I. C., Benny, D., John, A. P., Holguin Mejia, D. O.,
64. Song, D., Sabu, J., Dong, J., Pourgholamali, M., Modali, S., Ajagu, R. O., Agbelie, B. R., Volovski, M., Gkritza, K., Sinha, K. C., & Labi, S. (2024). **Updating cost allocation and revenue attribution**, JTRP Publ. No. FHWA/IN/JTRP-2024/23). W. Lafayette, IN.

63. Dong, J., Chen, S., Labi, S. (2023). **Promoting CAV deployment by enhancing the perception phase of the autonomous driving using explainable AI**, CCAT Report #74, Center for Connected and Automated Transportation. W. Lafayette, IN.

62. Gowda, M.K., Fehr, W., Balmos, A., Ajagu, R., Krogmeier, J., Abbas, M., Labi, S. (2023). **Economical acquisition of intersection data to facilitate CAV operations**, CCAT Report #71, Center for Connected and Automated Transportation, Purdue University, West Lafayette, IN.



Technical Reports (continued)

61. Labi, R.N., Smith, J., Sabu, J., Labi S. (2023). **Changes in highway expenditures and revenues in an era of CAVs, Volume B: Road-user costs**, CCAT Report 33B, Center for Connected and Automated Transportation, W. Lafayette, IN.

60. Labi, S., Saeed, T.U., Pourgholamali, M., Saka, Z.A., Sinha, K.C. (2023). **Design and management of highway infrastructure to accommodate CAVs**, CCAT Report 29, The Center for Connected and Automated Transportation, Purdue University, West Lafayette, IN.

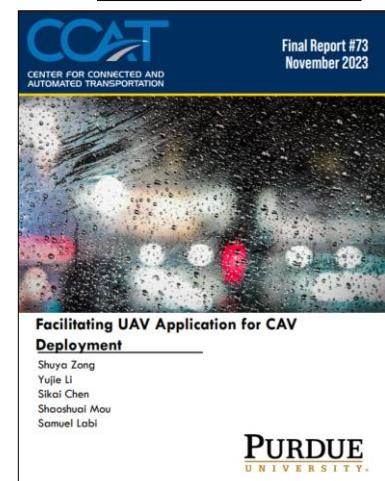
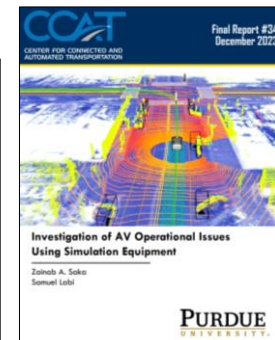
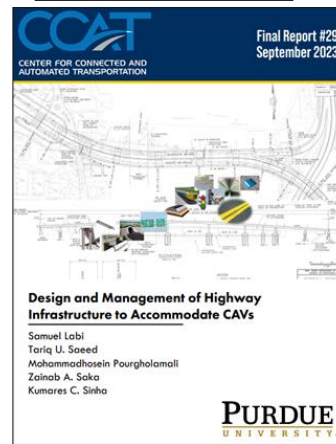
59. Benny, D., Labi, S. (2023). **Estimating and Identifying Local Matching Funds for new BIL Grants**. Build America Center, University of Maryland, College Park, MD.

58. Pourgholamali, M., Sharma, A., Ye, Z., Arefkhani, H., Dietz, J., Labi, S. (2023). **Exploring the prospective role of connected vehicles in monitoring and response to pandemics and disasters**, CCAT Report #54, The Center for Connected & Automated Transportation, W. Lafayette, IN.

57. Li, Y., Sharma, A., John, A.P., Alabi, B.N.T., Chen, S., Labi, S. (2023). **Development of situational awareness enhancing system for manual takeover of AV**, CCAT Report #53, The Center for Connected and Automated Transportation, Purdue University, West Lafayette, IN.

56. Saka, Z., Labi, S. (2023). **Investigation of AV operational issues using simulation equipment**, CCAT Report #34, The Center for Connected and Automated Transportation, Purdue University, West Lafayette, IN.

55. Zong, S., Li, Y., Chen, S., Mou, S., Labi, S. (2023). **Facilitating UAV application for CAV deployment**, CCAT Report #73, The Center for Connected and Automated Transportation, Purdue University, West Lafayette, IN.



Technical Reports (continued)

54. Mwamba I. C., Alabi, B.N.T., Benny, D., Nafakh, A., Labi S., Sinha K.C. (2023). **Changes in highway expenditures and revenues in an era of CAVs – Part A: Road agencies**, CCAT Report No. 33A, Center for Connected and Automated Transportation, W. Lafayette, IN

53. Nafakh, A.J., Mwamba, I.C., Chen, S., Fricker, J.D., Labi, S. (2023). **Translation of driver-pedestrian behavioral models at semi-controlled crosswalks into a quantitative framework for practical self-driving vehicle applications – Part B (pedestrian volume analytics)**, Technical Report Nr. 61B, Center for Connected and Automated Transportation, Purdue University, W. Lafayette, IN.

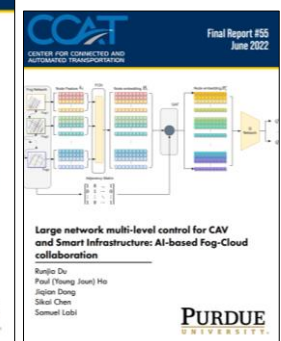
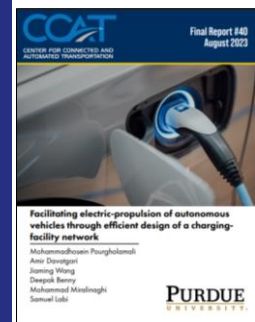
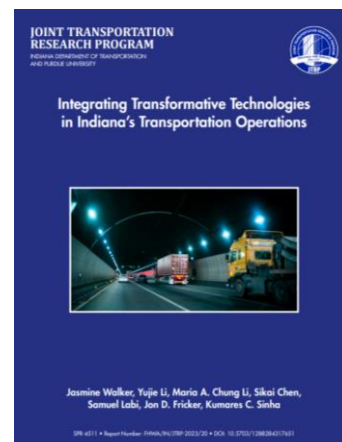
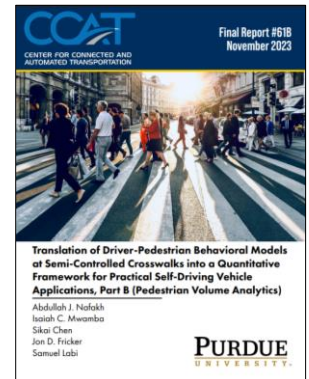
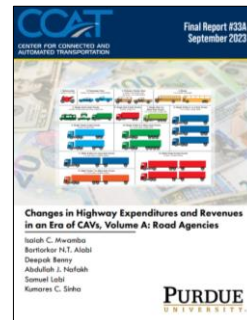
52. Walker, J., Li, Y., Chung Li, M. A., Chen, S., Labi, S., Fricker, J. D., & Sinha, K. C. (2023). **Integrating transformative technologies in Indiana's transportation operations**, JTRP Publ. No. FHWA/IN/JTRP-2023/20). West Lafayette, IN.

51. Pourgholamali, M., Davatgari, A., Wang, J., Benny, D., Miralinaghi, M., Labi, S. (2022). **Facilitating electric propulsion of autonomous vehicles through efficient design of a charging-facility network**, CCAT Report #40, The Center for Connected and Automated Transportation, Purdue University, W. Lafayette, IN

50. Dong, J., Du, R., Ha, Y.J., Chen, S., Labi, S. (2022). **Development of AI-based and control-based systems for safe and efficient operations of connected and autonomous vehicles**, CCAT Report #41, The Center for Connected and Automated Transportation, Purdue University, W. Lafayette, IN.

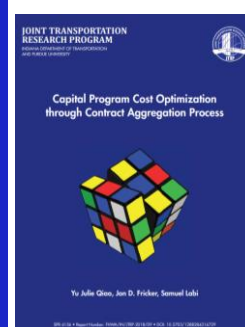
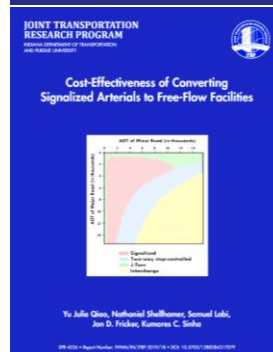
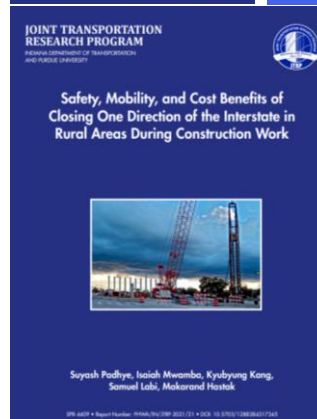
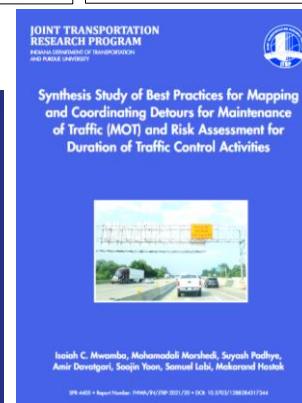
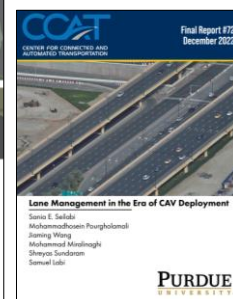
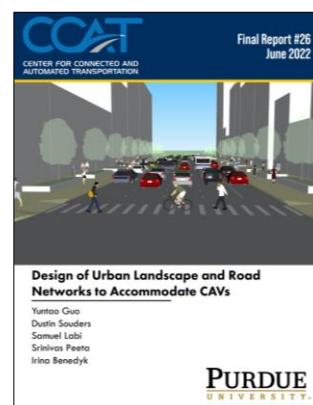
49. Du, R., Ha, P.Y.J., Dong, J., Chen, S., Labi, S. (2022). **Large network multi-level control for CAV and Smart Infrastructure: AI-based Fog-Cloud collaboration**, CCAT Report #55, The Center for Connected and Automated Transportation, Purdue University, W. Lafayette, IN.

48. Ju, H. K., Kim, T. R., Kang, K., Koo, D. D., Gkritza, K., & Labi, S. (2023). **A strategic assessment of needs and opportunities for the wider adoption of electric vehicles in Indiana, Phase II**, Tech. Rep. FHWA/IN/JTRP-2023/04, Joint Transportation Research Program, W. Lafayette, IN.



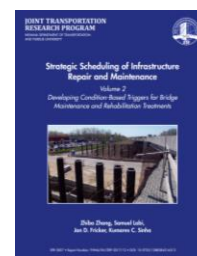
Technical Reports (continued)

47. Guo, Y., Souders, D., Labi, S., Peeta, S., and Benedyk, I. (2022). **Design of urban landscape and road networks to accommodate CAVs**, CCAT Report #26, Center for Connected and Automated Transportation, Purdue University, W. Lafayette, IN.
46. Seilabi, S.E., Pourgholamali, M., Wang, J., Miralinaghi, M., Sundaram, S., Labi, S. (2022). **Lane Management in the Era of CAV Deployment**, CCAT Report #72, The Center for Connected and Automated Transportation, Purdue University, W. Lafayette, IN.
45. Konstantinou, T., Chen, D., Flaris, K., Kang, K., Koo, D. D., Sinton, J., Gkritza, K., & Labi, S. (2022). **A strategic assessment of needs and opportunities for the wider adoption of electric vehicles in Indiana, Phase I**, Tech. Rep. FHWA/IN/JTRP-2022/12, Joint Transportation Research Program , W. Lafayette, IN.
44. Mwamba, I., Morshedi, M., Padhye, S., Davatgari, A., Yoon, S., Labi, S., Hastak, M. (2021). **Synthesis study of best practices for mapping and coordinating detours for maintenance of traffic (MOT) and risk assessment for duration of traffic control activities**, Tech. Rep. FHWA/IN/JTRP-2021/20, Joint Transportation Research Program, W. Lafayette, IN.
43. Padhye, S., Mwamba, I., Kang, K., Labi, S., Hastak, M. (2021). **Safety, mobility, and cost benefits of closing one direction of the interstate in rural areas during construction work**, FHWA/IN/JTRP-2021/21, Joint Transportation Research Program, W. Lafayette, IN
42. Iyer, A., Labi, S., Dunlop, S., Brady, T., Amijaya, E., Nafakh, A. (2020). **Cost and benefit analysis of installing fiber optics on INDOT projects**, FHWA/IN/JTRP-2020/15, Joint Transportation Research Program, W. Lafayette, IN.
41. Qiao, Y., Shellhamer, N., Labi, S., Fricker, J. (2019). **Cost-effectiveness of converting signalized arterials to free-flow facilities**, FHWA/IN/JTRP-2019/18, Joint Transportation Research Program, W. Lafayette, IN.
40. Qiao, Y. J., Fricker, J. D., Labi, S. (2018). **Capital program cost optimization through contract aggregation process**, FHWA/IN/JTRP-2018/09, Joint Transportation Research Program, W. Lafayette, IN

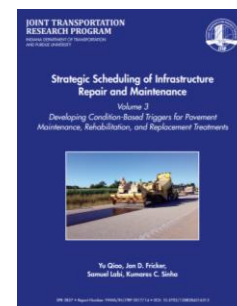


Technical Reports (continued)

39. Zhang, Z., Labi, S., Fricker, J. D., Sinha, K.C. (2017). **Strategic scheduling of infrastructure repair and maintenance: Volume 2—Developing condition-based triggers for bridge maintenance and rehabilitation treatments**, FHWA/IN/JTRP-2017/13, Joint Transportation Research Program, West Lafayette, IN.



38. Qiao, Y., Fricker, J.D., Labi, S., Sinha, K.C. (2017). **Strategic scheduling of infrastructure repair and maintenance: Volume 3—Developing condition-based triggers for pavement maintenance, rehabilitation, and replacement treatments**, FHWA/IN/JTRP-2017/14, Joint Transportation Research Program, West Lafayette, IN.



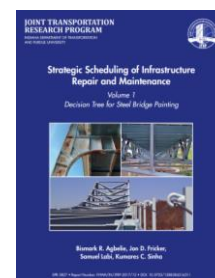
37. Agbelie, B.R., Fricker, J.D., Labi, S., Sinha, K.C. (2017). **Strategic scheduling of infrastructure repair and maintenance: Volume 1—Decision tree for steel bridge painting**, FHWA/IN/JTRP-2017/12, Joint Transportation Research Program, West Lafayette, IN.

36. Alinizzi, M., Qiao, J. Y., Kandil, A., Cai, H., Labi, S. (2017). **Integration and evaluation of automated pavement distress data in INDOT's pavement management system**, FHWA/IN/JTRP-2017/07, Joint Transportation Research Program, West Lafayette, IN.



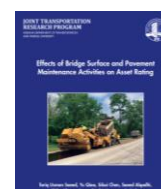
35. Taylor, B.R., Qiao, Y., Bowman, M.D., Labi, S. (2016). **The economic impact of implementing nondestructive testing of reinforced concrete bridge decks in Indiana**, FHWA/IN/JTRP-2016/20, Joint Transportation Research Program, West Lafayette, IN.

34. Saeed, T., Qiao, Y., Zhang, G., AlQadhi, S., Labi, S., Sinha, K.C. (2016). **Effects of Bridge Surface and Pavement Maintenance Activities on Asset Rating**, Final Report, Joint Transportation Research Program, W. Lafayette, IN.



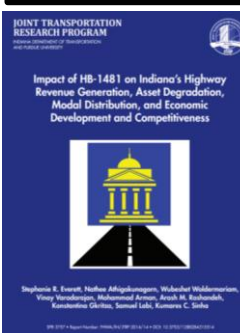
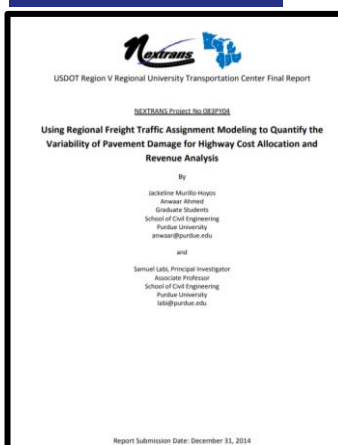
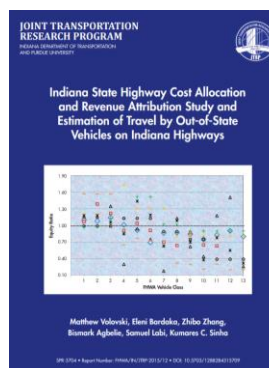
33. Moomen, M., Qiao, Y., Agbelie, B., Labi, S., Sinha, K.C. (2016). **Models to Support Bridge Management**, Final Report, Joint Transportation Research Program, W. Lafayette, IN.

32. Klatko, T., Agbelie, B., Labi, S., Fricker, J.D., Sinha, K.C. (2016). **Estimation and Prediction of Statewide Annual VMT by Vehicle Class and Highway Category**, Final Report, Joint Transportation Research Program, W. Lafayette, IN.



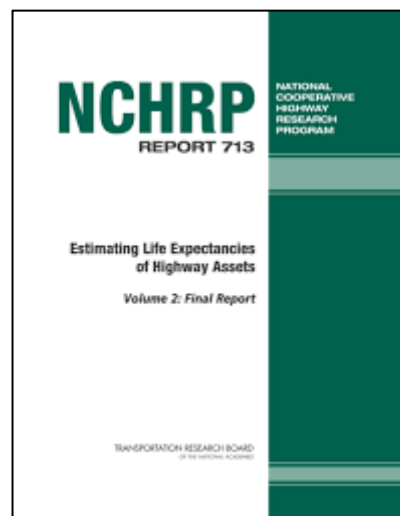
Technical Reports (continued)

31. Volovski, M., Bardaka, E., Zhang, Z., Agbelie, B., Labi, S., Sinha, K.C. (2015). **Indiana Highway Cost Allocation and Revenue Attribution Study**, Final Report, Joint Transportation Research Program, W. Lafayette, IN.
30. Murillo-Hoyos, J., Ahmed, A., Labi, S. (2015). **Using Regional Freight Traffic Assignment Modeling to Quantify the Variability of Pavement Damage for Highway Cost Allocation and Revenue Analysis**, Nextrans Technical Report Nr. 083PY04, USDOT Region V Regional University Transportation Center, W. Lafayette, IN.
29. Everett, S. R., Athigakunagorn, N., Woldermariam, W., 28. Varadarajan, V., Arman, M., Roshandeh, A. M., Gkritza, K., Labi, S., & Sinha, K. C. (2014). **Impact of HB-1481 on Indiana's highway revenue generation, asset degradation, modal distribution, and economic development and competitiveness**, Joint Transportation Research Program Publication No. FHWA/IN/JTRP-2014/14, W. Lafayette, IN.
27. Volovski, M., Arman, M., & Labi, S. (2014). **Developing statistical limits for using the light weight deflectometer (LWD) in construction quality assurance**, Joint Transportation Research Program Publication No. FHWA/IN/JTRP-2014/10, W. Lafayette, IN.
26. Ahmed, A., Agbelie, B., Lavrenz, S., Keefer, M., Labi, S., Sinha, K.C. (2012). **Costs and Revenues Associated with Overweight Trucks in Indiana**, Joint Transportation Research Program Publication Nr. FHWA/IN/JTRP-2013/01, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.
25. Bardaka, E., Labi, S., Haddock, J. (2012). **Service Lives of Selected Pavement Rehabilitation Treatments**, Draft Final Report, Purdue University, W. Lafayette, IN.
24. Agbelie, B., Labi, S., Mannering, F., Sinha, K.C. **Update to Fuel Tax Revenue Projections**, Final Report FHWA/IN/JTRP-2012/23, Purdue University, W. Lafayette, December 2012.
23. Dojutrek, M., Makwana, P., Labi, S. **A Methodology for Highway Asset Valuation in Indiana**, Joint Transportation Research Program, Publication FHWA/IN/JTRP-2012/31. Indiana Department of Transportation and Purdue University, W. Lafayette, IN.



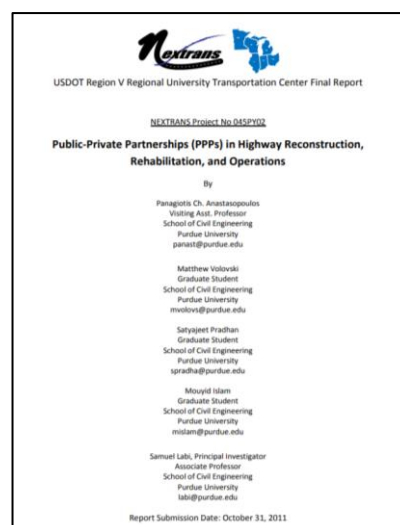
Technical Reports (continued)

22. Ford, K., Arman, H.R., Labi, S., Sinha, K.C., Shirolé, A., Thompson, P.D. (2012). **Life Expectancy Estimation of Highway Assets**, Final Report Vol. 1 (Main Report) and Vol. 2 (Guidebook), NCHRP Report 713, National Academy of Sciences, Washington, D.C



21. Bai, Q., Labi, S. (2012). **Updating, Upgrading, Refining, Calibration and Implementation of Trade-Off Analysis Methodology Developed for INDOT**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2012/32, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.

20. Issariyanukula, A., Labi, S. (2011). **Financial and Technical Feasibility of Dynamic Congestion Pricing as a Revenue Generation Source in Indiana – Exploiting the Availability of Real-Time Information and Dynamic Pricing Technologies**, Nexttrans Technical Report Nr. 044PY02, USDOT Region V Regional University Transportation Center, W. Lafayette, IN.



19. Anastasopoulos, P., Volovski, M., Pradhan, S., Islam, M., Labi, S. (2011). **Public-Private Partnerships in Highway Reconstruction, Rehabilitation, and Operations**, Nexttrans Technical Report Nr. 045PY02, USDOT Region V Regional University Transportation Center, W. Lafayette, IN.

18. Ahmed, A., Volovski, M., Van Boxel, D., Labi, S., Sinha, K.C. (2011). **Truck Travel Characteristics as an Indicator of System Condition and Performance**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2011/07, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.

17. Agbelie, B., Bai, Q., Labi, S., Sinha, K. (2010). **Forecasting of Highway Revenues Under Various Options**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2010/3, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.



16. Khurshid, M., Irfan, M., Ahmed, A., Labi, S., Sinha, K.C. (2010). **A Synthesis of Overweight Truck Permitting**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2010/12, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.

Technical Reports (continued)

15. Bhargava, A., Labi, S., Sinha, K.C. (2009). **Development of a Framework for Ex Post Facto Evaluation of Highway Project Costs in Indiana**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2009/33, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.

14. Sinha, K., Labi, S., McCullough, B.G., Bhargava, A., Bai, Q. (2009). **Updating and Enhancing the Indiana Bridge Management System (IBMS)**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2008/30, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.

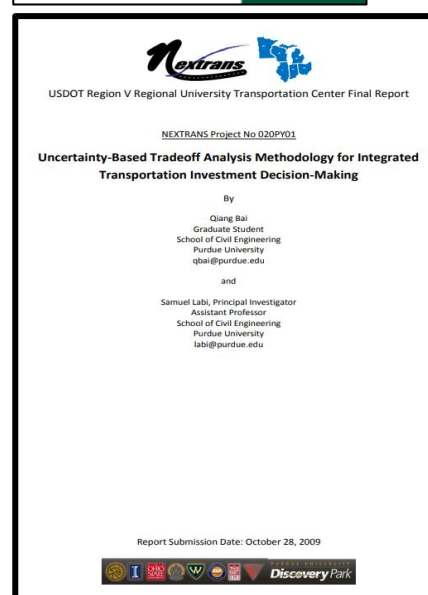
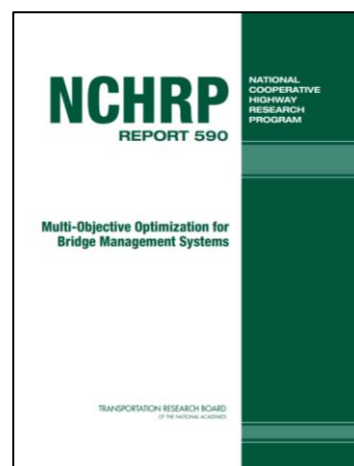
13. Bai, Q., Labi, S. (2009). **Uncertainty-Based Tradeoff Analysis Methodology for Integrated Transportation Investment Decision-Making**, Nexttrans Technical Report Nr. 020PY01, USDOT Region V Regional University Transportation Center, W. Lafayette, IN.

12. Bai, Q., Labi, S., Li, Z. (2008). **Trade-off Analysis Methodology for Asset Management**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2008/31, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.

11. Malyshkina, N., Mannering, F., Labi, S. (2007). **Influence of Speed Limits on Roadway Safety**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2007/06, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.

10. Patidar, V., Labi, S., Sinha, K.C., Thompson, P.D., Hyman, W.A., Shirolé, A. (2007). **Multi-objective Optimization for Bridge Management**, National Cooperative Highway Research Program Report 590, National Research Council, National Academy of Sciences, Washington, DC.

9. Gkritza, K., Labi, S., Sinha, K. (2007). **Economic Development Effects of INDOT Transportation Projects**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2006/37, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.



Technical Reports (continued)

8. Oware, E., Bhargava, A., Labi, S., Sinha, K.C. (2006). **Ramp Metering and High Occupancy Vehicle Facilities**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2006/02, Indiana Dept. of Transportation and Purdue University, W. Lafayette, IN.
7. Labi, S. (2006). **Effect of Geometric Characteristics of Rural Two-lane Roads on Safety**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2005/02, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.
6. Sinha, K.C., Labi, S., Rodriguez, M.M., Tine, G., Dutta, R. (2005). **Procedures for Estimation of Pavement and Bridge Preservation Costs for Fiscal Planning**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2005/17, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.
5. Singh, P., Labi, S., McCullouch, B., Sinha K.C. (2005). **An Evaluation of the Cost-Effectiveness of Warranty Contracts in Indiana**, Joint Transportation Research Program Publication, FHWA/IN/JTRP-2004/34, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.
4. Lamptey, G., Ahmad, M., Labi, S., and Sinha, K.C. (2004). **Life Cycle Cost Analysis for INDOT Pavement Design Procedures**, Joint Transportation Research Program Publication FHWA/IN/JTRP-2004/28, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.
3. Bordat, C., McCullouch, B., Labi, S., Sinha, K.C. (2004). **An Analysis of Cost Overruns and Time Delays of INDOT Projects**, Joint Transportation Research Program Publication, FHWA/IN/JTRP-2004/7, Indiana Department of Transportation and Purdue University, W. Lafayette, IN.
2. Sinha, K.C., McCullouch, B., Bullock, D., Konduri, S., Fricker, J., Labi, S. (2004). **Evaluation of INDOT Hyperfix Project**, Joint Transportation Research Program Publication, FHWA/IN/JTRP-2004/2, Indiana Dept. of Transportation and Purdue University, W. Lafayette, IN.
1. Giraud, T., Choivichien, V., Labi, S., Sinha, K.C. (2003). **Development of a Highway Tort Liability Management System for the Indiana Department of Transportation**, Joint Transportation Research Program Publication, FHWA/IN/JTRP-2003/20, Indiana Dept. of Transportation and Purdue University, W. Lafayette, IN.

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

Research Grants (continued)

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

Research Grants (continued)

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

Research Grants (continued)

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: Time-of-day tolling impacts on Indiana roadways Part II – Cost expansion
Duration of Funding	06/30/16–06/15/17

Research Grants (continued)

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

Research Grants (continued)

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

Research Grants (continued)

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
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

Revenue Recovery Assessment Framework & Tool (RRAFT v1.) 2024

Collaborators: Deepak Benny, Qingbin Cui

Client: Build America Center, FHWA Center of Excellence on Project Finance,
(Federal Highway Administration, Washington, DC).

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

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

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 2022.
- **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 Karimoddini, Hua Liang Teng, 2021.
- **Computer-aided Civil & Infrastructure Engineering (CACAE) 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.