

List of contributions

Book chapters

1. Flintsch, G.W., Bryce, J. “Sustainable Pavement Management.” *In Climate Change, Energy, Sustainability and Pavements*, eds. Gopalakrishnan, K., Steyn, W.J., and Harvey, J., 2014, pp. 373-392. Springer: Berlin Heidelberg.
2. Flintsch, G.W., “Life Cycle Assessment as a Tool for Sustainable Transportation Infrastructure Management,” Chapter for the *Handbook of Environmentally Conscious Transportation*, edited by Myer Kutz, 2008, John Wiley & Sons.
3. Flintsch, G.W., Chapter 6. “Data Integration For Asset Management,” *AASHTO Asset Management Data Collection Guide*, prepared by J. Bryant and C. Larson, 2006, American Association of State Highway and Transportation Officials, Washington, DC.
4. Flintsch, G. W., “Analytical Issues in Transportation Asset Management,” *Transportation Research Circular E-C093*, 6th National Conference on Transportation Asset Management, November 1–3, 2005, edited by K. A. Zimmerman and L. A. Sweet, 2006, Transportation Research Board.

Books edited

1. Harvey, J., Al-Qadi, IL Ozer, H Flintsch, G.W., *Pavement, Roadway, and Bridge Life Cycle Assessment 2020: Proceedings of the International Symposium on Pavement, Roadway, and Bridge Life Cycle Assessment 2020 (LCA 2020)*, CRC Press.

Papers in refereed journals

(* indicates student)

1. Shrestha, S., Katicha, S.W., Flintsch, G.W., Diefenderfer, B.K., “Pavement Deterioration Modeling and Network-Level Pavement Management Using Continuous Deflection Measurements.” *ASCE Journal of Infrastructure Systems*, 2021, vol. 27(3) (published online June 2021).
[https://doi.org/10.1061/\(ASCE\)IS.1943-555X.0000626](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000626).
2. McCarthy*, R. Flintsch, G.W. and de León Izeppi, E. "Impact of Skid Resistance on Dry and Wet Weather Crashes," *ASCE Journal of Transportation Engineering, Part B: Pavements*, 2021, vol. 147(3) (published online May 2021).
<https://doi.org/10.1061/JPEODX.0000286>.
3. Timm, D., Diefenderfer, B.K., Bowers, B., Flintsch, G.W., “Utilization of Cold Central Plant Recycled Asphalt in Long-Life Flexible Pavements,” paper presented at the 100th TRB Annual Meeting and scheduled for publication in *Transportation Research Record: Journal of the Transportation Research Board*, 2021.
4. Justo-Silva*, R., Ferreira, A., Flintsch, G.W., “Review on Machine Learning Techniques for Developing Pavement Performance Prediction Models,” *Sustainability*, 2021, vol. 13(9), 5248.
<https://doi.org/10.3390/su13095248>.
5. Katicha, S.W., Khoury, J., Flintsch, G.W., “Spatial Multiresolution Analysis Approach to Identify Crash Hotspots and Estimate Crash Risk,” *ASCE Journal of Transportation*

- Engineering, Part A: Systems*, 2021, vol. 147(5).
<https://doi.org/10.1061/JTEPBS.0000516>.
6. Lastra-González, P., Lizasoain-Arteaga*, E., Castro-Fresno, D., Flintsch, G.W., “Analysis of replacing virgin bitumen by plastic waste in asphalt concrete mixtures,” *International Journal of Pavement Engineering*, 2021 (published online Jan 2021).
<https://doi.org/10.1080/10298436.2020.1866760>.
 7. Scavone*, M., Katicha, S., Flintsch G., “Identifying Weak Joints in Jointed Concrete and Composite Pavements from Traffic Speed Deflectometer Measurements by Basis Pursuit,” *ASCE Journal of Computing in Civil Engineering*, 2021, vol. 35(2).
[https://doi.org/10.1061/\(ASCE\)CP.1943-5487.0000951](https://doi.org/10.1061/(ASCE)CP.1943-5487.0000951).
 8. Pantuso*, A., Flintsch, G.W., Katicha, S.W., Loprencipe, G. “Development of network-level pavement deterioration curves using the linear empirical Bayes approach,” *International Journal of Pavement Engineering*, 2021, vol. 22(6), pp. 780-793.
<https://doi.org/10.1080/10298436.2019.1646912>.
 9. Lizasoain-Arteaga*, E., Lastra-González, P., Indacochea-Vega, I., Flintsch, G.W., “Comprehensive Analysis of the Environmental Impact of Electric Arc Furnace Steel Slag on Asphalt Mixtures” *Journal of Cleaner*, 2020, vol. 275.
<https://doi.org/10.1016/j.jclepro.2020.123121>.
 10. Meroni*, F.; Flintsch, G.W.; Diefenderfer, B.K.; Diefenderfer, S.D. “Application of Balanced Mix Design Methodology to Optimize Surface Mixes with High-RAP Content Materials,” *MPDI Materials*, 2020, vol. 13(24), 5638.
<https://doi.org/10.3390/ma13245638>.
 11. Nazari*, A., Chen, L., Battaglia, F., Ferris, J., Flintsch, G.W., Taheri, S. “Prediction of Hydroplaning Potential Using Fully Coupled Finite Element-Computational Fluid Dynamics Tire Models,” *ASME Journal of Fluids Engineering*, 2020, vol. 142(10).
<https://doi.org/10.1115/1.4047393>.
 12. Qiao*, Y., Dawson, AR, Parry, T, Flintsch, GW, Wang W., “Flexible Pavements and Climate Change: A Comprehensive Review and Implications,” *Sustainability*, 2020, 12(3), 1057.
<https://doi.org/10.3390/su12031057>.
 13. Xue, W., Flintsch, G.W., Diefenderfer, B., “Measuring Pavement Permanent Deformation in Accelerated Pavement Testing,” *Transportation Research Record: Journal of the Transportation Research Board*, 2020, vol. 2674(5), 340-348.
<https://doi.org/10.1177/0361198120915471>.
 14. Bongioanni*, V.I., Maeger*, K., Katicha, S. W., de León Izeppi, E.D., Flintsch, G.W., “Repeatability and Agreement of Various High-Speed Macrotexture Measurement Devices,” *Transportation Research Record: Journal of the Transportation Research Board*, 2019, vol. 2673(2) 650–662.
<https://doi.org/10.1177/0361198119830309>.
 15. Qiao*, Y., Santos, J., Stoner, A., Flintsch, G.W., “Climate Change Impacts on Asphalt Road Pavement Construction and Maintenance: An Economic Life Cycle Assessment of Adaptation Measures in the State of Virginia, U.S.,” *Journal of Industrial Ecology*, 2019, vol 24(2).
<https://doi.org/10.1111/jiec.12936>.
 16. Bongioanni*, V.I., Katicha, S.W., Flintsch, G.W., “Removing Outliers from 3D Macrotexture Data by Controlling False Discovery Rate.” *ASCE Journal of Transportation Engineering, Part B: Pavements*, vol. 145(3).
<https://doi.org/10.1061/JPEODX.0000119>.

17. Qiao*, Y., Dawson, A., Parry, T., Flintsch, G.W., “Life Cycle Cost of Flexible Pavements and Climate Variability: Case Studies from Virginia.” *Structure and Infrastructure Engineering, Maintenance, Management, Life-Cycle Design and Performance*, 2019, 15(12), 1665-1679. <https://doi.org/10.1080/15732479.2019.1642364>.
18. Santos*, J., Ferreira, A., & Flintsch, G. (2019). An adaptive hybrid genetic algorithm for pavement management. *International Journal of Pavement Engineering*, 2019, 20(3), 266-286. <https://doi.org/10.1080/10298436.2017.1293260>.
19. Khaleghian*, M., Ghasemalizadeh, O., Taheri, S., Flintsch, G.W. “A Combination of Intelligent Tire and Vehicle Dynamic based Algorithm to Estimate the Tire-Road Friction,” *SAE International Journal of Passenger Cars: Mechanical Systems*, 2019, vol 12(2), pp 81-97, 2019. <https://doi.org/10.4271/06-12-02-0007>.
20. Kang*, Y., Nazari*, A., Chen*, Lu, Ferris, J., Taheri, S., Battaglia, F., Flintsch, G.W., “A Probabilistic Approach to Hydroplaning Potential and Risk,” *SAE International Journal of Passenger Cars: Mechanical Systems*, 2019, vol 12(1), pp 63-70. <https://doi.org/10.4271/06-12-01-0005>.
21. Camden, M.C., Medina-Flintsch, A., Hickman, J.S., Bryce*, J., Flintsch, G., & Hanowski, R.J. (2019). Prevalence of operator fatigue in winter maintenance operations. *Accident Analysis and Prevention*. 2019, vol. 126, 47-53. <https://doi.org/10.1016/j.aap.2018.01.009>.
22. Mao, H., Denga, X., Lord, D., Flintsch G., Guo F., “Adjusting Finite Sample Bias in Traffic Safety Modeling,” *Accident Analysis and Prevention*, 2019, vol. 131, pp. 112-121. <https://doi.org/10.1016/j.aap.2019.05.026>.
23. Vélez Rodríguez*, K., Katicha, S. W., Flintsch, G.W., “An Enhanced Methodology for the Identification of Locations with High Risk of Wet Crashes,” *Transportation Research Record: Journal of the Transportation Research Board*, 2019, 2673(11), 29-37. <https://doi.org/10.1177/0361198119849906>.
24. Barrantes*, S., Flintsch G.W., de Leon, E., McGhee, K., “Interconversion of looked-wheel and Continuous Friction Measurement Equipment (CFME) Friction Measurements,” *Transport Research Record: Journal of the Transportation Research Board*, 2018, vol 2672(4). <https://doi.org/10.1177/0361198118797455>.
25. S., Katicha, S.W., Flintsch, G.W., “Multiscale Vehicular Expected Crashes Estimation with the Unnormalized Haar Wavelet Transform and Poisson’s Unbiased Risk Estimate,” *ASCE Journal of Transportation Engineering, Part A: Systems*, 2018, vol. 144(8). <https://doi.org/10.1061/JTEPBS.0000160>.
26. Shrestha*, S., Katicha, S.W., Flintsch, G.W., Thyagarajan, S., “Application of Traffic Speed Deflectometers for Network-level Pavement Management,” *Transport Research Record: Journal of the Transportation research Board*, 2018, vol 2672(40). <https://doi.org/10.1177/0361198118797455>.
27. Santos*, J., Ferreira, A., Flintsch, G.W., Cerezo, V., “A Multi-Objective Optimisation Approach for Sustainable Pavement Management,” *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance*, 2018, vol. 14(7). <https://doi.org/10.1080/15732479.2018.1436571>.
28. Qiao*, Y., Dawson, A.R., Parry, T., Flintsch, G.W., “Immediate effects of some corrective maintenance interventions on flexible pavements,” *International Journal of Pavement Engineering*, 2018, vol. 19(6), pp 502-508. <https://doi.org/10.1080/10298436.2016.1176164>.

29. Santos*, J.M., Ferreira, A., Flintsch, G.W., “A multi-objective optimization-based pavement management decision-support system for enhancing pavement sustainability,” *Journal of Cleaner Production*, 2017, vol. 164, pp 1380-1393.
<https://doi.org/10.1016/j.jclepro.2017.07.027>.
30. Santos*, J., Bryce, J., Flintsch, G. and Ferreira, A. “A Comprehensive Life Cycle Costs Analysis of In-Place Recycling and Conventional Pavement Construction and Maintenance Practices.” *International Journal of Pavement Engineering*, 2017, vol. 18, 2017. pp 727-743.
<https://doi.org/10.1080/10298436.2015.1122190> .
31. Amarh*, E.A., Fernandez-Gómez, W., Flintsch, G.W., Diefenderfer B.K., Bowers, B. “Non-Destructive In Situ Characterization of Elastic Moduli of Full-Depth Reclamation Base Mixtures,” *Transport Research Record: Journal of the Transportation Research Board*, 2017, vol. 2641(1), pp. 1-11.
<https://doi.org/10.3141/2641-01>.
32. Santos*, J.M., Thyagarajan, S., Keijzer, E., Flores, R.F., Flintsch G.W. “Comparison of Life-Cycle Assessment Tools for Road Pavement Infrastructure,” *Transport Research Record: Journal of the Transportation Research Board*, 2017, vol. 2646, pp. 28-38.
<https://doi.org/10.3141/2646-04>.
33. Bryce*, J., Katicha, S., Flintsch, G.W., Diefenderfer, B.K. “Developing a Network-Level Structural Capacity Index for Composite Pavements.” *ASCE Journal of Infrastructure Systems*, 2017, vol. 23(1).
[https://doi.org/10.1061/\(ASCE\)IS.1943-555X.0000277](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000277).
34. Dehghani*, M.S., Flintsch, G.W., McNeil, S. “Parametric Analysis of Roadway Infrastructure Vulnerability to Disruptions.” *ASCE Journal of Infrastructure Systems*, 2017, vol. 23(4).
[https://doi.org/10.1061/\(ASCE\)IS.1943-555X.0000371](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000371).
35. Santos*, J., Flintsch, G. and Ferreira, A. “Environmental and economic assessment of pavement construction and management practices for enhancing pavement sustainability,” *Resources, Conservation & Recycling*, 2017, vol. 116, pp. 15-31.
<https://doi.org/10.1016/j.resconrec.2016.08.025>.
36. Najafi*, S., Flintsch, G.W., and Medina, A., “Linking Roadway Crashes and Tire–Pavement Friction: A Case Study,” Technical Note, *International Journal of Pavement Engineering*, 2017, vol 18(2).
<https://doi.org/10.1080/10298436.2015.1039005>, pp 119-127.
37. Najafi*, S., Flintsch, G.W., de León Izeppi*, E., McGhee, K., Katicha*, S., “Evaluation of Repeatability and Reproducibility of Continuous Friction Measuring Equipment using Cross-Correlation,” *International Journal of Pavement Engineering*, 2017, vol 18(6), 421-529.
<https://doi.org/10.1080/10298436.2015.1095908>.
38. Katicha, S.W., Loulizi, A., El Khoury, J., and Flintsch, G.W., “An adaptive false discovery rate for wavelet denoising of pavement continuous deflection measurements,” *Journal of Computing in Civil Engineering (ASCE)*, 2017, vol. 31(2).
[https://doi.org/10.1061/\(ASCE\)CP.1943-5487.0000603](https://doi.org/10.1061/(ASCE)CP.1943-5487.0000603).
39. McCarthy*, R., Flintsch, G.W., Katicha*, S., McGhee, K. and Medina-Flintsch, A. “New Approach for Managing Pavement Friction and Reducing Road Crashes,” *Journal of the Transportation Research Board*, 2016, vol. 2591(1), pp. 23-32.
<https://doi.org/10.3141/2591-04>.
40. Mogrovejo*, Flintsch, G.W., D.E., Katicha, S.W., and de León Izeppi, E.D., McGhee, K.K., “Enhancing Pavement Surface Macrotecture Characterization by Using the Effective Area for

- Water Evacuation,” *Journal of the Transportation Research Board*, 2016, vol. 2591, pp 80-104.
<https://doi.org/10.3141/2591-10>.
41. de Leon Izeppi, E., Katicha, S., Flintsch, G.W., and McGhee, K. “Pioneering the use of continuous pavement friction measurements to develop new Safety Performance Functions, improve the accuracy of crash count predictions, and evaluate possible treatments for the roads in Virginia.” *Journal of the Transportation Research Board*, 2016, vol. 2583.
<https://doi.org/10.3141/2583-11>.
 42. McGhee, K.K., de León Izeppi, E.D., Mogrovejo*, D.E., and Flintsch, G.W., “Virginia “Quieter” Pavement Demonstration Program,” *Journal of the Transportation Research Board* (paper No. 16-3833, recommended for publication), 2016, vol. 2571.
<https://doi.org/10.3141/2571-06>.
 43. Najafi*, S., Flintsch, G.W., and Khallegian, S., “Fuzzy logic inference-based Pavement Friction Management and real-time slippery warning systems: A proof of concept study,” *Accident Analysis & Prevention*, 2016, Vol. 90, pp 41-49,
<https://doi.org/10.1016/j.aap.2016.02.007>.
 44. Katicha*, S.W., El Khoury, J., and Flintsch, G.W. “Assessing the Effectiveness of Probe Vehicle Acceleration Measurements in Estimating Road Roughness,” *International Journal of Pavement Engineering*, 2016, vol 17(8), pp.698-708,
<https://doi.org/10.1080/10298436.2015.1014815>.
 45. Qiao*, Y., Dawson, A., Parry, T. and Flintsch, G.W., “Evaluating the Effects of Climate Change on Road Maintenance Intervention Strategies and Life-Cycle Costs,” *Transportation Research Part D: Transport and Environment*, 2015, vol. 41, pp. 492–503.
<https://doi.org/10.1016/j.trd.2015.09.019>.
 46. Katicha*, S.W., Mogrovejo*, D.E., Flintsch, G.W., and de León Izeppi, E.D. “Adaptive Spike Removal Method for High Speed Pavement Macrotexture Measurements by Controlling the False Discovery Rate,” *Journal of the Transportation Research Board*, 2015, vol. 2525, pp. 100-110
<https://doi.org/http://dx.doi.org/10.3141/2525-11>.
 47. Santos*, J., Ferreira, A. and Flintsch, G.W. A Life Cycle Assessment Model for Pavement Management: Methodology and Computational Framework. *International Journal of Pavement Engineering*, 2015, vol. 16 (3), 268-286.
<https://doi.org/http://www.tandfonline.com/doi/full/10.1080/10298436.2014.942861>.
 48. Martinez-Arguelles*, G., Giustozzi*, F., Crispino, M., and Flintsch, G.W., “Laboratory Investigation on Mechanical Performance of Cold Foamed Bitumen Mixes: Bitumen Source, Foaming Additive, Fiber-Reinforcement and Cement Effect,” *Construction and Building Materials*, 2015, vol 93, pp 241-248.
<https://doi.org/10.1016/j.conbuildmat.2015.05.116>.
 49. Giustozzi*, F., Flintsch, G.W., and Crispino, M., “Environmental Impact Analysis of Low-Carbon Road-Foundation Layers,” *International Journal of Sustainable Transportation*,” 2015, Vol. 9(1), pp 73-79, Taylor & Francis.
<https://doi.org/10.1080/15568318.2012.738355>.
 50. Katicha*, S.W., Bryce*, J., Flintsch, G.W., and Ferne, B. “Estimating “True” Variability of TSD Deflection Slope Measurements” *Journal of Transportation Engineering*, 2015, Vol. 141(1).
[https://doi.org/10.1061/\(ASCE\)TE.1943-5436.0000711](https://doi.org/10.1061/(ASCE)TE.1943-5436.0000711).
 51. Priddy*, L.P., Doyle, J.D., Flintsch, G.W., Pittman, D.W., and Anderton, G.L. "Three-Dimensional Modeling of Precast Concrete Pavement Repair Joints," *Magazine of Concrete*

- Research*. 2015.
<https://doi.org/10.1680/mac.14.00278>.
52. Bryce*, J., Katicha*, S., Flintsch, G.W., Sivaneswaran, N., Santos*, J. "Probabilistic Lifecycle Assessment as a Network-Level Evaluation Tool for the Use and Maintenance Phases of Pavements." *Journal of the Transportation Research Board*, 2014, vol. 2455 (1), pp. 44-53.
<https://doi.org/10.3141/2455-06>.
 53. Priddy*, L.P., Bly, P.G., and Flintsch, G.W. (2014) "Load Transfer Characteristics of Precast Portland Cement Concrete Panels for Airfield Pavement Repairs," *Journal of the Transportation Research Board*, 2014, vol. 2456, pp. 42-53.
<https://doi.org/10.3141/2456-05>.
 54. Martinez-Arguelles*, G., Giustozzi*, F., Crispino, M., and Flintsch, G.W., "Investigating physical and rheological properties of foamed bitumen," *Construction and Building Materials*, 2014, vol 72, pp 423-433.
<https://doi.org/10.1016/j.conbuildmat.2014.09.024>
 55. Bryce*, J., Flintsch, G.W., and Hall, R.P. "A Multi Criteria Decision Analysis Technique for Including Environmental Impacts in Sustainable Infrastructure Management Business Practices." *Transportation Research Part D: Transport & Environment*, 2014, No. 32, pp. 435-445.
 56. Priddy*, L.P., Bly, P.G., Jackson, C.J., and Flintsch, G.W. "Full-Scale Field Testing of Precast Portland Cement Concrete (PCC) Panel Airfield Pavement Repairs," *International Journal of Pavement Engineering*, Taylor & Francis LLC, 2014, vol. 15 (9), pp. 840-853.
 57. Fuentes, L.G., Flintsch, G.W., de León Izeppi, E.D., "Evaluation of the Use of the International Friction Index on Skid Data obtained using Friction Models," *Journal of Testing and Evaluation*, Nov. 2014, Vol. 42(6).
<https://doi.org/110.1520/JTE2013006>.
 58. Boriack*, P., Katicha, S.W., and Flintsch, G.W. "A Laboratory Study on the Effect of High RAP and High Asphalt Binder Content on The Stiffness, Fatigue Resistance and Rutting Resistance Of Asphalt Concrete," *Transportation Research Record: Journal of the Transportation Research Board*, 2014 Vol. 2445, pp. 64-74.
 59. Mogrovejo*, D.E., Flintsch, G.W., de León Izeppi, E.D., and McGhee, K.K. "Tire-Pavement Noise Evaluation and Equipment Comparison Using On-Board Sound Intensity Methodology over Several Pavement Surfaces in Virginia," 2014, *Journal of the Transportation Research Board*, vol. 2403, pp. 17-27.
 60. Katicha*, S.W., Apegyei, A., Flintsch, G.W. and Loulizi A. "Universal Linear Viscoelastic Approximation Property of Fractional Viscoelastic Models with Application to Asphalt Concrete," *Mechanics of Time-Dependent Materials*, 2014, Vol. 18, pp. 555–571.
<https://doi.org/10.1007/s11043-014-9241-9>.
 61. Santos*, J., Ferreira, A. and Flintsch, G.W. "A Life Cycle Assessment Model for Pavement Management: Road Pavement Construction and Management In Portugal," *International Journal of Pavement Engineering*, 2014, pp. 1-23.
<https://doi.org/10.1080/10298436.2014.942862>.
 62. Santos*, J., Bryce*, J., Flintsch, G.W., Ferreira, A. and Diefenderfer, B. "A Life Cycle Assessment of In-Place Recycling and Conventional Pavement Construction and Maintenance Practices," *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance*, 2014, vol 11(9) pp. 1199-1217.

63. Bryce*, J., Hosten*, A.M., Priddy*, L., Flintsch, G.W., de León Izeppi, E., Nelson, W. "Using Pavement Management to Support Maintenance and Engineering Policy Decisions for Small and Mid-sized Municipalities," *Public Works Management & Policy*, 2014, vol. 19 (2), pp. 148-163.
64. Dehghani*, M., Flintsch, G.W., and McNeil, S., "Impact of Road Conditions and Disruption Uncertainties on Network Vulnerability." *Journal of Infrastructure Systems*, 2014, vol. 20(3) [https://doi.org/10.1061/\(ASCE\)IS.1943-555X.0000205](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000205), 04014015.
65. Katicha*, S.W., Flintsch, G.W., Ferne, B. and Bryce*, J. (2014) "Wavelet Denoising of TSD Deflection Slope Measurements for Improved Pavement Structural evaluation," *Computer-Aided Civil and Infrastructure Engineering*, vol. 29(6), pp 399–477.
66. Katicha*, S.W., Flintsch, G.W., Ferne, B., and Bryce*, J., "Limits of Agreement (LOA) Method for Comparing TSD and FWD Measurements," *International Journal of Pavement Engineering*, Taylor & Francis, 2013, vol. 15 (6), pp 532-541.
67. Katicha*, S.W., Flintsch, G.W., and Ferne, B. "Optimal Averaging and Localized Weak Spots Identification for TSD Deflection Slope Measurements", *Journal of the Transportation Research Board*, 2013, vol. 2367, pp 43-52.
68. Bryce*, J., Flintsch, G.W., Katicha*, S.W., Diefenderfer, B.K., "Enhancing Network-level Decision Making through the Use of a Structural Capacity Index," *Journal of the Transportation Research Board*, 2013, vol. 2366, pp 64-70.
69. McGhee, K., de León Izeppi*, E.D., Flintsch, G.W., Mogrovejo*, D., "Virginia Quiet Pavement Demonstration Projects: Initial Functional Assessment," *Journal of the Transportation Research Board*, 2013, vol. 2362, pp 16-24.
70. Dehghani*, M., Giustozzi*, F., Flintsch, G.W., Crispino, M., "Cross-asset Resource Allocation Framework for Achieving Performance Sustainability," *Journal of the Transportation Research Board*, 2013, vol. 2361, pp 16-24.
71. Qiao*, Y., Flintsch, G.W., Dawson, A., and Parry, T., "Examining the Effects of Climate Change on Pavement Deterioration and Service Life," *Journal of the Transportation Research Board*, 2013, vol. 2349, pp 100-107.
72. Dehghani*, M., Flintsch, G.W., McNeil, S., "Roadway Networks as a Degrading System: Vulnerability and System-level Performance," *Transportation Letters: the International Journal of Transportation Engineering*, 2013, vol. 5 (3), pp 105-114.
73. Bryce*, J., Flintsch, G.W., Katicha*, S.W., Diefenderfer, B., "Developing a Network-Level Structural Capacity Index for Asphalt Pavements," *ASCE Journal of Transportation Engineering*, 2013, Vol. 139(2), pp. 123-129.
74. Najafi*, S., Flintsch, G.W., de León*, E.D., McGhee, K.K., "Assessment of Operational Characteristics of Continuous Friction Measuring Equipment (CFME)," *International Journal of Pavement Engineering*, 2013, Vol. 14(8), pp 706-714, Taylor & Francis. <https://doi.org/10.1080/10298436.2012.667097>.
75. de León Izeppi*, E., Flintsch, G.W., and McGhee, K.K. "Effect of Water, Speed, and Grade on Continuous Friction Measurement Equipment (CFMEs)," *ASTM STP 1555 Pavement Performance: Current Trends, Advances, and Challenges* (Choubane, B., Editor). <https://doi.org/10.1520/STP10444>
76. Wu*, Z., Flintsch, G.W., Ferreira, A., and Picado-Santos, L., "Framework for Multi-Objective Optimization of Physical Highway Assets Investments," *Journal of Transportation Engineering*, 2012, Vol. 138(12), pp. 1411-1421.

77. Katicha*, S.W., Flintsch, G.W., Loulizi, A., “Identifying non-linear HMA behavior from uniaxial creep and dynamic modulus test results,” *International Journal of Microstructure and Materials Properties*, 2012, Iderscience, 2012 Vol. 7, No.5, pp. 380 – 389.
78. Katicha*, S.W., Flintsch, G.W., “Fractional Viscoelastic Models: Master Curve Construction, Interconversion and Numerical Approximation,” *Rheologica Acta*, 2012, 51: 675–689.
79. Giustozzi*, F., Crispino, M., Flintsch, G.W., “Multi-Attribute Life Cycle Assessment of Preventive Maintenance Treatments on Road Pavements for Achieving Environmental Sustainability,” *The International Journal of Life Cycle Assessment*, 2012, Springer-Verlag <https://doi.org/10.1007/s11367-011-0375-6>.
80. de León*, E.D., Flintsch, G.W., McGhee, K.K., “Limits of Agreement Method for Comparing Pavement Friction Measurements,” *Journal of the Transportation Research Board*, 2012, vol. 2306, pp. 188-195.
81. Flintsch G.W., Williams, B., Gibbons, R., Viner, H., “Assessment of the Impact of Splash and Spray on Road Users - Controlled Experiment Results,” *Journal of the Transportation Research Board*, 2012, Vol 2306, pp. 151-160.
82. Fuentes, L.G., de León*, E., Flintsch, G.W., Martinez, G., “Determination of Pavement Macrotecture Limit for Use in The International Friction Index (IFI) Mode,” *Journal of the Transportation Research Board*, 2012, vol. 2306, pp. 138-143.
83. Flintsch, G.W., Valeri*, S., Katicha, S.W., de León*, E.D., Medina-Flintsch, A., “Pilot Demonstration of the Use Probe Vehicle Dynamic Signatures to Measure Road Smoothness,” *Journal of the Transportation Research Board*, 2012, vol. 2304, pp. 158-165.
84. Flintsch, G.W., Ferne, B., Diefenderfer, B., Katicha*, S.W., Bryce*, J., Nell, S., “Evaluation of Traffic Speed Continuous Deflection Devices,” *Journal of the Transportation Research Board*, 2012, vol. 2304, pp. 37-46.
85. Dehghanisanij*, M., Flintsch, G.W., *Verhoeven, J.G., “A Framework for Aggregating Corridor-level Performance Measures,” *Journal of the Transportation Research Board*, 2012 vol. 2271, pp. 37-44.
86. Verhoeven*, J.G., Flintsch, G.W., “Generalized Framework for Developing a Corridor-Level Infrastructure Health Index,” *Journal of the Transportation Research Board*, 2012, TRR 2235, pp. 20-27.
87. Katicha*, S., Flintsch, G.W., McGhee, K.K., *de León Izeppi, E.D., “Variability and Normality Assumptions for Virginia Department of Transportation Volumetric Properties,” *Journal of the Transportation Research Board*, 2011, vol. 2228, pp. 87-95.
88. de Izeppi*, E.D., Flintsch, G.W., Archilla, A.R., Sequeira, W., “Data Processing and Analysis Software for Continuous Friction Measurement Equipment,” *Journal of the Transportation Research Board*, 2011, vol. 2227, pp. 163-170.
89. El Gendy, A., Shalaby, A., Saleh*, M, Flintsch, G.W., “Stereo-vision applications to reconstruct the 3D texture of pavement surface,” *International Journal of Pavement Engineering*, 2011, vol. 12(3), pp. 263-273.
90. Katicha*, S., Flintsch, G.W., McGhee, K.K., Loulizi, A., “Use of MEPDG for Mix Performance Evaluation Using Dynamic Modulus: Application to Mix Rutting,” *Journal of the Transportation Research Board*, 2010, vol.2180, pp. 156-164.

91. Flintsch, G.W., de León Izeppi*, E.D., McGhee, K.K., Najafi*, S., "Speed Adjustment Factors for Locked-Wheel Skid Trailer Measurements," *Journal of the Transportation Research Board*, 2010, vol. 2155, pp. 117-123.
92. Katicha*, S., Flintsch, G.W., Loulizi, A., "Bimodular Analysis of Hot-Mix Asphalt," 2010, *Road Materials and Pavement Design*, Vol. 11, Lavoisier, pp. 917-946.
93. Ferreira, A., Picado-Santos, L., Wu*, Z., Flintsch, G.W., "Selection of Pavement Performance Models for Use in the Portuguese PMS," *International Journal of Pavement Engineering*, 2010, Vol. 12, pp. 87-97.
94. Flintsch, G.W., Katicha*, S.W., "Hot-Mix Asphalt Linear Viscoelastic Response: Combining Creep and Dynamic Test Results," *Road Materials and Pavement Design*, 2010, Vol. 11, Lavoisier, pp. 489-498.
95. Wang*, H., Flintsch, G.W., "Comparative Study of Road Profilers' Accuracy and Precision," *Journal of Testing and Evaluation*, American Institute of Physics, 2010, Vol. 38(2).
<https://doi.org/10.1520/JTE101683>.
96. Garland*, A., Flintsch, G.W., Garvin, M. J., and Sotelino, E., "Characterization of Network Topology to Support Infrastructure Asset Management," *Public Works Management & Policy*, SAGE Journals, Jul 2009, Vol. 14(1), pp. 81-101.
97. Flintsch, G.W., de León, E., McGhee, K.K., and Roa*, J., "Evaluation of the International Friction Index Coefficients for Various Devices," *Journal of the Transportation Research Board*, 2009, vol. 2094, pp. 136-143.
98. Pantelias* A., Flintsch, G.W., Bryant, J.W., and Chen* C., "Asset Management Data Practices for Supporting Project Selection Decisions," *Public Works Management & Policy*, SAGE Journals, Jan 2009, Vol. 13(3), pp. 239-252.
99. Wu*, Z., and Flintsch, G.W., "Pavement Preservation Optimization Considering Multiple Objectives and Budget Variability," *Journal of Transportation Engineering*, 2009, Vol. 134(5), pp. 305-315.
100. Katicha*, S., Flintsch, G.W., Loulizi*, A., and Wang, L., "Conversion of Testing Frequency to Loading Time Applied to the Mechanistic-Empirical Pavement Design Guide," *Journal of the Transportation Research Board*, 2008. vol. 2087, pp. 99-108.
101. Wu*, Z., Flintsch, G.W., Chowdhury, T., "A Hybrid Multiobjective Optimization Model for Regional Pavement Preservation Resource Allocation," *Journal of the Transportation Research Board*, 2008, vol. 2084, pp. 28-37.
102. Flintsch*, G.W., Loulizi, A., Diefenderfer, S., Diefenderfer, B.K., and Galal, K., "Asphalt Materials Characterization in Support of the Mechanistic-Empirical pavement Design Guide Implementation Efforts in Virginia," *Journal of the Transportation Research Board*, 2008, vol. 2057, pp. 114-125.
103. de León*, E. and Flintsch, G.W., "High-speed Non-Contact Digital Imaging for Inspection of Hot-Mix Asphalt Pavements," *ASCE Journal of Transportation Engineering*, 2008, vol. 134(6), pp. 246-254.
104. Loulizi*, A., Flintsch, G.W., and McGhee, K.K., "Determination of the In-Place Hot-Mix Asphalt Layer Modulus for Rehabilitation Projects Using a Mechanistic-Empirical Procedure," *Journal of the Transportation Research Board*, 2007, vol. 2037, pp. 53-62.

105. Chen*, C., and Flintsch, G.W., "Fuzzy Logic Pavement Maintenance and Rehabilitation Triggering Approach for Probabilistic Life-Cycle Cost Analysis," *Journal of the Transportation Research Board*, 2007, vol. 1990, pp. 80-91.
106. de León*, E. and Flintsch, G.W., "Application of Digital Image Analysis to Measure Hot Mix Asphalt Uniformity," *Proceeding of the Association of Asphalt Pavement Technologists*, 2007, vol. 76, pp. 41-58.
107. Jeong*, M.G., Loulizi*, A., and Flintsch, G.W., "Laboratory Validation of Linear Viscoelastic Interconversion Methods for Hot Mix Asphalt," *Analysis of Asphalt Pavement Materials and Systems: Emerging Methods* (Wang L. and Masad E. Ed.), 2007, ASCE GSP 176, pp. 87-101.
108. Wang, L.B., Wang, Y.P. Li, Q.B. and Flintsch G.W., "Stress Concentration Factor as a Performance Indicator for Asphalt Mixes," *Analysis of Asphalt Pavement Materials and Systems: Emerging Methods* (Wang and Masad Ed.), 2007, ASCE GSP 176, pp. 1-13.
109. Loulizi*, A., Flintsch, G.W., Al-Qadi, I.L., and Mokarem, D., "Comparison between Resilient Modulus and Dynamic Modulus of Hot-Mix Asphalt as Material Properties for Flexible Pavement Design," *Journal of the Transportation Research Board*, 2006, vol. 1970, pp. 161-170.
110. Flintsch, G.W., Huang* M. and McGhee, K.K., "Harmonization of Macrotecture Measuring Devices," *Journal of ASTM International*, vol. 2(9), based on the paper presented at the International Symposium on Pavement Surface Condition/Performance Assessment: Reliability and Relevancy of Procedures and Technologies, 2005, Washington, DC. (Electronic journal).
111. Flintsch, G.W., McGhee, K.K., and de León*, E., "Field Validation of Macrotecture-Based Hot-Mix Asphalt Segregation Detection Methods," *Proceeding of the Association of Asphalt Pavement Technologists*, 2005, vol. 74, pp. 1-21.
112. Flintsch, G.W. and Chen*, C., "Soft Computing Applications in Infrastructure Management." *ASCE Journal of Infrastructure Systems*, 2004, Vol. 10, pp. 157-166.
113. Flintsch, G.W., Al-Qadi, I.L., Park, Y., Brandon, T.L., and Appea*, A.K., "Relationship between Backcalculated and Laboratory-Measured Resilient Moduli of Unbound Materials." *Journal of the Transportation Research Board*, 2003, vol. 1849, pp. 177-182.
114. Al-Qadi, I.L., Loulizi*, A., Lahouar, S., Flintsch G.W., and Freeman, T.E., "Quantitative Field Evaluation and Effectiveness of Fine Mix under HMA Base in Flexible Pavements." *Journal of the Transportation Research Board*, 2003, vol. 1823, pp. 133-140.
115. Flintsch, G.W., de León*, E., McGhee, K.K., and Al-Qadi, I.L., "Pavement Macrotecture Measurement and Application." *Journal of the Transportation Research Board*, 2003, vol. 1860, pp. 168-177.
116. Elseifi*, M.A., Flintsch, G.W., and Al-Qadi, I.L. "Qualitative Effect of Elastomeric Modification on Binder Performance at Intermediate and High Temperature," *ASCE Journal of Materials in Civil Engineering*, 2003, vol. 15(1), pp. 32-40.
117. Elseifi*, M.A., Al-Qadi, I.L., Flintsch, G.W., and Mason, J-F, "Viscoelastic Modeling of Straight and Modifies Binder Using the Matching Function Approach," *International Journal of Pavement Engineering*, 2002, vol. 3(1), pp. 53-61.
118. Loulizi*, A, Al-Qadi, I.L., Bhutta, S.S., Flintsch, G.W., "Evaluation of Geosynthetics When Used as Separators," *Journal of the Transport Research Board*, 1999, vol. 1687, pp. 104-111.
119. Medina, A., Flintsch, G.W., and Zaniewski, J.P., "Geographic Information Systems Based Pavement Management System - A Case Study," *Journal of the Transport Research Board*, 1999, vol. 1652, pp. 151-157.

120. Flintsch, G.W., Zaniewski, J.P., and Medina, A., "Development of a Knowledge-Based Formula to Prioritize Pavement Rehabilitation Projects," *Journal of the Transport Research Board*, 1998, vol. 1643, pp. 54-61.
121. Flintsch, G.W. and Zaniewski, J.P., "Expert Project Recommendation Procedure for ADOT's Pavement Management System," *Journal of the Transport Research Board*, 1997, vol. 1592, pp. 26-34.
122. Flintsch, G.W., Zaniewski, J.P., and Delton, J., "An Artificial Neural Network for Selecting Pavement Rehabilitation Projects," *Journal of the Transport Research Board*, 1996, vol. 1524, pp. 185-193.
123. Flintsch, G.W., Scofield, L., and Zaniewski, J.P., "Network Level Performance of Asphalt Rubber Pavement Treatments in Arizona," *Journal of the Transport Research Board*, 1996, vol. 1435, pp. 59-68.

Papers in refereed conference proceedings

1. Scavone, M., Katicha, S., Flintsch G.W., "Identifying Weak Joints in Jointed Concrete Pavements from TSD Measurements by Basis Pursuit." *11th International Conference on the Bearing Capacity of Roads, Railways and Airfields*, Trondheim, Norway, conference postponed to June 28-30, 2022, paper published in 2021.
2. Amarh, E.A., Flintsch, G.W., Santos, J., Diefenderfer, B.K., "Development of Roughness Models for Life Cycle Assessments of Recycled Pavement Projects," *100th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 5-29, 2021 (virtual).
3. McCarthy, R., Flintsch G.W., de León Izeppi, E. "Benefit-Cost Approach for Using Continuous Friction Measurements to Choose a Pavement Surface Treatment," *100th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 5-29, 2021 (virtual).
4. Lizasoain-Arteaga, E, Castro-Fresno, D, Flintsch, GW, "Effect of Durability on Fiber-reinforced Asphalt Mixtures Sustainability," *Pavement, Roadway, and Bridge Life Cycle Assessment 2020*, January 12-15, 2021 (virtual).
5. Amarh, E.A., Santos, J., Flintsch, G.W., Diefenderfer, B.K. "Development of Pavement Performance Prediction Models for In-situ Recycled Pavements in Virginia," *Pavement, Roadway, and Bridge Life Cycle Assessment 2020*, January 12-15, 2021(virtual).
6. Meroni F., Xue W., Flintsch G.W., Diefenderfer B.K. "Impact of Mix Design Optimization on HMA Rutting Performance Under Accelerated Pavement Testing." *Accelerated Pavement Testing to Transport Infrastructure Innovation. Lecture Notes in Civil Engineering*, published in 2020; conference postponed to 2022, vol. 96. Springer, (eds Chabot A., Hornych P., Harvey J., Loria-Salazar L.). https://doi.org/10.1007/978-3-030-55236-7_12.
7. Flintsch G., Xue W., Diefenderfer B., Meroni F. (2020) Evaluation of Cold Central-Plant Recycling (CCPR) Technique Using Full-Scale Accelerated Pavement Testing. *Accelerated Pavement Testing to Transport Infrastructure Innovation. Lecture Notes in Civil Engineering*, vol. 96. Springer, published in 2020; conference postponed to 2022. Springer, (eds Chabot A., Hornych P., Harvey J., Loria-Salazar L.). https://doi.org/10.1007/978-3-030-55236-7_28.
8. McCarthy, R., Flintsch G., de León Izeppi, E., Katicha, S., Guo, F., "A Mathematical Approach for Determining Investigatory Levels of Friction," *99th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 12-16, 2020.

9. Katicha, S., Shrestha, S., Flintsch G.W., and Diefenderfer, B., “Development of an Approach to Incorporate Pavement Structural Condition into the Treatment Selection Process at the Network Level,” *99th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 12-16, 2020.
10. Salado, F., Flintsch, G., Diefenderfer, B., Marcobal, J.R., “Laboratory Assessment of Fracture Resistance of Modified Mixtures with Synthetic Fibers,” *99th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 12-16, 2020.
11. Musick, R., Flintsch, G., “Friction-based Safety Performance Functions for the West Virginia Division of Highways Roadway Network,” *99th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 12-16, 2020.
12. Justo-Silva, R., Ferreira, A., Flintsch, G.W., “Development of Accident Prediction Models to Incorporate Road Safety into Pavement Management,” *26th World Road Congress*, Abu Dhabi, UAE, Oct. 6-10, 2019.
13. Flintsch, G.W., Medina, A., Pereyra, A., Uechi, L., “Evaluación del Nivel de Madurez en la Gestión de Activos Viales en América Latina” (Evaluation of the Asset Management Maturity Level), *26th World Road Congress*, Abu Dhabi, UAE, Oct. 6-10, 2019.
14. Flintsch, G.W., Katicha, S., Shrestha, S., “Enhancing Network-Level Pavement Management Using Traffic Speed Deflectometers,” *26th World Road Congress*, Abu Dhabi, UAE, Oct. 6-10, 2019.
15. Shrestha, S., Katicha, S., Flintsch, G.W., “Pavement Condition Data from Traffic Speed Deflectometer for Network Level Pavement Management,” *ASCE T&DI International Airfield & Highway Pavements Conference*, Chicago, IL, July 21-24, 2019.
16. Amarh, E.A., Flintsch, G.W., Fernandez-Gomez, W., Diefenderfer, B., Bowers, B., “Eight-Year Field Performance of Portland Cement and Asphalt Stabilized Full-Depth Reclamation Projects,” *ASCE T&DI International Airfield & Highway Pavements Conference*, Chicago, IL, July 21-24, 2019.
17. Flintsch, G.W., Xue, W., Diefenderfer, B., Bowers, B., “Rutting Performance of Cold Central-Plant Recycling (CCPR) under Accelerated Pavement Testing,” *ASCE T&DI International Airfield & Highway Pavements Conference*, Chicago, IL, July 21-24, 2019.
18. Meroni, F., Xue, W., Flintsch, G.W., Diefenderfer, B., “Evaluation and Modeling of the Rutting Performance of Pavements with Cold Central Plant Recycled (CCPR) Bases and Thin Wearing Surfaces under Accelerated Pavement Testing (APT),” *98th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 13-17, 2019.
19. Katicha, S., El Khoury, J., Flintsch, G.W. “Estimating Safety with The Multiresolution HAAR Wavelet Method: Comparison With The Safety Performance Function Approach,” *98th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 13-17, 2019.
20. Flintsch, G.W., Medina, A., “Managing Assets in the Age of Autonomous Vehicles, Intelligent Infrastructure and Human-Centered Communities,” *IRF Global Road2Tunnel Conference*, Las Vegas, NV, Nov. 7-9, 2018.
21. Shrestha, S., Katicha, S.W., Flintsch, G.W., “Use of Pavement Structural Condition Data from Traffic Speed Deflectometer for Network-Level Pavement Management Decision-making Process,” *IRF Global Road2Tunnel Conference*, Las Vegas, NV, Nov. 7-9, 2018.
22. McCarthy, R., de Leon E., Flintsch, G.W., McGhee, K., “Comparison of Locked Wheel and Continuous Friction Measurement Equipment,” paper 18-01277, *97th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 7-11, 2018.

23. Amarh, E.A., Fernandez-Gómez, W., Flintsch, G.W., Diefenderfer B.K., Bowers, B. “Eight-Year Field Performance of Portland Cement and Asphalt Stabilized Full-Depth Reclamation,” paper 18-01083, *97th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 7-11, 2018.
24. Shrestha, S., Katicha, S.W., Flintsch, G.W., Development of TSD Structural Condition Thresholds Based on Pavement Management Condition Data,” paper 18-04760, *97th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 7-11, 2018.
25. Marcobal, J.R., Salado, F., Flintsch, G.W., “Impact of surface cleaning on pavement skid resistance inside tunnels,” paper 18-05047, *97th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan 7-11, 2018.
26. Shrestha, S., Katicha, S.W., Gerardo W. Flintsch, G.W. “Field Evaluation of the Traffic Speed Deflectometer,” *World Conference on Pavement and Asset Management*, Baveno, Italy, June 12-16, 2017.
27. Ribeiro, K.M., Uechi, L., Corvacho, I., Medina, A, Flintsch, G.W. “Asset Management in Latin America and the Caribbean; Result from an Inter-American Development Bank Sectorial Study,” *Proceedings of the World Conference on Pavement and Asset Management (WCPAM 2017)*, Baveno, Italy Jun 12-16, 2017 (Editor: Crispino, M).
28. Santos, J., Ferreira, A., Flintsch, G.W., Cerezo, V. “Consideration of Life Cycle Greenhouse Gas Emissions in Optimal Pavement Maintenance Programming: a Comparison between Single-Objective and Multi-Objective Optimization Approaches,” *World Conference on Pavement and Asset Management*, Baveno, Italy, June 12-16, 2017.
29. Solorio, R., Flintsch, G.W., Garnica, P., Moreno, F. “Modeling Roughness Progression in Mexican Roads Using Historical Data,” *Proceedings of the World Conference on Pavement and Asset Management (WCPAM 2017)*, Baveno, Italy Jun 12-16, 2017 (Editor: Crispino, M).
30. McCarthy, R., Flintsch, G.W., de León Izeppi, E., Katicha, S., “Establishing a Method for Identifying and Managing High Crash Locations,” *Proceedings of the World Conference on Pavement and Asset Management (WCPAM 2017)*, Baveno, Italy Jun 12-16, 2017 (Editor: Crispino, M)
31. Chen, L., Battaglia, F., Flintsch, G.W., Kibler D., “Highway Drainage at Super-elevation Transitions by 3-D Computational Fluid Dynamics Modeling,” *96th Annual Meeting of the Transportation Research Board*, Jan 7-11, 2017.
32. Katicha, S.W., Flintsch, G.W., Bryce, J., Diefenderfer B. “Modeling Pavement Condition and Deterioration: Linear Empirical Bayes Approach,” *96th Annual Meeting of the Transportation Research Board*, Jan 7-11, 2017.
33. Santos, J., Ferreira, A., Flintsch, G.W., Cerezo, V. “A Multi-objective Optimization Approach for Sustainable Pavement Management,” in *Life-Cycle of Engineering Systems: Emphasis on Sustainable Civil Infrastructure*, 2017 HAL Id: hal-01459669.
34. Santos, J., Ferreira, A., Flintsch, G., “A Multi-objective Optimization-based Pavement Management Decision-Support System for Enhancing Pavement Sustainability,” *Proceedings of the 4th International Conference on Road and Rail Infrastructure*, CD Ed., pp. 803-809, May 2016, Sibenik, Croatia.
35. Santos, J., Ferreira, A. and Flintsch, G. (2016), “An adaptive hybrid genetic algorithm for pavement management,” *5th International Conference on Theory and Practice in Modern Computing*, CD Ed., pp. 211-218, Jul 2-4 2016, Funchal, Madeira, Portugal.

36. Santos, J., Ferreira, A., Flintsch, G., “A multi-objective optimization-based Pavement management decision-support system for enhancing pavement sustainability,” *Proceedings of the 4th International Conference on Road and Rail Infrastructure*, CD Ed., pp. 803-809, May 2016, Sibenik, Croatia.
37. Flintsch, G.W., and Viner, H., “Highway Splash and Spray Assessment Tool,” Paper No. 16-5917, *95th Annual Meeting of the Transportation Research Board*, Jan 10-14, 2016, Washington, DC.
38. Bryce*, J., Parry, T., Lo Presti, D. and Flintsch, G.W. “Approaches to Weighting within Transportation Infrastructure,” Paper No. 16-3987, *95th Annual Meeting of the Transportation Research Board*, Jan 10-14, 2016, Washington, DC.
39. Saleh*, M., Abbot, A.L. and Flintsch, G.W. “3D Pavement Surface Spherical Representation and Reconstruction,” Paper No. 16-3987, *95th Annual Meeting of the Transportation Research Board*, Jan 10-14, 2016, Washington, DC.
40. Tang*, L.J., Xue, W., Flintsch, G.W., Medina-Flintsch A., “Distribution of Wet Exposure within the United States,” Paper No. 16-6093, *95th Annual Meeting of the Transportation Research Board*, Jan 10-14, 2016, Washington, DC.
41. D’Apuzzo, M., Evangelisti, A., Flintsch, G.W., de León Izeppi, E., Mogrovejo, D., Nicolosi, V., “Evaluation of variability of Macrotexture measurement with Different Laser-based Devices,” *Airfield & Highway Pavement Conference 2015*, Miami, FL, June 7-10, 2015.
42. Santos, J., Bryce, J., Flintsch G.W., Ferreira, A., “A Comprehensive Life Cycle Costs Analysis of In-Place Recycling and Conventional Pavement Construction and Maintenance Practices,” *9th International Conference on Managing Pavement Assets*, Alexandria, VA, May 2015.
43. Priddy, L., Bly, P., Flintsch, G.W., “US Army Experience with Precast Panels for Military Airfield Pavement Repairs,” *9th International Conference on Managing Pavement Assets*, Alexandria, VA, May 2015.
44. Mogrovejo, D., Katicha, S., Flintsch, G.W., de León Izeppi*, E., “Latest Development in the Processing of Pavement Macrotexture Measurements of High Speed Laser Devices,” *9th International Conference on Managing Pavement Assets*, Alexandria, VA, May 2015.
45. Katicha, S.W., Flintsch, G. (2015) “Field demonstration of the Traffic Speed Deflectometer in New York,” Paper No. 15-4630, *94th Annual Meeting of the Transportation Research Board*, Jan 11-15, 2015, Washington, DC.
46. Hickman, J., Medina-Flintsch, A., Camden, M., Bryce, J., Flintsch, G.W., Hanowski, R.J., “Winter Maintenance Operators’ and Managers’ Opinions and Perceptions of Fatigue,” Paper No. 15-0788, *94th Annual Meeting of the Transportation Research Board*, Jan 11-15, 2015, Washington, DC.
47. Bryce, J., Santos, J., Flintsch, G., Katicha, S., McGhee, K., and Ferreira, A., “Analysis of Rolling Resistance Models to Analyze Vehicle Fuel Consumption as a Function of Pavement Properties.” *12th International Conference on Asphalt Pavements*, Kim, R. (ed.), June 2014, pp. 263-273. Taylor and Francis Group: London
48. Katicha, S.W., Bryce, J., Flintsch, G.W. “Estimating the tensile strain at the bottom of the HMA layer using TSD deflection slope measurements.” *12th International Conference on Asphalt Pavements*, Kim, R. (ed.), June 2014, pp. 1355-1361. Taylor and Francis Group: London.
49. Evangelisti, A., Katicha, S., de León, E., Flintsch, G.W., D’Apuzzo, M., Nicolosi, V., “Measurement Error Models (MEM) regression method to Harmonize Friction Values from Different Skid Testing Devices,” *Transport Research Arena*, Apr 14-17, 2014, Paris, France.

50. Santos, J., Ferreira, A. and Flintsch, G. (2014), Development and application of a life-cycle assessment model for pavement management, Proceedings of the Transport Research Arena, CD Ed., TRA2014_Fpaper_18702.pdf, 1-10, Paris, France.
51. Flintsch, G.W., Viner, H., Dunford, A., "Predicting Splash and Spray and its Impact on Drivers," *International Safer Roads Conference*, May 18-21, 2014, Cheltenham, UK.
52. Flintsch, G.W., Bryce, J., and Katicha, S. "Capabilities and Potential Applications of Continuous Pavement Deflection Measuring Devices." *Geo-Congress 2014 Technical Papers*, February 2014, pp. 2365-2381.
53. Flintsch, G.W., Najafi, S., Medina-Flintsch A. "Case Study on Evaluation of Effect of Tire-Pavement Friction on Rate of Roadway Crashes," paper 14-5617, *93rd Annual Meeting of the Transportation Research Board*, Jan 12-16, 2014, Washington, DC.
54. Mogrovejo, D.E., Flintsch, G.W., de León Izeppi, E.D., and McGhee, K.K, "Tire-Pavement Noise Evaluation and Equipment Comparison Using On Board Sound Intensity Methodology over Several Pavement Surfaces in Virginia" paper 14-5210, *93rd Annual Meeting of the Transportation Research Board*, Jan 12-16, 2014, Washington, DC.
55. Katicha, S.W., Flintsch, G.W., and Fuentes, L. (2014), "Use of probe vehicles to measure road ride quality," *93rd Transportation Research Board Meeting*, Paper No. 14-2836, *93rd Annual Meeting of the Transportation Research Board*, Jan 12-16, 2014, Washington, DC.
56. Dehghani Sanij, M. S., Flintsch, G.W., and McNeil, S. (2013). "Impact of Disruption Uncertainty and Network Configuration on Roadway Vulnerability". Paper 14-4201, *93rd Annual Meeting of the Transportation Research Board*, Jan 12-16, 2014, Washington, DC.
57. Hosten, A.M., Flintsch, G.W., de León Izeppi, E.D., and McGhee, K.K. "District Level Decision Making Tool for Preventive Maintenance Treatment Selection in Virginia," paper 14-2756, *93rd Annual Meeting of the Transportation Research Board*, Jan 12-16 2014, Washington, DC.
58. D'Apuzzo, M., Evangelisti, A., de León Izeppi, E.D., Flintsch, G.W., Estimation of Pavement Macrotecture from Hot-Mix Asphalt Properties," *17th International Road Federation World Meeting & Exhibition*, Nov 10-14, 2013, Riyadh, Kingdom of Saudi Arabia.
59. Dehghani Sanij, M., Flintsch, G.W., McNeil, S., "Vulnerability, Resiliency, and Risk Assessment of Deteriorating Roadway Infrastructure Networks," *17th International Road Federation World Meeting & Exhibition*, Nov 10-14, 2013, Riyadh, Kingdom of Saudi Arabia.
60. Mogrovejo, D.E., Flintsch, G.W., de León Izeppi, E.D., and McGhee, K.K, "Effect of Air Temperature and Vehicle Speed On Tire/Pavement Noise Measured With OBSI Methodology," *17th International Road Federation World Meeting & Exhibition*, Nov 10-14, 2013, Riyadh, Kingdom of Saudi Arabia.
61. Flintsch, G.W., Bryce, J., Katicha, S., de León Izeppi, E.D. "New Generation of Continuous Deflectometers and their Application for Network-level Pavement Management" (Nueva Generación De Deflectógrafos De Medición Continua Y Su Aplicación Para La Gestión De Pavimentos A Nivel De Red), *XVII Ibero-Latin American Asphalt Congress*, Antigua, Guatemala, Nov 17-22, 2013.
62. Flintsch, G.W., de León Izeppi, E.D., Medina-Flintsch, A., "Tire-pavement Pavement Friction Management Programs: A Key Tool to Improve Road Safety" (Programas de Gestión de la Fricción entre el Neumático y el Pavimento: Una Herramienta Clave para Mejorar la Seguridad Vial), *XVII Ibero-Latin American Asphalt Congress*, Antigua, Guatemala, Nov 17-22, 2013.

63. Qiao, Y., Dawson, A., Parry, T., Flintsch, G., “Quantifying the effect of climate change on the deterioration of a flexible pavement,” *Ninth International Conference on the Bearing Capacity of Roads*, 25-27 Jun 2013, Trondheim, Norway, 555-563.
64. Lam, J.C., Bryce, J., Priddy, L., and Flintsch, G.W. “Development of Infrastructure Management Strategies for Small and Mid-Size Airfields,” *Proceedings of the 2013 Airfield & Highway Pavement Conference*, Jun 9-12, 2013, Los Angeles, CA. pp. 597-608.
65. Dehghanisani, M., Flintsch, G.W., McNeil, S., “Vulnerability Analysis of Degrading Roadway Networks,” paper 13-4553, *92nd Annual Meeting of the Transportation Research Board*, Jan 13-17, 2013, Washington, DC.
66. Tang, L.J., and Flintsch, G.W., “Use of Precipitation Records in Drainage Design of Porous Asphalt Surface Layer,” paper 13-2720, *92nd Annual Meeting of the Transportation Research Board*, Jan 13-17, 2013, Washington, DC.
67. Mogrovejo, D.E., Flintsch, G.W., de León Izeppi, E.D., and McGhee, K.K. “Effect of Air Temperature and Vehicle Speed on Tire/Pavement Noise Measured with On-Board Sound Intensity Methodology,” paper 13-3765, *92nd Annual Meeting of the Transportation Research Board*, Jan 13-17, 2013, Washington, DC.
68. Hosten, A.M., Bryce, J., Priddy, L.P., Flintsch, G.W., de León Izeppi, E.D., Nelson, W.O., “Improving Network Condition with Preventive Maintenance: A Pavement Management System Case Study in Christiansburg, Virginia,” paper 13-3150, *92nd Annual Meeting of the Transportation Research Board*, Jan 13-17, 2013, Washington, DC.
69. Priddy, L.P., Bly, P.G., Flintsch, G.W., “Review Of Precast Portland Cement Concrete Panel Technologies For Use In Expedient Portland Cement Concrete Airfield Pavement Repairs,” paper 13-2956, *92nd Annual Meeting of the Transportation Research Board*, Jan 13-17, 2013, Washington, DC.
70. Zhao, G., Flintsch, G.W., “Comparative Analysis on Promising Algorithms for Pavement Homogeneous Segmentation,” paper 13-4650, *92nd Annual Meeting of the Transportation Research Board*, Jan 13-17, 2013, Washington, D.C.
71. Martinez Arguelles, G., Crispino, M., Giustozzi, F., Flintsch, G.W., “Environmental Analysis on asphalt pavement maintenance using modified binders in Developing Countries: Bogota Case Study” paper 13-3475, *92nd Annual Meeting of the Transportation Research Board* Jan 13-17, 2013, Washington, DC.
72. Fuentes, L.G., Flintsch, G.W., and de León Izeppi, E., “Implementation of the International Friction Index using Devices with Ribbed Tires” (Implementación del Índice de Fricción Internacional Utilizando Dispositivos con Llantas Labradas), *Jornadas Internacionales del Asfalto*, CORASFALTOS, ISBN: 978-958-99958-1-5, Oct 8-12, Bogotá, Colombia.
73. Fuentes, L.G., Goenaga, B., and Flintsch, G.W., (2012). “Probabilistic Pavement Deterioration Models for the Integral Maintenance Corridors” (Modelos Probabilísticos de Deterioro del Pavimento para los Corredores de Mantenimiento Integral), *Jornadas Internacionales del Asfalto*, CORASFALTOS, ISBN: 978-958-99958-1-5, Oct 8-12, Bogotá, Colombia.
74. Viner, H., Hargreaves, D., Dunford, A., Nesnas, K., Parry T., and Flintsch, G.W., “Development of a Prediction Model for Splash and Spray,” proceedings of the *7th Symposium on Pavement Surface Characteristics* (SURF 2012), Sep. 18-21, 2012, Norfolk, VA
75. Tang, L., Flintsch, G.W., and Viner, H., “Exposure Model For Predicting Splash and Spray,” *Proceedings of the 7th International Symposium on Pavement Surface Characteristics* (SURF 2012), Sep. 18-21, 2012, Norfolk, VA.

76. Giustozzi, F., Crispino, M., and Flintsch, G.W., "Multi-Approach Life Cycle Analysis Optimization for Integrating Environmental Impacts into Pavement Management Systems, submitted for the 4th European Pavement and Asset Management Conference (EPAM 2012), Sep 5–7 2012, Malmö, Sweden.
77. Giustozzi, F., Crispino, M., and Flintsch, G.W., "Effectiveness of Preventive Maintenance Treatments on Road Pavements," 7th International Conference on Maintenance and Rehabilitation of pavements and Technological Control (MAIRPAV7), Aug 28-30, 2012, Auckland, New Zealand.
78. Fuentes, L.G., Macea, L.F., Vergara, A., Flintsch, G.W., Alvarez, A.E., Reyes, O.J., "Evaluation of Truck Factors for Pavement Design in Developing Countries Original Research Article," *Procedia - Social and Behavioral Sciences, SIIV-5th International Congress - Sustainability of Road Infrastructures 2012*, Volume 53, 2012, pp. 1140-1149.
79. Giustozzi, F., Crispino, M., and Flintsch, G.W., "Sustainability Analysis Based on Emissions Saving for Competitive Maintenance and Rehabilitation Practices," *Procedia - Social and Behavioral Sciences, Transport Research Arena 2012*, Volume 48, 2012, pp. 2827–2838.
80. Uslu, B., de la Garza, J.M., and Flintsch G.W. "Discrete Event Simulation Model for Project Selection Level Pavement Maintenance Policy Analysis." *Proceedings of the 14th International Conference on Computing in Civil and Building Engineering (ICCCBE)*, June 27-29, Moscow, Russia.
81. Katicha, S.W., Flintsch, G.W., Ferne, B., "Analyzing Repeatability of Continuous Deflection Device Measurement Series," paper 12-1732, 91st Annual Meeting of the Transportation Research Board, Washington, D.C., January 2012.
82. Tomlinson, C., Katicha, S., and Flintsch, G.W., "Nonlinear Characterization and Modeling of Asphalt Concrete Using the Hilbert-Huang Transform," paper 12-2036, 91st Annual Meeting of the Transportation Research Board, Washington, D.C., January 2012.
83. Katicha, S.W., Flintsch, G.W., and Ferne, B., Estimation of Pavement TSD Slope Measurements Repeatability from a Single Measurement Series," paper 12-3622, 91st Annual Meeting of the Transportation Research Board, Washington, D.C., January 2012.
84. Rondón H.A., Reyes, F.A., Mogrovejo, D., Flintsch, G.W., "Environmental Effects on Hot Mix Asphalt Dynamic Mechanical Properties - A Case Study in Bogota, Colombia," paper 12-3637, 91st Annual Meeting of the Transportation Research Board, Washington, D.C., Jan. 2012.
85. Giustozzi, F., Flintsch, G.W., and Crispino, M., "Environmental Assessment of Road Construction Methods for a Low Carbon Pavement," paper 12-3940, 91st Annual Meeting of the Transportation Research Board, Washington, D.C., Jan. 2012.
86. Highfield, C, Flintsch, G.W., "A Review of Selected Environmental Assessment Tools: Coverage, Gaps, and Future Steps," 8th International Conference on Managing Pavement Assets – ICMPA, Santiago, Chile, Nov. 15-19, 2011.
87. Giustozzi, F., Flintsch, G.W., and Crispino, M., Environmental Analysis of Preventive Maintenance Treatments on Road Pavements," 8th International Conference on Managing Pavement Assets (ICMPA), Santiago, Chile, Nov. 15-19, 2011.
88. de León Izeppi, E., and Flintsch, G.W., "Continuous Friction Measurement Equipment (CFME) Loan Program", 8th International Conference on Managing Pavement Assets (ICMPA), Santiago, Chile, Nov. 15-19, 2011.

89. Giustozzi, F., Crispino, M., and Flintsch, G.W., Environmental Sustainability As A Performance Measure for Assessing Preventive Maintenance Policies, *24th PIARC World Road Congress*, Mexico City, Mexico, Sep 26-10, 2011.
90. Amjadi, R., Sherwood, J., Flintsch, G.W., "Influence of Seasonal Temperature on Pavement Reliability Performance: A Case Study," *3rd International Road Surface Friction Conference, Safer Road Surfaces – Saving Lives*, Gold Coast, Queensland, Australia, May 15-18, 2011.
91. Amjadi, R., Sherwood, J., Flintsch, G.W., "Case Study: Run-off-road Crash Variations with Pavement Friction," *3rd International Road Surface Friction Conference, Safer Road Surfaces – Saving Lives*, Gold Coast, Queensland, Australia, May 15-18, 2011.
92. Katicha, S.W., Flintsch, G.W., Use of Fractional Order Viscoelastic Models to Characterize Asphalt Concrete," *First T&DI Congress – Integrated Transportation and Development for a better Tomorrow*, Mar 13-16, 2011, Chicago, IL.
93. Flintsch, G.W., de León Izeppi, E., Saleh, M., "Infrared Stereo Vision for Pavement Texture Analysis," *First T&DI Congress – Integrated Transportation and Development for a Better Tomorrow* (presentation only), Mar 13-16, 2011, Chicago, IL.
94. Najafi, S., Flintsch, G.W., de León Izeppi, E.D., McGhee, K.K., "Implementation of Cross-Correlation to Compare Continuous Friction Measuring Equipment," paper 11-2083, *90th Annual Meeting of the Transportation Research Board*, Jan 23-27, 2011, Washington, DC.
95. Saleh, M., Flintsch, G.W., de León Izeppi, E.D., McGhee, K.K., Abbott, A.L., "Pavement Texture Analysis Using Infrared Stereo Vision," paper 11-2739, *90th Annual Meeting of the Transportation Research Board*, Jan 23-27, 2011, Washington, DC.
96. Katicha, S., Al-Qadi, I.L., Flintsch, G.W., Loulizi, A., "Effect of Compaction Method on the Resilient Modulus of Hot-Mix Asphalt," paper 11-1939, *90th Annual Meeting of the Transportation Research Board*, Jan 23-27, 2011, Washington, DC.
97. Katicha S., Flintsch, G.W., Loulizi, A., "Identifying Non-Linear HMA Behavior from Uniaxial Creep and Dynamic Modulus Test Results," *5th International Conference on Advances in Mechanical Engineering and Mechanics (ICAMEM2010)*, Dec 18-20, 2010, Sousse, Tunisia.
98. Crispino, M., Giustozzi, F., Flintsch, G.W., "Life-cycle analysis of a new composite material for bridge pavement waterproofing," IABMAS 2010, *The Fifth International Conference on Bridge Maintenance, Safety and Management*, July 11-15, 2010, Philadelphia, PA.
99. Flintsch, G.W., de León Izeppi, E.D., McGhee, K.K., Shetty*, S.S., "Profiler Certification Process at the Virginia Smart Road, paper 10-2513, *89th Annual Meeting of the Transportation Research Board*, Jan 10-14 2010.
100. Dehghanisani, M., Flintsch, G.W., Medina, A., Paper 10-3249, "Flexible Framework for Sustainable Multi-objective Cross-Asset infrastructure Management," *89th Annual Meeting of the Transportation Research Board*, Jan 10-14 2010.
101. Flintsch, G.W., de León Izeppi, E.D., McGhee, K.K., Roa, J.A., "Review of High-Friction Surface Technologies: Constructability and Field Performance," paper 10-2072, *89th Annual Meeting of the Transportation Research Board*, Jan 10-14 2010.
102. Candia-Gallegos, M., Flintsch, G.W., "Asphalt Pavement Quality Measurement, Management, and Acceptance" (Medición, Manejo y Aceptación de la Calidad del Pavimento Asfáltico: Nuevos Conceptos y Desafíos), *XV Ibero-Latin-American Asphalt Congress (XV CILA)*, Nov 22-27, 2009, Lisboa, Portugal.

103. Flintsch, G.W., de León, E.D., McGhee, K.K., Roa, J.A., ““Field Performance Evaluation of High-Friction Surfaces,” International Seminar, *Maintenance Techniques to Improve Pavement Performance*, World Road Association (PIARC), Aug 24-26, 2009, Cancun, Mexico.
104. de León, E.D., Flintsch, G.W., Saleh, M.I., and McGhee, K.K., “Stereo Vision Application for Macrotexture Measurement,” *Sixth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control (MAIREPAV6)*, Jul 8-10 2009, Torino, Italy.
105. Crispino, M., Lambrugo, S., and Flintsch, G.W. “Life Cycle Analysis of a New Composite Material for Pavement Waterproofing,” *Sixth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control (MAIREPAV6)*, Jul 8-10 2009, Torino, Italy.
106. Katicha, S., and Flintsch, G.W., “Theoretical Investigation of the Stress Distribution in a Bimodular IDT Specimen,” *7th International RILEM Symposium on Advanced Characterization of Bituminous Materials*, May 24-30, 2009, Rhodes, Greece (in CD/DVD).
107. de León Izeppi, E., Flintsch, G.W., Saleh, M., and McGhee, K.K., “Area-Based Macrotexture Measurements: A Stereo Vision Approach.” Paper 09-3067, *88th Meeting of the Transportation Research Board*, Jan 11-15, 2009, Washington, DC (in CD/DVD).
108. Medina, A., Flintsch, G.W., Bennett, C.R., and Crispino, M., “Performance Based Maintenance Contracts for Sub-national Roads: Experience from Latin America.” Paper 09-1121, *88th Meeting of the Transportation Research Board*, Jan 11-15, 2009, Washington, DC (in CD/DVD).
109. Hudak, J., Flintsch, G.W., and McGhee, K.K., “Quality Management of Network-Level Pavement Condition Data Collection: Current Methods and Practices.” Paper 09-1346, *88th Meeting of the Transportation Research Board*, Jan 11-15, 2009, Washington, DC (in CD/DVD).
110. Flintsch, G.W., Wu, Z., Chen, Ch., and Medina, A., “Incorporating Sustainability Considerations into the Transportation Asset Management Process” Paper 09-1337, *88th Meeting of the Transportation Research Board*, Jan 11-15, 2009, Washington, DC (in CD/DVD).
111. Reyes-Lizcano, F.A., Lizarazo, C.M., Figueroa, A.S., Candia*, M., and Flintsch, G.W., “Dynamic Characterization of Hot-Mix Asphalt Mixtures Using Modified and Conventional Asphalts in Colombia.” Paper 09-1349, *88th Meeting of the Transportation Research Board*, Jan 11-15, 2009, Washington, DC (in CD/DVD).
112. Núñez*, O., Flintsch, G.W., and Diefenderfer, B.K., “Synthesis on Composite Pavement Systems: Benefits, Performance, Design, and Mechanistic Analysis,” *Airfield and Highway Pavements: Efficient Pavements Supporting Transportation’s Future* (J.R. Roesler, H.U. Bahia, I.L. Al-Qadi, and S.D. Murrell, Eds.), ASCE, Oct 15-18, 2008, Bellevue, Washington, pp. 534-545
113. Flintsch, G.W., de León, E., Izeppi, Roa, J., McGhee, K.K., and Swanlund, M., “Evaluation of the International Friction Index Coefficients for Various Devices,” *SURF 2008, 6th Symposium on Pavement Surface Characteristics*, Oct 20-22, Portoroz, Slovenia.
114. Flintsch, G.W., de León, E., Izeppi, Saleh*, M., McGhee, K.K., and Swanlund, M., “Area-Based Macrotexture Measurements using Stereo Vision,” *SURF 2008, 6th Symposium on Pavement Surface Characteristics*, Oct 20-22, Portoroz, Slovenia (in CD/DVD).
115. Wu, Z., Flintsch, G.W., Ferreira, A., and Picado-Santos, L. “Multi-criteria Optimization Applications in Highway Asset Management,” *3rd European Pavement and Asset Management Conference*, Jul 7-9, 2008, Coimbra, Portugal (in CD/DVD).
116. Ferreira, A., Picado-Santos, L., Wu, Z., and Flintsch, G.W., “Analysis of Pavement Performance Models for Use in Pavement Management Systems,” *3rd European Pavement and Asset Management Conference*, Jul 7-9, 2008, Coimbra, Portugal (in CD/DVD).

117. Chen, C. and Flintsch, G.W., "Calibrating Fuzzy-Logic-based Rehabilitation Decision Models using the LTPP Database." *7th International Conference on Managing Pavement Assets*, Jun 24-28, 2008, Calgary, Canada (in CD/DVD).
118. Wu, Z. and Flintsch, G.W., "Optimal Selection of Pavement Maintenance and Rehabilitation Projects." *7th International Conference on Managing Pavement Assets*, Jun 24-28, 2008, Calgary, Canada (in CD/DVD).
119. Crispino, M., Flintsch, G.W., and M. Pozzi, M., "Analysis of "Global Service" Experiences in Road Pavement Management." *7th International Conference on Managing Pavement Assets*, Jun 24-28, 2008, Calgary, Canada (in CD/DVD).
120. Wu, Z. and Flintsch, G.W., "Using the Analytic Hierarchy Process and Goal Programming for Pavement Investment Programming." *10th International Conference on Applications of Advanced Technologies in Transportation*, May 27-31, 2008, Athens, Greece.
121. Wang, D., Wang, L., Zhou, G., and Flintsch, G.W., "Binder Film Thickness Effect on Aggregate Contact Behavior," paper 08-1259, *87th Annual Meeting of the Transportation Research Board*, Jan 13-17, 2008, Washington, DC (in CD/DVD).
122. Wu, Z. and Flintsch, G.W., "Performance-Based Network-Level Optimization for Pavement Management in Public-Private Partnerships," paper 08-2301, *87th Annual Meeting of the Transportation Research Board*, Jan 13-17, 2008, Washington, DC (in CD/DVD).
123. Trifirò, F., Flintsch, G.W., Guerrero, G., de León E. and McGhee, K.K., "Comparison of Friction Measuring Devices and Preliminary Evaluation of the International Friction Index Coefficients," paper 08-1816, *87th Annual Meeting of the Transportation Research Board*, Jan 13-17, 2008, Washington, DC (in CD/DVD).
124. Flintsch, G.W., Medina, A., and Bennett C.R., "Performance-Based Contracts with Micro- and Small Enterprises: An Option for Sustainable Rural Transport Infrastructure," poster session of the *23rd World Road Congress*, Sep 17-21, 2007, Paris, France (in CD/DVD).
125. Wu, Z. and Flintsch, G.W., "A Network-Level Optimization Model for Pavement Maintenance and Rehabilitation Programming," *The Fifth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control* (H. Lee and M.A. Bhatti, Eds.), Aug 8-10, 2007, Park City, Utah, pp. 517-522.
126. Fonseca, A., Flintsch, G.W., Garvin, M., Sotelino, E., and Barkhi, R., "Contemporary Network Theory: Concepts and Implications for Transportation Infrastructure Management," paper 07-3224, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007, Washington, DC (in CD/DVD).
127. Wu, Z., and Flintsch, G.W., "Pavement Investment Programming for Secondary Roads Using Multiobjective Optimization and Chance Constraints," paper 07-2786, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007 (in CD/DVD).
128. Gramajo, C.R., Flintsch, G.W., Loulizi, A., and de León E., "Verification of Mechanistic-Empirical Pavement Deterioration Models Based on Field Evaluation of In-Service High-Priority Pavements," paper 07-2850, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007, Washington, DC (in CD/DVD).
129. Wang, H., and Flintsch, G.W., "Profiler Performance Evaluation and Accuracy Criteria Analysis," paper 07- 2759, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007, Washington, DC (in CD/DVD).

130. Wang, H., and Flintsch, G.W., "Investigation of Short and Long-Term Variations of Pavement Surface Characteristics at the Virginia Smart Road," paper 07-2753, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007, Washington, DC (in CD/DVD).
131. Flintsch, G.W., Kevin McPherson, K., and Bennett, C.R., "Making Road Management Systems Successful," paper 07-1622, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007, Washington, DC (in CD/DVD).
132. de León, E., Flintsch, G.W., and A. L. Abbot "Measuring the Uniformity of Hot Mix Asphalt Pavements with Digital Image Technology," paper 07-1613, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007, Washington, DC (in CD/DVD).
133. Wang, Y., Wang, L., Flintsch, G.W., and Maupin, G.W., "Stress Concentration Factor as a Performance Indicator for Asphalt Mixes," paper 07-0600, *86th Annual Meeting of the Transportation Research Board*, Jan 21-25, 2007, Washington, DC (in CD/DVD).
134. de León, E. and Flintsch, G.W., "A Non-Contact System to Detect and Quantify Segregation in Hot Mix Asphalt Pavements," *Ninth International Conference on Applications of Advanced Technology in Transportation* (K.C.P. Wang, B.L. Smith, D.R. Uzarski, and S.C. Wong, Eds.), ASCE, Aug 13-16, 2006, Chicago, Il, pp. 93-98.
135. Flintsch, G.W., de León, E., and Medina, A., "Pavement Surface Macrotecture as a Quality Indicator of Flexible Pavements," *XIII Ibero-Latin-American Asphalt Congress*, Nov 20-25, 2005, San Jose, Costa Rica (in Spanish, CD-ROM).
136. Flintsch, G.W., Loulizi, A., and Medina, A., "Validation of the Multilayer Elastic Analysis Hypothesis using In situ Stress and Strains Measurements," *XIII Ibero-Latin-American Asphalt Congress*, Nov 20-25, 2005, San Jose, Costa Rica (in Spanish, CD-ROM).
137. Flintsch, G.W., Luo, Y., and Al-Qadi, I.L., "Analysis of the Effect of Pavement Temperature on the Frictional Properties of Flexible Pavement Surfaces," Paper 05-2400, *84th meeting of the Transportation Research Board*, Jan 9-13, 2005, Washington, DC (in CD/DVD).
138. Bosurgi G., Flintsch G.W., and Trifirò F., "Artificial Neural Network Applications in Transportation Infrastructure Asset Management," *International Symposium on New Technologies and Modeling Tools for Roads, Applications to Design and Management*, Oct 27-29, 2004, Florence, Italy (in CD/DVD).
139. Flintsch, G.W., "Spatial Analysis Applications for Pavement Management," *6th International Conference on Managing Pavements*, Oct 19-24, 2004, Brisbane, Australia (in CD/DVD).
140. Chen, C., Flintsch, G.W., and Al-Qadi, I.L., "Fuzzy Logic-Based Life-Cycle Costs Analysis Model for Pavement and Asset Management," *6th International Conference on Managing Pavements*, Oct 19-24, 2004, Brisbane, Australia (in CD/DVD).
141. Al-Qadi, I. L., A. Loulizi, G.W. Flintsch, D. S. Roosevelt, D. Decker, W. Nixon, "Friction Indicators for Improving Winter Maintenance Operations and Mobility," *The 5th International Conference on Snow Engineering*, Jul 5-8, 2004, Davos, Switzerland (in CD/DVD).
142. Flintsch, G.W., Sanford Bernhardt, K., and Zhang Z., and Tighe, S. "Infrastructure Management Research and Education Workshop," *ASCE 2004 Annual Conference and Exposition*, Jun 20-23, 2004, Salt lake City, UT (in CD/DVD).
143. Flintsch, G.W., Dymond, R., Collura, J., Kuttesch, J., "Review of State Practices on the Use of GIS for Pavement Management Applications," Paper 04-3767 (poster session), *83rd Transportation Research Board Meeting*, Jan 11-15, 2004, Washington, DC (in CD/DVD).

144. Flintsch, G.W. and Kuttesch, J., "Application of Life- Cycle Cost Analysis for Pavement Management." Paper 04-4557, 83rd *Transportation Research Board Meeting*, Jan 11-15, 2004, Washington, DC (in CD/DVD).
145. McGhee, K.K., Flintsch, G.W., and de León, E., "Detecting and Measuring Hot-Mix Asphalt Segregation using High-Speed Texture Measurement." Paper 04-3827 (poster session), 83rd *Transportation Research Board Meeting*, Jan 11-15, 2004, Washington, DC (in CD/DVD).
146. Al-Qadi, I.L., Loulizi, A., Flintsch, G.W., Roosevelt, D.S., Decker, R., Wambold, J.C., and Nixon, W.A., "Feasibility of Using Friction Indicators to Improve Winter Maintenance Operations and Mobility," Paper 04-2751, 83rd *Transportation Research Board Meeting*, Jan 11-15, 2004, Washington, DC (in CD/DVD).
147. Flintsch, G.W., McGhee, K.K., and de León, E., "Use of Surface Macrotexture Measurements to Detect Segregation," *International Conference on Highway Pavement (IHP) Data, Analysis and Mechanistic Design Applications*, Sep 8-10, 2003, Columbus, OH, pp. 229-240.
148. Flintsch, G.W., "Pavement Management Enhancement Using Soft Computing," *Third International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control (MAIREPAV-03)*, Jul 7-10, 2003, Guimarães, Portugal, pp. 783-792.
149. Flintsch, G.W., Al-Qadi, I.L., McGhee, K.K., and Davis, R., "Effect of HMA Design Properties on Pavement Surface Friction," *Third International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control (MAIREPAV-03)*, Jul 7-10, 2003, Guimarães, Portugal, pp. 219-228.
150. Flintsch, G.W., "Soft Computing Applications in Pavement and Infrastructure Management: State-of-the-Art." Paper 03-3767, 82th *Annual Meeting of the Transportation Research Board*, Jan 11-14, 2003, Washington, DC (in CD/DVD).
151. Flintsch, G.W., Kuttesch, J., "Engineering Economic Analysis Tools for Pavement Management," 3rd *International Conference Bituminous Mixtures and Pavements*, Nov 21-22, 2002, Thessaloniki, Greece (in CD/DVD).
152. Flintsch, G.W., Davis, R., Al-Qadi, I.L., and McGhee, K.K., "Effect of HMA Properties on Pavement Surface Characteristics," *Pavement Evaluation 2002*, Oct 21-25, 2002, Roanoke, VA (in CD/DVD).
153. Appea, A.K., Flintsch, G.W., and Al-Qadi, I.L., "Backcalculation Validation through Field Instrumentation," *Pavement Evaluation 2002*, Oct 21-25, 2002, Roanoke, VA (in CD/DVD).
154. Loulizi, A., Al-Qadi, I.L., Flintsch, G.W., Freeman T.E., "Using Field Measured Stresses and Strains to Quantify Flexible Pavement Responses to Loading," *Ninth International Conference - on Asphalt Pavements*, Aug 17-22, 2002, Copenhagen, Denmark (in CD/DVD).
155. Flintsch, G.W., "Soft Computing Applications in Transportation Infrastructure Asset Management," *Application of Advanced Technologies in Transportation 2002* (Wang, K.C.P., Madanat, S., Nambisan, S., Spring, G. Eds.), ASCE, Aug 5-7, 2002, Cambridge, MA, pp. 449-456.
156. Davis, R., Flintsch, G. W., Al-Qadi, I. L., and McGhee, K. K., "Effect of Wearing Surface Characteristics on Measured Pavement Skid Resistance and Texture," paper 02-2403, 81st *Annual Meeting of the Transportation Research Board*, Jan 13-17, 2002, Washington, DC (in CD/DVD).
157. Flintsch, G.W., and Medina A., "Framework for a Web-based Intelligent Infrastructure Asset Management System," 5th *International Conference on Managing Pavements*, Aug 11-14, 2001, Seattle, WA (in CD/DVD).

158. Flintsch, G.W., Appea, A.K., Al-Qadi, I.L., and Loulizi*, A., "Backcalculation Validation Through Field Instrumentation Response at the Virginia Smart Road," *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Jul 29 – Aug 1, 2001, Auburn, AL, pp. 349-365.
159. Flintsch, G.W., and Medina A., "Web-based Intelligent Infrastructure Asset Management System, The Next Generation?" *4th IRF Road World Congress*, Jun 11-15, 2001, Paris, France (in CD/DVD).
160. Al-Qadi, I.L., Flintsch, G.W., Loulizi*, A., Lahouar, S., and Nassar, W., "Pavement Instrumentation Responses at The Virginia Smart Road," *4th IRF Road World Congress*, Jun 11-15, 2001, Paris, France (in CD/DVD).
161. Nassar, W.M., Al-Qadi, I.L., Flintsch, G.W., and Appea*, A., "Evaluation of Pavement Layer Response at the Smart Road," *Pavement Subgrade, Unbound Materials, and Nondestructive Testing* (M.S. Mamlouk Ed.), GEO-Denver 2000, Aug 5-8, 2000, Denver, CO, pp. 104-118.
162. Al-Qadi, I.L., Nassar, W.M., Loulizi*, A., Flintsch, G.W., and Freeman, T.E., "Flexible Pavement Instrumentation at the Virginia Smart Road," *Proceedings of the 13th GRI Conference, Gesoynthetics in the Future: Year 2000 and Beyond*, Folsom, PA, pp. 121-142.
163. Flintsch, G.W., Zaniewski, and Medina A., "Evaluation of Artificial Neural Networks for Project Selection," *Intentional Workshop on Artificial Intelligence and Numerical Methods in Pavement and Geomechanical Engineering Systems*, Nov 5-6, 1998, North Miami, FL, pp. 13-22.
164. Flintsch, G.W., Zaniewski, J.P., Delton, J., and Medina, A., "Artificial Neural Network Based Project Selection Level Pavement Management System," *Fourth International Conference on Managing Pavements*, May 17-21, 1998, Durban, South Africa, pp. 451-464.
165. Flintsch, G.W., Zaniewski, J.P., Medina, A., and Mamlouk, M.S., "Knowledge-Based Pavement Rehabilitation Prioritization Formula Using the Rational Factorial Methodology," *Fourth International Conference on Managing Pavements*, May 17-21, 1998, Durban, South Africa, pp. 310-321.
166. Flintsch, G.W., Zaniewski, J.P., and Medina A., "Remaining Service Life Analysis - Implementation in the ADOT Pavement Management System," *Infrastructure Condition Assessment: Art, Science, Practice Conference* (M. Saito Ed.), ASCE, Aug 24-27, 1997, Boston, Massachusetts, pp. 131-140.
167. Kalavera, S., Hendrix, L., Scofield, L., and Flintsch, G.W., "In-Service Performance Evaluation of Portland Cement Concrete Pavements Joint Sealants," *Fourth World Congress on Joint Sealing and Bearing Systems for Concrete Structures Proceedings*, Sep 1996, Sacramento, CA (in CD/DVD).
168. Flintsch, G.W., and Tagle, A.L., "The Introduction of a Lacroix Deflectograph in the DNV of Uruguay," (in Spanish) *Fifth Ibero-Latin American Asphalt Congress*, 1989, Punta del Este, Uruguay.

Other Magazine Articles

1. Mogrovejo, D.E., Flintsch, G.W., de León Izeppi, E.D., and McGhee, K.K., "Effect of Air Temperature and Vehicle Speed On Tire/Pavement Noise Measured With OBSI Methodology," *IRF Examiner*, Vol. 4, Winter 2014, International Road Federation, Alexandria, VA.
2. Mogrovejo, D.E., Flintsch, G.W., de León Izeppi, E.D., "Effect of Environmental Conditions and Vehicle Speed on Tire/Pavement Noise Measured with OBSI Methodology," (Efecto de la Temperatura y la Velocidad sobre el Ruido generado por la interacción Neumático-Pavimento

medido con el Método OBSI) *Revista Asfaltos y Pavimentos*, no. 24, Piedecuesta, Santander, Colombia, 2012.

3. Candia, M., Flintsch, G.W., "Asphalt Concrete Quality, New Advances and Challenges" (Calidad Del Concreto Asfáltico Nuevos Avances Y Desafíos), *Revista Ingeniería Civil*, CIP, Lima, Peru, 2010.
4. Flintsch, G.W., and Medina, "The HDM-4, A Tool for Pavement Management," *Caminos*, periodic publication of the Pan American Institute of Highways, first quarter, 2001.
5. Medina, A. and Flintsch, G.W., "Pavement Management Systems," *Caminos*, periodic Publication of the Pan American Institute of Highways. Volume 3, Number 3, Washington, DC, 1991.
6. Flintsch, G.W., and Zaniewski, J.P., *RSMS, A Generic Road Surface Management System for Local Governments - User's Manual*, Technical Report 93-3, Arizona Local Technical Assistance Program.
7. Flintsch, G.W., and Tagle, A.L., "Deflectometric Auscultation," *Revista de Ingeniería*, # 1, second cycle, Montevideo, Uruguay, 1989.

Papers and posters presented at professional meetings (not listed before)

Conference papers (accepted based on abstract; not a comprehensive list)

1. Flintsch G., "Outcomes of NCHRP 15-55 Hydroplaning," *2020 Road Profiler User Group (RPUG) Conference*, Oct 13-15, 2020.
2. Flintsch, G.W. Katicha, S., Velez Rodriguez, K., "Impact of Pavement Surface Properties on Wet-weather Crashes," *ASCE T&DI International Airfield & Highway Pavements Conference*, Chicago, IL, July 21-24, 2019.
3. Flintsch, G.W., "US Experience on Using TSD-based Structural Indices for Network-Level Pavement Management," *9th European FWD User Group Meeting*, Darmstadt, Germany, April. 9, 2019.
4. Flintsch, G.W., Medina, A., Pereyra, A., Uechi, L., "State of the Practice on Transportation Asset Management in Latin America," *IRF Global Road2Tunnel Conference*, Las Vegas, NV, Nov. 7-9, 2018.
5. Flintsch, G.W., de León, E., Medina, A., "Proactive Pavement Friction Management in Virginia, A Key Tool for Reducing Crashes and Associated Fatalities," *IRF Global Road2Tunnel Conference*, Las Vegas, NV, Nov. 7-9, 2018.
6. Flintsch, G.W., "Guidance to Predict and Mitigate Dynamic Hydroplaning on Roadways - Project Update," *30th Road Profiler User Group Conference*, Rapid City, SD, Sep 19-21, 2018.
7. Flintsch, G.W., "Advancing Asset Management Research and Education Using Case Studies," *12th National Conference on Transportation Asset Management*, San Diego, CA, July 14-17, 2018.
8. Flintsch, G.W., Bongioanni, V., "Guidance to Predict and Mitigate Dynamic Hydroplaning on Roadways - Project Update," *8th Symposium on Pavement Surface Characteristics (SURF 2018)*, Brisbane, Australia, May 2-4, 2018.

9. Flintsch, G.W., Santos, J., Ferreira, A., “Multi-objective Optimization Approach for Sustainable Pavement Maintenance and Rehabilitation Programming,” *11th National Conference on Transportation Asset Management*, July 10–12, 2016, Minneapolis, Minnesota.
10. Flintsch, G.W., Qiao, Y., “Impact of Climate Change on the Performance, Maintenance, and Life-Cycle Costs of Flexible Pavements,” *11th National Conference on Transportation Asset Management*, July 10–12, 2016, Minneapolis, Minnesota.
11. Katicha, S., Flintsch, G.W., “Network Level Structural Evaluation with TSD device,” *Pavement Evaluation 2014*, Blacksburg, VA, Sep. 15-18, 2014.
12. Katicha, S., Flintsch, G.W., “Use of Probe Vehicles to Measure Road Ride Quality,” *Road Profiler User Group Meeting*, San Antonio, TX, Sep. 16 to 19, 2013.
13. de León Izeppi, E., Flintsch, G.W., “Profiler Certification Process at the Virginia Smart Road,” *Road Profiler User Group Meeting*, San Antonio, TX, Sep. 16 to 19, 2013.
14. Flintsch, G.W., “Using Profile Data for Supporting Asset Management Decisions,” *1st European Profiler User Group (ERPUG) Meeting*, Copenhagen, Denmark, Sep 10-12, 2013.
15. Bryce, J., Flintsch, G.W., Katicha, S.W., Diefenderfer, B.K., “Enhancing Network-level Decision Making through the Use of a Structural Capacity Index,” *8th Annual Inter-University Symposium on Infrastructure Management*, June 2012, Atlanta, GA.
16. Flintsch, G.W., Giustozzi, F. Crispino, M., “Multi-Approach Life-Cycle Assessment Optimization to Incorporate Environmental,” *9th National Conference on Transportation Asset Management - Making Asset Management Work in Your Organization*, April 16–18, 2012, San Diego, CA.
17. Dehghanisani, M., Flintsch, G.W. “Corridor-Level Performance Measures to Support Resource Allocation Strategies in Highways,” *9th National Conference on Transportation Asset Management - Making Asset Management Work in Your Organization*, April 16–18, 2012, San Diego, CA
18. Dehghanisani, M., Flintsch, G.W., McNeil, S., “Condition of Roadways and the Dynamics of Highway System Performance: An Assessment Framework,” *9th National Conference on Transportation Asset Management - Making Asset Management Work in Your Organization*, April 16–18, 2012, San Diego, CA
19. Highfield, C., Flintsch, G.W., “Incorporating Environmental Factors Into the Infrastructure Life-Cycle Analysis,” *Green Streets and Highways Conference*, Nov 14-17, 2010, Denver, CO.
20. de León Izeppi, E.D., Flintsch, G.W., “Continuous Friction Measuring, Equipment (CFME) Loan Program: GripTester and DYNATEST HFT,” *Pavement Evaluation 2010*, Roanoke, VA, Oct 24-26, 2010.
21. Flintsch, G.W., Ferne, B., Diefenderfer, B., “Use of Continuous Deflection Measurements for Network Level Pavement Analysis,” *Pavement Evaluation 2010*, Roanoke, VA, Oct 24-26, 2010.
22. Najafi, S., Flintsch, G.W., de León, E.D., “Performance Characteristics of Continuous Friction Measurement Equipment (CFME),” *Pavement Evaluation 2010*, Roanoke, VA, Oct 24-26, 2010.
23. Najafi, S., Flintsch, G.W., de León, E.D., McGhee, K.K., “Speed Adjustment Factors for the Locked-wheel Skid Trailer,” *The 21st Annual Road Profiler Users' Group Meeting*, Dec. 9-11, 2009, Atlanta, GA.
24. Shetty, S.S., Flintsch, G.W., de León Izeppi, E.D., McGhee, K.K., “Preliminary Results from the Profiler Certification Exercise at the Virginia Smart Road,” *The 21st Annual Road Profiler Users' Group Meeting*, Dec. 9-11, 2009, Atlanta, GA.

25. Flintsch, G.W., Ferne, B., and Diefenderfer, B., "R06-F: Development of Continuous Deflection Sensors," *SHRP 2 Workshop on the Integration and Implementation of SHRP 2 Pavement Related Research*, Nov 17-18, 2009, Washington, DC.
26. Flintsch, G.W., Ferne, B., Diefenderfer, B., and Clark, T., "Use of Continuous Deflection Measurement for Network-Level Pavement Structural Assessment," *Developing a Research Agenda for Transportation Infrastructure Preservation and Renewal Conference*, Nov 12-13, 2009, Washington, DC.
27. Flintsch, G.W., and McGhee, K.K., "Quality Management Practices for Pavement Condition Data Collection," *8th National Conference on Transportation Asset Management - Putting the Asset Management Pieces Together*, Oct 19–21, 2009, Portland, OR.
28. Flintsch, G.W., "Impact of the Adoption of Mechanistic-Empirical Design methods on Pavement Management" (*Impacto de la Adopción de Métodos de Diseño Empírico-Mecanísticos en la Gestión de Pavimentos*)," 7th Uruguayan Road Congress, Oct 7-9, 2009, Montevideo, Uruguay.
29. Flintsch, G.W., "Managing the Quality of Pavement Condition Data," *2009 Southeastern States Pavement Management and Design Conference*, May 11-13, 2009, New Orleans, LA.
30. Nunez, O., Hudak, J., Gonzalez, O., Smith, B., and Flintsch, G.W. "Development of a Pavement Management System for the State of Icompa," Response to the Conference Challenge competition, *7th International Conference on Managing Pavement Assets*, Jun 24-28, 2008, Calgary, Canada.
31. Edwards, B., Husnain, T., Pilko, P., Tignor, S., and Flintsch, G.W. "Pavement Deterioration and Optimal Maintenance Strategies." Response to the Conference Challenge competition, *7th International Conference on Managing Pavement Assets*, Jun 24-28, 2008, Calgary, Canada.
32. Hudak, J., Flintsch, G.W., and McGhee, K.K., "State-of- the-practice on Quality Management of Pavement Condition Data," *2008 Southeastern States Pavement Management and Design Conference*, Jun 1-4, 2008, North Little Rock, AR.
33. Flintsch, G.W., Wu, Z., and Loulizi, A., "Performance-Based Optimization Decision-Support Model for Infrastructure Preservation and Renewal," *Urbistics International Conference*, Mar 9-12, 2008, Hammamet, Tunisia (in CD/DVD).
34. Flintsch, G. W., Chen, C., and Loulizi, A., "Soft Computing-Enhanced Engineering Economic Analysis Tools for Transportation Asset Management," *Urbistics International Conference*, Mar 9-12, 2008, Hammamet, Tunisia (in CD/DVD).
35. Flintsch G. W., and Wu, Z., "Using the Analytical Hierarchy Process and Goal Programming for Multi-objective Pavement Maintenance and Rehabilitation" *7th National Conference on Transportation Asset Management*, Nov 6-8, 2007, New Orleans, LA.
36. Nunez, O. (advised by Flintsch, G.W.) "Synthesis of Composite Pavement Systems: Design and Performance," *3rd Annual Inter-university Symposium on Infrastructure Management (AISIM)*, Virginia Tech, Jun 2, 2007, Blacksburg, VA ("best paper" award).
37. Wu, Z. (advised by Flintsch, G.W.) "Network-Level Optimization Model for Pavement Maintenance and Rehabilitation Programming," *3rd Annual Inter-university Symposium on Infrastructure Management (AISIM)*, Virginia Tech, Jun 2, 2007, Blacksburg, VA ("best paper" award).
38. Chen, C. (advised by Flintsch, G.W.) "Fuzzy Logic-based Risk Analysis Model for Life-Cycle Cost Analysis of Infrastructure Projects," *2nd Annual Inter-university Symposium on Infrastructure Management (AISIM)*, Jun 10, 2006, Newark, DE.

39. Wang, H. (advised by Flintsch, G.W.) "Investigation of Short and Long-Term Variations of Pavement Surface Characteristics at the Virginia Smart Road," *2nd Annual Inter-university Symposium on Infrastructure Management (AISIM)*, Jun 10, 2006, Newark, DE ("best paper" award).
40. Flintsch, G.W., "Alternative HMA Characterization for M-E Pavement Rehabilitation Design," *2006 Southeastern States Pavement Management and Design Conference*, May 7-10, 2006, Panama City, FL.
41. Chen, C., and Flintsch, G.W., "Sensitivity Analysis for Fuzzy Logic-based Life-cycle Cost Analysis Approach," *6th National Conference on Transportation Asset Management*, Nov 8-10, 2005, Kansas City, MO.
42. Pantelias, A., Flintsch, G.W., Chen, C., and Bryant, J.W., "Asset Management Data Collection for Supporting Decision Processes," *6th National Conference on Transportation Asset Management*, Nov 8-10, 2005, Kansas City, MO.
43. Flintsch, G. W. and Kuttesch, J., "Effect of Wet Pavement Skid Resistance on Wet Accident Rates on Virginia Highways," (invited presentation) at the MAUTC *Transportation Engineering and Safety Conference*, Dec 7-9, 2005, Pennsylvania State University, University Park, PA.
44. Flintsch G.W. and McGhee, K. K., "Pavement Surface Properties Consortium – A Research Program at the Virginia Smart Road," *2005 Road Profilers User Group (RPUG)*, Oct 2005, Columbus, OH.
45. Chen, C., and Flintsch, G.W., "Sensitivity Analysis for Fuzzy Logic-based Life-cycle Cost Tools for Transportation Asset management," *1st Annual Inter-university Symposium on Infrastructure Management (AISIM)*, University of Waterloo, Aug 6, 2005, Waterloo, ON, Canada.
46. Flintsch, G.W., "Development of Premium Pavement Designs: Field Investigation of High Performance Pavements in Virginia," *2005 Southeastern States Pavement Management and Design Conference*, Jun 19-22, 2005, Savannah, GA.
47. Flintsch, G.W., Ferreira A.J., Chen, Ch., and Medina, A., "Development of Enhanced Transportation Asset Management Tools using Soft Computing," *XIII Pan-American Conference on Traffic and Transportation Engineering (PANAM XIII)*, Sep 26-29, 2004, Albany, NY (extended abstract in CD-ROM).
48. McGhee, K.K., Flintsch, G.W., "Validation of High-Speed Texture Measuring Equipment for Use in Highway Applications," *5th Symposium on Pavement Surface Characteristics*, SURF 2004, Roads and Airports, World Road Association (PIARC), Jun 6-10th, 2004, Toronto, Canada (in CD/DVD).
49. Flintsch, G.W., Luo, Y. and Al-Qadi, I.L., "Effect of Pavement Temperature on Frictional Properties of Hot-Mix-Asphalt Pavement Surfaces," *5th Symposium on Pavement Surface Characteristics*, SURF 2004, Roads and Airports, World Road Association (PIARC), Jun 6-10th, 2004, Toronto, Canada (in CD/DVD).
50. Flintsch, G.W., Medina, A., Luongo, G., Ayerza, M., Barchesi, A., Krugman, M., and Enrich, P., "Analysis of Permanent Deformations on Route 2, Rodo – Palmitas," (in Spanish) *Second National Highways Congress*, Oct 26-28, 1998, Montevideo, Uruguay.
51. Flintsch, G.W., Zaniewski, and Medina A., "Remaining Service Life - A Powerful Pavement Management Tool," *Ninth Ibero-Latin American Asphalt Congress*, Nov 2-7, 1997, Asunción, Paraguay.

52. Medina, A., Mamlouk, M., and Flintsch, G.W., “Status of SuperPave™ Implementation, Latin America,” invited lecture, *Latin American/U.S. Asphalt Technology Conference*, University of Texas, Oct-Nov, 1996, Austin, TX.

Other reports and papers

1. ADD NCHRP 10-98 15-55
2. Katicha, S, Shrestha, S, Flintsch, G.W., Diefenderfer, B.K., *Network Level Pavement Structural Testing With the Traffic Speed Deflectometer*, VTRC 21-R4, 2020 Charlottesville, VA, 36 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/21-R4.pdf.
3. Diefenderfer, B.K., Boz, I., Habbouche, J., Jones, D., Hand, A., Bowers, B. Flintsch, G., *Proposed AASHTO Practice and Tests for Process Control and Product Acceptance of Asphalt-Treated Cold Recycled Pavements*, NCHRP Research Report 960 Pre-Publication Draft, 2020, <https://www.nap.edu/download/25971>.
4. Flintsch, G.J Meijer, K Smith, *Improved Asphalt Pavement Sustainability through Perpetual Pavement Design, FHWA Case, 2020*, <https://rosap.nrl.bts.gov/view/dot/50764>
5. Zhou, F, Hu, S, Xue, W, Flintsch, G.W, *Optimizing the Lateral Wandering of Automated Vehicles to Improve Roadway Safety and Pavement Life*, SAFE-D: Safety Through Disruption National University Transportation Center, Dec 2019 <https://vtechworks.lib.vt.edu/handle/10919/96342>.
6. de León Izeppi, E., Katicha, S., Flintsch, G.W., McGhee, K., McCarthy, R., Smith, K., *Pavement Friction Management Program Utilizing Continuous Friction Measurement Equipment and State-of-the-Practice Safety Analysis Demonstration Project*, Report No. FHWA-RC-20-0009, Sep 2019, Federal Highway Administration, Washington, D.C (*in print*).
7. Flintsch, G., Estado de la gestión de activos viales en América Latina y el Caribe, (Status of Road Asset Management in Latin América and the Caribbean), Inter-American Development Bank, 2019, Washington, DC. <https://publications.iadb.org/es/estado-de-la-gestion-de-activos-viales-en-america-latina-y-el-caribe>.
8. de León Izeppi, E., Flintsch, G.W., Katicha, S., McGhee, K., McCarthy, R., *Locked-Wheel and Sideway-Force Continuous Friction Measurement Equipment Comparison and Evaluation Report*, FHWA-RC-19-001, May 2019, Federal Highway Administration, Washington, D.C <https://www.fhwa.dot.gov/pavement/management/pubs/fhwarec19001.pdf>.
9. de León Izeppi, E., Flintsch, G.W., McCarthy, R., *Evaluation of Methods for Pavement Surface Friction, Testing on NonTangent Roadways and Segments*, North Carolina Department of Transportation, FHWA/NC/2017-02, Aug 2017, Raleigh, NC. <https://connect.ncdot.gov/projects/research/RNAProjDocs/2017-02FinalReport.pdf>
10. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Demonstration of Network Level Structural Evaluation with Traffic Speed Deflectometer: Final Report*, 2017, TPF-5(282), 35pp. <https://www.pooledfund.org/Details/Study/518>.
11. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Evaluation of the TSD in California*, 2017, TPF-5(282), 28 pp. <https://www.pooledfund.org/Details/Study/518>.
12. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Evaluation of the TSD in Georgia*, 2017, TPF-5(282), 30 pp. <https://www.pooledfund.org/Details/Study/518>.

13. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Evaluation of the TSD in Idaho*, 2017, TPF-5(282), 29 pp. <https://www.pooledfund.org/Details/Study/518>.
14. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Evaluation of the TSD in Illinois*, 2017, TPF-5(282), 31 pp. <https://www.pooledfund.org/Details/Study/518>.
15. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Evaluation of the TSD in Nevada*, 2017, TPF-5(282), 25 pp. <https://www.pooledfund.org/Details/Study/518>.
16. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Evaluation of the TSD in New York*, 2017, TPF-5(282), 23 pp. <https://www.pooledfund.org/Details/Study/518>.
17. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Demonstration of the TSD in South Carolina*, 2017, TPF-5(282), 25 pp. <https://www.pooledfund.org/Details/Study/518>.
18. Katicha, SW, Flintsch, G.W., Shrestha, S., Thyagarajan, S., *Field Evaluation of the TSD in Virginia*, 2017, TPF-5(282), 41 pp. <https://www.pooledfund.org/Details/Study/518>.
19. Katicha, SW, Ercisli, S., Flintsch, G.W., Bryce, J., Diefenderfer, B.K. *Development of Enhanced Pavement Deterioration Curves*, VTRC 17-R7, 2016 Charlottesville, VA, 40 pp. <http://vtrc.virginia.gov/PubDetails.aspx?PubNo=17-R7>.
20. Bryce, J.M., Katicha, S.W., Diefenderfer, B.K., Flintsch, G.W., *Analysis of Repeated Network-Level Testing by the Falling Weight Deflectometer on I-81 in the Virginia Department of Transportation's Bristol District*, VTRC 17-R6, 2016 Charlottesville, VA, 39 pp. http://www.virginia.gov/vtrc/main/online_reports/pdf/17-r6.pdf.
21. Bryce, J.M., Flintsch, G.W., Katicha, S.W., Diefenderfer, B.K., Sarant, A., *Development of Pavement Structural Capacity Requirements for Innovative Pavement Decision-Making and Contracting: Phase II*, Virginia Transportation Research Council, VTRC 16-R20, 2016 Charlottesville, VA, 42 pp. http://www.virginia.gov/vtrc/main/online_reports/pdf/16-r20.pdf
22. Katicha, S.W., Flintsch, G.W., *Improving Mixture Durability Through Design Gyration, Air Voids, and Binder Content*, Virginia Transportation Research Council, VTRC 16-R17, 2016, Charlottesville, VA, 43 pp. http://www.virginia.gov/vtrc/main/online_reports/pdf/16-r17.pdf.
23. de León Izeppi, E., Katicha, S.W., Flintsch, G.W., McCarthy, R., *Continuous Friction Measurement Equipment As a Tool for Improving Crash Rate Prediction: A Pilot Study*, Virginia Transportation Research Council, VTRC 16-R18, 2016 Charlottesville, VA, 37 pp. http://www.virginia.gov/vtrc/main/online_reports/pdf/16-r8.pdf.
24. Flintsch, G.W., Smith, B.L., *Infrastructure Pavement Assessment & Management Applications Enabled by the Connected Vehicles Environment – Proof-of-Concept*, Final Report, Connected Vehicles- Infrastructure University Transportation Center (CVI-UTC), Virginia Tech Transportation Institute, 2015. Blacksburg, VA, 13 pp. http://cvi-utc.org/wp-content/uploads/2015/10/Flintsch_Final.pdf.
25. Mogrovejo, D., Flintsch, G.W., Katicha, S.W., de León Izeppi, E.D., McGhee, K.K., *Optimization of Pavement Surface Properties*, Final Report, submitted to the Center for Advanced Infrastructure and Transportation, Rutgers, CAIT-UTC-NC21, 2015, Piscataway, NJ, 19 pp. <http://cait.rutgers.edu/files/CAIT-UTC-NC21-final.pdf>.
26. Flintsch, G.W., de León Izeppi, E., *Training on Pavement Surface Characteristics*, Final Report, submitted to the Mid-Atlantic University Transportation Center (MAUTC), Pennsylvania State University, 2015. University Park, PA, 12 pp.

27. Tang, L., Flintsch, G.W., *Field Assessment of Splash & Spray*, Final Report, submitted to the Mid-Atlantic University Transportation Center (MAUTC), Pennsylvania State University, 2015. University Park, PA, 12 pp.
28. de León Izeppi, E., Morrison, A., Flintsch, G.W., McGhee, K.K., *Best Practices and Performance Assessment for Preventive Maintenance Treatments for Virginia Pavements*, Virginia Transportation Research Council, VTRC 16-R3, 2015, Charlottesville, VA, 58 pp.
<http://vtrc.virginia.gov/PubDetails.aspx?PubNo=16-R3>.
29. Boriack, P.C., Katicha, S.W., Flintsch, G.W., Tomlinson, C.R., *Laboratory Evaluation of Asphalt Concrete Mixtures Containing High Contents of Reclaimed Asphalt Pavement (RAP) and Binder*, Virginia Center for Transportation Innovation and Research, 2014, VCTIR 15-R8. Charlottesville, VA, 38 pp.
<http://vtrc.virginia.gov/PubDetails.aspx?PubNo=15-R8>.
30. Flintsch, G.W., Tang, L., Katicha, S.W., de León, E., Viner, H., Dunford, A., Nesnas, K., Coyle, F., Sanders, P., Gibbons, R., Williams, B., Hargreaves D., Parry, T., McGhee, K., Larson, R.M., and Smith K. (2014), *Splash and Spray Assessment Tool Development Program*, Final Report, 2014, DTFH61-08-C-00030.
<http://hdl.handle.net/10919/50550>.
31. Bryce, J., Flintsch, G.W., Katicha, S., and Diefenderfer, B., *Network-Level Structural Capacity Index for Network-level Structural Evaluation of Pavements*, Virginia Center for Transportation Innovation and Research, VCTIR 13-R9, 2013. Charlottesville, VA, 63 pp.
http://www.virginia.gov/vtrc/main/online_reports/pdf/13-r9.pdf.
32. Flintsch, G.W., Katicha, S.W., Bryce, Ferne, B., J., Nell, S., Diefenderfer, B., *Assessment of Continuous Pavement Deflection measuring Technologies*, Second Strategic Highway Research Program (SHRP 2), S2-R06F-RW-1, 2013, The National Academies, Washington, DC.
<http://onlinepubs.trb.org/onlinepubs/shrp2/SHRP2prepubR06F.pdf>.
33. de León Izeppi, E.D., Flintsch, G.W., and McGhee, K.K., *Field Performance of High-Friction Surface*, Virginia Transportation Research Council, VTRC 10-CR6, Jun 2010, Charlottesville, VA, 28 pp.
http://www.virginia.gov/vtrc/main/online_reports/pdf/10-cr6.pdf.
34. Katicha, S.W., de León Izeppi, E., and Flintsch, G.W., *Multivariate Volumetric Specifications and Dynamic Modulus as a Quality Measure for Asphalt Concrete Materials*, Virginia Transportation Research Council, VTRC 10-CR8, Jun 2010, Charlottesville, VA, 33 pp.
http://www.virginia.gov/vtrc/main/online_reports/pdf/10-cr8.pdf.
35. Flintsch, G.W., and McGhee, K.K., *NCHRP Synthesis 401 - Quality Management of Pavement Condition Data Collection*, Transport Research Board, NAS-NRC, 2009, Washington, DC, 155 pp. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_401.pdf.
36. Sprinkel, M., Roosevelt, D.S., Flintsch, G.W., de León*, E.D., Mokarem, D., *Evaluation of the Cargill SafeLane Surface Overlay*, Virginia Transportation Research Council, VTRC 09, R8, Feb 2009, Charlottesville, VA, 52 pp.
http://www.virginia.gov/vtrc/main/online_reports/pdf/09-r8.pdf.
37. Flintsch, G.W., Diefenderfer, B.K., Nunez*, O., *Composite pavement systems :synthesis of design and construction practices*, Virginia Transportation Research Council, VTRC 09-CR2, Oct 2008, Charlottesville, VA, 55 pp.
http://www.virginia.gov/vtrc/main/online_reports/pdf/09-cr2.pdf.

38. Flintsch, G.W., and Bryant, J. W. Asset Management Data Collection for Supporting Decision Processes, Federal Highway Administration Report, March 2009, http://www.fhwa.dot.gov/asset/dataintegration/ifa08018/assetmgmt_web.pdf.
39. Flintsch, G.W., Loulizi, A., Diefenderfer, S.D., Galal, K.A., Diefenderfer, B.K., *Asphalt Materials Characterization in Support of Implementation of the Proposed Mechanistic-Empirical Pavement Design Guide*, Virginia Transportation Research Council, VTRC 07-CR10, Jan 2007, Charlottesville, VA, 48 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/07-cr10.pdf.
40. Loulizi, A., Flintsch, G.W., and McGhee, K.K., *Determination of the In-place Hot-Mix Asphalt Layer Modulus for Rehabilitation Projects using a Mechanistic-Empirical Procedure*, Virginia Transportation Research Council, VTRC 07-CR1, Jul 2006, Charlottesville, VA, 26 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/07-cr1.pdf.
41. Flintsch, G.W., Al-Qadi, I.L., Loulizi, A., Mokarem, D.M., *Laboratory Tests for Hot-Mix Asphalt Characterization in Virginia*, Virginia Transportation Research Council, VTRC 05-CR22, Jun 2005, Charlottesville, VA, 52 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/05-cr22.pdf.
42. Flintsch, G.W., Al-Qadi, I.L., Loulizi, A., Lahouar, S., McGhee, K.K., and Clark, T., *Field Investigation of High Performance Pavement in Virginia*, Virginia Transportation Research Council, VTRC 05-CR9, Feb 2005, Charlottesville, VA, 36 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/05-cr9.pdf.
43. Bennett, C.R., Chammoro, A., Chen*, C., de Solminihac, H. and Flintsch, G.W., *Data Collection Technologies for Road Management*, The World Bank, Feb 2005, Washington, DC, 124 pp. http://www.lpcb.org/lpcb-downloads/other_reports/2005_data_collection_technologies.pdf.
44. Flintsch, G.W., Dymond, R., and Collura J., *NCHRP Synthesis of Highway Practice 335 - Pavement Management Applications using Geographic Information System*, Transport Research Board, NAS-NRC, 2004, Washington, DC, 75 pp. http://trb.org/publications/nchrp/nchrp_syn_335.pdf.
45. Flintsch, G.W., *Assessment of the Performance of Several Roadway Mixes Under Rain, Snow, and Winter Maintenance Activities*, Virginia Transportation Research Council, VTRC 04-CR18, Feb 2004, Charlottesville, VA, 26 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/04-cr18.pdf.
46. McGhee, K.K., Flintsch, G.W., de León*, E., *Using High-Speed Texture Measurement to Improve the Uniformity of Hot-Mix Asphalt*, Virginia Transportation Research Council, VTRC 03-R12, May 2003, Charlottesville, VA, 32 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/03-r12.pdf.
47. McGhee K.K., and Flintsch, G.W., *High-Speed Texture Measurement of Pavements*, Virginia Transportation Research Council, VTRC 03-R9, Feb 2003, Charlottesville, VA, 22 pp. http://www.virginiadot.org/vtrc/main/online_reports/pdf/03-r9.pdf.
48. Al-Qadi, I.L., Loulizi, A., Flintsch G.W., Decker, R., Roosevelt, D., Wambold, J., Nixon, W., and Amana, A., *NCHRP 6-14 - Feasibility of Using Friction Indicators to Improve Winter Maintenance Operations and Mobility, Final Report*, Transport Research Board, NAS-NRC, Nov 2002, NCHRP Web Document 53, Washington, DC, 151 pp. http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_w53.pdf.
49. Flintsch, G.W., Zaniewski, J.P., and Delton, J., *Expert Project Recommendation Procedure for ADOT's Pavement Management System*, Arizona Department of Transportation, Report AZ-SP-9603, 1996, Phoenix, AZ.

50. Flintsch, G.W., and Medina, A., *Pavement Management Systems Workshop - Case Study Handbook*, Pan-American Institute of Highways, National Highway Institute, FHWA, 1997, McLean, VA.
51. Flintsch, G.W., and Medina, A., *Flexible Pavements, Analysis, Design, Construction and Quality Control - Student Handbook*, Pan-American Institute of Highways, National Highway Institute, FHWA, 1996, McLean, VA.
52. Flintsch, G.W., and Medina, A., *Pavement Management Systems Course - Student Handbook*, Pan-American Institute of Highways, National Highway Institute, FHWA, 1993, McLean, VA.
53. Flintsch, G.W., and Zaniewski, J.P., *RSMS, A Generic Road Surface Management System for Local Governments - User's Manual*, Technical Report 93-3, Department of Civil Engineering, College of Engineering and Applied Sciences, Arizona State University, 1993, Tempe, AZ.
54. Flintsch, G.W., *Review of Retroreflective Sheeting Materials, Practices and Policies*, Arizona Transportation Research Center, Arizona Department of Transportation, Report AZ-SP-9304, 1992, Phoenix, AZ.
55. Flintsch, G.W., *The Structural Evaluation of Pavement and Its Application to Flexible Pavement Overlay Design*, Fifth National Highway Award, Editorial Banda Oriental, 1990, Montevideo, Uruguay.

Invited keynote presentations or lectures

1. Flintsch, G.W., “Tendencias en la Gestión de Activos Viales (Trends in Road Asset Management),” **invited presentation**, Unidad de Mantenimiento Vial, Bogota Colombia (virtual), Mar 17, 2021.
2. Flintsch, G.W., “Sistemas Modernos de Administración de Activos Viales (Modern Road Asset Management Systems),” **invited presentation**, PIARC Seminar, Quito, Ecuador (virtual), Dec 16, 2020.
3. Flintsch, G.W., “Evolución y Tendencias en la Gestión de Activos Viales (Evolution and Trends in Road Asset Management),” **invited presentation**, Pre-XVII Congreso Argentino de Vialidad y Tránsito, Buenos Aires, Argentina (virtual), Nov 11-12, 2020.
4. Flintsch, G.W., “Gestión de Activos Viales en Tiempos de Vehículos Autónomos e Infraestructura Inteligente (Managing Assets in Times of Autonomous Vehicles and Intelligent Infrastructure),” **invited presentation**, Intelligent Technologies Cycle, ITS Argentina (virtual), Jul 29, 2020.
5. Flintsch, G.W., “Pavement Friction Discussion,” **virtual invited presentation**, NIRA Dynamics, Linköping, Sweden (virtual), May 12, 2020.
6. Flintsch, G.W., “Update on VTTI Asphalt Research,” **invited presentation**, *Mid-Atlantic Asphalt Expo & Conference*, Richmond, VA, Dec 11-12, 2019.
7. Flintsch, G.W., “Managing Assets in the Age of Autonomous Vehicles, Intelligent Infrastructure and Human-Centered Communities,” **keynote speech**, Deighton User Conference, July 15-19, 2019, Boston, MA.
8. Flintsch, G.W., “Información para la Toma de Decisiones,” (Information for Decision Making), **invited presentation**, International Forum on Preservation of Urban Roads, May 23 -24, 2019, Bogotá, Colombia.

9. Flintsch, G.W., “The Future of Road Engineering: The Road of the Future,” **invited panel presentation**, IRF Global Road2Tunnel Conference, Las Vegas, NV, Nov. 7-9, 2018.
10. Flintsch, G.W., “PIARC Efforts for Training the Next Generation of Asset Managers,” **invited panel presentation**, PIARC International Seminar on Asset Management: “Global Approaches to Advance Road Asset Management,” Petaling Jaya, Malaysia, Oct. 29-31, 2018.
11. Flintsch, G.W., “Managing Assets in the Age of Autonomous Vehicles, Intelligent Infrastructure and Human-Centered Communities,” **invited presentation**, PIARC International Seminar on Asset Management: “Global Approaches to Advance Road Asset Management,” Petaling Jaya, Malaysia, Oct. 29-31, 2018.
12. Flintsch, G.W., “Gestión de Pavimentos en los Tiempos de los Vehículos Autónomos y la Infraestructura Inteligente,” (Pavement Management in the Age of Autonomous Vehicles and Intelligent Infrastructure), **keynote speech**, XXI Colombian Pavement Engineering Symposium, August 29 -31, 2018, Medellin, Colombia.
13. Flintsch, G.W., “Impacto de Incorporar la Seguridad Vial a la Gestión de Activos Viales,” (Impact of Incorporating Road Safety to Road Asset Management), **keynote speech**, XXI Colombian Pavement Engineering Symposium, August 29 -31, 2018, Medellin, Colombia.
14. Flintsch, G.W., “Management of Pavement Assets in Virginia,” **invited presentation**, *International Symposium of the 32nd Japan Road Conference*, Nov. 1, 2017, Tokyo, Japan.
15. Flintsch, G.W., “Use of High Speed Deflectometers for Last Generation of Pavement Management” (Uso de los Deflectógrafos de Alta Velocidad para la Gestión de Pavimentos de Última Generación), **keynote presentation**, *International Symposium on Technological Innovation in Roadway*, Oct. 6-7, 2017, Guadalajara, Mexico.
16. Flintsch, G.W., “Activities of the AIPCR-PIARC related to Asset Management” (Actividades de la AIPCR-PIARC en el ámbito de la Gestión de Activos), **invited presentation**, *International HDM-4 Congress*, Sep. 26-27, 2017, Santiago, Chile.
17. Flintsch, G.W., “The Virginia Smart Road,” **keynote presentation**, *Ontario Road Builders Association - Innovation Convention*, Feb. 6-7, 2017, Toronto, Canada.
18. Flintsch, G.W., “The Role of the US in Road Research, Contributions from the Virginia Tech Transportation Institute,” **invited presentation**, *1st European Road infrastructure Congress*, Oct 18-20, 2016, Leeds, UK.
19. Flintsch, G.W., “Road Safety, Role of Research and Innovation,” **invited presentation**, *1st European Road infrastructure Congress*, Oct 18-20, 2016, Leeds, UK.
20. Flintsch, G.W., “Impact of Pavement Management on the Sustainability of our Roadway Networks” (Impacto de la Gestión de Pavimentos en la Sostenibilidad de Nuestras Redes Viales), **invited presentation**, *Construction Summit 2016*, Mar 16-17, 2016, San Jose, Costa Rica.
21. Flintsch, G.W., “Impact of Pavement Management on the Sustainability of our roadway Networks” (Impacto de la Gestión de Pavimentos en la Sostenibilidad de Nuestras Redes Viales), **invited presentation**, *10^o Congreso de la Vialidad Uruguaya*, , Oct 15-17, 2015, Montevideo, Uruguay.
22. Flintsch, G.W., “Asset Management: A Key Tool for Enhancing the Sustainability of our Transportation Infrastructure,” **invited presentation**, *Mid-Atlantic Transportation Sustainability UTC's Green & Blue Highways Symposium* (offered also as a webinar), May 6, 2015, Arlington, VA.

23. Flintsch, G.W., “Some Lessons Learned from Surface Properties Research at the Virginia Smart Road,” **2013 H.W. Kummer Lecture**, *ASTM Committee E17 on Vehicle - Pavement Systems*, Jacksonville, FL, Dec 10, 2013.
24. Flintsch, G.W., “Pavement Management: Evolution and Tendencies” (Gestión de Pavimentos: Evolución y Tendencias), **invited presentation**, XIX Simposio Colombiano sobre Ingeniería de Pavimentos, Oct 22-25, 2013, Bogotá, Colombia
25. Flintsch, G.W., “Interaction between the Road Infrastructure and the Vehicles, Smart Highways and their Impact on Transportation Sustainability” (Interacción de la Infraestructura Vial con los Vehículos, Carreteras Inteligentes y su Impacto en la Sostenibilidad del Transporte), **invited presentation**, *Jornadas Internacionales del Asfalto*, Oct 8-12, 2012, Bogotá, Colombia.
26. Flintsch, G.W., “Tire-pavement Friction Management Programs for Improving Road Safety” (Programas de gestión de la fricción entre el neumático y el pavimento para mejorar la seguridad vial), **invited presentation**, *Jornadas Internacionales del Asfalto*, Oct 8-12, 2012, Bogotá, Colombia.
27. Flintsch, G.W., “Research, Development and Innovation in Civil Infrastructure Management” (Investigación, Desarrollo e Innovación en Gestión de Infraestructura Civil), **invited presentation**, Seminario Internacional sobre Gestión de Infraestructura, Aug 26, 2011, Bogotá, Colombia.
28. Flintsch, G.W., “Pavement Evaluation: Evolution and Tendencies” (Evaluación de Pavimentos; Evolución y Tendencias), **invited presentation**, *1st Transportation Infrastructure Congress CiTRANS*, Jun 15-16, 2011, San José, Costa Rica.
29. Flintsch, G.W., “Sustainable Pavements,” **invited presentation**, *2010 Arizona Pavements/ Materials Conference*, Nov 17, 2010, Tempe, AZ.
30. Flintsch, G.W., “Pavement Management and its Contribution to the Development of a Sustainable Road Infrastructure” (La Gestión de Pavimentos y su Contribución al Desarrollo de una Infraestructura Vial Sostenible), **keynote presentation**, *7^{as} Jornadas Internacionales del Asfalto, Pavimentos Ecológicos y Nuevas Tecnologías para la Construcción de Vías*, Aug 11, 2010, Cartagena, Colombia.
31. Flintsch, G.W., “Road Asset Management: Evolution and Trends,” **invited keynote presentation**, Clinic AC 6 Road Asset Management, May 25-27, 2010, Asian Development Bank Forum, Manila, Philippines.
32. Flintsch, G.W., “Sustainable Pavement Systems” (Sistemas de Pavimentos Sostenibles), **invited workshop presentation**, *XV Ibero-Latin-American Asphalt Congress (XV CILA)*, Nov 22-27, 2009, Lisboa, Portugal.
33. Flintsch, G.W., “Impact of the Adoption of Mechanistic-Empirical Design methods on Pavement Management” (Impacto de la Adopción de Métodos de Diseño Empírico-Mecanísticos en la Gestión de Pavimentos), **keynote presentation**, *7th Uruguayan Road Congress*, Oct 7-9, 2009, Montevideo, Uruguay.
34. Flintsch, G.W., “Trends in the Design of Flexible Pavements in the United States (Sistemas de Gestión de la Infraestructura Vial: Evolución y Tendencias),” **keynote presentation**, *XVII National Land Transportation Engineering Meeting*, Jul 23-25, 2008, Monterrey, Mexico.
35. Flintsch, G.W., “Mechanistic-Empirical Pavement Design and Performance Prediction, Opportunities and challenges for PMS,” **keynote speech**, *3rd European pavement and Asset management Conference*, Jul 7-9, 2008, Coimbra, Portugal.

36. Flintsch, G.W., "Characterization of Materials for Pavement Construction (Caracterización de los Materiales para la Construcción de Pavimentos)," **keynote speech**, *XIV Ibero-Latin-American Asphalt Congress (XIV CILA)*, Nov 18-23, 2007, La Havana, Cuba.
37. Flintsch, G.W., "Education and Training Opportunities," **invited plenary presentation**, *2007 National Conference on Pavement Management: PMS, Meeting Today's Needs and the Challenges of Tomorrow*, May 6-9, 2007, Norfolk, VA.
38. Flintsch, G.W., "Intelligent Highways: Searching for more Efficient and Durable Pavements," **keynote speech**, *Second Ibero-American Symposium on Pavement Engineering*, July 26-30, 2006, Quito, Ecuador.
39. Flintsch, G.W., "Smart Road Pavement Research," **invited plenary presentation**, *Eighth International Symposium of Civil Engineering*, Feb. 21 to 23, 2001, Monterrey, Mexico.
40. Flintsch, G.W., and Medina A., "The HDM-III Model and Its Application in Pavement Management," **invited lecture**, *First International Seminar PROVIAL of Uruguay*, World Bank, Punta del Este, Uruguay, Oct. 1994.

Other Presentations (not previously listed; not a comprehensive list)

1. Flintsch, G.W., "Assessing the Contribution of Pavements of Rolling Resistance, US and European Experiences," *NAPA United States Asphalt Rolling Resistance Workshop*, Dec 14, 2017, Chicago, IL.
2. Flintsch, G.W., "SHRP 2 Research Update on Continuous Deflection Study," *Workshop on Continuous Deflection Measurements for Highway Infrastructure Assessments, held at the 91st Annual Meeting of the Transportation Research Board, Washington, D.C., Jan. 22, 2012.*
3. Flintsch, G.W., "Sustainable Pavements: Technical Challenges and Research Needs," invited presentation at the *2nd FHWA Sustainable Pavement Technical Working Group (SPTWG) Meeting*, Atlanta, GA, Nov 2, 2011.
4. Crispino, M. "Evaluation of Long-Term Environmental and Functional Benefits of an Innovative Photocatalytic Road Pavement," *T&DI/ASCE 2010 Green Streets and Highways Conference*, Nov. 14-17, 2010, Denver, CO (presented by Flintsch, G.W.).
5. Bennett, C., "Data Collection Technologies for Road Management." *7th International Conference on Managing Pavement Assets*, June 24-28, 2008, Calgary, Canada (presented by Flintsch, G.W.).
6. Bennett, C., "Data Collection Technologies for Pavement Management Systems." *7th International Conference on Managing Pavement Assets*, June 24-28, 2008, Calgary, Canada (presented by Flintsch, G.W.)
7. de León, E.D., Flintsch, G.W., and K.K. McGhee, "Pavement Surface Properties Consortium Preliminary Research Findings," *15th Annual NASA/FAA Tire/Runway Friction Workshop*, May 12-16, 2008, Wallops Island, VA.
8. Flintsch, G.W., OPRCs Using Microenterprises (P08-0353) invited presentation, *Output- and Performance-Based Road Contracts Workshop* held at the *87th Annual Meeting of the Transportation Research Board*, Jan 13, 2008, Washington, DC.
9. Nunez O. and Flintsch, G.W., "Synthesis of Composite Pavement Systems: Design and Performance," Paper P08-0055 (award winning AISIM paper), *87th Annual Meeting of the Transportation Research Board*, Jan. 13-17, 2008, Washington, DC.

10. Wu, Z. and Flintsch, G.W., "Network-Level Optimization Model for Pavement Maintenance and Rehabilitation Programming," Paper P08-0056 (award winning AISIM paper), *87th Annual Meeting of the Transportation Research Board*, Jan. 13-17, 2008, Washington, DC.
11. Flintsch, G.W., "Infrastructure Management Systems: Evolution and Trends" (Sistemas de Gestión de Infraestructura: Evolución y Tendencias), Universidad Ricardo Palma, Jan 15, 2007, Lima, Perú.
12. Flintsch, G.W., and K.K. McGhee, "Pavement Surface Properties Consortium – A Research Program at the Virginia Smart Road," *13th Annual NASA Tire/Runway Friction Workshop*, May 22-26, 2006, NASA, Wallops Island, VA.
13. Flintsch, G.W., "The Virginia Smart Road: Searching for Long-lasting, Safe and Smooth Pavements," *International Highway Engineering Exchange Conference*, Sep 10-14, 2006, Williamsburg, VA.
14. Flintsch, G.W., and Bryant, J.W., "Linking Data with Decision Making: Data Stewardship Issues," invited state-of-the-art presentation at the *Data Stewardship: Meeting the Challenges of Enterprise Data Management Workshop*, *85th Annual Meeting of the Transportation Research Board*, Jan. 22, 2006, Washington, DC.
15. Bennett, C.R. and Flintsch, G.W., "Data Collection Technologies for Road Management," invited presentation at the *Automatic Survey of Pavement Distress Workshop*, *85th Annual Meeting of the Transportation Research Board*, Jan. 22, 2006, Washington, DC.
16. Flintsch, G.W., "Roadway Management Systems: Evolution and Trends." invited presentation at the National Laboratory of Materials and Structural Models (LANAMME), University of Costa Rica, May, 2005, San Jose, Costa Rica.
17. Flintsch, G.W., and Chen Ch., "Computing Based Infrastructure Life Cycle Cost Analysis Tools," at the *ASCE 2004 Symposium on Information Technology in Civil Engineering* held in conjunction with the 2004 Annual Meeting of the American Society of Civil Engineers in Baltimore, MD.
18. Flintsch, G.W., "Geographic Information System Applications in Pavement Management, Project Update" Committee A2B01 on Pavement Management Systems, *83rd Annual TRB Meeting*, Jan., 2004, Washington, DC.
19. Flintsch, G.W., "Winter Maintenance Research at the Virginia Smart Road," American Institute of Chemical Engineering, East Tennessee Section, Mar. 12, 2003, Eastman Chemical Company, Kingsport, TN.
20. Flintsch, G.W., "Survey of State Practices on Geographic Information System Applications In Pavement Management," Committee A2B01 on Pavement Management Systems, *82nd Annual TRB Meeting*, Jan., 2003, Washington, DC.
21. Flintsch, G.W., "Pavement Surface Characteristics Research at the Virginia Smart Road," presentation at the *9th Annual NASA Tire/Runway Friction Workshop*, NASA Wallops Flight Facility, VA, May 13-17, 2002.
22. Flintsch, G.W., "Pavement Research at the Virginia Smart Road," at the Institute of Transportation Engineers chapter Meeting, Blacksburg, VA, Mar. 2001.
23. Davis, R., Flintsch, G.W., Prowell, B., and Al-Qadi, I.L., "Evaluation of Friction Characteristics of SuperPave™ Hot Asphalt Mixes at the Virginia Smart Road," Committee A2D03 on Surface Characteristics, *80th Transportation Research Board Meeting*, Washington, DC, Jan. 2001.

24. Flintsch, G.W., "Intelligent Infrastructure Asset Management Systems," *Second Intentional Workshop on Artificial Intelligence and Numerical Methods In Pavement and Geomechanical Engineering Systems*, Newark, DE, Aug. 11-12, 2000.
25. Flintsch, G.W., and Al-Qadi, I.L., "Smart Road Update," Committee A2K07 on Geosynthetics at the *79th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan. 6-13, 1999.