

SANJAYA SENADHEERA, Ph.D.
Associate Professor of Civil, Environmental and Construction Engineering
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Professional Preparation

B.S.E. in Civil Engineering, University of Peradeniya, Sri Lanka, 1981
M.S.E. in Civil Engineering, Texas A&M University in College Station, 1990
Ph. D. in Civil Engineering, Texas A&M University in College Station, 1995

Professional Chronology

Director, Texas Tech Center for Multidisciplinary Research in Transportation (2015-present)
Associate Director, Southern Plains Transportation Center (SPTC), A USDOT Regional UTC (2013-Present)
Interim Director, Texas Tech Center for Multidisciplinary Research in Transportation (2012-2015)
Associate Professor (Tenured), Dept. of Civil, Env. & Construction Engineering, TTU (2007-present)
Assistant Professor (Tenure-Track), Dept. of Civil & Environmental Engineering, TTU
Research Assistant Professor (Graduate Faculty), Dept. of Civil Engineering, TTU (1996-2001)
Research Associate, Dept. of Civil Engineering, TTU (1994-1996)
Business Data Analysis, Data Management Systems, Sri Lanka (1986-1987)
Works Manager/Design Engineer/Project Engineer, State Engineering Corporation, Sri Lanka (1981-1986)

Research Interests

Civil engineering materials, Sustainable materials systems, Sustainable engineering design, Pavement engineering, Infrastructure systems, Engineering education

Honors/Awards

Elected to the Texas Tech Teaching Academy (2012)
George T. and Gladys Abell-Hanger Faculty Award for Teaching (2008)
Texas Tech Alumni Association New Faculty Award (2004)
TxDOT Top Ten Innovative Research Project Award (1999, 2001)
Merit Award, Professional Licensure Examination, Institution of Civil Engineers, London, UK (1985)

Synergistic Activities/Committee Membership

Subcommittee on Sustainable Pavements AFD000(3), Transportation Research Board.

Selected Publications (Last 10 years)

Refereed Journal Articles

1. Cui, Y., Liang, D., Senadheera, S., Lawson, W., Song, L., Nejat, A. A Case Study of Expenditure on Snow and Ice Control for Roadway Maintenance. Accepted, in press. *ASCE J. of Cold Regions Eng.*
2. Lawson, W., Goehl, D. C. and Senadheera, S. (2017). Implementation of Ultra High Pressure Water Cutting for Treatment of Flushed Chip Seals in the U.S., *Int. J. of Pavement Eng.* , Vol. 18(1).
3. Lawson, W., Senadheera, S., Surles, J., (2015). Ultra High Pressure Water Cutting Treatment of Flushed Chip Seals in the United States: Effectiveness and Durability. *Transportation Research Record 2481: J. of the Transportation Research Board.*

4. Xu, H., Liu, H., Fernando, H., Senadheera, S., (2013). Volume-to-Capacity Estimation of Signalized Road Networks for Metropolitan Transportation Planning. *Transportation Research Record 2305: J. of the Transp. Research Board*.
5. Ryu, S. W., Jaiswal, H., Choi, S., Senadheera, S., Jayawickrama, P., Won, M.-C. (2012). Rational Use of Terminal Anchorages in Portland Cement Concrete Pavements. *Transportation Research Record: J. of the Transp. Research Board, 2305*.
6. Lawson, W. D. and Senadheera, S. (2009). Chip Seal Maintenance: Solutions for Bleeding and Flushed Pavement Surfaces, *Transportation Research Record 2108: J. of The Transp. Research Board*.
7. Hassan A. Ghanem, R. Scott Phelan, Sanjaya Senadheera and Kevin R. Pruski, Chloride Ion Transport in Bridge Deck Concrete Under Different Curing Durations, *J. of Bridge Eng.*, Vol. 13(3), ASCE.

Book Chapters

1. Sanjaya Senadheera, Impact of Hydraulic Fracturing on Transportation Infrastructure. in Venkatesh Uddameri, Audra Morse and Kayla Tindle (Ed.), *Hydraulic Fracturing Impacts and Technologies: A Multidisciplinary Perspective*. CRC Press, Taylor & Francis Group LLC. (in press)

Peer-Reviewed Proceedings

1. Osmani, F., Hettiwatte, M., Kshirsagar, S., Senadheera S. and Zhang, H. C. (2017), Development of an Environmental Life-Cycle Assessment (LCA) Protocol for Flexible Pavements that Integrates Life-Cycle Components to a Proprietary Software, *Accepted for presentation and publication in proceedings*, Pavement Life-Cycle Assessment Symposium, Champaign, Illinois, April 2017.
2. Senadheera, S. (2012). A Pathway for Effective Teaching of Sustainable Material Selection to Civil Engineers. *Proceedings*. Granta Design 2012 Materials Education Symposium, San Luis Obispo, CA.
3. Senadheera, S., Lawson, W. (2012). *Evaluation of the Effectiveness of Ultra High Pressure (UHP) Water Cutter to Treat Flushed Asphalt Pavements*. *Proceedings*, 91st Annual Meeting of the Transportation Research Board, National Research Council, Washington DC.
4. Andrew Tubb and Sanjaya Senadheera, Laboratory Investigation of the Influence from Aggregate and Climate on Stiffness Development in a Seal Coat Emulsion, *Proceedings*, Transportation Research Board Annual Meeting, Washington DC, 2011.
5. Sanjaya Senadheera, Capacity Building for Sustainable Engineering Practice: A Civil Engineering Education Perspective, *Proceedings*, 1st Int. Conf. on Sustainable Built Environment, Sri Lanka, 2010.
6. Sanjaya Senadheera, Material Systems for Sustainable Civil Engineering Design: A Course Syllabus, Delivery and Student Feedback, *Proceedings*, 2nd Intl. national Conference on Sustainable Construction Materials and Technologies, Ancona, Italy, 2010.
7. P. W. Jayawickrama, Michael Merrick and Sanjaya Senadheera, Laboratory Evaluation of a New Test Procedure for Measuring Flexural Strength of Base Binders, *Proceedings*, Transportation Research Board Annual Meeting, Washington DC, 2010.
8. Sanjaya Senadheera, Material Systems for Sustainable Civil Engineering Design: A Course Syllabus, Delivery and Student Feedback, *Proceedings*, Second International Conference on Sustainable Construction Materials and Technologies, Università Politecnica delle Marche, Ancona, Italy 2010
9. P. W. Jayawickrama, Michael Merrick and Sanjaya Senadheera, Laboratory Evaluation of a New Test Procedure for Measuring Flexural Strength of Base Binders, *Proceedings*, Transportation Research Board 2010 Annual Meeting in Washington DC, 2010.