

Priyantha W. Jayawickrama, Ph.D.

Associate Professor of Civil and Environmental Engineering

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EDUCATIONAL BACKGROUND

Ph.D. in Civil Engineering, May 1990

Texas A & M University, College Station, Texas

Dissertation: Liquid Transfer through Preferential Flow Paths in Compacted Clay

M.S. in Civil Engineering, May 1985

Texas A & M University, College Station, Texas

Thesis: Methodology for Predicting Asphalt Concrete Overlay Life Against Reflection Cracking

B.Sc. (Honors) in Engineering, September 1980

University of Peradeniya, Sri Lanka

Senior Project: Stress-Strain Properties of Compacted Clays

EMPLOYMENT HISTORY

- Aug 1996 to Present **Associate Professor**, Department of Civil and Environmental Engineering, Texas Tech University
Duties include teaching Graduate and Undergraduate Courses in Geotechnical Engineering, Coordinating and directing geotechnical engineering laboratory classes, Conducting research in geotechnical and pavement engineering topics
- Nov 1998 to Oct 2006 **Director**, Center for Multidisciplinary Research In Transportation Texas Tech University
Responsibilities included overall direction and coordination of research activities for TechMRT, a center that serves as the administrative focal point between transportation researchers and external funding agencies
- Aug 1990 to Aug 1996 **Assistant Professor**, Department of Civil Engineering, Texas Tech University
Duties include teaching Graduate and Undergraduate Courses in Geotechnical and Pavement Engineering, Coordinating and directing geotechnical engineering laboratory classes, Undergraduate advising, Conducting research in geotechnical, geoenvironmental engineering and pavement materials/designs
- Jan 1983 to May 1990 **Graduate Research Assistant**, Department of Civil Engineering, Texas A & M University
Performed research work under research grants from the U.S. Environmental Protection Agency (US EPA), Federal Highway Administration (FHWA) and U.S. Air Force Office of Scientific Research (AFOSR)
- Sep 1980 to Dec 1982 **Assistant Lecturer**, Dept. of Civil Engineering, University of Peradeniya, Sri Lanka
Duties included teaching junior level undergraduate courses. Supervision of structural and geotechnical engineering design classes for the senior level students

HONORS, AWARDS AND OTHER RECOGNITIONS

- 2009 Texas Section ASCE Best of the Session (Geotechnical) Paper Award, for the paper entitled Performance Evaluation of an MSE/Soil Nail Hybrid Wall
- 2005 Charles L. Burford Teaching Excellence Award, College of Engineering, Texas Tech University
- 2005 Recognized as an Outstanding Educator by the Texas Tech Forum Chapter of Mortar Board, based on nomination by Civil Engineering undergraduate student, Nathan Nash
- 2004 George T. and Gladys Hanger Abell Teaching Excellence Award, College of Engineering, Texas Tech University
- 2001 Named in the Texas Higher Education: Research and Professional Experts, An Academic Research Resource Guide compiled by Senator Kay Bailey Hutchinson and Presented to US. Senate
- 2001 Texas Department of Transportation Top Innovator Award for contributions through Research Project 0-1771: Micro-Deval Test for the Evaluation of Aggregate Durability
- 2001 Texas Section ASCE Best of the Session (Geotechnical) Paper Award, for the paper entitled Performance of Large Diameter HDPE Pipe Under Maximum Fill Height And Minimum Cover Situations
- 2000 Texas Section ASCE Best of the Session (Materials) Paper Award, for the paper entitled Evaluation of Pavement Aggregate Durability Using the Micro-Deval Test
- 1995 Texas Tech University President's Excellence in Teaching Award, Civil Engineering Department Nominee.
- 1994 National Science Foundation; Research Initiation Award, 1994, Awarded by Geomechanical, Geotechnical and Geo-environmental Systems Program
- 1994 Hemphill-Wells New Professor Excellence in Teaching Award, College of Engineering Nominee.
- 1993 Texas Tech University Ex-Students' Association New Faculty Award for College of Engineering
- 1977 Anada Amarasinghe Award for the Best Performance in Engineering, University of Peradeniya, Sri Lanka

TEACHING EXPERIENCE

Courses Developed and Taught

GRADUATE LEVEL COURSES:

- CE 5321: Advanced Soil Engineering
- CE 5323: Advanced Foundation Design
- CE 5326: Stability of Slopes and Embankments
- CE 5327: Geotechnical Practice for Waste Disposal
- CE 5328: Analysis and Design of Earth Retaining Wall Systems
- CE 5331: Special Topics in Geotechnical Engineering
 - Design of Earth Retaining Structures
 - Soil Stabilization
 - Unsaturated Soil Mechanics

UNDERGRADUATE LEVEL COURSES:

- CE 4321: Geotechnical Engineering Design
- CE 3321: Introduction to Geotechnical Engineering
- CE 4361: Transportation Engineering

CE 3303: Mechanics of Solids
CE 3210: Procedures of Problem Analysis II (Statistics)
CE 3121: Geotechnical Engineering Laboratory

PROFESSIONAL DEVELOPMENT COURSES:

GEO 101: Basic Geotechnical Engineering for Roadways; Texas Department of Transportation

GEO 102: Geotechnical Applications for Transportation Projects; Texas Department of Transportation

Graduate Student Supervision

Served as the major advisor to 7 Doctoral students and 23 Master's (Thesis) and 16 Master's (Non-Thesis) students.

DOCTORAL STUDENTS:

Wei, Yiqing (Current Student), Dissertation: Validation of Hybrid Soil Nail/MSE Retaining Wall with Full-Scale Test Data

Alhabshi, Abdulrahman (December 2006), Dissertation: Development of a Design Procedure for Hybrid Soil Nail/MSE Retaining Wall

Gong, Jie (Transferred to UT, Austin without completion of Ph.D. program at TTU), Dissertation: Non-destructive Evaluation of Installed Soil Nails

Thomas, Biju (December 2001), Dissertation: Use of Artificial Neural Networks for Predicting Skid Resistance of Hot Mix Asphalt Concrete (HMAC) Pavements

Rachakatla, Prasanna (August 2000), Dissertation Topic: Application of Relational Database Principles for Rating Bituminous Coarse Aggregates with Respect to Frictional Performance

Jayakody, K.Geethani Kumari (December 1998), Dissertation: Development and Validation of a System Identification Methodology for the Characterization of Contaminated Sites

Ab. Rahim, Mohd. Asri (December 1994) Dissertation: A Numerical Model to Incorporate the Influence of Shrinkage Cracks on the Transient Moisture Movement Through Unsaturated Soil

MASTER'S (THESIS) STUDENTS:

Senanayake, Asitha M.J. (December 2011), Thesis: Pullout Resistance of Inextensible MSE Reinforcement Embedded on Coarse Granular Backfill

Merrick, Michael, E. (May 2008), Thesis: Development of a New Test Procedure to Evaluate the Flexural Strength of Flexible Base Binder Materials Used in Roadway Construction.

Mishra, Debakanta (August 2006), Thesis: Maintenance Strategies for Protecting Bridge Approaches from Water Intrusion

Turner, John (December 2004), Thesis: Impact of Grout Consistency and Placement Procedures on the Integrity of Installed Soil Nails

Ayenu-Prah, Albert Y. (December 2004), Thesis: Effect of the Chemical Composition of Compaction Water on the Performance of Soil Subgrades and Embankments

Bhongir, Chandra Prakash (August 2004), Thesis: Influence of Construction Water Quality on the Performance of Road Base and Subbase Materials

Amarasiri, Saumya P. (May 2004), Thesis: Effect of Construction Water Quality on Soil Corrosivity

Dey, Shome Shankar (August 2003), Thesis: In-situ Vitrification for Slope Stabilization

Hoare, Appa Rao (December 2003), Thesis: Feasibility of Using the Micro-deval Test Method as an Aggregate Production Quality Control Tool

Hossain, Mohammad Sadique (December 2000), Thesis: Use of Tires Bales in Building Earth Retaining Walls: Stability Analysis and Construction Guidelines

Regino-Gomez, Pedro Enrique (December 2000), Thesis: Maximum Fill Height and Minimum Cover Criteria for Large-Diameter High Density Polyethylene Pipe

Alam, Mohammed Didarul (August 2000), Thesis: Constructibility Review and Economic Analysis for the Installation of large-Diameter HDPE Drainage Pipe

Amarasiri, Aruna (August 2000), Thesis: Evaluation of Granular Backfill Materials for Large-Diameter High Density Polyethylene Pipe

Retterer, Taya Ann (May 2000), Thesis: Gravity and Mechanically Stabilized Earth Walls Using Whole Scrap Tires

Phillips, William Frank (May 2000), Thesis: Comparative Analysis between the Magnesium Sulfate Soundness and Micro-Deval Tests in the Evaluation of durability of Bituminous Aggregates

Rana, A.S.M. Ashek (August 1996), Thesis: Guidelines for the Use of Hydrated Flyash as a Flexible Base Material

Viswanathan, Krishnan (August 1996), Thesis: Characterization of Waste Recycled Glass as a Highway Material

Huda, Akm N. (May 1996), Thesis: Validation of a Numerical Model to Estimate Aquifer Recharge Rates Through Playa Lake Basins by Field Experimentation

Golam, Mohd. Mostofa (December 1995), Thesis: A Methodology for Evaluating Long-Term Contaminant Leaching Potential from Coal Combustion Ashes

Pulapaka, Srinivas S. (May 1995), Thesis: A Reliability Based Model for the Prediction of Transit Times Through Compacted Clay Liners

Rao, Kondisetty S. (December 1994), Thesis: Use of Inverse Optimization Techniques for Contamination Source Characterization

Belday, Gautam (August 1994), Thesis: Evaluation of Infiltration Tests for the Determination of the Saturated Hydraulic Conductivity of Compacted Clay

Soosainathan, Lawrence (December 1993), Thesis: Effect of Desiccation Cracking on the Performance of a Compacted Soil-Bentonite Liners

MASTER'S (NON-THESIS/REPORT OPTION) STUDENTS:

Manal, Subash (December 2009), Non-standard Stabilizers to Address Moisture Induced Shrink/Swell and Sulfate Heave in Road Subgrade Soils.

Mahadik, Daulatrao (December 2008), Report: Measurement of Flexural Strength of Soil base Using Third Point Loading.

Waikar, Himanshu (Expected Graduation August 2008), Report: Terminal Anchorage Systems for PCC Pavements.

Reddy, Sriram (Expected Graduation August 2008), Report: A Critical Review of Base Binder Flexometer Procedure.

Arenas, Alfredo (May 2006), Report: Modeling Compaction of Backfill Materials Behind MSE Walls Using PLAXIS

Gong, Jie (August 2005), Report: Non-destructive Evaluation of Installed Soil Nails

Vanama, Vamsi (August 2005), Report: Geotechnical Analysis Related to Storm Water Treatment Facility Expansion Project, Palm Beach County, Florida

Madhira, Pavan Kumar (August 2004), Report: Evaluation of TxDOT Wet Weather Skid Accident Reduction Program (WWARP)

Al-Homidy, Abdullah (December 2002), Report: Economic Feasibility of In-Situ Vitrification Technology to Stabilize Highway Embankment Slopes

Isler, Umut (August 2000), Report: Subgrade Repair and Stabilization Using In-situ Vitrification

Zaman, Akhtar U. (December 1996), Report: Helical Screw Anchors: An Effective and Versatile Technology in Foundation Engineering

Haque, Mohammed O. (August 1994), Report: Slurry Trench Cut-off Walls for Waste Containment

Chitepu, Ravikanth R. (May 1994), Report: Use of Geomembranes in Waste Containment and their Evaluation using FLEX-Advisory System

Zobayed, Abulkhair M. (May 1994), Report Topic: Evaluation of McKelligin Canyon Aggregates with Respect to Frictional Properties

Wang, Tianshun (December 1993), Report: Contaminant Transport Through Fractured Geologic Media

Vadakekkara, Siby A. (December, 1993), Report: Engineered Soil Covers to Control Acid Mine Drainage in Mine Waste Piles

Ramakrishna, Girish S. (December, 1993), Report: Attenuating Materials in Composite Liners

RESEARCH EXPERIENCE

Served as the Principal Investigator or Co-Principal Investigator in 37 different funded research projects with total contract funding exceeding 6.3 million.

RESEARCH FUNDING FROM EXTERNAL SOURCES:

Sources of external research funding include: (a) Cooperative Research Program between the Texas Department of Transportation and Federal Highway Administration (TxDOT/FHWA), (b) National Science Foundation (NSF), (c) Texas Natural Resource Conservation Commission in partnership with Texas Department of Transportation (TNRCC/TxDOT), (d) FHWA Priority Technology Program, (e) Texas Department of Transportation (TxDOT) and (f) Georgetwon Railroad Company.

Pullout Resistance of Mechanically Stabilized Earth Reinforcement in Backfills Typically Used in Texas (Co-Principal Investigator), \$393,374, Sponsored by TxDOT/FHWA, September 1, 2009 through August 31, 2012.

Rational Use of Terminal Abnchorages in Portland Cement Concrete Pavement (Co-Principal Investigator), \$180,348, Sponsored by TxDOT/FHWA, September 1, 2008 through August 31, 2011.

Evaluating Existing Culverts for Load Capacity Allowing for Soil Structure (Co-Principal Investigator), **\$215,630**, Sponsored by TxDOT/FHWA, September 1, 2007 through August 31, 2009.

Development of a New Testing and Evaluation Protocol to Assess Flexbase Performance using Strength of Soil Binder (Principal Investigator), **\$157,515**, Sponsored by TxDOT/FHWA, April 26, 2007 through August 31, 2008

Design Procedures for MSE/Soil Nail Hybrid Wall Systems (Principal Investigator), **\$386,157**, Sponsored by TxDOT/FHWA, September 1, 2004 through August 31, 2008

Water Intrusion in Base/Subgrade Materials at Bridge Ends (Co-Principal Investigator), **\$106,922**, Sponsored by TxDOT/FHWA, September 1, 2004 through August 31, 2005

Non-destructive Evaluation of Installed Soil Nails (Principal Investigator), **\$274,461**, Sponsored by TxDOT/FHWA, September 1, 2002 through August 31, 2005

Innovative Design and Construction Methods for Off-System Bridges (Co-Principal Investigator), **\$281,727**, Sponsored by TxDOT/FHWA, September 1, 2001 through August 31, 2003

Use of Alternative Water Sources in Construction Operations (Co-Principal Investigator), **\$154,670**, Sponsored by TxDOT/FHWA, September 1, 2001 through August 31, 2003

Stabilization of Soils using In-situ Vitrification; Research Implementation (Co-Principal Investigator) **\$205,000**, Sponsored by TxDOT/FHWA, September 1, 2001 through August 31, 2002

Long-Term Research on Bituminous Aggregates (Principal Investigator) **\$405,000**, Sponsored by TxDOT/FHWA, September 1, 1999 through August 31, 2004

Comparative Analysis of the Micro-Deval and Magnesium Sulfate Soundness Tests (Principal Investigator) **\$106,526**, Sponsored by TxDOT/FHWA, September 1, 1999 through August 31, 2000

Use of Whole Tires and Flyash in Earth Retaining Structures (Principal Investigator) **\$222,034**, Sponsored by TxDOT/FHWA, September 1, 1998 through August 31, 2000.

Skid Resistance Testing of Pavements (Principal Investigator) **\$50,183**, Sponsored by TxDOT/FHWA, September 1, 1998 through August 31, 1999

Review and Evaluate TxDOT Current and Past Research Related to Structural and Skid Performance of Coarse Aggregates in Bituminous Mixtures (Principal Investigator) **\$60,145**, Sponsored by TxDOT, September 1, 1998 through August 31, 1999

Subgrade Repair and Stabilization Using In-Situ Vitrification (Co-Principal Investigator) **\$765,059**, Sponsored by TxDOT/FHWA, September 1, 1998 through August 31, 2001

Evaluation of Backfill Materials and Installation Methods for HDPE Pipes, **\$281,910** (Principal Investigator), Sponsored by TxDOT/FHWA, September 01, 1997 through August 31, 2000.

Seal Coat Constructability Review (Co-Principal Investigator) **\$257, 923**, Sponsored by TxDOT/FHWA, September 01, 1997 through August 31, 1999

Evaluate the Use of Scrap Tires in Transportation Facilities (Co-Principal Investigator) **\$56,651**, Sponsored by TNRCC/FHWA, September 01, 1997 through August 31, 1998

Forensic Study Report (Co-Principal Investigator) **\$30,000**, Sponsored by TxDOT, September 01, 1997 through August 31, 1998

The Road to Recycling (Co-Principal Investigator) \$114,940, Sponsored by FHWA Priority Technology Program, September 1, 1996 - August 31, 1998

Compare Lime/cement Subgrade Stabilization (Co-Principal Investigator) \$62,969, Sponsored by TxDOT/FHWA, September 1, 1995 - December 31, 1996.

Guidelines for Use of Hydrated Flyash for Flexible Bases (Co-Principal Investigator) \$54,129, Sponsored by TNRCC/FHWA, April 15, 1995 - August 31, 1995.

Use of Glass Cullet in Roadway Construction (Co-Principal Investigator) \$97,630, Sponsored by TNRCC/FHWA, January 1, 1995 - August 31, 1995.

Use of Pavement Skid History as the Basis for TxDOT Skid Reduction Program, (Principal Investigator) **\$439,660**, Sponsored by TxDOT/FHWA, September 1, 1994 - August 31, 1997

Guidelines for Use of Rumble Strips (Co-Principal Investigator) \$82,723, Sponsored by TxDOT/FHWA, September 1, 1994 - August 31, 1995

FGD-Sludges of Coal Power Stations: Elements of Disposal Space Optimization (Co-Principal Investigator) \$31,350, September 01, 1994 - August 31, 1995

A Dual-Porosity Model to Estimate Recharge Rates Through Playa Lakes: Phase II Field Verification of FTSCracks Model (Principal Investigator), \$7,800, Water Resources Center, Texas Tech University, September 01, 1994 - August 31, 1995

The Application of System Identification Methodology for Characterization of Hazardous Waste Sites (Principal Investigator) \$90,000, National Science Foundation (NSF), July 1, 1994 - June 30, 1997

Frictional Properties of Aggregates (Principal Investigator) \$35,395, Sponsored by TxDOT, December 01, 1992 - November 30, 1993

Soundness Tests for Aggregate Evaluation (Principal Investigator) \$26,722, Sponsored by TxDOT, January 01, 1991 - December 31, 1991

Alternative Materials and Designs for Railroad Track Support, (Principal Investigator) **\$10,209** Georgetown Railroad Company and Texas Crushed Stone Association, January 1, 1995 - May 15, 1995.

RESEARCH FUNDING FROM INTERNAL SOURCES:

Sources of internal research funding include: (a) Texas Tech University Excellence Funds, (b) Center for Energy Research, (c) Water Resources Center, and (d) the College of Engineering.

Center for Multidisciplinary Research in Transportation:TechMRT (Principal Investigator), \$75,000, Texas Tech University Excellence Funds, January 14, 2005-August 31, 2005

Center for Multidisciplinary Research in Transportation:TechMRT (Principal Investigator), \$460,000, Texas Tech University Excellence Funds, September 1, 2001-August 31, 2003

A Methodology for Evaluating Long-Term Contaminant Leaching Potential from Coal Combustion Ashes (Principal Investigator) \$31,000, Center for Energy Research, Texas Tech University, October 01, 1993 - August 31, 1994

A Dual Porosity Model for the Characterization of Aquifer Recharge Through Playa Lakes (Principal Investigator), \$14,225, Water Resources Center, Texas Tech University, October 01, 1993 - August 31, 1994

Soil Characterization for Environmental Geomechanics Engineering (Principal Investigator) \$26,722, College of Engineering, Texas Tech University, September 01, 1991 - August 31, 1992.

PUBLICATIONS

Refereed Journal Articles

Jayawickrama, Priyantha W., William D. Lawson, Timothy A. Wood and Asitha J. Senanayake (2011), "Effect of Skewing and Splaying on Pullout Capacity of MSE Reinforcement," Paper submitted for Publication in the Transportation Research Record, Journal of the Transportation Research Board, Washington D.C.

Mishra, Debakanta, **Jayawickrama, Priyantha W** and Phillip T. Nash (2010), "Development of Maintenance Strategies to Mitigate Bridge End Damage due to Water Intrusion," Transportation Research Record, Journal of the Transportation Research Board, Vol. 2170, pp. 56-63.

Jayawickrama, Priyantha W. and Srinath Rajagopalan (2006), "Use of Alternative Water Sources in Construction," Transportation Research Record, Journal of the Transportation Research Board, Vol. 2004, pp.88-96.

Priyantha W. Jayawickrama, M. Shabbir Hossain, and Frank Phillips (2006), "Evaluation of Aggregate Durability Using Micro-Deval Test," Journal of ASTM International, Vol. 4, No.1.

Gong,, Jie **Jayawickrama, Priyantha W.**, and Tinkey, Yajai (2006), "Non-destructive Evaluation of Installed Soil Nails," Transportation Research Record, Journal of the Transportation Research Board, Vol. 1976, pp.71-80.

Jayawickrama, Priyantha W., Aruna L. Amarasiri, and Pedro E. Regino (2000), "Use of Dynamic Cone Penetrometer (DCP) to Control Compaction of Granular Fill," Transportation Research Record No. 1736, Journal of the Transportation Research Board, National Research Council, Washington D.C., pp. 71-80.

Prasanna, R., B. Nageswaran, and **P.W. Jayawickrama** (1999), "Use of RDBMS Technology as a Tool for Reliable Prediction of Pavement Skid Resistance," Transportation Research Record No. 1655, Journal of the Transportation Research Board, National Research Council, Washington D.C., pp. 192-199.

Jayawickrama, P.W., and B. Thomas (1998), "Correction of Field Skid Measurements for Seasonal Variations in Texas," Transportation Research Record No. 1639, Journal of the Transportation Research Board, National Research Council, Washington D.C., pp. 147-154.

Senadheera, Sanajaya P., **Priyantha W. Jayawickrama**, and A.S.M. Ashek Rana (1996), "Use of Hydrated Fly Ash as a Flexible Base Material," Transportation Research Record No. 1546, Journal of the Transportation Research Board, National Research Council, Washington D.C., pp. 52-58.

Jayawickrama, P.W., R. Prasanna and S.P. Senadheera (1996), "Survey of State Practices to Control Skid Resistance on Hot-Mix Asphalt Concrete Pavements." Transportation Research Record No. 1536, Journal of the Transportation Research Board, National Research Council, Washington D.C., pp. 52-58.

Jayawickrama, P.W. and Gray L. Graham (1995), "Use of Skid performance History as the Basis for Aggregate Qualification for Seal Coats and HMAC Surface Courses," Transportation Research Record, No.1501, TRB, National Research Council, Washington, D.C. pp. 31-38.

Jayawickrama, P.W. and S.S. Pulapaka (1994), "Modeling Preferential Flow Through Compacted Clay", Computer Methods and Advances in Geomechanics, pp.1097-1102.

Jayawickrama, P.W., Brown, K.W., Thomas, J.C., and Lytton, R.L. (1988), "Leakage Rates Through Flaws in Membrane Liners," Journal of Environmental Engineering, ASCE, Vol. 114, No.6, Dec. 1988, pp. 1401-1420.

Jayawickrama, P.W., Smith, R.E., Lytton, R.L., and Tirado, M.R. (1988), "Data Acquisition for Mechanistic-Empirical Overlay Design Equations for Reflection Cracking in Flexible Overlays," Transportation Research Record, No.1196, TRB, National Research Council, Washington, D.C., pp. 243-250.

Tirado, M.R., Darter, M.T., **Jayawickrama, P.W.**, Smith, R.E., and Lytton, R.L. (1988), "The ODE Computer Program: Mechanistic-Empirical Asphalt Concrete Overlay Design," Transportation Research Record, No.1207, TRB, National Research Council, Washington, D.C., pp. 30-38.

Conference Proceedings Papers

Jayawickrama, Priyantha W., Asitha Senanayake, William D. Lawson, and Timothy A. Wood (2012), "Impact of Spatial Variability of Soil Parameters on Culvert Load Rating," Paper submitted for publication in the Proceedings of Geo-Congress 2012: State of the Art and Practice in Geotechnical Engineering, San Fransisco, March 25-29, 2012.

Jayawickrama, Priyantha W., William D. Lawson, and Timothy A. Wood (2011), "A Large Scale Test System to Investigate MSE Soil Reinforcement-Backfill Interaction," Proceedings CD-ROM, International Conference on Advances in Highway Engineering and Transportation Systems, Colombo, Sri Lanka, July 25-26, 2011.

Senanayake Asitha, **Priyantha W. Jayawickrama**, William D. Lawson, and Timothy A. Wood (2011), "Role of 3D Finite Element Modeling in the Analysis of Soil-Structure Interaction Problems," Proceedings CD-ROM, International Conference on Advances in Highway Engineering and Transportation Systems, Colombo, Sri Lanka, July 25-26, 2011.

Lawson, William D., Chaitanya Kancharla and **Priyantha W. Jayawickrama**, (2010), "Engineering Properties Unstablized Compressed Earth Blocks," Proceedings CD-ROM, Geo-Frontiers 2011: Advances in Geotechnical Engineering, Geotechnical Special Publication No. 211, Dallas, March 2011.

Jayawickrama, Priyantha W., William D. Lawson, and Timothy A. Wood (2010), "Evaluation of Soil Properties for Culvert Load Rating Applications," Proceedings CD-ROM, Geo-Frontiers 2011: Advances in Geotechnical Engineering, Geotechnical Special Publication No. 211, Dallas, March 2011.

Jayawickrama, Priyantha W., Merrick, Michael E. and Senadheera, Sanjaya P. (2010), "Laboratory Evaluation of a New Test Procedure for Measuring Flexural Strength of Base Binders," Paper accepted for publication in the Compendium of Papers CD-ROM, 89th Annual Meeting of the Transportation Research Board, Washington D.C., January 10-14, 2010.

Wood, Timothy A., Lawson, William D., Newhouse, Charles D. and **Jayawickrama, Priyantha W.** (2010), "The Influence of Structural Analysis Method on Culvert Load Rating" Paper accepted for publication in the Compendium of Papers CD-ROM, 89th Annual Meeting of the Transportation Research Board, Washington D.C., January 10-14, 2010.

Jayawickrama, Priyantha W., and Wood, Timothy A. (2009), "Performance Evaluation of an MSE/Soil Nail Hybrid Wall," Proceedings, Texas Section ASCE, April 2009, South Padre Island, Texas, (BEST OF THE SESSION PAPER AWARD RECIPIENT).

Wood, Timothy A., **Jayawickrama, Priyantha W.** and Lawson, William D., "Instrumentation and Monitoring of an MSE/Soil Nail Hybrid Retaining Wall," Proceedings of the 2009 International Foundation Congress and Equipment Exposition, March 15-19, Orlando, Florida.

Lawson, William D., Mikulec, Chad M., McClelland, M.P, Emmett F. Irby, **Jayawickrama, Priyantha W.**, and Levi Lea, "Rock Strength by Cone Penetrometer and Uniaxial Compression

Tests,” Proceedings of the 2009 International Foundation Congress and Equipment Exposition, March 15-19, Orlando, Florida.

Priyantha Jayawickrama, Abdulrahman Alhabshi, and Andrew Budek (2007), “Performance of MSE/Soil Nail Hybrid Wall Systems QC/QA Procedures to Verify Integrity of Installed Soil Nails,” Proceedings, Texas Section ASCE, October 2007, Fort Worth, Texas.

Senadheera, Sanjaya P., Ashek Rana and **Priyantha W. Jayawickrama** (2006), “Characherization of Granular Materials Containng Glass Cullet for Use in Embankments,” Paper published in the Compendium of Papers CD-ROM, 87th Annual Meeting of the Transportation Research Board, Washington D.C., January 21-25, 2007

Jayawickrama, Priyantha W., John Turner, Jie Gong (2006), “QC/QA Procedures to Verify Integrity of Installed Soil Nails,” Proceedings, Texas Section ASCE, April 2006, Beaumont, Texas.

Priyantha W. Jayawickrama, M. Shabbir Hossain, and Frank Phillips, “Evaluation of Aggregate Durability Using Micro-Deval Test,” Paper published in the Compendium of Papers CD-ROM, 85th Annual Meeting of the Transportation Research Board, Washington D.C., January 22-26, 2006

Priyantha W. Jayawickrama, and Saumya P. Amarasiri, “Impact of Construction Water Quality on the Performance of Metallic Soil Reinforcement,” Proceedings, Texas Section ASCE, Spring Meeting, South Padre Island, April 22-24, 2004

Jayawickrama, Priyantha W., and Akm N. Huda (2002), “Flow Through Unsaturated Soils: Effects of Shrinkage Cracks,” Proceedings, Texas Section American Society of Civil Engineers, Spring Meeting, Arlington, March 27-30, pp.161-170.

Priyantha W. Jayawickrama, Aruna L. Amarasiri, and Pedro E. Regino, “Minimum Cover Requirements for Large Diameter HDPE Pipe Installed with Granular Backfill,” Paper published in the Compendium of Papers CD-ROM, 81st Annual Meeting of the Transportation Research Board, Washington D.C., January 13-17, 2002.

Jayawickrama, Priyantha W., Pedro Regino and Aruna L. Amarasiri (2001), “Performance of Large Diameter HDPE Pipe Under Maximum Fill Height And Minimum Cover Situations,” Proceedings, Texas Section American Society of Civil Engineers, Spring Meeting, San Antonio, March 28-31, pp.159-168, (BEST OF THE SESSION PAPER AWARD RECIPIENT).

Taya A. Reterrer, Mohammad S. Hossain and **P. W. Jayawickrama** (2000), “Use of Waste Tires in the Design and Construction of Earth Retaining Structures,” Proceedings, Texas Section American Society of Civil Engineers, Fall Meeting, El Paso, Texas, October 4-7, 2000, pp.77-87.

W. Frank Phillips and **P. W. Jayawickrama** (2000), “Evaluation of Pavement Aggregate Durability Using the Micro-Deval Test,” Proceedings, Texas Section American Society of Civil Engineers, Fall Meeting, El Paso, Texas, October 4-7, 2000, pp.217-226 (BEST OF THE SESSION PAPER AWARD RECIPIENT).

Amarasiri, Aruna L. **Priyantha W. Jayawickrama** and Pedro E. Regino (2000), “Compaction Control of Granular Fill,” Proceedings, Texas Section American Society of Civil Engineers, Spring Meeting, Austin, Texas, April 5-8, 2000, pp.99-108.

P.W. Jayawickrama, K.G.K. Jayakody and K.A. Rainwater (1998) “Determination of Spatial Variability of Contaminant Transport Parameters Using SID Technique,” Paper Accepted for Publication in the Proceedings of the First International Conference on Site Characterization,” Atlanta, Georgia, April 1998.

Zaman, Akhtar and **Jayawickrama, Priyantha** (1997), “Helical Screw Anchors in Foundation Underpinning; Advantages and Limitations,” Proceedings, Texas Section ASCE Meeting, Houston, April 7, 1997.

Prasanna, R and **Jayawickrama, P.W.** (1997), "Evaluation of Aggregate Frictional Properties," Proceedings, Texas Section ASCE Meeting, Houston, April 7, 1997

Jayawickrama, P.W., Jayakody, K.G.K. and Rainwater, K.A. (1996), "System Identification Methodology for the Characterization of Contaminated Sites," Proceedings of the ASCE Specialty Conference on Uncertainty in the Geologic Environment: From Theory to Practice, C.D. Shackelford, P.P. Nelson and M.J.S. Roth (Eds.), Vol 2, pp. 897-911, August 1996.

Kondisetty, S. R, **Jayawickrama P.W.** and Rainwater, K.A. (1996), "Source Characterization at Contaminated Sites: An Inverse Optimization Approach," Proceedings of the ASCE Specialty Conference on Uncertainty in the Geologic Environment: From Theory to Practice, C.D. Shackelford, P.P. Nelson and M.J.S. Roth (Eds.), Vol 2, pp. 927-943, August 1996.

Thomas,B., **Jayawickrama, P.W.** and Snead, W.B. (1995), "Alternative Materials and Designs for Railroad Track Support System," Proceedings, Texas Section ASCE Meeting, El Paso, October 4-7, 1995.

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GUEST/INVITED PRESENTATIONS

Design of Reinforced Earth Retaining Walls, A Presentation made at the Central Engineering Consultancy Bureau (CECB), Colombo, Sri Lanka, August 5, 2011.

Recent Advances in Earth Retaining Structures for Transportation Applications, Invited Presentation, Department of Civil and Environmental Engineering, University of Oklahoma, Norman, Oklahoma, April 8, 2011.

Earth Retaining Structures in Transportation Applications; Current State of Practice in the United States, A Presentation made at the geotechnical forum, Sri Lankan Geotechnical Society, Institute of Engineers, Sri Lanka, June 18, 2009

Instrumentation and Monitoring of an MSE/Soil Nail Hybrid Retaining Wall, Invited Presentation; College of Engineering, University of Sao Paulo, Brazil, October 6, 2008.

Transportation Research for the 21st Century through Effective Partnership between Universities and State DOTs, A Presentation made at the Civil Engineering Department at Kansas State University, Manhattan, KS, October 11, 2006.

Improving Transportation Infrastructure; Challenges and Solutions, A Presentation made at the Quarterly Meeting of TEX-21: Transportation Excellence for the 21st Century, Holiday Inn Park Plaza Hotel, June 10, 2005

Non-destructive Evaluation of Installed Soil Nails, A Presentation made to the Institute of Engineers, Sri Lanka, June 28, 2004

An Analytical Framework for Prediction of Long-term Barrier Performance, Presentation made as an Invited Expert Panelist at the Containment Workshop: Performance and Verification of Barriers through Prediction and Monitoring, Baltimore, June 30-July 2, 2002.

TechMRT; Transportation Research Program at Texas Tech University, Presentation at the 2000 Texas Transportation Planning Conference, June 1, 2000.

In-Situ Subgrade Vitrification, Presentation made at the 73rd Annual Transportation Conference held in College Station, Texas, October 12, 1999.

Seasonal Variability in Pavement Skid Resistance Measurements, Presentation made to the Texas Department of Transportation Task Force on TxDOT Policy on Polish Value/Skid History for Bituminous Aggregate Quality Control, August 05, 1996.

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Limitations on the Use of Sulfate Soundness Test for the Evaluation of Pavement Aggregates, ASCE High Plains Branch Meeting, Plainview, TX, March, 1993.

PROFESIONAL SERVICE

National/International Organizations

American Society of Civil Engineers (ASCE)

- Member, ASCE
- Member, Editorial Board, ASCE Journal of Geotechnical and Geoenvironmental Engineering (1996-2003)
- Member, National ASCE Committee on Geoenvironment Engineering (1994-Present)

Geo-Institute

- Member, Geo-Institute

Transportation Research Board (TRB), National Research Council

- Affiliate, Transportation Research Board
- Texas Tech University Representative for the TRB (1999-2005)
- Member, TRB Committee AFP60 on Unsaturated Soils (April 2007-Present)
- Member, TRB Committee AFS10 on Transportation Earthworks (April 2006-Present)
- Member, TRB Committee A2B07 on Pavement Surface Properties and Vehicle Interaction (1995-2004)
- Friends of the TRB Committee on Pavement Surface Properties and Vehicle Interaction (AFD90), National Research Council (2004-Present)
- Friends of the TRB Committee on Mineral Aggregates (AFP70), National Research Council (2002-Present)

International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

- Member, ISSMGE

State Organizations

Texas Section American Society of Civil Engineers (ASCE)

- Member, Texas Section ASCE

- Member, Technical Group on Geotechnical Engineering (1993-Present)
- Chairman, Technical Group on Geotechnical Engineering (1999-2002)
- Vice-Chairman, Technical Group on Geotechnical Engineering (1996-1999)
- Secretary, Technical Group on Geotechnical Engineering (1994-1996)

Texas Department of Transportation (TxDOT) Research Management Committees

- Member, Technical Advisory Panel (TAP) for Structures (1999-Present)
- Member, Technical Advisory Panel (TAP) for Materials (1996-1999)

University:

- Graduate Council, College of Engineering Representative (June 2010-Present)
- Texas Tech University representative for the Transportation Research Board, The National Academies, Washington D.C.
- Faculty Advisor, Sri Lankan Student Association (SLSA); 2005-Present

College of Engineering:

- Member, COE Academic Programs Committee (March 2010 – Present)
- Member, Diversity Task Force (2007-present)
- Member, COE Research Committee (2005-2007)
- Member, COE Faculty Awards Committee (2005-2007)

CE Department:

Graduate Advisor, Structures/Geotechnical/Transportation disciplines

Director, of the Geotechnical Engineering Laboratories

Department Committee Service:

- Co-Chair, Graduate School Committee
- Member, Curriculum Committee
- Member, HEAF Equipment Committee

Faculty Mentor to Dr. Charles Newhouse, Assistant Professor in Civil and Environmental Engineering (2007-2008)

Faculty Mentor to Dr. Hongchao Liu, Assistant Professor in Civil and Environmental Engineering (2005-2008)

Chair, Civil Engineering Search Committee for Transportation Engineering Faculty Position (2007-2008); Recruited Dr. Moon Won

Chair, Civil Engineering Search Committee for Geotechnical Engineering Faculty Position (2005-2006); Recruited Dr. William D. Lawson

Chair, Civil Engineering Search Committee for Transportation Engineering Faculty Position (2003-2004); Recruited Dr. Hongchao Liu

Member, Chair Search Committee (2003)

Member, Chair Search Committee, (1997-1998)