Curriculum Vitae

ANAND J. PUPPALA, Ph.D., P.E.
Professor
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RESEARCH AREAS

Expansive and Unsaturated Soils, Ground Modification (Shallow and Deep Mixing Stabilization), Recycled Waste Materials, In Situ and Non-Destructive Testing, Pavement Subgrade and Site Characterization

EDUCATIONAL BACKGROUND

PhD Civil Engineering, May 1993, Louisiana State University (LSU), Baton Rouge, Louisiana.
Major: Geotechnical Engineering; Minor: Computer Science

MS Civil Engineering, January, 1987, Indian Institute of Technology (IIT), Madras, India.
Major: Geotechnical Engineering

BS Civil Engineering, May, 1985, Andhra University, Visakhapatnam, India. (Distinction Honors)

PROFESSIONAL EXPERIENCE

The University of Texas at Arlington, Arlington, Texas.
Professor, September 2005 - current

The University of Texas at Arlington, Arlington, Texas.
Associate Professor, September 2001 – September 2005

The University of Texas at Arlington, Arlington, Texas.
Assistant Professor, August 1996-August 2001

Louisiana Transportation Research Center, Baton Rouge, Louisiana.
Materials Research Engineer, 1993-1996

Louisiana State University, Baton Rouge, Louisiana.
Graduate Research Assistant and Graduate Teaching Assistant, 1988-1992

TEACHING

Undergraduate Courses Taught:

- CE 3143 - Soil Mechanics Laboratory (Sp97, F97, F98, F99, F01, F03, F04);
- CE 3343 - Soil Mechanics (F97, F98, F99, F01, F03, F04);
- CE 4322 - Applications with Geosynthetics (Sp97, Sp99, Sp01, Sp02, Sp03, Sp04) (also offered with CE5372);
- CE 4321 - Foundation Design (Sp98, Sp00) (also offered with CE 5364).

Graduate Courses Taught:

- CE 5365 - Theoretical Soil Mechanics (F96, F98, F00, F01, F02, F03);
- CE 5364 - Foundation Analysis and Design (Sp98, Sp00) (offered with CE 4321);
- CE 5370 - Experimental Soil Mechanics (Su99; F05);
- CE 5371 - Soil Behavior (Su98, Sp00, Sp01, Sp02, Sp03) (also offered as CE5300);
- CE 5372 - Geosynthetics (Sp97, Sp98, Sp99, Sp01, Sp02, Sp03, Sp04) (also offered with CE4300/4322);
- CE 5373 - Environmental Geotechnology (F97, F99) (also offered as CE5300);
- CE 6312 - In Situ Testing and Interpretation (Su97, Sp99, F00, F02, F05)
- CE 6312 - Advanced Foundation Design (F03, Sp05)

COURSE DEVELOPMENT

New Courses (Five)

- Both CE 4300/CE4322 (Applications with Geosynthetics) and CE 5372 (Geosynthetics) courses were offered first time in spring, 1997. These courses were introduced in graduate geotechnical engineering and undergraduate civil engineering curricula to teach students about applications of geosynthetic materials in infrastructure construction. Students were exposed to design, analysis and construction of geosynthetics in soil separation, drainage, pavement and embankment reinforcements, stabilized retaining walls and landfill applications.

- CE 5371 (Soil Behavior), a new graduate course was offered for the first time at UTA in summer, 1998. This course covered all theories and mechanisms that explain different soil behaviors in real field conditions. This is a core course for graduate studies in geotechnical engineering.

- CE 5373 (Environmental Geotechnology), a graduate course was offered first time in fall, 1997. The main intent of this course was to teach soil contamination issues, transport of contaminants in soil media, remediation methods, landfill designs, and environmental regulations.

- CE 6382 (In Situ Testing and Interpretation), an advanced graduate level course was offered first time in summer, 1997. The main objective of this course was to teach several geotechnical in situ methods and their applications for soil characterization, settlement evaluation and infrastructure foundation design.

- CE 6312 (Advanced Foundation Design), a new advanced graduate course was offered for the first time in Fall 2003. This course covered design methodologies for deep foundation systems (isolated and combined systems) subjected to axial, lateral and group loads as well as combinations of loads acting at the same time. Foundations in expansive soil environment were also covered.

Revised Courses (Four)

- CE 3143 (Soil Mechanics Laboratory) was significantly revised and offered in spring 1997. Project-oriented laboratories were introduced in this course. Students learned about the experimental

design and laboratory testing, analysis and graphical presentation of results, report writing and teamwork concepts.

- CE 4321 (Foundation Design) and CE 5364 (Foundation Design and Analysis) courses were offered by revising earlier courses. The revised courses introduced shallow and deep foundation designs and pile design methods based on load tests.

- CE 5365 (Theoretical Soil Mechanics) course was revised and offered in fall, 1996. This course taught advanced geotechnical concepts such as critical state theories, liquefaction, and advanced consolidation theories and numerical method applications

- CE 5370 (Experimental Soil Mechanics) was revised to teach and prepare graduate students on advanced soil characterization laboratory methods including strength, swell and shrinkage tests as well as soil chemical characterization methods. Statistical design methods and analysis, and applications of analytical models to simulate laboratory tests were introduced for the first time.

STUDENT SUPERVISION

Number of PhD Dissertations: 8 (3 completed and 5 are in progress)

Completed (3)

1. Koonnamas Punthutaecha, "Volume Change Behavior of Expansive Soils Modified with Recycled Materials." PhD Thesis, The University of Texas at Arlington, Arlington, Texas, December, 2002, 261 pages.

2. Suppakit Chomtid, "Plastic Deformation Potentials of Subgrade Soils from Repeated Load Triaxial Test," PhD Thesis, The University of Texas at Arlington, Arlington, Texas, December, 2003, 198 pages.

3. Ekarin Wattanasanticharoen, "Experimental Studies to Evaluate Volume Change Movements in Chemically Treated Sulfate Rich Soils." PhD Thesis, The University of Texas at Arlington, Arlington, Texas, August, 2004, 295 pages.

In Progress (5)

1. Napat Intharasombat, "Studies on Compost Top Soil Amendments to Control Shrinkage Cracks in Expansive Shoulder Subgrades."

2. Rajasekhar Madhyannapu, "Deep Soil Mixing to Mitigate Pavement Roughness."

3. Tom Witherspoon, "Field Studies on Underpinnings to Address Load Transfer Mechanisms in Expansive Soil Environment."

4. Juan Bosquez, "Stiffness Measurements in Crushed Concrete Aggregates in Anisotropic Conditions Utilizing Bender Elements."

5. Shashank Valluru, "Texas Cone Penetration Investigations."

Number of Masters' Theses: 24 (22 completed and 2 in progress)

Completed (22)

1. Sakolporn Hanchanloet, "Evaluation of a New Chemical Stabilization Method on Physical and Strength Properties of Cohesive Soils," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 1999, 94 pages.

2. Chisha Musenda, "Investigations on the Effects of Using Discrete Randomly Distributed Fiber Reinforcement in Expansive Foundation Soils," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 1999, 118 pages.

3. Chirayus Viyanant, "Laboratory Evaluation of Sulfate Heaving Mechanisms in Artificial Kaolinite Soil," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2000, 124 pages.

4. Suppakit Chomtid, "Laboratory Evaluation of Sulfate Heaving Mechanisms in Artificial Illite and Natural Soils," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2000, 153 pages.

5. Ekarin Wattanasanticharoen, "Investigations to Evaluate the Performance of Four Selected Stabilization Methods on Soft Subgrade Soils of Southeast Arlington," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2000, 190 pages.

6. Julie Ann Griffin, "Evaluation of Sulfate Resistant and Ordinary Portland Cements for Effective Stabilization of Natural Sulfate Rich Subgrades," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2001, 107 pages.

7. Shashank Valluru, "Development of Database Oriented Software for Storm Water Sewer Management in Contaminated Soil Media." MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2001, 75 pages.

8. Vijai Mohan, "Laboratory Investigations to Calibrate Instrumentation System for Expansive Soils," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2002, 91 pages.

9. Aravinda Ramakrishna, "Evaluation of Resilient Moduli Characteristics of Chemically Treated Soil from North Texas," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2002, 96 pages.

10. Pranay K Chavva, "Evaluation of Strength, Swell and Shrinkage Characteristics of Chemically Treated Soil from North Texas," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2002, 70 pages.

11. Balakrishna R. Katha, "Shrinkage Strain Characterization of Expansive Soils Using Digital Imaging Technology," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2002, 101 pages.

12. Napat Intharasombat, "Ettringite Formation in Lime Treated Sulfate Soils: Verification by Mineralogical and Swell Testing," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2003, 117 pages.

13. Naik Banavathu, "Uses of Compost Material as a Remedial Measure to Mitigate Pavement Shoulder Cracking," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2003, 135 pages.

14. Rupesh Kadam, "Evaluation of Low Strain Shear Moduli of Stabilized Sulfate Bearing Soils Using Bender Elements," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2003, 155 pages.

15. Sharmi Padmaja, "Effects of Organic Muck from Compost Materials on Soil Engineering Properties," MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2003, 133 pages.

16. Deniz Karadeniz, "Seismic Stability Analysis of Cohesive Slopes Using Cyclic Triaxial Test Results," MS Thesis in Geology, The University of Texas at Arlington, Arlington, Texas, 2003, 140 pages (Co-Advisor).

17. Pallavi Balasubramaniam, "Experimental Studies on Flowable Backfills Used in Fort Worth." MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2004, 128 pages.

18. Kenneth McClesky, "Experimental Investigations to Select Stabilization Methods to Mitigate Embankment Desiccation Cracks in order to Reduce Slope Failures." MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2005, 137 pages.

19. Saeid Enayatpour, "Field Investigations for Comprehensive Assessments of Four Selected Stabilization Methods for Soft Subgrade Soils." MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2005, 98 pages.

20. Venkat Bhadriraju, "Laboratory Studies to Address Swell, Shrink, and Strength Characteristics of Deep Mixing Treated Expansive Clays." MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2005, 171 pages.

21. Hariharan Vasudevan, "Evaluation of Texas Cone Penetrometer Test to Predict Undrained Shear Strength of Clays." MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2005, 189 pages.

22. Gautham Pillappa, "A Laboratory Study to Address Swell, Shrink, and Strength Characteristics of Deep Mixing Treated Expansive Clays." MS Thesis, The University of Texas at Arlington, Arlington, Texas, 2005, 136 pages.

In Progress (2)

1. Sivaprasad Pathivada, "DM Studies on Chemically Treated Soils."

2. Ajay Raju, New MS Student.

Number of Masters of Engineering Supervised: 8 (6 completed and 2 in progress)
Completed

1. Gloria Collier, "An Overview of Geosynthetics in Various Infrastructure Design Applications." Masters of Engineering Project, 1997.

2. Devy Moalim, "Assessment of Two CPT Based Interpretation Methods for Better Predictions of Axial Compression Loads." Masters of Engineering Project, May 1999.

3. Chris Newton, "Lateral Pile Load Capacities Using Brom's Method." Masters of Engineering Project, Fall 2000.

4. Joshua Beakley, "Buried Concrete Pipe and Subgrade (Soil - Structure) Interaction: Literature Review." Masters of Engineering Project, May 2000.

5. Neill Lawrence, "Sulfate Induced Heave Studies in DFW Metroplex." Masters of Engineering Project, May 2003.

6. Marc Miller, "GIS Based Expansive Soil Mapping of DFW." Master of Engineering Project, May 2005.

In Progress (2)

Joshua Pickering and Mark May

Number of Undergraduate Advisees

Number of Current Undergraduate Advisees: 30

UTA Student Organizations Activities

Student Chapter of American Society of Civil Engineers

Chi Epsilon, Civil Engineering Honor Society

Tau Beta Pi, Engineering Honor Society (Faculty Advisor)

Fine Arts Society of India (Faculty Advisor)

Curriculum Vitae

RESEARCH

PUBLICATIONS

Refereed Publications

Book Chapters

1. Puppala, A.J. and Intharasombat, N. "Pavement Instrumentation Studies to Address Expansive Soils Treatments." Invited Chapter, Special Edition, The 12th International Conference on Civil and Structural Engineering Computing, Aug 30-Sept 2, Rome, Italy, 2005.

2. Puppala, A.J., Wattanasanticharoen, E., Porbaha, A. "Combined Lime and Fiber Stabilization to Modify Expansive Soils." Expansive Soils, Elsevier Publications, Editor: Amer Al-Rawas, 2006 (in press).

3. Puppala, A.J., Pathivada, S., Bhadriraju, V., Hoyos, L. "Shrinkage Strain Characterization of Expansive Soils Using Digital Imaging Technology." Expansive Soils, Elsevier Publications, Editor: Amer Al-Rawas, 2006 (in press).

4. Puppala, A.J., Porbaha, A., ASCE Ground Improvement Taskforce (Anand Puppala one of five committee members), "Ground Improvement - Last Ten Years Update: Chapter on Deep Mixing and Related Technologies" *Proposed Completion* - 2005 (Under Preparation).

Journals

1. 1 Paper in ASCE Materials Journal (Under Review); 2 Papers in ASCE Geotechnical and Geoenvironmental Engineering Journal (Under Review); 1 Paper in ASTM Geotechnical Testing Journal (Under Review).

2. Puppala, A.J., Kadam, R., Madhyannapu, R., Hoyos, L. "Small Strain Shear Moduli of Chemically Stabilized Sulfate Bearing Cohesive Soils." *ASCE Journal of Geotechnical and Geoenvironmental Engineering* (in press).

3. Punthutaecha, K., Puppala, A.J., Vanapalli, S., Inyang, H. "Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers." *ASCE, Journal of Materials*, 2005 (in press).

4. Puppala, A.J., Griffin, J.A., Hayes, L.R., Chomtid, S., Discussion on "Studies on Sulfate Resistant Cement Stabilization Methods to Address Sulfate Induced Heave Problems." *ASCE, Journal of Geotechnical and Geoenvironmental Engineering*, November 2005.

5. Puppala, A.J., Chomtid, S., Bhadriraju, V. "Evaluation of Plastic Strain Potentials Using Repeated Load Triaxial Test." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board*, Washington, DC, 2005 (in press).

6. Porbaha, A. and Puppala, A.J. "Evaluation of Borehole Geophysical Techniques for Quality Assurance of Deep Soil Mixing." Engineering Geology Journal, Elsevier Publications (accepted for publication).

7. Puppala, A.J., Intharasombat, N., Vempati, R. "Experimental Studies on Ettringite Induced Heaving in Soils." *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 31, No. 3, March, 2005, pp. 325-337.

8. Puppala, A.J., Katha, B., Hoyos, L.R. "Volumetric Shrinkage Strain Measurements in Expansive Soils Using Digital Imaging Technology." *ASTM Geotechnical Testing Journal,* Vol. 27, No. 6, November, 2004.

9. Puppala, A.J., Griffin, J.A., Hoyos, L.R., Chomtid, S. "Studies on Sulfate Resistant Cement Stabilization Methods to Address Sulfate Induced Heave Problems." *ASCE, Journal of Geotechnical and Geoenvironmental Engineering,* Vol. 130, No. 4, April, 2004, pp. 391-402.

10. Hoyos, L.R., Puppala, A.J., and Chainuwat, P. "Dynamic Properties of Chemically Stabilized Sulfate Rich Clay." *ASCE, Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 130, No. 2, February, 2004, pp. 153-162.

11. Puppala, A.J., Ramakrishna, A., Hoyos, L.R. "Resilient Moduli of Treated Clays from Repeated Load Triaxial Test." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board,* TRR No. 1821, Washington, DC, 2003, pp. 68-74.

12. Aldeeb, A.A., Qasim, S.R., Puppala, A.J., Anderson, C.F. "Physical and Engineering Properties of Treatment Plant Residuals and Disposal." *American Water Works Association Journal*, Vol. 95, No. 8, August, 2003.

13. Puppala, A.J., Wattanasanticharoen, E., Hoyos, L. "Ranking of Four Chemical and Mechanical Stabilization Methods Used to Stabilize Low Volume Road Subgrades in Texas." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board,* TRR No. 1819, Washington, DC, 2003, pp. 63-71.

14. Phillips, M., Puppala, A.J., Melton, K. "Development of Stabilizer Selection Tables for Low-Volume Roads in City of Arlington, Texas." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board,* TRR No. 1819, Washington, DC, 2003, pp. 85-94.

15. Puppala, A.J., Wattanasanticharoen, E., Punthataecha. K., "Experimental Evaluations of Stabilization Methods for Sulfate-Rich Expansive Soils." *Ground Improvement Journal*, Vol. 7, No. 1, Thomas Telford Publishers, London, January, 2003.

16. Puppala, A.J., Viyanant, C., Kruzic, A., Perrin, L., "Evaluation of a Modified Sulfate Determination Method for Cohesive Soils." *ASTM Geotechnical Testing Journal*, March, 2002, 85-94.

17. Puppala, A.J. and Musenda, C., "Effect of Fiber Reinforcement on Strength and Volume Change Behavior of Two Expansive Soils." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board*, TRR 1736, Washington, DC, 2000.

18. Mohammad, L.N., Abadie, C., Gokmen, R., Puppala, A.J., "Mechanistic Evaluation of Hydrated Lime in HMA Mixtures." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board*, Washington, DC, 2000.

19. Puppala, A.J., Mohammad, L.N., Allen, A., "Permanent Deformation Characterization of Subgrade Soils from RLT Test." *ASCE Journal of Materials in Civil Engineering*, Vol. 11, No. 4, November 1999, pp. 274-282.

20. Mohammad, L.N., Huang, B., Puppala, A.J., and Allen, A., "Regression Model for Resilient Modulus of Subgrade Soil." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board Record*, TRR No. 1687, National Research Council, Washington, DC, 1999, pp. 47-54.

21. Puppala, A.J., Acar, Y.B. and Tumay, M.T., "Low Strain Dynamic Shear Modulus of Cemented Sand from CPT Results." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board*, TRR No. 1548, Washington, DC, 1997, pp. 60-66.

22. Puppala, A.J., Mohammad, L.N. and Allen, A., "Engineering Behavior of Lime Treated Louisiana Subgrade Soil." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board*, TRR No. 1546, Washington, DC, 1997, pp. 24-31.

23. Puppala, A.J., Acar, Y.B. and Tumay, M.T., Discussion on "Cone Penetration in Very Weakly Cemented Sand." *ASCE, Journal of Geotechnical Engineering*, Vol. 122, No. 11, September, 1996.

24. Puppala, A.J., Acar, Y.B. and Tumay, M.T., "Cone Penetration in Very Weakly Cemented Sand." *ASCE, Journal of Geotechnical Engineering*, Vol. 121, No. 8, August, 1995, pp. 589-600.

25. Puppala, A.J., Acar, Y.B., and Senneset, K., "Cone Penetration in Cemented Sands: Interpretation by Two Bearing Capacity Theories." *ASCE, Journal of Geotechnical Engineering*, Vol. 119, No. 12, December 1993, pp. 1990 - 2001.

26. Mohammad, L.N., Puppala, A.J., and Alavilli, P., "Influence of Testing Procedure and LVDTs Location on Resilient Modulus of Soils." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board,* TRR No. 1462, Washington, D.C., 1994, pp. 91-101.

27. Mohammad, L.N., Puppala, A.J., and Kathavate, S., "Design and Reliability Assessment of a Data Acquisition System for Louisiana Accelerated Loading System." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board,* TRR No. 1435, Washington, D.C. 1994, pp. 16-26.

28. Mohammad, L.N., Puppala, A.J., and Alavilli, P., "Resilient Properties of Laboratory Compacted Subgrade Soils." *Journal of the Transportation Research Board, National Academy of Science, Transportation Research Board*, TRR No. 1504, Washington, D.C., 1994, pp. 87 - 102.

29. Acar, Y.B., Puppala, A.J., and Seals, R.K., "Calibration of Dynamic Penetrometer for Compaction Quality Control of Boiler Slag." *ASTM Geotechnical Testing Journal,* Vol. 14, No. 2, March, 1991, pp. 56-63.

Special Publications (Equivalent to ASCE and ASTM Journals)

1. Puppala, A.J., Bhadriraju, V., Madhyannapu, R., Williammee, R., Nazarian, S. "Small Strain Shear Moduli of DM Treated Expansive Soils." US- JAPAN Workshop, Aug 8-11, Kyoto, Japan, *ASCE Geotechnical Special Publication*, 2005 (accepted).

2. Bhadriraju, V., Puppala, A.J., Enayatpour, S., Pathivada, S. "Digital Imaging Technique to Evaluate Shrinkage Strain Potentials of Fiber Reinforced Expansive Soils." Geo-Frontiers 2005, *ASCE Geotechnical Special Publication No. 138*, Austin, 2005.

3. Chavva, P., Vanapalli, S., Puppala, A.J., Hoyos, L. "Evaluation of Strength, Resilient Moduli, Swell, and Shrinkage Characteristics of Four Chemically Treated Sulfate Soils from North Texas." Geo-Frontiers 2005, *ASCE Geotechnical Special Publication No. 136*, Austin, 2005.

4. Puppala, A.J., Naik, B., Qasim, S., Williammee, R., Intharasombat, N. "Laboratory Investigations to Address the Use of Compost Amendments to Enhance Expansive Subsoils." *ASCE Geotechnical Special Publication No. 127,* ASCE 2004 National Conference, Baltimore, Maryland, October, 2004.

5. Puppala, A.J., Suppakit, C., Wattanasanthicharoen, E., "Plastic Deformation Potentials of Sandy Clay from Repeated Load Triaxial Test." Geo-Trans 2004, *ASCE Geotechnical Special Publication No. 126*, Los Angeles, 2004, pp. 938-947.

6. Puppala, A.J., Enayatpour, S., Vanapalli, S., Intharasombat, N., "Review of Current Methods for Swell Characterization of Subsoils for Transportation Infrastructure Design." Geo-Trans 2004, *ASCE Geotechnical Special Publication No. 126*, Los Angeles, 2004, pp. 1105-1114.

7. Puppala, A.J., Porbaha, A., Bhadriraju, V., Wattanasanthicharoen, E., "In Situ Test Protocols for Quality Assessments of Deep Mixing Columns." Geo-Trans 2004, *ASCE Geotechnical Special Publication No. 126*, Los Angeles, 2004, pp. 1429-1438.

8. Puppala, A.J. and Porbaha, A. "International Perspectives on Quality Assessment of Deep Mixing." Geo-Support 2004, *ASCE Geotechnical Special Publication No. 124*, Orlando, 2004, pp. 826-837.

9. Porbaha, A. and Puppala, A.J., "In Situ Techniques for Quality Assurance of Deep Mixed Columns." Grouting and Ground Treatment, *ASCE Special Publication No. 120*, New Orleans, March, 2003, pp. 695-706.

10. Puppala, A.J., and Moalim, D., "Evaluation of Two CPT Interpretation Methods in Providing Reliable Predictions of Pile Load Capacities." *ASCE Special Publication No. 116*, Orlando, February 14 -16, 2002, pp. 931-943.

11. Puppala, A.J., Hoyos, L., Viyanant, C., Musenda, C., "Fiber and Fly Ash Stabilization Methods to Treat Soft Expansive Soils." *ASCE Special Publication No. 112, Soft Ground Technology*, Noordwijkerhout, The Netherlands, May 28 - June 2, 2000.

12. Mohammad, L.N., Puppala, A.J., and Alavilli, P., "Effect of Strain Measurements on Resilient Modulus of Sands." *Dynamic Geotechnical Testing: Second Volume*, ASTM, STP 1213, Ronald J. Ebelhar, Vincent P. Drnevich, and Bruce L. Kutter, Editors, American Society for Testing and Materials, Philadelphia, 1994.

13. Mohammad, L.N., Alavilli, P., and Puppala, A.J., "Data Acquisition System for Determining the Resilient Modulus of Soils." *Advances in Site Characterization: Data Acquisition, Management and Interpretation*, Geotechnical Special Publication No. 37, pp. 27-41, ASCE, Dallas, 1993.

14. Acar, Y.B., Seals, R.K., and Puppala, A.J., "Engineering and Compaction Characteristics of Boiler Slag." *Geotechnics of Waste-Fills, Theory and Practice*, ASTM, STP 1070, Arvid Landva, G. David Knowles, Editors, American Society for Testing and Materials, Philadelphia, 1990.

Refereed Conference Proceedings

1. Bhadriraju, V., Puppala, A.J., Jayprakash, G.P., "Effect of Lime-Fiber and GGBFS Stabilization on Strength and Resilient Moduli Properties of an Expansive Subgrade Soil." TREMTI, Paris, France, October, 2005 (in press).

2. Puppala, A.J., Bhadriraju, V., Porbaha, A., "SPT and CPT Based Methods to Address Shear Strength of Deep Mixed Soil Cement Columns." Proceedings, 16th International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan, September 12 - 16, 2005.

3. Wattanasanticharoen, E., Puppala, A.J., Hoyos, L.R., Vempati, R. "Soluble Sulfate and Reactive Alumina Measurements in Cement and Lime Treated Sulfate Rich Clays." Proceedings, 16th International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan, September 12 - 16, 2005.

4. Hoyos, L.R., Laikram, A., and Puppala, A.J. "A novel true triaxial apparatus for testing unsaturated soils." Proceedings, 16th International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan, September 12-16, 2005.

5. Porbaha, A., Ghaheri, F., Puppala, A.J. "Estimation of In Situ Moduli of Deep Soil Cement Using P-S Logger." Proceedings, 16th International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan, September 12-16, 2005.

6. Puppala, A.J., Bhadriraju, V., Porbaha, A. "Quality Assurance Practices and Protocols for In-Situ Testing of Deep Mixed Columns." Deep Soil Mixing - 2005, International Conference on Deep Mixing Best Practice and Recent Advances, Stockholm, Sweden, 2005.

7. Porbaha, A., Weatherby, D., Macnab, A., Lambrechts, J., Burke, G., Yang, D., Puppala, A.J. "Regional Report: North American Practice of Deep Mixing Technology." Deep Soil Mixing - 2005, International Conference on Deep Mixing Best Practice and Recent Advances, Stockholm, Sweden, 2005 (US Regional Report Presentation).

8. Porbaha, A., Ghaheri, F., Puppala, A.J. "Soil Cement Properties from Borehole Geophysics Correlated with Laboratory Tests." Deep Soil Mixing - 2005, International Conference on Deep Mixing Best Practice and Recent Advances, Stockholm, Sweden, 2005.

9. Puppala, A.J., Porbaha, A., Bhadriraju, V. "In Situ Methods and Their Quality Assessments in Ground Improvement Projects." Proceedings, 2nd International Conference on Site Characterization, Portugal, September, 2004.

10. Puppala, A.J., Wattanasanticharoen, E., Inthrasombat, N., Hoyos, L.R., "Studies to Understand Soil Compositional and Environmental Variables on Sulfate Heave Problems." Proceedings, Soil Rock America, 12th Pan American Conference on Soil Mechanics and Geotechnical Engineering, Boston, Massachusetts, June 22 - 25, 2003.

11. Puppala, A.J., Wattanasanticharoen, E., Hoyos, L. R., Satyanarayana, R., "Use of Cone Penetration Test (CPT) Results for Accurate Assessments of Pile Capacities." Proceedings, 9th International Conference on Piling and Deep Foundations, Nice, France, June 3/4/5, 2002.

12. Puppala, A.J., Suppakit, C., Viyanant, C., Perrin, L., "Sulfate Heaving Problems in Stabilized Soils: Observations From a Few Case Studies." Proceedings, 2nd International Conference on Engineering Materials, San Jose, California, August 16-19, 2001.

13. Puppala, A.J., and Musenda, C., "Shrinkage Potentials of Fiber Reinforced and Raw Wxpansive Soils." Proceedings, International Symposium on Suction, Swelling, Permeability and Structure of Clays, Balkema Publishers, IS-Shizuoka, Shizuoka, Japan, January, 11-13, 2001.

14. Puppala, A.J., Hanchanloet, S., Jadeja, M. and Burkart, B. "Evaluation of Sulfate Induced Heave by Mineralogical and Swell Tests." Proceedings, XI Pan-American Conference on Soil Mechanics and Geotechnical Engineering, Foz do Iguacu, Brazil, August, 1999.

15. Puppala, A.J. and Mohammad, L.N., "A Regression Model for Better Characterization of Resilient Properties of Subgrade Soils." Proceedings, 8th International Conference on Asphalt Pavements, Conference Proceedings, Seattle, Washington, August 1997.

Conference Publications

1. Mohan, V., Puppala, A.J., "Experimental Investigations to Monitor Swell and Loading Responses of Expansive Soil Due to Environmental and Loading Changes." Proceedings, The 12th International Conference on Civil and Structural Engineering Computing, Rome, Italy, 2005.

2. Hoyos, L.R., Takkabutr, P., and Puppala, A.J. "A Pressure Plate Extractor Device for Assessment of SWCC Under Net Radial Confinement". Proc., GEOPROB2005: International Conference on Problematic Soils, May 25-27, 2005, Famagusta, Northern Cyprus.

3. Hoyos, L.R., Laikram, A., Park, J.H., and Puppala, A.J. "A Novel Suction-controlled True Triaxial Testing Apparatus for Unsaturated Soils". Proc., GEOPROB2005: International Conference on Problematic Soils, May 25-27, 2005, Famagusta, Northern Cyprus.

4. Hoyos, L.R., Laikram, A., and Puppala, A.J. "Assessment of Seasonal Effects on Engineering Behavior of Chemically Treated Sulfate Rich Expansive Clay". Proc., GEOPROB2005: International Conference on Problematic Soils, May 25-27, 2005, Famagusta, Northern Cyprus.

5. Puppala, A.J., Bhadriraju, V. "Deep Mixing to Stabilize Problematic Soils" Conference Proceedings, Annual Indian Geotechnical Conference, Warangal, India, December, 2004, Invited Lecture.

6. Wattanasanticharoen, E., Puppala, A.J., Suppakit, C. "Laboratory Investigations to Evaluate Performance of Chemical Stabilizers on Soft and Expansive Subgrades." Geotechnical Conference, Chulalangkorn University, Bangkok, Thailand, 2004.

7. Punthutaecha, K., Puppala, A.J., Hoyos, L.R., Zimmie, T.F., "Recycled Coal Combustion Ashes to Control Volumetric Swell Movements of Expansive Soils." Proceedings, 7th International Symposium on Environmental Geotechnology and Global Sustainable Development, Helsinki, Finland, June 8-10, 2004.

8. Punthutaecha, K. and Puppala, A.J., "Soil Water Characteristics of Fly Ash Stabilized Soils." Proceedings, 9th National Convention on Civil Engineering, NCCE9, Bangkok, Thailand, 2004.

9. Puppala, A.J., Banavathu, N., Qasim, S.R., Williammee, R. "Compost Manufactured Topsoils to Mitigate Desiccation Cracking of Expansive Subgrades: Laboratory Studies." Proceedings, ASCE Texas Section Spring 2004 Meeting, April 21-24, 2004, South Padre Island, Texas.

10. Hoyos, L.R., Devabhaktuni, K., and Puppala, A.J. "Assessment of Heave Induced Infrastructure Distress Hazard in Expansive Soil Environments Using GIS Technology." Proceedings, ASCE Texas Section Spring 2004 Meeting, April 21-24, 2004, South Padre Island, Texas.

11. Hoyos, L.R., Sappington, J.P., Laikram, A., and Puppala, A.J. "Effects of cyclic wetting-drying on strength, stiffness, and swell response of chemically treated clay". Proceedings, ASCE Texas Section Spring 2004 Meeting, April 21-24, 2004, South Padre Island, Texas.

12. Puppala, A.J., Punthutaecha, K., "Volumetric Swell and Shrinkage Movements of Stabilized Expansive Soils." Proceedings, International Conference on Problematic Soils, Nottingham Trent University, Nottingham, England, July 28-30, 2003.

13. Punthutaecha, K., Puppala, A.J., Hoyos, L.R., "Relationships Between Matric Suction Potentials and Swell Strains of Fly Ash Stabilized Soils," Proceedings, 2nd Asian Conference on Unsaturated Soils, UNSAT ASIA-2003, Osaka, Japan, April, 2003.

14. Puppala, A.J., Ramakrishna, A., "Resilient Modulus Properties of Control and Chemically Treated Soils." Proceedings, Annual Indian Geotechnical Conference, Allahabad, India, December, 2002, Invited Lecture.

15. Puppala, A.J., Punthutaecha, K., D'Souza, N., "Assessments of Fly Ash and Bottom Ash Stabilization Methods on Soft and Natural Expansive Soils." Proceedings, International Conference on Advances in Civil Engineering (ACE2002), Indian Institute of Technology, Kharagpur, India, January 3-5, 2002.

16. Puppala, A.J., Griffin, J., Hoyos, L.R., and Chomtid, S., "Assessments on Sulfate Resistant Cement Stabilization Methods to Counter Sulfate Induced Heave Problems." Proceedings, Transportation Research Board Annual Meeting, CD ROM, National Research Council, National Academy of Science, Washington, D.C., 2002.

17. Hoyos, L.R., Puppala, A.J., and Chainuwat, P., "Stiffness of Chemically Stabilized Sulfate Rich Expansive Clay Using Resonant Column Testing Device." Proceedings, ASCE-Texas, Spring Meeting, Arlington, Texas, March, 2002.

18. Aldeeb, A.A., Qasim, S.R., Puppala, A.J., and Anderson, C.F., "Water Treatment Plant Residuals: Ultimate Disposal." Proceedings, American Society of Civil Engineers Spring Meeting, Spring Meeting, Arlington, Texas, March, 2002.

19. Puppala, A.J., Mohan, V., Crosby, E.C., Valluru, S., "Development of a Database Oriented Software for Construction Material Selection in Contaminated Soil." Proceedings, The 8th International Conference on Civil and Structural Engineering Computing, Eisenstadt, Vienna, Austria, 2001.

20. Puppala, A.J., Katha, B., Tumay, M.T., "Cone Penetration Testing: Current Advances and Applications in Geotechnical and Highway Engineering," Proceedings, American Society of Civil Engineers Spring Meeting, San Antonio, Texas, April, 2001.
21. Puppala, A.J., Punthutaecha, K., Valluru, S., Hoyos, L., "Polymer Fibers to Control Shrinkage Cracks of High PI Clay." Proceedings, Seventh International Conference on Composites Engineering, ICCE/7, Denver, Colorado, July, 2000.

22. Puppala, A.J. and Hanchanloet, S., "Behavior of Soils Stabilized with Sulfuric Acid and Lignin," Proceedings, Asian Institute of Technology's 40th Anniversary, Civil and Environmental Engineering Conference New Frontiers and Challenges, 8-12, November, Bangkok, 1999.

23. Puppala, A.J. and Suppakit, C. "Geotextile Reinforcement Effects on Resilient and Strength Properties of a Clayey Soil," Sixth International Conference on Composites Engineering, ICCE/6, Orlando, Florida, June 1999.

24. Puppala, A.J. and Hanchanloet, S. "Evaluation of a Chemical Treatment Method (Sulphuric Acid and Lignin Mixture) on Strength and Resilient Properties of Cohesive Soils," Proceedings, Transportation Research Board, CD ROM Preprints, National Research Council, National Academy of Science, Washington, D.C., 1999.

25. Puppala, A.J., Hanchanloet, S., Jadeja, M. and Burkart, B. "Sulfate Induced Heave Distress: A Case Study," Proceedings, Transportation Research Board Annual Meeting, CD ROM Preprints, National Research Council, National Academy of Science, Washington, D.C., 1999.

26. Puppala, A.J., Acar, Y.B. and Tumay, M.T. "Cone Penetration Testing in Cemented Soils: Comparisons Between Field and Laboratory Test Results," Proceedings of the First International Conference on Site Characterization – ISC'98, Robertson and Mayne (Editors), Balkema Publishers, Atlanta, Georgia, April, 1998.

27. Puppala, A.J., Dunker, C., Hanchanloet, S., Ghanma, K., "Swell and Shrinkage Characteristics of Lime Treated Sulfate Soil," American Society of Civil Engineers Spring Meeting Proceedings, South Padre Island, Texas, April, 1998 (Won the Best Paper of the Geotechnical Session Award).

28. Puppala, A.J. and Musenda, C., "Investigation of Geofiber Reinforcement on Strength, Swell and Shrinkage Characteristics of Soils," Fifth International Conference on Composites Engineering, ICCE/5, Las Vegas, Nevada, July, 1998.

29. Puppala, A.J., Acar, Y.B., Tumay, M.T., "Cavity Expansion Modeling of Cone Penetration Mechanism in Granular Soils," Proceedings of the Ninth International Conference on Computer Methods and Advances in Geomechanics, Yuan (Editor), Balkema Publishers, Wuhan, China, November, 1997

30. Puppala, A.J., Acar, Y.B. and Tumay, M.T., "Spherical Cavity Expansion Model for Simulating Cone Penetration Mechanism in Granular Soils," The 1997 Joint American Society of Mechanical Engineers, American Society of Civil Engineers, Society of Engineering Science Summer Meeting held at Northwestern University, Chicago, Illinois, June 29 - July 2, 1997 (Paper abstract).

31. Puppala, A.J., Allen A. and Mohammad, L.N., "Estimation of Permanent Strains of Subgrade Soils from Repeated Load Triaxial Tests." Proceedings, Transportation Research Board Annual

Meeting, CD ROM Preprints, National Research Council, National Academy of Science, Washington, D.C., 1997.

32. Puppala, A.J., Mohammad, L.N., and Aaron Allen. "Non-Linear Model for Resilient Modulus Characterization of Granular Soils." Proceedings, 1996 ASCE Engineering Mechanics Conference, Fort Lauderdale, Florida, May 19-22, 1996.

33. Puppala, A.J., Cumbaa, S.L., and Temple, W. H. "Comparisons Between Laboratory Measured and FWD Backcalculated Resilient Moduli," Proceedings, 1996 ASCE Engineering Mechanics Conference, Fort Lauderdale, Florida, May 19-22, 1996.

34. Puppala, A.J., Acar, Y.B. and Tumay, M.T. "CPT in Very Weakly Cemented Sand: A Calibration Chamber Study," Proceedings, International Symposium on Cone Penetration Testing, CPT'95, SGF Report 3:95, Linkoping, Sweden, October, 1995.

35. Puppala, A.J. and Acar, Y.B., "Constitutive Modeling of Cemented Sands: Drained Behavior," Proceedings, Eighth International Conference of the Association for Computer Methods and Advances in Geomechanics (IACMAG), Morgantown, West Virginia, 22-28, May, 1994.

36. Puppala, A.J., Acar, Y.B., and Tumay, M.T., "Miniature CPT Tests in Dense Monterey No. 0/30 Sand in a Flexible Double Walled Calibration Chamber," Proceedings, The First International Symposium on Calibration Chamber Testing, Elsevier Science Publishing Company, Clarkson University, Potsdam, New York, 1991, pp. 339-350.

37. Krishnaswamy, N.R.K. and Puppala, A.J., "Dynamics of Framed Foundations," Proceedings, Indian Geotechnical Conference 87, Bangalore, December 1987.

Technical Reports

1. Puppala, A.J., Intharasombat, N., Qasim, S. "The Effects of Using Compost as a Preventive Measure to Mitigate Shoulder Cracking: Laboratory and Field Studies". TxDOT, Research Report 2, Final Report, October 2005, 128 pages.

2. Puppala, A.J., Balasubramaniam, P., Qasim, S. "Experimental Studies on Flowable Backfills Used in Fort Worth." Final Research Report, City of Fort Worth, Fort Worth, Texas, January, 2005, 128 pages.

3. Puppala, A.J., Qasim, S., Banavathu, N., Intharasombat, N. "Uses of Compost Material as a Remedial Measure to Mitigate Pavement Shoulder Cracking". TxDOT, Research Report 1, October 2003, 120 pages.

4. Puppala, A.J., Mohan, V., Hoyos, L.R., "Evaluation of Resilient Moduli Characteristics of Chemically Treated Soils from Arlington, Texas," Interim Research Report 3, City of Arlington Research Project, Arlington, April, 2003, 95 pages.

5. Puppala, A.J., Chavva, P.K., Hoyos, L.R., "Evaluation of Strength, Swell and Shrinkage Characteristics of Chemically Treated Soils from Arlington, Texas," Interim Research Report 2, City of Arlington, Research Project, Arlington, April, 2003, 69 pages.

6. Puppala, A.J., Mohan, V., Hoyos, L.R., "Laboratory Investigations to Calibrate Instrumentation System for Field Monitoring of Expansive Subgrade Soils," Interim Research Report 1, City of Arlington Research Project, Arlington, April, 2003, 90 pages.

7. Puppala, A.J., Griffin, J., Hoyos, Jr., L., "Effectiveness of Sulfate Resistant Cement for Providing Comprehensive Stabilization of Sulfate Rich Soils," Final Research Report, Portland Cement Association (PCA), 101 pages, 2001.

8. Puppala, A.J., Suppakit, C., Viyanant, C., "Investigations of Various Factors and Their Influence on Sulfate Induced Heaving," Final Research Report, United States Army Corps of Engineers (USACE), Fort Worth and Vicksburg, 2001.

9. Crosby, E.C., Spindler, M., Puppala, A.J., and Overman, J., "Design, Construction and Maintenance for Storm Sewers in Contaminated Environments," Interim Report, TxDOT Project 7-3998, August, 1999.

10. Puppala, A.J., "Swell-Shrink Characteristics of Lime Treated Soils from Dallas - Fort Worth (DFW) Pavement Sections," Final Research Report # 26-7601-14, Submitted to DFW Airport Authorities, June, 1998, 25 p.

11. Puppala, A.J. and Hanchanloet, S., "Investigation of Dallas Roadway Products (DRP) Chemical Soil/Roadbase Stabilizer (SA-44/LS-40) on Strength Properties of Cohesive Soils (Phase 1)," Research Report # 26-7601-13 Submitted to OIT Inc., June 1998, 32 p.

12. Mohammad, L. N., Puppala, A. J., Alavilli, P, "Investigation of the Use of Resilient Modulus for Louisiana Soils in Design of Pavements," Louisiana Transportation Research Center, FHWA, LADOTD, Final Report No. 283, June, 1994.

13. Acar, Y.B., Seals, R.K., and Puppala, A.J., "Assessment of Optimum Design Considerations for the Slag Fill Project - Part 4. Field Compaction Study," Department of Civil Engineering, Louisiana State University, 1989, A Research Report Submitted to Dow Chemical Co., Plaquemine, Louisiana, 44 p.

14. Seals, R.K., Acar, Y.B., and Puppala, A.J., "Assessment of Optimum Design Considerations for the Slag Fill Project - Part 3. Laboratory Calibration Studies with the Dynamic Penetrometer," Department of Civil Engineering, Louisiana State University, 1988, A Research Report Submitted to Dow Chemical Co., Plaquemine, Louisiana, 21 p.

15. Puppala, A.J., "Effect of Cementation on Cone Resistance in Sands: A Calibration Chamber Study," Ph.D. Dissertation, Louisiana State University, Baton Rouge, May, 1993 (NSF Research Project Report).

16. Puppala, A.J., "Dynamics of Framed Foundations," M.S. Thesis, Indian Institute of Technology, Madras, January 1987.

PRESENTATIONS

Invited Presentations, Lectures and Seminars

1. "Pavement Instrumentation Studies to Address Expansive Soils Treatments." Invited Chapter, The 12th International Conference on Civil and Structural Engineering Computing, Sept, Rome, Italy, 2005, INVITED LECTURE.

2. "Quality Assurance Practices and Protocols for In-Situ Testing of Deep Mixed Columns." Deep Soil Mixing - 2005, International Conference on Deep Mixing Best Practice and Recent Advances, Stockholm, Sweden, 2005, INVITED PRESENTATION.

3. "Deep Mixing to Stabilize Problematic Soils" Conference Proceedings, Annual Indian Geotechnical Conference, Warangal, India, December, 2004, INVITED LECTURE.

4. "Quality Assessments on DM Treated Soil Columns." Workshop on Deep Mixing, Geo-Trans 2004, ASCE Conference, Los Angeles, July 27, 2004, INVITED LECTURE.

5. "Pier Design in Expansive Soils." National Foundation Repair Association Annual Seminar, April 16, 2004, Grapevine, Texas, KEYNOTE LECTURE.

6. "In Situ Tests for Quality Assessments of Deep Mixing Treated Soil Columns." Workshop on Deep Mixing, 83rd TRB Annual Meeting, Jan 11, 2004, Washington, D.C., INVITED LECTURE.

7. "Novel Stabilization Methods." June, 2002, Texas Society of Professional Engineers Meeting, Arlington, Texas, INVITED LECTURE.

8. "Resilient Modulus Properties of Control and Chemically Treated Soils." 2002 Indian Geotechnical Conference, Allahabad, India, December, 2002, INVITED LECTURE.

9. "Research on Soil Stabilization Needs for City of Arlington." June, 2002, Texas Chapter of American Public Works Association, Fort Worth, Texas, INVITED LECTURE.

10. "Reinforced Slopes," Advanced Stability Analysis of Earth Slopes, Geotechnical Engineering Seminar, The University of Texas at Arlington, Arlington, September 28-29, 2001.

11. "In Situ Test Methods for Quality Assessments of Deep Soil Cement Columns," Invited Lecture at FHWA's International Workshop in Deep Mixing Technology for Infrastructure Development, Current Practice and Research Needs at Oakland, California on July 17, 2001, INVITED LECTURE.

12. "Use of Polypropylene Fibers in Expansive Soils Research," 25th Southwest Geotechnical Conference, Federal Highway Administration (FHWA), Arlington, Texas, April 18-20, 2000, INVITED LECTURE.

13. "Development of Design Charts to Predict Resilient Modulus of Louisiana Soils," LADOTD Transportation Engineering Conference, Baton Rouge, Louisiana, February, 1995.

Paper Presentations

1. "SPT and CPT Based Methods to Address Shear Strength of Deep Mixed Soil Cement Columns." 16th International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan, September 12 - 16, 2005.

2. "Soluble Sulfate and Reactive Alumina Measurements in Cement and Lime Treated Sulfate Rich Clays." 16th International Conference on Soil Mechanics and Geotechnical Engineering, Osaka, Japan, September 12 - 16, 2005.

3. "Experimental Investigations to Monitor Swell and Loading Responses of Expansive Soil Due to Environmental and Loading Changes." The 12th International Conference on Civil and Structural Engineering Computing, Rome, Italy, 2005.

4. "Digital Imaging Technique to Evaluate Shrinkage Strain Potentials of Fiber Reinforced Expansive Soils." Geo-Frontiers 2005, *ASCE Geotechnical Special Publication No. 138*, Austin, 2005.

5. "Evaluation of Strength, Resilient Moduli, Swell, and Shrinkage Characteristics of Four Chemically Treated Sulfate Soils from North Texas." Geo-Frontiers 2005, *ASCE Geotechnical Special Publication No. 136*, Austin, 2005.

6. "Laboratory Investigations to Evaluate Performance of Chemical Stabilizers on Soft and Expansive Subgrades." Geotechnical Conference, Chulalangkorn University, Bangkok, Thailand, 2004.

7. "Laboratory Investigations to Address the Use of Compost Amendments to Enhance Expansive Subsoils." ASCE 2004 National Conference, Baltimore, Maryland, October 21, 2004.

8. "Plastic Deformation Potentials of Sandy Clay from Repeated Load Triaxial Test." Geo-Trans 2004, ASCE Conference, Los Angeles, July 27-30, 2004.

9. "Review of Current Methods for Swell Characterization of Subsoils for Transportation Infrastructure Design." Geo-Trans 2004, ASCE Conference, Los Angeles, July 27-30, 2004.

10. "In Situ Test Protocols for Quality Assessments of Deep Mixing Columns." Geo-Trans 2004, ASCE Conference, Los Angeles, July 27-30, 2004.

11. "Recycled Coal Combustion Ashes to Control Volumetric Swell Movements of Expansive Soils." 7th International Symposium on Environmental Geotechnology and Global Sustainable Development, Helsinki, Finland, June 8-10, 2004.

12. "Compost Manufactured Topsoils to Mitigate Desiccation Cracking of Expansive Subgrades: Laboratory Studies." ASCE Texas Section Spring 2004 Meeting, April 21-24, 2004, South Padre Island, Texas.

13. "Assessment of Heave Induced Infrastructure Distress Hazard in Expansive Soil Environments Using GIS Technology." ASCE Texas Section Spring 2004 Meeting, April 21-24, 2004, South Padre Island, Texas.

14. "Effects of Cyclic Wetting-Drying on Strength, Stiffness, and Swell Response of Chemically Treated Clay." ASCE Texas, Spring 2004 Meeting, April 21-24, 2004, South Padre Island, Texas.

15. "International Perspectives on Quality Assessment of Deep Mixing." Geo-Support 2004, ASCE Conference, Orlando, January 23-28, 2004.

16. "Recycled Compost Manufactured Topsoils to Mitigate Desiccation Cracking of Expansive Subgrades." 82nd TRB Annual Meeting, Jan 13, 2004, Washington, D.C.

17. "Volumetric Swell and Shrinkage Movements of Stabilized Expansive Soils." International Conference on Problematic Soils, Nottingham Trent University, Nottingham, England, July 28-30, 2003.

18. "Studies to Understand Soil Compositional and Environmental Variables Effects on Sulfate Heave Problems." 12th Pan-American Conference on Soil Mechanics and Geotechnical Engineering, June 22-26, 2003, Cambridge, Massachusetts.

19. "Development of Stabilizer Selection Tables for Low-Volume Roads in City of Arlington, Texas." 8th International Conference on Low-Volume Roads, Transportation Research Board, June 23, 2003, Reno, Nevada.

20. "Ranking of Four Chemical and Mechanical Stabilization Methods to Treat Low Volume Road Subgrades in Texas." 8th International Conference on Low-Volume Roads, Transportation Research Board, June 23, 2003, Reno, Nevada.

21. "In Situ Techniques for Quality Assurance of Deep Mixed Columns." ASCE GI Conference on Grouting and Ground Treatment, New Orleans, March, 2003.

22. "Resilient Moduli of Treated Clays from Repeated Load Triaxial Test." 82nd TRB Annual Meeting, Jan 13, 2003, Washington, D.C.

23. "Assessments on Sulfate Resistant Cement Stabilization Methods to Counter Sulfate Induced Heave Problems." January, 2002, Transportation Research Board Annual Meeting, Washington, D.C. (Poster Presentation).

24. "Evaluation of Two CPT Interpretation Methods in Providing Reliable Predictions of Pile Load Capacities." February, 2002, International Deep Foundations Congress, Organized by ASCE Geo Institute, Orlando.

25. "Use of Cone Penetration Test (CPT) Results for Accurate Assessments of Pile Capacities." June, 2002, 9th International Conference on Piling and Deep Foundations, Nice, France.

26. "Expansive Soils Research at UT Arlington." Presented at NSF Workshop and International Conference on Soil Mechanics and Foundations Engineering, Istanbul, Turkey, August, 2001.

27. "Development of a Database Oriented Software for Construction Material Selection in Contaminated Soil." The 8th International Conference on Civil and Structural Engineering Computing, Eisenstadt, Vienna, Austria, September, 2001.

28. "Sulfate Heaving Problems in Stabilized Soils: Observations from a Few Case Studies." Presented at 2nd International Conference on Engineering Materials at San Jose in August, 2001.

29. "Cone Penetration Testing: Current Advances and Applications in Geotechnical and Highway Engineering." American Society of Civil Engineers Spring Meeting, San Antonio, Texas, April, 2001.

30. "Polymer Fibers to Control Shrinkage Cracks of High PI Clay." Seventh International Conference on Composites Engineering, ICCE/7, Denver, Colorado, July, 2000.

31. "Fiber and Fly Ash Stabilization Methods to Treat Soft Expansive Soils." ASCE Soft Ground Technology Conference, Noordwijkerhout, The Netherlands, May 28 - June 2, 2000.

32. "Effect of Fiber Reinforcement on Strength and Volume Change Behavior of Two Expansive Soils." Presentation at Transportation Research Board Annual Meeting, Washington, D.C., January, 2000.

33. "Mechanistic Evaluation of Hydrated Lime in HMA Mixtures." Presentation at Transportation Research Board Annual Meeting, Washington, D.C., January, 2000.

34. "Geotextile Reinforcement Effects on Resilient and Strength Properties of a Clayey Soil." Sixth International Conference on Composites Engineering, ICCE/6, Orlando, Florida, June, 1999.

35. "Sulfate Induced Heave Distress: A Case Study." Presentation at Transportation Research Board Annual Meeting, Washington, D.C., January, 1999.

36. "Evaluation of a Chemical Treatment Method (Sulphuric Acid and Lignin Mixture) on Strength and Resilient Properties of Cohesive Soils." Presentation at Transportation Research Board Annual Meeting, Washington, D.C., January, 1999.

37. "A Regression Model for Resilient Modulus of Subgrade Soil." Presentation at Transportation Research Board Annual Meeting, Washington, D.C., January, 1999.

38. "Cone Penetration Testing in Cemented Soils: Comparisons Between Field and Laboratory Test Results." First International Conference on Site Characterization - ISC'98, Atlanta, Georgia, 1998 (Poster).

32. "Swell and Shrinkage Characteristics of Lime Treated Sulfate Soil." ASCE Spring Meeting, South Padre Island, Texas, April, 1998.

33. "Investigation of Geofiber Reinforcement on Strength, Swell and Shrinkage Characteristics of Soils." 5th International Conference on Composites Engineering, ICCE/5, Las Vegas, Nevada, 1998.

34. "Cavity Expansion Modeling of Cone Penetration Mechanism in Granular Soils." Ninth International Conference on Computer Methods and Advances in Geomechanics, Wuhan, China, November, 1997 (Poster).

35. "Non-Linear Model for Resilient Modulus Characterization of Granular Soils." 1996 ASCE Engineering Mechanics Conference, Fort Lauderdale, May 19-22, 1996.

36. "Comparisons Between Laboratory Measured and FWD Backcalculated Resilient Moduli." 1996 ASCE Engineering Mechanics Conference, Fort Lauderdale, May 19-22, 1996.

37. "Low Strain Dynamic Shear Modulus of Cemented Sand from CPT Results." Transportation Research Board, 75th Annual Meeting, Washington, D.C., January, 1996.

38. "Engineering Behavior of Lime Treated Louisiana Subgrade Soil." Transportation Research Board, 75th Annual Meeting, Washington, D.C., January, 1996.

39. "Constitutive Modeling of Cemented Sands: Drained Behavior." 8th International Conference of the Association for Computer Methods and Advances in Geomechanics, Morgantown, West Virginia, May, 1994 (Poster).

40. "Influence of Testing Procedure and LVDTs Location on Resilient Modulus of Soils." 73rd Annual Meeting of Transportation Research Board, Washington, D.C., January, 1994.

41. "Effect of Strain Measurements on Resilient Modulus of Sands." STP, Dynamic Geotechnical Testing, ASTM Meeting, San Francisco, January, 1994.

42. "Data Acquisition System for Determining the Resilient Modulus of Soils." Advances in Site Characterization, Annual ASCE Convention, Dallas, 1993.

43. "Miniature CPT Tests in Dense Monterrey No. 0/30 Sand in a Flexible Double Walled Calibration Chamber." The First International Symposium on Calibration Chamber Testing, Clarkson University, Potsdam, New York, July, 1991.

44. "Engineering and Compaction Characteristics of Boiler Slag." ASTM STP, Geotechnics of Waste Fills -Theory and Practice, ASTM Meeting, San Francisco, 1990.

Workshops and Conference Sessions Organized

1. Moderator, Session on Soil Stabilization, Geofrontiers Meeting, ASCE Conference, Austin, Texas, January, 2005.

2. Chair, Session on Problematic Soils, Geotrans Meeting, ASCE Conference, UCLA Campus, Los Angeles, July 27-31, 2004.

3. Co-Chair, Session on Deep Mixing I, Geotrans Meeting, ASCE Conference, UCLA Campus, Los Angeles, July 27-31, 2004.

4. Chair, Session on Deep Mixing II, Geotrans Meeting, ASCE Conference, UCLA Campus, Los Angeles, July 27-31, 2004.

5. Invited Participant and Speaker, Workshop on Deep Mixing, Geo-Trans 2004, ASCE Conference, Los Angeles, July 27, 2004.

6. Invited Panelist on Research Needs, 9th International Symposium on Environmental Geotechnology and Global Sustainable Development, Helsinki, June, 2004.

7. Participant and Speaker, Workshop on "Deep Mixing," 83rd TRB Annual Meeting, Jan 11, 2004, Washington, D.C.

8. Invited Participant, National Science Foundation, Future Research Needs in Geoenvironmental Engineering, University of Illinois, Chicago, October, 2003.

9. Session Chair, Transportation Research Board 2003 Session on "Cementitous Stabilization Methods" in Washington, DC in January, 2003.

10. Co-organizer, Transportation Research Board 2002 Session on "TDR Applications in Highways" in Washington, DC in January, 2002.

11. Co-organizer, Transportation Research Board 2001 Session on "In Situ Test Methods for Soil Exploration" in Washington, DC in January, 2001.

12. Organized and Chaired a Transportation Research Board 2000 session on "Measuring Engineering Properties of Large Volume Change Soils" in January, 2000.

13. Organized a Transportation Research Board session on "Calibration of In Situ Test Methods for Transportation Related Structures" in January, 1998.

14. Member, Planning Committee, 4th International Symposium on Environmental Geotechnology and Global Sustainable Development, Boston in August, 1998.

GRANTS

Funded

The University of Texas at Arlington (UTA) (Over $3.0 million dollars of research @ UTA)

1. Texas Department of Transportation and Development (TxDOT), "Realistic Guidelines for Low Classification Roads on High PI Clays." $312,386 (UTA Share - $145,174), September 2005 to August 2007, PI: Anand Puppala, and Co-PI: Laureano R. Hoyos (Funded, Starting Date: Sept 1, 2005).

2. Texas Industries Inc. (TXI), "Experimental Investigations on Aggregate Bases." $102,500, June 2005 to August 2006, PI: Laureano R. Hoyos and Co-PI: Anand Puppala (On-going).

3. Texas Department of Transportation and Development (TxDOT), "Deep Mixing Technology for Mitigation of Pavement Roughness." $266,433, September 2004 to August 2006, PI: Anand Puppala, and Co-PI: Laureano R. Hoyos (On-going).

4. Texas Department of Transportation and Development (TxDOT), "Correlation of Texas Cone Penetrometer Test Values and Shear Strength of Texas Soils." $175,000 (UTA Share $45,000; UH, UTA and Lamar Consortium), September 2004 to August 2006, PI: Anand Puppala (On-going).

5. Texas Department of Transportation and Development (TxDOT), "Gutter Flow and Manning N Analysis – Addendum Tasks," $130,000, September 2004 to August 2005, PI: Ernest Crosby and Co-PIs: Max Spindler and Anand Puppala.

6. City of Fort Worth, Fort Worth. "Experimental Studies on Flowable Fill and Flowable Fill Base Materials." $50,580, Apr 2004 - Dec 2004, PI: Anand Puppala and Co-PI: Syed Qasim.

7. Texas Department of Transportation and Development (TxDOT), "Use of Composts to Mitigate Shoulder Cracking." $85,000, Feb 2004 - Aug 2005, PI: Anand Puppala.

8. United States Army Corps of Engineers (USACE), Fort Worth, Texas. "Investigations to Develop Field Stabilization Methods to Mitigate Desiccation Cracks in order to Reduce Slope and Embankment Failures." $128,192, Feb 2004 - Jan 2007, PI: Anand Puppala (On-going).

9. Texas Department of Transportation and Development (TxDOT), "The Effects of Using Compost as a Preventive Measure to Mitigate Shoulder Cracking." $262,626, Sep 2002 to August 2004, PI: Anand Puppala, and Co-PIs: Laureano R. Hoyos and Syed Qasim.

10. National Science Foundation, "CCLI-EMD: Development of Web Based Real Time Virtual Model Based Simulation Laboratory for Soil Structure Interaction." $74,382, Jan 15, 2003 - Dec 31, 2004, PI: Ali Abolmaali, Co-PI: Anand Puppala.

11. National Science Foundation, "REU: Performance Evaluation of Civil Infrastructure Systems." $137,225, Jan 15, 2003 - Dec 31, 2005, PI: Ali Abolmaali, Co-PI: Anand Puppala (On-going).

12. National Science Foundation, "MRI: Development of a Strain/Temperature/Suction-Controlled True Triaxial Testing Device for Modeling Unsaturated Soil Behavior Under Multi-axial Stress States," $272,178, Aug 1, 2002 - July 31, 2006, PI: Laureano R. Hoyos, Co-PI: Anand Puppala (On-going).

13. Texas Department of Transportation and Development (TxDOT), "Gutter Flow and Manning N Analysis," $435,137, November 2001 to August 2004, PI: Anand Puppala, and Co-PIs: Max Spindler and Ernest Crosby.

14. National Science Foundation, "Equipment Request to Purchase Large Triaxial Setup with Bender Elements." $20,000, April 2002, PI: Anand Puppala, Co-PI: Laureano Hoyos.

15. National Science Foundation, "Experimental Investigations on Chemically Treated Sulfate Soil for Fundamental Understanding of Heaving Mechanisms." $217,817, May 2001 to April 2005, PI: Anand Puppala, Co-PI: Laureano Hoyos (Unsolicited, On-going).

16. City of Arlington, "Evaluation of Treatment Methods to Stabilize Soft Subgrade Soils of Southeast Arlington: Field Investigations." $120,020, January 2001 to May 2005, PI: Anand Puppala, Co-PI: Laureano Hoyos.

17. City of Arlington, "Field Investigations for Comprehensive Assessments of Four Selected Stabilization Methods for Soft Subgrade Soils from Southeast Arlington, Texas." $39,850, Two Years, PI: Laureano Hoyos, Co-PI: Anand Puppala.

18. American Concrete Pipe Association, "Research Investigations on Fiber Reinforced Pipe Systems." $52,000, April 2001 to April 2002, PI: Robert L. Yuan, Co-PI: Anand Puppala.

19. Portland Cement Association (PCA), "Effectiveness of Sulfate Resistant Cement for Providing Comprehensive Stabilization of Sulfate Rich Soils." $20,000, September 2000 to August 2001, PI: Anand Puppala and Co-PI: Laureano Hoyos.

20. Cement and Concrete Promotion Council of Texas, "Effects of Sulfate Resistant Cement on the Stiffness Properties of Natural Sulfate Rich Subgrade Soils: A Modified Approach Using the Resonant Column Device." $7,500, October 2000 to August 2001, PI: Laureano R. Hoyos, Co-PI: Anand Puppala.

21. Texas Higher Education Coordinating Board, Advanced Technology Program (ATP), "Mitigation of Heave and Shrinkage Distress of Expansive Soils Using Recycled Waste." Joint Project with University of North Texas, $118,200 (UTA Share $58,258), January 2000 to December 2001, PI: Anand Puppala and Co-PI: Nandika D'Souza (UNT).

22. United States Army Corps of Engineers (USACE), Fort Worth and Vicksburg. "Investigations of Various Factors and Their Influence on Sulfate Induced Heaving." $25,000, September 1999 to February 2001, PI: Anand Puppala.

23. City of Arlington, Arlington, Texas, "Investigation of New and Alternate Chemical, Mechanical and Combined Treatment Methods to Stabilize Soft Subgrade Soils of Southeast Arlington." $28,966, January 2000 to October 2000, PI: Anand Puppala.

24. Dallas Fort - Worth (DFW) International Airport, "Assessments of Reasons That Caused Sulfate Induced Heaving of DFW Site Soil." $5,000, June 1999 to Dec 2000, PI: Anand Puppala.

25. Texas Department of Transportation and Development (TxDOT), "Design, Construction and Maintenance for Storm Sewers in Contaminated Environments," Joint Project with TTI,

Arlington, $181,592 (UTA Share 127,162), January 1999 to August 2000, PI: Ernest Crosby, and Co-PIs: Anand Puppala, Max Spindler, and John Overman (TTI).

26. Terramar/Dallas Fort - Worth (DFW) International Airport, "Swell and Shrinkage Characteristics of Lime Treated Sulfate Soils Found in Taxiway Section in DFW Airport," $5,000, January 1998 to May 1998, PI: Anand Puppala.

27. OIT, Inc., Dallas, "Investigation of DRP Chemical Soil Road base Stabilizer (SA-44/LS-40) on Strength Properties of Sandy Soils," $5,000, August 1998 to October 1998, PI: Anand Puppala.

28. OIT, Inc., Dallas, "Investigation of DRP Chemical Soil Road base Stabilizer (SA-44/LS-40) on Strength Properties of Cohesive Soils," $41,114, November 1997 to January 1999, PI: Anand Puppala.

Louisiana Transportation Research Center (LTRC)/Louisiana State University

29. Federal Highway Administration (FHWA) and Louisiana Department of Transportation (LADOTD), "Development of a Correlation Between Physical and Fundamental Properties (Resilient Modulus) of Louisiana Soils," 9/93 – 9/96, $184,289, PI: Louay N. Mohammad and Co-PI: Anand J. Puppala

30. Federal Highway Administration (FHWA), Louisiana Department of Transportation (LADOTD), and Koch Materials, Inc., "Evaluation of the Fundamental Engineering Properties of Bituminous Mixtures Containing Hydrated Lime," $79,969, 10/94-5/96, PI: Louay N. Mohammad and Co-PI: Anand J. Puppala.

Declined

1. National Science Foundation, "Collaborative Research: SWCC Based Models for Better Interpretation of Swell Characteristics of Expansive Soils." $234,992, Sep, 2004 – Aug, 2007, PI: Anand Puppala, Co-PI: Laureano Hoyos (Panel provided suggestions for modifications to the original proposal and asked us to resubmit it for Nov'04 deadline).

2. National Science Foundation, "Collaborative Research: Strength-Stiffness Response of Unsaturated Soils over a Large Range of Deformation." $236,771, Sep, 2004 – Aug, 2007, PI: Laureano Hoyos, Co-PI: Anand Puppala.

3. National Science Foundation, "An Experimental Study of Small Strain Dynamic Properties of Unsaturated Soils Using Suction Controlled Resonant Column and Bender Element Testing Techniques," $232,654, Sep 2002 – Aug 2005, PI: Laureano R. Hoyos, Co-PI: Anand Puppala.

4. Texas Higher Education Coordinating Board, Advanced Technology Program (ATP) "Recycled Compost Amendments to Control Desiccation Cracking Potentials of Expansive Embankment Soils." Jan 2004 – Dec 2005, PI: Anand Puppala; Co-PI: Syed Qasim (Invited for full proposal submission, Declined in the final review).

5. Texas Department of Transportation, "Develop Guidelines and Procedures for Stabilization of Sulfate Soils," $869,350, Three Years (with UT Austin and UT El Paso), 2001.

6. National Science Foundation: Curriculum Research and Curriculum Development Proposal on Problematic Soils (CRCD Proposal), "Development and Innovative Delivery of a Three-Course

Series on Civil Infrastructure Design and Construction on Problematic Soils," $325,600, Three years, 2000.

7. Texas Higher Education Coordinating Board, Advanced Research Program (ARP), "Evaluation of Time Domain Reflectometry for Assessment of Infrastructure Damage From Expansive Soils," Two Years, Preproposal, 2001.

8. National Science Foundation, "Modeling Unsaturated Soil Behavior Under Multi-Axial Stress States Using a Strain/Temperature/Suction-Controlled True Triaxial Testing Device." Three Years, $272,817, 2001.

9. Environmental Protection Agency "Investigation of Hydraulic Conductivity Properties of Geofiber Reinforced Compacted Clays," $25,000, One year, 2000.

10. Texas Department of Transportation, "Improved Performance Related Tests for Flexible Base Material," $82,594, Two years (Research Project was cancelled), 2000.

11. Texas Department of Transportation, "Evaluation of Non-Traditional Soil and Aggregate Stabilization," $100,641, Two years, 1999.

12. Texas Department of Transportation, "Field Synthesis of Geotextiles in Flexible and Rigid Pavement Rehabilitation Strategies Including Cost Considerations," $149,014, Two years, 1999.

13. Texas Department of Transportation, "Environmental Assessment of Traditional and Maintenance Materials," $101,276, Two years, 1999 (Co-PI).

14. Texas Department of Transportation, "Use of Waste Foundry Sands in Transportation Applications," $68,994, Two years, 1999 (Co-PI).

15. Texas Department of Transportation, "Application of Electronics and Semiconductors in Transportation Applications," Two years, 1999 (Co-PI).

SERVICE

License

Professional Engineer (PE), Louisiana, No. T-15866

Professional and Technical Organizations and Memberships

- Member, American Society of Civil Engineers (ASCE), Current
- Member, American Society for Testing and Materials (ASTM), 1993-1995; 2003-Current
- Member, National Academy of Sciences, National Research Council, Transportation Research Board
- Member, United States Universities Council on Geotechnical Engineering Research (USUCGER)
- Member, International Society of Soil Mechanics and Geotechnical Engineers (ISSMGE)
- Member, ADSC: The International Association of Foundation Drilling, Current
- Member, International Geosynthetics Society
- Member, International Association for Computer Methods and Advances in Geomechanics, 1995-1997

Professional and Technical Committees and Activities

American Society of Civil Engineers or ASCE (Member in 3 National Committees and 1 State Committee)

- ASCE Engineering Geology and Site Characterization Committee (Chairman - 2004)
- ASCE Ground Improvement Committee
- ASCE Bituminous Materials Committee
- ASCE Texas Section, Geotechnical Division, Committee Member

Transportation Research Board, National Research Council, National Academy of Sciences (Member in 4 National Committees)

- Committee Member, AFS 20, Soils and Rock Instrumentation
- Committee Member, AFS 30, Exploration and Classification of Earth Materials
- Committee Member, AFS 60, Committee on Cementitous Stabilization
- Committee Member, AFS 80, Foundations of Bridges and Other Structures

American Society for Testing and Materials (Member, 1993-1995; 2003-Current)

- ASTM Geotechnical Subcommittees D18.01, D18.02 and D18.05

Boards and Committees Served

- City of Arlington, Soil Stabilization/Pavement Performance Task Force, 2000-2003
  This City of Arlington committee explored soil stabilization methods to improve pavement conditions and provide specifications for city to implement in the future construction.

- Technical Advisory Panel (TAP) for the Texas Department of Transportation's Research Management Committee 1 (Pavements) (1997-2000)
  The TAP offered advice to TxDOT's research program in the preparation of problem statements in Pavements area and in proposal evaluation.

- Technical Advisory Panel (TAP) for the Texas Department of Transportation's Research Management Committee 3 (Hydraulics) (2000-Current)
  The TAP offers advice to TxDOT's research program in the preparation of problem statements in Hydraulics and in proposal evaluation.

- Research Panel for the Selection of Proposals for Research Related to Geotechnical Area, Louisiana Transportation Research Center, Baton Rouge, Louisiana (2000)
  As a panel member, I reviewed three proposals and provided input for the final selection.

- Reviewer and Panelist, National Science Foundation
  Reviewed unsolicited research proposals as a panelist for "Civil and Mechanical Systems", "Undergraduate Education" and "Geosciences" Programs of National Science Foundation.

Professional Education Activities

- Teaching "Soil Mechanics," session for the Professional Engineering Examination Review Class at UTA since 1998.

Professional Training Courses Attended

- Invited Participant, PDCA's Professor Training Class on "Deep Foundations," Logan, Utah, July, 2002.

- Invited Participant, ACPA, CRSI, IPRF Sponsored 2001 Professor Seminar on "Concrete Pavement Design," Skokie, Illinois, June, 2001.

- Invited Participant, ADSC Faculty Workshop on "Drilled Shafts," Fort Collins, Colorado, July, 2000.

- Invited Participant, NSF Sponsored Teaching Workshop on "Geosynthetics," Auburn, Alabama, July, 1997.

EDITORSHIP

Editorial Board Member

- American Society for Testing and Materials (ASTM) - Geotechnical Testing Journal (2003- Current)

- American Society of Civil Engineers (ASCE), Journal of Materials, Guest Editor, Special Issue on Ground Improvement

- Ground Improvement Journal, Thomas Telford Publishers, London, United Kingdom (2003 - Current)

Paper Review Activities (Reviewer of Manuscripts)

- ASCE Journal of Geotechnical and Geoenvironmental Engineering (1992-present)
- ASCE Journal of Infrastructure Construction (1995-present)
- ASCE Journal of Materials (1996-Current)
- ASTM Geotechnical Testing Journal (1989-present)
- ASCE Special Publications, ASTM Special Technical Publications (1993-present)
- Journal of Transportation Research Board (1994-Current)
- International Geosynthetics Conference Proceedings (1996-1997)
- ISSMGE Ground Improvement Journal, Thomas Telford Publishers (2003 - Current)
- Water Environment Research (2002 - Current)

Honor Societies

- Phi Kappa Phi
- Chi Epsilon (Civil Engineering)
- Tau Beta Pi (Engineering)

Faculty Advisor

- Tau Beta Pi (Engineering)
- Fine Arts Society of India, UTA Student Organization

DEPARTMENT, COLLEGE, UNIVERSITY AND COMMUNITY SERVICE

Department Service

- Chair, ABET Committee on Student Evaluations
- Chair, Department Scholarship Committee, 2003 - Current
- CEE Representative, State Employee Charitable Campaign (SECC)
- Committee to Develop Rules and Guidelines for "Off Load Proposal (OLP)." 2000
- Assisted in the preparation of CEE document for ABET 2000 - Accreditation Visit. Contributed Geotechnical Engineering Activities, 2000
- Member of Construction Research Center (CRC) Advisory Board. Attended Several CRC Meetings, 1996-2004
- Represented CEE in the Graduation Ceremonies

- 1997-1998 CEE Representative, Junior and Community College Student Recruitment
- 1999 Preview Day: CEE representative - Discussed Civil Engineering program at UTA
- Recorder for CEE faculty meeting minutes from 1996-1999

College Service

- Member, Geotechnical Engineering Search Committee for Assistant Professor, 2003-2004
- Member, Structural Engineering Search Committee for Assistant Professor, 2003-2004
- Member, Research Review Committee, 2003-Current
- Member, Grade Appeal Panel, College of Engineering, 2002-Current
- Member, Structural Engineering Search Committee for Assistant Professor, 2000-2001
- Member, Geotechnical Engineering Search Committee for Assistant/Associate Professor, 1999-2000
- Engineering Bridge/Gateway Summer Camps: CEE Representative. Participated in Undergraduate Student Recruiting Activities held at the UTA in summer semesters of 1999, 2000, 2001, 2002, 2003 and 2004. Explained the "Significance of Civil Engineering" to high school student attendees
- Professional Engineering (PE) Review Course: Covered geotechnical engineering part of PE examination preparation course offered by UTA in fall and spring semesters.

University Service

- Associate, Graduate Faculty
- State Employee Charitable Campaign

Community Service

- State Employee Charitable Campaign

AWARDS, HONORS & RECOGNITIONS

- "Outstanding Researcher Award in College of Engineering" for 2004-2005.
- "Chancellor's Council Outstanding Teaching," College of Engineering Nominee for 2003-2004.
- "Outstanding CE Instructor" Award for 2003-2004.
- "Outstanding CE Instructor" Award for 2002-2003 (First Recipient of the Newly Initiated Award by the Civil and Environmental Engineering Department).
- "Outstanding Young Faculty" Award in College of Engineering in 2001.

- "Outstanding Researcher Award in College of Engineering" Civil and Environmental Engineering Nominee for 2003-2004.
- "Outstanding Faculty Advisor" Nominee, Fine Arts Society of India, UTA Student Organization, 2004.
- "Best Paper of the Session" Award - ASCE Texas meeting, South Padre Island, April, 1998.
- External PhD Examiner - Indian Institute of Technology, Mumbai, India and Indian Institute of Technology, Roorkee, India.
- External PhD Examiner - Monash University, Australia.
- Research and Teaching Assistantships in Doctoral Studies, Louisiana State University, 1988-2002.
- Postgraduate Scholarship for Masters Program at Indian Institute of Technology, Madras 1995-1997.
- Invited Participant, Discussed Research on Compost Materials, UTA TV Show, Fall Semester, 2003.
- "Dallas Morning News" Article on Compost Research at Stephenville, Texas, 2003.
- "Dallas Morning News" Article on "Solid Ground." July 20, 2001.
- "Fox Channel 5 PM Local News" Coverage on Slope Stability Problems in DFW Metroplex, April 16, 2001.
- "Arlington Morning News" Article focusing on a research project funded by City of Arlington. This article was published on June 18, 2000.