

**CURRICULUM VITAE**  
**WAHEED UDDIN, PH.D., P.E.**  
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**PRESENTATIONS**

Dr. Uddin has made 185 presentations including 72 invited lectures or keynote presentations worldwide in 28 countries at national and international conferences and professional meetings in the United States and abroad in Saudi Arabia, Taiwan, Japan, UAE (Dubai and Abu Dhabi), Mexico, Brazil, Spain, Brunei, Singapore, Indonesia, India, Canada, South Africa, Denmark, Norway, Poland, Portugal, Greece, Turkey, UK (Northern Ireland), Pakistan, Italy, Australia, Malaysia, China, Thailand, and New Zealand.

Presentations and invited lectures, 1993 - now:

170 Presentations since joining the University of Mississippi including 71 invited lectures.

List of All Presentations: (Primary presenter other than Uddin underlined)

1. “Geospatial Technologies for Highway Asset Management and Natural Disaster Risk Reduction Planning.” *First Conference, 2013 IJPC - International Journal of Pavements Conference*, São Paulo, SP, Brazil, December 9-10, 2013. *Keynote lecture*
2. “Pavement Design or Pavement Management? Good Design Is Not Enough.” *First Conference, 2013 IJPC - International Journal of Pavements Conference*, São Paulo, SP, Brazil, December 9-10, 2013. (with R. Haas and W.R. Hudson)
3. “Achieving sustainability without compromising long-term pavement performance for road infrastructure assets.” *First Conference, 2013 IJPC - International Journal of Pavements Conference*, São Paulo, SP, Brazil, December 9-10, 2013. (with Zul Fahmi M. Jaafar)
4. “NCITEC Project 2012-27: Integrated Intermodal Transportation Corridors for Economically Viable and Safe Global Supply Chain – Overview and Progress to Date.” The National Center for Intermodal Transportation for Economic Competitiveness (NCITEC), First Annual Conference, Mississippi State University, Oct 31-Nov 1, 2013.
5. “NCITEC Project 2012-25: Disaster Protection of Transport Infrastructure and Mobility Using Flood Risk Modeling and Geospatial Visualization – Overview and Progress to Date.” The National Center for Intermodal Transportation for Economic Competitiveness (NCITEC), First Annual Conference, Mississippi State University, Oct 31-Nov 1, 2013. (with M. Altinakar)
6. Uddin, W. “NCITEC – University of Mississippi: Projects Overview and Progress to Date.” The National Center for Intermodal Transportation for Economic Competitiveness (NCITEC), Symposium, University of Mississippi, February 7, 2013. *Symposium Chair*
7. “Models of Freight Transportation and Emissions Costs.” *Presentation, NCIT-MTI Freight and Energy Planning Workshop*, Denver University National Center of Intermodal Transportation (NCIT) and Mineta Transportation Institute (MTI), San Jose State University, San Jose, California, October 25, 2012. *Invited presentation*
8. “Value Engineering Applications for Deploying Sustainable Intermodal Transportation Infrastructure Strategies,” *Presentation, NCIT 2012 - National Conference on Intermodal Transportation: Problems, Practices, and Policies*, Hampton University, Hampton, Virginia, October 11-12, 2012. *Invited paper*
9. “Research needs not being met in the Infrastructure and Remote Sensing Areas.” *Presentation, Panel Discussion, Identification of the high payoff intermodal research areas, NCIT 2012 - National Conference on Intermodal Transportation: Problems, Practices, and Policies*, Hampton University, Hampton, Virginia, October 11, 2012. *Invited presentation*

List of Presentations: (continued)

10. "Pavement Evaluation and Structural Strengthening Considering Surface Materials, Environmental Conditions and Natural Disaster Impacts." *Proceedings, MAIREPAV7 - The Seventh International Conference on Maintenance and Rehabilitation of Pavements and Technological Control*, Auckland, New Zealand, August 28-30, 2012. Best paper Award in Theme of Advanced Trends...
11. "Landuse and Transportation Policies for Sustainable Cities." *Resource and Environmental Planning Seminar*, School of People, Environment & Planning, Massey University, Palmerston North, New Zealand, August 27, 2012. *Invited lecture*
12. "Commentary: What is the Value of Infrastructure Maintenance? A Survey by Felix Rioja." Conference on Landuse and Infrastructure, Lincoln Institute, Boston, June 5-6, 2012. *Invited Presentation*
13. "Performance Evaluation of Roundabouts for Traffic Flow Improvements and Crash Reductions at a Highway Interchange in Oxford, Mississippi." Presentation of Paper No. 12-3844, CD Proceedings, *91st Annual Meeting of The Transportation Research Board*, Washington, DC, January 21-26, 2012. (with Jessica Headrick and James Sullivan)
14. "A Geospatial Methodology for Rapid Assessment of Disaster Impacts on Infrastructure." Presentation of Paper No. 12-3792, CD Proceedings, *91st Annual Meeting of The Transportation Research Board*, Washington, DC, January 21-26, 2012.
15. "Airborne LIDAR Remote Sensing and Geospatial Technologies for Flood Disaster Prevention and Infrastructure Planning." Symposium on Lessons Learned from Thailand Flood Disaster and Future Directions for Flood Prevention and Mitigation, Organized by ASEAN Affairs and Asian Institute of Technology (AIT) in association with University of Mississippi CAIT, Bangkok, Thailand, December 21, 2011. *Invited lecture*
16. "Traffic Flow, Safety, and Air Quality Impacts of Roundabouts in Oxford, Mississippi." *2011 Mississippi Transportation Institute Conference*, Biloxi, Mississippi, November 1-3, 2011. (with J. Headrick)
17. "Natural Disaster Risk Reduction and Community Preparedness." Workshop Session-August 11, *2011 CONINFRA Infrastructure Conference*, São Paulo, Brazil, August 10 - 12, 2011. *Invited lecture*
18. "Geospatial Applications of Satellite Imagery and LIDAR Remote Sensing Data for Transportation and Environmental Sustainability Projects." *Presentation to Civil Engineering and Remote Sensing/Mapping Faculty of Istanbul Technical University*, Istanbul, Turkey, June 8, 2011. *Invited Lecture*
19. "Life Cycle Assessment of Sustainable Pavement Systems." *5<sup>th</sup> ICONFBMP, International Conference Bituminous Mixtures and Pavement*, Thessaloniki, Greece, June 1-3, 2011. *Conference co-organizer and Invited Lecture*
20. "Airborne LIDAR Survey Specifications and Quality Management Protocols for Airport Obstruction Surveys." *90th Annual Meeting of Transportation Research Board*, Washington, DC, January 26, 2011. (with Bill Gutelius, and Christopher Parrish)
21. "Flooding, Ecological Diversity, and Wildlife Habitat Studies by Geospatial Visualization and Remote Sensing Technologies." *International Conference on "Biodiversity is Our Life," Centre for Biodiversity and Conservation*, Shah Abdul Latif University, Khairpur (Mir's), Sindh, Pakistan, December 29, 2010. *keynote lecture*
22. "LIDAR Remote Sensing Technology for Forestry and Other Landuse Applications." *Presentation to Pakistan Forestry Officers and Scientists*, Center for Biodiversity and Conservation, Shah Abdul Latif University, Khairpur (Mir's), Sindh, Pakistan, December 30, 2010. *Invited lecture*

List of Presentations: (continued)

23. "Imagery Based Daily Traffic Volume Demand Mapping." *2010 Annual GRITS Conference*, Gulf Region Intelligent Transport Society, Baton Rouge, LA, November 16-18, 2010. (with Jessica Headrick)
24. "Remote sensing and geospatial technologies for inventory and condition monitoring of transport infrastructure assets." *2<sup>nd</sup> ICTI, International Conference Transport Infrastructure*, São Paulo, Brazil, August 4-6, 2010.
25. "Sustainable personal rapid transit strategies for congested cities and urban communities." *2<sup>nd</sup> ICTI, International Conference Transport Infrastructure*, São Paulo, Brazil, August 4-6, 2010. (with Usman Uddin)
26. "Spaceborne Remote Sensing for Assessing Infrastructure Inventory, Traffic Demand, and Disaster Impacts." *Emerging Technologies Forum*, 2010 NED Alumni International Convention, Rosemont (Chicago), IL, July 31, 2010. *Invited lecture*
27. "Remote sensing and geospatial technologies in environmental sustainability applications." (sponsored by Centre for Biodiversity and Conservation), Shah Abdul Latif University, Khairpur, Sindh, Pakistan, July 13, 2010. *Invited lecture*
28. "Traffic Microsimulation for Roundabouts in Oxford, MS and M.A. Jinnah Road, Karachi." Lecturer and Trainer, Traffic Microsimulation Workshop, hosted by Urban Infrastructure Engineering Department, NED University of Engineering and Technology, Karachi, Pakistan, July 9, 2010. *Invited presentation*
29. "Review of Oracle based campus and academic information management system and advice to Vice President and Dean on modernizing traffic management system in Pakistani cities." PAF-Karachi Institute of Economics and Technology, Karachi, Pakistan, July 8, 2010.
30. "Remote Sensing And Geospatial Technologies for Infrastructure Inventory, Traffic Demand, and Disaster Damage Assessment," hosted by Department of Geography, Karachi University, Karachi, Pakistan, July 7, 2010. *Invited lecture*
31. "Karachi Transportation Management," *Public Forum*, hosted by Urban Resources Department, Karachi, Pakistan, July 7, 2010. *Invited lecture*
32. "Spaceborne Remote Sensing Data for Inventory and Visualization of Transportation Infrastructure and Traffic Attributes." *First International Conference on Sustainable Transportation and Traffic Management and Third International Symposium on Infrastructure Engineering in Developing Countries (IEDC 2010)*, Organized by NED University of Engineering and Technology in cooperation with Pakistan Higher Education Commission, US Agency for International Development, and University of Mississippi CAIT, Karachi, Pakistan, July 1-3, 2010. *Conference co-chair and keynote lecturer.*
33. "Environmental, Energy, and Sustainability Considerations for Life-Cycle Analysis of Pavement Systems." *International Workshop on Energy and Environment in the Development of Sustainable Asphalt Pavements*, US-China Workshop," Xian, China, (funded by NSF and China NSF), June 7-9, 2010. *Member of the U.S. Delegation and Invited lecture*
34. "Condition Assessment of Transportation Infrastructure Assets using Remote Sensing and Geospatial Technologies." ASCE Philadelphia Section, Structures Group Meeting (hosted by Group Chair, Dr. Mohiuddin Khan), April 26, 2010. *Invited lecture*
35. "Remote Sensing Assessment of Transportation Infrastructure and Bridge Assets." Presentation to New Jersey DOT, Bridge Division, April 26, 2010. *Invited lecture*
36. "Geospatial and Remote Sensing Technologies for Pavement Inventory and Condition Assessment." Temple University, Philadelphia, April 26, 2010. *Invited lecture*

List of Presentations: (continued)

37. "Life Cycle Assessment: State of Good Repair: Evaluating the Implications for Transit." Transit Cooperative Research Program, TRB, National Academies, (Panel meeting and presentation to draft project research statement), April 13-14, 2010. *Review Panel Member, TCRP Project E-9*
38. "LIDAR Remote Sensing Technology for Airport Surveys and Obstruction Mapping." 2010 AAAE Airport GIS Conference, American Association of Airport Executives, San Antonio, Texas, March 21-24, 2010. *Invited lecture*
39. "Monitoring Techniques for Assessing Pavement Integrity And Maintenance Needs." Airport Pavement Design and Management Summit, Singapore, January 26-27, 2010. *Invited lecture*
40. "Remote Sensing and Geospatial Technologies for Terrain and Infrastructure Mapping." 2009 CONINFRA, São Paulo, Brazil, July 29 - 31, 2009. *Invited lecture*
41. "Expediting infrastructure condition assessment for disaster response and emergency management using remote sensing data." MAIREPAV6 - 6th International Conference on Maintenance and Rehabilitation of Pavements and Technological Control, Torino, Italy, July 8-10, 2009.
42. "Geospatial and Remote Sensing Technologies for Pavement Inventory and Condition Assessment." DAWG Session (TRB), MAIREPAV6 - 6th Intl. Conference on Maintenance and Rehabilitation of Pavements and Technological Control, Torino, Italy, July 8-10, 2009.
43. "Terrestrial and Airborne Remote Sensing LIDAR Surveys for Airport Infrastructure and GIS Applications." 2009 AAAE Airport GIS Conference, American Association of Airport Executives, Chicago, March 15-18, 2009. (with David Ward)
44. "Geospatial Analysis of Remote Sensing Data to Assess Built Environment Impacts on Heat-Island Effects, Air Quality and Global Warming." Paper No. 09-3146, CD Proceedings, 88th Annual Meeting of The Transportation Research Board, Washington, DC, January 11-15, 2009. (with Carla Brown, E. Scott Dooley, and Bikila Wodajo)
45. "GIS-based decision support system for infrastructure asset management, pollution mapping and disaster impact assessment." Noori Hospital Auditorium, lecture to Pakistan Atomic Energy Commission staff Islamabad, Pakistan, June 27, 2008. *Invited lecture*
46. "Assessing Built Environment Impacts on Air Quality and Global Warming." Mackenzie University, São Paulo, Brazil, July 29 - 31, 2009. *Invited lecture*
47. "Geospatial Analysis for Infrastructure Design, Asset Management and Disaster Assessment." National Institute of Transportation, National University of Science and Technology (NUST), Risalpur, Pakistan, June 28, 2008. *Invited seminar* by Uddin & project overview by Ali.
48. "Enhancing Traffic Safety with ITS, Remote Sensing Technologies, and GIS." NESPAK, Lahore, Pakistan, July 2, 2008. *Invited lecture*
49. "Pavement Recycling Practice in the U.S." Recycling Symposium, 2008 ICTI, First Intl. Conference Transport Infrastructure, Beijing, China, 24-26 April 2008. *Invited lecture*
50. "LIDAR Obstruction Surveys And Imagery Data For Airport Applications." Paper 137, 2008 ICTI, First International Conference Transport Infrastructure, Beijing, China, 24-26 April 2008. (with Christopher Parrish)
51. Uddin, W., Bikila Wodajo, and Katherine Osborne. "Geospatial Analysis Of Satellite Imagery Data for Inventory of Transportation and Urban Infrastructure Assets and Assessment of Disaster Impacts." Paper 138, 2008 ICTI, First International Conference Transport Infrastructure, Beijing, China, 24-26 April 2008. (with Bikila Wodajo and Katherine Osborne)

List of Presentations: (continued)

52. "Incorporating Research Products into Teaching Transportation Courses." *Winter Meeting of Deep South Section of ITE*, Jackson, Mississippi, February 19, 2008.
53. "LIDAR Survey for Airport Obstruction Chart and Visualization Applications." Session 396 Light Detection and Ranging (LIDAR) Obstruction Surveys and Visualization Technologies for Airports, *87th Annual Meeting of Transportation Research Board*, Washington, DC, January 14, 2008.
54. "Use of Remote Sensing and Geospatial Technologies to Enhance Traffic Management and Disaster Response: Pak-USAID Project." *National Highway Authority*, Islamabad, Pakistan, July 9, 2007. *Invited lecture*
55. "Assessment of Transportation Related Safety and Public Health Impacts Using Remote Sensing and Geospatial Analysis Technologies." *7th Malaysian Road Conference*, Kuala Lumpur, Malaysia, July 17-19, 2007. *Keynote Lecture*
56. "A Methodology for Estimating Seasonal Nonlinear Modulus Values for Design and Evaluation of Asphalt Pavements." *4th International Conference Bituminous Mixtures and Pavement*, Thessaloniki, Greece, April 19-20, 2007.
57. "Pavement Engineering and Maintenance Management." *Workshop Lectures, Center for Infrastructure Engineering, Griffith University*, Gold Coast Campus, Australia (hosted and coordinated by Professor A.S. Balasubramaniam), September 28-29, 2006. *Invited Lecturer*
58. "Geospatial Analysis and Visualization Technologies for Airport Application." *2006 Second International Conference on Airports: Planning, Infrastructure & Environment*, Rio de Janeiro, Brazil, August 2-4, 2006. *keynote Lecture*
59. "A Consideration of Heat-Island Effect in Ground-Level Ozone Forecasting Model and Its Application in Rural Areas of Northern Mississippi." Paper 06-1954, CD Proceedings, Presented at *85th Annual Meeting of The Transportation Research Board*, Washington, DC, January 22-26, 2006. (with K. Boriboonsomsin)
60. "Air Quality Management Using Modern Remote Sensing And Spatial Technologies And Associated Societal Costs." Presented at *the Second International Symposium on Recent Advances in Environmental Health Research*, Jackson State University, Mississippi, September 18-20, 2005.
61. "Life-Cycle Societal Costs and Benefits for Sustainable Transportation Decision Making." *mairepav4 – 4<sup>th</sup> International Conference on Maintenance and Rehabilitation of Pavements and Technological Control*, Ulster University, Belfast, Northern Ireland, August 18-20, 2005.
62. "Safety and Pavement Management Systems." *2005 Southeast Local Roads Conference*, Savannah – Georgia, April 3-5, 2005. *Invited Lecture*
63. "Transportation Related Environmental Impacts and Societal Costs For Life-Cycle Analysis of Costs and Benefits." *2005 International Symposium on Pavements Recycling*, São Paulo, Brazil, 14-16 March 2005, (First best paper award winner, CD Proceedings). *keynote Lecture*
64. "Air Quality Management Using Vehicle Emission Modeling and Spatial Technologies." *Environment 2005 International Conference: Sustainable Transportation in Developing Countries*, Abu Dhabi, UAE, January 30- February 2, 2005. *Invited Lecture*
65. "Tropospheric Ozone Modeling Considering Vehicle Emissions and Point and Aviation Sources, Validation, and Implementation in Rural Areas." Paper 05-0060 , CD Proceedings, Presented at *84th Annual Meeting of The Transportation Research Board*, Washington, DC, January 13, 2005. (with K. Boriboonsomsin)

List of Presentations: (continued)

66. "Pavement Surface Type And Vector Map Extraction Using Modern Spaceborne Remote Sensing And Spatial Technologies." Pavement Performance Data Analysis Working Group (DAWG) Forum, *84th<sup>d</sup> Annual Meeting of The Transportation Research Board*, Washington, DC, January 8, 2005. (with K. Boriboonsomsin)
67. "Scanning for 3D Topographic Mapping and Visualization Applications." *2004 Mississippi Transportation Institute Conference*, Biloxi, Mississippi, Nov 9-10, 2004. (with R. Tolbert)
68. "Cost-Effective Environmental Assessment and Related Decision Making Using Modern Remote Sensing and Spatial Technologies." *Environmental Research & Wildlife Development Agency*, Abu Dhabi, UAE, August 3, 2004. *Invited Lecture*
69. "Applications of Modern Remote Sensing and Spatial Technologies for Infrastructure Asset Management." *NED University of Engineering and Technology*, Karachi, Pakistan, July 27, 2004. *Invited Lecture*
70. "Modern Lidar and Spaceborne Remote Sensing Technologies for Transportation and Environmental Application." *Sir Syed University of Engineering*, Karachi, Pakistan, July 26, 2004. *Invited Lecture*
71. "Pavement Management Systems – Lectures for Pavement Management Short Course." *Department of Civil Engineering, University of Pisa, Italy*, May 17-22, 2004. *Invited Short Course Instructor*
72. "Advanced 3D-FE Dynamic Analysis of FWD Time History Data for Asphalt Pavement Models." Pavement Performance Data Analysis Working Group (DAWG) Forum, *83<sup>rd</sup> Annual Meeting of The Transportation Research Board*, Washington, DC, January 10, 2004.
73. "Integration of Airborne LIDAR Terrain Mapping, Photography, and Spaceborne Imagery for Airport Applications." *82<sup>nd</sup> Annual Meeting of The Transportation Research Board*, Session 656-Emerging Technologies for Airport Surveys, sponsored by TRB Committee A2A01, Washington, DC, January 14, 2004. *Invited Presentation*
74. "3D-FE Modeling and Simulation of Airfield Pavements Subjected to FWD Impact Load Pulse and Wheel Loads." *2003 Airfield Pavement Specialty Conference*, American Society of Civil Engineers, Las Vegas, Nevada, September 21-24, 2003. (with S. Garza)
75. "Transportation Corridor Planning." *International Conference on Transportation and Mobility: Strategic Initiatives Using Remote Sensing and GIS*; sponsored by Indian National Remote Sensing Agency, U.S. DOT Research and Program Administration, and National Consortium on Remote Sensing in Transportation (NCRST), Hyderabad, India, September 11-13, 2003. *Invited Lecture*
76. "3D-FE Simulation and Dynamic Response Analysis of FWD Impact Test on Asphalt Pavements." *International Conference on Highway Pavement Data, Analysis and Mechanistic Design Applications*, Columbus, OH, USA, September 8-10, 2003.
77. "SR35 Raleigh Bypass Highway Alignment Project – Transportation Industry Applications Utilizing Airborne Laser Terrain Mapping Technology." Presentation to the *Mississippi Department of Transportation Chief Engineer and Staff*, Jackson, Mississippi, August 20, 2003. (with Emad Al-Turk)
78. "A 3D-FE Simulation Study of the Effects of Nonlinear Material Properties on Pavement Structural Response Analysis and Design." *MAIREPAV03 - Third International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Guimarães, Portugal, July 7-10, 2003. (with S. Garza and K. Boriboonsomsin)

List of Presentations: (continued)

79. “Advanced Remote Sensing Technologies for Highway Corridor Assessment and Asset Management.” *MAIREPAV03 - Third Intl. Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Guimarães, Portugal, July 7-10, 2003.
80. “Airborne and Spaceborne Remote Sensing Terrain Mapping for Planning and Design of Transportation Infrastructure Assets.” *2003 International Conference on Airports*, Rio de Janeiro, Brazil, June 8-11, 2003. *Invited Lecture*
81. “Air Quality Analysis Considering Mobile and Aviation Sources and Monitoring Using Remote Sensing Tunable Laser Technology.” *2003 International Conference on Airports: Planning, Infrastructure & Environment*, Rio de Janeiro, Brazil, June 8-11, 2003.
82. “Modern Asphalt Technology for Pavements.” *Seminar to Highway Engineers and Civil Engineering Faculty and Students of Mackenzie University*, São Paulo, Brazil, June 5, 2003. *Invited Lecture*
83. “Technological Control.” *Thinking Outside The Box — Annual Blacktop Seminar*, Construction Industry Training Board & FAS, Co. Cavan, Republic of Ireland, April 11, 2003. *Invited Lecture*
84. “A Synthesis Study and GIS Database for Bridge Cathodic Protection Projects.” *82<sup>nd</sup> Annual Meeting of The Transportation Research Board*, Washington, DC, January 2003. (with Kanok Boriboonsomsin and Sean Magoon)
85. “Application of The PEDD Methodology of Modulus Backcalculation for TRB Nonlinear Pavement Analysis Project.” *82<sup>nd</sup> Annual Meeting of The Transportation Research Board*, Washington, DC, January 2003. (with Henrique Momm and Sergio Garza)
86. “Damping Effects on 3D-FE Dynamic Analysis of FWD Data.” Pavement Performance Data Analysis Working Group (DAWG) Forum, *82<sup>nd</sup> Annual Meeting of The Transportation Research Board*, Washington, DC, January 11, 2003. (with Sergio Garza)
87. “Evaluation of Airborne LIDAR Technology for Highway Planning and Design.” A2A01 TRB Committee Meeting, *82<sup>nd</sup> Annual Meeting of The Transportation Research Board*, Washington, DC, January 12-16, 2003. *Invited Presentation*
88. “Evaluation of Airborne LIDAR Digital Terrain Mapping for Highway Corridor Planning and Design.” Presentation to *Civil Engineering and Remote Sensing/Mapping Faculty of Istanbul Technical University*, Istanbul, Turkey, November 28, 2002. *Invited Lecture*
89. “Advanced Modeling and Simulation of In-Service Asphalt Pavements Using Creep Compliance Data and Comparison with Field Evaluation.” *3<sup>rd</sup> International Conference Bituminous Mixtures and Pavement*, Thessaloniki, Greece, Nov 21-22, 2002. (with S. Garza)
90. “Evaluation of Airborne Lidar Digital Terrain Mapping for Highway Corridor Planning and Design.” *International Conference Pecora 15/Land Satellite Information IV ISPRS*, American Society for Photogrammetry & Remote Sensing, Denver, November 10-15, 2002.
91. “In Situ Characterization of Subgrade Bearing Capacity and Thickness Design of Dirt and Gravel Roads.” *150th Anniversary Annual Convention – ASCE*, American Society of Civil Engineers, Washington, DC, November 3-7, 2002. *Invited Lecture*
92. “Application of Remote Sensing Tunable Laser Technology for Measuring Transportation Related Air Pollution.” *2002 Tulane Engineering Forum - Energy and The Environment*, Construction and Maintenance Session, Tulane University, New Orleans, Louisiana, September 13, 2002. *Invited Lecture*

List of Presentations: (continued)

93. "Application of Remote Sensing and Spatial Technologies for Oxford ITS Integration Project." *9th World Congress on Intelligent Transportation Systems, Session SP5: Traffic Surveillance*, Chicago, Illinois, October 14-18, 2002.
94. "Application of Remote Sensing Tunable Laser Technology for Measuring Transportation Related Air Pollution." *7th International Conference on Advanced Technology in Transportation*, American Society of Civil Engineers, Cambridge, MA, USA, Aug 5-7, 2002.
95. "Remote Sensing Technologies for Highway Corridor Assessment and Pavement Asset Management." *7th International Conference on Advanced Technology in Transportation*, American Society of Civil Engineers, Cambridge, MA, August 5-7, 2002.
96. "Finite Element Modeling and Simulation of FWD Dynamic Load Tests," *FWD/Backcalculation Workshop, IST/LNEC, Sixth International Conference on the Bearing Capacity of Roads, Railway, and Airfields*, Lisbon, Portugal, June 24-26, 2002, pp. 1-15.  
*Invited Lecture*
97. "Session T-7: Mechanistic Maintenance Models, Session Leader and Session Reporter," *Sixth International Conference on the Bearing Capacity of Roads, Railway, and Airfields*, Lisbon, Portugal, June 24-26, 2002.
98. "In Situ Evaluation of Seasonal Variability of Subgrade Modulus Using DCP and FWD Tests," *Sixth International Conference on the Bearing Capacity of Roads, Railway, and Airfields*, Lisbon, Portugal, June 24-26, 2002.
99. "Airport Obstruction Space Management Using Airborne LIDAR Three-Dimensional Digital Terrain Mapping." *2002 Airport Technology Conference*, Federal Aviation Administration, Atlantic City, New Jersey, May 5-8, 2002. (with E. Al-Turk)
100. "In Situ Material Characterization of Pavement-Subgrade Systems Using FWD Data and Validation By 3D-FE Simulations." *2002 Airport Technology Conference*, Federal Aviation Administration, Atlantic City, New Jersey, May 5-8, 2002. (with S. Garza)
101. "Airborne LIDAR Digital Terrain Mapping for Transportation Infrastructure Asset Management." *Fifth International Conference on Managing Pavements*, Seattle, August 11-14, 2001. (with E. Al-Turk).
102. "In Situ Subgrade Material Characterization Using DCP And FWD Data." *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001. (with Y. Nanagiri and L. Yiqin)
103. "Integration of Remote Sensing and Geospatial Technologies for Managing Transportation Infrastructure Assets." *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001. (with L. Yiqin and L. D. Phillips)
104. "Evaluation of Lime-Fly Ash and Alternative CKD Stabilized Base Materials for Highway Construction in Mississippi." *Second Intl. Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
105. "Performance of Polymer and Modified Asphalt Field Trials in Mississippi based on GTM and Superpave Tests, Mechanistic Analysis, and Field Evaluation." *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001. (with Y. Nanagiri)
106. "Development and Implementation of New Modulus Backcalculation Programs Using the PEDD Methodology." *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.



List of Presentations: (continued)

107. "An Innovative Methodology To Generate Subgrade Layer Thickness and Resilient Modulus Profiles Using In Situ DCP Tests." *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001. (with L. Yiqin)
108. "3D-FE Simulations and Validation of FWD Modulus Values Backcalculated for Asphalt Highways and Subgrade Sections." *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001. (with X. Chen, L. Yiqin, and S. Garza)
109. "A Micromechanical Model for Prediction of Creep Compliance and Viscoelastic Analysis of Asphalt Pavements." *Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
110. "Applications of HDM and USER Life-Cycle Analysis Methodologies for Highway Design and Maintenance Management." *Second International Symposium on Maintenance and Rehab of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
111. "Oxford ITS Project." *Deep South Chapter of Institute of Engineers (ITE) Spring Meeting*, Philadelphia, Mississippi, February 8, 2001. *Invited Lecture*
112. "Oxford ITS Project." a presentation to *Oxford Lions Club*, February 2001. *Invited Lecture*
113. "Remote Sensing Technologies for Transportation Planning." *MSCI Spatial Industry Association, Mississippi Space Commerce Space Initiative (MSCI)*, Stennis Space Center, Mississippi, December 19, 2000. *Invited Lecture*
114. "Advanced Material Modeling and 3D-FE Simulations of Pavement-Subgrade Systems." *Second International Symposium on 3D Finite Element Modeling for Pavement Analysis and Design*, Charleston, West Virginia, October 11-13, 2000. (with L. Ricalde)
115. "Nonlinear Material Modeling and 3D-FE Dynamic Analysis of Airfield and Highway Pavements." *26<sup>th</sup> International Air Transport Conference*, American Society of Civil Engineers, San Francisco, California, June 18-21, 2000. (with L. Ricalde)
116. "Nonlinear Material Modeling and Dynamic Finite Element Simulation of Asphalt Pavements." *EM2000, Fourteenth Engineering Mechanics Conference*, American Society of Civil Engineers, The University of Texas at Austin, May 21-24, 2000. (with L. Ricalde)
117. "Nonlinear Material Modeling and Advanced Computer Simulations of Pavement Systems." *Simposio Internacional de Manutencao e Restauracao de Pavimentos e Controle Tecnologico*, Mackenzie University, São Paulo, Brazil, May 2000. *Invited Lecture*
118. "Simulation of Falling Weight Deflectometer for In Situ Material Characterization of Highway and Airport Pavements." *6th International LS-DYNA Users Conference*, Dearborn, Michigan, April 10-11, 2000.
119. "Implementation of a User Material Routine in 3D-FE Codes for Viscoelastic Modeling and Simulation of Highway and Airport Pavements." *6th International LS-DYNA Users Conference*, Dearborn, Michigan, April 10-11, 2000. (with L. Ricalde)
120. "Calculation of Nonlinear Moduli Using FWD Deflection Bowls for LTPP Data Analysis." *Pavement Performance Data Analysis Working Group (DAWG) Forum, 78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 9, 1999.
121. "Presentation of Results by Uddin - Exercise on Processing of the FWD Data Including Estimate the Depth to a Stiff Layer and Using These Estimates in the Backcalculation of Layer Moduli." *Meeting of A2B05 Subcommittee on Backcalculation, 78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 10-14, 1999.

List of Presentations: (continued)

122. "A Micromechanical Model for Prediction of Creep Compliance and Viscoelastic Analysis of Asphalt Pavements." *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 10-14, 1999.
123. "Simulation of Vehicle Impact and Crashworthiness Analysis of a Modified Thrie-Beam Guardrail." *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 10-14, 1999 (with R.M. Hackett).
124. "Infrastructure Inventory and Condition Assessment Using Airborne Laser Terrain Mapping and Digital Photography." *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 10-14, 1999 (with E. Al-Turk).
125. "Application of 3D-Finite Element Dynamic Analysis for Pavement Evaluation." *First National Symposium on 3D Finite Element Modeling for Pavement Analysis and Design*, Charleston, West Virginia, November 1998. *Invited lecture*
126. "Application of Micromechanical Modeling and Finite Element Dynamic Analysis for Material Characterization of Asphalt Pavements." *Symposium on Highway and Airport Pavement Technology, International Conference on Computational Engineering Science*, Atlanta, October 6-9 1998, Proceedings Modeling & Simulation, Volume 2, pp. 1707-1712. *Invited Lecture*
127. "Simulations and Crashworthiness Analysis of a Modified Thrie-Beam Guardrail." *5th International LS-DYNA Users Conference*, Southfield, Michigan, September 21-22, 1998. *Invited Lecture*
128. "Simulation of an Impact Testing Device for Nondestructive Evaluation of Highway and Airport Pavements." *5th International LS-DYNA Users Conference*, Southfield, Michigan, September 21-22, 1998. *Invited Lecture*
129. "Three Dimensional Finite Element Modeling of Vehicle Crashes Against Roadside Safety Barriers." *IJCRASH'98 - International Crashworthiness Conference*, Dearborn, Michigan, September 9-11, 1998, pp. 573-583 (with R.M. Hackett).
130. "Application of Finite Element Dynamic Analysis for In Situ Material Characterization of Pavement Systems." *Fifth International Conference on the Bearing Capacity of Roads and Airfields*, Trondheim, Norway, July 6-8, 1998, Proceedings, Volume 1, pp. 429-438.
131. "Finite Element Simulation of Nondestructive Testing for Pavement Structural Evaluation." *25th International Airport Transportation Conference, American Society of Civil Engineers*, Austin, Texas, June 14-17, 1998, Proceedings, pp. 423-446 (with A. Godiwala).
132. "Service Life Analysis for Managing Road Pavements in Mexico." *Fourth International Conference on Managing Pavements*, Durban, South Africa, May 17-21, 1998, Proceedings, Volume 2, pp. 882-898 (with V. Torres-Verdin).
133. "Simulation of FWD Impact Testing for Backcalculating Pavement Material Properties and Modeling Performance." *Pavement Performance Data Analysis forum, Fourth International Conference on Managing Pavements*, Durban, South Africa, May 17-21, 1998.
134. "Characterization of Pavement Materials and Soils Using Gyrotory Shear Test." Presented at the Meeting of the Pavements Committee of Geo-Institute, ASCE, *77th Annual Meeting of the Transportation Research Board*, Washington, DC, January 11-15, 1998.
135. "Computer Simulations for Crashworthiness Analysis of Roadside Safety Structures." Presented at the *ASCE Mississippi/Arkansas Joint Section Meeting*, Robinsonville, MS, November 6-7, 1997. *Invited Lecture*

List of Presentations: (continued)

136. "Deterioration Mechanisms and Nondestructive Evaluation for Infrastructure Life-Cycle Analysis." *Infrastructure Condition Assessment Conference*, Boston, Massachusetts, August 25-27, 1997, American Society of Civil Engineers, Proceedings, pp. 524-533 (with Fazil Najafi).
137. "Finite-Element Dynamic Analysis of Distressed Asphalt Pavement." *8th International Conference on Asphalt Pavements, International Society of Asphalt Pavements*, Seattle, 1997, August 10-14, 1997, Proceedings, Volume 1, pp. 725-739 (with Z. Pan, P. Noppakunwijai, C.A. Plaxico, and R.M. Hackett).
138. "Service Life Economic Analysis for Pavement Design and Maintenance Planning." *XIII International Road Federation World Meeting*, Toronto, Canada, June 16-20, 1997, Proceedings, CD-ROM, 1997, Paper 07\_0010.pdf, pp. 1-9.
139. "New Developments in Hot In-Place Recycling of Asphalt Pavements." *XIII International Road Federation World Meeting*, Toronto, Canada, June 16-20, 1997, (Presented on behalf of the authors R. Terrel, J. Epps and J. Sorenson).
140. "Effects of Thermal Stresses on Jointed Concrete Pavement Performance." *2nd International Symposium on Thermal Stresses*, Rochester, New York, June 8-11, 1997, Proceedings, pp 621-624 (with T. Chung). *Session Co-Chair*
141. "Structural Capacity Evaluation for Pavement Management Applications." Presented at the *ASCE Mississippi Section Meeting*, Vicksburg, MS, April 10-11, 1997. *Invited Lecture*
142. "Tecnología de los Pavimentos II - Modulo 3." Diplomado en Ingeniería de Sistemas Carreteros, Secretaria de Comunicaciones y Transportes/ *Departamento de Ingeniería Civil, ITESM*, Monterrey, Nuevo Leon, Mexico, April 4-5, 1997. *Invited Lecture*
143. "Performance Evaluation of Jointed Concrete Pavement Using Three-Dimensional Finite-Element Analysis." *76th Annual Meeting of the Transportation Research Board*, Washington, DC, January 11-16, 1997 (with P. Noppakunwijai, and T. Chung).
144. "Validation of Simulation of a Vehicle Impacting a Thrie-Beam Guardrail." TRB Computer Simulation Committee/FHWA Safety Division Meeting, *76th Annual Meeting of the Transportation Research Board*, Washington, DC, January 11-16, 1997.
145. "Pavement Nondestructive Evaluation Using Finite-Element Dynamic Simulation." *SPIE Conference on Nondestructive Evaluation of Aging Aircraft, Airports, and Aerospace Hardware*, Scottsdale, Arizona, December 3-5, 1996, SPIE Proceedings, Volume 2945, pp. 282-293 (with R.M. Hackett). *Invited Presentation*
146. "Nondestructive Evaluation and In Situ Material Characterization of Jointed Concrete Pavement Systems." *2nd International Conference on Nondestructive Testing of Concrete in the Infrastructure*, Nashville, June 12-14, 1996, Proceedings, pp. 242-249 (with R.M. Hackett, P. Noppakunwijai, and T. Chung).
147. "Three-Dimensional Finite-Element Simulation of FWD Loading on Pavement Systems." *24th International Airport Conference*, ASCE, Louisville, Kentucky, June 5-7, 1996, Proceedings, pp. 284-294 (with R.M. Hackett, P. Noppakunwijai, and Z. Pan).
148. "A Micromechanical Analysis of The Viscoelastic Response of Resin Matrix Composites." *International Conference on Fibre Reinforced Structural Plastics in Civil Engineering*, Indian Institute of Technology, Madras, December 18-20, 1995 Proceedings, pp. 99-108 (with C.A. Plaxico and R.M. Hackett). *Invited presentation with NSF travel support*

List of Presentations: (continued)

149. "Pavement Nondestructive Evaluation Using Three-Dimensional Finite-Element Simulation Models." *International Conference on Roads and Road Transport Problems, ICORT-95*, Delhi, India, December 11-14, 1995, Proceedings, pp. 473-482 (with R.M. Hackett and Z. Pan).
150. "Structural Capacity and User Cost Analysis for Road Investment Planning." *International Conference on Roads and Road Transport Problems, ICORT-95*, Delhi, India, December 11-14, 1995, pp. 1000-1011 (with Victor Torres-Verdin). *Keynote Speaker*
151. "Lectures on Pavement Management System Development and Nondestructive Evaluation." *Sistema de Administracion del Mantenimiento Vial, Direccion de Obras Publicas, City of Saltillo*, Sponsored by the Secretaria de Desarrollo Social (SEDESOL), Mexico, November 1995. *Invited Lecture*
152. "Crashworthiness Analysis of A Modified Thrie-Beam Guardrail." *Society of Engineering Science*, New Orleans, October 29- November 1, 1995, pp. 201-202 (with C.A. Plaxico, R.M. Hackett, and S.E. Adeff). *Session Chairman and Presenter*
153. "Finite-Element Analysis of Flexible Pavements with Discontinuities." *ASCE Transportation Congress*, American Society of Civil Engineers, San Diego, October 22-26, 1995, Proceedings, Volume 1, pp. 410-423 (with Z. Pan).
154. "The Development and Application of Indonesia's Road works Design System." *ASCE Transportation Congress*, American Society of Civil Engineers, San Diego, October 22-26, 1995 (Oral presentation on behalf of C.P. Corne, S. Dermorej, and J. Marbun).
155. "Maintenance Management of Highway and Transportation Infrastructure." *Roads Department*, Sponsored by Director General of Public Works, Brunei Darussalam, Brunei, September 25, 1995. *Invited Lecture*
156. "A Nondestructive Evaluation and Rehabilitation Design Methodology for Asphalt and Concrete Pavements." *Second International Conference on Road and Airfield Pavement Technology*, Singapore, September 27-29, 1995, Proceedings, Volume 2, pp. 610-618.
157. "Lectures on Pavement Management system Implementation, Maintenance Planning, and User Cost Analysis." *Sistema de Administracion del Pavimentos, Direccion de Obras Publicas*, Sponsored by Presidencia Municipal Leon, Mexico, August 1995. *Invited Lecture*
158. "Three-Dimensional Finite-Element Simulation of Jointed Concrete Pavements." *Presented at 6th ACBM/NIST Computer Modeling Workshop*, National Institute of Standards and Technology, Gaithersburg, Maryland, July 24-27, 1995.
159. "Three-Dimensional Finite-Element Analysis of Jointed Concrete Pavement Having Discontinuities." *74th Annual Meeting of the Transportation Research Board*, Washington, DC, January 22-28, 1995 (with R.M. Hackett, A. Joseph, Z. Pan and A.B. Crawley).
160. "Lectures on Pavement Management Overview and Nondestructive Evaluation." *Pavement Management Systems - Short Course*, Sponsored by *the City of Leon Public Works Department and La Camara Nacional de la Industria de la Construccion*, Leon, Mexico, October 1994. *Invited Lecturer and Instructor*
161. "Review of Current Options for Data Collection Methods and Equipment, Part I: Pavement Condition and Road Inventory Data." *Tutorial Session on Condition and Traffic, Third International Conference on Managing Pavements*, Transportation Research Board, San Antonio, May 22-24, 1994. *Invited Lecturer with travel support from TRB*
162. "Nondestructive Evaluation of Highway Pavements Using PEDD1 Software." *Louisiana Transportation Research Center/Louisiana State University*, Baton Rouge, May 1994. *Invited Lecture*

List of Presentations: (continued)

163. "Application of User Cost and Benefit Analysis in Maintenance Management and Transportation Planning." *4R-7th International Pavement Management/Maintenance Exposition and Conference*, Philadelphia, December 5-7, 1993, Proceedings Compendium, pp. 24-27.
164. "Life-Cycle Cost and Benefit Analysis for Highway Maintenance Management." *ASCE-Mississippi Section Fall Meeting*, Tupelo, Mississippi, November 18-20, 1993.
165. "Guardrail Design Based Upon Crash Simulation Modeling." *ASCE-Mississippi Section Fall Meeting*, Tupelo, Mississippi, November 18-20, 1993.
166. "Development of Pavement Materials Property Database for Pavement Management Applications." *ASTM Fourth International Symposium on the Computerization and Use of Material Property Data*, NIST, Gaithersburg, Maryland, October 4-8, 1993.
167. "Annual Major Maintenance Work Program, Budget Analysis, and Future Pavement Management Needs." Review of Pavement Management Services Unit Operations, Sponsored by Roads Department, Dubai Municipality, Dubai, UAE, July 1993. *Invited Lecturer and Advisor with travel support from Dubai Government*
168. "Implementation of Pavement Management Technology for Dubai Emirate Road Network." *XII International Road Federation World Meeting*, Madrid, Spain, May 16-21, 1993, Volume IV, pp. 305-314.
169. "A Life-Cycle Cost and Benefit Analysis Methodology for Highway Maintenance Management." *XII International Road Federation World Meeting*, Madrid, Spain, May 16-21, 1993. *Oral Presentation only*
170. "Verifying Kneading Resilient Modulus of Soils with Backcalculation Values." *72nd Annual meeting of Transportation Research Board*, Washington, DC, January 10-14, 1993 (with K.P. George).
171. "Highways and Urban Roads Maintenance Management: Development and Operation Issues." *4R-6th International Pavement Management/ Maintenance Exposition and Conference*, Atlanta, December 6-8 1992, Proceedings Compendium, pp. 28-32.
172. "A Maintenance Management System for Highways and Urban Streets." *Fourth International Conference on Microcomputers in Transportation*, ASCE, Baltimore, Maryland, July 22-24, 1992, Proceedings, pp. 572-583.
173. "Implementation of Pavement Management Systems in the Emirate of Dubai." *Road Maintenance Section, Roads Department, Dubai Municipality*, Dubai, UAE, February 1991, December 1989. *Invited Lecture (United Nations Advisor)*
174. "Variability of Pavement Layer Moduli from NDT Measurements." *Cold Regions Research and Engineering Laboratory (CRREL) Symposium on State of the Art of Pavement Response Monitoring Systems for Roads and Airfields*, West Lebanon, New Hampshire, March 1989 (with G.R. Rada and M.W. Witzak).
175. "Pavement Deflection Measuring Equipment: Side-by-Side Testing and Evaluation." *First International Symposium on Nondestructive Testing of Pavements and Backcalculation of Moduli*, ASTM, Baltimore, Maryland, June 1988 (with W.R. Hudson).
176. "Recent Advances in Nondestructive Dynamic Testing and Evaluation Methods." *8th Asian Regional Conference on soil Mechanics and Foundation Engineering*, Kyoto, Japan, August 1987, Proceedings, pp. 347.

List of Presentations: (continued)

177. "Design and Evaluation of Resurfacing Alternatives for Pavement Rehabilitation." *6th International Conference Structural Design of Asphalt Pavements*, Ann Arbor, Michigan, July 1987 (with B.F. McCullough and J.P. Zaniewski).
178. "Diagnostic Evaluation of In-Service Pavements Performance Using Pavement Condition Data." *6th International Conference Structural Design of Asphalt Pavements*, Ann Arbor, Michigan, July 1987 (with J.F. Nixon, B.F. McCullough and J. Kabir).
179. "A Methodology for Life-Cycle Cost Analysis of Pavements Using Microcomputer." *6th International Conference Structural Design of Asphalt Pavements*, Ann Arbor, Michigan, July 1987 (with R. Frank Carmichael III and W. Ronald Hudson).
180. "Rigid Bottom Considerations for Nondestructive Evaluation of Pavements." *Annual Meeting of Transportation Research Board*, Washington, DC, January 1986 (with A.H. Meyer and W.R. Hudson).
181. "Methodology of Forecasting Air Travel Demand and Airport Expansion Needs." *Annual Meeting of Transportation Research Board*, Washington DC, January 1985 (with B.F. McCullough and Melba M. Crawford).
182. "A Flexible Pavement Structural Evaluation System Based on Dynamic Deflections." *60th Annual Meeting of the Association of Asphalt Paving Technologists*, San Antonio, Texas, 1985 (with A.H. Meyer and W.R. Hudson).
183. "A Study of Factors Influencing Deflections of CRC Pavements." *Annual Meeting of Transportation Research Board*, Washington, DC, 1984 (with A.H. Meyer and W. R. Hudson).
184. "Eolian Sand Problem-An Engineering Evaluation." *Symposium on Geotechnical Problems in Saudi Arabia*, King Saud University, Riyadh, Saudi Arabia, 1981 (With Abdul Kadir Al-Sari).
185. "Cement Stabilized Base for Apron Construction, Dhahran International Airport." *6th Southeast Asian Conference of Soil Engineering*, Taipei, Taiwan, 1980.