

CURRICULUM VITAE

WAHEED UDDIN, PH.D., P.E.

PUBLICATIONS

Dr. Uddin's 241 publications include one book published in 2013, three previous books, chapters in two handbooks, one National Academies report, 41 scholarly papers in refereed journals, 14 discussions in refereed journals and conference books, 80 peer reviewed papers in refereed conference books and proceedings, 41 papers in other conference proceedings, and 58 research reports for funding agencies (18 reports formally published by the funding agencies).

Author of 19 short course/workshop lecture notebooks and many other consulting reports.

Editor of one Conference Proceedings CD, the Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control, Auburn, July 29-August 1, 2001

Chief editor of one refereed international journal *IJP – International Journal of Pavements* (ISSN 1676-277) since 2002; editorial board member of two other international journals.

Dr. Uddin's publication record since joining the University of Mississippi (1993- now):

151 publications (four books, chapters in two handbooks, one National Academies report, 92 scholarly papers in refereed journals and peer reviewed conference books, three discussions in refereed journals and conference books, 31 papers in other conference proceedings, and 26 research reports).

Uddin, W. "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 and Commentary. (Conference book, July 2013)

Book, book chapter, government report: (Only formal published work is listed here.)

Public Infrastructure Asset Management, McGraw-Hill, Inc., 2013 (W. Uddin, W.R. Hudson, and R. Haas). ISBN 0071820116 ISBN-13: 978-0071820110

Infrastructure Management, McGraw-Hill, Inc., 1997 (W.R. Hudson, R. Haas, and W. Uddin). ISBN 0-07-030895-0

Infrastructure Management, Japanese Edition published in Japan, 2001. ISBN 4-627-45211-X

Infrastructure Management, Chinese edition published in China, 2005. ISBN 7-5062-6995-3

Handbook of Highway Engineering (Editor: T. F. Fwa). ISBN 0-8931-9862. (Chapter author)

Uddin's Chapter "Pavement Management Systems," Pearson-CRC Press, Inc, Aug 2005.

Handbook of Climate Change Mitigation. (Editors: Wei-Yin Chen, John M. Seiner, Toshio Suzuki and Maximilian Lackner). ISBN 978-1-44419-7991-9 Uddin's Chapter 23 "Mobile and Area Sources of Greenhouse Gases and Abatement Strategies," Springer, New York, 2012, pp. 775-840.

Research Results Digest 10: Light Detection and Ranging (LIDAR) Deployment for Airport Obstruction Surveys. Airport Cooperative Research Program (ACRP), Transportation Research Board, National Research Council, The National Academies, Washington, DC, July 2010.

Achievements of the DOT-NASA Joint Program on Remote Sensing and Spatial Information

Technologies Application to Multimodal Transportation 2000-2002, U.S. DOT, April 2002, Uddin,

W. "Transportation, Air Quality, and Remote Sensing Laser Measurements of Air Pollutants Related to Highway Traffic in Mississippi – Oxford and Tupelo." pp. 9-10.

Contributor to two ASCE manuals and English translation of a Pavement Milling Manual.

Pavement Milling Manual, English translation of the original Portuguese manual by Valmir Bonfim, São Paulo, Brazil, August 2009. (Contributor)

Guide for the Design and Maintenance of Paved Low-Vol. Roads (Authors: Zimmerman, Smith, Hoerner, Wade, and Larson), Uddin's contribution on "life cycle cost analysis chapter," Publishers - American Society of Civil Engineers and Federal Highway Administration, 2006.

Datapave International Contest Manual (Datapave International Contest Committee), Uddin's contribution on "Awards Chapter" and "Flexible Pavement Analysis Examples," Publishers - American Society of Civil Engineers & Federal Highway Administration, 2001, 2003.

Pending publications: *Pavement Engineering for Roads and Highway*, Kluwer Academic Publishers (a textbook under contract). ISBN 0-412106817

PUBLICATION (continued)

Scholarly papers published in refereed journals:

1. Uddin, W., A. Ahmed, M.S. Ali. "Satellite Imagery Applications of Urban Road Inventory, Traffic Flow Attributes, and Road Capacity Assessment." *International Journal of Recent Development in Engineering and Technology*, Volume 1, Issue 3, December 2013.
2. Uddin, W., R. Haas, and W.R. Hudson. "Pavement Design or Pavement Management? Good Design Is Not Enough." *IJP - International Journal of Pavements*, Volume 12, Special Volume of Top Ranked 2013 IJPC papers, 2013.
3. Uddin, W. and Zul Fahmi M. Jaafar. "Achieving sustainability without compromising long-term pavement performance for road infrastructure assets." *IJP - International Journal of Pavements*, Volume 12, Special Volume of Top Ranked 2013 IJPC papers, 2013.
4. Uddin, W. "Value Engineering Applications for Managing Sustainable Intermodal Transportation Infrastructure Assets." *Management and Production Engineering Review, MPER*, Vol. 4, No. 1, March 2013, pp. 74–84.
5. Uddin, W. and C. Colby Willis. "Airborne laser surveys for expediting airport obstruction mapping." *Journal of Airport Management*, London, U.K., Vol. 7, No. 2, March 2013, pp. 179–194.
6. Uddin, W. "Geospatial Assessment of Disaster Impacts for Expediting Emergency Management." *The NHWC Transmission*, National Hydrologic Warning Council, March 2012.
<http://documents.clubexpress.com/documents.aspx?key=r%2fv1NHFMR27g2qOJeY2vdrP3TaDwc63gLNKiaMaRD0uKkkfGwdevFRTz0p02OPX5>
7. Uddin, W., Bill Gutelius, and Christopher Parrish. "Airborne Laser Survey Specifications and Quality Management Protocols for Airport Obstruction Surveys." Paper No. 11-1323, *Transportation Research Record 2214*, *Journal of Transportation Research Board*, Washington, DC, 2011, pp. 117-125.
8. Uddin, W. "Transportation Management: LiDAR, Satellite Imagery Expedite Infrastructure Planning." *Earth Imaging Journal*, January/February 2011, pp.24-27.
9. Uddin, W. "Remote Sensing Laser and Imagery Data for Inventory and Condition Assessment of Road and Airport Infrastructure and GIS Visualization." *International Journal of Roads and Airports (IJRA)*, Vol. 1, No. 1, January 2011, pp. 53-67.
10. Tarefder, Rafiqul A., Arif M. Zaman, and W. Uddin. "Determining Hardness and Elastic Modulus of Asphalt by Nanoindentation." *International Journal of Geomechanics*, American Society of Civil Engineers, Vol.10, No. 3, May/June 2010, pp. 106-116.
11. Uddin, W. "3D-FE Dynamic Analysis of Pavements Subjected to Nondestructive Impact Testing." *Journal of Engineering Research*, NED University of Engineering & Technology, Karachi, Vol. V, No. 1, July-August 2008, pp. 1-15.
12. Uddin, W. "Airborne Laser Terrain Mapping for Expediting Highway Projects: Evaluation of Accuracy and Cost." *Journal of Construction Engineering and Management*, American Society of Civil Engineers, Vol. 134, No. 6, June 2008, pp. 411-420.
13. Uddin, W. "Air Quality Management Using Modern Remote Sensing and Spatial Technologies and Associated Societal Costs." *International Journal of Environmental Research and Public Health*, ISSN 1661-7827, MDPI, Vol. 3, No. 3, September 2006, pp. 235-243.
14. Boriboonsomsin, K. and W. Uddin. "A Simplified Methodology to Estimate Emissions from Mobile Sources for Ambient Air Quality Assessment." *Journal of Transportation Engineering*, American Society of Civil Engineers, Vol. 132, No. 10, October 2006, pp. 817-828.
15. Uddin, W., Kanok Boriboonsomsin, and Sergio Garza. "Transportation Related Environmental Impacts and Societal Costs For Life-Cycle Analysis of Costs and Benefits." *IJP – International Journal of Pavements*, Vol. 4, No. 1-2, January-May 2005, pp. 92-104.

PUBLICATION (continued)

Scholarly papers published in refereed journals: (continued)

16. Uddin, W. and Sergio Garza. "Pavement Construction Effects on Subgrade Resilient Modulus and Validation by 3D-FE Simulation." *IJRMPD - International Journal of Road Materials and Pavement Design*, Vol. 5, No. 3, 2004, pp. 355-371.
17. Uddin, W. "Crashworthiness Analysis and Simulations of Vehicles Impacting a Roadside Guardrail." *CMES: Computer Modeling in Engineering & Sciences*, Tech Sciences, Vol. 5 (3), 2004, pp. 269-278.
18. Uddin, W. "Viscoelastic Characterization of Polymer-Modified Asphalt Binder of Pavement Applications." *Applied Rheology Journal*, Vol. 13, No. 4, 2003, pp. 191-199.
19. Uddin, W. "Life Cycle Analysis for Investment Decision-Making to Revive Ancient Silk Road and Enhance Economies of Central Asian Countries." *IJP – International Journal of Pavements*, Vol. 1, No. 2, May 2002, pp. 84-97.
20. Uddin, W. and Yamini Nanagiri. "Polymer-Asphalt Highway Performance, Part I." *AIRPORTS: Progressive Technologies*, Vol. 2002, Issue No. 3, 2002. *In Russian*
21. Uddin, W. and Yamini Nanagiri. "Polymer-Asphalt Highway Performance, Part II." *AIRPORTS: Progressive Technologies*, Vol. 2002, Issue No. 4, 2002. *In Russian*
22. Uddin, W. and Yamini Nanagiri. "Performance of Polymer-Modified Asphalt Overlays in Mississippi Based on Mechanistic Analysis and Field Evaluation." *IJP - International Journal of Pavements*, Vol. 1, No. 1, January 2002, pp. 13-24.
23. Al-Turk, Emad and W. Uddin. "Infrastructure Inventory and Condition Assessment Using Airborne Laser Terrain Mapping and Digital Photography." *Transportation Research Record 1690*, Journal of Transportation Research Board, National Research Council, Washington, DC, 1999, pp. 121-125.
24. Uddin, W. and R.M. Hackett. "Three-Dimensional Finite Element Modeling of Vehicle Crashes Against Roadside Safety Barriers." *IJCrash 1999 - International Journal of Crashworthiness*, Woodhead Publishing Ltd, Vol. 4, No. 4, 1999, pp. 407-417.
25. Plaxico, C.A., W. Uddin, and R.M. Hackett. "Simulation of A Vehicle Impacting A Modified Thrie-Beam Guardrail." *Transportation Research Record 1599*, Journal of Transportation Research Board, National Research Council, Washington, DC, 1997, pp. 1-10.
26. Uddin, W., R.M. Hackett, A. Joseph, Z. Pan, and A.B. Crawley. "Three-Dimensional Finite-Element Analysis of Jointed Concrete Pavement Having Discontinuities." *Transportation Research Record 1482*, Journal of Transportation Research Board, Washington, DC, 1995, pp. 26-32.
27. Uddin, W., D. Zhang, and F. Fernandez. "Finite Element Simulation of Pavement Discontinuities and Dynamic Load Response." *Transportation Research Record 1448*, Journal of Transportation Research Board, Washington DC, 1994, pp. 100-106.
28. George, K.P., W. Uddin, P.J. Ferguson, A.B. Crawley, and A.R. Shekharan. "Maintenance Planning Methodology for Statewide Pavement Management." *Transportation Research Record 1455*, Journal of Transportation Research Board, Washington DC, 1994, pp. 123-131.
29. Uddin, W. and K.P. George. "User Cost Methodology for Investment Planning and Maintenance Management of Roads and Highways." *Transportation Research Record 1395*, Journal of Transportation Research Board, Washington, DC, 1993, pp. 65-72.
30. George, K.P. and W. Uddin. "Verifying Kneading Resilient Modulus of Soils with Backcalculation Values." *Transportation Research Record 1406*, Journal of Transportation Research Board, Washington, DC, 1993, pp. 116-123.

PUBLICATION (continued)

Scholarly papers published in refereed journals: (continued)

31. Benson, K.T., W. Uddin, G.E. Elkins, and W.R. Hudson. "Comparison of Methods and Equipment to Conduct Pavement Distress Surveys." *Transportation Research Record 1196*, Journal of Transportation Research Board, Washington, DC, 1988, pp. 40-50.
32. Uddin, W., R. Frank Carmichael III, and W.R. Hudson. "A Microcomputer Program to Evaluate Cost-Effective Alternatives for Concrete Pavement Restoration." *Transportation Research Record 1109*, Journal of Transportation Research Board, Washington, DC, 1987, pp. 69-78.
33. Uddin, W. and B.F. McCullough. "A Systems Approach for Design and Evaluation of Alternatives for Concrete Pavement Rehabilitation." *Transportation Research Record 1109*, Journal of Transportation Research Board, Washington, DC, 1987, pp. 60-68.
34. Uddin, W., A.H. Meyer, and W.R. Hudson. "Rigid Bottom Considerations for Nondestructive Evaluation of Pavements." *Transportation Research Record 1070*, Journal of Transportation Research Board, Washington, DC, 1986, pp. 21-29.
35. Uddin, W., A.H. Meyer, W.R. Hudson, and K.H. Stokoe II. "A Project Level Structural Evaluation System for Pavements Based on Dynamic Deflections." *Transportation Research Record 1007*, NDT Pavement Evaluation & Overlay Design, Journal of Transportation Research Board, Washington DC, 1985, pp. 37-45.
36. Uddin, W., B.F. McCullough, and Melba M. Crawford. "Methodology of Forecasting Air Travel Demand and Airport Expansion Needs." *Transportation Research Record 1025*, Journal of Transportation Research Board, Washington DC, 1985, pp. 7-14.
37. Uddin, W., A.H. Meyer, and W.R. Hudson. "A Flexible Pavement Structural Evaluation System Based on Dynamic Deflections." *Journal of the Association of Asphalt Paving Technologists*, 1985, Vol. 54, pp. 432-453.
38. Uddin, W., A.H. Meyer, and W.R. Hudson. "A Study of Factors Influencing Deflections of CRC Pavements." *Transportation Research Record 933*, Journal of Transportation Research Board, Washington, DC, 1984, pp 47-54.
39. Balasubramaniam, A.S., W. Uddin, H. Zue-Ming, A.R. Chaudhary, and Y.G. Li. "Critical State Parameters and Peak Stress Envelopes for Bangkok Clays." *Quarterly Journal of Engineering Geology*, Vol. 11, 1978, pp. 219-232.
40. Balasubramaniam, A.S. and W. Uddin. "Deformation Characteristics of Weathered Bangkok Clay in Triaxial Extension." *Geotechnique*, Vol. 27, No. 1, 1977, pp. 75-92.
41. Balasubramaniam, A.S., W. Uddin, A.R. Chaudhary, H. Zue-Ming, and Y.G. Li. "State Boundary Surface for Weathered and Soft Bangkok Clays." *Australian Geomechanics Journal*, Vol. G6, No. 1, 1976, pp. 43-50.

PUBLICATION (continued on next page)

Discussion/commentary published in refereed journals and conference book:

1. Commentary On “What is the Value of Infrastructure Maintenance?” Felix Rioja, *Infrastructure and Land Policies*, Lincoln Institute of Land Policies, May 2013. (in press)
2. Discussion On “AYMA - A Mechanistic Probabilistic System to Evaluate Flexible Pavement Performance,” M. Ayers and M.W. Witczak, *Transportation Research Record 1629*, Journal of Transportation Research Board, Washington, DC, 1998, pp.137-148.
3. On “Effect of Allowable Layer Thickness Variations on Backcalculated Moduli,” F. Jooste, S.V. Kekwick, and M. Muthen, *Transportation Research Record 1639*, Journal of Transportation Research Board, Washington, DC, 1998.
4. On “Identifying Error-Generating Factors in Infrastructure Condition Evaluations,” by Frannie Humplick, *Transportation Research Record 1344*, Journal of Transportation Research Board, Washington, DC, 1992, pp. 106-115.
5. On “Characterization of Resilient Modulus of Compacted Subgrade Soils Using Resonant Column and Torsional Shear Tests,” By Dong-Soo Kim and K.H. Stokoe II, *Transportation Research Record 1369*, Journal of Transportation Research Board, Washington, DC, 1992, pp. 83-91.
6. On “Resilient Testing of Soils Using Gyrotory Testing Machine,” by K.P. George, *Transportation Research Record 1369*, Journal of Transportation Research Board, Washington, DC, 1992, pp. 63-72.
7. On “Analytical-Empirical Pavement Evaluation Using the Falling Weight Deflectometer,” by P. Ullidtz and R.N. Stubstad, *Transportation Research Record 1022*, Journal of Transportation Research Board, Washington, DC, 1985.
8. On “Pavement Evaluation Using Deflection Basin Measurements and Layered Theory,” by A.J. Bush III and D.R. Alexander, *Transportation Research Record 1022*, Journal of Transportation Research Board, Washington, DC, 1985 (with Phil Smith and H.J. Treybig).
9. On “Use of Dynamic Analysis in Predicting Field Multilayer Pavement Moduli,” by M.S. Mamlouk, *Transportation Research Record 1043*, Journal of Transportation Research Board, Washington, DC, 1985.
10. On “In Situ Pavement Moduli from Dynaflect Deflections,” by S. Husain and K.P. George, *Transportation Research Record 1043*, Journal of Transportation Research Board, Washington, DC, 1983.
11. On “Effect of Hot Climate of Shear Strength of Concrete,” by A.F. Abbasi and A.J. Al-Tayyib, *Transportation Research Record 922*, Journal of Transportation Research Board, Washington, DC, 1983.
12. On “Stripping of Asphalt Pavements: State of the Art,” By M.A. Taylor and N.P. Khosla, *Transportation Research Record 911*, Journal of Transportation Research Board, Washington, DC, 1983.
13. On “Modifications of the Asphalt Institute's Bituminous Mix Modulus Predictive Equation,” By J.S. Miller, J. Uzan and M.W. Witczak, *Transportation Research Record*, Journal of Transportation Research Board, Washington, DC, 1983.
14. On “Contribution on Membranes and Filter Paper Corrections in Triaxial Tests,” *Geotechnique*, Vol 28, No. 2, (1978); Authors' reply to discussion by L. de M. Costa Filho on their paper published in Vol. 27, No. 1 (1977). (with A.S. Balasubramaniam)

PUBLICATION (continued on next page)

Peer reviewed papers published in ASTM, TRB, and other refereed conference proceedings and books:

1. Uddin, W., R. Haas, and W.R. Hudson. "Pavement Design or Pavement Management? Good Design Is Not Enough." *Online Proceedings, First Conference, 2013 IJPC - International Journal of Pavements Conference*, São Paulo, SP, Brazil, December 9-10, 2013. <http://www.ijpavement.com/2013-ijpc-papers/>
2. Uddin, W. and Zul Fahmi M. Jaafar. "Achieving sustainability without compromising long-term pavement performance for road infrastructure assets." *Online Proceedings, First Conference, 2013 IJPC - International Journal of Pavements Conference*, São Paulo, SP, Brazil, December 9-10, 2013. <http://www.ijpavement.com/2013-ijpc-papers/>
3. Uddin, W. "Value Engineering Applications for Deploying Sustainable Intermodal Transportation Infrastructure Strategies," *Proceedings, NCIT 2012 - National Conference on Intermodal Transportation: Problems, Practices, and Policies*, Hampton University, Hampton, Virginia, October 11-12, 2012.
4. Uddin, W. "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...
5. Uddin, W., Jessica Headrick, and James Sullivan. "Performance Evaluation of Roundabouts for Traffic Flow Improvements and Crash Reductions at a Highway Interchange in Oxford, MS." *Online Proceedings, 91st Annual Meeting of Transportation Research Board*, Washington, DC, January 22, 2012.
6. Uddin, W. and Katherine Osborne. "A Geospatial Methodology for Rapid Assessment of Disaster Impacts on Infrastructure." *Online Proceedings, 91st Annual Meeting of Transportation Research Board*, Washington, DC, January 22, 2012.
7. Uddin, W. "Life Cycle Assessment of Sustainable Pavement Systems." *Proceedings, 5th ICONFBMP, International Conference Bituminous Mixtures and Pavement*, Thessaloniki, Greece, June 1-3, 2011.
8. Uddin, W., Bill Gutelius, and Christopher Parrish. "Airborne LIDAR Survey Specifications and Quality Management Protocols for Airport Obstruction Surveys." *Online Proceedings, 90th Annual Meeting of Transportation Research Board*, Washington, DC, January 26, 2011.
9. Uddin, W. "Remote sensing and geospatial technologies for inventory and condition monitoring of transport infrastructure assets." *Proceedings, 2nd ICTI, International Conference on Transport Infrastructure*, São Paulo, Brazil, August 4-6, 2010.
10. Uddin, W. and Usman Uddin. "Sustainable Personal Rapid Transit Strategies for Congested Cities And Urban Communities." *Proceedings, 2nd ICTI, International Conference Transport Infrastructure*, São Paulo, Brazil, August 4-6, 2010.
11. Uddin, W. and S. Garza. "3D-FE Simulation Study of Structural Response Analysis for Pavement-Subgrade Systems Subjected to Dynamic Loads." *Trends in Engineering Mechanics Special Publication (TEMSP) 1, Pavements and Materials: Testing and Modeling in Multiple Length Scales*, Editors: R.A. Tarefder, Yong-Park Kim, Zhanping, and Linbing Wang, ISBN 978-0-7844-1192-2, August 8-11, 2010, pp. 170-181. Also included in ASCE Conference Proceedings 385, 15 (2010).
12. Uddin, Waheed. "Spaceborne Remote Sensing Data for Inventory and Visualization of Transportation Infrastructure and Traffic Attributes." *CD Proceedings, First International Conference on Sustainability Transportation and Traffic Management*, Karachi, Pakistan, July 1-3, 2010, pp 3-12. ISBN 978-969-8620-10-3. Keynote Lecture

PUBLICATION (continued)

Peer reviewed papers published in ASTM, TRB, refereed conference proceedings and books: (continued)

13. Uddin, W., Bikila Wodajo, Katherine Osborne, and Mackenzie White. "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.
14. Uddin, W., Carla Brown, E. Scott Dooley, and Bikila Wodajo. "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, 85th Annual Meeting of The Transportation Research Board*, Washington, DC, January 11-15, 2009.
15. Uddin, W. and Christopher Parrish. "LIDAR Obstruction Surveys And Imagery Data For Airport Applications." *Paper 137, ICTI, First International Conference Transport Infrastructure*, Beijing, China, 24-26 April 2008.
16. 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, ICTI, First Intl. Conference Transport Infrastructure*, Beijing, China, 24-26 April 2008.
17. Uddin, W. "A Methodology for Estimating Seasonal Nonlinear Modulus Values for Design and Evaluation of Asphalt Pavements." *Proceedings, 4th International Conference Bituminous Mixtures and Pavements*, Thessaloniki, Greece, April 19-20, 2007, Vol. 1, pp.13-24.
18. "Geospatial Analysis and Visualization Technologies for Airport Applications." *CD Proceedings, 2006 Second International Conference on Airports: Planning, Infrastructure & Environment*, São Paulo, Brazil, August 2-4, 2006.
19. Boriboonsomsin, Kanok and W. Uddin. "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, 85th Annual Meeting of The Transportation Research Board*, Washington, DC, January 22-26, 2006.
20. Uddin, W. "Life-Cycle Societal Costs and Benefits for Sustainable Transportation Decision Making." *CD Proceedings, MAIREPAV4 – 4th International Conference on Maintenance and Rehabilitation of Pavements and Technological Control*, Ulster University, Belfast, Northern Ireland, August 18-20, 2005.
21. Uddin, W., Kanok Boriboonsomsin, and Sergio Garza. "Transportation Related Environmental Impacts and Societal Costs for Life-Cycle Analysis of Costs and Benefits." *CD Proceedings, 2005 International Symposium on Pavement Recycling*, São Paulo, Brazil, 14-16 March 2005. First Best Paper Award
22. Uddin, W. and Kanok Boriboonsomsin. "Air Quality Management Using Vehicle Emission Modeling and Spatial Technologies." *Proceedings, Environment 2005 International Conference: Sustainable Transportation in Developing Countries*, Abu Dhabi, UAE, January 30- February 2, 2005, (Published , 2007). Invited Lecture
23. Boriboonsomsin, Kanok and W. Uddin. "Tropospheric Ozone Modeling Considering Vehicle Emissions and Point & Aviation Sources, Validation, and Implementation in Rural Areas." *Paper No. 05-0060, CD Proceedings, 84th Annual Meeting of The Transportation Research Board*, Washington, DC, January 13, 2005.
24. Uddin, W. and S. Garza. "3D-FE Modeling and Simulation of Airfield Pavements Subjected to FWD Impact Load Pulse and Wheel Loads." *Proceedings, 2003 Airfield Pavement Specialty Conference*, American Society of Civil Engineers, Las Vegas, Nevada, September 21-24, 2003, pp. 304-315.

PUBLICATION (continued)

Peer reviewed papers published in ASTM, TRB, refereed conference proceedings and books: (continued)

25. Uddin, W. "3D-FE Simulation and Dynamic Response Analysis of FWD Impact Test on Asphalt Pavements." *Proceedings, International Conference on Highway Pavement Data, Analysis and Mechanistic Design Applications*, Columbus, OH, USA, September 8-10, 2003, Vol. 1, pp. 163-174.
26. Uddin, W., S. Garza, and K. Boriboonsomsin. "A 3D-FE Simulation Study of the Effects of Nonlinear Material Properties on Pavement Structural Response Analysis and Design." *Proceedings, MAIREPAV03 - Third International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, (ISBN 972-8692, Universidade do Minho Publishers, Editors P. Pereira and F. Branco), Guimarães, Portugal, July 7-10, 2003, pp. 99-108.
27. Uddin, W. "Advanced Remote Sensing Technologies for Highway Corridor Assessment and Asset Management." *Proceedings, MAIREPAV03 - Third International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, (ISBN 972-8692, Universidade do Minho Publishers, Editors P. Pereira and F. Branco), Guimarães, Portugal, July 7-10, 2003, pp. 825-834.
28. Uddin, W. and Henrique Momm. "Airborne and Spaceborne Remote Sensing Terrain Mapping for Planning and Design of Transportation Infrastructure Assets." *CD Proceedings, 2003 International Conference on Airports: Planning, Infrastructure & Environment*, Rio de Janeiro, Brazil, June 8-11, 2003.
29. Uddin, W. "Air Quality Analysis Considering Mobile and Aviation Sources and Monitoring Using Remote Sensing Tunable Laser Technology." *CD Proceedings, 2003 International Conference on Airports: Planning, Infrastructure & Environment*, Rio de Janeiro, Brazil, June 8-11, 2003.
30. Uddin, W., K. Boriboonsomsin and Sean Magoon. "A Synthesis Study and GIS Database for Bridge Cathodic Protection Projects." *Paper 03-2204, CD Proceedings, 82nd Annual Meeting of The Transportation Research Board*, Washington, DC, January 2003.
31. Uddin, W., Henrique Momm and Sergio Garza. "Application of The PEDD Methodology of Modulus Backcalculation for TRB Nonlinear Pavement Analysis Project," *Paper 03-4060, CD Proceedings, 82nd Annual Meeting of The Transportation Research Board*, Washington, D.C., January 2003.
32. Uddin, W. and S. Garza. "Advanced Modeling and Simulation of In-Service Asphalt Pavements Using Creep Compliance Data and Comparison with Field Evaluation." *Proceedings, 3rd International Conference Bituminous Mixtures and Pavements*, Thessaloniki, Greece, November 21-22, 2002.
33. Uddin, W. "Evaluation of Airborne Lidar Digital Terrain Mapping for Highway Corridor Planning and Design." *CD Proceedings, International Conference Pecora 15/Land Satellite Information IV ISPRS*, American Society for Photogrammetry & Remote Sensing, Denver, November 10-15, 2002.
34. Uddin, W. "Application of Remote Sensing Tunable Laser Technology for Measuring Transportation Related Air Pollution." *Proceedings, 7th Intl Conference on Advanced Technology in Transportation*, American Society of Civil Engineers, Cambridge, MA, USA, August 5-7, 2002, pp. 257-265.
35. Uddin, W. "In Situ Evaluation of Seasonal Variability of Subgrade Modulus Using DCP and FWD Tests." *Proceedings, Sixth International Conference on the Bearing Capacity of Roads, Railway, and Airfields*, Lisbon, Portugal, June 24-26, 2002, (ISBN 90-58093964, Balkema Publishers, Editors A. Correia and F. Branco) Vol. 1, pp. 741-750.
36. Uddin, W. and E. Al-Turk. "Airport Obstruction Space Management Using Airborne LIDAR Three-Dimensional Digital Terrain Mapping." *CD Proceedings, 2002 Airport Technology Conference*, Federal Aviation Administration, Atlantic City, New Jersey, May 5-8, 2002.
37. Uddin, W. and S. Garza. "In Situ Material Characterization of Pavement-Subgrade Systems Using FWD Data and Validation By 3D-FE Simulations." *CD Proceedings, 2002 Airport Technology Conference*, Federal Aviation Administration, Atlantic City, New Jersey, May 5-8, 2002.

PUBLICATION (continued)

Peer reviewed papers published in ASTM, TRB, refereed conference proceedings and books: (continued)

38. Uddin, W. and E. Al-Turk. "Airborne LIDAR Digital Terrain Mapping for Transportation Infrastructure Asset Management." *CD Proceedings, Fifth International Conference on Managing Pavements*, Seattle, August 11-14, 2001.
39. Uddin, W. and L. Ricalde. "Advanced Material Modeling and 3D-FE Simulations of Pavement-Subgrade Systems." *Proceedings, Second International Symposium on 3D Finite Element Modeling for Pavement Analysis and Design*, Charleston, West Virginia, October 11-13, 2000, (ISBN 0-925500-03-8), pp. 355-372.
40. Uddin, W. and L. Ricalde. "Nonlinear Material Modeling and 3D-FE Dynamic Analysis of Airfield and Highway Pavements." *Proceedings, 26th International Air Transport Conference*, American Society of Civil Engineers, San Francisco, California, June 18-21, 2000.
41. Uddin, W. "Finite Element Modeling of Pavement Systems for Nondestructive Evaluation and Dynamic Response Analysis." *CD Proceedings, 1999 Airport Technology Conference*, Federal Aviation Administration, Atlantic City, New Jersey, April 11-14, 1999.
42. Uddin, W. "Characterization of Pavement Materials and Soils Using Gyrotory Shear Test." *GSP 85, Application of Geotechnical Principles in Pavement Engineering, Special Publication*, Geo-Institute, American Society of Civil Engineers, 1998, pp. 59-68.
43. Uddin, W. "Application of 3D-Finite Element Dynamic Analysis for Pavement Evaluation." *Proceedings, First National Symposium on 3D Finite Element Modeling for Pavement Analysis and Design*, Charleston, West Virginia, Nov. 1998, (ISBN 0-937058-49-1), pp. 95-109. Invited lecture
44. Uddin, W. "Application of Micromechanical Modeling and Finite Element Dynamic Analysis for Material Characterization of Asphalt Pavements." *Modeling and Simulation Based Engineering*, (ISBN 09657001-2-7, Tech Science Press), October 1998, Vol. 2, pp. 1707-1712.
45. Uddin, W. "Three Dimensional Finite Element Modeling of Vehicle Crashes Against Roadside Safety Barriers." *Proceedings, IJCRASH'98 - International Crashworthiness Conference*, Dearborn, Michigan, September 1998, pp. 573-583. (with R.M. Hackett)
46. Uddin, W. "Application of Finite Element Dynamic Analysis for In Situ Material Characterization of Pavement Systems." *Proceedings, Fifth International Conference on the Bearing Capacity of Roads and Airfields*, Trondheim, Norway, July 1998, Vol. 1, pp. 429-438.
47. Uddin, W. and A. Godiwala. "Finite Element Simulation of Nondestructive Testing for Pavement Structural Evaluation." *Proceedings, the 25th International Air Transportation Conference*, Austin, Texas, June 1998, pp. 423-446.
48. Uddin, W. and V. Torres-Verdin. "Service Life Analysis for Managing Road Pavements in Mexico." *Proceedings, Fourth International Conference on Managing Pavements*, Durban, South Africa, May 1998, Vol. 2, pp. 882-898.
49. Uddin, W. and F. Najafi. "Deterioration Mechanisms and Nondestructive Evaluation for Infrastructure Life-Cycle Analysis." *Proceedings, Infrastructure Condition Assessment Conference*, Boston, Massachusetts, August 25-27, 1997, American Society of Civil Engineers, pp. 524-533.
50. Uddin, W., Z. Pan, P. Noppakunwijai, C.A. Plaxico, and R.M. Hackett. "Finite-Element Dynamic Analysis of Distressed Asphalt Pavement." *Proceedings, 8th International Conference on Asphalt Pavements, International Society of Asphalt Pavements*, Seattle, August 1997, Vol. 1, pp. 725-739.
51. Uddin, W. "Service Life Economic Analysis for Pavement Design and Maintenance Planning." *Paper 07_0010.pdf, Proceedings, CD-ROM, XIII International Road Federation World Meeting*, Toronto, Canada, June 1997, pp. 1-9.

PUBLICATION (continued)

Peer reviewed papers published in ASTM, TRB, refereed conference proceedings and books: (continued)

52. Plaxico, C.A., W. Uddin, and R.M. Hackett. "Finite Element Simulation of Vehicle Impact Against a Modified Thrie-Beam Guardrail." *Report No. FHWA-RD-96-212, Proceedings, FHWA Vehicle Crash Analysis Conference, Federal Highway Administration, McLean, Virginia, April 1997, pp. 79-94.*
53. Uddin, W. and R.M. Hackett. "Pavement Nondestructive Evaluation Using Finite-Element Dynamic Simulation." *SPIE Proceedings, Conference on Nondestructive Evaluation of Aging Aircraft, Airports, and Aerospace Hardware, Scottsdale, Arizona, December 1996, Vol. 2945, pp. 282-293.*
54. Plaxico, C.A., W. Uddin, and R.M. Hackett. "A Micromechanical Model for Asphalt Materials." *Proceedings, Materials Congress, American Society of Civil Engineers, Washington, D.C., November 1996, Vol. 1, pp. 761-770.*
55. Uddin, W., R.M. Hackett, P. Noppakunwijai, and T. Chung "Nondestructive Evaluation and In Situ Material Characterization of Jointed Concrete Pavement Systems." *Proceedings, 2nd Intl Conference on Nondestructive Testing of Concrete in the Infrastructure, Nashville, June 12-14, 1996, pp. 242-249.*
56. Uddin, W., R.M. Hackett, P. Noppakunwijai, and Z. Pan. "Three-Dimensional Finite-Element Simulation of FWD Loading on Pavement Systems." *Proceedings, 24th International Airport Conference, Louisville, Kentucky, June 5-7, 1996, American Society of Civil Engineers, pp. 284-294.*
57. Plaxico, C.A., R.M. Hackett, and W. Uddin. "A Micromechanical Analysis of The Viscoelastic Response of Resin Matrix Composites." *Proceedings, International Conference on Fibre Reinforced Structural Plastics in Civil Engineering, Indian Institute of Technology, Madras, December 18-20, 1995 pp. 99-108.*
58. Uddin, W. and Z. Pan. "Finite-Element Analysis of Flexible Pavements with Discontinuities." *Proceedings, ASCE Transportation Congress, American Society of Civil Engineers, San Diego, September 1995, Vol. 1, pp. 410-423.*
59. Uddin, W. "Development of Pavement Materials Property Database for Pavement Management Applications." *Computerization and Networking of Materials Databases: Fourth Vol., ASTM STP 1257, American Society for Testing and Materials, Philadelphia, 1995, pp. 96-109.*
60. Hackett, R.M., S.E. Adefe, F. Fernandez, and W. Uddin. "Analysis of the Time-Dependent Response of FRP Prestressed Concrete." *Proceedings-Applied Mechanics in the Americas, The Fourth Pan American Congress of Applied Mechanics, Buenos Aires, Argentina, Jan. 1995, Vol. III, pp. 245-250.*
61. Uddin, W. and W. R. Hudson. "Evaluation of NDT Equipment for Measuring Voids Under Concrete Pavements." *Nondestructive Testing of Pavements and Backcalculation of Moduli (Second Vol.), ASTM STP 1198, American Society for Testing and Materials, Philadelphia, 1994, pp. 488-502.*
62. George, K.P. and W. Uddin. "In Situ and Laboratory Characterization of Nonlinear Pavement Layers Moduli." *Nondestructive Testing of Pavements and Backcalculation of Moduli (Second Vol.), ASTM STP 1198, American Society for Testing and Materials, Philadelphia, 1994, pp 203-217.*
63. Uddin, W. "A Maintenance Management System for Highways and Urban Streets." *Proceedings, ASCE Fourth International Conference on Microcomputers in Transportation, American Society of Civil Engineers, Baltimore, Maryland, July 21-24, 1992, pp. 572-583.*
64. Rada, G.R., W. Uddin, and M.W. Witzak. "Variability of Pavement Layer Moduli from NDT Measurements." *Proceedings, 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, pp. 346-357.*
65. Uddin, W. and B.F. McCullough. "In Situ Material Properties from Dynamic Deflection Equipment." *ASTM First International Symposium on Nondestructive Testing of Pavements and Backcalculation of Moduli, Baltimore, Maryland, June 1988, STP 1026, pp. 278-290.*

PUBLICATION (continued)

Peer reviewed papers published in ASTM, TRB, refereed conference proceedings and books: (continued)

66. Elkins, G.E., W. Uddin, and W. R. Hudson. "Surface Smoothness Evaluation and Specifications for Flexible Pavements." *ASTM STP 1031, ASTM First International Symposium on Surface Characteristics*, June 1988, published in 1990, pp. 24-36.
67. Uddin, W., B.F. McCullough, and J.P. Zaniewski. "Design and Evaluation of Resurfacing Alternatives for Pavement Rehabilitation." *Proceedings, 6th International Conference Structural Design of Asphalt Pavements*, Ann Arbor, Michigan, July 1987, Vol. I, pp. 859-873.
68. Uddin, W., J.F. Nixon, B.F. McCullough, and J. Kabir. "Diagnostic Evaluation of In-Service Pavements Performance Using Pavement Condition Data." *Proceedings, 6th International Conference Structural Design of Asphalt Pavements*, Ann Arbor, Michigan, July 1987, Vol. I, pp. 500-520.
69. Uddin, W., R.F. Carmichael III, and W. Ronald Hudson. "A Methodology for Life-Cycle Cost Analysis of Pavements Using Microcomputer." *Proceedings, 6th International Conference Structural Design of Asphalt Pavements*, Ann Arbor, Michigan, July 1987, Vol. I, pp. 773-794.
70. Uddin, W. and W.R. Hudson. "The Future of Pavement Evaluation Technologies: Prospects and Opportunities." *Proceedings, 2nd North American Conference on Managing Pavements*, Toronto, Canada, November 1987, Proceedings, Vol.3, pp. 3.231-3.258.
71. Uddin, W., W.R. Hudson, and G.E. Elkins. "Smoothness Acceptance Testing and Specification for Flexible Pavements." *Proceedings, 2nd North American Conference on Managing Pavements*, Toronto, Canada, November 1987, Proceedings, Vol. 3, pp. 3.331-3.362.
72. Uddin, W., G.E. Elkins, and W.R. Hudson. "Side-by-Side Field Evaluation of Deflection Testing Devices." *Proceedings, 2nd North American Conference on Managing Pavements*, Toronto, Canada, Proceedings, Vol. 3, November 1987.
73. Uddin, W. "Recent Advances in Nondestructive Dynamic Testing and Evaluation Methods." *Proceedings, 8th Asian Regional Conference on Soil Mechanics and Foundation Engineering*, Kyoto, Japan, August 1987, Proceedings, Vol. 2, pp. 347.
74. Uddin, W., K.H. Stokoe II, and W.R. Hudson. "In Situ Material Characterization of Pavement Subgrade Systems." *Proceedings, 8th Asian Regional Conference on Soil Mechanics and Foundation Engineering*, Kyoto, Japan, August 1987, Vol. I, pp. 419-422.
75. Uddin, W., A.H. Meyer, and W.R. Hudson. "Evaluation of Structural Capacity and In Situ Moduli of Pavements Based on Dynamic Deflections." *Proceedings, 2nd International Conference, The Bearing Capacity of Roads and Airfields*, Plymouth, England, September 16-18, 1986, pp. 309-320.
76. Torres-Verdin, Victor, W. Uddin, and B.F. McCullough "NDT Guidelines for Materials Characterization of In-Service Rigid Pavements." *Proceedings, Third International Conference on Concrete Pavement Design and Rehabilitation*, Purdue University, Indiana, April 1985, pp. 557-566.
77. Uddin, W., A.H. Meyer, W.R. Hudson, and K.H. Stokoe II. "A Rigid Pavement Structural Evaluation System Based on Dynamic Deflections." *Proceedings, Third International Conference on Concrete Pavement Design and Rehabilitation*, Purdue University, Indiana, April 1985, pp. 495-506.
78. Uddin, W., S. Nazarian, K.H. Stokoe II, and A.H. Meyer. "Moduli and Thicknesses of Pavement Systems from Spectral Analysis of Surface Waves." *Proceedings, 10th World Meeting of International Road Federation*, Brazil, 1984, Technical Session 3, pp. 251-260.
79. Balasubramaniam, A.S., H. Zue-Ming, W. Uddin, A.R. Chaudhary, and Y.G. Li. "Effect of Weathering on Engineering Properties of Soft Bangkok Clay." *Proceedings of the III International Congress I.A.E.G.*, September 4-8, 1978, Sec II, Vol 1, pp. 7-22.

PUBLICATION (continued)

Peer reviewed papers published in ASTM, TRB, refereed conference proceedings and books: (continued)

80. Balasubramaniam, A.S., H. Zue-Ming, A.R. Chaudhary, and W. Uddin. "Applications of Critical State Theories to the Prediction of Strains in Triaxial Specimens of Soft Bangkok Clay." *Proceedings, 9th International Conference on Soil Mechanics and Foundation Engineering, Specialty Session 9: Constitutive Equations of Soils*, Tokyo, 1977, pp. 11-22.

PUBLICATION (continued)

Papers published in other conference/symposium proceedings:

1. Uddin, W. "Natural Disaster Risk Reduction and Community Preparedness." *Proceedings, 2011 CONINFRA*, São Paulo, Brazil, August 10 - 12, 2011. Invited Lecture
2. Uddin, W. "Flooding, Ecological Diversity, and Wildlife Habitat Studies by Geospatial Visualization and Remote Sensing Technologies." *Proceedings, International Conference on "Biodiversity is Our Life,"* Center for Biodiversity and Conservation, Shah Abdul Latif University, Khairpur (Mir's), Sindh, Pakistan, December 29, 2010. (Editors: G. Raza Bhatti and Shireen Akhtar Soomro) Keynote Lecture
3. Uddin, W. "Environmental, Energy, and Sustainability Considerations for Life-Cycle Analysis of Pavement Systems." *Proceedings, 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 sponsored by NSF*
4. Uddin, W. "Remote Sensing And Geospatial Technologies for Terrain And Infrastructure Mapping." *Proceedings, 2009 CONINFRA*, São Paulo, Brazil, July 29 - 31, 2009. Invited Lecture
5. Uddin, W. "Assessment of Transportation Related Safety and Public Health Impacts Using Remote Sensing and Geospatial Analysis Technologies." *Proceedings, 7th Malaysian Road Conference*, Kuala Lumpur, Malaysia, July 17-19, 2007, pp. 1-16. Keynote Lecture
6. Uddin, W. "Visualization Technologies for Transportation Planning, Design, and Disaster Response Applications." *Proceedings, 2007 MAESC, Mid-South Area Engineering and Science Conference*, Oxford, Mississippi, May 17-18, 2007.
7. Uddin, W. "Application of Remote Sensing and Spatial Technologies for Oxford ITS Integration Project." *CD Proceedings, 9th World Congress on Intelligent Transportation Systems, Session SP5: Traffic Surveillance*, Chicago, Illinois, October 14-18, 2002. Uddin, W. "Finite Element Modeling and Simulation of FWD Dynamic Load Tests." *Proceedings, 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.
8. Uddin, W., Y. Nanagiri, and L. Yiqin. "In Situ Subgrade Material Characterization Using DCP And FWD Data." *Paper 01-051, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
9. Uddin, W., L. Yiqin, and L. D. Phillips. "Integration of Remote Sensing and Geospatial Technologies for Managing Transportation Infrastructure Assets." *Paper 01-053, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
10. Uddin, W. "Evaluation of Lime-Fly Ash and Alternative CKD Stabilized Base Materials for Highway Construction in Mississippi." *Paper 01-054, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.

PUBLICATION (continued)

Papers published in other conference/symposium proceedings: (continued)

11. Uddin, W. and Y. Nanagiri. "Performance of Polymer and Modified Asphalt Field Trials in Mississippi based on GTM and Superpave Tests, Mechanistic Analysis, and Field Evaluation." *Paper 01-055, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
12. Uddin, W. "Development and Implementation of New Modulus Backcalculation Programs Using the PEDD Methodology." *Paper 01-056, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
13. Uddin, W. and L. Yiqin. "An Innovative Methodology To Generate Subgrade Layer Thickness and Resilient Modulus Profiles Using In Situ DCP Tests." *Paper 01-057, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
14. Uddin, W., X. Chen, L. Yiqin, and S. Garza. "3D-FE Simulations and Validation of FWD Modulus Values Backcalculated for Asphalt Highways and Subgrade Sections." *Paper 01-058, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
15. Uddin, W. "A Micromechanical Model for Prediction of Creep Compliance and Viscoelastic Analysis of Asphalt Pavements." *Paper 01-059, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
16. Uddin, W. "Applications of HDM and USER Life-Cycle Analysis Methodologies for Highway Design and Maintenance Management." *Paper 01-060, CD Proceedings, Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control*, Auburn, Alabama, July 29-August 1, 2001.
17. Uddin, W. and L. Ricalde. "Nonlinear Material Modeling and Advanced Computer Simulations of Pavement Systems." *CD Proceedings, Simposio Internacional de Manutencao e Restauracao de Pavimentos e Controle Tecnologico*, São Paulo, Brazil, May 2000.
18. Uddin, W. and L. Ricalde. "Nonlinear Material Modeling and Dynamic Finite Element Simulation of Asphalt Pavements." *Proceedings, EM2000, Fourteenth Engineering Mechanics Conference*, American Society of Civil Engineers, The University of Texas at Austin, May 21-24, 2000.
19. Uddin, W. "An environmental and Load Simulation Software for Designing Longer Lasting Asphalt Pavements." *Memphis Area Engineering Societies Conference (MAESC)*, Christian Brothers University, Memphis, Tennessee, May 11, 2000.
20. Uddin, W. "Simulation of Falling Weight Deflectometer for In Situ Material Characterization of Highway and Airport Pavements." *Proceedings, 6th International LS-DYNA Users Conference*, Dearborn, Michigan, April 10-11, 2000, pp. 16.21-16.32.
21. Uddin, W. and L. Ricalde. "Implementation of a User Material Routine in 3D-FE Codes for Viscoelastic Modeling and Simulation of Highway and Airport Pavements." *Proceedings, 6th International LS-DYNA Users Conference*, Dearborn, Michigan, April 10-11, 2000, pp. 6.11-6.24.
22. Uddin, W. and L. Tang. "Effects of Thermal Gradient on Asphalt Pavement Performance." *Proceedings, 3rd International Symposium on Thermal Stresses*, Krakow, Poland, June 13-17, 1999, pp. 383-386.

PUBLICATION (continued)

Papers published in other conference/symposium proceedings: (continued)

23. Uddin, W. and D. Marzougui. "Simulation of an Impact Testing Device for Nondestructive Evaluation of Highway and Airport Pavements." *Proceedings, 5th International LS-DYNA Users Conference*, Southfield, Michigan, September 1998, 10 p.
24. Uddin, W. and T. Chung. "Effects of Thermal Stresses on Jointed Concrete Pavement Performance." *Proceedings, Second International Symposium on Thermal Stresses 1997*, Rochester, New York, June 8-11, 1997, pp. 621-624.
25. Uddin, W., R.M. Hackett, and Z. Pan. "Pavement Nondestructive Evaluation Using Three-Dimensional Finite-Element Simulation Models." *Proceedings ICORT-95, International Conference on Roads and Road Transport Problems*, Delhi, India, December 1995, pp. 473-482.
26. Uddin, W. and Victor Torres-Verdin. "Structural Capacity and User Cost Analysis for Road Investment Planning." *Proceedings ICORT-95, International Conference on Roads and Road Transport Problems*, Delhi, India, December 1995, pp. 1000-1011.
27. Plaxico, C.A., R.M. Hackett, W. Uddin, and S.E. Adeff "Crashworthiness Analysis of A Modified Thrie-Beam Guardrail." *Proceedings, Society of Engineering Science*, New Orleans, October 1995, pp. 201-202.
28. Uddin, W. "A Nondestructive Evaluation and Rehabilitation Design Methodology for Asphalt and Concrete Pavements." *Proceedings, Second International Conference on Road and Airfield Pavement Technology*, Singapore, September 1995, Vol. 2, pp. 610-618.
29. Uddin, W. "Application of User Cost and Benefit Analysis in Maintenance Management and Transportation Planning." *Compendium, 4R-7th International Pavement Management/ Maintenance Exposition and Conference*, Philadelphia, December 5-7, 1993, pp. 24-27.
30. Uddin, W. and M. Al-Tayer. "Implementation of Pavement Management Technology for Dubai Emirate Road Network." *Proceedings, XII International Road Federation World Meeting*, Madrid, Spain, May 16-21, 1993, Vol. IV, pp. 305-314.
31. Uddin, W. "Highways and Urban Roads Maintenance Management: Development and Operation Issues." *Compendium, 4R-6th International Pavement Management/ Maintenance Exposition and Conference*, Atlanta, December 6-8, 1992, pp. 28-32.
32. Uddin, W., W.R. Hudson, R. Frank Carmichael III, and Jack Wilkes. "The Status of Bridge Management Systems in USA and Projected New Concepts." *Proceedings, Annual Transportation Convention*, Pretoria, South Africa, August 1986.
33. Uddin, W. and W.R. Hudson. "Selection and Use of Dynamic Deflection Equipment and Analysis Package for Pavement Evaluation." *Proceedings, 2nd International Symposium on Pavement Evaluation and Overlay Design*, Rio de Janeiro, Brazil, September 1989, Vol.1, pp. 1.2.1-1.2.32.
34. Uddin, W., R.F. Carmichael III, and W.R. Hudson. "A Methodology for Life-Cycle Analysis of Pavements Using Microcomputers." *Proceedings, Middle East Regional Meeting of the International Road Federation*, Riyadh, Saudi Arabia, February 1988.
35. Uddin, W. "Nondestructive Evaluation of Highway and Airway Pavements." *Proceedings, 5th National Conference on Microcomputers in Civil Engineering*, Orlando, Florida, November 1987, pp. 208-211.
36. Uddin, W. and A.S. Balasubramaniam. "Behavior of a Natural Clay in Triaxial Extension as Affected by Past Stress History." *Proceedings, International Symposium on Implementation of Computers and Stress Strain Laws in Geotechnical Engineering*, Chicago, Vol. II, 1981.

PUBLICATION (continued)

Papers published in other conference/symposium proceedings: (continued)

37. Uddin, W. and Abdul Kadir Al-Sari. "Eolian Sand Problem-An Engineering Evaluation." *Proceedings, Symposium on Geotechnical Problems in Saudi Arabia*, King Saud University, Riyadh, Saudi Arabia, Vol. 11, 1981.
38. Uddin, W. and Waddah Akili. "A Sulphur Extended Asphalt Test Road in Eastern Saudi Arabia." *Proceedings, 3rd Conference of Engineering Association of Asia and Australasia*, Taipei, Taiwan, 1981, Vol. 1, pp. 385-397.
39. Uddin, W. "Bituminous Mix Characterization for Flexible Pavements." *Proceedings, 3rd Conference of Road Engineering Association of Asia and Australasia*, Taipei, Taiwan, 1981, Vol. 1, pp. 539-553.
40. Uddin, W. "Cement Stabilized Base for Apron construction, Dhahran International Airport." *Proceedings, 6th Southeast Asian Conference of Soil Engineering*, Taipei, Taiwan, 1980, Vol. 1, pp. 593-608.

Research Reports: (All reports with agency numbers have been published by government agencies.)

1. Uddin, W. "A Synthesis Study of Noncontact Nondestructive Evaluation of Top-down Cracking in Asphalt Pavements." Final Report FHWA/MS-DOT-RD-13-255, Sponsored Research Study SS 255, Center for Advanced Infrastructure Technology Report UM-CAIT/2013-01, The University of Mississippi, for the Mississippi Department of Transportation, December 2013.
2. Uddin, W. "Performance Evaluation of Roundabouts for Traffic Delay and Crash Reduction in Oxford, MS." Final Report FHWA/MS-DOT-RD-11-213, Sponsored Research Study SS 213, Center for Advanced Infrastructure Technology Report UM-CAIT/2011-01, The University of Mississippi, for the Mississippi Department of Transportation, June 2011.
3. ACRP Research Results Digest 10: "Light Detection and Ranging (LIDAR) Deployment for Airport Obstruction Surveys." Airport Cooperative Research Program (ACRP), TRB, National Research Council, The National Academies, Washington, DC, July 21, 2010.
4. Ali, M.S., W. Uddin, and M. Imran. "Urban Transportation Policy for Karachi and other Pakistani Cities." Report, Pakistan-US Science and Technology Cooperative Program, National Academy of Sciences (NAS)/ U.S. Agency for International Development, August 2010.
5. Uddin, W. "Development of an ITS-based Traffic Management Model for Metropolitan Areas of Pakistan with Karachi as a Pilot Study – Final Report, Year 3 Extended Period." Pakistan-US Science and Technology Cooperative Program 2006, National Academy of Sciences (NAS)/ U.S. Agency for International Development, December 2010.
6. Uddin, W. "Development of an ITS-based Traffic Management Model for Metropolitan Areas of Pakistan with Karachi as a Pilot Study – Annual Report, Year 3." Pakistan-US Science and Technology Cooperative Program 2006, National Academy of Sciences (NAS)/ U.S. Agency for International Development, December 2009.
7. Uddin, W. "Final Report: Evaluation of Airborne LIDAR for Airport Obstruction Survey." ACRP 03-01 LIDAR Deployment for Airport Obstruction Surveys, National Academy of Sciences (NAS), December 2009.
8. Uddin, W. "Preliminary Draft Final Report: Evaluation of Airborne LIDAR for Airport Obstruction Survey." ACRP 03-01 LIDAR Deployment for Airport Obstruction Surveys, National Academy of Sciences (NAS), June 2009.

PUBLICATION (continued)

Research Reports: (continued)

9. Uddin, W. "Development of an ITS-based Traffic Management Model for Metropolitan Areas of Pakistan with Karachi as a Pilot Study – Annual Report, Year 2." Pakistan-US Science and Technology Cooperative Program 2006, National Academy of Sciences (NAS)/ U.S. Agency for International Development, December 2008.
10. Uddin, W. "Task 7 Tech Memo: Evaluation of Airborne LIDAR for Airport Obstruction Survey." ACRP 03-01 LIDAR Deployment for Airport Obstruction Surveys, National Academy of Sciences (NAS), October 2008.
11. Uddin, W. "Task 4 Tech Memo." Interim Report, ACRP 03-01 LIDAR Deployment for Airport Obstruction Surveys, National Academy of Sciences (NAS), February 2008.
12. Uddin, W. "Executive Summary Report – Karachi Metropolitan Intelligent Transportation System (MITS) Stakeholders; Group Workshop, July 30, 2007." National Academy of Sciences (NAS)/ U.S. Agency for International Development, December 2007.
13. Uddin, W. "Development of an ITS-based Traffic Management Model for Metropolitan Areas of Pakistan with Karachi as a Pilot Study – Annual Report, Year 1." Pakistan-US Science and Technology Cooperative Program 2006, National Academy of Sciences (NAS)/ U.S. Agency for International Development, September 2007.
14. Uddin, W. "Ground Penetrating Radar Study, Phase I – Technology Review and Evaluation." Final Report UM-CAIT/2006-01 Sponsored Research Study SS 182, Center for Advanced Infrastructure Technology, The University of Mississippi, for the Mississippi Department of Transportation, Report No. FHWA/MS-DOT-RD-06-182, December 2006.
15. Uddin, W. "Air Quality Project, National Consortium on Remote Sensing in Transportation – Environment." Final Report UM-CAIT/2004-01, Mississippi State University/U.S. DOT-NASA Joint Program on Remote Sensing and Spatial Technologies, US DOT Research & Special Program Administration and NASA, June 2004.
16. Uddin, W. "Air Quality Project - Remote Sensing Tunable Laser Measurements of Air Pollution." Technology Guide NCRSTE TG004, Center for Advanced Infrastructure Technology, The University of Mississippi, for DOT Research and Special Program Administration, October 01, 2001, revised June 2004.
17. Uddin, W. "SR35 Raleigh Bypass Highway Alignment Project." Final Report UM-CAIT/2001-02, (Collaborator: WEI), Transportation Industry Applications Utilizing Airborne Laser Terrain Mapping Technology, Center for Advanced Infrastructure Technology-The University of Mississippi for Mississippi Space Commerce Initiative and Mississippi Department of Transportation, February 2003.
18. Uddin, W. "A Synthesis Study and GIS Database for Bridge Cathodic Protection Projects." Final Report UM-CAIT/2001-02, "Bridge Cathodic Protection Study," for IBSi, June 2002.
19. "Transportation, Air Quality, and Remote Sensing Laser Measurements of Air Pollutants Related to Highway Traffic in Mississippi – Oxford and Tupelo." (Pages 10-11 by Uddin) Achievements of the DOT-NASA Joint Program on Remote Sensing and Spatial Information Technologies Application to Multimodal Transportation 2000-2002. April 2002.
20. Uddin, W. "Air Quality Project - Remote Sensing Laser Measurements of Air Pollution." Year 1 Final Report UM-CAIT/2001-01, Center for Advanced Infrastructure Technology, The University of Mississippi, for US DOT Research and Special Program Administration, August 2001.
21. George, K.P. and W. Uddin. "Subgrade Characterization Study for Highway Pavement Design." Final Report - Sponsored Research Study SS 131, The University of Mississippi, for the Mississippi Department of Transportation, Report No. FHWA/MS-DOT-RD-00-131, December 2000.

PUBLICATION (continued)

Research Reports: (continued)

22. Uddin, W. "DCPAN Software User Manual - State Study 131," User Manual Report, The University of Mississippi, for the Mississippi Department of Transportation, December 2000.
23. Uddin, W. "Improved Asphalt Thickness Design Procedures for New and Reconstructed Highway Pavements." Final Report - Sponsored Research Study SS122, The University of Mississippi, for the Mississippi Department of Transportation, Report No. FHWA/MS-DOT-RD-99-122, November 1999.
24. Uddin, W. "Improved Asphalt Thickness Design Procedures for New and Reconstructed Highway Pavements." Final Report - Sponsored Research Study SS122, The University of Mississippi, for the Mississippi Department of Transportation, User Manual - PADAP, July 1999.
25. Uddin, W. "Diagnostic Evaluation and Performance Study of Portland Cement Concrete Pavements in Mississippi." Final Report - Sponsored Research Study SS110, The University of Mississippi, for the Mississippi Department of Transportation, August 1997. Report No. FHWA/MS-DOT-RD-99-110, November 1999.
26. "DRPMS – Review, Evaluation, and Recommendations." Prepared for Dubai Municipality, Dubai, UAE, June 1993.
27. "Dubai Emirate Roads Pavement Management System (DRPMS) - Final Report." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, July 1991.
28. "DRPMS Manual of Pavement Deflection Data Collection & Evaluation." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, July 1991.
29. "DRPMS User's Manual." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, July 1991.
30. "DRPMS Manual of MicroPAVER Data Analysis & Reports." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, July 1991.
31. "DRPMS Manual of Road Network Partitioning & Inventory Data Collection." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, June 1991.
32. "DRPMS Manual of Pavement Inspection and Distress Data Collection." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, June 1991.
33. "PMS Staff Handbook." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, June 1991.
34. "Specifications and Layouts of DRPMS Management Reports." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, May 1991.
35. "MicroPAVER 2.1 Testing & Evaluation and Recommendations for PMS Software Decisions." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, March 1991.
36. "DRPMS Software Specifications." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, June 1990.
37. "DRPMS – Dubai Emirate Roads Pavement management System, Workplan." Prepared for Dubai Municipality and United Nations Centre for Human Settlement (UNCHS), Dubai, UAE, Nov. 1989.
38. "SHRP-LTPP Manual for Falling Weight Deflectometer Testing, Version 1.0." Strategic Highway Research Program, National Academy of Sciences, Washington, DC, January 1989. (Contributor)
39. "SHRP-LTPP Guide for Field Materials Sampling and Field Testing, Version 1.0." Strategic Highway Research Program, National Academy of Sciences, Washington, DC January 1989. (Primary author)

PUBLICATION (continued)

Research Reports: (continued)

40. "SHRP-LTPP Guide for Laboratory Material Handling and Laboratory Testing, Version 1.0." Strategic Highway Research Program, National Academy of Sciences, Washington, DC, August 1989. (Primary author)
41. Uddin, W. and C. Saraf. "A Structural Capacity Model for Network Level Evaluation Based on Falling Weight Deflectometer Deflections." CTR Report Prepared for the Texas State Department of Highways and Public Transportation, December 1987.
42. Hudson, W.R., W. Uddin, G.E. Elkins, and Karen Reilley. "Improved Methods and Equipment to Conduct Pavement Distress Surveys." Report No. FHWA-TS-87-213, ARE Inc. Report, Pavement Condition Monitoring Methods and Equipment Phase 2, Federal Highway Administration, April 1987.
43. Uddin, W., W.R. Hudson, G.E. Elkins, and K.T. Reilley. "Evaluation of Equipment for Measuring Voids under Pavements." Report No. FHWA-TS-87-229, ARE Inc. Report, Pavement Condition Monitoring Methods and Equipment Phase 1 - Part 2, Federal Highway Administration, April 1987.
44. Hudson, W.R., W. Uddin, G.E. Elkins, and Karen T. Reilley. "Evaluation of Deflection Measuring Equipment." Report No. FHWA-TS-87-208, ARE Inc. Report, Pavement condition Monitoring Methods and Equipment Phase 1 - Part 1, Federal Highway Administration, March 1987.
45. Uddin, W., W.R. Hudson, and G.E. Elkins. "Measurement of Pavement Smoothness." Interim Report, ARE Inc. Report 86-60/1, Arizona Department of Transportation, December 1986.
46. Uddin, W., R.F. Carmichael III, and W.R. Hudson. "Life-Cycle Analysis for Pavement Management Decision Making -Final Report." Report No. FHWA-PA-85-028, Texas Research And Development Foundation Report LCC/3 to Pennsylvania Department of Transportation, March 1986.
47. Uddin, W., L. Moser, R.F. Carmichael III, and W.R. Hudson. "LCC1 User's Manual." Report LCC/4, Texas Research and Development Foundation, Pennsylvania Department of Transportation, March 1986.
48. Uddin, W. "Updated Long-Term Passenger Forecasts for Austin Municipal Airport." ARE Inc. Report AA-1/1, The City of Austin, January 1986.
49. Hudson, W.R. and W. Uddin. "Overview of Factors Associated with Pavement Damage." ARE Inc. Report RR-8/1, Association of American Railroads, March 1985.
50. McCullough, B.F., W. Uddin, John P. Zaniewski, and Gary E. Elkins "Alternative Resurfacing Strategies-Final Report." Texas Research & Development Foundation Report, Vols. I and II, Pennsylvania Department of Transportation, 1985.
51. Uddin, W., J.P. Zaniewski, W.R. Hudson, and R.F. Carmichael III. "Life-Cycle Analysis for Pavement Management Decision Making-State of the Art Review." Texas Research & Development Foundation Report LCC/1, Pennsylvania Department of Transportation, April 1985.
52. Smith, Phil and W. Uddin. "Resurfacing of the Turner and Will Rogers Turnpikes, Oklahoma Pavement Design Evaluation." ARE Inc. Report 85-807, Howard Needles Tammen & Bergendoff, Tulsa, Oklahoma, April 1985.
53. J.F. Nixon, J. Kabir, W. Uddin, B.F. McCullough, and F.N. Finn. "Evaluation of Oklahoma Pavement Design Procedures-Phase I Report." ARE Inc., Report No. 84-60, Oklahoma Department of Transportation, 1984.
54. Uddin, W., A.H. Meyer, W.R. Hudson, and K.H. Stokoe II. "A Structural Evaluation Methodology for Pavements Based on Dynamic Deflections." Report FHWA/TX-86/17+387-1, Texas State Department of Highways and Public Transportation, Austin, Texas, July 1985.

PUBLICATION (continued)

Research Reports: (continued)

55. Uddin, W., A.H. Meyer, W.R. Hudson, and K.H. Stokoe II. "User Manual for FPEDD1 and RPEDD1 Programs." Report FHWA/TX-86/17+387-2, Texas State Department of Highways and Public Transportation, Austin, Texas, July 1985.
56. Uddin, W., S. Nazarian, W.R. Hudson, A.H. Meyer, and K.H. Stokoe II. "Investigations into Dynaflect Deflections in Relation to Location/Temperature Parameters and In Situ Material Characterization of Rigid Pavements." Report FHWA/TX-83/27+256-5, Texas State Department of Highways and Public Transportation, Austin, Texas, December 1983.
57. Uddin, W., V. Torres-Verdin, W.R. Hudson, A.H. Meyer, B.F. Meyer, and R.B. Rogers. "Dynaflect Testing for Rigid Pavement Evaluation." Report FHWA/TX-85/70+256-6E, Texas State Department of Highways and Public Transportation, Austin, Texas, December 1983.
58. Uddin, W. "Forecasting Air Travel Demand and Airport Expansion Needs for Austin Municipal Airport." Center for Transportation Research Report, Prepared for Department of Aviation, The City of Austin, January 1983.

SHORT COURSE/WORKSHOP LECTURE NOTEBOOKS

1. "Traffic Safety and Intelligent Transportation System." a workshop organized by NED University of Engineering & Technology, Karachi, Pakistan, July 15-16, 2008, (partially supported by USAID funding; lecture notebook by W. Uddin and Mir S. Ali).
2. "Air Quality and Global Warming Workshop." PC Hotel in Karachi, Pakistan, organized by the NED University, July 12, 2008, (partially supported by USAID funding; workshop notebook by W. Uddin and Mir S. Ali).
3. "GIS Executive Workshop: GIS-based Decision Support Systems for Infrastructure Management, Disaster Response, and Community Preparedness." NED University, Karachi, Pakistan, June 18, 2008, (partially supported by USAID funding; workshop notebook by W. Uddin and Mir S. Ali).
4. "Advanced GIS Course: Geospatial Analysis for Infrastructure Asset Management and Disaster Assessment." NED University, Karachi, Pakistan, June 19-20, 2008, (partially supported by USAID funding; workshop notebook by W. Uddin).
5. "Road Safety Evaluation in Road and Highway Works." Engineers' Workshop sponsored by Brunei Public Works Department, Brunei Darussalam (coordinated by AsiaEdge, Singapore), November 20-21, 2007, (workshop notebook by W. Uddin).
6. "Traffic Safety Management on Road and Highways." Executive Conference, sponsored by Brunei Public Works Department, Brunei Darussalam (coordinated by AsiaEdge, Singapore), November 19, 2007, (workshop notebook by W. Uddin).
7. "Review of U.S. Best Practices in Traffic Congestion Management." Karachi Metropolitan ITS Stakeholders Group Workshop, sponsored by NED University of Engineering and Technology, Karachi, Pakistan, July 30, 2007, (workshop notebook by W. Uddin and Mir S. Ali).
8. "GIS and Imagery Based Geospatial Analysis." Short course offered at NED University of Engineering and Technology, Karachi, Pakistan (partially supported by USAID funding; hosted by Mir Shabbar Ali of NED University), June 18-21, 2007, (workshop notebook by W. Uddin).
9. "Pavement Engineering and Maintenance Management." Workshop offered at Center for Infrastructure Engineering, Griffith University, Gold Coast Campus, Australia (hosted and coordinated by Professor A.S. Balasubramaniam), September 28-29, 2006, (workshop notebook by W. Uddin).
10. "Pavement Management Systems." one-week short course offered at Department of Civil Engineering, University of Pisa, Italy (hosted and coordinated by Professor Massimo Losa; workshop notebook by W. Uddin), May 17-22, 2004.

SHORT COURSE/WORKSHOP LECTURE NOTEBOOKS (continued)

11. "Modern Asphalt Technology." One-day short course at Mackenzie University, São Paulo, Brazil, June 5, 2003, (workshop notebook by W. Uddin).
12. "Advanced Computer Simulations of Highway Pavements." One-day short course at Universidade Presbiteriana Mackenzie, São Paulo, Brazil, May 2000, (workshop notebook by W. Uddin).
13. "Tecnología de los Pavimentos II - Modulo 3." Diplomado en Ingenieria de Sistemas Carreteros, Secretaria de Comunicaciones y Transportes/ Departamento de Ingenieria Civil, ITESM, Monterrey, Nuevo Leon, Mexico, April 4-5, 1997, (workshop notebook by W. Uddin).
14. "Pavement Management System Development and Implementation." sponsored by Presidencia Municipal and CNIC/ICIC, Leon, Mexico, 1994, (lecture notes by V. Torres-Verdin and W. Uddin).
15. Tutorial Session, "Condition and Traffic: Part I - Pavement Condition and Road Inventory Data." Third International Conference on Managing Pavements, Sponsored by Transportation Research Board, San Antonio, Texas, 1994, (lecture notes by W. Uddin).
16. Coordinator and Instructor, "Pavement Management Systems." 3-days short course sponsored by the University of Mississippi, Mississippi Department of Transportation and International Road Federation, Oxford Campus, Mississippi, August 1993, (with K.P. George; workshop notebook by W. Uddin).
17. "Microcomputer Applications in Pavements." 3-days short course sponsored by the University of Mississippi, Mississippi Department of Transportation and International Road Federation, Oxford Campus, Mississippi, August 1993, (with K.P. George; workshop notebook by W. Uddin).
18. Instructor, "Pavement Management." 3-days short course sponsored by the University of Mississippi, Mississippi Department of Transportation and International Road Federation, Oxford Campus, Mississippi, August 1992, (with K.P. George; workshop notebook by W. Uddin).
19. "Airport Pavements." 3-days short course sponsored by the University of Texas at Austin, Center for Transportation Research, and American Association of Airport Executives, August 1987, (coordination and workshop notebook by W. Uddin and B.F. McCullough).

COURSE LECTURE NOTEBOOKS

1. ENGR 597-25. "Geospatial Analysis." 3-credit hour course (seniors and graduate students), University of Mississippi, May 2008, updated 2009-2011, p. 250. (required, no other textbook)
2. CE 570. "Infrastructure Management." 3-credit hour course (seniors and graduate students), University of Mississippi, August 2008, updated 2011, p. 630; revised 2013, p. 366. (required, with textbook)
3. CE 481. "Transportation Engineering I." 3-credit hour course, University of Mississippi, August 2008, updated 2009, 2011, p. 210. (required, with textbook)
4. CE 417. "Construction Management." 3-credit hour course, University of Mississippi, January 2009, updated 2011, p. 280. (required, with textbook)
5. CE 315. "Construction Materials." 3-credit hour course, University of Mississippi, January 2010, updated 2011, p. 373. (required, with textbook)
6. CE 495. "Geospatial Analysis for Visualization Applications." 3-credit hour course (seniors and graduate students), University of Mississippi, May 2013, p. 250. (required, no other textbook)