### LOUAY N. MOHAMMAD, PH.D., P.E. (WY), F. ASCE

Professor of Civil & Environmental Engineering
Holder of the Irma-Louis Rush Stewart Distinguished Professorship
Department of Civil and Environmental Engineering
Director, Sustainable and Resilient Pavement Materials and Technologies Center
Louisiana Transportation Research Center
Louisiana State University
4101 Gourrier Avenue, Baton Rouge, Louisiana 70808

Phone (225) 767-9126 Fax (225) 767-9179 Email Louaym@lsu.edu

### PERSONAL DATA

Country of Citizenship: U.S.A.

Marital Status: Married with three children

### **RESEARCH & TEACHING INTERESTS**

Highway Construction Materials, Asphalt Cement Rheology, Asphalt Mixture Design and Analysis, Pavement Design and Analysis, Accelerated Pavement Testing, Advanced Materials Characterization and Modeling, Pavement Interface systems and Testing, and Infrastructure Sustainability and Resilience

#### **EDUCATION**

B.S. in Civil Engineering, Louisiana State University, 1980 M.S. in Civil Engineering, Louisiana State University, 1982 Ph.D. in Civil Engineering, Louisiana State University, 1989

### **ACADEMIC EXPERIENCE**

July 2006 - Present

Professor

Irma-Louise Rush Stewart Endowed Professor (January 2007 - Present) Coordinator, Transportation Engineering Faculty Group (March 2003 - Present) Department of Civil and Environmental Engineering Louisiana State University, Baton Rouge, Louisiana

#### **April 2023 - Present**

Founder and Director, Sustainable and Resilient Pavement Materials and Technologies Center Louisiana Transportation Research Center, Louisiana State University, Baton Rouge, Louisiana

#### **January 2000 - April 2023**

Founder and Director, Engineering Materials Characterization and Research Facility Louisiana Transportation Research Center, Louisiana State University

### August 2000 - June 2006

Associate Professor (tenured July 1, 2004)
Department of Civil and Environmental Engineering
Louisiana State University, Baton Rouge, Louisiana
January 2000 - August 2000

Research Associate Professor of Civil and Environmental Engineering Department of Civil and Environmental Engineering Louisiana State University, Baton Rouge, Louisiana

#### December 1989 - December 1999

Research Assistant Professor Department of Civil and Environmental Engineering Manager, Engineering Materials Characterization and Research Facility Louisiana Transportation Research Center, Louisiana State University

### September 1987 to November 1989

Asphalt Technology Research Associate Louisiana Transportation Research Center, Louisiana State University

### August 1980 to September 1987

Graduate Teaching Assistant, Dept. of Civil & Environmental Engineering, Louisiana State University, Baton Rouge, Louisiana.

### **August 1979 to May 1980**

Teaching Assistant, Dept. of Civil & Environmental Engineering, Louisiana State University, Baton Rouge, Louisiana. Grading homework (Mechanics of Materials, Surveying).

### **AWARDS AND RECOGNITIONS**

- Named 2025 Lifetime Achievement Award, American Society of Civil Engineers (ASCE), Louisiana Section. This prestigious award is the highest honor bestowed by the Louisiana Section and recognizes Dr. Mohammad's distinguished career of excellence in civil engineering, dedicated service to ASCE, and steadfast commitment to integrity, leadership, and technical advancement.
- Named 2024 LSU Rainmaker Senior Scholar in the areas of Science, Technology, Engineering, and Mathematics. This award recognizes excellence, outstanding achievement in research and creative activity, and sustained work with high impact, often in alignment with LSU's Scholarship First Agenda to improve lives.
- Recipient of the 2024 Lifetime Achievement Award, American Society of Civil Engineers (ASCE), Louisiana Section Baton Rouge Branch. This honor recognizes Dr. Mohammad's extraordinary contributions to civil engineering, his significant service to ASCE, and his steadfast commitment to integrity and technical excellence. This lifetime achievement award is a testament to his enduring impact on the profession and his role as a leader in the civil engineering community
- Selected to serve as a member of the National Academies of Science, Engineering, Medicine National Cooperative Highway Research Program Project 09-73 Panel on "Sample Storage Time Impact on Performance Properties for Balanced Mix Design (BMD)," August 2024 -Present.
- Appointed to the FHWA Sustainability Technical Working Group, 2024.
- Mr. Ibrahim Elnml, my Ph.D. graduate student, won second place for his poster presentation

- titled "Effectiveness of Recycling Agents on High Reclaimed Asphalt Pavement (RAP) Asphalt Mixtures," at the 2024 LSU CEE Graduate Student Research Conference, Baton Rouge, LA, April 5, 2024.
- Co-author, most cited and prolific transportation journals in the world of technical paper in the Transportation Research Record titled "Self-Healing Capability and Mechanical Properties of Asphalt Mixtures Prepared with Light-Activated Polyurethane Prepolymer-Modified
- Life member, American Society of Civil Engineers, 2023.
- Presented the prestigious AAPT Honorary Membership Award at the association annual meeting held on September 12-15, 2022, San Antonio, Texas.
- Ranked top 2% globally of most cited scientist from natural sciences and medicine; and social sciences, Stanford University, PLOS Biology Journal, 2021.
- Life member, Association of Asphalt Paving Technologist, 2021.
- Appointed, President, LSU Chapter Phi Kappa Phi honor Society, August 2020
- Appointed, Trustee, ASCE Foundation Council of Trustees, Region 5, August 2020
- Appointed Emeritus Member, Transportation Research Board Committee on Surface Requirements of Asphalt Mixtures, January 1, 2020 Indefinite
- Appointed to the FHWA Asphalt Performance Technical Feedback Group, 2019.
- Elected Fellow, American Society of Civil Engineers, March 2019
- Recipient of the 2019 LSU office of Innovation and Technology Commercialization Certificate for a book titled Advancement in the Design and Performance of Sustainable Asphalt Pavements
- Recipient of the 2018 Association of Asphalt Paving Technologists (AAPT) Best Paper Walter J. Emmons Award for an article titled *Impact of Various Crumb Rubber Modifications on Asphalt Binder and Mixture Properties*
- Selected to serve as a member of the National Academies of Science, Engineering, Medicine Transportation Research Board Panel 20-07/Task 422 on "User Review of the AASHTO 'Guide for the Local Calibration of the Mechanistic-Empirical Pavement Design Guide', November 2017 - 2018
- Selected to serve as a member of the National Academies of Science, Engineering, Medicine Transportation Research Board Panel 48-02 on "Tack Coat Specifications, Materials, and Construction Practices, July 2016 - 2018
- Recipient of the 2015 Asphalt Rubber Ambassador Award by the Rubber Pavement Association.
- Selected to serve on the Louisiana Professional Engineering and Land Surveying Board Transportation Engineering Practice Committee, September 2014 September 2015
- Selected to serve as a member of National Academies of Science, Engineering, Medicine Transportation Research Board Panel 46-05 *on* "Use of Recycled Asphalt Pavement and Shingles," June 2014 June 2016.
- Recipient of the 2014 Research Achievement Award, Department of Civil and Environmental Engineering, Louisiana State University.
- Invited Panelist, Florida International University/Massachusetts Institute of Technology Infrastructure Sustainability Summit, October 29, 2013, Miami, Florida
- Paper titled "Accelerated Loading Evaluation of Foamed Asphalt Treated RAP Layers in

- Pavement Performance" selected as the Best Paper Award, 8<sup>th</sup> International Conference on Road and Airfield Pavement Technology, July 14-18, 2013, Taipei, Taiwan
- Paper titled "Use of Sweep Test for Emulsion and Hot-Asphalt Chip Seals: Laboratory and Field Evaluation" selected as the runner up for the 2012 Transportation Research Board Asphalt Materials Section Best Poster Award, January 13-17, 2013, Washington, D.C.
- Paper titled "Evaluating Effects of Volumetric and Mechanistic Test Variability on Asphalt Pavement Performance: Applying Mechanistic-Empirical Pavement Design Guide" was selected to be included in the 2012 Transportation Research Board Catalog of Practical Papers, January 22-26, 2012, Washington, D.C.
- Selected to serve as a member of the Rubberized Asphalt Foundation Advisory Board, March 2012 - Present.
- Recipient of the 2012 Asphalt Rubber Ambassador Award by the Rubber Pavement Association, Asphalt Rubber Conference, October 23 26, 2012, Munich, Germany.
- Selected to serve on the National Academies of Science, Engineering, Medicine Transportation Research Board Panel 44-07 on "Thin Asphalt Concrete Overlays," September 2012-June 2014.
- Paper titled "Estimating Optimum Compaction Level for Dense-Graded Hot-Mix Asphalt Mixtures was selected as the *Distinguished Research Paper* in the Journal of Engineering Research for 2010-2011.
- Appointed to the Federal Highway Administration Expert Task Group (ETG) on Asphalt Mixtures and Construction, August 2010 December 2018.
- Recipient of the 2009 Asphalt Rubber Ambassador Award by the Rubber Pavement Association.
- Paper titled "Interface Shear Strength Characteristics of Emulsified Tack Coats" selected as the runner up for the 2009 Association of Asphalt Paving Technologists Emmons Award.
- Mr. Patel Nachiketa, my graduate student, won first place for his presentation titled "Interface Shear Strength Characteristics of Emulsified Tack Coats" at the 2009 Area 2 Highway Engineering Exchange Program (HEEP) conference held in Baton Rouge, June 7-10, 2009. Area 2 includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.
- Paper titled "Effect of Reinforcement on Resilient and Permanent Deformations of Base Course Material" nominated for the 2007 Transportation Research Board K. B. Woods Award. One to two percent of the over six hundred design and construction papers is nominated for this award.
- Recipient of the 2005 Outstanding Faculty Achievement Award, Department of Civil and Environmental Engineering, Louisiana State University.
- Selected to serve on the National Academy of Science National Cooperative Highway Research Program Panel for Project 9-39 on Development of Procedures for Determining the Mixing and Compaction Temperatures of Superpave Asphalt Binders in Hot Mix Asphalt, July 2004 2010.
- Recipient of the Association of Asphalt Paving Technologists Board of Directors Award of Recognition, 2002.
- Selected to Chair the National Academy of Science National Cooperative Highway Research Program Panel Project 9-36 on the Improved Procedure for Laboratory Aging of Asphalt

- Binders in Pavements, August 2002 2012.
- Selected to serve on the National Academy of Science National Cooperative Highway Research Program Panel Project 1-42 on Top-Down Fatigue Cracking of Hot-Mix Asphalt Layers, August 2002 2010.
- Selected to serve in the LADOTD Chief Construction Engineering Administrator Search Committee, January, 18, 2002.
- Paper titled "The Influence of Asphalt Tack Coat Materials on the Interface Shear Strength" was selected to be included in the 2002 Transportation Research Board Catalog of Practical Papers.
- LSU Distinguished Faculty Award Nominee, CEE Department and College of Engineering, May 2001.
- Selected to serve in the LADOTD Committee for the Development of Performance Measures/Indicators for Research (in house and contacts), Technology Transfer, and Implementation, October 2000 March 2001.
- Selected to serve in the LADOTD Materials Research Administrator's Interview panel, April 2001.
- Selected to serve in the LADOTD Materials Engineer Administrator's Interview panel, March 2001.
- Paper titled "Mechanistic Evaluation of Hydrated Lime in HMA Mixtures" was selected to be included in the 2000 Transportation Research Board Catalog of Practical Papers.
- Awarded certificate of Appreciation in Recognition of Outstanding Service and leadership, ASCE Bituminous Materials Committee, January 1999.
- Paper titled "A Regression Model for Resilient Modulus of Subgrade Soils" was selected to be included in the 1999 Transportation Research Board Catalog of Practical Papers.
- Selected to serve on the Louisiana Department of Transportation and Development Committee on Implementation of Superpave Technology in Louisianan December 1996 -Present.
- The master thesis research of Mr. Alivilli (my graduate student) on Investigation of the Use of Resilient Modulus for Louisiana Soils in Design of Pavements was selected as one of five finalists in the Nation for the CUTC Milton Pikarsky/Charlie Wootan Award, July 1995.
- Selected to serve on the National Academy of Science National Cooperative Highway Research Program Panel Project 4-21 on the Appropriate Use of Waste and Recycled Materials in Transportation Industry, 1994 2000.
- Selected to chair the LADOTD Subcommittee on Superpave Training. 1996- 2004.
- Selected to serve on the Louisiana Department of Transportation and Development Committee on Implementation of Superpave Technology in Louisiana, 1996 2004.
- Selected to serve on the Louisiana Department of Transportation and Development Committee on Asphaltic Concrete Specifications, 1994 2006, 2011.
- Awarded the Outstanding Ph.D. Research Paper, Civil Engineering Department, Louisiana State University, March 1988.
- Kaiser Aluminum and Chemical Company Fellow for the academic year 1985 1986.
- Awarded teaching assistantship and tuition waiver for graduate studies by the Department of Civil Engineering at Louisiana State University.

### **PROFESSIONAL QUALIFICATIONS**

Registered Professional Engineer, License No. 16010 - State of Wyoming.

#### PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

Trustee, ASCE Foundation Council of Trustees, Region 5, Aug 2020-Dec 2023 Elected Fellow, January 2019.

Journal of Materials in Civil Engineering

Editor-in-Chief, October 2024 - Present

Bituminous and Flexible Pavement Section Editor, February 2014 - Sept 2024

Associate Editor, October 2001 - February 2014

Construction Institute, Bituminous Materials Committee

Past Chairman, October 1999 - October 2001

Chairman, October 1997 - October 1999

Vice Chairman, October 1995 - September 1997

Secretary, October 1993 - September 1995

Technical Representative, October 1991 - September 1993

Baton Rouge Chapter

Chairman, Materials Engineering Group, 1992-1996.

Director at Large, October 1995 - September 1997

Louisiana Chapter of T&DI

Executive Committee, Member, Nov 2008 - Present

Scholarship committee, Chair, 2012 - Present

Executive Committee, Chair, October 2016 - September 2017

- American Society of Engineering Education (ASEE), member
- American Society for Testing and Materials (ASTM)

Subcommittee D04.20 on Empirical Tests of Bituminous Mixtures,

Member

Subcommittee D04.21 on Specific Gravity and Density of Asphalt Mixtures,

Member July 1994 - Present

Subcommittee D04.22 on Effect of Water & Other Elements on Bituminous Coated Aggregates,

Member

Subcommittee D04.24 on Bituminous Surface Treatments,

Member

Subcommittee D04.25 on Analysis of Bituminous Mixtures,

Chair, June 2000 - Present

Member, July 1993 - Present

Subcommittee D04.26 on Fundamental / Mechanistic Tests,

Member November 1991 - Present

Subcommittee D04.44 on Rheological Tests,

Member

Subcommittee D04.45 on Specifications for Modified Asphalt,

Member

Subcommittee D04.46 on Durability & Distillation Tests,

Member

Subcommittee D04.99,

Member December 2014 - Present

Association of Asphalt Paving Technologist (AAPT), Member

Emmons Award Committee, Member, March 2009 - March 2011

Publication Committee, Member, March 2016 - 2020

■ National Research Council, Transportation Research Board

AFK 00 Asphalt Materials Section,

Member, 2007 - 2013

AFK 10 Standing Committee on Critical Issues and Emerging Technologies in Asphalt,

Member, 2013 - 2016

AFK 20 Standing Committee on Characteristics of Asphalt Materials, Friend, 2014 - Present

AFK 30 Standing Committee on Non-Binder Components of Asphalt Mixtures, Member, April 2013 - April 2019

AFK 40 Standing Committee on Surface Requirements of Asphalt Mixtures,

Emeritus Member, January 1, 2020 - Present

Member, 1999 - 2013

Chair, April 2007 - April 2013

Member, April 2017 - April 2020

AFK 50 Standing Committee on Structural Requirements of Asphalt Mixtures Member, 1994- 2000; 2003 - 2012, April 2015 - April 2021.

Committee AHD 20 on Pavement Maintenance Committee, Member, 2003-2012 Committee AFD 20 on Pavement Monitoring, Evaluation and Data Storage, Member, 1994 - 2001

Committee AFP 30 on Soil and Rock Properties, Friend of the Committee Data Analysis Working Group (DAWG) Steering Committee, Member

July 1, 2012 - June 30, 2015

- Louisiana DOTD Asphaltic Concrete Specification Committee, Member
- Louisiana DOTD Asphaltic Concrete Specification Committee Section 504 on Asphalt Tack Coat Materials: Chair, 2010-present
- Louisiana DOTD Committee on Long-Range Planning for Construction and Materials Training, Member
- Louisiana DOTD Superpave Implementation, Member

Subcommittee on Training of Superpave Technology, Chair

- Management Committee of the Asphalt Pavement Analyzer Users Group, Member, September 1999 2010
- Southeastern Asphalt User Producer Group, Board Member, Academic Rep., 2003-2006
- Research Advisory Group of the National Stone, Sand, and Gravel Association, Board Member
- Chi Epsilon, Civil Engineering Department Level Honor Society

- Tau Beta Pi, College of Engineering Level Honor Society
- Phi Kappa Phi, University Level Honor Society

LSU Chapter President, August 2020 - Present Dissertation Fellowship Committee, Member, 2017

#### **SERVICE**

### **University**

■ LSU Graduate Council

Member, 2015-2025

- LSU International Travel Oversight Committee Member, 2011-2018
- LSU Distinguished Dissertation Committee, Member, 2006, 2007, 2009; Chair, 2010
- LSU Faculty Senate Executive Nominating Committee Chair: 2023
- LSU Faculty Senate, Budget and Planning Advisory Committee, 2013-2015 Chair: 2013, 2014
- LSU Faculty Senate, Elected Member representing the College of Engineering, 2010-2012, 2014-2017, 2021-2023
- LSU Faculty Senate, Executive Committee, Senate Parliamentarian 2011 2017
- LSU Faculty Senate, International Education Committee, Member, 2004-2008
- LSU Faculty Senate, Committee on Committees, member, 2003-2012 Chair: 2005 - 2012
- LSU Faculty Senate, Chancellor Alumni Scholarship Committee, Member, 2001 2004.
- LSU Faculty Senate, Student Aid and Scholarships Executive Director Search Committee, member, April 2003
- LSU Faculty Senate, Student Aid and Scholarships Director Search Committee, member, April 2002.
- LSU Faculty Senate, Student Aid and Scholarships Committee, Member, September 2000 - May 2001. Chair, September 2001 - May 2003.

# College of Engineering

- College Level Professorships Selection Committee, member 2011, 2012, 2013
- College Policy Committee, Member, 8/06 5/08, 8/09 5/11
- Promotion & Tenure Committee, Member, 2006
- Selection of Faculty, Staff and Student Awards Committee, Member, 2004
- Fundamental of Engineering Examination,

Course Review Coordinator, May 2003 - Present

■ LSU College of Engineering Tower of Excellence Committee, Member, September 1997 - September 1998. This Committee was established by Dean Bourgoyne to seek and identify some important "Tower of Excellence" among the graduate programs that are most important to the future of the State.

# Department of Civil and Environmental Engineering (CEE)

- Chair, Geodesy and Surveying Faculty search committee, 2020-2021
- Chair, Awards Committee, 2021 Present
- Chair, Transportation Engineering Faculty search committee, 2018
- Member, CSRS Distinguished Professorship in Coastal Engineering Selection Committee, October 2011
- Chair, Career Professorship Selection Committee, October 2011
- Coordinator, Transportation Engineering Faculty Group, March 2003 Present
- Member, Facility and Space Committee, August 2010- Present
- Co-Chair, CEE Strategic Planning Committee, 2010
- Member, Civil Engineering Graduate Program Committee, August 2003-July 2010
- Member, Faculty Awards Committee, July 2007- December 2008
- Chair, Promotion & Tenure Committee, July 2006-June 2008
- Chair, Pavement Engineering Faculty Search Committee, 2007
- Member, Structural Engineering Faculty Search Committee, 2007
- Member, CEE Hall of Distinction Election Board, 2006-2009
- Chair, JFAP Faculty Search Committee, September 2005-April 2006.
- Coordinator, Community Funds for the Arts, Spring 2003.
- Coordinator, United Way Campaign, 1998,1999, 2001-2007, 2009
- Member, Research Specialist I/II Search Committee, October 2000.
- Member, Undergraduate Laboratory Facilities Committee, August 1999.
- Supervised a project for Mr. Arabinda Pani, a Student at Baton Rouge high School. The title of the project is Integration of Rubber into Asphalt.
- Supervised a project for Mr. Jonathan Fasullo, a sixth grade student at St. Peter School, Covington, Louisiana, October 1995. The title of his project is "Road Deterioration." This project has won first place in regional competition, the highest that can be awarded.
- Secretary, Transportation Engineering Faculty Group, 1992-1995.

#### Louisiana Transportation Research Center

- Research Problem Statement Identification Committee, Member, Materials, February 2011, 2013, 2015, 2017, 2019, 2021, 2023, 2025
- Research Problem Statement Identification Committee, Member, Construction and System Preservation, February 2009
- Asphalt Research Engineer Search Committee, Member, 2007.
- Research Problem Statement Identification Committee, Member, Construction and System Preservation, February 2007
- Research Problem Statement Identification Committee, Member, Highway Materials, January 2007
- Computer Analyst Search Committee, Member, 2006.

- Research Problem Statement Identification Committee, Member, Highway Materials, Fall 2003
- Computer Analyst Search Committee, Member, 2002.
- LADOTD Performance Measurement Initiatives Committee, Member, October 2000 March 2001.
  - Develop performance measures/indicators for Research (in house and contracts), Technology Transfer, and Implementation.
- Web Site Task Group, Member, November 2000-March 2001.
- Long Range Planning for Construction and Materials Training Development Committee, Member, April 2000.
- Task Force for Employee Recognition Program, Member, June 1999 November 1999.

### ORGANIZATIONAL PARTICIPATION OF PROFESSIONAL MEETINGS

- Member, International Scientific Committee, The 8th International Conference on Transport Infrastructure and Materials(TIM2025), July 25-29, 2025, Guiyang, China.
- Member, Scientific Committee, 8<sup>th</sup> International Conference Bituminous Mixtures and Pavements, June 12-14, 2024, Thessaloniki, Greece.
- Member, Scientific Committee, 13th International Conference on Road and Airfield Pavement Technology (ICPT 2023), July 6-8, 2023, Beijing, China.
- Organized and Chaired TRB Webinar on Withstanding Climate Change -- Resilient and Sustainable Flexible Pavement, October 11, 2022 .
- Member, Scientific Committee, 2022 TranSET Conference, August 31-September 2, 2022, San Antonio, Texas.
- Technical session Chair on Advances in Asphalt Pavement Design, Construction, and Assessment, ASCE CI & CRC Joint Conference, March 9-12, 2022, Arlington, VA.
- Member, Transportation Research Board Committee on Production and Use of Asphalt (AKM10) task force to develop a circular on Glossary of Asphalt Mixture Balanced Mix Design Terms, January 2022.
- Organized and Chaired technical session on Resilience of Asphalt Pavement Structures, 101<sup>st</sup> Transportation Research Board Annual Meeting, January 9-13, 2022, Washington, D.C.
- Member, Technical Committee, 2021 Rubberized Asphalt & Asphalt Rubber Conference, September 28-30, 2021, Malaga, Spain.
- Member, Technical Committee, 2021 TranSET Conference, June 3-4, 2021, Jonesboro, Arkansas.
- Organized and Chaired TRB Webinar on Evaluating Tack Coat Materials' Durability in Asphalt Pavements, March 31, 2021
- Member, International Advisory Committee, Sustainable Pavement Technologies: Focus on Conservation of Resources and Emphasis on Recyclability, October 9-11, 2020, Tirupati, India.
- Member, Advisory Committee and Scientific Committee, Fifth International Conference on Transportation Infrastructure and Materials, July 2-3, 2020, Changsha, China.
- Member, International Advisory Committee and Scientific Committee, Fourth

- International Conference on Transportation Infrastructure and Materials, June 28-30, 2019, Jinan, China.
- Member, Scientific Committee, 7<sup>th</sup> International Conference Bituminous Mixtures and Pavements, June 12-14, 2019, Thessaloniki, Greece
- Member, Special Interest Groups 11 on Highway Design and Materials, 15<sup>th</sup> World Conference on Transport Research, May 26-31, 2019, Bombay, Mumbai, India.
- Technical Session Chair, International Conference on Civil and Environmental Technologies, April 23-24, 2019, University of Kufa, Kufa, Iraq.
- Member, Organizing Committee, LTRC Seminar Series: Durable Asphalt Pavements, March 12, 2019, Baton Rouge, Louisiana.
- Session Chair, Third International Conference on Transportation Infrastructure and Materials: Smart and Sustainable Transportation Infrastructure, June 1-4, 2018, Tianjin, China.
- Member, International Advisory Committee and Scientific Committee, Third International Conference on Transportation Infrastructure and Materials: Smart and Sustainable Transportation Infrastructure, June 1-4, 2018, Hebei University of Technology, Tianjin, China.
- Member, Advisory Committee, 10<sup>th</sup> International Conference on Road and Airfield Pavement Technology, August 8-10, 2017, Hong Kong.
- Session Chair, Laboratory to Field, 10<sup>th</sup> International Conference on Road and Airfield Pavement Technology, August 8-10, 2017, Hong Kong.
- Member, Organizing Committee, International Conference on Maintenance and Rehabilitation of Constructed Infrastructure Facilities, July 19-21, Seoul, Korea.
- Sessions Chair, Sustainable Pavement Engineering I and II, GeoMEast 2017 international conference, July 15-19, 2017, Sharm El-Sheikh, Egypt.
- Member, Advisory Committee, GeoMEast 2017 international conference, July 15-19, 2017, Sharm El-Sheikh, Egypt.
- Member, International Advisory Committee and Scientific Committee, 2017 International Conference on Transportation Infrastructure and Materials, June 9-12, 2017, Qingdao University of Technology, Qingdao, China
- Member, Scientific Committee, the Sustainable Built Environment Conference SBE16 Cairo, November 29-December 1, 2016, Cairo, Egypt.
- Chair Technical Session, "Asphalt Concrete & Recycling," 2016 International Conference on Transportation Infrastructure and Materials, July 16-18, 2016, Chang'an University, Xi'an, China
- Member, Executive Committee, 2016 International Conference on Transportation Infrastructure and Materials, July 16-18, 2016, Chang'an University, Xi'an, China
- Member, International Scientific Committee, 8<sup>th</sup> RILEM conference on Mechanism of Cracking and Debonding in Pavements, June 7 9, 2016, Nantes, France.
- Chair Technical Session, Sustainability in Pavement Engineering, 9<sup>th</sup> International Conference on Road and Airfield Pavement Technology, August 9-13, 2015, Dalian, China.
- Member, Academic Committee, 9<sup>th</sup> International Conference on Road and Airfield Pavement Technology, August 9-13, 2015, Dalian, China.

- Member, International Advisory Committee, International Symposium on Systematic Approaches to Environmental Sustainability in Transportation, August 2-5, 2015, Fairbanks, Alaska.
- Member, Scientific Committee, 6<sup>th</sup> International Conference Bituminous Mixtures and Pavements, June 10-12, 2015, Thessaloniki, Greece.
- Member, Scientific Committee, the 4<sup>th</sup> International Transportation PhD Student Conference, May 31 June 2, 2015, Harbin, China.
- Scientific Board Member, 2015 ASCE Transportation and Development Institute Airfield and Highway Pavement Conference, June 7-10, 2015, Miami, Florida.
- Organizing Committee, Member, Tack Coat Best Practices Workshop, May 20, 2015, Baton Rouge, Louisiana
- Organizing Committee, Member, Semi Circular Bend (SCB) Test Training Workshop. April 16, 2015, Baton Rouge, Louisiana.
- Member, International Technical Committee, MESAT 2015 Conference, April 6-8, 2015, Dubai, UAE.
- Member, Scientific Committee, 2014 ASCE 2<sup>nd</sup> Transportation Airfield and Highway Pavement Conference, June 8-11, 2014, Los Angeles, California.
- Member, International Advisory Committee, 2014 ASCE GeoShanghai 2014, May 28-30, 2014, Shanghai, China.
- Member, Third International Conference on Transportation Infrastructure (ICTI), April 22-24, 2014, Pisa, Italy.
- Chaired technical session, "Pavement Materials," 8<sup>th</sup> International Conference on Road and Airfield Pavement Technology, July 14-18, 2013, Taipei, Taiwan.
- Member, Scientific Committee, 2013 Airfield and Highway Pavement Conference, June 9-12, 2013, Los Angeles, California.
- Chaired technical session, "Asphalt Concrete Characterization," 2013 Airfield and Highway Pavement Conference, June 11, 2013, Los Angeles, California.
- Organized and Chaired a TRB Webinar on Promising Practices on Prevention of Moisture-Induced Damage in Asphaltic Pavements, January 31, 2013.
- Chaired Poster Session, "Measurement of Interlayer Bond Strength and Moisture Damage, and Performance of Specialized Asphalt Mixtures," 92<sup>nd</sup> Annual Meeting of the Transportation Research Board, January 13, 2013, Washington, D.C.
- Member, International Scientific Committee, 2012 Asphalt Rubber Conference, October 23-26, 2012, Munich, Germany
- Organized and Chaired Seminar on Sustainable Materials for Pavement Infrastructure: Use of Waste Tires in Asphalt Mixtures, September 5, 2012, Baton Rouge, Louisiana.
- Organized and Chaired a TRB Webinar on Findings of NCHRP Project 9-40 "The Optimization of Tack Coat for HMA Placement," January 12, 2012.
- Chair technical session, "Asphalt Mixture Surface Characteristics and Interlayer Bond Strength Measurement," 91<sup>st</sup> Annual Meeting of the Transportation Research Board, January 2012, Washington, D.C.
- Chaired workshop session, "Measuring, Modeling, and Validation of Smoothness as Predicted by the Mechanistic-Empirical Pavement Design Guide," 91<sup>st</sup> Annual Meeting of the Transportation Research Board, January 2012, Washington, D.C.

- Chaired technical session, 1<sup>st</sup> Conference of Transportation Research Group of India, 'Properties of Asphalt Mixtures and Binders for Improved Performance,' December 7-10, 2011, Bangalore, India.
- Chaired technical session, 5<sup>th</sup> International Conference 'Bituminous Mixtures and Pavements,' June 2-3, 2011, Thessaloniki, Greece.
- Member, International Scientific Committee, 5<sup>th</sup> International Conference 'Bituminous Mixtures and Pavements,' June 2-3, 2011, Thessaloniki, Greece.
- Member, Scientific Committee of the Pavements and Materials Track, First ASCE Transportation and Development Institute Congress, March 13-16, 2011, Chicago, IL.
- Chaired technical session, "Characterization of Moisture Susceptibility in Hot and Warm Asphalt Mixtures," 90<sup>th</sup> Annual Meeting of the Transportation Research Board, January 2011, Washington, D.C.
- Organized and Chaired, Transportation Research Board Webinar on Characterization and Prediction of Moisture-Induced Damage in Hot and Warm Asphalt Mixtures, November 29, 2010.
- Chaired technical session, "Sustainable and Green Construction/Knowledge Management," 2<sup>nd</sup> International Conference on Construction in Developing Countries, August 3-5, 2010, Cairo, Egypt.
- Chair technical session, "Asphalt and Energy," US-China Workshop on Energy and Environment in the Development of Sustainable Asphalt Pavements, June 7-9, 2010, Chang'an University, Xi'an, China.
- Chaired technical session, "Pavement Performance and Analysis," GeoShanghai 2010 International Conference, June 3-5, 2010, Shanghai, China.
- Member, International Scientific Committee, GeoShanghai 2010 International Conference, June 3-5, 2010, Shanghai, China.
- Chaired technical session, "Moisture Susceptibility Measurements in Hot Mix Asphalt Mixtures," 89<sup>th</sup> Annual Meeting of the Transportation Research Board, January 2010, Washington, D.C.
- Chaired Technical Session, "Pavement Performance Monitoring and Predication," The Sixth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control, July 8-10, 2009, Torino, Italy.
- Member, International Scientific Committee, The Sixth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control, July 8-10, 2009, Torino, Italy.
- Member, Scientific Committee, 7th International RILEM Symposium on Advanced Testing and Characterization of Bituminous Materials, May 27-29, 2009, Rhodes, Greece.
- Chaired technical session, "Transportation Sustainability: Engineering & Environmental Consideration," Louisiana Transportation Conference, February 2009, Baton Rouge, Louisiana.
- Chaired technical session, "Moisture Susceptibility Measurements in Hot Mix Asphalt Mixtures," 88<sup>th</sup> Annual Meeting of the Transportation Research Board, January 2009, Washington, D.C.
- Chaired technical session, "Flexible Pavement and HMA Design Issues," the 4<sup>th</sup> International Gulf Conference on Roads, November 2008, Doha, Oatar.

- Chaired technical session, "Assessment of Moisture Damage in Hot-Mix Asphalt Mixtures," 87<sup>th</sup> Annual Meeting of the Transportation Research Board, January 2008, Washington, D.C.
- Member, International Scientific Committee, The Fifth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control, August 8-10, 2007, Park City, Utah, USA.
- Member, Scientific Committee, 4<sup>th</sup> International Conference Bituminous Mixtures and Pavements, April 19-20, 2007, Thessalonika, Greece.
- Chaired technical session, "Assessing Moisture Damage in Hot-Mix Asphalt," 86<sup>th</sup> Annual Meeting of the Transportation Research Board, January 2007, Washington, D.C.
- Co-Organizer, Technical Program, Louisiana Asphalt Technology Conference, February 23-24, 2005, Shreveport, Louisiana.
- Chair, Technical Session, "Asphalt Specifications and Mixture Design Issues," Louisiana Asphalt Technology Conference, February 23-24, 2005, Shreveport, Louisiana
- Chair, Technical Session VIII, 2005 International Symposium on Pavement Recycling, March 14-16, 2005, São Paulo, Brazil.
- Member, Scientific Committee, 2005 International Symposium on Pavement Recycling, March 14-16, 2005, São Paulo, Brazil.
- Chairman, ASTM Symposium on Performance Tests for Hot Mix Asphalt (HMA), including Fundamental and Empirical Procedures, December 9, 2003, Tampa, Florida.
- President, technical session on "Advanced Trends in Pavement Rehabilitation Design and Preservation," 3<sup>rd</sup> International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control, July 7-10, 2003, Guimaraes, Portugal.
- Organized and co-chair, "Pavement Quality Seminar," December 17, 2002, New Orleans, Louisiana.
- Chair, technical session on "Pavement Design, Construction, and Maintenance," 3<sup>rd</sup> International Conference on Bituminous Mixtures and Pavements, November 21-22, 2002, Thessalonika, Greece.
- Organized and Chair of Superpave for the Generalist Seminar, March 30, 2002, Alexandria, Louisiana.
- Member, International Advisory Committee and International Technical Committee, International Conference on Advances in Civil Engineering - 2002, January 3-5, 2002, Department of Civil Engineering, Indian Institute of Technology, Kharagpur, India.
- Organized and Chair of Technical Session, "Characterization of Asphalt Binders and Mixtures," ASCE 2001 Annual Convention and Exposition, October 10-13, 2001, Houston, Texas.
- Organized and Chair of Superpave for the Generalist Seminar, April 2, 2001, Baton Rouge, Louisiana.
- Organized and Chair of Superpave for the Generalist Seminar, April 4, 2001, Alexandria, Louisiana.
- Chair of Technical Session, "AR-HMA Mixture Properties," Asphalt Rubber 2000 Conference, November 14-17, 2000, Vilmoura, Portugal.
- Organized and Chair of Technical Session, "Asphalt Characterization," ASCE 5<sup>th</sup> Materials Congress (MatCong5), May 10-12, 1999, Cincinnati, Ohio.

- Organized and Chair of Technical Session, "Performance of Asphalt Pavements," ASCE 1997 Annual Convention and Exposition, October 5-8, 1997, Minneapolis, Minnesota.
- Conference Chair, 1997 ASCE Louisiana Section Annual Spring Meeting and Conference, April 3-4, 1997, Baton Rouge, LA.
- Organized and Chair of technical session, "Verification of Asphalt Mixture Characterization and Performance Using Accelerated Loading Facility(ALF) and Laboratory Rut Testers," 76<sup>th</sup> Annual Meeting of the Transportation Research Board, January 1997, Washington, D.C.
- Organized and Chair of Technical Session, "Fundamental Characterization of High Performance Hot Mix Asphalt," ASCE Transportation Engineering Conference, November 11-13, 1996, Washington, D.C.
- Organized Technical Session, "Testing of Asphalt Mixtures and its Relation to Field Performance," ASCE Transportation Engineering Conference, November 11-13, 1996, Washington, D.C.
- Organized and Chaired the ASCE Baton Rouge Chapter Seminar on Fundamental Characteristics of Polymer Modified HMAC, May 1995, Baton Rouge, Louisiana.
- Organized National Instrument LabWindows/LabViews software User Group meeting, LSU, February 23, 1995, Baton Rouge, Louisiana.
- Chair technical session,"Innovations in Asphalt-Rubber Applications," ASCE 1994 Materials Engineering Conference, November 1994, San Diego, California.
- Organized and Chaired the ASCE Baton Rouge Chapter Conference on Polymer Modified Asphalt: Specifications, Design, and Construction, July 1994, Baton Rouge, Louisiana.
- Chair technical session, "Flexible Pavement Construction: Materials and Rehabilitations,"
   71<sup>st</sup> Annual Meeting of the Transportation Research Board, Jan. 1992, Washington, D.C.

### SPONSORED RESEARCH

Summary of Dr. Mohammad's Awarded Sponsored Research

Role	Funds	No. of Projects	
PI	\$11,492,180	48	
Co-PI	\$21,925,028	25	
Total	\$33,417,208	73	

#### Awarded

Project Title: Effect of SARA Asphalt Binder Fractionations on Laboratory

Performance of Asphalt Mixtures

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration / LDOTD - \$195,029.

Duration: 14 months, 6/2025 - 8/2026

Project Title: Application of the Use of Low Carbon Transportation Materials in

Louisiana's Highway Construction Practices

Principal Investigator: Louay Mohammad

Funding Source/Amount: USDOT Federal Highway Administration / FY2022 LCTM 60506–

\$31,933,577.

Duration: 6 years, 10/2024 - 9/2031

Note: Project was awarded 11/14/24 then deallocated on 7/29/25

Not included in the Funds and No. of Projects table

Project Title: Implementation of Louisiana BMD framework for QC/QA

Specifications

Principal Investigator: Louay Mohammad

Funding Source/Amount: USDOT Federal Highway Administration TPF 5(478) – \$324,886

Duration: 28 months, 12/24 - 5/27

Project Title: Asphalt Research Support Funds

Principal Investigator: Louay Mohammad

Funding Source/Amount: Paragon Technical Services, \$160,000 (\$40/year).

Duration: 4 years, 11/24 - 11/27

Project Title: Sustainability through Development of Life Cycle Information

Models for Pavements in Louisiana

Principal Investigator: Louay Mohammad

Funding Source/Amount: USDOT Federal Highway Administration – \$477,000

Duration: 48 months, 10/2023 - 9/2027

Project Title: Development of an Innovative Recycling Agent for the

Sustainability and Durability of Asphalt Mixtures

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration /LADOTD – \$249,609

Duration: 40 months, 2/1/2021 - 6/30/2024

Project Title: Development of a Cyclic Semi-Circular Bend Test to Evaluate

Asphalt Mixture Crack Propagation Properties at Intermediate

Temperature

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration /LADOTD – \$299,944

Duration: 41 months, 1/1/2021 - 6/30/2024

Project Title: Assessment of Long-Term Performance of Louisiana Asphalt

**Pavements** 

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration /LADOTD - \$326,936

Duration: 42months, 11/1/2020 - 6/30/2024

Project Title: Development of a Standard Practice for the Design of Durable

Open-Graded Friction Course (OGFC) Mixtures with Epoxy

Asphalt

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration /LADOTD – \$279,463

Duration: 40 months, 9/1/2020 - 12/30/2023

Project Title: Implementation of Semi-Circular Bend (SCB) Test for QC/QA of

Asphalt Mixtures

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration /LADOTD – \$474,347

Duration: 55 months, 5/1/2019 - 12/30/2023

Project Title: Development of a Moisture Sensitivity Test for Asphalt Mixtures

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration /LADOTD – \$478,165

Duration: 55 months, 5/1/2019 - 6/30/2024

Project Title: Effect of Increased Asphalt Pavement Density on its Durability

Principal Investigator: Louay Mohammad

Funding Source/Amount: Federal Highway Administration – \$50,000

Duration: 1 year, 10/1/2018 - 9/30/2019

Project Title: Evaluation of the Effect of Homogeneity of the Binder on Performance of

the Recycled Mixture

Principal Investigator: Hesham Ali (Florida International University)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: Florida Department of Transportation – \$159,273

Duration: 22 months, 6/1/2017 - 3/30/2019

Project Title: Investigation of Tack Coat Materials on Tracking Performance

Principal Investigator: Hussain Bahia (UW-Madison)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: Wisconsin Department to Transportation – \$100,000

Duration: 22 months, 6/8/2017 - 3/7/2019

Project Title: A Prospectus for the Establishment of a Regional University

Transportation Center: Region 6

Principal Investigator: Marwa Hassan

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: U.S. Department of Transportation/Research and Innovative

Technology Administration – \$16,850,000

Duration: 6 years, 11/16 - 10/2023

Project Title: Asphalt Research Support Funds

Principal Investigator: Louay Mohammad

Funding Source/Amount: Paragon Technical Services, \$160,000 (\$40/year).

Duration: 4 years, 10/16 - 10/20

Project Title: Design and Analysis Procedures for Asphalt Mixtures Containing

High RAP Contents and/or RAS

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA Transportation Pooled Fund Program -- \$506,812

Duration: 60 Months, 11/1/2014 - 10/31/2019

Project Title: Effects of Temperature Segregation on the Quality of Asphalt

Mixtures

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD — \$352,662 Duration: 30 Months, 8/5/2014 - 2/4/2017

Project Title: Hamburg Wheel-Track Test Equipment Requirements and

Improvements to AASHTO T 324

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: National Cooperative Highway Research Program (NCHRP)

\$100,000

Duration: 12 Months, 7/1/2014 - 6/30/2015

Project Title: Sustainable Materials for Pavement Infrastructure - Evaluation of

Asphalt Mixtures Containing Recycled Asphalt Shingles (RAS)

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD — \$219,476
Duration: 24 Months, 4/8/2014 - 4/07/2016

Project Title: Collaborative Research: Virtual Laboratory for Engineering and

Applied Sciences Education (EASE)

Principal Investigator: Marwa Hassan (Subcontract with Western Michigan University)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: NSF – \$68,621

Duration: 24 Months, 8/01/2011 - 8/01/2013

Project Title: Field Implementation of the Louisiana Interface Shear Strength

Test

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: National Cooperative Highway Research Program (NCHRP) –

\$186,407

Duration: 24 Months, 6/01/2013 - 12/31/2016

Project Title: Performance of WMA Technologies: Stage II--Long-Term Field

Performance

Principal Investigator: Shihui Shen (Washington State University)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: National Cooperative Highway Research Program (NCHRP) –

\$1,010,925

Duration: 63 Months, 4/29/2011 - 7/28/2016

Project Title: Development of Performance Based Specifications for Louisiana

Asphalt Mixtures

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD — \$299,433

Duration: 36 Months, 4/1/2011 - 8/31/2014

Project Title: Modulus-Based Construction Specification for Compaction of

Earthwork and Unbound Aggregate

Principal Investigator: Soheil Nazarian (University of Texas at El Paso)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: National Cooperative Highway Research Program (NCHRP) –

\$530,000

Duration: 48 Months, 10/7/2010 - 9/30/2014

Project Title: A New Approach to Recycle Asphalt Shingles in Hot Mix Asphalt

Principal Investigator: Mostafa Elseifi

Co-Principal Investigator: Louay N. Mohammad Funding Source/Amount: NSF – \$163,952

Duration: 24 Months, 10/1/2010 - 12/30/2013

Project Title: Establishing the L. H. Bossier Asphalt Laboratory in the Civil and

Environmental Engineering Department

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: Diamond B. Construction Co., L.L.C. \$372,000

Duration: 24 Months, 9/1/2009 - 8/31/2011

Project Title: Field versus Laboratory Volumetrics and Mechanical Properties

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: National Cooperative Highway Research Program (NCHRP)

\$600,000

Duration: 8/1/2009 -12/30/2015

Project Title: Laboratory and Field Evaluation of the Performance of HMA

mixtures containing Thiopave additives

Principal Investigator: Louay N. Mohammad Funding Source/Amount: Shell USA \$125,000

Duration: 12 Months, 6/1/2009 - 5/30/2010

Project Title: Evaluation of Warm Mix Asphalt Technology in Flexible Pavements

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$480,980 Duration: 57 Months, 3/2009 - 12/2013

Project Title: Characterization of HMA Mixtures Containing High Recycled

Asphalt Pavement Content With Crumb Rubber Additives

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$98,023
Duration: 10 Months, 9/1/2008 -6/30/2009

Project Title: Characterization of Louisiana Asphalt Mixtures for the Mechanistic

Empirical Pavement Design Guide

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$398,672
Duration: 42 Months, 1/1/2008 -6/30/2011

Project Title: Development Of A Design Methodology For Asphalt Treated Base

**Mixtures** 

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$264,268
Duration: 24 Months, 1/1/2007 - 12/30/08

Project Title: Evaluation of Superpave Mixtures Containing Hydrated Lime

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$331,288
Duration: 18 Months, 4/1/2006 - 9/30/2007

Project Title: Optimization of Tack Coat for HMA Placement

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: National Cooperative Highway Research Program (NCHRP)

\$428,000

Duration: 7/1/2005 - 12/30/2011

Project Title: Development and Implementation of Digital Specimen and Digital

Tester Technique for Performance Characterization of

Infrastructure Materials

Principal Investigator: Mehmet T. Tumay

Co-Principal Investigator: LinBing and Louay N. Mohammad

Funding Source/Amount: National Science Foundation (NSF) - \$599,783

Duration: 36 Months, 10/15/2004 - 6/15/2007

Project Title: Optimization of Asphalt Mixture Design for the Louisiana ALF Test

Sections

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$188,285

Duration: 36 Months, 1/1/2004 - 12/30/06

Project Title: The Use of DMA to Characterize the Aging of Asphalt Binders

Principal Investigator: Ioan I. Negulescu Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$207,924 Duration: 18 Months, 1/1/2004 - 06/30/05

Project Title: Evaluation of HMAC Longitudinal Joint Construction in Louisiana

Principal Investigator: Samuel B. Cooper Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$164,735 Duration: 30 Months, 1/1/2004 - 6/30/06

Project Title: Comparison of the Insitu Strength and Laboratory Mechanistic

Properties of Asphalt Concrete Mixtures

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$367,541 Duration: 33 Months, 1/1/2003 - 9/30/05

Project Title: Comparative Evaluation of Subgrade Resilient Modulus from Non-

Destructive, In-situ, and Laboratory Methods

Principal Investigator: Kevin Gaspard

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$443,732 Duration: 34 Months, 7/1/2003 - 03/31/06

Project Title: A New Testing Methodology For The Determination Of The

Fracture And Fatigue Resistance Of Asphaltic Pavements

Principal Investigator: Mary Ann Mull

Co-Principal Investigator: Louay N. Mohammad and Ayman Othman

Funding Source/Amount: NSF - \$60,000

Principal Investigator:

Duration: 12 Months, 10/1/2003 - 6/30/2007

Project Title: Development of Models to Estimate the Subgrade and Base

Resilient Modulus from In-Situ Devices Test Results for

Construction Control
Louay N. Mohammad

Co-Principal Investigator: Murad AbuFarsakh and Khalid Alshibli

Funding Source/Amount: FHWA/LADOTD - \$110,630 Duration: 31 Months, 6/1/2003 - 12/30/2005

Project Title: Accelerated Loading Evaluation of a Sub-Base Layer on Pavement

Performance at the Louisiana Accelerated Loading Facility

Principal Investigator: Masood Rasoulian Co-Principal Investigator: Louay N. Mohammad Funding Source/Amount: FHWA/LADOTD - \$334,425 Duration: 24 Months, 3/01/2003- 2/28/2005

Project Title: Acquisition of Hamburg Loaded Wheel Tester for Permanent

Deformation and Moisture Damage Evaluation of Flexible

Pavement

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$97,465

Duration: 12 Months, 7/01/2001- 6/30/2002

Project Title: Tomography Imaging and Computational Technology for the

Characterization of Asphalt Concrete

Principal Investigator: Linbing Wang

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$177,597
Duration: 36 Months, 7/01/2001-6/30/2004

Project Title: Acquisition of a Low-resolution X-ray Tomography Image Analyzer

for Civil Engineering Materials Characterization

Principle Investigator: John Metcalf

Co-Principal Investigator: Linbing Wang and Louay N. Mohammad

Funding Source/Amount: LEQSF - \$199,830

Duration: 12 Months, 7/01/2001-6/30/2003

Project Title: Influence of Asphalt Tack Coat Materials on the Interface Bond

Strength

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$90,675

Duration: 18 Months, 7/01/2001 - 12/30/2002

Project Title: Evaluation of Stone/RAP Interlayers Under Accelerated Loading

Principle Investigator: Masood Rasoulian Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$149,541

Duration: 18 Months, 12/01/2000 - 6/30/2002

Project Title: Investigation of the Use of Recycled Polymer Modified Asphalt in

Asphaltic Concrete Pavements

Principal Investigator: Louay N. Mohammad

Co-Principal Investigator: William Daly (Chemistry) and Iaon Negulescu (Human Ecology)

Funding Source/Amount: LEQSF - \$150,000

FHWA/LADOTD - \$71,430 Koch Materials, Inc. - \$30,000

Duration: 48 Months, 6/01/1998 - 6/30/2002

Project Title: Performance Evaluation of Louisiana's Superpave Implementation

Projects Utilizing the Superpave Shear Tester

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$168,707 Duration: 54 Months, 12/01/1997- 6/30/2002

Project Title: In-place Cement Stabilized Base Reconstruction Techniques

Principal Investigator: Kevin Gaspard

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$266,428
Duration: 72 Months, 4/01/1997 - 4/30/2003

Project Title: Investigation of the Applicability of Intrusion Technology to

Estimate Resilient Modulus of Subgrade Soil

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$140,497 Duration: 46 Months, 8/01/1997- 6/30/2001

Project Title: Comparative Performance of Conventional and Rubberized Hot

Mix Under Accelerated Loading

Principle Investigator: Freddy Roberts (La Tech University)

Co-Principal Investigator: Louay N. Mohammad, John Metcalf, and Masood Rasoulian

Funding Source/Amount: FHWA - \$145,321

Duration: 44 Months, 3/01/1998 - 12/30/2000

Project Title: Acquisition of Dynamic Axial Testing System

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$91,603

Duration: 12 Months, 6/01/1997- 7/30/1998

Project Title: Evaluation of a Loaded Wheel Tester for Asphaltic Concrete

**Mixtures** 

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$197,585

Pine Bluff Sand & Gravel, Co. - \$17,000

Duration: 44 Months, 7/01/1997- 3/30/2000

Project Title: Acquisition of the Superpave Shear Tester Test System

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$305,361 Duration: 12 Months, 7/01/1995 - 6/30/1996

Project Title: Laboratory Evaluation of Stone Mastic Asphalt Pavement Mixtures

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$100,696

Koch Materials, Inc. - In-Kind, Testing of Samples Heritage Research Group - In-Kind, Testing of Samples Duration: 30 Months, 7/01/1995- 1/30/1997

Project Title: Evaluation of the Fundamental Engineering Properties of Large

Stone Asphalt Mixes in Louisiana

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$257,917

Duration: Four Years, 6/01/1994 - 6/30/1998

Project Title: Development of a Correlation Between Physical and Fundamental

Properties of Louisiana Soils

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$184,289

Duration: Three Years, 9/01/1993 - 9/30/1996

Project Title: Evaluation of the Fundamental Engineering Properties of

Bituminous Mixtures Containing Hydrated Lime

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$79,969

Koch Materials, Inc. - In-Kind, Testing of Samples

Duration: 18 Months, 10/01/1994 - 5/30/1996

Project Title: Investigation of Temperature Profile in NEMA Traffic Control

Cabinets

Principal Investigator: Darcy Bullock

Co-Principal Investigator: Louay N. Mohammad FHWA/LADOTD- \$3,000

Duration: 5 Months, 7/01/1994-12/30/1994

Project Title: Donation of NCAT Ignition Oven

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: Thermolyne Company, Dubuque, Iowa - \$10,500

Duration: 10/01/1997

Project Title: Donation of a Dynamic Creep Tester

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: Exxon Research and Engineering Company, Linden, New Jersey -

\$44,000

Duration: 7/01/1993

Project Title: Validation of the Performance of the Louisiana ALF Data

Acquisition System

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$43,989

Duration: 12 Months, 8/01/1992 - 7/30/1993

Project Title: Equipment up-grade for the EMCRF Facility

Principal Investigator: Louay N. Mohammad Funding Source/Amount: FHWA/LADOTD - \$70,000

Duration: 12 Months, 7/01/1992 - 6/30/1993

Project Title: A Dynamic Testing System for Pavement Materials

Characterization and Performance Evaluation

Page 25

Principal Investigator: Louay N. Mohammad

Co-Principal Investigator: Roger Seals, Paul Foxworthy and John Metcalf and Harold Paul

Funding Sources/Amount: LEQSF -\$185,890

Duration: 12 Months, 7/01/1992 - 6/30/1993

Project Title: Design and Development of a Data Acquisition System for the

Louisiana ALF

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$35,502 Duration: 4 Months, 3/01/1992 - 7/30/1992

Project Title: Investigation of the Use of Resilient Modulus for Louisiana Soils in

Design of Pavements

Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$175,657

Duration: Two Years, 8/01/1991 - 9/30/1993

Project Title: Evaluation of Indirect Tensile Test for Determining the Structural

Properties of Asphalt Mix

Principal Investigator: Harold Paul

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA -- Direct Contract in Respond to a FHWA RFP - \$40,000

Duration: Three Years, 1989 - 1992

Project Title: A Parametric Evaluation of Fundamental Engineering Properties

for Louisiana Hot Mix

Principal Investigator: Harold Paul

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: FHWA/LADOTD - \$230,236 Duration: Five years, 1988 - 1993

Project Title: Biomechanical Effects of Proximal Check Desmotomy: In Vivo

Equine Studies

Principal Investigator: Alecia Bertone (Veterinary Medicine) and Stuart Shoemaker

(Veterinary Mecdicine)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: AVMA Council on Research - \$7000

Duration: One Year, 1988 - 1989

Project Title: Biomechanical Effects of Proximal Check Desmotomy: In <u>Vitro</u>

Equine Study

Principal Investigator: Alecia Bertone (Veterinary Medicine) and Stuart Shoemaker

(Veterinary Medicine)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: Equine Veterinary Research Program and LSU School of

Veterinary Medicine Organized Research Funds - \$7,505

Duration: One Year, 1988 - 1989

Project Title: Biomechanical Effects of Transection of the Accessory Ligament of

the Deep Digital Flexor Tendon: In <u>Vitro</u> and in <u>Vitro</u> Equine Study

Principal Investigator: Alecia Bertone (Veterinary Medicine) and Stuart Shoemaker

(Veterinary Medicine)

Co-Principal Investigator: Louay N. Mohammad

Funding Source/Amount: American College of Veterinary Surgeons - \$5,200

Duration: One Year, 1988 - 1989

#### GRADUATE STUDENT COMMITTEES

#### A. MS Theses

<u>Committee Chair/Co-Chair\*</u> <u>Committee Member</u>

3 23

**B.** Ph.D. Dissertations

Committee Chair/Co-Chair\* Committee Member

3 26

### External Examiner (MS and Ph.D.)

- 1. E. Nixon, The National University of Singapore, December 2000
- 2. Zhu Li Ying, The National University of Singapore, May 2002
- 3. Haithem Soliman, University of Manitoba, Canada, June 2015
- 4. May Namutebi, Royal Institute of Technology, Stockholm, Sweden, October 2016
- 5. YU Huayang, The Hong Kong Polytechnic University, Hong Kong, August 2017
- 6. Dalia Bannoura (MS), The University of Jordan, Jordan, 2017-2018.

#### TEACHING EXPERIENCE

Ecuisiana State	ouisiana State University, Baton Rouge, Louisiana State University		1989-Present
COURSE NUMBER	COURSE TITLE	TIMES TAUGHT	PERIOD
CE 3410	Mechanics of Materials Laboratory	1	Spring 05
CE 3700	Engineering Materials Laboratory	46	Fall 00 - Fall 13, Fall 17-Fall 24, Spring 18- Spring 24
CE 3740	Independent Studies in Civil Engineering	5	Fall 00 - Summer 05

Louay N. Mohar	nmad Curriculum Vitae		Page 27
CE 4650 CE 4780/4781	Introduction to Asphalt Mixture Design	24	Fall 91 - Spring 25
CE 7650	Bituminous Materials and Mixtures	7	Spring 93 - Spring 24
CE 7655	Pavement Materials Characterization	11	Fall 99 - Fall 254
CE 7670	Pavement Design	2	Fall 92 - Fall 12
CE 7701	Pavement Evaluation and Rehabilitation	7	Fall 12 - Fall 24
CE 7750	Seminar	1	Fall 01

# TEACHING of SHORT COURSES

Superpave Mixture Design and Analysis, 3 ½ days

July 18-21, 2011, April 5-8, 2004, July 22-25, 2003, April 23-26, 2002, May 7-10, 2002, April 9-12, 2001January 29-February 1, 2001, January 22-25, 2001, November 17-20, 1998, March 24-27, 1998, February 25-27, 1998, October 20 - 23, 1997, September 29 - October 2, 1997, September 16-19, 1997

Superpave Training Workshop for Technicians, 1 ½ days

April 29-30, 2002, May 13-14, 2002, May 15-16, 2002, April 25-26, 2001, April 2-3, 2001, March 14-15, 2001, March 12-13, 2001, March 5-6, 2001, February 21-22, 2001, February 19-20, 2001, March 27 - 28, 2000, June 14-15, 1999, June 9-10, 1999

NHI Course No. 13152 "Superpave for the Generalist Engineer and Project Staff,"

March 30, 2002, April 4, 2001, April 2, 2001, April 13-14, 1998

# **PUBLICATIONS** Summary of Dr. Mohammad's publications

Category	Quantity
Refereed Journals	254
Refereed Proceedings Papers	70
Other Proceedings Papers	4
Technical Reports	68
Technical Magazines – Invited Articles	11

10

Books/Edited Books

### Published/Accepted for Publication in Referred Journals

- Elnaml, I., Shehata, M., Mohammad, L. N., Dylla, H., and S., Cooper, III, S., "Advancing Sustainable Pavements: Life Cycle Assessment and Global Warming Potential Benchmarking for Asphalt Mixtures in Louisiana." Sustainability, 2025, In-press
- Elnaml, I., Mohammad, L. N., Akentuna, M., Duvvuru, M., Parajuli, S., Cooper, III, S., and Cooper, Jr, S., "Effect of Amine-based and Chemical WMA Additives on Moisture Damage Resistance of Asphalt Mixtures at Different Conditioning Protocols." Journal of Construction and Building Materials, 2025, In-press
- Elnaml, I., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Development of Practical Prediction Models to Assess Long-Term Aged Cracking Resistance in Asphalt Mixtures Using the SCB Jc Parameter." Journal of Construction and Building Materials, Vol 491, 2025, pp. 142670: 1-9
- Abualia, A., Elnaml, I., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Assessing Mechanical Properties and Structural Contribution of Thin Asphalt Mixtures Containing Polymer and Epoxy Modified Asphalt Binders." Journal of Construction and Building Materials, Volume 494, 2025, pp. 142204: 1-11.
- Abualia, A., Mohammad, L. N., Hemida, A., Cooper, III, S., and Cooper, Jr, S., "Assessing Moisture Susceptibility of OGFC Mixes Containing Styrene-Butadiene-Styrene and Epoxy Modified Asphalt Binders under Varied Aging and Moisture Conditioning Levels." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, Vol 2679(8), 2025, pp. 446-459
- Akentuna, M., Pant, S., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Effects of Improved Density Techniques on the Field Performance of Asphalt Pavements." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, 2025, In press
- Abualia, A., Liu, J., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Effect of High Polymer, Crumb Rubber, and Epoxy Modified Asphalt Binders on Laboratory Performance of OGFC Mixtures" The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol 2670 (1), 2025, pp. 1206-1222.
- 8 Elnaml, I., Heather, D., Liu, J., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Incorporating Environmental Impact Analysis into Louisiana's Balanced Asphalt Mixture Design." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2679 (1), 2025, pp. 1078-1090.
- 9 Shirzad, S., Idris, I., Hassan, M., and Mohammad, L. N. "Self-Healing Capability and Mechanical Properties of Asphalt Mixtures Prepared with Light-Activated Polyurethane Prepolymer Modified Asphalt Binder." The National Academies of Science, Engineering,

- and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2679(1), 2025, pp. 710-728.
- Zhu, Y., Zhang, W., Mohammad, L. N., Ma, T., Chen, F., Fang, Z., and Liu, H., "Viscoelastic-plastic constitutive model for AC lower surface layer considering time-varying characteristics during intelligent compaction process" ASCE Journal of Materials in Civil Engineering, Vol (37(1), 2025, pp. 04024469: 1-12.
- Elnaml, I., Mohammad, L. N., Baumgardner, G. L., Cooper, III, S., and Cooper, Jr, S., "Sustainability of Asphalt Mixtures Containing 50% RAP and Recycling Agents." Recycling 9 (85), https://doi.org/10.3390/recycling9050085, 2024, pp. 1-22.
- Ma, Y., Mohammad, L. N., Liu, J., Asghar, M., Elnaml, I., Cooper, III, S., and Cooper, Jr, S., "Development of a Cyclic Semi-Circular Bending Test Protocol to Characterize Fatigue Cracking of Asphalt Mixture at Intermediate Temperature." Construction and Building Materials, Vol 433 137669, 2024, pp. 1-11.
- Abualia, A., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Improving Asphalt Binder Durability Using Sustainable Materials: A Rheological and Chemical Analysis of Polymer-, Rubber-, and Epoxy-Modified Asphalt Binders, Sustainability 16(13), 5379, 2024, pp.1-19
- Elnaml, I., Liu, J., Mohammad, L. N., Dylla, H., Cooper, III, S., and Cooper, Jr, S., "Recycling Waste Plastics in Asphalt Mixture: Engineering Performance and Environmental Assessment ." Journal of Cleaner Production, Vol. 453, 142180, 2024, pp. 1-13.
- Pant, S., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Field Performance Validation of the Louisiana Balanced Asphalt Mix Design Framework." Construction and Building Materials, Vol 428 136251, 2024, pp. 1-8.
- Pant, S., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Long-Term Performance of Flexible Pavements Containing Crumb Rubber Modified Asphalt in Louisiana." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2678(10), 2024, pp. 1610-1623.
- Hungria, R., Arce, G., Hassan, M., Mohammad, L. N., Mahdi, M., and Rupnow, T., "Interface bond strength of engineered cementitious composites (ECC) in pavement applications." International Journal of Pavement Research and Technology, Volume 17, 2024, pp. 952-966.
- Elnaml, I., Mohammad, L. N., Baumgardner, G. L., Liu, J., Cooper, III, S., and Cooper, Jr, S., "Influence of Petroleum-Based and Bio-Derived Recycling Agents on High-RAP Asphalt Mixtures Performance." Buildings, 14(3), 567, https://doi.org/10.3390/buildings14030567, 2024, pp. 1-16.
- 19 Elnaml, I., Liu, J., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Use of the Iron Chloride Type of Lewis Acid Catalyst in High Reclaimed Asphalt Pavement Content Asphalt Mixtures." The National Academies of Science, Engineering, and Medicine. Transportation

- Research Record, Journal of the Transportation Research Record, Vol. 2678 (2), 2024, pp. 430-440.
- Luan, Y., Zhang, W., Shen, S., Wu, S., Ma, T., Zhou, X., Mohammad, L. N., and Fu, Y. "Effect of Aged Material Properties on Transverse Crack Performance with Two-Round field Observations, Road Materials and Pavement Design, Vol. 25 (5), 2024, pp. 1037-1053.
- Ma, Y., Liu, J., Mohammad, L. N., Cooper, III, S., Cooper, Jr, S., and Duvvuru, M., "Use of Random Forest to Predict Intermediate Temperature SCB Jc Parameter of Long-Term Aged Asphalt Mixtures." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2678(3), 2024, pp. 177-189.
- Elnaml, I., Liu, J., Mohammad, L. N., Wasiuddin, N., Cooper, III, S., and Cooper, Jr, S., "Developing Sustainable Asphalt Mixtures Using High-Density Polyethylene Plastic Waste Material." Sustainability 15, No. 13: 9897, 2023, pp.1-15.
- Subedi, S., Hassan, M., Arce, G., Barbato, M., Noorvand, H., and Mohammad, L. N., "Properties of Engineered Cementitious Composites Using Combined Systems of Fly Ash and Post-Processed Bagasse Ash as Supplementary Cementitious Materials." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, 2023, pp. 1-18.
- Wang, H., Zhu, Y., Zhang, W., Shen, S., Wu, S., Mohammad, L. N., and She, X., "Effects of Field Aging on Material Properties and Rutting Performance of Asphalt Pavement." Materials, Volume 16, Issue 1, 2023, pp. 1-14.
- Arafat, S., Wasiuddin, N., Mohammad, L. N., Evaluation of Bio-based and Petroleum-Based Rejuvenator Based on Cracking Susceptibility of Hot Mix Asphalt with High RAP Content. Construction and Building Materials, Vol. 371, 2023, pp. 1-16
- Akentuna, M., Jun, L., Mohammad, L. N., Sachdeva, S., Cooper III, S., and Cooper Jr, S., "Moisture Susceptibility of Asphalt Mixtures: Conditioning and Testing Protocols." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, 2023, pp. 1-11.
- Zhang, W., Ahmad, K., Tong, Z., Hu, Z., Wang, H., Wu, M., Zhao, K., Yang, S., Farooq, H., and Mohammad, L. N., "In-time Density Monitoring of In-place Asphalt Layer Construction via Intelligent Compaction Technology." ASCE Journal of Materials in Civil Engineering, Vol. 35(1), 2023, pp. 04022386: 1-8.
- Akentuna, M., Mohammad, L. N., Boateng, K., and Cooper Jr, "Warm Mix Asphalt Demonstration Projects in Louisiana: Case Study of Five to Eight Years of Field Performance." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2676 (9), 2022, pp. 148-158.
- Barghabany, P., Zhang, J., Mohammad, L. N., Cooper III, S., and Cooper Jr, S., "Effect of Laboratory Aging Levels on Asphalt Binder Chemical/Rheological Properties and Fracture

- Resistance of Asphalt Mixtures." ASCE Journal of Materials in Civil Engineering, Vol 34 (3), 2022, pp. 04021491:1-9.
- Al-Hosainat, A., Nazzal, M., Talha, SK., Kim, S., Abbas, A., Mohammad, L. N., Biehl, E., and Ricciardi, P., "Evaluation of The Interlayer Bond 1 Strength of Micro-Surfacing Mixes." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Vol 2676 (1), , 2022, pp. 596-608.
- Al-Hosainat, A., Nazzal, M., Talha, SK., Kim, S., Abbas, A., and Mohammad, L. N., "A Comprehensive Laboratory Evaluation of the Factors Affecting the Micro-Surfacing Interlayer Bond Strength." Construction and Building Materials, Vol. 323, 2022, pp. 1-12.
- Elnaml, I., Mousa, M., Idris, I., and Mohammad, L. N., "Development of a Cost-Effective High-Modulus Asphalt Concrete (HMAC) Mixtures Using Crumb Rubber and Local Construction Materials in Louisiana." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Vol 2676 (61), 2022, pp. 274-286.
- Barghabany, P., Zhang, J., Mohammad, L. N., Cooper III, S., and Cooper Jr, S., "Chemical and Rheological Characterization of Asphalt Binders: A Comparison of Asphalt Binder Aging to Asphalt Mixture Aging." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2676 (5), 2022, pp. 147-157.
- Talha, SK., Al-Hosainat, A., Nazzal, M., Kim, S., Abbas, A., Mohammad, L. N., and, Nassar, S., "Laboratory Evaluation of Micro-Surfacing Bond Strength." ASCE Journal of Materials in Civil Engineering, Vol 34 (2), 2022, pp. 04021444: 1-7.
- Barghabany, P., Zhang, J., Mohammad, L. N., Cooper III, S., and Cooper Jr, S., "Novel Model to Predict Fracture Parameter SCB Jc for Asphalt Mixtures Using an Artificial Neural Network Approach." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Vol 2676 (1), 2022, pp. 388-400.
- Akentuna, M., Mohammad, L. N., Sachdeva, S., Cooper III, S., and Cooper Jr, S., "Effectiveness of Loaded Wheel Tracking Test to Ascertain Moisture Susceptibility of Asphalt Mixtures." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Vol 2676 (1), 2022, pp. 421-434.
- Luan, Y., Zhang, W., Zhao, Y., Pan, Z., Niu, Z., Zeng, K., Chen, X., and Mohammad, L. N., "Mechanical Property Evaluation for Steel Slag in Asphalt Mixture with Different Skeleton Structures Using Modified Marshall Mix Design Methodology." ASCE Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)MT.1943-5533.0004014, 2021, pp. 04021382: 1-12.
- Subedi, S., Arce, G., Noorvand, H., Hassan, M., Barbato, M., and Mohammad, L. N., " Properties of Engineered Cementitious Composites with Raw Sugarcane Bagasse Ash used as Sand Replacement." ASCE Journal of Materials in Civil Engineering, Vol. 33 (9), 2021, pp. 04021231: 1-17.

- Ali, H., Mohammad, L.N., Mohammadafzali, M., Haddadi, F., Akentuna, M., and Sholar, G., "Investigating the Effect of Degree of Blending on Performance of High RAP." ASCE Journal of Materials in Civil Engineering, Volume 33 (4), 2021. pp. 04021048:1-9
- Zhang, W., Chen, X., Shen, S., <u>Mohammad, L.N.</u>, Cui, B., Wu, S., and Khan, A., "Investigation of Field Rut Depth of Asphalt Pavements Using Hamburg Wheel Tracking Test." ASCE Journal of Transportation Engineering, Part B: Pavements, Vol. 147 (1), 2021, pp. 04020091: 1-10.
- Zaremotekhases, F., Idris, I., Hassan, M., Mohammad, L. N., and Negulescu, I., "Effect of Sodium Alginate Fibers Encapsulating Rejuvenators on the Self-Healing Capability and Cracking Resistance of Asphalt Mixtures." ASCE Journal of Materials in Civil Engineering, Vol. 32 (12), 2020, pp. 04020355: 1-12.
- Salaria, S., Cooper, S., III, Mohammad, L. N., and Barghabany, P., "Development of a 4.75 mm Asphalt Mixture Design for Implementation in Louisiana DOTD Specifications." International Journal of Pavement Research and Technology, Vol. 13(6), 2020, pp. 637-644.
- Cao, W., Mohammad, L. N., Barghabany, P., Samuel Cooper III, and Samuel Cooper Jr., "Laboratory Performance Tests on Intermediate-Temperature Cracking Resistance: A Case Study." Journal of the Association of Asphalt Paving Technologist, 2020
- Akentuna, M., Mohammad, L. N., Daly, W., Ali, H., Haddadid, F., Balamurugan, S., Negulescu, I., Cooper, III, S., Cooper, Jr., S., Baumgardner, G., "Investigation of the Performance of 100% Reclaimed Asphalt Pavement Mixtures: Molecular, Chemical, and Mechanical Characterization." Journal of the Association of Asphalt Paving Technologist, 2020.
- Sufian, A., Swiertz, D., Bahia, H., <u>Mohammad, L. N.</u> and Akentuna, M., "Factors Affecting the Interlayer Shear Strength of Lab and Field Samples." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, https://doi.org/10.1177/0361198120975414, 2020, pp.1-11.
- Nazzal, M., Mohammad, L. N., Austin, A., and Hosainat A., "Effect of Moisture Content on the Shakedown Limits of Base Course Materials." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2675 (1), 2020, pp. 192-202.
- Akentuna, M., Mohammad, L. N., Kim, M., Cooper, S., III, and Cooper, S., Jr., "Improving Durability of Asphalt Pavements in Louisiana through Increased In-Place Field Density." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2674 (10), 2020, pp. 806-816.
- Barghabany, P., Cao, W., Mohammad, L. N., Cooper, S., III, and Cooper, S., Jr., "Relationships amongst Chemistry, Rheology, and Fracture/Fatigue Performance of Recovered Asphalt Binders and Asphalt Mixtures Containing RAP." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2674(10), 2020, pp. 927-938.

- Saadeh, S., Al-Zubi, Y., Mahmoud, E., Renteria, and Mohammad, L. N., "Sensitivity Analysis On Semi-Circular Bending Tests Using the Plackett-Burman Matrix." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2674(2), 2020, pp. 302-312.
- 50 Shirzad, S., Hassan, M., Mohammad, L. N., "Rheological and Mechanical Evaluation of Polyurethane Prepolymer Modified Asphalt Mixture with Self-Healing Abilities." ASCE Journal of Materials in Civil Engineering, Vol. 32, No. 8, 2020, pp. 04020231: 1-12
- Nazzal, M., Mohammad, L. N., and Austin, A., "Evaluating Laboratory Tests for Use In Specifications for Unbound Base Course Materials." ASCE Journal of Materials in Civil Engineering, Vol. 32, issue 4, 2020, pp. 04020036:1-8
- Aguirre, M., Hassan, M, Shirzad, S., <u>Mohammad, L. N.</u>, Cooper, S., Jr., and Negulescu, I., "Evaluation of Hollow-Fibers Encapsulating a Rejuvenator in Asphalt Binders with Recycled Asphalt Shingles." International Journal of Pavement Research and Technology, Vol. 13, 2020, pp. 108-119.
- Cooper, S., III, and Mohammad, L. N., "Implementation of Balanced Mixture Criteria During Asphalt Mixture Design: Louisiana's Experience." Transportation Research Board Circular No. E-C251, 2019, pp. 22-30.
- Shirzad; S., Hassan; M., Aguirre; M., <u>Mohammad, L. N.</u>, Cooper, Jr., S., and Negulescu, I., "Rheological Properties of Asphalt Binder Modified with Recycled Asphalt Materials and Light-Activated Self-Healing Polymers." Construction and Building Materials, Volume 220, 2019, pp. 187-195.
- Shirzad; S., Hassan; M., Aguirre; M., Mohammad, L. N., Cooper, Jr., S., and Negulescu, I., "Mechanical and Self-Healing Performances of Asphalt Mixtures Containing Recycled Asphalt Materials and Light-Activated Self-Healing Polymer." ASCE Journal of Materials in Civil Engineering, Vol. 31 (11), 2019, pp. 04019254: 1-11
- Noorvand, H., Arce, G., Hassan, M., Rupnow, T., and Mohammad, L. N., "Investigation of the Mechanical Properties of Engineered Cementitious Composites with Low Fiber Content and with Crumb Rubber and High Fly Ash Content." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Volume 2673 (5), 2019, pp. 418-428.
- Aguirre, M., Hassan, M, Shirzad, S., Cooper, Jr., <u>Mohammad, L. N.</u>, S., and Negulescu, I., "Laboratory Testing of Self-Healing Fibers in Asphalt Mixtures Prepared with Recycled Materials." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Volume 2673 (4), 2019, pp. 513-523.
- Cao, W., Mohammad, L. N., Barghabany, P., and Cooper III, S., "Relationship Between Laboratory and Full-scale Fatigue Performance of Asphalt Mixtures Containing Recycled Materials." Journal of Materials and Structures, https://doi.org/10.1617/s11527-019-1327-z, 52:26, 2019, pp. 1-15.

- Mousa, M., Elseifi, M., Elbagalati, O., and Mohammad, L. N., "Evaluation of Interface Bonding Conditions Based on Non-Destructing Testing Deflection Measurements." J. of Road Materials and Pavement Design, Vol. 20, issue 3, 2019, pp. 554-571.
- Zhang, W., Shen, S., Wu, S., Chen, X., Xue, J., and Mohammad, L. N., "Effects of In-place Volumetric Properties on Field Rutting and Cracking Performance of Asphalt Pavement" ASCE Journal of Materials in Civil Engineering, Vol. 31, issue 8, 2019, pp. 04019150: 1-11.
- Daly, W., Balamurugana, S., Negulescu, I., Akentuna, M., <u>Mohammad, L. N.</u>, Cooper, III, S., Cooper, Jr., S., and Baumgardner, G., "Characterization of Crumb Rubber Modifiers (CRM) after Dispersion in Asphalt Binders." Journal of Energy and Fuels, Vol. 33, issue 4, 2019, pp. 2665-2679.
- Balamurugana, S., <u>Mohammad, L. N.</u>, Akentuna, M., Daly, W., Negulescu, I., Cooper, III, S., Cooper, Jr., S., and Baumgardner, G., "Impact of Crumb Rubber Modifier Type and Blending Temperature on Asphalt Binder and Mixture Properties." Journal of the Association of Asphalt Paving Technologist, Vol. 88, 2019, pp.515-544.
- Nazzal, M., and Mohammad, L. N., "State of Practice on the Use of Tack Coats for Micro-Surfacing Applications: A Survey." Journal of the Association of Asphalt Paving Technologist, Vol. 88, 2019, pp.157-182.
- Cao, W., Barghabany, P., <u>Mohammad, L. N.</u>, Cooper III, S., and Balamurugan, S., "Chemical and Rheological Evaluation of Asphalts Incorporating RAP/RAS Binders and Warm-Mix Technologies in Relation to Crack Resistance." Construction and Building Materials, Volume 198, 2019, pp. 256-268.
- Gabriel, A., Hassan, M., <u>Mohammad; L. N.</u>, and Rupnow, T., "Self-Healing of SMA and Steel Reinforced Mortar with Microcapsules." ASCE Journal of Materials in Civil Engineering, Volume 31 (2), February 2019, pp.04018366: 1-10.
- 66 Cooper, III, S., and Mohammad, L. N., "Application of Performance Tests During Asphalt Mixture Design: Louisiana's Approach." Innovation in Asphalt Mixture Design, Transportation Research Board, Number E-C237, 2018, pp. 15-29.
- Cao, W., Mohammad, L. N., and Barghabany, P., "Use of Viscoelastic Continuum Damage Theory to Correlate Fatigue Resistance of Asphalt Binders and Mixtures." ASCE International Journal of Geomechanics, DOI: 10.1061/(ASCE) GM.1943-5622.000130, Vol. 18 (11), 2018, pp. 04018151: 1-11.
- Kim, M., Mohammad, L. N., Jordan, T., and Cooper, III, S., "Fatigue Performance of Asphalt Mixture Containing Recycled Materials and Warm-Mix Technologies under Accelerated Loading and Four Point Bending Beam Test." Journal of Cleaner Production, Volume 192, 2018, pp. 656-664.
- 69 Cao, W., <u>Mohammad, L. N.</u>, and Barghabany, P., "Use of indirect tension test and viscoelastic continuum damage theory for fatigue characterization of asphalt mixtures." Construction and Building Materials, 2018, Volume 187, 2018, pp. 38-49.

- Cao, W., Mohammad, L. N., Barghabany, P., Cooper, III, S., and, Salari, S., "Comparison of Asphalt Mixtures Crack Resistance at Intermediate Temperatures using Advanced Test Methods and Theories." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, https://doi.org/10.1177/0361198118787973, Vol. 2672 (28), 2018, pp. 416-425.
- Cao, W., Mohammad, L. N., and Elseifi, M., Cooper, III, S., and Saadeh, S., "Fatigue Performance Prediction of Asphalt Pavement Based on Semi-Circular Bending Test at Intermediate Temperature." ASCE Journal of Materials in Civil Engineering, Vol. 30, No. 9, https://doi.org/10.1061/(ASCE)MT.1943-5533.0002448, 2018, pp. 04018219: 1-8
- Das, R., Mohammad, L. N., Elseifi, M., Cao, W., and Cooper, Jr., S., "A Direct Shear Approach to Assess the Interface Bonding Performance." Journal of the Association of Asphalt Paving Technologist, Volume 87, 2018, pp. 375-410.
- Shen, S., Zhang, W., Wu, S., <u>Mohammad, L. N.</u>, and Muhunthan, B., "Long-term Field Performance of Flexible Pavements Using Warm Mix Asphalt Technologies." Journal of the Association of Asphalt Paving Technologist, Volume 87, 2018, pp. 163-198.
- Balamurugana, S., <u>Mohammad, L. N.</u>, Daly, W., Negulescu, I., Cooper, III, S., Cooper, Jr., S., and Baumgardner, G., "Impact of Various Crumb Rubber Modifications on Asphalt Binder and Mixture Properties." Journal of the Association of Asphalt Paving Technologist, Volume 87, 2018, pp. 411-442.
- Kim, M., Cooper, Jr., S., <u>Mohammad, L. N.</u>, and Baumgardner, G., "Asphalt Mixtures Containing RAS and/or RAP: Relationships amongst Binder Composition Analysis and Mixture Low Temperature Cracking Performance." Journal of the Association of Asphalt Paving Technologist, .Volume 87, 2018, pp. 657-681.
- Das, R., Mohammad, L. N., Elseifi, M., Cao, W., and Cooper, Jr., S., "Development and Validation of a Model to Predict Interface Bonding Between Pavement Layers." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, https://doi.org/10.1177/0361198118759001, Vol. 2672 (28), 2018, pp. 22-30.
- You, T., Shi, Y., Mohammad, L. N., and Cooper, III, S.; "Laboratory Performance of Asphalt Mixtures Containing Re-Refined Engine Oil Bottoms (REOB) Modified Asphalt Binders." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, https://doi.org/10.1177/0361198118787936, Vol. 2672 (28), 2018, pp. 88-95.
- Zhanag, W., Bahadori, A., Shen, S., Wu, S., Muhunthan, B., and Mohammad, L. N., "Comparison of Laboratory and Field Asphalt Aging for Polymer Modified and Warm Mix Asphalt Binders." ASCE Journal of Materials in Civil Engineering, Vol 30, No. 7, 2018, pp. 04018150: 1-11.
- Shirzad, S., Aguirre, M., Bonilla, M., Elseifi, M., Cooper, Jr., S., and Mohammad, L. N., "Mechanistic-Empirical Pavement Performance of Asphalt Mixtures with Recycled Asphalt Shingles." Construction and Building Materials, Vol. 160, 2018, pp. 687–697.

- 80 <u>Mohammad, L. N.</u>, Elseifi, M., and Cooper, Jr., S., "Development of Rubberized Asphalt Binder Specification." Journal of Innovative Infrastructure Solutions. DOI: 10.1007/s41062-017-0072-9, 2017, pp. 1-5.
- Saadeh, S., and Mohammad, L. N., "Moisture Sensitivity of Warm and Hot Mix Asphalt: Comparison of Loaded Wheel Tracking and Modified Lottman Tests." ASCE GSP 277, DOI:10.1061/9780784480441.029, 2017, pp. 272-280.
- Wu, S., Zhang, W., Shen, S., Lid, X., Muhunthane, B., and Mohammad, L. N., "Field-aged asphalt binder performance evaluation for Evotherm warm mix asphalt: Comparisons with hot mix asphalt." Construction and Building Materials, Vol. 156, 2017, pp. 574-583.
- Al-Shamsi, K., Hassan, H., and Mohammad, L. N., "Effect of Low VMA in Hot Mix Asphalt on Load-Related Cracking Resistance." Construction and Building Materials, Vol. 149, 2017, pp. 386-394.
- Pamulapati Y., Elseifi, M., Cooper, III, S., <u>Mohammad, L. N.</u>, and Elbagalati, O., "Evaluation of Self-Healing of Asphalt concrete through Induction Heating and Metallic Fibers." Construction and Building Materials, Vol. 146, 2017, pp. 66-75.
- Das, R., Mohammad, L.N., Elseifi, M., Cao, W., and Cooper, Jr., S.; "Effects of Tack Coat Application on Interface Bond Strength and Short-Term Pavement Performance." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, DOI: 10.3141/2633-02, Volume 2633, 2017, pp. 1-8.
- Shirzad, S., Hassan, M., Aguirre, M., Mohammad, L. N., Cooper, Jr., S., and Negulesco, I. "Microencapsulated Sunflower Oil for Rejuvenation of Asphalt Mixtures." ASCE Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)MT.1943-5533.0001988, Volume 29 (9), 2017, pp. 1-9
- Aguirre, M., Hassan, M, Shirzad, S., <u>Mohammad, L. N.</u>, Cooper, Jr., S., and Negulescu, I., "Performance of Asphalt Rejuvenators in Hot Mix Asphalt Mixtures Containing Recycled Asphalt Shingles." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, DOI: 10.3141/2633-13, TRR No. 2633, 2017, pp. 1-9.
- Aguirre, M., Hassan, M, Shirzad, S., Mohammad, L. N., Cooper, Jr., S., and Negulescu, I., "Laboratory Testing of Self-Healing Microcapsules in Asphalt Mixtures Prepared with Recycled Asphalt Shingles." ASCE Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)MT.1943-5533.0001942, Volume 29 (9), 2017, pp. 04017099: 1-9
- Zhang; W., Shen, S., Wu, S., and Mohammad, L.N., "Prediction Model for Field Rut Depth of Asphalt Pavement based on Hamburg Wheel Tracking Test Properties." ASCE Journal of Materials in Civil Engineering, Volume 29 (9), 2017, pp. 1-10.
- 90 Minkyum, K., <u>Mohammad, L.N.</u>, Phaltane, P., and Elseifi, M., "Density and SCB Measured Fracture Resistance of Temperature Segregated Asphalt Mixtures." International Journal of Pavement Research and Technology, Volume 10 (2), 2017, pp.112-121.

- Zhang, W., Shen, S., Wu, S., and Mohammad, L. N., "Long-term Field Aging of Warm Mix and Hot Mix Asphalt Binders." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, DOI: 10.3141/2632-15, TRR No. 2632, 2017, pp. 140-149.
- Minkyum, K., Mohammad, L.N., Phaltane, P., and Elseifi, M., "Effects of Temperature Segregation on Density and Mechanical Properties of Asphalt Mixtures," Frontiers of Structural and Civil Engineering, doi.org/10.1007/s11709-017-0451-5, 2017, pp. 1-12.
- Wu, S., Zhang, W., Shen, S., Muhunthan, B, and Mohammad, L. N., "Case Study: Short-term Performance and Material Property Evolution of Warm Mix Asphalt and Hot Mix Asphalt Pavements." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2631, DOI 10.3141/2631-05, 2017, pp. 1-16.
- Cooper, Jr., S., <u>Mohammad, L. N.</u>, and Elseifi, "Laboratory Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles and Re-refined Engine Oil Bottoms (REOB)." ASCE Journal of Materials in Civil Engineering, doi.org/10.1061/(ASCE)MT.1943-5533.0001904, Volume 29, Issue 9, 2017, pp. 1-6.
- Zhang, W., Shen, S., Faheem, A., Basak, P., Wu, S., and Mohammad, L. N., "Predictive Quality of the Pavement ME Design Program for Field Performance of Warm Mix Asphalt Pavements." Construction and Building Materials, Volume 131, 2017, pp. 400-410.
- 96 <u>Mohammad, L. N.</u>, Elseifi, M., Cao, W., Raghavendra, A., and Ye, M., "Evaluation of Various Hamburg Wheel-Tracking Devices and AASHTO T 324 Specification for Rutting Testing of Asphalt Mixtures." Road Materials and Pavement Design, Vol. 18, No. S4, 2017, pp. 128-143.
- Ocao, W., Mohammad, L. N., and Elseifi, M., "Assessing the Effects of RAP, RAS, and Warm-Mix Technologies on Fatigue Performance of Asphalt Mixtures and Pavements Using Viscoelastic Continuum Damage Approach." Road Materials and Pavement Design, Vol. 18, No. S4, 2017, pp 353-371.
- Mohammad, L. N., and Nazzal, M., "Evaluation of a Performance-Based Approach to Design Asphalt Treated Base Mixtures." ASCE Journal of Materials in Civil Engineering, https://doi.org/10.1061/(ASCE)MT.1943-5533.0001884, Volume 29, issue 7, 2017, pp. 1-10
- Cooper, Jr., S., Negulescu, I., Balamurugan, S. S., Mohammad, L. N., Daly, W. H., and Baumgardnere, G. L. "Asphalt Mixtures Containing RAS and/or RAP: Relationships amongst Binder Composition Analysis and Mixture Intermediate Temperature Cracking Performance." Journal of Road Materials and Pavement Design, DOI: 10.1080/14680629.2016.1266758, Volume 18, No. S1, 2017, pp. 209-234.
- Cooper, Jr., S., <u>Mohammad, L. N.</u>, and Elseifi, "Laboratory Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles, Reclaimed Asphalt Pavement, and Recycling Agents."

  A S C E Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)MT.1943-5533.0001658, Volume 29, Issue 3, 2017, pp. 1-8

- Mohammad, L. N., and Cooper, III, S., "Implementation of a Balanced Asphalt mixture Design Procedure: Louisiana's Approach." Journal of the Association of Asphalt Paving Technologists, Volume 85, 2016, pp. 857-876.
- Abu-Farsakh, M., Hanandeh, S., Mohammad, L. N., and Chen, Q., "Performance of Geosynthetic Reinforced/Stabilized Paved Roads Built over Soft Soil under Cyclic Plate Loads." Geotextiles and Geomembranes, Volume 44, Issue 6, 2016, pp. 845–853
- Wu, S., Zhang, W., Shen, S., Mohammad, L. N., and Muhunthan, B., "Field Performance of Top-down Fatigue Cracking for Warm Mix Asphalt Pavement." International Journal of Pavement Engineering, DOI: 10.1080/10298436.2016.1248204, 2016, pp. 1-11.
- Mohammad, L. N., Hassan, M., and Kim, M., "Effects of Paver Stoppage on Temperature Segregation in Asphalt Pavements." ASCE Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)MT.1943-5533.0001719, 2016, pp. 1-7.
- Arce, G, Hassan, M., Mohammad, L. N., and Rupnow, T., "Characterization of Self-Healing processes induced by Calcium Nitrate Microcapsules in Cement Mortar." ASCE Journal of Materials in Civil Engineering, 10.1061/(ASCE)MT.1943-5533.0001717, 2016, pp. 1-10.
- 106 Aguirre, M., Hassan, M., Shirzad, S., Daly, W., and Mohammad, L., "Micro-encapsulation of Asphalt Rejuvenators using Melamine-Formaldehyde." Construction and Building Materials, Volume 114, 2016, pp. 29–39.
- 107 Shirzad, S., Hassan, M., Aguirre, M., Mohammad, L., and Daly, W., "Evaluation of Sunflower Oil as a Rejuvenator and Its Microencapsulation as a Healing Agent." ASCE Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)MT.1943-5533.0001625, Vol. 28, No. 11, 2016, pp. 1-9.
- Wu, S., Wen, H., Zhang, W., Shen, S., Faheem, A., and Mohammad, L. N., "Long-Term Field Performance of Transverse Cracking for Warm Mix Asphalt Pavement and Identification of Significant Material Property for Transverse Cracking." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2576, DOI 10.3141/2576-12, 2016, pp. 1-12.
- Wen, H., Wu, S., <u>Mohammad, L. N.</u>, Zhang, W., Shen, S., and Faheem, A., "Long-Term Field Rutting and Moisture Susceptibility Performance of Warm Mix Asphalt Pavement." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2575, Vol. 2, DOI 10.3141/2575-11, 2016, pp. 103-112.
- 110 Cooper, Jr., S., Cooper, III, S., <u>Mohammad, L. N.</u>, and Elseifi, M., "Development of a Predictive Model Based on Artificial Neural Network for the Semi-Circular Bend Test." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2576, DOI 10.3141/2576-09, 2016, pp. 83-90.
- Raghavendra, A., Medeiros, Jr., M., Hassan, M., <u>Mohammad, L. N.</u>, and King, Jr., W., "Laboratory and Construction Evaluation of Warm-Mix Asphalt." ASCE Journal of Materials in Civil Engineering, Vol. 28, No. 6, 2, DOI: 10.1061/(ASCE)MT.1943-5533.0001506016, 2016, pp. 1-9.

- Elseifi, M., Alvergue, A., <u>Mohammad, L. N.</u>, Salari, S., Moya, J., and Cooper, Jr., S., "Rutting and Fatigue Behaviors of Shingle-Modified Asphalt Binders." ASCE Journal of Materials in Civil Engineering, Volume 28, No. 2, 2016, pp. 040151113: 1-7
- 113 Cooper, Jr., S., <u>Mohammad, L. N.</u>, Elseifi, M., and Medeiros, Jr., M., "Effect of Recycling Agents on the Laboratory Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2506, Vol. 2, 2015, pp. 54-61.
- 114 Cooper, III, S., <u>Mohammad, L. N.</u>, Elseifi, M. A., and Raghavendra, A., "Evaluation of Effects of Dynamic Modulus of Asphaltic Mixtures on Pavement Performance Prediction." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2507, Vol. 3, 2015, pp. 67-77.
- 115 Cooper, III, S., <u>Mohammad, L. N.</u>, Elseifi, M., and Raghavendra, A., "Effects of Specimen Orientation on the Laboratory Measured Dynamic Modulus and Predicted Performance of Asphalt Mixtures." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2507, Vol. 3, 2015, pp. 78-79.
- 116 Kim, M., <u>Mohammad, L.N.</u>, and Elseifi, M., "Effects of Various Extrapolation Techniques for Abbreviated Dynamic Modulus Test Data on the MEPDG Rutting Predictions." Journal of Marine Science and Technology, Vol. 23, No. 3, 2015, pp 353-363.
- 117 Abu-Farsakh, M., Y., Mehrotra, A., <u>Mohammad, L. N.</u>, Gaspard, K., "Incorporating the Effect of Moisture Variation on Resilient Modulus for Unsaturated Fine-Grained Subgrade Soils." Journal of the Transportation Research Record, No. 2510, 2015, pp. 44-53.
- Zhang, W., Shen, S., Basak, P., Wen, H., Wu, S., and Mohammad, L. N., "Development of Predictive Models for Initiation and Propagation of Field Transverse Cracking." The National Academies of Science, Engineering, and Medicine. Journal of the Transportation Research Record, No. 2524, Vol. 2, 2015, pp. 92-99.
- 119 Cooper, Jr., S., Negulescu, I., Balamurugan, S. S., Mohammad, L. N., Daly, W. H., "Binder Composition and Intermediate Temperature Cracking Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles." Journal of Road Materials and Pavement Design, DOI:10.1080/14680629.2015.1077013, Volume 16, No. 2, 2015, pp. 275-295.
- 120 Kim, M., Mohammad, L. N., and Challa, H., Elseifi, M. A., "A Simplified Performance-Based Specification for Asphalt Pavements." Journal of Road Materials and Pavement Design, DOI:10.1080/14680629.2015.1077005, Volume 16, No. 2, 2015, pp. 168-197.
- Mogawer, W. S., Austerman, A., Roque, R., Underwood, S., Mohammad, L. N., Zou, J., "Aging and Rejuvenators: Evaluating their Impact on High RAP Mixtures Fatigue Cracking Characteristics Using Advanced Mechanistic Models and Testing Methods." Journal of Road Materials and Pavement Design, DOI:10.1080/14680629.2015.1076996, Volume 16, No. 2, 2015, pp. 1-28.

- Wasiuddin, N. M., Parker, P., Abadie, C., and Mohammad, L. N., "Field and Laboratory Evaluation of Environmental Effects on Chip Seal Performance: Freeze-Thaw and Asphalt Aging." ASTM Journal of Testing and Evaluation, Vol. 43, No. 4, 2015, pp. 1-13.
- Alvergue, A., Elseifi, M., Mohammad, L. N., Cooper, Jr., S. B., Cooper III, S., "Laboratory Evaluation of Asphalt Mixtures with Reclaimed Asphalt Shingle Prepared Using the Wet Process." Journal of the Association of Asphalt Pavement Technologists, Volume 83, 2014, pp. 197-224.
- Kiletico, M., Hassan, M., Mohammad, L. N., and Alvergue, A., "New Approach to Recycle Glass Cullet in Asphalt Shingles to Alleviate Thermal Loads and Reduce Heat Island Effects." ASCE Journal of Materials in Civil Engineering, Volume 27, No. 8, 2015, pp. 1-9.
- 125 Cooper III, S., <u>Mohammad, L. N.</u>, Kabir, Md., and King, W., "Balanced Asphalt Mixture Design through Specification Modification: Louisiana's Experience." Journal of Transportation Research Record, Volume 2447, No. 4, 2014, pp. 92-100.
- Mohammad, L. N., and Elseifi, M., "Optimization of Tack Coat for Hot-Mix Asphalt Placement." Transportation Research Board Circular No. E-C186, 2014, pp. 35-49.
- 127 Cooper Jr., S., <u>Mohammad, L. N.</u>, and Elseifi, M., "Laboratory Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles." Journal of Transportation Research Record No. 2445, Vol. 2, 2014, pp. 94-102.
- Hassan, M., Lodge, A., <u>Mohammad, L. N.</u>, and King, W., Jr.. "Variability and Characteristics of Recycled Asphalt Shingles Sampled from Different Sources." Journal of Materials in Civil Engineering. Volume 26, No. 4, 2014, pp. 748–754.
- Wu, Z., Mohammad, L. N., and Zhang, Z., "Accelerated Loading Evaluation of Foamed Asphalt Treated RAP Layers in Pavement Performance." International Journal of Pavement Research and Technology, Vol. 6, No. 4 and 5, 2013, pp. 395-402. (Recipient of the Best Paper Award).
- Mohammad, L. N., Elseifi, M., Cooper, S., III, Challa, H., and Naidoo, P., "Laboratory Evaluation of Asphalt Mixtures Containing Bio-Binder Technologies." Journal of Transportation Research Record No. 2371, Vol. 2, 2013, pp. 58-65.
- Mogawer, W., Austerman, A., <u>Mohammad, L.</u>, Kutay, M., "Evaluation of High RAP-WMA Asphalt Rubber Mixtures." Journal of the Association of Asphalt Paving Technologist, 2013, pp.253-287.
- 132 Cooper, S., III, <u>Mohammad, L. N.</u>, and Elseifi, M., "Evaluation of Asphalt Mixtures Containing Renewable Binder Technologies." International Journal of Pavement Research and Technology, Vol. 6, No. 5, 2013, pp. 570-575.
- Mohammad, L. N., Elseifi, M., Cooper, S., III, and Raghavendra, A., "Levels of Variability in Volumetric and Mechanical Properties of Asphalt Mixtures." ASCE Journal of Materials in Civil Engineering, Vol. 25, No. 10, 2013, pp. 1432 1437.

- Wasiuddin, N.M., Marshall, A., Saltibus, N.E., Saber, A., Abadie, C., and Mohammad, L. N., "Use of Sweep Test for Emulsion and Hot Asphalt Chip Seals: Laboratory and Field Evaluation", ASTM Journal of Testing and Evaluation, Vol. 41, Issue 2, 2013, pp. 82-97.
- Dylla, H., Asadi, S., Hassan, M. M., and Mohammad, L. N., "Evaluating Photocatalytic Asphalt Pavement Effectiveness in Real World Environments through Developing Models, A Statistical and Kinetic Study." Journal of the Association of Asphalt Paving Technologists, 2013, pp. 151-176.
- Wu, Z., Yang, X., Das, V., and Mohammad, L. N., "Evaluating Frictional Characteristics of Typical Wearing Course Mixtures in Louisiana.' ASTM Journal of Testing and Evaluation, Volume 41, Issue 4, 2013, pp. 579-589.
- Hassan, M., <u>Mohammad, L. N.</u>, Dylla, H., Asadi, S., and Cooper, S., III, "Laboratory and Field Evaluation of Sustainable Photocatalytic Asphalt Pavements." Journal of the Association of Asphalt Paving Technologist, Vol. 81, 2012, pp. 1-23.
- 138 Kim, M., <u>Mohammad, L. N.</u>, Elseifi, M., "Characterization of Fracture Properties of Asphalt Mixtures as Measured by Semi-Circular Bend Test and Indirect Tension Test." Journal of Transportation Research Record, No. 2296, 2012, pp. 115-124.
- Hassan, M., Mohammad, L. N., Asadi, S., Dylla, H., and Cooper, S., "Sustainable Photocatalytic Asphalt Pavements for Mitigation of Nitrogen Oxide and Sulfur Dioxide Vehicle Emissions." ASCE Journal of Materials in Civil Engineering, Volume 25, No. 3, 2012, pp. 365-371.
- 140 Cooper, S., III, Elseifi, M., and <u>Mohammad, L. N.,</u> "Parametric Evaluation Of Design Input Parameters on the Mechanistic-Empirical Pavement Design Guide Predicted Performance." International Journal of Pavement Research and Technology, Vol. 5, No. 4, 2012, pp.218-224.
- Mohammad, L. N., Hassan, M., and Cooper, III, S., "Mechanical Characteristics of Asphaltic Mixtures Containing Titanium Dioxide Photocatalyst." ASTM Journal of Testing and Evaluation, Vol. 40, No. 6, 2012, pp.998-1005.
- Hassan, M., Dylla, H., <u>Mohammad, L. N.</u>, and Rupnow, T., "Methods for the Application of Titanium Dioxide Coatings to Concrete Pavements." International Journal of Pavement Research and Technology, Volume 5, No. 1, 2012, pp. 12-20.
- 143 Cooper, Jr., S., <u>Mohammad, L. N.</u>, Nazzal, M., Elseifi, M., "Evaluation of the Influence of Variation of Superpave HMA Mixtures Physical Properties on Pavement Performance." International Journal of Pavement Research and Technology, Vol. 5, No. 4, 2012, pp. 267-276.
- Mohammad, L. N., Elseifi, M., Cooper, S. III, and Raghavendra, A., "Evaluating Effects of Volumetric and Mechanistic Test Variability on Asphalt Pavement Performance: applying Mechanistic-Empirical Pavement Design Guide." Journal of Transportation Research Record, No. 2268, 2012, pp. 43-49.

- Wasiuddin, N., Saha, R., King, Jr., W., and Mohammad, L. N., "Effects of Temperature and Shear Rate on Viscosity of Sasobit® -Modified Asphalt Binders." International Journal of Pavement Research and Technology, Vol. 5, No. 6, 2012, pp. 369-378.
- Elseifi, M., Salari, S., <u>Mohammad, L. N.,</u> Hassan, M., Daly, W., and Dessouky, S., "A New Approach to Recycle Asphalt Shingles in Hot Mix Asphalt." ASCE Journal of Materials in Civil Engineering, Volume 24, No. 11, 2012. pp. 1403-1411.
- Elseifi, M., Mohammad, L. N., Ying, H., Cooper III, S., "Modeling and Evaluation of the Cracking Resistance of Asphalt Mixtures Using the Semi-Circular Bending Test at Intermediate Temperature." Journal of Road Materials and Pavement Design, Vol. 13, No. S1, 2012, pp. 124–139.
- Bae, A., Mohammad, L. N., Cooper, Jr., S., King, W., "Evaluation Of Various Test Devices For The Measurements Of Aggregates And Asphalt Mixtures' Specific Gravity." ASTM Journal of Testing and Evaluation, Vol. 40, No. 1, 2012, pp. 58-65.
- Hassan, M., Dylla, H.; Asadi, S., <u>Mohammad, L. N.</u>, Cooper, S., "Lab Evaluation of Environmental Performance of Photo-catalytic Titanium Dioxide Warm-Mix Asphalt pavements." ASCE Journal of Materials in Civil Engineering, Vol. 24, No. 5, 2012, pp. 599-605.
- Elseifi, M., Mohammad, L. N., King, W., Zhang, Z., "Assessment of Stress and Strain Instrumentation in Accelerated-Pavement Testing." International Journal of Pavement Research and Technology, Volume 5, No. 2, 2012, pp. 121-127.
- 151 Cooper, S., Elseifi, M., <u>Mohammad, L. N.</u>, Hassan, M., "Performance and Cost Effectiveness of Sustainable Technologies in Flexible Pavements using the Mechanistic-Empirical Pavement Design Guide." ASCE Journal of Materials in Civil Engineering, Volume 24, No. 2, 2012, pp. 239-247.
- Dylla, H., Hassan, M., Schmitt, M., Rupnow, T., <u>Mohammad, L. N.</u>, "Laboratory Investigation of the Effect of Mixed Nitrogen Dioxide and Nitrogen Oxide Gasses on Titanium Dioxide Photocatalytic Efficiency in Concrete Pavements." ASCE Journal of Materials in Civil Engineering, Vol. 23, No. 7, 2011, pp. 1087-1093.
- Hassan, M., Mohammad L. N., Cooper S., and Dylla, H., "Evaluation of Nano Titanium Dioxide Additive on Asphalt Binder Aging Properties." Journal of the Transportation Research Record, No. 2207, 2011, pp. 11-15.
- Khattak, M., Mohammad, L. N., Yuan, F., Abadie, C., "Variability of In Situ HMA Volumetric and Mechanistic Characteristics Using Nondestructive Testing (NDT): Case Study." International Journal of Pavement Engineering, DOI No: 0.1080/10298436.2011.597858, 2011, pp. 1-16
- 155 Elseifi, M., Mohammad, L.N., Kassem, E., Ying, H., Masad, E., "Quantification of Damage in the Dynamic Complex Modulus and Flow Number Tests Using X-Ray Computed Tomography." ASCE Journal of Materials in Civil Engineering, 2011, pp.1687-1696.

- 156 Cooper, S., Mohammad, L. N., and Elseifi, M., "Laboratory Performance Characteristics of Sulfur-Modified Warm-Mix Asphalt." ASCE Journal of Materials in Civil Engineering, 2011, Vol. 23, No. 9, pp. 1338-1345.
- Mohammad, L. N., Cooper, S., and Elseifi, M., "Characterization of HMA Mixtures Containing High Reclaimed Asphalt Pavement Content with Crumb Rubber Additives." ASCE Journal of Materials in Civil Engineering, 2011, pp.1560-1568.
- Elseifi, M., Mohammad, L. N., and Cooper, S., "Laboratory Evaluation of Asphalt Mixtures Containing Sustainable Technologies." Journal of the Association of Asphalt Paving Technologist, Vol. 80, 2011, pp. 227-253.
- Mohammad, L. N., Hassan, M., and Patel, N., "Effects of Shear Bond Characteristics of Tack Coats on Pavement Performance at the Interface." Journal of the Transportation Research Board, No. 2209, Volume 3, 2011, pp. 1-8.
- Hassan, M., Mohammad, L. N., Cooper, S., Dylla, H., "Evaluation of Titanium Dioxide as a Photocatalyic in Asphalt Binder." Journal of the Transportation Research Board, No. 2207, 2011, pp. 11-15.
- Wasiuddin, N., Saltibus, N., and Mohammad, L. N., "A Novel Moisture Conditioning Method for Adhesive Failure of Hot and Warm Mix Asphalt Binders." Journal of the Transportation Research Board, No. 2208, 2011, pp. 108-117.
- Dylla, H., Hassan, M., Schmitt, M., Rupnow, T., <u>Mohammad, L. N.</u>, and Wright, E., "Effects of Roadway Contaminants on Titanium Dioxide Photodegredation of NOx." Journal of the Transportation Research Record, No. 2240, 2011, pp. 22-29.
- Mohammad, L. N., and Nazzal, M., "Performance Evaluation and Environmental Impact Assessment of Asphalt Treated Mixtures Used in Low-Volume Roads." 10<sup>th</sup> International Conference on Low-Volume Roads. Journal of the Transportation Research Board, Transportation Research Record No. 2205, 2011, pp.28-35.
- Tao, M., Mohammad, L. N., Nazzal, M. Zhang, Z., and Wu, Z., "Application of Shakedown Theory in Characterizing Traditional and Recycled Pavement Base Materials." Journal of Transportation Engineering, ASCE, Vol. 136, No. 3, 2010, pp. 214-222.
- Mohammad, L. N., Nazzal, M., and Auston, A., "Evaluation of a New Generation of Asphalt Treated Mixtures." ASCE Special Technical Publication No. 203, Paving Materials and Pavement Analysis, 2010, pp. 240-247.
- Al Shamsi, K., <u>Mohammad, L. N.</u>, "Estimating Optimum Compaction Level for Dense-Graded Hot-Mix Asphalt Mixtures. The Journal of Engineering Research, Vol. 7, No.1, 2010, pp. 11-21.
- Elseifi, M., Mohammad, L. N., Glover, I., Negulescu, I., Daly, W., and Abadie, C., "Relationship between Molecular Compositions and Rheological Properties of Neat Asphalt Binder at Low and Intermediate Temperatures." ASCE Journal of Materials in Civil Engineering, Vol. 22, No. 12, 2010, pp. 1288-1294.

- Nazzal, M., <u>Mohammad, L. N.</u>, "Estimation of Resilient Modulus of Subgrade Soils for Design of Pavement Structures." ASCE Journal of Materials in Civil Engineering, Vol.22, No.7, 2010, pp. 726-734.
- Elseifi, M., <u>Mohammad, L. N.</u>, Dessouky, S., Yang, W., and Ying, H., "A Viscoelastic Model to Describe the Constitutive Behavior of Straight Asphalt Binder at Low Temperatures." ASCE Engineering Mechanics Special Publication, 2010, In press, pp. 1-15.
- Nazzal, M. and Mohammad, L. N., "Estimation of the Resilient Modulus of Subgrade Soils Using Falling Weight Deflectometer." Journal of the Transportation Research Record, 2010, pp. 1-10.
- Dylla, H., Hassan, M. M., <u>Mohammad, L. N.</u>, and Rupnow, T., "Evaluation of the Environmental Effectiveness of Titanium Dioxide Photocatalyst Coating for Concrete Pavements." Journal of the Transportation Research Record, No. 2164, 2010, pp. 46-51.
- Hassan, M., Dylla, H., Rupnow, T., <u>Mohammad, L. N.</u>, and Wright, E., "Evaluation of the Durability of Titanium Dioxide Photocatalyst Coating for Concrete Pavement." Journal of Construction and Building Materials, Vol. 24, No. 8, 2010, pp. 1456-1461.
- Bae, A., Mohammad, L. N., Elseifi, M., Button, J., and Patel, N. "Effects of Temperature on the Interface Shear Strength of Emulsified Tack Coats and Its Relationship to Rheological Properties." Journal of the Transportation Research Board, No. 2180, Vol. 2, 2010, pp. 102-109.
- Mohammad, L. N., Bae, A., Elseifi, M., Button, J., and Patel, N. "Effects of Pavement Surface Type and Sample Preparation Method on Tack Coat Interface Shear Strength." Journal of the Transportation Research Board, No. 2180, Vol. 2, 2010, pp. 93-101.
- Nazzal, M., Abu-Farsakh, M., and <u>Mohammad, L. N.</u>, "Implementation of a Critical State Two-Surface Model To Evaluate the Response of Geosynthetic Reinforced Pavements." ASCE's International Journal of Geomechanics, Vol. 10, No. 5, 2010, pp. 202-212.
- Mohammad, L. N., Nazzal, M., Abu-Farsakh, M., and Alshibli, K., "Estimation Of Subgrade Soils Resilient Modulus From In-Situ Devices Test Results." ASTM Journal of Testing and Evaluation, Vol. 37, No. 3, 2009, pp. 245-253.
- Wu, Z., Chen, X., Mohammad, L. N., and Zhang, Z., "Field Structural Performance of Stabilized Blended Calcium Sulfate Materials under Accelerated Pavement Testing." International Journal of Pavement Research and Technology, Volume 2, No. 3, 2009, pp. 98-105.
- Mohammad, L. N., Bae, A. Elseifi, M., Button, J., and Scherocman, J., "Development Of Pull-Off Test Device And Methodology To Evaluate The Bond Strength Of Tack Coat Materials In The Field." Journal of the Transportation Research Board, No. 2126, 2009, pp. 1-11

- 179 Mohammad, L. N., Bae, A. Elseifi, M., Button, J., and Scherocman, J., "Interface Shear Strength Characteristics of Emulsified Tack Coats." Journal of the Association of Asphalt Paving Technologist, Vol. 78, 2009., pp. 249-278.
- 180 Mohammad, L. N., Saadeh, S., Kabir, M., Othman, A., and Cooper, S., "Mechanistic Properties of HMA Mixtures Containing Hydrated Lime." Journal of the Transportation Research Board, No. 2051, 2008, pp. 49-63.
- 181 Xu, Q., Mohammad, L. N., and Wu, Z., Modeling Asphalt Pavement Rutting under Accelerated Testing, Journal of Road Materials and Pavement Design, 2008, Vol. 9, No. 4, pp. 665-687.
- 182 Negulescu, I, Mohammad, L. N., Daly, W., Abadie, C., and Cooper, S., "Comparison of RCAT versus PAV Aging Techniques and Field Data for a Polymer Modified Asphalt Cement." Journal of Applied Asphalt Binder Technology, 2008.
- 183 Mohammad, L. N., Saadeh, S., and Cooper S., "Evaluation of Asphalt Mixtures Containing Sasobit Warm Mix Additive." ASCE GSP No. 1078, The Challenge of Sustainability in the Geoenvironment, 2008, pp. 1016-1023.
- 184 Mohammad, L. N., and Saadeh, S., "Performance Evaluation of Stabilized Base and Subbase Material." ASCE GSP No. 1078, The Challenge of Sustainability in the Geoenvironment, 2008, pp. 1073-1080.
- Mohammad, L., N., Saadeh, S., Qi, Y., Button, J., and Scherocman, J., "Worldwide State of 185 Practice on the Use of Tack Coats: A Survey." Journal of the Association of Asphalt Paving Technologist, Vol. 77, 2008., pp.1-26.
- Mohammad, L. N., Saadeh, S., Obulareddy, S, and Cooper, S., "Characterization of Louisiana 186 Asphalt Mixtures Using Simple Performance Tests." ASTM Journal of Testing and Evaluation, Vol. 36, No. 1, 2008, pp. 5-16.
- 187 Abu-Farsakh, M., Nazzal, M., Mohammad, L. N., "Finite Element Analysis to Evaluate the Benefits of Geogrid Base Reinforcement in Flexible Pavements." International Journal of Pavements, Vol. 6, No. 2, 2007, pp. 146-157.
- 188 Mohammad, L. N., and Al Shamsi, K., "A Look at the Bailey Method and Locking Point Concept in Superpave Mixture Design." Transportation Research Board Circular E-C124: Practical Approaches to Hot-Mix Asphalt Mix Design and Production Quality Control Testing. 2007, pp. 12-32.
- Mohammad, L. N., Herath, A., Abu-Farsakh, M., Abu-Farsakh, M., Gaspard, G., and 189 Gudishala, R., "Prediction Of Resilient Modulus Of Cohesive Subgrade Soils From Dynamic Cone Penetrometer Test Parameters." ASCE Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)0899-1561(2007)19:11(986), Vol. 19, No. 11, 2007, pp. 986-992.
- Abu-Farsakh, M., Nazzal, M., and Mohammad, L. N., "Effect of Reinforcement on Resilient 190 and Permanent Deformations of Base Course Material." Journal of the Transportation Research Board, No. 2004, 2007, pp. 120-131.

- Nazzal, M., Abu-Farsakh, M., Alshibli, K., and Mohammad, L. N., "Evaluating the LFWD Device for in Situ Measurement of Elastic Modulus of Pavement Layers." Journal of the Transportation Research Board, No. 2016, 2007, pp. 13-22.
- Mohammad, L. N., Saadeh, S., Zhang, C., Cooper, S., Abadie, A., and Khattak, J., "Comparative Study of the Mechanical Properties of HMA Mixtures: Field vs Laboratory." Journal of the Association of Asphalt Paving Technologist, Vol. 76, 2007, pp. 887-918.
- Nazzal, M., Abu-Farsakh, M., and Mohammad, L. N., "Laboratory Characterization Of Reinforced Crushed Limestone Under Monotonic and Cyclic Loading." ASCE Journal of Materials in Civil Engineering, DOI: 10.1061/(ASCE)0899-1561(2007)19:9(772), Vol. 19, No. 9, 2007, pp.772-783.
- Mohammad, L. N., Wu, Z., Obulareddy, S., and Cooper, S., "Permanent Deformation Analysis of HMA Mixtures Using Simple Performance Tests and The 2002 Mechanistic-Empirical Pavement Design Software." Journal of the Transportation Research Board, No. 1970, 2006, pp. 133-142
- Mohammad, L. N., Herath, A., Rasoulian, M., and Zhongjie, Z., "Laboratory Evaluation Of Untreated And Treated Pavement Base Materials From A Repeated Load Permanent Deformation Test." Journal of the Transportation Research Board, No. 1967, 2006, pp. 78-88.
- Negulescu, I., <u>Mohammad, L. N.</u>, Daly, W., Daranga, C., and Glover, I., "Chemical and Rheological Characterization of Wet and Dry Aging of Polymer Modified Asphalt Cements: Field and Laboratory Evaluation." Journal of the Association of Asphalt Paving Technologist, Vol. 75, 2006, pp. 267-296.
- 197 Al Shamsi, K., Mohammad, L. N., Wu, Z., and Cooper, S., "Compactability and Performance of Superpave Mixtures with Aggregate Structures Designed Using Bailey Method." Journal of the Association of Asphalt Paving Technologist, Vol. 75, 2006, pp. 91-132.
- Mohammad, L. N., Wu, Z., Myers, L., Cooper, S., and Abadie, C., "A Practical Look at the Simple Performance Tests: Louisiana's Experience," Journal of the Association of Asphalt Paving Technologist, Vol. 74, 2005, pp 557-600.
- Wang, LB, Hoyos, L. R., <u>Mohammad, L. N.</u>, and Abadie, C., "Characterization of Asphalt Concrete by Multistage Tests Using Cubical Triaxial Device Characterization of Asphalt Concrete by Multistage Tests Using Cubical Triaxial Device," Journal of ASTM International, Volume 2, Issue 10, 2005, pp. 198-207.
- Wang, L. B., J.Y. Wang, X., <u>Mohammad, L. N.</u>, and Abadie, C., "Unified Method to Quantify Aggregate Shape Angularity and Texture Using Fourier Analysis." ASCE Journal of Materials in Civil Engineering, Vol. 17, No. 5, 2005, pp. 498-504.
- Mohammad, L. N., Herath, A., Wu, Z., and, Cooper, S., and Abadie, C., "A Comparative Study of Factors Influencing the Permeability of Hot-mix Asphalt Mixtures," Journal of the Association of Asphalt Paving Technologist, Vol. 74E, 2005, pp. 1-25.

- Wu, Z., Mohammad, L. N., Wang, LB, Mull, M., "Fracture Resistance Characterization of Superpave Mixtures Using a Semi-Circular," Journal of ASTM International, Vol. 2, No. 3, 2005, pp. 1-15.
- 203 Mull, M., Othman, A., and Mohammad, L. N., "Fatigue Crack Propagation Analysis of Chemically Modified Crumb Rubber Asphalt Mixtures." Journal of Elastomers and Plastics, Vol. 37, 2005, pp. 73-87.
- Herath, A., Mohammad, L. N., Gaspard, K., Gudishala, R., and Abu-Farsakh, M., "The Use of Dynamic Cone Penetrometer to Predict Resilient Modulus of Subgrade Soils." ASCE Geotechnical Special Publication No. 130, "Advances in Pavement Engineering," 2005, pp. 1-16.
- Mohammad, L. N., Wu, Z., Zhang, C., Khattak, M.J., Abadie, C., "Variability of Air Voids and Mechanistic Properties of Plant Produced Asphalt Mixtures." Journal of the Transportation Research Board, No. 1891, 2004, pp. 85-102.
- Mohammad, L. N., Herath, A., Gudishala, R., and Abu-Farsakh, M., "Development of a Resilient Modulus Prediction Model for Cement-treated Cohesive Soils." International Journal of Pavements, Volume 3, No. 3, 2004, pp. 59-70.
- Mohammad, L. N., Wu, Z., Raghavendra, A., and Abadie, C., "Comparison of Aggregate Gradation and Mixture Physical Properties to Performance Tests of Coarse-Graded Superpave Mixtures in Louisiana." Journal of the Association of Asphalt Paving Technologist, Vol. 73, 2004, pp. 261-285.
- Abu-Farsakh, M.Y., Alshibli, K., Nazzal, M.D., <u>Mohammad, L. N.</u>, "Evaluation of in Situ Elastic Modulus of Subgrades and Base Layers Using the Geogauge Device," International Journal of Pavements, Volume 3, No.1-2, 2004, pp. 89-101.
- Nazzal, M., Abu-Farsakh, M., Alshibli, K., and Mohammad, L. N., "Evaluation the Potential Use of a Portable LFWD for Characterizing Pavement Layers and Subgrades." ASCE Geotechnical Special Publication No. 126, "Geotechnical Engineering and Transportation Projects," 2004, pp. 915-924.
- Mohammad, L. N., Wu, Z., and Abadie, C., "Sensitivity of Mixture Performance Properties to Changes in Asphalt Mixture Type: Case Study," ASCE Geotechnical Special Publication No. 126, "Geotechnical Engineering and Transportation Projects," 2004, pp. 986-995.
- Huang, B., Mohammad, L. N., and Wathugala, W., "Application of a Temperature Dependent Viscoplastic Hierarchical Single Surface Model for Asphalt Mixtures," ASCE Journal of Materials in Civil Engineering, Vol. 16, No. 2, 2004, pp. 147-154.
- Wang, L.B., Wang, X., <u>Mohammad, L. N.</u>, and Wang, Y., "Application of Mixture Theory in the Evaluation of Mechanical Properties of Asphalt Concrete," ASCE Journal of Materials in Civil Engineering, Vol. 16, No. 2, 2004, pp. 167-174.
- 213 Titi, H.H., Mohammad, L. N., and Herath, A., "Characterization of Resilient Modulus of Coarse-Grained Materials Using the Intrusion Technology," ASTM Special Technical

- Publication, No. 1437, "Resilient Modulus Testing for Pavement Components 2003, pp. 252-270.
- Mohammad, L. N., Herath, A., and Titi, H.H., "The Use of Continuous Intrusion Miniature Cone Penetration Resting in Estimating the Resilient Modulus of Cohesive Soils," ASTM Special Technical Publication, No. 1437, "Resilient Modulus Testing for Pavement Components 2003, pp. 233-251.
- 215 Roberts, F.L., Qin, H., and Mohammad L. N., "Modeling Permanent Deformation of the Louisiana ALF Crumb Rubber Modified Test Sections," International Journal of Pavements, Volume 2, No. 1-2, 2003, pp. 100-111.
- Huang, B., Li, G., and Mohammad, L. N., "Analytical Modeling and Experimental Study of Tensile Strength of Asphalt Concrete Composite At Low Temperatures," Journal of Composite Part B: Engineering, Vol. 34, No.8, pp. 705-714, 2003.
- Wu, Z., Mohammad, L. N., Wang, L. B., Raghavendra, A., and Abadie, C., "Sensitivity Analysis of Permanent Deformation on Superpave and SMA Mixtures as Measured by the Asphalt Pavement Analyzer," International Journal of Pavements, Volume 2, No. 3, 2003, pp. 50-61.
- Mohammad, L. N., Negulescu, I., Wu, Z., Daranga, C., Daly, W. H., and Abadie, C., "Investigation of the Use of Recycled Polymer Modified Asphalt Binder in Asphalt Concrete Pavements," Journal of the Association of Asphalt Paving Technologist, Vol. 72, 2003, pp. 551-594.
- Mohammad, L. N., Abu-Farsakh, M.Y., Wu, Z., and Abadie, C., "Louisiana Experience With Foamed Recycled Asphalt Pavement Base Materials," Journal of the Transportation Research Board, No. 1832, 2003, pp. 17-24.
- Wang, L. B., Meyers, L.A., <u>Mohammad, L. N.</u>, and Fu, Y. R., "A Micromechanics Study on Top-Down Cracking," Journal of the Transportation Research Board, No. 1853, 2003, pp. 121-133.
- Mohammad, L. N., Herath, A., and Huang, B., "Evaluation of Permeability of Superpave Asphalt Mixtures," Journal of the Transportation Research Board, No. 1832, 2003, pp. 50-58.
- Wang, L. B., Wang, Y., <u>Mohammad, L. N.</u>, and Harman, T., "Voids Distribution and Performance of Asphalt Concrete," International Journal of Pavements, Volume 1, No. 3, 2002, pp. 22-33.
- Roberts, F.L., <u>Mohammad, L. N.</u>, Wang, L. B., "History of Hot Mix Asphalt Mixture Design in the USA," ASCE Journal of Materials in Civil Engineering, Volume 14 No. 4, 2002, pp. 279-293.
- Huang, B., Mohammad, L. N., "Numerical Analysis of Crumb-Rubber Modified Asphalt Pavements at the Louisiana Accelerated Loading Facility," International Journal of Pavements, Volume 1, No. 2, 2002, pp. 59-70.

- Mohammad, L. N., Wu, Z., Wang, L. B., Abadie, C., "A Rut Susceptibility Study on Superpave Mixtures," International Journal of Pavements, Volume 1, No. 2, 2002, pp. 23-35.
- Huang, B., Mohammad, L. N., Graves, P.S., Abadie, C., "Louisiana Experience with Crumb-Rubber-Modified Hot-Mix Asphalt Pavement," Journal of the Transportation Research Board, No. 1789, 2002, pp. 1-13.
- Mohammad, L. N., Raqib, Md., Huang, B., "The Influence of Asphalt Tack Coat Materials on the Interface Shear Strength," Journal of the Transportation Research Board, No. 1789, 2002, pp. 56-65.
- Huang, B., Mohammad, L. N., Wathugala, W., "Development of a Thermo-Viscoplastic Constitutive Model for HMA Mixtures," Journal of the Association of Asphalt Paving Technologist, Volume 71, 2002, pp. 594-618.
- Mohammad, L. N., Huang, B., and Cea, M., "Characterization of HMA Mixtures with the Asphalt Pavement Analyzer," ASTM Special Technical Publication, No. 1412, "Aggregate Contribution to Hot Mix Asphalt Performance," 2001, pp. 16-29.
- Mohammad, L. N., Huang, B., and Zheng, T., "Evaluation of Aggregate Contributions to Rutting Susceptibility of Asphalt Mixtures," ASTM Special Technical Publication, No. 1412, "Aggregate Contribution to Hot Mix Asphalt Performance," 2001, pp. 58-71.
- Huang, B., Mohammad, L. N., and Rasoulian, M., "3-D Numerical Simulation of Asphalt Pavement at the Louisiana ALF," Journal of the Transportation Research Board, No. 1764, 2001, pp.44-58.
- Mohammad, L. N., Huang, B., Roberts, F., and Rasoulian, M., "Accelerated Loading Performance of Crumb Rubber Asphalt Pavements," International Journal of Road Materials and Pavement Design, Volume 1, No. 4, 2000, pp. 467-493.
- Mohammad, L. N., Abadie, C., and Gokman, R., "Mechanistic Evaluation of Hydrated Lime in HMA Mixtures," Journal of the Transportation Research Board, No. 1723, December 2000, pp. 26-36.
- 234 <u>Mohammad, L. N.</u>, Huang, B., Abadie, A., and Raghavendra, A., "Laboratory Study of Large Stone Asphalt Mixtures," Journal of the Association of Asphalt Paving Technologist, Volume 69, 2000, pp. 122-147.
- 235 Mohammad, L. N., Huang, B., and Raghavendra, A., "Laboratory Performance Evaluation of Cement Treated Soil Base Course Mixtures," Journal of the Transportation Research Board, No. 1721, December 2000, pp. 19-28.
- Titi, H. H., Mohammad, L. N. and Tumay, M.T., "Miniature Cone Penetration Tests in Soft and Stiff Clays," ASTM Geotechnical Testing Journal, Volume 23, No. 4, December 2000, pp. 432-443.
- Puppala A., <u>Mohammad, L. N.</u>, Allen, A., "Permanent Deformation Characterization of Subgrade Soils from RLT Test," ASCE Journal of Materials in Civil Engineering, Vol. 11, No. 4, Nov. 1999, pp. 274-282.

- Mohammad, L. N., Huang, B., Puppala, A, and Allen A., "A Regression Model for Resilient Modulus of Subgrade Soils," National Research Council Journal of the Transportation Research Board, No. 1687, 1999, pp. 47-54.
- Mohammad, L. N., Huang, B., and Zhang, X., "Laboratory Performance Evaluation of SMA, CMHB, and Dense Graded Asphalt Mixtures," Journal of the Association of Asphalt Paving Technologist, Volume 68, 1999, pp. 252-283.
- Huang, B., Mohammad, L. N., Ragavendra, A., and Abadie, C., "Fundamental of Permeability in Asphalt Mixtures," Journal of the Association of Asphalt Paving Technologist, Volume 68, 1999, pp. 479-500.
- 241 <u>Mohammad, L. N.</u>, Titi, H., and Herath A., "Evaluation of Resilient Modulus of Subgrade Soil by Cone Penetration Test," National Academy of Science, Transportation Research Record No. 1652, Vol I, 1999, pp. 236-245.
- Mohammad, L. N., Titi, H., and Herath A., "Intrusion Technology: an Innovative Approach to Evaluate Resilient Modulus of Subgrade Soils," Application of Geotechnical Principles in Pavement Engineering, ASCE Geotechnical Special Publication No. 85, T. Papagiannakis, C. Schwartz, and P. Bosscher, Eds., American Society of Civil Engineers, New York, 1998, pp 39-58.
- 243 Roberts, F. L., <u>Mohammad, L. N.</u>, Ludfi, Djakfar, and Raghavendra, A., "Design, Construction, and Analysis of Pavements Under ALF Loading," National Academy of Science, Transportation Research Record No. 1590, "Asphalt Mixture Quality, Characteristics, and Performance," Washington, D.C., 1997, pp. 73-79.
- Puppala, A., Mohammad, L. N., and Allen, Aaron, "Engineering Behavior of Lime Treated Subgrade Soils," National Academy of Science, Transportation Research Record No. 1546, Issues in Geotechnical Engineering Research, 1996, pp. 24-31
- Mohammad, L. N., and Puppala, A., "Resilient Properties of Laboratory Compacted Subgrade Soils," National Academy of Science, Transportation Research Record No. 1504 "Modeling and Model Verification; Testing Pavement Layers and Materials; and Low cost Drainage Structures," 1995, pp 87-102.
- Mohammad, L. N., Alavilli, P., and Puppala, A., "Influence of Testing Procedures and LVDTs Location on Resilient Modulus of Soils," National Academy of Science, Transportation Research Record No. 1462, 1994, pp.91-101.
- 247 <u>Mohammad, L. N.</u>, Puppala, A.,and Kathavate, S., "Design and Reliability Assessment of a Data Acquisition System for the Louisiana Accelerated Loading Device," National Academy of Science, Transportation Research Record No. 1435, 1994, pp. 16-26.
- Mohammad, L. N., Puppala, A., and Alavilli, P., "Effect of Strain Measurements on Resilient Modulus of Granular soils," Dynamic Geotechnical Testing: Second Volume, ASTM STP 1213, R.J. Ebelhar, V.P. Drnevich, and B.L. Kutter, Eds., American Society for Testing and Materials, Philadelphia, 1994, pp. 202-221.

- Mohammad, L. N., and Paul, H.R., "Evaluation of the Indirect Tensile Test for Determining the Structural Properties of Asphalt Mix," National Academy of Science, Transportation Research Record No. 1417, 1993, pp. 58-63.
- Mohammad, L. N., Alavilli, P., and Puppala, A., "Data Acquisition System for Determining the Resilient Modulus of Soils," Advances in Site Characterization: Data Acquisition, Management and Interpretation, ASCE Geotechnical Special Publication No. 37, C. Ho, and R.D. Hryciw, Eds., American Society of Civil Engineers, New York, 1993, pp. 27-41.
- Mohammad, L. N., and Paul, H.R., "Evaluation of a New Indirect Tensile Test Apparatus," National Academy of Science, Transportation Research Record No. 1353, 1992, pp. 62-68.
- Voyiadjis, G. Z., and Mohammad, L. N., "Theory vs. Experiment for a Finite Strain, Visco-Plastic, Lagrangian Constitute Model," International Journal of Plasticity, Vol. 7, 1991, pp. 329-350.
- Shoemaker, R.S., Bertone A. L., <u>Mohammad, L. N.</u>, and Arms, S.W., "Desmotomy of the Accessory Ligament of the Superficial Digital Flexor Muscle in Equine Cadaver Limbs," Journal of Veterinary Surgery, Vol. 20(4), 1991, pp. 245-252.
- Voyiadjis, G.Z., and Mohammad, L. N., "Rate Equations for Visco-Plastic Materials Subjected to Finite Strains," International Journal of Plasticity, Vol. 4, 1988, pp. 215-229.

## **Software Copyright**

QLAS V.1.1: Quality Level Analysis Utilizing Percent Within Limits for QC/QA of Asphaltic Concrete Pavement, 1998.

FORDUC<sup>©</sup> V.1.1: Test Method for Bituminous Materials in Tension, 1994.

#### **Patents Granted:**

Elseifi M., and Mohammad, L., "Wet Process for Recycling Asphalt Shingle in Asphalt Binder for Asphalt Paving Applications." Serial number of 14/191,977, February 2014.

#### **Developement of Standard Test Methods**

Designation	Test Method Title
AASHTO TP 114	Determining the Interlayer Shear Strength of Asphalt Pavement Layers
AASHTO TP 115	Determining the Quality of Tack Coat Adhesion to the Surface of an Asphalt Pavement in the Field or Laboratory
ASTM D8044	Evaluation of Asphalt Mixture Cracking Resistance Using the Semi-circular Bend (SCB) Test at Intermediate Temperature

# **Editor of Books/Journal**

**Editor** 

- 1. Tran-SET 2022, Proceedings of the Tran-SET Conference 2022, edited by S. Dessouky, H. Dhasmana, M. Hassan, and L. Mohammad, August 31-September 2, 2022, ASCE, Reston VA.
- 2. Asphalt Pavement Technologies: Innovation and Sustainability Materials. Special Collection, edited by Huang, H., Huang, B, Zhao, H., Shen, S., and Mohammad, L.N., ASCE Journal of Materials in in Civil Engineering, Jan. 2022, Reston, VA.
- 3. Developing, Evaluating, and Implementing Cutting-edge Technologies, Novel Materials, and Innovative Construction Management Processes to Enhance the Durability and Service of Transportation Infrastructure, Proceedings of the Tran-SET Conference 2021, edited by Z. Hossain, M. Hassan, and L. Mohammad, June 3-4,2021, ASCE, Reston VA.
- 4. Sustainable Civil Infrastructures: Sustainable Issues in Transportation Engineering, Proceedings of the 3rd GeoMEast International Congress and Exhibition, Egypt 2019 on Sustainable Civil Infrastructures, Edited by L. Mohammad and Ragaa El-Hakim, November 10-14, 2019, Cairo, Egypt
- 5. Sustainable Civil Infrastructures: New Frontiers in Sustainable Roads, Edited by Louay Mohammad and Hany Shehata, ASCE Journal of Materials in Civil Engineering, 2019.
- Sustainable Road Paving: Materials, Design, Construction, and Maintenance, Journal of 6. Cleaner Production, Edited by Baoshan Huang, Mingzhou Jin, Wang Yuhong, Louay N. Mohammad, Xueyan Liu, 2018
- 7. Transportation and Pavement Engineering, Proceeding of the GeoMEast 2017 Conference, Edited by Louay Mohammad, July 15~19, 2017, Sharm El-Sheikh, Egypt
- 8. Performance Tests for Hot Mix Asphalt (HMA), Including Fundamental and Empirical Procedures, ASTM, STP No. 1469, Philadelphia, PA, 2005
- 9. Journal of the Association of Asphalt Pavement Association CD ROM version, Minneapolis, MN

Volumes 1-15, September 2007

Volumes 9-13, Volumes 14-18, September 2006

Volumes 19-23, Volumes 24-28, September 2005

Volumes 29-33, Volumes 34-38, September 2004

Volumes 39-43, Volumes 43A-47, September 2003

Volumes 48-52, Volumes 53-57, September 2002.

Volumes 58-62, March 2002., Volumes 63-67, March 2001.

10. Proceedings of the 1997 ASCE Louisiana Section Spring Annual Meeting and Conference, Baton Rouge, Louisiana, 1997.

Bituminous/Flexible Pavements Section editor,

ASCE Journal of Materials in Civil Engineering, February 2014 - Present

Associate Editor,

ASCE Journal of Materials in Civil Engineering, October 2001 - February 2014

International Journal of Pavement Research and Technology, 2007 - Present

Journal of Engineering Research, 2005 - Present

### **Refereed Proceedings Papers**

- Ojha, A., Saadeh, S., Tanvir, S., Mohammad, L. N., Butt, A., and Harvey, J. "Employing Life Cycle Assessment in Asphalt Mixture Design Using Reclaimed Asphalt Pavement." Proceedings of the at the International Airfield and Highway Pavements Conference, June 8-11, 2025, Glendale, Arizona., pp. 54-65.
- Amarh, E., Bowers, B., Cooper III, S., Diefenderfer, B., Dylla, H., Flintsch, G., Gatiganti, S., Mohammad, L. N., Tran, N., and Elnam, I., "Piloting Life Cycle Assessment: Experiences from Alabama, Louisiana, Mississippi, and Virginia Departments of Transportation Case Studies." Proceedings of the 6<sup>th</sup> International Symposium on Pavement, Roadway, and Bridge Life Cycle Assessment, June 6-8, 2024, Arlington, VA., pp. 206-219.
- Abufarsakh, R., Arce, G., Hassan, M., Subedi, S., Huang, S., Radovic, M., Sang, Z., Sukhishvili, S., and Mohammad, L. N., "Highly Pseudo Ductile Metakaolin Based Engineered Geopolymer Composites Using Low UHMWPE Fiber Content." Proceedings of the 2021Tran-SET Conference, Virtual, June 3-4, 2021, edited by Z. Hossain, M. Hassan, and L. Mohammad, ASCE, Reston, VA., pp. 240-352.
- Subedi, S., Arce, G., Hassan, M.,, and Mohammad, L. N., "Feasibility of Engineered Cementitious Composites Implementing Combined Systems of Post-Processed Bagasse Ash and Fly Ash as SCMs." Proceedings of the 2021Tran-SET Conference, Virtual, June 3-4, 2021, edited by Z. Hossain, M. Hassan, and L. Mohammad, ASCE, Reston, VA., pp. 353-364.
- Mohammad, L. N., and Akentuna, M., "Improving Asphalt Pavement Density: Design and Construction." Proceedings of the 7th Eurasphalt & Eurobitume Congress v1.0, July 2020, ISBN: 9789080288461, pp. 1-7.
- Noor, L., Wasiuddin, N., Mohammad, L. N., and Salomon, D., "Use of Fourier Transform Infrared (FT-IR) Spectroscopy to Determine the Type and Quantity of Rejuvenator Used in Asphalt Binder." Proceedings of the 3rd GeoMEast International Congress and Exhibition, Egypt 2019 on Sustainable Civil Infrastructures Conference, Cairo, Egypt, November 10-14, 2019, pp. 70-84
- Shirzad, S., Hassan, M., Aguirre, M., Cooper, Jr., S., <u>Mohammad, L. N.</u>, and Negulesco, I., "Evaluating the Properties of Self-Healing Polymer Modified Asphalt Mixtures Containing Recycled Asphalt Materials (RAP/RAS)." Proceedings of the 2019 Tran-SET Conference, San Antonio, TX, April 11-12, 2019.

- Aguirre, M., Hassan, M., Shirzad, S., <u>Mohammad, L. N.</u>, Cooper, Jr., S., and Negulesco, I., "Performance Characteristics of Asphalt Binders containing Sodium-Alginate Hollow Fibers and Recycled Materials." Proceedings of the 2019 Tran-SET Conference, San Antonio, TX, April 11-12, 2019.
- Cao, W., Mohammad, L. N., and Barghabany, P., "Effect of Recycled Materials on Intermediate Temperature Cracking Performance of Asphalt Mixtures." Proceedings of the RILEM 252-CMB Symposium, Braunschweig, Germany, RILEM Book Series, Volume 20, 2019, pp. 229-235.
- Shirzad, S., Hassan, M., Aguirre, M., Cooper, Jr., S., Negulesco, I., and Mohammad, L. N., "Enhancing the Durability and the Service Life of Asphalt Pavements through Innovative Light-Induced Self-Healing Material." Proceedings of the 2018 Tran-SET Conference, New Orleans, Louisiana, April 3-4, 2018, pp. 114-117
- Aguirre, M., Hassan, M., Shirzad, S., Cooper, Jr., S., Negulesco, I., and Mohammad, L. N., "Development of a Self-healing and Rejuvenating Mechanism for Asphalt Mixtures Containing Recycled Materials." Proceedings of the 2018 Tran-SET Conference, New Orleans, Louisiana, April 3-4, 2018, pp 118-122.
- Hassan, M., Lodge, A., <u>Mohammad, L. N.</u>, and King, W., "Characterization of Recycled Asphalt Shingles." Proceedings of the 2016 Construction Research Congress, San Juan, Puerto Rico, May 31-June 2, 2016, pp.1102-1111.
- Mohammad, L. N., Hassan, M., Vallabhu, B., and Kabir S. "Mechanistic, Environmental, and Economic Analysis of WMA Technologies in Louisiana." Proceedings of the 2016 Construction Research Congress, San Juan, Puerto Rico, May 31-June 2, 2016, pp.270-279.
- Hanandeh, S., Abu-Farsakh, M., Mohammad, L. N., Chen, Q., and Saghebfar, M., "Full-Scale Accelerated Load Testing of Geosynthetics Reinforced/Stabilized Paved Roads Built Over Native Soft Subgrade." Proceedings of the 2016 Geo-America, Miami, Florida, April 10-13, 2016, pp. 1-10
- Mohammad, L. N., Elseifi, M., Cooper, Jr., S., "Development of Louisiana's Rubberized Asphalt Binder Specification." Proceedings of the Asphalt Rubber 2015 Conference, Las Vegas, USA, October 4-7, 2015, pp. 77-85.
- 16 Cooper, Jr., S., <u>Mohammad, L. N.</u>, Elseifi, M., "Infrastructure Sustainability: The Use of Recycled Asphalt Shingles in Flexible Pavements." Proceedings of the 2014 GeoShanghai International Conference, Shanghai, China, May 26-28, 2014, pp 1-8.
- Mohammad, L. N., Cooper, III. S., Challa, H., "Laboratory Performance Asphalt Mixtures Containing Bio-Binders." Proceedings of the 2013 Airfield & Highway Pavement Conference, Los Angeles, California, June 9-12, 2013. pp.1-10.
- Mohammad, L. N., Elseifi, M., Cooper, Jr. S., "Field Performance of Projects Containing Crumb Rubber Modified Asphaltic Concrete." Proceedings of the 5th Asphalt Rubber Conference, Munich, Germany, October 23-26, 2012. pp.67-77.

- Mohammad, L. N., Kim, M., Elseifi, M., "Characterization of Asphalt Mixture's Fracture Resistance Using the SCB Test." Proceedings of the 7th Rilem International Conference on Cracking in Pavements Mechanism, Modeling, Testing, Detection, Prevention, and Case History, Vol. I, Delft, Netherlands, June 20-22, 2012. pp.1-10.
- 20 <u>Mohammad, L. N.</u>, Hassan, M., Cooper, III. S., Asadi, S., "Laboratory Evaluation of Asphaltic Mixtures Containing Titanium Dioxide Photocatalyst." Proceedings of the 5th EuroAsphalt and EuroBitumon Conference, Istanbul, Turkey, June 13-15, 2012. pp.1-8.
- Mohammad, L. N., Elseifi, M., Cooper S., "Laboratory Evaluation of Asphalt Mixtures Containing Sustainable Technologies." CD proceedings of the 1<sup>st</sup> Conference of Transportation Research Group of India, Bangalore, India, December 7-10, 2011, Paper 165. pp.1-8.
- Mohammad, L. N., Elseifi, M., Patel, N., "The Effect of Tack Coat Material, Application Rate, and Pavement Surface Types on the Interface Shear Strength." Proceeding of the 5<sup>th</sup> International Conference on Bituminous Mixture and Pavements, Thessaloniki, Greece, June 1-3, 2011, pp. 795-804.
- Schmitt, M, Dylla, H., Hassan, M., <u>Mohammad, L. N.</u>, Rupnow T, and. Wright, E. "Impact of Mixed Nitrogen Dioxide (NO2) and Nitrogen Oxide (NO) Gases on Titanium Dioxide Photodegradation of Nox." Proceeding of the 1<sup>st</sup> ASCE T&DI Congress: Integrated Transportation & Development for a Better Tomorrow, Chicago, IL, March 13-16, 2011. pp. 731-740.
- Wasiuddin, N., Saltibus, N., and. Mohammad, L. N., "Effects of a Wax-Based Warm Mix Additive on Cohesive Strengths of Asphalt Binders." Proceeding of the 1<sup>st</sup> ASCE T&DI Congress: Integrated Transportation & Development for a Better Tomorrow, Chicago, IL, March 13-16, 2011. pp. 528-537.
- Mohammad, L. N., Bae, A., Elseifi, M., and Patel, N., "Factors that Influence the Performance of Interface Shear Strength of Pavement Interlayers." Proceeding of the 24th Australian Road Research Board Conference, Melbourne, Australia, October 12-15, 2010.
- Mohammad, L. N., Elseifi, M., and Cooper, S., "Laboratory Evaluation of Sulfur-Extended Asphalt Mixture," Proceeding of the 2nd International Conference on Construction in Developing Countries, Cairo, Egypt, August 3-5, 2010, pp. 677-684.
- Hassan, M., Mohammad, L. N., and Dylla, H., "Effect of Ultrafine/Nano Titanium Dioxide on the Performance Grade of Asphalt Binders." Proceedings of the 2nd International Conference on Construction in Developing Countries, Cairo, Egypt, August 3-5, 2010, pp. 429-436.
- Zhang, Z., <u>Mohammad, L. N.</u>, and Cooper, S., "Evaluation of Asphalt Mixtures Containing Sasobit Warm Mix Asphalt Additive," Proceeding of the International Workshop on Energy and Environment in the Development of Sustainable Asphalt Pavements, Xi'an, China, June 6-8, 2010, pp. 41-43.
- Mohammad, L. N., and Hassan, M., "Characterization of Ultrafine Titania Modifies Asphalt Binders," Proceeding of the International Workshop on Energy and Environment in the Development of Sustainable Asphalt Pavements, Xi'an, China, June 6-8, 2010, pp. 101-103.

- Hassan, M. M., Dylla, H., <u>Mohammad, L. N.</u>, and Rupnow, T., "Durability of Titanium Dioxide Photocatalytic Layer for Pavement Surfaces." Proceeding of the 46th Annual Conference of the Assorted Schools of Construction, Boston, Massachusetts, April 2010, pp. 1-9.
- Mohammad, L. N. and Cooper, S., "Characterization of HMA Mixtures Containing High RAP Content with Crumb Rubber Additives." Proceeding of the Asphalt Rubber 2009 Conference, Nanjing, China, November 1-3, 2009, pp. 233-254.
- Mohammad, L. N., Bae, A., and Elseifi, M., "Effect of Tack Coat Materials and Application Rates on the Interface Shear Strength." Proceeding of the 6<sup>th</sup> International Symposium on Maintenance & Rehabilitation of Pavements, Vol. II, Torino, Italy, July 8-10, 2009, pp. 636-645.
- Abu Farsakh, M, Nazzal, M., and Mohammad, L. N., "Characterizing the Behavior of Geogrid-Reinforced Crushed Limestone Base Materials Using Monotonic and Cyclic Load Tests." Proceeding of the 4<sup>th</sup> International Gulf Conference on Roads, Doha, Qatar, November 11-13, 2008, pp. 753-759.
- Mohammad, L. N., and Obulareddy, "Permanent Deformation Analysis of HMA Mixtures Using Simple Performance Tests." Proceeding of the 4<sup>th</sup> International Gulf Conference on Roads, Doha, Qatar, November 11-13, 2008, pp. 601-610.
- Mohammad, L. N., Saadeh, S., and Kabir, Md., "Evaluation of Fracture Properties of Hot Mix Asphalt" Proceeding of the 6<sup>th</sup> RILEM International Conference on Cracking in Pavements, Chicago, Illinois, June 16-18, 2008
- Mohammad, L. N., and Saadeh, S., "Laboratory Evaluation of Asphalt Mixtures Using Simple Performance Tests." Proceeding of the 5<sup>th</sup> Symposium on Maintenance & Rehabilitation of Pavements, Park City, Utah, August 8-10, 2007, pp. 229-234.
- 37 <u>Mohammad, L. N.</u>, and Saadeh, S., "Laboratory Evaluation of Asphalt Mixtures Using Simple Performance Tests." Proceeding of the 4<sup>th</sup> International Conference on Bituminous Mixture and Pavements, Thessaloniki, Greece, April 19-20, 2007.
- Mohammad, L. N., and Raqib, M., "Laboratory Evaluation of Asphalt Tack Coat Materials on Interface Bond Strength." CD Proceedings of the 12<sup>th</sup> Conference of the Road Engineering Association of Asia and Australasia, Manila, Philippines, November 20-24, 2006.
- Mohammad, L. N., Qi, Y., Wu, Z., and Rasoulian, "Evaluation of Stone and RAP Interlayers under Accelerated Loading." Proceedings of the 10<sup>th</sup> International Conference on Asphalt Pavements, Québec, Canada, August 13-17, 2006.
- Khattak, M., Yuan, Y., <u>Mohammad, L. N.</u>, and Abadie, C., "In-Situ Layer Moduli of Pavements Using Nondestructive Testing: A Case Study." Proceedings of the 10<sup>th</sup> International Conference on Asphalt Pavements, Québec, Canada, August 13-17, 2006.
- Alshamsi, K., and Mohammad, L. N., "Laboratory Optimization of Asphalt Concrete Mixture Design." Proceedings of the Third Gulf Conference on Roads, Muscat, Oman, March 6-8, 2006, pp. 82-91.

- Cooper, S., and Mohammad, L. N., "Performance Evaluation of Novachip Surface Treatment in Louisiana," Proceedings of the First National Conference on Pavement Preservation, Transportation Research Circular No. E-C078, Kansas City, Missouri, October 31-November 1, 2005, pp. 200-213.
- Mohammad, L. N., Wu, Z., Xu, Q., and Rasoulian, M., "Accelerated Pavement Testing of Untreated RAP Layer in Flexible Pavement," CD Proceedings of the Fourth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control, Belfast, Northern Ireland, August 18-19, 2005, Paper 145, pp. 1-11.
- Mohammad, L. N., Abu-Farsakh, M., Wu, Z., and Abadie, C., "Design and Construction of Foamed Recycled asphalt pavement base materials," CD Proceedings of the 2005 International Symposium on Pavement Recycling, São Paulo, Brazil, March 14-16, 2005, pp. 1-15.
- 45 <u>Mohammad, L. N.</u>, Rasoulian, M, Huang, B., and Roberts, F., "APT and Laboratory Evaluation of Crumb Rubber Asphalt Pavements," CD of the Second International Conference on Accelerated Pavement Testing, Minneapolis, MN, September 26-29, 2004, pp. 1-23
- Mohammad, L. N., Wu, Z., and Aglan, M., "Characterization of Fracture and Fatigue Resistance of Recycled Polymer-Modified Asphalt Pavements," Proceeding of the RILEM: 5th International Conference on Cracking in Pavements Mitigation, Risk Assessment and Prevention, Ed. By . Petit, C., Al-Qadi, I., and Millien, A., Limoges, France, May 5-8, 2004, pp. 375-382.
- Mohammad, L. N., Huang, B., Robert, F., and Rasoulian M., "Performance of Crumb Rubber Asphalt Pavement Through Accelerated Loading," International Conference on Highway Pavement Data Analysis & Mechanistic Design Applications, Columbus, OH, September 8-10, 2003, pp. 17-28.
- Mohammad, L. N., Wu, Z., Daly, B., and Negulescu, I., "Fatigue Performance of Asphalt Mixtures Containing Recycled Polymer-Modified Cements," Third International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control, Guimaraes, Portugal, July 7-10, 2003, pp. 505-514.
- Huang, B., and Mohammad, L. N., "Laboratory Comparisons and Numerical Analysis of Open Graded Asphalt Treated Drainable Base Mixtures," Third International Conference on Bituminous Mixtures and Pavements, Thessaloniki, Greece, November 21-22, 2002, pp. 557-567.
- Mohammad, L. N., Raqib, Md., Wu, Z., and Huang, B., "Measurement of Interlayer Bond Strength Through Direct Shear Tests," Third International Conference on Bituminous Mixtures and Pavements, Thessaloniki, Greece, November 21-22, 2002, pp. 123-133.
- Huang, B., Mohammad, L. N., Rasoulian, M., Roberts, F., Qin, H., "Numerical Validation of Pavement Performance at the Louisiana Accelerated Loading Facility (ALF)," Ninth International Conference on Asphalt Pavements (ISAP), Copenhagen, Denmark, August 17-22, 2002, pp. 5:2-7

- Huang, B. and Mohammad, L. N., "Development of Large Stone Asphalt Mixtures in Louisiana," Proceeding of the 4th International Conference on Road & Airfield Pavement Technology, Kunming, China, April 23-25, 2002, pp. 496-505
- Mohammad, L. N., Huang, B., "Large Stone Asphalt Mixtures: Development of Rut Resistant Mixtures," Proceeding of the 2<sup>nd</sup> International Conference on Engineering Materials, San Jose, California, August 16-19, 2001, pp. 309-320.
- Mohammad, L. N., Huang, B., Cea, M., "Rutting Measurements of HMA Mixtures with the Asphalt Pavement Analyzer," Second International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control, Auburn, Alabama, July 29 August 1, 2001, Paper No. 01-146, pp. 1-11.
- Mohammad, L. N., Huang, B., and Raghavendra, A., "Fundamental Characterization of Superpave Mixtures," Proceeding of the 2<sup>nd</sup> Asia Pacific Conference on Transportation & the Environment, April 11 13, 2000, Beijing, China.
- Mohammad, L. N., Huang, B., and Raghavendra, A., "Comparisons between Asphalt Pavement Analyzer and Superpave Shear Tester Results for the Louisiana Superpave Design Projects," Proceeding of the Civil & Environmental Engineering Conference "New Frontier and Challenges" November 8 12, 1999, Bangkok, Thailand, Volume 4, pp. VII 9-VII 19.
- Yeh, P., Negulescu, Daly, W., and Mohammad, L. N., "Flow Properties of Asphalt Cements by Compounding with Synthetic Polymers, Proceeding of the American Chemical Sociaty, Volume 44, No. 4, 218<sup>th</sup> ACS National Meeting, August 22-26, 1999, New Orleans, Louisiana, pp. 1025-1028.
- Mohammad, L. N., and Gokman, "Performance of HMA Mixes with Hydrated Lime," Proceedings of the 5th International Conference on Bearing Capacity of Road and Airfields, Volume 2, Trondheim, Norway, July 6-8, 1998, pp. 1163-1171.
- Mohammad, L. N., Tan, Z., and Huang, B., "Fundamental Properties of SMA and CMHB Mixes, Proceedings of the 5th International Conference on Bearing Capacity of Road and Airfields, Volume 2, Trondheim, Norway, July 6-8, 1998, pp. 1067-1075.
- Mohammad, L. N., and Gokman, R., "Structural Properties of Bituminous Mixtures Modified With Hydrated Lime," Proceedings of the 1st Asia Pacific Conference on Transportation and the Environment, Volume 2, Singapore, May 13 15, 1998, pp. 745-750.
- Mohammad, L. N., Tan, Z., and Huang, B., "Structural Performance of SMAs and CMHBs Mixes," Proceedings of the 1st Asia Pacific Conference on Transportation and the Environment, Volume 2, Singapore, May 13 15, 1998, pp. 780-788.
- Mohammad, L. N., and Gokman, R., "Fatigue And Permanent Deformation Characteristics of Bituminous Mixtures Modified With Hydrated Lime," Proceeding of the 3rd International Conference on Road & Airfield Pavement Technology, Volume 1, Beijing, P. R. China, April 28 30, 1998, pp. 19-27.
- 63 <u>Mohammad, L. N.</u>, Tan, Z., and Huang, B., "The Influence of Aggregate and Binder Type on the Fundamental Engineering Properties of Stone Mastic Asphalt and Coarse Matrix High

- Binder Mixtures," Proceedings of the 3rd International Conference on Road & Airfield Pavement Technology, Volume 3, Beijing, P. R. China, April 28 - 30, 1998, pp. 28-36.
- Huang, B., Mohammad, L. N., Zhu, J., and Zhu, X., "Design, Construction and Monitoring for 64 the Excavation of Shanghai World Plaza," Proceedings of the Fourth International Conference on Case Histories in Geotechnical Engineering, St. Louis, MO, March 9-12, 1998, pp. 763-773.
- 65 Puppala, A. J., and Mohammad, L. N., "A Regression Model for Better Characterization of Resilient Properties of Subgrade Soils," Proceedings of the Eight International Conference on Asphalt Pavements (ISAP) - Volume 1, Seattle, Washington, August 10-14, 1997, pp. 859-866.
- Mohammad, L. N., and Paul, H. R., "Permanent Deformation and Fatigue Characteristics of 66 SMA," Mixtures," Materials for the New Millennium, Vol. 1, Ed. By Ken P. Chong, Proceedings of the ASCE 1996 Materials Engineering Conference, Washington, DC, November 11-14, 1996, pp. 622-630.
- 67 Mohammad, L. N., and Paul, H. R., "Design of SMA Mixture for an Orthotropic Bridge Deck Resurfacing," Asphalt & Surfacings, Stabilization, Recycling, Vol. 2, Proceeding of the Joint 18th Australian Road Research Board Transport Research Conference, Christchurch, New Zealand, September 2 - 6, 1996, pp. 1-16.
- Puppala, A., Mohammad, L. N., and Allen, A., "Non-Linear Model for Resilient Modulus 68 Characterization of Granular Soils," Proceeding of the 11th ASCE Engineering Mechanics Conference, Fort Lauderdale, Florida, May 19-22, 1996, pp. 559-562.
- 69 Daly W., Mohammad, L. N., Negulescu, I., Paul, H. R., and Youngblood, J., "Fundamental Properties of Asphalt Rubber Blends," Proceedings of the ASCE 1994 Materials Engineering Conference, San Diego, Ca., November 13-16, 1994, pp. 425-431.
- 70 Voyiadjis, G.Z., and Mohammad, L. N., "Constitutive Equations for Rate Sensitive Materials Subjected to Finite Strains," Constitutive Laws for Engineering Materials, Theory and Applications, Volume II, Proceedings of the Second International Conference on Constitutive Laws for Engineering Materials, Tucson, Arizona, January 1987, Elsevier Publishing Co., 1987, pp. 1401 - 1410.

### **Other Proceedings Papers**

- 1. Bertone A.L., Shoemaker, K.E., Pechman, R. D., and Mohammad, L. N., " Effects of Superficial Digital Flexor Accessory Desmotomy in the Horse: in Vivo Study," Proceeding of the 18th Annual Conference on Veterinary Orthopedic Society, Abstracts, p4, 1991.
- 2. Mohammad, L. N., "Performance and Repeatability of the Indirect Tension Test," Proceedings of the 16th Annual Southwest Geotechnical Conference, Rancho Cordova, California, Abstracts, p36, 1991.
- Shoemaker, S.D., Bertone A.L., and Mohammad, L. N.," Biomechanical Effects of Superior 3. Check Ligament Desmotomy in the Horse: an in Vitro Study," Vet. Surg 1, 75, 1990.
- 4. Voyiadjis, G. Z., and Mohammad, L. N., "Finite Element Analysis for Visco-Plastic Lagrangian Constitutive Models," Proceedings of the International Conference on

Computational Engineering Science, Vol. 1, Chapter 19.vii.2, Spring-Verlag Publishing Co., Atlanta, Ga., April 10-14, 1988.

### **TECHNICAL REPORTS**

- 1. Mohammad, L. N., Akentuna, M., Asghar, M., and Elnaml, I., "Development of a Moisture Sensitivity Test for Asphalt Mixtures." Louisiana Transportation Research Center, Report No. FHWA/LA.25/712, Baton Rouge, Louisiana, June 2025.
- 2. Mohammad, L. N., Akentuna, M., Boateng, K., and Pant, S., "Assessment of Long-Term Performance of Louisiana Asphalt Pavements." Louisiana Transportation Research Center, Report No. FHWA/LA.25/711, Baton Rouge, Louisiana, June 2025.
- 3. Mohammad, L. N., and Ma., Y., "Development of a Cyclic Semi-Circular Bend Test to Evaluate Asphalt Mixture Crack Propagation Properties at Intermediate Temperature." Louisiana Transportation Research Center, Report No. FHWA/LA.25/710, Baton Rouge, Louisiana, June 2025.
- 4. Mohammad, L. N., Abualia, A., and Liu, J., "Development of a Standard Practice for the Design of Durable Open-Graded Friction Course (OGFC) Mixtures with Epoxy Asphalt." Louisiana Transportation Research Center, Report No. FHWA/LA.24/696, Baton Rouge, Louisiana, July 2024.
- 5. Mohammad, L. N., Jun, L., Cao, W., and Barghabany, P., "Implementation of Semi-circular Bend (SCB) Test for QC/QA of Asphalt Mixtures." Louisiana Transportation Research Center, Report No. FHWA/LA.24/685, Baton Rouge, Louisiana, June 2024.
- 6. Mohammad, L. N., Cao, W., and Barghabany, P., "Design and Analysis Procedures for Asphalt Mixtures Containing High RAP Contents and/or RAS." Louisiana Transportation Research Center, Report No. FHWA/LA.17/639, Baton Rouge, Louisiana, April 2021.
- 7. Mohammad, L. N., and Akentuna, M., "Demonstration Project for Enhanced Durability of Asphalt Pavements through Increased In-Place Pavement Density." Louisiana Transportation Research Center, Report No. FHWA/LA.17/628, Baton Rouge, Louisiana, November 2020.
- 8. Mohammad, L. N., Cooper, Jr., S., and Kim, M., "Sustainable Materials for Pavement Infrastructure: Design and Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles." Louisiana Transportation Research Center, Report No. FHWA/LA.17/594, Baton Rouge, Louisiana, July 2019.
- 9. Bahia, H., Sufian, A., Swiertz, D., Mohammad, L. N., and Akentuna, M., "Investigation of Tack Coat Materials Tracking Performance." Wisconsin Department of Transportation, Report No. 92-17-06, Madison, Wisconsin, July 2019.
- 10. <u>Mohammad, L. N.</u>, Kim, M., and Phaltane, P., "Effects of Temperature Segregation on the Volumetric and Mechanistic Properties of Asphalt Mixtures." Louisiana Transportation Research Center, Report No. FHWA/LA.17/604, Baton Rouge, Louisiana, May, 2019.
- 11. Ali, H., Mohammad, L. N., Mohammadafzali, M., Haddadi, F., and Akentuna, M., "Evaluation of the Effect of Homogeneity of the Asphalt Binder on Performance of a Recycled Mix."

- Florida Department tof Transportation, Report No. BDV29-977-35, Gainesville, Florida, March 2019.
- 12. <u>Mohammad, L. N.</u>, Raghavendra, A., Medeiros, M., Hassan, M., and King, W., "Evaluation of Warm Mix Asphalt Technology in Flexible Pavements." Louisiana Transportation Research Center, Report No. FHWA/LA.15/553, Baton Rouge, Louisiana, June 2018.
- 13. <u>Mohammad, L. N.</u>, Alshamsi, K., and Saadeh, S., "Optimization of Asphalt Mixture Design for Louisiana ALF Test Sections." Louisiana Transportation Research Center, Report No. FHWA/LA.07/42, Baton Rouge, Louisiana, May 2018.
- 14. Cooper, Jr., S., <u>Mohammad, L.N.</u>, Mata, D., and Cooper, III, S., "Evaluation of Tack Coat Materials on Longitudinal Joints in Louisiana." Louisiana Transportation Research Center, Report No. FHWA/LA.07/577, Baton Rouge, Louisiana, February 2018.
- 15. <u>Mohammad, L. N.,</u> Elseifi, M., Das, R., and Cao, W., "Validation of the Louisiana Interlayer Shear Strength Test for Tack Coat." National Cooperative Highway Research Program, Report No. 878, Transportation Research Board, Washington, D.C., 2018.
- 16. Shen, S., Wu, S., Zhang, W., <u>Mohammad, L. N.</u>, Wen, H., Muhunthan, B., and Bahadori, A., "Performance of WMA Technologies: Stage II Long-term Field Performance." National Cooperative Highway Research Program, Report No. 843, Transportation Research Board, Washington, D.C., 2017.
- 17. Bahia, H., Moraes, R., Sufian, A., Swiertz, D., and Mohammad, L. N., "Investigation of Tack Coat Materials on Tracking Performance, Memorandum: Literature Review Report" Wisconsin Highway Research Program Project 0092-17-06, 2017
- 18. <u>Mohammad, L.N.</u>, Cooper, III, S., and Elseifi, M., "Mechanistic Evaluation of Asphalt Mixtures Containing Thiopave Additives." Louisiana Transportation Research Center, Report No. FHWA/LA.12/500, Baton Rouge, Louisiana, April 2016.
- 19. <u>Mohammad, L.N.</u>, Kim, M, and Challa, H., "Development of Performance-based Specifications for Louisiana Asphalt Mixtures." Louisiana Transportation Research Center, Report No. FHWA/LA.14/558, Baton Rouge, Louisiana, February 2016.
- 20. <u>Mohammad, L. N.</u>, M. A. Elseifi, S. B. Cooper, III, C. S Hughes, J. W. Button, and E. L. Dukatz, Jr., "Comparing the Volumetric and Mechanical Properties of Laboratory and Field Specimens of Asphalt Concrete." National Cooperative Highway Research Program, Report No. 818. Transportation Research Board, Washington, D.C., 2016.
- 21. <u>Mohammad, L.N.</u>, Elseifi, M., Raghavendra, A., and Ye, M., "Hamburg Wheel-Track Test Equipment Requirements and Improvements to AASHTO T 324." National Cooperative Highway Research Program, Report No. Web-Document 219. Transportation Research Board, Washington, D.C., 2015.
- 22. Wen, H., Shen, S., and Mohammad, L.N. "Performance of WMA Technologies: Stage II-Long-Term Field Performance." National Cooperative Highway Research Program, Phase II Interim Report, Washington, D.C., 2015

- 23. Nazarian, S., Mazari, M., Abdallah, I, Puppala, A., <u>Mohammad, L.N.</u>, and Abu-Farsakh, M., "Modulus-Based Construction Specification for Compaction of Earthwork and Unbound Aggregate." National Cooperative Highway Research Program, Final Report, Washington, D.C., 2014.
- 24. <u>Mohammad, L.N.</u>, Kim, M, Raghavendra, A., and Obulareddy, S., "Characterization of Louisiana Asphalt Mixtures Using Simple Performance Tests and MEPDG." Louisiana Transportation Research Center, Report No. FHWA/LA.11/499, Baton Rouge, Louisiana, April 2014.
- 25. <u>Mohammad, L. N.</u>, Nazzal, N., King, W., and Austin, A., "Development of a Design Methodology for Asphalt Treated Mixtures," Louisiana Transportation Research Center, Report No. FHWA/LA.09/453, Baton Rouge, Louisiana, December 2013.
- 26. <u>Mohammad, L. N., Wu, Z., and King, Jr, W., "Accelerated Loading Evaluation of Foamed Asphalt Treated RAP Layers in Pavement Performance," Louisiana Transportation Research Center, Report No. FHWA/LA.09/475, Baton Rouge, Louisiana, December 2013.</u>
- 27. <u>Mohammad, L. N.</u>, Cooper, S., Jr., King, W., and Raghavendra, A., "Characterization of HMA Mixtures Containing High Reclaimed Asphalt Pavement Content With Crumb Rubber Additives," Louisiana Transportation Research Center, Report No. FHWA/LA.09/465, Baton Rouge, Louisiana, March 2013.
- 28. <u>Mohammad, L. N.</u>, Kabir, M., Cooper, S., Jr., and Raghavendra, A., "Evaluation of Superpave Mixtures Containing Hydrated Lime," Louisiana Transportation Research Center, Report No. FHWA/LA/432, Baton Rouge, Louisiana, July 2013.
- 29. Gaspard, K., Mohammad, L. N., and Wu, Z., "In-Place Cement Stabilized Base Reconstruction Techniques: Construction and Eight Year Evaluation," Louisiana Transportation Research Center, Report No. FHWA/LA.11/427, Baton Rouge, Louisiana, March 2012.
- 30. <u>Mohammad, L. N.</u>, Elseifi, M., Bae, A., Button, J., Patel, N., and Scherocman, J. "Optimization of Tack Coat for HMA Placement," National Cooperative Highway Research Program, Final Report, Washington, D.C., 2012.
- 31. Nazarian, S., <u>Mohammad, L. N.</u>, and Puppala, A., "Modulus-Based Construction Specification for Compaction of Earthwork and Unbound Aggregate." National Cooperative Highway Research Program, Interim Report, Washington, D.C., 2011.
- 32. <u>Mohammad, L. N.</u>, and Elseifi, M., "Field Versus Laboratory Volumetrics & Mechanical Properties," National Cooperative Highway Research Program, Interim Report, Washington, D.C., December 2010.
- 33. <u>Mohammad, L. N.</u>, and Elseifi, M., "Field Versus Laboratory Volumetrics & Mechanical Properties," National Cooperative Highway Research Program, Interim Report, Washington, D.C., April 2010.
- 34. Daly, W., Negulescu, I., <u>Mohammad, L. N.</u>, and Chiparus, I., "The Use of DMA to Characterize the Aging of Asphalt Binders," Louisiana Transportation Research Center, Report No. FHWA/LA. 07/461, Baton Rouge, Louisiana, June 2010.

- 35. King, W., Kabir, S., and Mohammad, L. N., "Implementation of Testing Equipment for Asphalt Materials," Louisiana Transportation Research Center, Report No. FHWA/L.A.458, Baton Rouge, Louisiana, May 2009.
- 36. <u>Mohammad, L. N.</u>, Wu, Z., and Raghavendra, A., "Performance Evaluation of Louisiana Superpave Mixtures," Louisiana Transportation Research Center, Report No. FHWA/LA.06/410, Baton Rouge, Louisiana, December 2008.
- 37. <u>Mohammad, L. N.</u>, Rasoulian, M., King W., Martinez, M., and Qi, Y., "Evaluation of Stone/RAP Interlayers under Accelerated Loading," Louisiana Transportation Research Center, Report No. FHWA/LA.06/409, Baton Rouge, Louisiana, April 2007.
- 38. <u>Mohammad, L. N.</u>, Gaspard, K., Herath, H., and Nazzal, M., "Comparative Evaluation of Subgrade Resilient Modulus from Non-destructive, In-situ, and Laboratory Methods," Louisiana Transportation Research Center, Report No. FHWA/LA.06/417, Baton Rouge, Louisiana, August 2007.
- 39. Mohammad, L. N., Herath, H., Gudishala, R., Nazzal, M., Abu-Farsakh, M., and Alshibli, K., "Development of Models to Estimate the Subgrade and Subbase Layers Resilient Modulus from In-situ Devices Test Results for Construction Control," Louisiana Transportation Research Center, Report No. FHWA/LA.05/406, Baton Rouge, Louisiana, August 2008.
- 40. Cooper, S., <u>Mohammad, L. N.</u>, and Abadie, C., "Evaluation of Field Projects Using Crumb Rubber Modified Asphaltic Concrete," Louisiana Transportation Research Center, Report No. FHWA/LA.04/393, Baton Rouge, Louisiana, March 2007.
- 41. Daly, W., Negulescu, I., <u>Mohammad, L. N.</u>, and Chiparus, I., "The Use of DMA to Characterize the Aging of Asphalt Binders," Louisiana Transportation Research Center, Report No. FHWA/LA.461, Baton Rouge, Louisiana, January 2007.
- 42. <u>Mohammad, L. N.</u>, Saadeh, S., Zhang, C., and Ragavendra, A., "The Physical and Mechanistic Properties of HMA Mixture: Field vs Laboratory," Louisiana Transportation Research Center, Report No. FHWA/LA.06/412, Baton Rouge, Louisiana, October 2006.
- 43. <u>Mohammad, L. N.</u>, Wu, Z., and Ragavendra, A., "Performance Evaluation of Louisiana Superpave Mixtures," Louisiana Transportation Research Center, Report No. FHWA/LA.06/410, Baton Rouge, Louisiana, July 2006.
- 44. <u>Mohammad, L. N.</u>, and Button, J., "Optimization of Tack Coat for HMA Placement," National Cooperative Highway Research Program, Phase I Report, Washington, D.C., January 2006.
- 45. <u>Mohammad, L. N.</u>, and Button, J., "Optimization of Tack Coat for HMA Placement," National Cooperative Highway Research Program, Interim Report, Washington, D.C., December 2005.
- 46. <u>Mohammad, L. N.</u>, Wu, Z., and Cea, M., "Evaluation of a Loaded Wheel Tester for Asphaltic Concrete Mixtures," Louisiana Transportation Research Center, Report No. FHWA/LA.05/405, Baton Rouge, Louisiana, October 2005.

- 47. <u>Mohammad, L. N.</u>, Wu, Z., and Raqib, M., "Influence of Asphalt Tack Coat Materials on the Interface Bonding Strength," Louisiana Transportation Research Center, Report No. FHWA/LA-04/394, Baton Rouge, Louisiana, January 2005.
- 48. <u>Mohammad, L. N.</u>, Daly, W., Negulescu, I., Wu, Z., and Daranga, C., "Investigation of the Use of Recycled Polymer Modified Asphalt in Asphaltic Concrete Pavements," Louisiana Transportation Research Center, Report No. FHWA/LA-04/391, June 2004.
- 49. Cooper, S., and Mohammad, L. N., "Novachip Surface Treatment Six Year Evaluation," Louisiana Transportation Research Center, Technical Assistance Report No. 04-2TA, Baton Rouge, Louisiana, June 2004.
- 50. Cooper, S., and Mohammad, L. N., "Evaluation of Open Graded Friction Course Mixtures," Louisiana Transportation Research Center, Technical Assistance Report No. 04-1TA, Baton Rouge, Louisiana, February 2004.
- 51. Roberts, Freddy, Mohammad, L. N., Qin, H., and Huang, B., "Comparative Performance of Rubber Modified Hot Mix Asphalt Under ALF Loading," Louisiana Transportation Research Center, Report No. FHWA/LA-03/374, Baton Rouge, Louisiana, August 2003.
- 52. <u>Mohammad, L. N.</u>, Daly, W., and Negulescu, I., "Investigation of the Use of Recycled Polymer Modified Asphalt in Asphaltic Concrete Pavements, Louisiana Board of Regents, Louisiana Education Quality Support Funds, Final Report, June 2003.
- 53. <u>Mohammad, L. N.</u>, Daly, W., and Negulescu, I., "Investigation of the Use of Recycled Polymer Modified Asphalt in Asphaltic Concrete Pavements, Louisiana Board of Regents, Louisiana Education Quality Support Funds, Interim Report III, June 2002.
- 54. <u>Mohammad, L. N.</u>, Titi, H., and Herath, A., "Effect of Soil Moisture Content and Density on the Resilient Modulus of Subgrade Soil Predicted by CPT," Report No. FHWA/LA00/355, June 2002.
- 55. <u>Mohammad, L. N.</u>, and Gokman R., "Evaluation of the Fundamental Engineering Properties Bituminous Mixtures Containing Hydrated Lime," Louisiana Transportation Research Center, Report No. FHWA/LA-00/306, December 2000.
- 56. <u>Mohammad, L. N.</u>, Daly, W., and Negulescu, I., "Investigation of the Use of Recycled Polymer Modified Asphalt in Asphaltic Concrete Pavements, Louisiana Board of Regents, Louisiana Education Quality Support Funds, Interim Report II, June 2000.
- 57. Daly, W., Negulescu, I., Yeh, P., and Mohammad, L. N., Evaluation of Modified Asphalt Using Chlorinated and Maleated Waste Polymers, Louisiana Transportation Research Center, Report No. FHWA/LA-00/345, May 2000.
- 58. <u>Mohammad, L. N.</u>, Titi, H., and Herath, A., "Investigation of the Applicability of Intrusion Technology to Estimate Resilient Modulus of Soils," Report No. FHWA/LA00/332, April 2000.

- 59. <u>Mohammad, L. N.</u>, and Huang, B., "Laboratory Evaluation of Stone Mastic Asphalt Pavement Mixtures," Louisiana Transportation Research Center, Report No. FHWA/LA-99/327, October 1999.
- 60. Mohammad, L. N., Daly, W., and Negulescu, I., "Investigation of the Use of Recycled Polymer Modified Asphalt in Asphaltic Concrete Pavements, Louisiana Board of Regents, Louisiana Education Quality Support Funds, Interim Report I, June 1999.
- 61. <u>Mohammad, L. N.</u>, and Gokman R., "Evaluation of the Fundamental Engineering Properties Bituminous Mixtures Containing Hydrated Lime," Louisiana Transportation Research Center, Report No. FHWA/LA-97/306, December 1997.
- 62. <u>Mohammad, L. N.</u>, Puppala, A., and Alavilli, P., "Investigation of the Use of Resilient Modulus for Louisiana Soils in Design of Pavements," Louisiana Transportation Research Center, Report No. FHWA/LA-94/283, June 1994.
- 63. Mohammad, L. N., Paul, H. R., and Raghavendra, A., "A Parametric Evaluation of Fundamental Engineering Properties for Louisiana Hot Mix," Louisiana Transportation Research Center, Report No. FHWA/LA-94/276, June 1994.
- 64. <u>Mohammad, L. N.</u>, and Kathavate, S., "Validation of the Performance of the Louisiana ALD Data Acquisition System," Louisiana Transportation Research Center, Report No. FHWA/LA-93/278, August 1993.
- 65. <u>Mohammad, L. N.</u>, Paul, H.R., Foxworthy, P.T., and Seals, R.K.,"A Dynamic Testing System for Pavement Materials Characterization and Performance Evaluation," Final Report, Louisiana Education Quality Support Funds, Board of Regents for Higher Education, State of Louisiana, July 1993.
- 66. <u>Mohammad, L. N.</u>, and Kathavate, S., "Design and Development of Data Acquisition System for the Louisiana Accelerated Loading Facility,"Louisiana Transportation Research Center, Report No. FHWA/LA-92/250, August 1992.
- 67. Mohammad, L. N., and Paul, H.R., "Evaluation of Indirect Tensile Test for Determining the Structural Properties of Asphalt Mix," Final Report, FHWA-SA-94-021, Federal Highway Administration, August 1992.
- 68. Mohammad, L. N., and Paul, H.R., "Evaluation of Indirect Tensile Test for Determining the Structural Properties of Asphalt Mix -- Phase I," Interim Report, Federal Highway Administration, April 1991.

#### TECHNICAL MAGAZINES

# **Invited Articles**

1. <u>Mohammad, L. N.</u>, and Akentuna, M., "Overcoming the Risk of Moisture Damage in Flexible Pavements: Evaluation of Loaded Wheel Tracking Testing and Conditioning Protocols." Featured Article, Louisiana ASCE Journal, Volume 30, No. 3, May 2022, pp. 6-13.

- 2. <u>Mohammad, L. N.</u>, and Cooper, III, B., "Development and Implementation of Louisiana's Balanced Asphalt Mixture Design Procedure." Featured Article, Louisiana ASCE Journal, Volume 25, No. 4, August 2017.
- 3. <u>Mohammad, L. N.</u>, Elseifi, M., and King, W., "Optimization of Tack Coat Applications in Asphalt Pavements: Louisiana Develops Evaluation Tools and Pilot-Tests Guidance." Featured Article on Research Pays Off. Transportation Research Board, TR New No. 296, January-February, 2015, pp. 43-45.
- 4. <u>Mohammad, L. N.</u>, Abadie, C., and Nazzal, M, "Low-Cost and Environment-Friendly Asphalt-Treated Mixtures: Louisiana Tests Design." Featured Article on Research Pays Off. Transportation Research Board, TR New No. 283, November-December, 2012, pp. 37-39.
- 5. <u>Mohammad, L. N.</u>, "Eliminating Delamination in Overlays on Asphalt." Featured Article, Louisiana ASCE Journal, November 2011.
- 6. <u>Mohammad, L. N.</u>, "Tack Coats NCHRP Project 9-40 Update." Pennsylvania Asphalt Pavement Association, Vol. 9, No.3, Harrisburg, PA, 2008.
- 7. Moulthrop, J., McDaniel, R., McGennis, R., Mohammad, L. N., and Kluttz, R., "Asphalt Mixture Innovations." Featured Article, Transportation Research Board, TR New No. 253 "Highway Design and Construction: A 2020 Vision," 2007, pp. 20-23.
- 8. <u>Mohammad, L. N.</u>, "Research Corner: Performance of Stone Mastic Asphalt Mixtures, Development of Large Stone Asphalt Mixture, and Evaluation of Loaded Wheel Tester for HMA Mixtures," The McGraw Hill Companies, Louisiana Contractors, June 2000.
- 9. Paul, H.R., and Mohammad, L. N., "U.S. and European Asphalt Technologies, A perfect Marriage," National Research Council, Transportation Research Board, TR News, Number 197, November/December 1997, pp. 24-25
- 10. <u>Mohammad, L. N.</u>, "Laboratory Study Evaluates Unconventional HMA Mixtures," The McGraw Hill Companies, Louisiana Contractors, July 1997.
- 11. <u>Mohammad, L. N.</u>, "Participation of Industry In Higher Education," The McGraw Hill Companies, Louisiana Contractors, October 1996.

### <u>PRESENTATIONS</u>

Summary of Dr. Mohammad's presentations

Category	Quantity
Presentations–Keynote/Invited Speaker	257
Presentations-Other	204

## Invited/Keynote/Guest Speaker/Webinar

1. Mohammad, L. N. "Leveraging Advanced technologies to Improve Asphalt Pavement Performance." Presented at the 3<sup>rd</sup> International Conference of Engineering Sciences, June 1-2, 2025, Mustansiriyah University, Baghdad, Iraq (Keynote Presentation).

Page 67

- 2. Mohammad, L. N. "Innovation in the Design of Durable Open-Graded Friction Course (OGFC) Mixtures." Presented at the Louisiana Transportation Conference, March 16-19, 2025, Baton Rouge, Louisiana, (Invited Presentation).
- 3. Mohammad, L. N. "The Pursue of Sustainable Pavements ." Presented at the Louisiana Transportation Conference, March 16-19, 2025, Baton Rouge, Louisiana, (Invited Presentation).
- 4. Mohammad, L. N. "Advancements in Asphalt Mixture Design: From Tradition to Innovation for a Greener Future." Presented at the 2024 AMAP Annual Meeting & Workshop, October 15-17, 2024, Salt Lake City, Utah. (Invited Presentation).
- 5. Mohammad, L. N. and Elnam, I, "Environmental Stewardship vs. Sustainable Engineering." Presented at the 2024 AAPT Centennial Meeting, September 9-12, 2024, Chicago, Illinois, (Invited Presentation).
- 6. Mohammad, L. N. and Abualia, A, "Durability and Moisture Susceptibility Evaluation for OGFC Mixtures." Presented at the 2024 AAPT Centennial Meeting, September 9-12, 2024, Chicago, Illinois, (Invited Presentation).
- 7. Mohammad, L. N., "Rational Approach for Durable and Sustainable Asphalt Mixtures: Design, Production, and In-service." Presented at the Iraqi Professional Engineering Board meeting, May 11, 2024, Baghdad, Iraq (Keynote Presentation).
- 8. Mohammad, L. N., "Asphalt Pavement: Environmental Stewardship vs. Sustainable Engineering." Presented at the 2<sup>nd</sup> International Conference of Engineering Sciences, May 7-8, 2024, Mustansiriyah University, Baghdad, Iraq (Keynote Presentation).
- 9. Mohammad, L. N., "Louisiana's Asphalt Sustainability Program." Presented at the FHWA Climate Challenge Training with Department of Transportation and Development, April 22-23, 2024, Baton Rouge, Louisiana. (Invited Presentation).
- 10. Mohammad, L. N., "The Pursuit of Sustainable Asphalt Mixtures." Presented at the ASCE CI & CRC Joint Conference, March 20-23, 2024, Des Moines, Iowa. (Invited Presentation).
- 11. Mohammad, L. N., "Balancing Asphalt Mixtures Engineering Performance with Environmental Impacts." Presented at the Southeast Asphalt User Producer Group Annual Meeting, November 14 15, 2023, Little Rock, Arkansas. (Invited Presentation).
- 12. Mohammad, L. N., "Louisiana's Asphalt Sustainability Program." Presented at the FHWA Asphalt Pavement and Materials Technical Feedback Group Meeting, October 17-18, 2023, Reno, Nevada. (Invited Presentation).
- 13. Mohammad, L. N., "Environmental Impact Analysis into Louisiana's Balanced Asphalt Mixture Design: A case Study." Presented at the Louisiana Civil Engineering Conference and Show October 4-5, 2023, New Orleans, Louisiana. (Invited Presentation).

- 14. Mohammad, L. N., "Rational Approach for Durable and Sustainable Asphalt Mixtures: Design, Production, and In-service." Presented to Faculty and Graduate Students at the Department of Road Engineering, Tongji University, July 11, 2023. (Invited Presentation).
- 15. Mohammad, L. N., "Assessment of Environmental Impact of Recycled Materials within Balanced Asphalt Mixture Design Framework." Presented at the 13<sup>th</sup> International Conference on Road and Airfield Pavement Technology, July 6-8, 2023, Beijing, China. (Keynote Presentation).
- 16. Mohammad, L. N., "Louisiana's Initiatives to Link BMD framework to Sustainability." Presented at the FHWA Asphalt Pavement and Materials Technical Feedback Group Meeting, May 2-3, 2023. Austin, Texas. (Invited Presentation).
- 17. Mohammad, L. N., "FHWA Climate Challenge Initiatives on Louisiana's Balanced Asphalt Mixture Design." A Framework for Durable Asphalt Mixtures: Design, Production, and In-service." AAPT Webinar on Best Practices During Asphalt Production and Paving, March 20, 2023. (Invited Webinar).
- 18. Mohammad, L. N., "FHWA Climate Challenge Initiatives on Louisiana's Balanced Asphalt Mixture Design." Presented at the 2023 Louisiana Transportation Conference, March 13-15, 2023, Baton Rouge, LA. (Invited Presentation).
- 19. Mohammad, L. N., "Asphalt Mixtures Containing PWM: Engineering performance tied to Sustainability." Presented at the 2023 Construction Institute Summit, March 1 4, 2023, St. Louis, Missouri. (Invited Presentation).
- 20. Mohammad, L. N., "Louisiana's Efforts to Tie Balanced Mix Design (BMD) to Sustainability." Presented at the FHWA BMD Peer Exchange meeting, March 1-2, 2023, Baton Rouge, LA. (Invited Presentation).
- 21. Mohammad, L. N., "Sustainability through Development of Life Cycle Information Models for Pavements in Louisiana." Presented at the Louisiana Transportation Research Center Policy Committee Meeting, December 7, 2022, Baton Rouge, LA. (Invited Presentation).
- 22. Mohammad, L.N., "Research Activities on Pavement Sustainability and Resiliency." Presented at the TRB AKM20 Standing Committee on Binders for Flexible Pavement Sustainability Subcommittee, September 23, 2022, (Virtual Invited Presentation).
- 23. Mohammad, L.N., "Development of Life Cycle Assessment Framework of Pavements in Louisiana." Presented at the FHWA Climate Challenge Team, August 15, 2022, (Virtual Presentation).
- 24. Mohammad, L.N., "Managing the Risk of Moisture Damage in Flexible Pavements: Evaluation of Loaded Wheel Tracking Testing and Conditioning Protocols." Presented at the International Conference on Civil and Environmental Engineering Technologies, May 11-12, 2022, University of Kufa, Kufa, Iraq. (Keynote Lecture)."
- 25. Mohammad, L. N., "Moisture Damage Assessment: Evaluation of LWT Testing and Conditioning Protocols." Presented at the FHWA Asphalt Pavement and Materials Technical Feedback Group Meeting, April 21-22, 2022, Tampa, FL. (Invited Presentation).

- 26. Mohammad, L. N., "Long Term Field Performance of WMA in Louisiana." Presented at LSU Regional UTC Webinar on Warm Mix Asphalt to Improve Pavement Sustainability, March 24, 2022. (Invited Webinar).
- 27. Mohammad, L. N., "Moisture Damage Assessment: Evaluation of Testing and Conditioning Protocols." Presented at the ASCE CI & CRC Joint Conference, March 9-12, 2022, Arlington, VA. (Invited Presentation).
- 28. Mohammad, L.N., "Rejuvenators for Durable Flexible Pavements." Presented at the Southeast Asphalt User Producer Group Meeting, November 16–18, 2021, Knoxville, Tennessee. (Invited Presentation).
- 29. Mohammad, L.N., "WMA Demonstration Projects in Louisiana: Case Study of Five to Eight Years of Field Performance." Presented at the Southeast Asphalt User Producer Group Meeting, November 16 18, 2021, Knoxville, Tennessee. (Invited Presentation).
- 30. Mohammad, L.N., "Effects of Tack Coat Material Type and Application Rate on Pavement Performance." Presented at the 7<sup>th</sup> International Symposium on Asphalt Emulsion Technology, October 26-28, 2021. (Virtual invited Presentation)
- 31. Mohammad, L. N., "Asphalt Mixtures Moisture Damage: Conditioning and Testing Protocols." Presented at the 5<sup>th</sup> International Conference on Transportation Infrastructure and Materials, October 21 22, 2021, Changsha University of Science and Technology, Changsha, China (Virtual Keynote Lecture).
- 32. Mohammad, L. N., "Increased RAP Contents in Asphalt Mixtures: Fundamental Assessments." Presented at the 5<sup>th</sup> International Symposium on Frontiers of Road and Airport Engineering (iFRAE), July 12-14, 2021, Delft University of Technology, Delft, Netherlands. (Virtual Keynote Lecture).
- 33. Mohammad, L.N., "Assessments of Asphalt Mixtures' Cracking Tests at Intermediate Temperature: A Case Study." Presented at the International Conference on Civil and Environmental Engineering Technologies, April 21-22, 2021, Kufa, Iraq. (Virtual Keynote Lecture).
- 34. Mohammad, L. N., "Effect of Tack Coat Materials on Durability of Asphalt Pavement." Transportation Research Board Webinar on Evaluating Tack Coat Materials' Durability in Asphalt Pavements. March 31, 2021. (Invited Webinar Speaker).
- 35. Mohammad, L.N., "Effect of Tack Coat Materials on Durability of Asphalt Pavement." Presented at the 61st LAPA Annual Convention and Meeting, June 22 24, 2020, Baton Rouge, Louisiana.
- 36. Mohammad, L.N., "Effect of Flexible Pavement Layers Bonding on Durability." Presented at the International Conference on Civil and Environmental Engineering Technologies, June 10 12, 2020, Kufa, Iraq. (Keynote Lecture).
- 37. Mohammad, L.N., "Effect of Laboratory Aging on Asphalt Binders and Intermediate Temperature Cracking of Asphalt Mixtures." Presented at the 2020 Louisiana Transportation Conference, March 1-4, 2020, Baton Rouge, Louisiana.

- 38. Mohammad, L.N., "Designing and Constructing Flexible Pavement with Long Lasting Performance." Presented at the 2020 ASCE Construction Institute Summit, February, 19-22, 2020, Los Angeles, California. (Invited Lecture).
- 39. Mohammad, L.N., "Relation Between Flexible Pavement Layers Bonding and Durability." Presented at the 21st Annual Conference of the Association of Modified Asphalt Producer, February, 10-13, 2020, Rancho Mirage, California. (Invited Lecture).
- 40. Mohammad, L.N., "The Future of Highways: Emerging Trends in the Design and Construction of Durable Flexible Pavement." Presented at the Iraqi Forum for Intellectuals and Academics, January 4, 2020, Amman, Jordan, (Invited Lecture).
- 41. Mohammad, L.N., "Emerging Trends: Durable Flexible Pavement." Presented at the ASCE-T&DI Louisiana Chapter Seminar Series, December 3, 2019, Baton Rouge, Louisiana. (Invited Lecture)
- 42. Mohammad, L.N., "Assessments of Cracking Tests: A Transportation Pool Fund Study." Presented at the Annual Meeting of the Southeastern Asphalt User Producer Group November 19 21, 2019, Baton Rouge, Louisiana.
- 43. Mohammad, L.N., "Effect of Bonding Quality of Tack Materials between Pavement Layers on Durability." Presented at the Annual Meeting of the Southeastern Asphalt User Producer Group November 19 21, 2019, Baton Rouge, Louisiana.
- 44. Mohammad, L.N., "Durable Flexible Pavements: Emerging Technologies and Trends." Presented at the 2019 GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, November 10 14, 2019, Cairo, Egypt, (Keynote Lecture).
- 45. Mohammad, L.N., "New Generation of Performance-Engineered Asphalt Mixture Design." Presented at the 2019 GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, November 10 14, 2019, Cairo, Egypt, (Invited Workshop Lecture).
- 46. Mohammad, L.N., "Emerging Technology Trends Toward Durability: Improvement of Flexible Pavements." Presented at the 2019 Oklahoma Transportation Research Day, November 5, 2019, Midwest City, Oklahoma (Keynote Lecture).
- 47. Mohammad, L.N., "Design and Construction of Durable Flexible Pavements." Presented at the 29<sup>th</sup> Annual Louisiana Civil Engineering Conference & Show, September 25 -26, 2019, Kenner, Louisiana, (Invited Lecture).
- 48. Mohammad, L.N., "Emerging Trends Related to the Durability of Flexible Pavements." Presented at the 19<sup>th</sup> COTA International Conference of Transportation Professionals, July 6-8, 2019, Nanjing, China. (Keynote Lecture)
- 49. Mohammad, L.N., "Intelligent Approach to Durable Flexible Pavement." Presented at the TRC Workshop on Sensing and Artificial Intelligence for Transportation University of Science and Technology Beijing, July 05, 2019, Beijing, China. (Keynote Lecture)

- 50. Mohammad, L.N., "New Generation of Performance-Engineered Asphalt Mixture Design." Presented at the Shandong Transportation Institute, July 04, 2019, Jinan, China. (Keynote Lecture)
- 51. Mohammad, L.N., "Mixture Design and Construction Practices Affecting Durability of Flexible Pavements: Case Study." Presented at the 2019 International Conference on Transportation Infrastructure and Materials, July 02-04, 2019, Jinan, China. (Keynote Lecture)
- 52. Mohammad, L.N., "Design and Construction of Durable Flexible Pavements." Presented at the International Conference on Civil and Environmental Engineering Technologies, April 23-24, 2019, Kufa, Iraq. (Keynote Lecture)
- 53. Mohammad, L. N., "Development of A New Generation of Balanced Asphalt Mixture Design." Presented at the School of Transportation Engineering, University of Kufa, Kufa, Iraq, April 22, 2019. (Invited Lecture)
- 54. Mohammad, L. N., "Approaches to Design and Construct Durable Flexible Pavements. Presented at the LTRC Seminar Series: Durable Asphalt Pavement, Baton Rouge, LA, March 12, 2019. (Invited Lecture)
- 55. Mohammad, L. N., Shi, Y., and Copper, III, S., "Effect of Laboratory Aging on Asphalt Binders and Intermediate Temperature Cracking of Asphalt Mixtures" Presented at the Annual Meeting of the Southeastern Asphalt User Producer Group, Raleigh, North Carolina, November 12–15, 2018.
- 56. Mohammad, L. N., "Asphalt Mixture Additives What is on the Horizon?" Association of Asphalt Paving Technologist Webinar, November 8, 2018. (Invited Webinar).
- 57. Mohammad, L.N., "Effect of Recycled Materials on Intermediate Temperature Cracking Performance of Asphalt Mixtures." Presented at the RILEM 252 Chemo-Mechanical Symposium, Southeast University, Braunschweig, Germany, September 17-18, 2018.
- 58. Mohammad, L.N., "New Generation of Performance-Engineered Asphalt Mixture Design." Presented at the School of Transportation Engineering, Southeast University, Nanjing, China, July 21, 2018.
- 59. Mohammad, L. N., Cooper, Jr., S., Cooper, III, S., Daly, W., Negulescu, I, and, Balamurugan, S., "Impact of Various Crumb Rubber Modifications on Asphalt Binder and Mixture Properties." Presented at the 55<sup>th</sup> Petersen Asphalt Research Conference, Laramie, WY, July 15-18, 2018.
- 60. Mohammad, L. N., "Effect of Asphalt Mixture Design and Construction on Density and Durability of Asphalt Pavements." Presented at the 4<sup>th</sup> Conference of the Middle East Society of Asphalt Technologists: Sustainable Asphalt Roads in the Middle East. Beirut, Lebanon, July 4 6, 2018.
- 61. Mohammad, L. N., "Influence of Asphalt Mixture Design and Construction on Density and Durability of Asphalt Pavements." Presented at the 3<sup>rd</sup> International Conference on

- Transportation Infrastructure and Materials: Smart and Sustainable Transportation Infrastructure (ICTIM), Tianjin, China, June 1-4, 2018. (Keynote Address).
- 62. Mohammad, L. N., "Development and Implementation of Performance-Engineered Asphalt Mixture Design." Presented at the College of Architecture and Civil Engineering, Beijing University of Technology, Beijing, China, May 31, 2018.
- 63. Mohammad, L. N., "Effect of Asphalt Mixture Design and Construction on Density and Durability of Asphalt Pavements." Presented at the FHWA Asphalt Mixture Expert Task Group Meeting, Fall River, MA, May 8-9, 2018.
- 64. Mohammad, L. N., "Impact of Asphalt Mixture Design and Construction on Density and Durability of Asphalt Pavements." Presented at the Louisiana Transportation Conference, Baton Rouge, Louisiana, February 25-28, 2018.
- 65. Mohammad, L. N., "Assessment of Interface Bonding Performance." Presented at the 97th Annual Meeting of the Transportation Research Board, Workshop on Balancing Durability and Safe Function in Dense-Graded Asphalt Pavement, Washington, D.C., January 7-11, 2018.
- 66. Cooper III, S., Mohammad, L. N., "Balanced Asphalt Mixture Design: Implementation Efforts and Success Stories." Presented at the 96th TRB Annual Meeting, Washington, D.C., January 7-11, 2018.
- 67. Mohammad, L. N., "Evaluation of Various Hamburg Wheel-Tracking Devices and AASHTO T 324 Specification for Rutting Testing of Asphalt Mixtures." Presented at the Annual Meeting of the Southeastern Asphalt User Producer Group, Jacksonville, Florida November 13 16, 2017.
- 68. You, T., Shi, Y., Mohammad, L. N., Cooper III, S., "Laboratory Performance of Asphalt Mixtures Containing Re-Refined Engine Oil Bottoms Modified Asphalt Binders." Presented at the Annual Meeting of the Southeastern Asphalt User Producer Group, Jacksonville, FL, November 13-16, 2017.
- 69. Mohammad, L. N., Cooper III, S., "A case study of BMD implementation in Louisiana, Lessons learned." Presented at the Balanced Mix Design for Asphalt Mixtures Webinar Association of Asphalt paving Technologist, November 16, 2017. (Webinar Presentation)
- 70. Mohammad, L. N., "Evaluation of Various Hamburg Wheel-Tracking Devices and AASHTO T 324 Specification for Rutting Testing of Asphalt Mixtures." Presented at the 26th Annual RMAUPG Conference, Reno, Nevada, October 18-19, 2017.
- 71. Mohammad, L. N., You, T., Shi, Y., Daly, W. H., Negulescu, I. I., Balamurugan, S., Nazzal, M., Baumgardner, G., Daranga, C., "Rheological, Chemical, Mechanical Properties of Re-refined Engine Oil Bottoms Modified Binder." Presented at the FWHA Asphalt Binder Expert Task Group Meeting, Bozeman, MT, September 19-20, 2017.
- 72. Mohammad, L. N., Cao, W., "Development of Mix Design and Analysis Procedures for Asphalt Mixtures Containing High-RAP Contents." Presented at the FHWA Asphalt Mixture Expert Task Group Meeting, Bozeman, Montana, September 20-21, 2017.

- 73. Mohammad, L. N., "Comparison of Volumetric and Mechanical Properties of Lab and Field Specimens of Asphalt Concrete." Presented at the 10th International Conference on Road and Airfield Pavement Technology, The Hong Kong Polytechnic University, Hong Kong, August 8 10, 2017.
- 74. Mohammad, L. N., "Implementation of a Balanced Asphalt Mixture Design Procedure." Presented at the 2017 GeoMEast International Congress and Exhibition, Sharm Elsheikh, Egypt, July 15-19, 2017. (*Keynote Speaker*)
- 75. Mohammad, L. N., "Innovations in Balanced Asphalt Mixture Design." Presented at the Jiangsu Transportation Institute, Nanjing, China, July 10, 2017. (*Keynote Speaker*)
- 76. Mohammad, L. N., "Innovations in Sustainable Pavement Materials and Technologies in Flexible Pavements." Presented at the 2<sup>nd</sup> Transportation Research Congress, University of Science and Technology, Beijing, China, May 23, 2017. (*Keynote Speaker*)
- 77. Mohammad, L. N., "Innovations in Asphalt Mixture Design and Construction." Presented at the Workshop on Research Frontier and Reviews, University of Science and Technology, Beijing, China, May 23, 2017.
- 78. Mohammad, L. N., Cooper III, S., "Comparing the Volumetric and Mechanical Properties of Laboratory and Field Specimens of Asphalt Concrete." Presented at the Transportation Research Board Webinar, April 20, 2017. (Webinar Presentation).
- 79. Mohammad, L. N., "Sustainable Development: The Use of Sustainable Pavement Materials and Technologies in Infrastructure." Presented at the 1<sup>st</sup> International Workshop on Sustainability Innovation in Transportation Infrastructure, Knoxville, Tennessee, March 30 31, 2017.
- 80. Mohammad. L. N., Elseifi, M., Raghavendra, A., and M., "Hamburg Wheel-Track Test Equipment Requirements and Improvements to AASHTO T 324." Presented at the Montana Asphalt Institute Conference, Helena, Montana, February 28, 2017.
- 81. Mohammad. L. N., Elseifi, M, and Cooper, III, S., "Comparison of Volumetric Properties Between Laboratory and Field," Presented at the Asphalt Mixture Volumetrics Applying Reasonableness and Avoiding Pitfalls Workshop, 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 82. Mohammad. L. N., Elseifi, M, and Das, R., "The Effect of Tack Coats on Asphalt Pavement Performance." Presented at the AFK40 Committee Meeting, 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 83. Mohammad. L. N., Kim, M., Phaltane, P., and Mata, D., "Effects of Temperature Segregation on Density, Fracture Resistance, and Rutting Performance of Asphalt Mixtures." Presented at the 2016 Annual Meeting of the Southeastern Asphalt User Producer Group, Corpus Christi, Texas, November 15 17, 2016.
- 84. Mohammad. L. N., Elseifi, M., and Das, R., "The Effect of Tack Coats on Asphalt Pavement Performance." Presented at the 2016 International Symposium on Asphalt Emulsion Technology, Arlington, Virginia, November 1 4, 2016.

- 85. Mohammad. L. N., "Innovations in Balanced Asphalt Mixture Design." Presented at the 2016 International Conference on Transportation Infrastructure and Materials, Chang'an University, Xi'an, China, July 16-18, 2016.
- 86. Mohammad. L. N., and Kim, M., and Phaltane, P., "Effects of Temperature Segregation on the Quality of Asphalt Pavements." Presented at the LAPA Annual Meeting, Point Clear, Alabama, June 1-5, 2016. (*Invited Guest Speaker*)
- 87. Mohammad. L. N., and Cao, w., "Develop Mix Design and Analysis Procedures for Asphalt Mixtures Containing High-RAP Contents TPF 5(294)." Presented at the FHWA Asphalt Mixture Expert Task Group, Salt Lake City, Utah, April 25 27, 2016.
- 88. Mohammad. L. N., "NCHRP Project 20-07/Task 361: Hamburg Wheel-Track Test (HWTT) Equipment Requirements and Improvements to AASHTO T 324." Presented at the FHWA Asphalt Mixture Expert Task Group, Salt Lake City, Utah, April 25 27, 2016.
- 89. Mohammad. L. N., "Deployment of Performance Tests During Asphalt Mixture Design: Louisiana's Approach." Presented at the 2016 Ohio Asphalt Expo, Columbus, Ohio, March 30-31, 2016.
- 90. Mohammad. L. N., "Development of Specifications and Implementation of Performance Tests During Asphalt Mixture Design: Louisiana's Approach." Presented at the 2016 AAPT Annual Meeting, Indianapolis, Indiana, March 13-16, 2016.
- 91. Mohammad. L. N., "Development and Implementation of Balanced Asphalt Mixture Design." Presented at CI Summit, Orlando, Florida, March 9-12, 2016.
- 92. <u>Mohammad. L. N.,</u> "Evaluating Tack Coat Strength: The AASHTO TP 114 Test Method." Presented at the Rocky Mountain Asphalt Conference and Equipment Show, Denver, Colorado, February 24-26, 2016.
- 93. <u>Mohammad. L. N.,</u> "Effects of Temperature Segregation on the Quality of Asphalt Pavements." Delivered at the National Asphalt Pavement Association Talks Webinar Series, January 20, 2016.
- 94. <u>Mohammad. L. N.,</u> "Evaluation of Asphalt Mixture Cracking Resistance Using the Semi-Circular Bend Test at Intermediate Temperature." Presented at the Performance Testing to Characterize Fatigue Cracking of Asphalt Mixtures Workshop, 95<sup>th</sup> TRB Annual Meeting, Washington, D.C., January 10-14, 2016.
- 95. <u>Mohammad. L. N.,</u> "Application of Performance Tests During Asphalt Mixture Design." Presented at the Innovations in Asphalt Mix Design Procedures Workshop, 95<sup>th</sup> TRB Annual Meeting, Washington, D.C., January 10-14, 2016.
- 96. <u>Mohammad. L. N.,</u> "Implementation of Performance Tests During Asphalt Mixture Design Containing Recycled Materials." Presented at the 4<sup>th</sup> IRF Middle East Regional Congress and Exhibition, Riyadh, Saudi Arabia, December 15-17, 2015.

- 97. <u>Mohammad. L. N.,</u> "NCHRP Project 9-48: Field versus Laboratory Volumetrics and Mechanical Properties, Presented at the 2015 SEAUPG Annual Meeting, Williamsburg, Virginia, November 16-19, 2015.
- 98. <u>Mohammad. L. N.,</u> "Development of Louisiana's Rubberized Asphalt Binder Specification: PG 82-22rm." Presented at the 2015 Rubberized Asphalt/Asphalt Rubber Conference, Las Vegas, Nevada, October 4-7, 2015.
- 99. <u>Mohammad. L. N.,</u> "NCHRP Project 9-40: Optimization of Tack coat for HMA Placement: Summary of Research Results." Presented at the Faculty of Engineering University of Manitoba, Winnipeg, Manitoba, August 27, 2015.
- 100. <u>Mohammad. L. N.,</u> "Implementation of Performance Tests During Asphalt Mixture Design Containing Recycled Materials." Presented at the Faculty of Engineering University of Manitoba, Winnipeg, Manitoba, August 27, 2015.
- 101. <u>Mohammad. L. N.,</u> "Implementation of Performance Tests During Asphalt Mixture Design Containing Recycled Materials." Presented at the 9<sup>th</sup> International Conference on Road and Airfield Pavement Technology, Dalian, China, August 9-13, 2015 (Keynote Presentation).
- 102. <u>Mohammad. L. N.</u>, "Sustainable Development: Material, Design, and Performance." Presented at the International Symposium on Systematic Approaches to Environmental Sustainability in Transportation, Fairbanks, Alaska, August 2-5, 2015 (Keynote Presentation).
- 103. <u>Mohammad. L. N.</u>, "Sustainable Development: Material, Design, and Performance." Presented at the 6<sup>th</sup> International Conference on Bituminous Mixtures & Pavements, Thessaloniki, Greece, June 10-12, 2015 (Keynote Presentation).
- 104. Mohammad. L. N., "Development and Implementation of a Balanced Mixture Design in Louisiana." Presented at the 4<sup>th</sup> International Transportation Ph.D. Students Symposium, Harbin, China, May 31-June 1, 2015. (Keynote Presentation).
- 105. Mohammad. L. N., "Fatigue/Fracture tests to predict cracking." Presented at the 2015 TRB AFK10 General Issues in Asphalt Technology Committee Meeting, Woods Hole, MA, May 13-14, 2015.
- 106. Mohammad. L. N., "Cracking Test: Development of SCB Test at Intermediate Temperature." Presented at the SCB Test at Intermediate Temperature Training Workshop, Baton Rouge, Louisiana, April 16, 2015.
- 107. <u>Mohammad. L. N.</u>, "LTRC's Asphalt Research Activities." Presented at the Asphalt Institute Spring Meeting, New Orleans, Louisiana, April 16, 2015.
- 108. Mohammad. L. N., "Intermediate Temperature Fracture Properties of Asphalt Mixtures Containing RAS: Impact of Recycling Agents." Presented at the FHWA Asphalt Binder Expert Task Group, Fall River, MA, April 9, 2015.

- 109. Mohammad. L. N., "Design Consideration of Asphalt Mixtures Containing RAP and/or RAS: Asphalt Rejuvenation." Presented at the 2015 AAPT Annual Meeting, Portland, Oregon, March 8-11, 2015.
- 110. Mohammad. L. N., "NCHRP Project 9-40A: Field Implementation of the LISST." Presented at the 42nd Annual Rocky Mountain Asphalt Conference, Denver, Colorado, February 25 27, 2015.
- 111. <u>Mohammad. L. N.</u>, "Performance Tests of Asphalt Mixtures." Presented at the 42nd Annual Rocky Mountain Asphalt Conference, Denver, Colorado, February 25 27, 2015.
- 112. <u>Mohammad, L. N.</u>, "SCB Test at Intermediate Temperature." Presented at the NCHRP 9-57 Cracking Test Webinar, February 3, 2015.
- 113. Mohammad, L. N., "NCHRP Project 9-40A: Field Implementation of the LISST." Presented at the 94<sup>th</sup> TRB Annual Meeting, Washington, D.C., January 11-15, 2015.
- 114. <u>Mohammad, L. N.</u>, "Overview of the Use of Cracking Tests in the Determination of Asphalt Mixture Durability." Presented at the 94<sup>th</sup> TRB Annual Meeting, Washington, D.C., January 11-15, 2015.
- 115. <u>Mohammad, L. N.</u>, "All You Ever Needed to Know About Tack Coat!" Presented at the 52<sup>nd</sup> Paving and Transportation Conference, Albuquerque, New Mexico, January 5-6, 2015.
- 116. Mohammad, L. N., Cooper, Jr., S., "Design Consideration of Asphalt Mixtures Containing RAS and/or RAP: Impact of Recycling Agents." Presented at the 2014 SEAUPG Annual Meeting, Nashville, Tennessee, November 17-20, 2014.
- 117. Mohammad, L. N., Elseifi, M., Cooper, III, S., "Status Update: NCHRP Project 9-48 Field versus Laboratory Volumentrics and Mechanical Properties." Presented at the Mixture ETG Meeting, Baton Rouge, Louisiana, September 19, 2014.
- 118. Mohammad, L. N., Cooper, Jr., S., Daly, W. H., Negulescu, I., Balamurugan, S., "Design Consideration of Asphalt Mixtures Containing RAS: Impact of Recycling Agents." Presented at the Asphalt Binder Expert Task Group, Baton Rouge, Louisiana, September 16-17, 2014.
- 119. Mohammad, L. N., Cooper, Jr., S., "Design Consideration for Asphalt Mixtures Containing Recycled Asphalt Shingles." Presented at the 60<sup>th</sup> LAPA Annual Meeting, Point Clear, Alabama, May 28-June 1, 2014.
- 120. <u>Mohammad, L. N.</u>, "Mechanistic-Empirical Pavement Design Guide: Approaches to Implementation." Presented at the GeoShanghai 2014 International Conference, Shanghai, China, May 26-28, 2014. (Keynote Speaker)
- 121. <u>Mohammad, L. N.</u>, "Develop Mix Design and Analysis Procedures for Asphalt Mixtures Containing High-RAP Contents." Presented at the Southeastern Research Consortium Pooled Fund TPF-5(294) Kickoff Meeting, Baton Rouge, Louisiana, May 15, 2014.

- 122. <u>Mohammad, L. N.</u>, Bennett, T., Heitzman, M., "Accelerated Project Delivery Automated Laboratory Tests." Presented at the TRB AFK10 Committee Meeting of the Transportation Research Board, Reno, Nevada, April 23-24, 2014.
- 123. <u>Mohammad, L. N.</u>, "Sustainable Development: The Use of Sustainable Pavement Materials and Technologies in Infrastructure." Presented at the 53<sup>rd</sup> Annual South Dakota Asphalt Conference, Pierre, South Dakota, April 2-3, 2014.
- 124. Mohammad, L. N., Elseifi, M. A., Bae, A., Patel, N., Button, J., Scherocman, J. A., "Importance of Layer Bonding Through Tack Coat Materials." Presented at the 53<sup>rd</sup> Annual South Dakota Asphalt Conference, Pierre, South Dakota, April 2-3, 2014.
- 125. <u>Mohammad, L. N.</u>, "Balanced Asphalt Mixture Design Through Specification Modification: Louisiana's Experience." Presented at the 8<sup>th</sup> Annual RMAUPG Meeting, Santa Ana Pueblo, New Mexico, March 26-27, 2014.
- 126. Mohammad, L. N., Elseifi, M. A., Bae, A., Patel, N., Button, J., Scherocman, J. A., "Importance of Layer Bonding Through Tack Coat Materials." Presented at the 2014 AAPT Annual Meeting Pavement Layer Bonding Symposium, Atlanta, Georgia, March 16-19, 2014.
- 127. <u>Mohammad, L. N.</u>, "Laboratory Evaluation of Asphalt Mixtures Containing Modified Binders." Presented at the 2014 AAPT Annual Meeting Leading Edge Workshop, Atlanta, Georgia, March 16-19, 2014.
- 128. <u>Mohammad, L. N.</u>, "Design Consideration for Asphalt Mixtures Containing Recycled Asphalt Shingles ." Presented at the 15<sup>th</sup> Annual AMAP Annual Meeting, New Orleans, Louisiana, February 18-20, 2014.
- 129. <u>Mohammad, L. N.</u>, "Sustainable Pavement Materials and Technologies ." Deliver keynote lecture, Conference of the Transportation Research Group of India, Agra, India, December 12-15, 2013.
- 130. Mohammad, L. N., "NCHRP Project 9-40A Field Implementation of the Louisiana Interface Shear Strength Test." Presented at the 2013 SEAUPG Annual Meeting, Baton Rouge, Louisiana, November 13- 15, 2013.
- 131. <u>Mohammad, L. N.,</u> "Use of Sustainable Technologies in Asphalt Mixtures." Presented at FHWA's Sustainable Pavements TWG, Baton Rouge, Louisiana, November 13- 14, 2013.
- 132. <u>Mohammad, L. N.</u>, "Sustainable Pavement Systems: Material, Design, and Construction." Presented at the FIU/MIT Transportation Infrastructure Sustainability Summit, Miami, Florida, October 29, 2013.
- 133. <u>Mohammad, L. N.</u>, "Approaches to the Evaluation of Sustainable Materials in Flexible Pavements." Presented at the Recycling Symposium, Auburn, Alabama, October 14-15, 2013.

- 134. <u>Mohammad, L. N.</u>, "Development of Louisiana's Balanced Asphalt Mixture Design: Application of Recycled Materials." Presented at the Recycling Symposium, Kansas City, Missouri, July 21 22, 1, 2013.
- 135. Mohammad, L. N., "The Use of Sustainable Technologies in Asphalt Mixtures." Presented at The 59<sup>th</sup> LAPA Annual Meeting, Point Clear, AL, May 29- June 1, 2013. (*Invited Guest Speaker*)
- 136. Mohammad, L. N, "A New Approach to Evaluate Moisture Damage of Asphalt Mixtures." Presented at The 3rd International Workshop on Moisture-Induced Damage in Asphalt Mixtures, Doha, Qatar, April 23-24, 2013. (Invited Guest Speaker).
- 137. Mohammad, L. N., "Asphalt Research Program at the Louisiana Transportation Research Center." Presented at the 2013 TRB AFK 10 Committee Meeting, Irvine, CA, April 23-24, 2013.
- 138. Mohammad, L. N., "The Use of SCB Test to Ascertain Fracture Resistance of Asphalt Mixtures at Intermediate Temperature Toward a Balanced Mixture Design." Presented at the 2013 Association of Asphalt Paving Technologist Annual Meeting, Denver, CO, April 7-10, 2013.
- 139. Mohammad, L. N., "Balanced Asphalt Mixture Design: Louisiana's Approach." Presented at the Association of Modified Asphalt Producers 14<sup>th</sup> Annual Workshop and Conference, San Antonio, TX, March 19-21, 2013.
- 140. <u>Mohammad, L. N.</u>., "Asphalt Mixture Design and Analysis Seminar ." Presented at the Pavement Engineering Seminar Series, ASCE TDI Louisiana Chapter, New Orleans, LA, January 31, 2013.
- 141. <u>Mohammad, L. N.</u>, "Importance of Layer Bonding Through Tack Coat Materials." Presented at the Workshop on Enhancing the Durability of Asphalt Pavements 92nd Annual Meeting of the Transportation Research Board, January 13-17, 2013.
- 142. King, B., Mohammad, L. N., "Louisiana's Experience with Warm Mix Asphalt Mixtures." Presented at the 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 13-17, 2013.
- 143. Mohammad, L. N., Elseifi, M., Cooper, III. S., Raghavendra, A., "Effects of Volumetric and Mechanistic Test Variability on Predicted Performance of Asphalt Pavements Using the MEPDG." Presented at the 2012 SEAUPG Annual Meeting, Hilton Head, South Carolina, November 12-15, 2012.
- 144. <u>Mohammad, L. N.</u>, "Mechanistic Evaluation of Tack Coat Materials." Presented at the Asphalt Emulsion Manufactures Association 2012 International Symposium on Asphalt Emulsion Technology, Arlington, Virginia, October 10-12, 2012.
- 145. Mohammad, L. N., Cooper, Jr. S., "Laboratory Performance Asphalt Mixtures Containing High RAP Content with Crumb Rubber Additives." Presented at Sustainable Materials for Pavement Infrastructure: Use of Waste Tires in Asphalt Mixtures Seminar, Baton Rouge, Louisiana, September 5, 2012.

- 146. Mohammad, L. N., Cooper, Jr. S., "Laboratory Performance of HMA Mixtures Containing High RAP Content with Crumb Rubber Additives." Presented at the 21st Century Asphalt Pavements Conference, Cincinnati, Ohio, June 19-20 2012.
- 147. Mohammad, L. N., "Development of a Louisiana's Balanced Asphalt Mixture Design." Presented at the 53rd Louisiana Asphalt Pavement Association Convention, Point Clear, Alabama, May 30-June 3,2012. (Invited Guest Speaker)
- 148. Mohammad, L. N., "Asphalt Research Program at the Louisiana Transportation Research Center." Presented at the 2012 Transportation Research Board AFK 10 Committee Meeting, Baton Rouge, Louisiana, April 11-12, 2012.
- 149. <u>Mohammad, L. N.</u>, "The Importance of Tack Coat Material to Performance: Evaluation of Interlayer Bonding." Presented at the Rocky Mountain Asphalt User/Producer Group Meeting, Henderson, Nevada, March 27-29, 2012.
- 150. Mohammad, L. N., "NCHRP Project 9:40: Optimization of Tack Coat for HMA Placement: Recommendations to AASHTO SOM." Presented at the FHWA Asphalt Mixture Task Group Meeting, Baton Rouge, Louisiana, March 19-20, 2012.
- 151. Mohammad, L. N., "Effect of Tack Coat Materials on Interlayer Bonding." Presented at the 13th Annual Meeting of the Association of Modified Asphalt Producers, Albuquerque, New Mexico, February 7-9, 2012.
- 152. Mohammad, L. N., King, B., "NCHRP Project 9-40: Importance of Interface Bond Strength Through Tack Coat." Presented at the 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 22-26, 2012.
- 153. Mohammad, L. N., "NCHRP Project 9-40:Importance of Interface Bond Strength Through Tack Coat." Presented at the 11th Annual Tennessee Quality Asphalt Initiative Conference, Nashville, Tennessee, January 18, 2012.
- 154. Mohammad, L. N., "Results of NCHRP Project 9-40: Tacking Your Way to Performance." Presented at the TRB Webinar: Findings of NCHRP Project 9-40 on the Optimization of Tack Coat for HMA Placement, January 12, 2012.
- 155. Mohammad, L. N., "A New Approach to Evaluate Moisture Damage of Asphalt Mixtures." Presented at the 2011 SEAUPG Annual Meeting, Savannah, Georgia, November 15-17, 2011.
- 156. Mohammad, L. N., "A New Approach to Evaluate Moisture Damage of Asphalt Mixtures." Presented at the 2011 SEAUPG Annual Meeting, Savannah, Georgia, November 15-17, 2011.
- 157. <u>Mohammad, L. N.</u>, "Louisiana Case Study: Implementation of CRM Binder in PG specification." Presented at the 5<sup>th</sup> Rubber Modified Asphalt Conference, Austin, Texas, November 3-4, 2011.

- 158. Mohammad, L. N., "Results of NCHRP Project 9-40: The Importance of Tack Coat to Pavement Performance." Presented at the 2011 Ohio Transportation Engineering Conference, Columbus, Ohio, October 25-26, 2011.
- 159. Mohammad, L. N., "Optimization of Tack coat for HMA Placement." Presented at the Louisiana Department of Transportation and Development Asphaltic Pavement specifications Committee Meeting, Baton Rouge, Louisiana, July 13, 2011.
- 160. Mohammad, L. N., "Application of Laboratory Performance Tests in the Design of Asphaltic Concrete Mixture." Presented at the Main Road Division of the Abu Dhabi Department of Transport, Abu Dhabi, United Arab Emirates, June 14, 2011. (Keynote speaker)
- 161. <u>Mohammad, L. N.</u>, "Asphalt Research Program Louisiana Transportation Research Center." Presented at the Changsha University of Science and Technology, Changsha, China, June 8, 2011.
- 162. <u>Mohammad, L. N.</u>, "Mechanistic Analysis of Asphalt Mixtures Containing Sustainable Technologies." Presented at the International Symposium on Pavement and Geotechnical Engineering for Transportation Infrastructure, Nanchang, Jiangxi, China, June 5-7, 2011. (Keynote speaker)
- 163. Mohammad, L. N., "Use of Waste Tires in Asphalt Mixtures: The Sustainable Choice." Presented at the 2011 Institute of Scrap Recycling Industries Convention and Exposition, Los Angeles, California, April 8, 2011.
- 164. Mohammad, L. N., "NCHRP 9-40 Optimization of Tack Coat Materials." Presented at the 38<sup>th</sup> Annual Asphalt Emulsion Manufacturers Association Meeting, Tucson, Arizona, February 25, 2011.
- 165. Mohammad, L. N., "Applications of Laboratory Performance Tests in the Design of Asphaltic Concrete Mixture." Presented at the 2011 Louisiana Transportation Conference, Baton Rouge, Louisiana, January 9, 2011.
- 166. Mohammad, L. N., "Graduate Studies at Louisiana State University." Presented at the University of Jordan, Amman, Jordan, December 20, 2010.
- 167. Mohammad, L. N., "Establishing a Sustainable Materials Research Program for Pavement Engineering." Presented at the Revitalizing Research in Kurdistan International Conference, Erbil, Iraq, December 14-16, 2010.
- 168. Mohammad, L. N., and Cooper, S., "Laboratory Mechanistic Evaluation of HMA Mixtures Containing High RAP Content with Crumb Rubber Additives." Presented at the 2010 SEAUPG Annual Meeting, Oklahoma City, Oklahoma, December 6-8, 2010.
- 169. Mohammad, L. N., "NCHRP Project 9-40: Optimization of Tack Coat Materials." Presented at the 2010 SEAUPG Annual Meeting, Oklahoma City, Oklahoma, December 6-8, 2010.
- 170. Mohammad, L. N., "Results of NCHRP 9-40: Tacking Your Way to Performance." Presented at the 54th Annual Kansas Asphalt Paving Conference, Lawrence, Kansas, December 2, 2010.

- 171. <u>Mohammad, L. N.</u>, "Mechanistic Characterization of Sustainable materials for Pavement Infrastructure." Presented at the 23rd Rhode Island Transportation Forum, Kingston, Rhode Island, October 29, 2010. (Keynote Speaker)
- 172. <u>Mohammad, L. N.</u>, "Superpave: Research to Implementation." Presented at the Superpave Seminar for Lafayette Consolidated Government, Baton Rouge, Louisiana, October 20, 2010.
- 173. <u>Mohammad, L. N.</u>, "Application of Mechanistic Tests for Performance of HMA Mixtures." Presented at the Jordanian Ministry of Public Work, Amman, Jordan, August 18, 2010.
- 174. Mohammad, L. N., "Fundamental Characterization of Sustainable Materials for Pavement Infrastructure." Presented at the US-China Workshop on Energy and Environment in the Development of Sustainable Asphalt Pavements, Chang'an University, Xi'an, China, June 7-9, 2010.
- 175. Mohammad, L. N., and King, B., "Louisiana's Experience with the Use of Waste Tires in Asphalt Mixtures." Presented at the 51st Louisiana Asphalt Pavement Association Convention, Point Clear, Alabama, June 2-6, 2010.
- 176. Mohammad, L. N., and Cooper, S., "Sustainable Materials for Pavement Infrastructures." Presented at the 51st Louisiana Asphalt Pavement Association Convention, Point Clear, Alabama, June 2-6, 2010.
- 177. Mohammad, L. N., "Rubber Spotlight: Louisiana's Experience with the Use of Waste Tires in Asphalt Mixtures." Presented at the 2010 Institute of Scrap Recycling Industries, San Diego, California, May 4-8, 2010.
- 178. Mohammad, L. N., "Sustainable Materials for Pavements." Presented at the 2010 Transportation Research Board AFK 10 Committee Meeting, Phoenix, Arizona, April 7-8, 2010.
- 179. Nazzal, M., and Mohammad, L. N., "Estimation of the Resilient Modulus of Subgrade Soils Using Falling Weight Deflectometer." Presented at the LTRC Seminar Series: 2010 Transportation Research Board Paper Presentations, Baton Rouge, Louisiana, March 23-24, 2010.
- 180. Mohammad, L. N., Bae, A., Elseifi, M., Button, J., and Patel, N., "Effects of Pavement Surface Type and Sample Preparation Method on Tack Coat Interface Shear Strength." Presented at the LTRC Seminar Series: 2010 Transportation Research Board Paper Presentations, Baton Rouge, Louisiana, March 23-24, 2010.
- 181. Mohammad, L. N., "NCHRP: 9-40: Optimization of Tack Coat for HMA Placement." Presented at the 2010 Asphalt Pavement Conference, Cincinnati, Ohio, February 15-16, 2010.
- 182. Mohammad, L. N., "Results of NCHRP 9-40: Tacking Your Way to Performance." Presented at the 2010 NCAUPG Hot Mix Asphalt Technical Conference, Overland Park, Kansas, February 3-4, 2010.

- 183. <u>Mohammad, L. N.</u>, "Approaches to Characterize Asphalt Mixtures for the Mechanistic-Empirical Pavement Design Guide." Presented at the IRF Middle East Regional Congress, Riyadh, Kingdom of Saudi Arabia, December 8-9, 2009.
- 184. <u>Mohammad, L. N.</u>, "Louisiana's Experience with WMA: Laboratory Performance Evaluation." Presented at the Warm Mix Seminar & Demonstration, Baton Rouge, Louisiana, October 22-23, 2009.
- 185. Mohammad, L. N., "NCHRP Project 9-40 Update: Optimization of Tack Coat for HMA Placement Research Update." Presented at the 50<sup>th</sup> Louisiana Asphalt Pavement Association Convention, Point Clear, Alabama, June 3-7, 2009. (Invited Guest Speaker)
- 186. Mohammad, L. N., and Cooper, S., "Laboratory Performance of HMA Mixtures Containing High RAP Content with Crumb Rubber Additives." Presented at the Southeastern Pavement Preservation Partnership Meeting, New Orleans, Louisiana, May 12-14, 2009.
- 187. Mohammad, L. N., "A Review of the Asphalt Research Program at the Louisiana Transportation Research Center," Presented at the 2009 Transportation Research Board ARK 10 (General Issues in Asphalt Technology) Committee Meeting, Woods Hole, Massachusetts, April 28-30, 2009.
- 188. <u>Mohammad, L. N.</u>, "Application of Mechanistic Tests for Performance of HMA Mixtures." Presented at the 2009 Louisiana Transportation Conference, Baton Rouge, Louisiana, February 8-11, 2009
- 189. Cooper, S., and Mohammad, L. N., "Characterization of HMA Mixtures Containing High Recycled Asphalt Pavement Content and Crumb Rubber Additives." Presented at the 209 Louisiana Transportation Conference, Baton Rouge, Louisiana, February 8-11, 2009.
- 190. <u>Mohammad, L. N.</u>, "Effect of Tack Coat Materials and Application Rates on the Interface Bond Strength." Presented at the 2009 Louisiana Transportation Conference, Baton Rouge, Louisiana, February 8-11, 2009.
- 191. <u>Mohammad, L. N.</u>, "Permanent Deformation Analysis of HMA Mixtures Using Simple Performance Tests." Presented at the 4<sup>th</sup> International Gulf Conference on Roads, Doha, Qatar, November 11-13, 2008.
- 192. Mohammad, L. N., "NCHRP Project 9-40 Update: Optimization of Tack coat for HMA Placement." Presented at the 2008 SEAUPG Annual Meeting, Birmingham, Alabama, November 17-20, 2008.
- 193. Mohammad, L. N., and Cooper, S., "HMA Mixtures Containing High RAP and Crumb Rubber Additives." Presented at the Superpave Mixture Design Task Group Meeting, 2008 SEAUPG Annual Meeting, Birmingham, Alabama, November 17-20, 2008.
- 194. Mohammad, L. N., "Tack Coat Quality and Interface Bond Testing." Presented at the 49<sup>th</sup> Louisiana Asphalt Pavement Association Convention, Sandestin, Florida, June 4-8, 2008. (*Invited Guest Speaker*)

- 195. Mohammad, L. N., Nazzal, M., and Austin, A., "Laboratory Characterization of Asphalt-Treated Granular Bases." Presented at the 16<sup>th</sup> Annual International Center for Aggregate Research Symposium, Austin, Texas, May 12 14, 2008.
- 196. Mohammad, L. N., Research Update on NCHRP Project 9-40 on Optimization of Tack Coat for HMA Placement." Presented at the 35<sup>th</sup> Annual Meeting of the Asphalt Emulsion manufacturer Association, San Jose del Cabo, Mexico, February 19-23, 2008.
- 197. <u>Mohammad, L. N.</u>, "Effect of Tack Coat Material type and Application Rate on the Bond Strength." Presented at the 9<sup>th</sup> Annual Meeting of the Association of Modified Asphalt Producers. Austin, Texas, February 11 13, 2008.
- 198. Mohammad, L. N., "Laboratory Evaluation of HMA Mixtures Containing CRM Binder." Presented at the LDOTD PG 82-22 RM Asphalt Binder Specification Meeting, Baton Rouge, Louisiana, December 12, 2007.
- 199. <u>Mohammad, L. N.</u>, Nazzal, M., Austin, A., "Evaluation of Low Cost Asphalt Treated Base Mixtures." Presented at the 2007 SEAUPG Annual Meeting, San Antonio, Texas, November 13-15, 2007.
- 200. Mohammad, L. N., and Kabir M., "Evaluation of Superpave Mixtures Containing Hydrated Lime." Presented at the Superpave Mixture Design Task Group Meeting, 2007 SEAUPG Annual Meeting, San Antonio, Texas, November 13-15, 2007.
- 201. <u>Mohammad, L. N.</u>, "Review of the Development, Implementation and Performance of Superpave Mixtures." Presented to the Aswan Faculty of Engineering, South Valley University, Aswan, Egypt, July 19, 2007.
- 202. <u>Mohammad, L. N.</u>, "The Design and Performance of Perpetual pavements." Presented at the 2<sup>nd</sup> International Symposium on Pavement Engineering, Hefei, Anhui, China, June 20 June 23, 2007. *(Key Note Speaker)*
- 203. <u>Mohammad, L. N.</u>, "Application of Strength Tests for Permanent Deformation of HMA Mixtures." Presented at the 48<sup>th</sup> Louisiana Asphalt Pavement Association Convention, Sandestin, Florida, June 6-10, 2007. (*Invited Guest Speaker*)
- 204. Mohammad, L. N., "Performance of Stone & RAP Interlayers Under Accelerated Load Testing." Presented at the 2007 Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 12–14, 2007.
- 205. Mohammad, L. N., "Performance of HMA Mixtures with Aggregate Structures Designed Using the Bailey Method." Presented at the 2007 Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 12–14, 2007.
- 206. Nazzal, M, and Mohammad, L. N., "Reliability of Material Input Parameters for the Implementation of the MEPDG." Presented at the 2007 Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 12–14, 2007.

- 207. <u>Mohammad, L. N.</u>, "Characterization of Fracture Resistance of Superpave Mixture Using a Semi-Circular Fracture Tests." Presented at the 2007 Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 12–14, 2007.
- 208. <u>Mohammad, L. N.</u>, "Locking Point Concept in HMA Mixture Design." Presented at the 2006 Southeastern Asphalt User Producer Group Annual Meeting, Wilmington, North Carolina, November 14-16, 2006.
- 209. Mohammad, L. N., "The Bailey Method and Locking Point in Superpave Mixture Design." Presented at the 47<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Galveston, Texas, June 7-11, 2006. (*Invited Guest Speaker*)
- 210. Mohammad, L. N., "Application of DCP in Prediction of Resilient Modulus of Subgrade Soils." Presented at the 2006 Louisiana Pavement Performance Seminar, Ruston, Alexandria, and Baton Rouge, Louisiana, April 10, 11, 12, 2006, respectively.
- 211. Mohammad, L. N., "Performance of Stone & RAP Interlayers Under Accelerated Load Testing." Presented at the 2006 Louisiana Pavement Performance Seminar, Ruston, Alexandria, and Baton Rouge, Louisiana, April 10, 11, 12, 2006, respectively.
- 212. <u>Mohammad, L. N.</u>, "Laboratory Optimization of Asphalt Concrete Mixture Design." Presented at the Third Gulf Conference on Roads, Muscat, Oman, March 6-8, 2006. (*Key Note Speaker*)
- 213. Mohammad, L. N., "A look at the Bailey Method and Locking Point Concepts in Superpave Mixture Design." Presented at the Transportation Research Board Workshop on Practical Approaches to Design of Hot Mix Asphalt, Washington, D.C., January 22, 2006.
- 214. <u>Mohammad, L. N.</u>, "Tools to Improve HMA Mixture Design." Presented at the 2005 Southeastern Asphalt User Producer Group Annual Meeting, Nashville, Tennessee, December 12-15, 2005.
- 215. <u>Mohammad, L. N.</u>, "Review of the Development, Implementation and Performance of Superpave Mixtures." Presented at the Fifth NACOTA China International Transportation Conference, Chang'An University, Xi'an, Shaanxi, China, June 25 June 26, 2005. (*Key Note Speaker*)
- 216. Mohammad, L. N., "Performance of RAP and Stone Interlayer Under Accelerated Load Testing." Presented at the 46<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Pointe Clear, AL, June 1-5, 2005. (*Invited Guest Speaker*)
- 217. Mohammad, L. N., "Evaluation of Stone/RAP Interlayers Under ALF Loading: A Status Update." Presented at the Louisiana ALF Technical Advisory Committee Meeting, Baton Rouge, Louisiana, March 31, 2005.
- 218. <u>Mohammad, L. N.</u>, "Optimization of Asphalt Mixture Design for the Louisiana ALF Test Sections." Presented at the Louisiana ALF Technical Advisory Committee Meeting, Baton Rouge, Louisiana, March 31, 2005.

- 219. <u>Mohammad, L. N.</u>, "Measurement and Prediction of the Permeability of Hot-Mix Asphalt Mixtures." Presented at Louisiana Asphalt Technology Conference, Shreveport, Louisiana, February 23-24, 2005.
- 220. <u>Mohammad, L. N.</u>, "Factors Affecting HMA Mixtures' Densification." Presented at Louisiana Asphalt Technology Conference, Shreveport, Louisiana, February 23-24, 2005.
- 221. <u>Mohammad, L. N.</u>, "Overview of Activities at the Louisiana Transportation Research Center." Presented at the Kiwanis Club of Baton Rouge, January 27, 2005.
- 222. <u>Mohammad, L. N.</u>, "Laboratory Evaluation of Asphalt Tack Coat Materials." Presented at the 2004 Southeastern Asphalt User Producer Group Annual Meeting, Baton Rouge, Louisiana, November 15-18, 2004.
- 223. <u>Mohammad, L. N.,</u> "Factors Influencing the Permeability of Hot-Mix Asphalt Mixtures." Presented at the Superpave Mixture Design Task Group, 2004 Southeastern Asphalt User Producer Group Annual Meeting, Baton Rouge, Louisiana, November 15-18, 2004.
- 224. <u>Mohammad, L. N.</u>, "History of the Development of Superpave Mixture Design." Presented at the 1<sup>st</sup> International Conference on Pavement Engineering: Rehabilitation & Maintenance, Hefei, China, June 28 July 2, 2004. (*Key Note Speaker*)
- 225. Mohammad, L. N., "Variability of Density and Strength Properties of Plant Produced HMA Mixtures." Presented at the 45<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Pointe Clear, AL, June 2-6, 2004. (*Invited Guest Speaker*)
- 226. Mohammad, L. N., "Strength Testing of HMA Mixtures." Presented at the FHWA Mobile Asphalt Trailer "Kick-off" Meeting, Baton Rouge, LA, March 24, 2004.
- 227. <u>Mohammad, L. N.</u>, "Resilient Modulus of Cement-Treated Cohesive Soils." Presented at the Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 16-18, 2004.
- 228. <u>Mohammad, L. N.</u>, "Evaluation of the Variability of Air Voids and Structural Properties of Plant Produced HMA Mixtures." Presented at the Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 16-18, 2004.
- 229. Mohammad, L. N., "Methodology for Evaluation of Interlayer Bond Strength." Presented at the 44<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Pointe Clear, AL, June 25-29, 2003. (*Invited Guest Speaker*)
- 230. <u>Mohammad, L. N.</u>, "A Review of Bond Coats in the USA." Presented at the Asphalt Emulsion Manufacturing Association 30<sup>th</sup> Annual Meeting, Nashville, Tennessee, March 19-22, 2003.
- 231. Mohammad, L. N., "Approaches to the Implementation of Superpave Technology." Presented to the Civil Engineering Department & Institute of Materials Systems, American University of Sharjah, Sharjah, United Arab Emirates, November 25, 2002.

- 232. <u>Mohammad, L. N.</u>, "Permeability Measurements of Hot Mix Asphalt Mixtures." Presented at the 43<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, San Antonio, Texas, June 12-16, 2002. *(Invited Guest Speaker)*
- 233. Mohammad, L. N., "The Influence of Asphalt Tack Coat Materials on the Interface Shear Strength." Presented at the Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 17-20, 2002.
- 234. <u>Mohammad, L. N.</u>, "The Application of Minicone Penetration Technology in Pavement Design." Presented at the Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 17-20, 2002.
- 235. <u>Mohammad, L. N.</u>, "Superpave: Research to Implementation." Presented at the 3<sup>rd</sup> Jordanian Civil Engineering Conference, Amman, Jordan, October 29-31, 2001. *(Invited Key Note Speaker)*
- 236. Mohammad, L. N., "Development of Models to Estimate the Resilient Modulus of Soft Soils from CPT." Presented at the 2001 ASCE/ACI Louisiana Civil Engineering Conference, September 13-14, 2001, New Orleans, Louisiana.
- 237. Mohammad, L. N., "The Application of Intrusion Technology in Flexile Pavement Design." Presented at the Cone Penetration Testing Technology Seminar, Baton Rouge, LA, March 26-27, 2001, Alexandria, LA, March 28, 29, 2001.
- 238. <u>Mohammad, L. N.</u>, "Louisiana's Experience with Accelerated Loading." Presented at the Alabama Transportation Engineering Conference, Montgomery, AL, February 13, 2001.
- 239. Mohammad, L. N., "Evaluation of Crumb Rubber Asphalt Pavements Through Accelerated Loading Facility." Presented at the Louisiana ALF Technical Advisory Committee Meeting, September 21, 2000, Baton Rouge, Louisiana.
- 240. <u>Mohammad, L. N.</u>, "Permeability of Superpave Hot Mix Asphalt Mixtures." Presented at the 2000 ASCE/ACI Louisiana Civil Engineering Conference, September 7-8, 2000, New Orleans, Louisiana.
- 241. <u>Mohammad, L. N.</u>, "Evaluation of Superpave Mixes in Louisiana: Laboratory Fundamental Characterization and Field Performance." Presented at the 59<sup>th</sup> Annual SASHTO Conference, August 25-29, 2000, New Orleans, Louisiana.
- 242. <u>Mohammad, L. N.</u>, Raghavendra A., Huang, B., and Ortiz, O., "Fundamental Engineering Characterization of Superpave Mixtures in Louisiana." Presented at the 40<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Pointe Clear, AL, June 16-20, 1999. (*Invited Guest Speaker*)
- 243. Mohammad, L. N., "Manual vs. Automated Rut Depth Measurements of the Asphalt Pavement Analyzer." Presented at the 1998 Annual Meeting of the SEUPG/APA Users Group, Little Rock, AR, November 18-20, 1998.

- 244. <u>Mohammad, L. N.</u>, "Development of Superpave Technology and its Implementation in Louisiana." Presented at the Shanghai Municipal Engineering Design Institute and the Shanghai Highway and Transportation Society, Shanghai, P. R. China, May 11, 1998.
- 245. <u>Mohammad, L. N.</u>, "Development of Superpave Technology and its Implementation in Louisiana." Presented at the Department of Road & Traffic Engineering, Tongji University, Shanghai, P. R. China, May 8, 1998.
- 246. Mohammad, L. N., "Development of Superpave Technology and its Implementation in Louisiana." Presented at the Road Teaching & Research Center, Department of Highway, Xi'an Highway University, Xi'an, P. R. China, May 6, 1998.
- 247. Mohammad, L. N. "Update on Rut Depth Measurements Using the Asphalt Pavement Analyzer." Presented at the 1998 Annual Meeting of the SEUPG/APA Users Group Meeting, Little Rock, AR, November 18-20, 1998.
- 248. <u>Mohammad, L. N.</u>, "Performance of Louisiana Superpave Mixture ." Presented at the 39<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Point Clear, Alabama, June 10-15, 1998. (*Invited Guest Speaker*)
- 249. <u>Mohammad, L. N.</u>, "The Use of Quality Level Analysis in QC/QA in HMA Pavements." Presented at LADOTD District LAB Engineers Meeting, Baton Rouge, Louisiana, February 18-19, 1998.
- 250. <u>Mohammad, L. N.,</u> "Implementation of Superpave Technology in Louisiana." Presented at the 2<sup>nd</sup> Louisiana Joint Engineering Societies Conference, Baton Rouge, Louisiana, February 5-6, 1998.
- 251. Mohammad, L. N., "Superpave<sup>TM</sup> Technology: A Brief Overview and LADOTD Training Activities." Presented at the Louisiana DOTD Superpave<sup>TM</sup> Asphaltic Concrete Hot Mix Meeting, Baton Rouge, Louisiana, August 20, 1997.
- 252. <u>Mohammad, L. N.</u>, "Introduction to Superpave<sup>TM</sup> Technology." Presented at the LADOTD District LAB Engineers Meeting, Baton Rouge, Louisiana, August 7-8, 1997.
- 253. Mohammad, L. N., "Laboratory Evaluation of SMA Mixes in Louisiana." Presented at the 38th Annual Convention of the Louisiana Asphalt Pavement Association, Point Clear, Alabama, June 4-8, 1997.
- 254. Mohammad, L. N., Louisiana's Research Experience with Hydrated Lime in HMA Mixtures." Presented at the Effective Use of Lime in Highway Construction Seminar, Baton Rouge, Louisiana April 9, 1997, and Alexandria, Louisiana, April 10, 1997.
- 255. Mohammad, L. N., "Overview of Research Proposal on Comparative Performance of Conventional and Rubberized Hot Mix Under Accelerated Loading." Presented at the Transportation Research Board A2D05 Committee Meeting, Baton Rouge, Louisiana, April 21-23, 1996.

- 256. Mohammad, L. N., "Advances in Non-Conventional Hot Mix Asphalt Mixtures." Presented at the 37<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Orange Beach, Alabama, January 24-27, 1996. (*Invited Guest Speaker*)
- 257. Mohammad, L. N., "Asphaltic Concrete Pavement Research at LTRC." Presented at the 37<sup>th</sup> Annual Convention of the Louisiana Asphalt Pavement Association, Conroe, Texas, March 8-11, 1995. (Invited Guest Speaker)

# **Others**

- 1. Aditi, U., Saadeh, S., Kazemi, M., Fini, E., Khoudessian, R., and Mohammad, L.N. "Achieving Sustainable Moisture Resistance in Asphalt Binder Modified with Amine-1 Impregnated Zeolite and Plastic." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.
- 2. Abualia, A., Mohammad, L. N., Hemida, A., Cooper, III, S., and Cooper, Jr., "Assessing Moisture Susceptibility of OGFC Mixes Containing SBS and Epoxy Modified Asphalt Binders under Varied Aging and Moisture Conditioning Levels." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.
- 3. Elnaml, I., Mohammad, L. N., Baumgardner, G, Cooper, III, S., and Cooper, Jr., "Sustainable Engineering vs. Environmental Stewardship of Asphalt Mixtures Containing 50% RAP and Recycling Agents." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.
- 4. Elnaml, I., Mohammad, L. N., Akentuna, M, Duvvuru, M., Parajuli, S., Cooper, III, S., and Cooper, Jr., "Effect of Amine-based and Chemical WMA Additives on Moisture Damage Resistance of Asphalt Mixtures at Different Conditioning Protocols." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.
- 5. Elnaml, I., Liu, J., Mohammad, L.N., Baumgardner, G., Cooper, III, S., and Cooper, Jr., B., "Influence of Petroleum-Based and Bio-Derived Recycling Agents on Performance of High Reclaimed Asphalt Pavement Asphalt Mixtures." Presented at the Transportation Research Board 103rd Annual Meeting, Washington D.C., January 7-11, 2024.
- 6. Pant, S., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr., "Long-Term Performance of Flexible Pavements Containing Crumb Rubber Modified Asphalt in Louisiana." Presented at the Transportation Research Board 103rd Annual Meeting, Washington D.C., January 7-11, 2024.
- 7. Elnaml, I., Liu, J., Mohammad, L.N., Baumgardner, G., Cooper, III, S., and Cooper, Jr., B., "Incorporating Environmental Impact Analysis into Louisiana's Balanced Asphalt Mixture Design." Presented at the Transportation Research Board 103rd Annual Meeting, Washington D.C., January 7-11, 2024
- 8. Pant, S., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr., "Field Validation of Louisiana's Specified Asphalt Balanced Mix Design Criteria." Poster Presentation. Transportation Research Board 103rd Annual Meeting, Washington D.C., January 7-11, 2024.

- 9. Abualia, A., Liu, J., Mohammad, L.N., Baumgardner, G., Cooper, III, S., and Cooper, Jr., B., Effect of High Polymer, Crumb Rubber, and Epoxy-Modified Asphalt Binders on Laboratory Performance of Open-Graded Friction Course Mixtures. Poster Presentation. Transportation Research Board 103rd Annual Meeting, Washington D.C., January 7-11, 2024.
- 10. Game, D., Alvarado, A., Giwa, I., Noorvand, H., Hassan, M., and Mohammad, L. N., "Sustainable High-Strength and Ultra-High Strength Engineered Cementitious Composites with Substitution of Fly Ash by Alternative Supplementary Cementitious Materials." Poster Presentation. Transportation Research Board 103rd Annual Meeting, Washington D.C., January 7-11, 2024.
- 11. Pant, S., Akentuna, M., Mohammad, L. N., and Cooper, Jr., S. "Field Evaluation of Crumb Rubber Modified Hot Mix Asphalt Pavement Sections in Louisiana. Presented at the 2023 AAPT Annual Meeting, September 25-28, 2023, San Diego, California.
- 12. Elnaml, I, Liu, J., Mohammad, L. N., Cooper, III, S., and Cooper, Jr., S. "Incorporating Environmental Impact Analysis into Louisiana's Balanced Asphalt Mixture Design." Presented at the 2023 AAPT Annual Meeting, September 25-28, 2023, San Diego, California.
- 13. Elnaml, I, Liu, J., <u>Mohammad, L. N.</u>, Cooper, III, S., and Cooper, Jr., S. "The Use of Iron Chloride type of Lewis Acid Catalyst in High RAP Content Asphalt Mixtures." Poster Presentation. Transportation Research Board 102<sup>nd</sup> Annual Meeting, Washington D.C., January 9-13, 2023.
- 14. Ma, Y., Liu, J., <u>Mohammad, L. N.</u>, Cooper, III, S., and Cooper, Jr., S. "Use of Random Forest to Predict Intermediate Temperature SCB Jc Parameter of Long-Term Aged Asphalt Mixtures." Presented at the Transportation Research Board 102<sup>nd</sup> Annual Meeting, Washington D.C., January 9-13, 2023.
- 15. Akentuna, M., <u>Mohammad, L. N.</u>, Pant, S., Cooper, Jr., S., and Cooper, III, S., "Field Validation of the Effects of Improved Density Techniques on Performance ." Poster Presentation. Transportation Research Board 102<sup>nd</sup> Annual Meeting, Washington D.C., January 9-13, 2023.
- 16. Bannoura, D., Tashman, L., and Mohammad, L. N., "Application of Sustainable Pavement Design in Jordan Using AASHTO Pavement ME. Presented at the 11<sup>th</sup> International Conference on Managing Pavement Assets, Chicago, IL, June 7-June 10, 2022.
- 17. Elnaml, I, Mousa, M., Hassan, M., Idris, I., <u>Mohammad, L. N.</u>, "Development of Cost-Effective, High-Modulus Asphalt Concrete Mixtures Using Crumb Rubber and Local Construction Materials in Louisiana." Poster Presentation. Transportation Research Board 101<sup>st</sup> Annual Meeting, Washington D.C., January 9-13, 2022.
- 18. Akentuna, M., Mohammad, L. N., Boaten, K., and Cooper, Jr., S., "Warm Mix Asphalt Demonstration Projects in Louisiana: Case Study of 5 to 8 Years of Field Performance." Poster Presentation. Transportation Research Board 101<sup>st</sup> Annual Meeting, Washington D.C., January 9-13, 2022.
- 19. Akentuna, M., <u>Mohammad, L. N.</u>, Sachdeva, S., Cooper, III, S., and Cooper, Jr., S., "Mechanistic Evaluation of Asphalt Mixtures Progressive Moisture Damage." Poster

- Presentation. Transportation Research Board 101<sup>st</sup> Annual Meeting, Washington D.C., January 9-13, 2022.
- 20. Al-Hosainat, A., Nazzal, M., Kim, S., Mohammad, L., N., Abbas, A., Biehl, E., Ricciardi, P., and Talha, S., "Evaluation of the Interlayer Bond Strength of Micro-Surfacing Mixes." Poster Presentation. Transportation Research Board 101<sup>st</sup> Annual Meeting, Washington D.C., January 9-13, 2022.
- 21. Barghabany, P., Zhang, J., <u>Mohammad, L. N.</u>, Cooper III, S, and Cooper Jr., "Effect of Laboratory Aging Levels on Asphalt Binder Chemical/Rheological Properties and Fracture Resistance of Asphalt Mixture." Poster presentation at the 100th Annual Meeting of Transportation Research Board, Washington, D.C., January 24-28, 2021.
- 22. Hungria, R., Arce, G., Hassan, M., <u>Mohammad, L. N.</u>, Rupnow, T., and Moinul Mahdi, "Interface Bond Strength of Engineered Cementitious Composites (ECC) in Pavement Applications." Poster presentation at the 100<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 24-28, 2021.
- 23. Subedi, S., Arce, G., Hassan, M., Barbato, M., and Mohammad, L. N., "Effect of Raw Sugarcane Bagasse Ash as Sand Replacement on the Fiber-Bridging Properties of Engineered Cementitious Composites." Poster presentation at the 100<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 24-28, 2021.
- 24. Subedi, S., Arce, G., Hassan, M., <u>Mohammad, L. N.</u>, Rupnow, T., and Barbato, M., "Feasibility of Engineered Cementitious Composites with High Volumes of Post-Processed Bagasse Ash as Partial Cement Replacement." Poster presentation at the 100<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 24-28, 2021.
- 25. AbuFarsakh, R., Arce, G, Hassan, M., Huang, O., Radovic, O., Rupnow, T., <u>Mohammad, L. N.</u>, and Sukhishvili, "Novel Metakaolin Based Engineered Geopolymer Composites." Poster presentation at the 100<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 24-28, 2021.
- 26. Barghabany, P., Zhang, J., <u>Mohammad, L. N.</u>, Cooper III, S, and Cooper Jr., "A Novel Model to Predict Fracture Parameter SCB Jc for Asphalt Mixtures Using an Artificial Neural Network Approach." Poster presentation at the 100<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 24-28, 2021.
- 27. Akentuna, M., <u>Mohammad, L. N.</u>, Sachdeva, S., Cooper, III, S., and Cooper, Jr., S., "Effectiveness of Loaded Wheel Tracking Test to Ascertain Moisture Susceptibility of Asphalt Mixtures." Poster Presentation. Transportation Research Board 100th Annual Meeting, Washington D.C., January 24-28, 2021.
- 28. Akentuna, M., <u>Mohammad, L. N.</u>, Kim, M., Cooper III, S, and Cooper Jr., "Improving Durability of Asphalt Pavements in Louisiana through Increased In-Place Field Density." Presented at the 99<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 12-16, 2020.

- 29. Barghabany, P., Cao, W., <u>Mohammad, L. N.</u>, Cooper III, S, and Cooper Jr., "Relationships amongst Chemistry, Rheology, and Fracture/Fatigue Performance of Recovered Asphalt Binder and Asphalt Mixtures Containing RAP." Poster presentation at the 99<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 12-16, 2020.
- 30. Balamurugana, S., <u>Mohammad, L. N.</u>, Akentuna, M., Daly, W., Negulescu, I., Cooper, III, S., Cooper, Jr., S., and Baumgardner, G., "Impact of Crumb Rubber Modifier Type and Blending Temperature on Asphalt Binder and Mixture Properties." Presented at the 2019 AAPT Annual Meeting, Dallas, Texas, March 3-6, 2019.
- 31. Nazzal, M., Mohammad, L. N., Abbas, A., and Kim, S., "State of Practice on the Use of Tack Coats for Micro-Surfacing Applications: A Survey." Presented at the 2019 AAPT Annual Meeting, Dallas, Texas, March 3-6, 2019.
- 32. Barghabany, P., Cao, W., <u>Mohammad, L. N.</u>, Cooper III, S, and Cooper Jr., S, "Reclaimed Asphalt Pavement (RAP): Relationship between Rheological and Mixture Performance at Intermediate Temperatures." Poster presentation at the 98<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 13-17, 2019.
- 33. Shi, Y., Cao, W., <u>Mohammad, L. N.</u>, Cooper III, S, Cooper Jr., S, and Negulescu, I., "Influence of Laboratory Aging on Asphalt Binders and Intermediate-Temperature Cracking Resistance of Asphalt Mixtures." Poster presentation at the 98<sup>th</sup> Annual Meeting of Transportation Research Board, Washington, D.C., January 13-17, 2019.
- 34. Das, R., Mohammad, L. N., Elseifi, M., Cao, W., Cooper Jr., S., "A Direct Shear Approach to Assess the Interface Bonding Performance." Presented at the 2018 AAPT Annual Meeting, Jacksonville, FL, March 18-21, 2018.
- 35. Kim, M., Cooper, Jr., S., Mohammad, L. N., Baumgardner, G., "Asphalt Mixtures Containing RAS and/or RAP: Relationships amongst Binder Composition Analysis and Mixture Low Temperature Cracking Performance." Presented at the 2018 AAPT Annual Meeting, Jacksonville, FL, March 18-21, 2018.
- 36. Balamurugan, S., Mohammad, L. N., Daly, W., Negulescu, I., Cooper, III, S., Cooper, Jr., S., Baumgardner, G., "Impact of Various Crumb Rubber Modifications on Asphalt Binder and Mixture Properties." Presented at the 2018 AAPT Annual Meeting, Jacksonville, FL, March 18-21, 2018.
- 37. Shen, S., Zhang, W., Wu, S., Mohammad, L. N., Muhunthane, M., "Long-term Field Performance of Flexible Pavements Using Warm Mix Asphalt Technologies." Presented at the 2018 AAPT Annual Meeting, Jacksonville, FL, March 18-21, 2018.
- 38. Cao, W., Mohammad, L. N., Barghabany, P., Cooper III, S., "Comparison of Asphalt Mixtures Crack Resistance at Intermediate Temperature Using Advanced Test Methods and Theories." Presented at the 97th Annual Meeting of Transportation Research Board, Washington, D.C., January 7-11, 2018.

- 39. Das, R., Mohammad, L. N., Elseifi, M., Cao, W., Cooper Jr, S.B., "Development and Validation of a Model to Predict Interface Bonding between Pavement Layers." Presented at the 97th TRB Annual Meeting, Washington, D.C., January 7-11, 2018.
- 40. Kim, M., Mohammad, L. N., Jordan, T., Cooper III, S., "Fatigue Performance of Asphalt Mixture Containing Recycled Materials and Warm-Mix Technologies Under Accelerated Loading and Four Point Bending Beam Test." Presented at the 97th Annual Meeting of the Transportation Research Board, Washington, D.C., January 7-11, 2018.
- 41. You, T., Shi, Y., Mohammad, L. N., Cooper III, S., "Laboratory Performance of Asphalt Mixtures Containing Re-refined Engine Oil Bottoms (REOB) Modified Asphalt Binders." Poster presented at the 96th TRB Annual Meeting, Washington, D.C., January 7-11, 2018.
- 42. You, T., Balamurugan, S., Nazzal, M., Mohammad, L. N., Negulescu, I., Daly, W., "Rheological, Chemical, Mico-Mechanical, and Mechanical Properties of REOB Modified Binders." Poster presented at the 96th TRB Annual Meeting, Washington, D.C., January 7-11, 2018.
- 43. Mohammad, L. N., Elseifi, M. A., Cao, W., Raghavendra. A., Ye, M., "Evaluation of Various Hamburg Wheel-Tracking Devices and AASHTO t 324 Specification for Rutting Testing of Asphalt Mixtures." Presented at the 2017 AAPT Annual Meeting, Newport Beach, CA, March 19-22, 2017.
- 44. Cao, W., Mohammad, L. N., Elseifi, M., "Assessing the Effects of RAP, RAS, and WMA on Fatigue Performance of Asphalt Mixtures and Pavements Using the Viscoelastic Continuum Damage Approach." Presented at the 2017 AAPT Annual Meeting, Newport Beach, CA, March 19-22, 2017.
- 45. Shirzad, S., Aguirre, M., Bonilla, L., Elseifi, M., Cooper, Jr., S., and Mohammad. L. N., "Performance and Cost Effectiveness of Flexible Pavement containing Recycled Asphalt Shingles Using the Mechanistic-Empirical Approach." Presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 46. Aguirre, M., Hassan, M., Shirzad, S., <u>Mohammad, L. N.</u>, and Cooper, Jr., S., "Performance of Asphalt Rejuvenators in Hot Mix Asphalt Mixtures Containing Recycled Asphalt Shingles." Presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- Wu, S., Zhang, W., Shen, S., and Mohammad, L. N., "Case Study: Short-term Performance and Material Property Evolution of 1 Warm Mix Asphalt and Hot Mix Asphalt Pavements." Presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017
- 48. Das, R., Mohammad, L. N., Elseifi, M., Cao, W., and Cooper, Jr., S., "Effects of Tack Coat Application on Interface Bond Strength and Short-Term Pavement Performance." Presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.

- 49. Cao, W., Mohammad, L. N., Elseifi, M., and Cooper, III, S., "Asphalt Pavement Fatigue Performance Prediction Based on Semi-Circular Bend Test at Intermediate Temperature." Poster presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 50. Aguirre, M., Hassan, M., Shirzad, S., <u>Mohammad, L. N.</u>, and Cooper, Jr., S., "Evaluation of Self-Healing Mechanism in Asphalt Mixtures Containing Recycled Asphalt Shingles." Poster presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 51. Arce, G., Hassan, M., Rupnow, T., and Mohammad, L.N., "Evaluation of Self-Healing Mechanisms on SMA and Steel Reinforced Mortar with Calcium Nitrate Microcapsules." Poster presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 52. Abu-Farsakh, M., Hanandeh, S., Chen, Q., and Mohammad, L. N., "Performance Evaluation of Geosynthetic Reinforced Flexible Pavement using Full-Scale Accelerated Loading Test." Poster presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 53. Pamulapati, Y., Elseifi, M., Cooper, III, S., <u>Mohammad, L.N.</u>, and Elbagalati, O., "Evaluation of Self-Healing of Asphalt Concrete through Induction Heating and Metallic Fibers." Poster presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 54. Shirzad, S., M., Hassan, M., Aguirre, M., Mohammad, L. N., and Cooper, Jr., S., "Evaluation of Self-Healing Process Induced by Sunflower Oil Microcapsules in Asphalt Mixtures." Poster presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 55. Zhang, W., Shen, S., Wu, S., and Mohammad, L. N., "Long-Term Field Aging of Warm-Mix and Hot-mix Asphalt binders." Poster presented at the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 8-12, 2017.
- 56. Cooper, Jr., S., Mohammad. L. N., Balamurugan, S., Negulescu, I., Daly, W., and Baumgardner, G, "Asphalt Mixtures Containing RAS and/or RAP: Relationships amongst Binder Composition Analysis and Mixture Intermediate Temperature Cracking Performance." Presented at the 2016 AAPT Annual Meeting, Indianapolis, Indiana, March 13-16, 2016.
- 57. Kim, M., <u>Mohammad. L. N.</u>, Phaltane, P., and Elseifi, M., "Effects of Temperature Segregation on the Quality and Fracture Resistance of Asphalt Pavements." Presented at the 95th Annual Meeting of the Transportation Research Board, Washington, D.C., January 10-14, 2016.
- 58. Cooper, Jr., S., Cooper, III, S., <u>Mohammad. L. N.</u>, and Elseifi, M., "Development of a Predictive Model Based on Artificial Neural Network for the Semi-Circular Bend Test." Presented at the 95<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 10-14, 2016.

- 59. Cooper, Jr., S., <u>Mohammad. L. N.</u>, and Elseifi, M., "Effects of Re-refined Engine Oil Bottoms on the Laboratory Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles." Presented at the 95<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 10-14, 2016.
- 60. Cooper, III, S., <u>Mohammad. L. N.,</u> and Elseifi, M., "Effects of Mixture Constituents and Reheating on the Mechanical Properties of Asphalt Mixtures." Presented at the 95<sup>th</sup> TRB Annual Meeting, Washington, D.C., January 10-14, 2016.
- 61. <u>Mohammad. L. N.,</u> Cooper Jr., Sam., "Aging and Rejuvenators: Understanding Their Impact on High RAP Mixtures Fatigue Cracking Characteristics Using Advanced Mechanistic Models and Testing Methods." Presented at the 90th Annual Meeting & Technical Sessions, Portland, Oregon, March 11, 2015.
- 62. Kim, Minkyum,, Mohammad. L. N., Challa, Harshavardhan., Elseifi, Mostafa. A., "A Simplified Performance-Based Specification for Asphalt Pavements." Presented at the 2015 AAPT Annual Meeting Leading Edge Workshop, Portland, Oregon, March 8 11, 2014.
- 63. Kim, M., Mohammad, L. N., Challa, H., Elseifi, M. A., "Permanent Deformation in Flexible Pavements: Laboratory and Field Performance Comparisons." Presented at the 94<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 11-15, 2015.
- 64. Cooper, S., <u>Mohammad, L. N.</u>, Elseifi, M., Raghavendra, A., "Effects of Specimen Type on Laboratory-Measured Dynamic Modulus of Asphalt Mixtures and Predicted Pavement Performance." Presented at the 94<sup>th</sup> TRB Annual Meeting, Washington D.C., January 11-15, 2015.
- 65. Cooper, III, S., Mohammad, L. N., Elseifi, M., Raghavendra, A., "Effects of Specimen Orientation on the Laboratory Measured Dynamic Modulus and Predicted Performance of Asphalt Mixtures." Presented at the 94<sup>th</sup> TRB Annual Meeting, Washington D.C., January 11-15, 2015.
- 66. Cooper, Jr., S., <u>Mohammad, L. N.</u>, Elseifi, M., "Infrastructure Sustainability: The Use of Recycled Asphalt Shingles in Flexible Pavements." Presented at the GeoShanghai 2014 International Conference, Shanghai, China, May 26-28, 2014.
- 67. Cooper, Jr., S., <u>Mohammad, L. N.</u>, Elseifi, M. A., "Laboratory Performance of Asphalt Mixtures Containing Recycled Asphalt Shingles." Presented at the 93<sup>rd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 2014.
- 68. Shen, S., Zhang, W., Wu, S., <u>Mohammad, L. N.</u> "Investigation of the Effect of Warm Mix Asphalt Properties on the Predicted Pavement Performance Using Pavement ME Analysis Program." Presented at 93rd Annual Meeting of the Transportation Research Board, Washington, D.C., January 12 16, 2014.
- 69. Mogawer, W. S., Austerman, A. J., Kluttz, R., <u>Mohammad, L. N.</u>, "Performance-Based Specifications for High-Performance Thin Overlay Mixtures Incorporating Reclaimed Asphalt Pavement." Presented at the Transportation Research Board 2014 Session 748, Massachusetts, January 15, 2014.

- 70. Dylla, H., Asadi, S., Hassan, M., <u>Mohammad, L. N.</u>, "Laboratory Evaluation of Asphalt Mixtures Containing Bio-Binder Technologies." Presentation at the AAPT 2013 Annual Meeting, Denver, CO, April 7-10, 2013.
- 71. Mogawer, W., Austerman, A., <u>Mohammad, L. N.</u>, Kutay, M., "Evaluation of high RAP-WMA asphalt rubber mixtures." Presentation at the AAPT 2013 Annual Meeting, Denver, CO, April 7-10, 2013.
- 72. <u>Mohammad, L. N.,</u> Elseifi, M., Cooper, III. S, Challa, H., Naidoo, P., "Laboratory Evaluation of Asphalt Mixtures Containing Bio-Binder Technologies." Poster Presentation at the 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 13-17, 2013
- 73. Kim, M., Mohammad, L. N., Elseifi, M., Challa, H., "Permanent Deformation of Flexible Pavements: Laboratory and Field Performance Comparisons." Poster Presentation at the 92nd Annual Meeting of the Transportation Research Board, Washington D.C., January 13-17, 2013.
- 74. <u>Mohammad, L. N.</u>, Cooper, III. S., Challa, H., "Laboratory Performance Asphalt Mixtures Containing Bio-Binders.," Presented at the 2013 Airfield and Highway Pavement Conference, Los Angeles, California, June 11, 2013.
- 75. Kabir, M., King, B., <u>Mohammad, L. N.</u>, "Round Robin Evaluation of Automated Testing Equipment for Related Asphalt Materials." Poster Presentation at the 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 22-26, 2012.
- 76. Mohammad, L. N., Cooper, Jr. S., Elseifi, M., "Field Performance of Projects Containing Crumb Rubber Modified Asphaltic Concrete." Presented at the 5<sup>th</sup> Asphalt Rubber Conference, Munich, Germany, October 23 26, 2012.
- 77. Elseifi, M., Mohammad, L. N., and Hassan M., "A New Approach to Recycle Asphalt Shingles in Hot Mix Asphalt." Poster Presentation at the 2012 NSF CMMI Engineering Research and Innovation Conference, Boston, Massachusetts, July 9-12, 2012.
- 78. <u>Mohammad, L. N.</u>, Kim, M., Elseifi, M., "Characterization of Asphalt Mixture's Fracture Resistance Using the SCB Test." Presented at the 7th RILEM Conference on Cracking in Pavements, Delft, The Netherlands, June 20-22, 2012.
- 79. <u>Mohammad, L. N.</u>, Hassan M., Cooper, III. S., Asadi, S., "Laboratory Evaluation of Asphaltic Mixtures Containing Titanium Dioxide Photocatalyst." Poster Presentation at the Eurasphalt & Eurobitume Congress 2012, Istanbul, Turkey, June 13-15, 2012.
- 80. <u>Mohammad, L. N.</u>, Kim, M., Raghavendra, A., Obulareddy, S., "Characterization of Louisiana Asphalt Mixtures Using Simple Performance Tests and MEPDG." Presented at the Project Review Committee Meeting Final Presentation, Baton Rouge, Louisiana, April 19, 2012.
- 81. Hassan, M., Mohammad, L. N., Dylla, H., Asadi, S., Cooper, III. S., "Laboratory and Field Evaluation of Sustainable Photocatalytic Asphalt Pavements." Presented at the 2012 AAPT Annual Meeting, Austin, Texas, April 1-4, 2012.

- 82. Elseifi, M., Mohammad, L. N., Ying, H., Cooper, III. S., "Modeling and Evaluation of the Cracking Resistance of Asphalt Mixtures Using the Semi-Circular Bending Test at Intermediate Temperatures." Presented at the 2012 AAPT Annual Meeting, Austin, Texas, April 1-4, 2012.
- 83. Vallabhu, B., Cooper, III. S., <u>Mohammad, L. N.,</u> "Fundamental Characterization of Asphalt Mixtures: Warm Mix Asphalt Technologies in Flexible Pavement Systems." Poster Presentation at the 2012 AAPT Annual Meeting, Austin, Texas, April 1-4, 2012.
- 84. Cooper, III. S., Challa, H., <u>Mohammad, L. N.</u>, "Fundamental Characterization of Asphalt Mixtures: Green Asphalt Technologies in Flexible Pavement Systems." Poster Presentation at the 2012 AAPT Annual Meeting, Austin, Texas, April 1-4, 2012.
- 85. Cooper, III. S., Challa, H., <u>Mohammad, L. N.</u>, "Laboratory Performance of Green Asphalt in Flexible Pavement Systems." Poster Presentation at the 2012 AAPT Annual Meeting, Austin, Texas, April 1-4, 2012.
- 86. Mohammad, L. N., Elseifi, M., Cooper, III. S., Raghavendra, A., "Effects of Volumetric and Mechanistic Test Variability on Predicted Performance of Asphalt Pavements Using the MEPDG." Presented at the 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 22-26, 2012.
- 87. Mohammad, L. N., Hassan, M., Cooper, III. S., Dylla, H., "Laboratory Evaluation of Asphaltic Mixtures Containing Titanium Dioxide Photocatalyst." Poster Presentation at the 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 22-26, 2012.
- 88. Kim, M., <u>Mohammad, L. N.</u>, Elseifi, M., "Characterization of Fracture Properties of Asphalt Mixtures As Measured by Semi-Circular Bending Test and Indirect Tension Test." Poster Presentation at the 91st Annual Meeting of the Transportation Research Board, Washington D.C., January 22-26, 2012.
- 89. <u>Mohammad, L. N.</u>, Elseifi, M., Cooper, S., "Laboratory Evaluation of Asphalt Mixtures Containing Sustainable Technologies." Presented at 1<sup>st</sup> Conference of Transportation Research Group of India, Bangalore, India, December 7-10, 2011.
- 90. <u>Mohammad, L. N.</u>, Nazzal, M., "Performance Evaluation & Environmental Impact Assessment Of Asphalt Treated Mixtures Used In Low-Volume Roads." Presented at the 10<sup>th</sup> International Conference on Low Volume Roads, Lake Buena Vista, Florida, July 24-27, 2011.
- 91. <u>Mohammad, L. N.</u>, Elseifi, M., Patel, N., "Field Evaluation of Tack Coat Materials and Application Rates." Presented at the 5<sup>th</sup> International Conference "Bituminous Mixtures and Pavements," Thessaloniki, Greece, June 1-3, 2011.
- 92. Elseifi, M., <u>Mohammad, L. N.</u>, Cooper, S., "Laboratory Evaluation of Asphalt Mixtures Containing Sustainable Technologies." Presented at the 2011 AAPT Annual Meeting, Tampa, Florida, March 27-30, 2011.
- 93. Wasiuddin, N., Saltibus, N., and. Mohammad, L. N., "Effects of a Wax-Based Warm Mix

- Additive on Cohesive Strengths of Asphalt Binders." Presented at the 1st ASCE T&DI Integrated Transportation & Development for a Better Tomorrow, Chicago, IL, March 13-16, 2011.
- 94. Hassan, M., Mohammad, L. N., Cooper, S., Dylla, H., "Evaluation of Nano Titanium Dioxide Additive on Asphalt Binder Aging Properties." Presented at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, D.C., January 23-27, 2011.
- 95. <u>Mohammad, L. N.</u>, Hassan, M., "Effects of Tack Coat Shear Bond Characteristics on Pavement Performance at the Interface." Presented at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, D.C., January 23-27, 2011.
- 96. Wasiuddin, N., Saltibus, N., and Mohammad, L. N., "A Novel Moisture Conditioning Method for Adhesive Failure of Hot and Warm Mix Asphalt Binders." Presented at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, D.C., January 23-27, 2011.
- 97. Dylla, H., Hassan, M., Schmitt, M., Rupnow, T., <u>Mohammad, L. N.</u>, Wright, E., "Effects of Roadway Contaminants on Titanium Dioxide Photodegredation of NOx." Presented at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, D.C., January 23-27, 2011.
- 98. Cooper, S., Elseifi, M., and <u>Mohammad, L. N.</u>, "MEPDG Sensitivity Analysis of Louisiana Hot-Mix Asphalt Mixtures Utilizing a Statistically Based Factorial Design." Presented at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, D.C., January 23-27, 2011.
- 99. Cooper, S., Elseifi, M., <u>Mohammad, L. N.</u>, and Hassan, M., "Performance and Cost-Effectiveness of Sustainable Technologies in Flexible Pavements Using Mechanistic-Empirical Design Guide."Presented at the Transportation Research Board 90<sup>th</sup> Annual Meeting, Washington, D.C., January 23-27, 2011.
- 100. Mohammad, L. N., Bae, A., Elseifi, M., and Patel, N., "Factors that Influence the Performance of Interface Shear Strength of Pavement Interlayers." Presented at the 24th Australian Road Research Board Conference, Melbourne, Australia, October 12-15, 2010.
- 101. Mohammad, L. N., Elseifi, M, and Cooper, S., "Laboratory Evaluation of Sulfur-Extended Warm-Mix Asphalt." Presented at the 2nd International Conference on Construction in Developing Countries, Cairo, Egypt, August 3-5, 2010.
- 102. <u>Mohammad, L. N.</u>, Nazzal, M., and Austin, A., "Evaluation of a New Generation of Asphalt Treated Mixtures." Presented at the GeoShanghai 2010 International Conference, Shanghai, China, June 3-5, 2010.
- 103. Dylla, H., Hassan, M. M., <u>Mohammad, L. N.</u>, and Rupnow, T., "Evaluation of the Environmental Effectiveness of Titanium Dioxide Photocatalyst Coating for Concrete Pavements." Presented at the 89th Transportation Research Board Annual Meeting, National Research Council, Washington, D.C., January 10-14, 2010.
- 104. Hassan, M. M., Dylla, H., Mohammad, L. N., and Rupnow, T., "Effect of Application

- Methods on the Effectiveness of Titanium Dioxide as a Photocatalyst Compound to Concrete Pavement." Presented at the 89th Transportation Research Board Annual Meeting, National Research Council, Washington, D.C., January 10-14, 2010.
- 105. Bae, A., Mohammad, L. N., and Button, J., "Effects of Temperature on the Interface Shear Strength of Emulsified Tack Coats and Its Relationship to Rheological Properties."

  Presented at the Transportation Research Board 89th Annual Meeting, Washington, D.C., January 11, 2010.
- 106. Mohammad, L. N., Bae, A., Elseifi, M., Button, J., and Patel, N., "Effects of Pavement Surface Type and Sample Preparation Method on Tack Coat Interface Shear Strength." Presented at the Transportation Research Board 89th Annual Meeting, Washington, D.C., January 11, 2010.
- 107. Nazzal, M. and Mohammad, L. N., "Estimation of the Resilient Modulus of Subgrade Soils Using Falling Weight Deflectometer." Presented at the Transportation Research Board 89th Annual Meeting, Washington, D.C., January 10-14, 2010.
- 108. Mohammad, L. N. and Cooper, S., "Characterization of HMA Mixtures Containing High RAP Content with Crumb Rubber Additives." Presented at the Asphalt Rubber 2009 Conference, Nanjing, China, November 1-3, 2009.
- 109. Mohammad, L. N., Bae, A., and Elseifi, M., "Effect of Tack Coat Materials and Application Rates on the Interface Shear Strength." Presented at the 6<sup>th</sup> International Symposium on Maintenance & Rehabilitation of Pavements, Vol. II, Torino, Italy, July 8-10, 2009.
- 110. Mohammad, L. N., Bae, A., Elseifi, M., Button, J., and Scherocman, J., "Interface Shear Strength Characteristics of Emulsified Tack Coats." Presented at the 2009 AAPT Annual Meeting, Minneapolis, MN, March 11-15, 2009.
- 111. <u>Mohammad, L. N.</u>, Bae, A., Elseifi, M., Button, J., and Scherocman, J., "Development of Pull-Off Test Device and Methodology to Evaluate the Bond Strength of Tack Coat Materials in the Field." Presented at the 88<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 11-15, 2009.
- 112. Abu-Farsakh, M., Nazzal, M., and Mohammad, L. N., "2D Finite Element Analysis To Evaluate The Performance Of Geogrid Base Reinforcement In Week Flexible Pavement Structures." Presented at the 88<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 11-15, 2009.
- 113. Mohammad, L. N., Saadeh, S., and, Kabir Md., "Evaluation of Fracture Properties of Hot Mix Asphalt." Presented at the 6<sup>th</sup> RILEM International Conference on Cracking in Pavements. Chicago, Illinois, June 16-18, 2008.
- 114. Mohammad, L. N., Saadeh, S., and Cooper S., "Evaluation of Asphalt Mixtures Containing Sasobit Warm Mix Additive." Presented at the GeoCongress 2008: The Challenge of Sustainability in the Geoenvironment, New Orleans, Louisiana, March 9-12, 2008.
- 115. <u>Mohammad, L. N.</u>, and Saadeh, S., "Performance Evaluation of Stabilized Base and Subbase Material." Presented at the GeoCongress 2008: The Challenge of Sustainability in the

- Geoenvironment, New Orleans, Louisiana, March 9-12, 2008.
- 116. Mohammad, L. N., Saadeh, S., Kabir, Md., Othman, A., and Cooper, S., "Characterization of Louisiana Asphalt Mixtures Using Simple Performance Tests." Presented at the 87<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 13-17, 2008.
- 117. Nazzal, M., <u>Mohammad, L. N.</u>, Gaspard, K., "Development of Resilient Modulus Prediction Models for Louisiana Subgrade Soils." Presented at the 87<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 13-17, 2008.
- 118. <u>Mohammad, L. N.</u>, Saadeh, S., "Evaluation Of Rutting Susceptibility Of Superpave Mixtures." Presented at the 5<sup>th</sup> International Symposium on Maintenance & Rehabilitation of Pavements. Park City, Utah, August 8-10, 2007.
- 119. Mohammad, L. N., Saadeh, S., Zhang, C., Cooper, S, Abadie, C., and Khattak, J., "Comparative Study of the Mechanical Properties of HMA Mixture: Field vs Laboratory." Presented at the Annual meeting of the Association of Asphalt Paving Technologists, San Antonio, Texas, March 12–14, 2007.
- 120. <u>Mohammad, L. N.</u>, Saadeh, S., Obulareddy, S., and Cooper, S., "Characterization of Louisiana Asphalt Mixtures Using Simple Performance Tests." Presented at the 86<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 21-25, 2007.
- 121. <u>Mohammad, L. N.</u>, and Raqib, M., "Laboratory Evaluation of Asphalt Tack Coat Materials on Interface Bond Strength." Presented at the 12<sup>th</sup> Conference of the Road Engineering Association of Asia and Australasia, Manila, Philippines, November 20-24, 2006.
- 122. Negulescu, I., <u>Mohammad, L. N.</u>, Daly, W., Daranga, C., and Glover, I., "Chemical and Rheological Characterization of Wet and Dry Aging of Polymer Modified Asphalt Cements: Field and Laboratory Evaluation. Presented at the Annual meeting of the Association of Asphalt Paving Technologists, Savannah, Georgia, March 26–29, 2006.
- 123. Al Shamsi, K., <u>Mohammad, L. N.</u>, Wu, Z., Cooper, S., and Abadie, C., "Compactability and Performance of Superpave Mixtures with Aggregate Structures Designed Using the Bailey Method." Presented at the 81<sup>st</sup> Annual meeting of the Association of Asphalt Paving Technologists, Savannah, Georgia, March 26–29, 2006.
- 124. <u>Mohammad, L. N.</u>, Herath, A., Rasoulian, M., and Zhongjie, Z., "Laboratory Evaluation of Untreated and Treated Pavement Base Materials From A Repeated Load Permanent Deformation Test." Presented at the 84<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 22-26, 2006.
- 125. Mohammad, L. N., Wu, Z., Obulareddy, S., Cooper, S., and Abadie, C., "Permanent Deformation Analysis Of HMA Mixtures Using SPTs and The 2002 M-E Pavement Design Software ." Presented at the 84<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 22-26, 2006.
- 126. <u>Mohammad, L. N.</u>, Wu, Z., Herath, A., Rasoulian, M., and Zhongjie, Z., "Laboratory Evaluation of Untreated & Treated Pavement Base Materials From A Repeated Load Permanent Deformation Test." Presented at the 84<sup>th</sup> Annual Meeting of the Transportation

- Research Board, Washington, D.C., January 22-26, 2006.
- 127. Mull, M, Mohammad, L. N., and Othman, A., "Fatigue Crack Growth Analysis of HMA Employing the Semi-Circular Notched Bend Specimen." Presented at the 84<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 22-26, 2006.
- 128. Mohammad, L. N., Wu, Z., Xu, Q., and Rasoulian, M., "Accelerated Pavement Testing of Untreated RAP Layer in Flexible Pavement." Presented at the Fourth International Conference on Maintenance and Rehabilitation of Pavements and Technological Control, Belfast, Northern Ireland, August 18-19, 2005.
- 129. Mohammad, L. N., Abu-Farsakh, M., Wu, Z., and Abadie, C., "Design and Construction of Foamed Recycled asphalt pavement base materials." Presented at the 2005 International Symposium on Pavement Recycling, São Paulo, Brazil, March 14-16, 2005.
- 130. Mohammad, L. N., Wu, Z., Myers, L., Cooper, S., and Abadie, C., "A Practical Look at the Simple Performance Tests: Louisiana's Experience." Presented at the 80<sup>th</sup> Annual meeting of the Association of Asphalt Paving Technologists, Long Beach, CA, March 7 9, 2005.
- 131. Mohammad, L. N., Herath, A., Gaspard, K., Gudishala, R., and Abu-Farsakh, M., "The Use of Dynamic Cone Penetrometer to Predict Resilient Modulus of Subgrade Soils." Presented at the ASCE Geo-Frontiers 2005 Conference, Austin, Texas, January 24-26, 2005.
- 132. <u>Mohammad, L. N.</u>, Wu, Z., Myers, L., Cooper, S., and Abadie, C., "Laboratory Characterization and Empirical Prediction of Dynamic Modulus of Superpave Mixtures." Presented at the 84<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 9-13, 2005.
- 133. Mohammad, L. N., Rasoulian, M, Huang, B., and Roberts, F., "APT and Laboratory Evaluation of Crumb Rubber Asphalt Pavements." Presented at the Second International Conference on Accelerated Pavement Testing, Minneapolis, MN, September 26-29, 2004.
- 134. Nazzal, M., Abu-Farsakh, M., Alshibli, K., and Mohammad, L. N., "Evaluation the Potential use of a Portable LFWD for Characterizing Pavement Layers and Subgrades." Presented at the ASCE 2004 Geo-Institute Conference on Geotechnical Engineering and Transportation Projects, Los Angeles, CA, July 27-31, 2004...
- 135. Mohammad, L. N., Wu, Z., and Abadie, C., "Sensitivity of Mixture Performance Properties to Changes in Asphalt Mixture Type: Case Study." Presented at the ASCE 2004 Geo-Institute Conference on Geotechnical Engineering and Transportation Projects, Los Angeles, CA, July 27-31, 2004
- 136. Mohammad, L. N., Wu, Z., and Aglan, M., "Characterization of Fracture and Fatigue Resistance of Recycled Polymer-Modified Asphalt Pavements." Presented at the RILEM: 5th International Conference on Cracking in Pavements, Limoges, France, May 5-8, 2004.
- 137. <u>Mohammad, L. N.</u>, Wu, Z., Zhang, C., Khattak, M.J., Abadie, C., "Variability of Air Voids and Mechanistic Properties of Plant Produced Asphalt Mixtures." Presented at the 83<sup>rd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 11-15, 2004.

- 138. Mohammad, L. N., Wu, Z., Raghavendra, A., and Abadie, C., "Comparison of Aggregate Gradation and Mixture Physical Properties to Performance Tests of Coarse-Graded Superpave Mixtures in Louisiana." Presented at the Annual meeting of the Association of Asphalt Paving Technologists, Baton Rouge, Louisiana, March 8 10, 2004.
- 139. Mohammad, L. N., Wu, Z., Wang, L., and Mull, M., "Characterization of Fracture Resistance of Superpave Mixture Using a Semi-Circular Fracture Tests." Presented at the ASTM Symposium on Performance Tests for Hot Mix Asphalt including Fundamental and Empirical Procedures, Tampa, Florida, December 9, 2003.
- 140. Mohammad, L. N., Huang, B., Robert, F., and Rasoulian M., "Performance of Crumb Rubber Asphalt Pavement Through Accelerated Loading." Presented at the International Conference on Highway Pavement Data Analysis & Mechanistic Design Applications, Columbus, OH, September 8-10, 2003.
- 141. Daly, B., Mohammad, L. N., Negulescu, I., and Wu, Z., "Can Polymer Modified Asphalt be Recycled?" Presented at the 2003 Aging of Pavement Asphalts Symposium, Laramie, WY, July 16-18, 2003.
- 142. <u>Mohammad, L. N.</u>, Wu, Z., Daly, B., and Negulescu, I., "Fatigue Performance of Asphalt Mixtures Containing Recycled Polymer-Modified Cements." Presented at the Third International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control, Guimaraes, Portugal, July 7-10, 2003.
- 143. Mohammad, L. N., Negulescu, I., Wu, Z., Daranga, C., Daly, W., Abadie, C., "Investigation of the Use of Recycled Polymer Modified Asphalt Binder in Asphalt Concrete Pavements." Presented at the Annual meeting of the Association of Asphalt Paving Technologists, Lexington, Kentucky, March 10 12, 2003.
- 144. Mohammad, L. N., Abu-Farsakh, M.Y., Wu, Z., and Abadie, C., "Louisiana Experience With Foamed Recycled Asphalt Pavement Base Materials." Presented at the 82<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 2003.
- 145. Wang, L.B., Meyers, L.A., <u>Mohammad, L. N.</u>, and Fu, Y.R., "A Micromechanics Study on Top-Down Cracking." Presented at the 82<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 2003.
- 146. <u>Mohammad, L. N.</u>, Herath, A., and Huang, B., "Evaluation of Permeability of Superpave Asphalt Mixtures." Presented at the 82<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 2003.
- 147. Gaspard, K.J., <u>Mohammad, L. N.</u>, and Wu, Z., "Laboratory Mechanistic Evaluation of Soil Cement Mixtures with Fibrillated-polypropylene-fibers." Presented at the 82<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 2003.
- 148. Wang, L.B., <u>Mohammad, L. N.</u>, "Quantification of Morphology Characteristics of Aggregate from Profile Images." Presented at the 82<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 2003.
- 149. Huang, B., and Mohammad, L. N., "Laboratory Comparisons and Numerical Analysis of

- Open Graded Asphalt Treated Drainable Base Mixtures." Presented at the Third International Conference on Bituminous Mixtures and Pavements, Thessaloniki, Greece, November 21-22, 2002.
- 150. Mohammad, L. N., Raqib, Md., Wu, Z., "Measurement of Interlayer Bond Strength through Direct Shear Tests." Presented at the Third International Conference on Bituminous Mixtures and Pavements, Thessaloniki, Greece, November 21-22, 2002.
- 151. Mohammad, L. N., Raqib, Md., Wu, Z., "Characterization of HMA Pavements Interface Shear Strength." Presented at the Third International Conference on Bituminous Mixtures and Pavements, Thessaloniki, Greece, November 21-22, 2002.
- 152. Huang, B., Mohammad, L. N., Rasoulian, M., Roberts, F., Qun, H., "Numerical Validation of Pavement Performance at the Louisiana Accelerated Loading Facility (ALF)." Presented at the Ninth International Conference on Asphalt Pavements, Copenhagen, Denmark, August 17-22, 2002.
- 153. Mohammad, L. N., Titi, H., Herath, A., "Determination of Resilient Modulus of Cohesive Soils Using the Continuous Intrusion Miniature Cone Penetration Test." Presented at the ASTM Symposium on Resilient Modulus Testing for Pavement Components, Salt Lake City, Utah, June 27-28, 2002.
- 154. Titi, H., Mohammad, L. N., Herath, A., "Characterization of Resilient Modulus for Fine and Coarse Grained Soils Using the Intrusion Technology." Presented at the ASTM Symposium on Resilient Modulus Testing for Pavement Components, Salt Lake City, Utah, June 27-28, 2002.
- 155. Huang, B. and Mohammad, L. N., "Development of Large Stone Asphalt Mixtures in Louisiana." Presented at the 4th International Conference on Road & Airfield Pavement Technology, Kunming, China, April 23-25, 2002.
- 156. Huang, B., Mohammad, L. N., Wathugala, W., "Development of a Thermo-viscoplastic Constitutive Model for HMA Mixtures." Presented at the 2002 Meeting of the Association of Asphalt Paving Technologist, Colorado Springs, Colorado, March 18-20, 2002.
- 157. Huang, B., Mohammad, L. N., Graves, P., Abadie, C., "Louisiana Experience with Crumb-Rubber Modified Hot-Mix Asphalt Pavement." Presented at the 81<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 13-17, 2002.
- 158. Mohammad, L. N., Raqib, Md., Huang, B., "Influence of Asphalt Tack Coat Materials on the Interface Shear Strength." Presented at the 81<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 13-17, 2002.
- 159. <u>Mohammad, L. N.</u>, Huang, B., "Large Stone Asphalt Mixtures: Development of Rut Resistant Mixtures." Presented at 2<sup>nd</sup> International Conference on Engineering Materials, San Jose, California, August 16-19, 2001.
- 160. <u>Mohammad, L. N.</u>, Huang, B., Cea, M., Rutting Measurements of HMA Mixtures with the Asphalt Pavement Analyzer." Presented at the 2<sup>nd</sup> International Symposium on Maintenance and Rehabilitation of Pavements and Technological Control, Auburn, Alabama, July 29 –

- August 1, 2001.
- 161. Huang, B., Mohammad, L. N., and Rasoulian, M., "3-D Numerical Simulation of Asphalt Pavement at the Louisiana ALF." Presented at the 80<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 7-11, 2001.
- 162. Mohammad, L. N., Huang, B., Roberts, F., and Rasoulian, M., "Accelerated Loading Performance of Crumb Rubber Asphalt Pavements." Presented at the Asphalt Rubber 2000 Conference, November 14-17, 2000, Vilamoura, Portugal.
- 163. Daly, W., Negulescu, I., <u>Mohammad, L. N.</u>, and Yeh, P., "Recycling of Polymer Modified Asphalt Pavement: A Binder Study." Presented at the American Chemical Society Materials for Transportation Conference, August 24, 2000, Washington, D.C.
- 164. <u>Mohammad, L. N.</u>, "Development of Large Stone Asphalt Mixture Design for Heavy Duty Pavements." Presented at the 2000 ASCE Louisiana Section Spring Conference, March 16-17, 2000, Baton Rouge, Louisiana.
- 165. Mohammad, L. N., "Permanent Deformation Characteristics with the Asphalt Pavement Analyzer." Presented at the 2000 ASCE Louisiana Section Spring Conference, March 16-17, 2000, Baton Rouge, Louisiana.
- 166. Mohammad, L. N., Abadie, C., and Gokman, R., "Mechanistic Evaluation of Hydrated Lime in HMA Mixtures." Presented at the 79<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 9-13, 2000.
- 167. Mohammad, L. N., Huang, B., and Raghavendra, A., "Laboratory Performance Evaluation of Cement Treated Soil Base Course Mixtures." Presented at the 79<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 9-13, 2000.
- 168. <u>Mohammad, L. N.</u>, Huang, B., and Raghavendra, A., "Comparisons between Asphalt Pavement Analyzer and Superpave Shear Tester Results for the Louisiana Superpave Design Projects."
- 169. Presented at the Civil & Environmental Engineering Conference "New Frontier and Challenges," Bangkok, Thailand, November 8 12, 1999.
- 170. Yeh, P., Negulescu, I., Daly W., and Mohammad, L. N., "Flow Properties of Asphalt Cements by Compounding with Synthetic Polymers." Presented at the Petersen Asphalt Research Conference, Laramie, WY, July 12-14, 1999.
- 171. Mohammad, L. N., Titi, H., and Herath A., "Estimation of Resilient Modulus of Subgrade Soil from Cone Penetration Data." Presented at the Transportation Research Board 7<sup>th</sup> International Conference on Low Volume Roads, Baton Rouge, LA, May 23-36, 1999.
- 172. Mohammad, L. N., Huang, B., and Zhang, X., "Laboratory Performance Evaluation of SMA, CMHB, and Dense Graded Asphalt Mixtures." Presented at the 75th Annual Meeting of the Association of Asphalt Paving Technologist, Chicago, Illinois, March 8-10, 1999.
- 173. Huang, B., Mohammad, L. N., Ragavendra, A., and Abadie, C., "Fundamental of

- Permeability in Asphalt Mixtures." Presented at the 75th Annual Meeting of the Association of Asphalt Paving Technologist, Chicago, Illinois, March 8-10, 1999.
- 174. Mohammad, L. N., Ragavendra, A., and Huang, B., "Analysis of HMA Mixes Using the Asphalt Pavement Analyzer (APA)." Presented at the 1999 Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 21-24, 1999.
- 175. Mohammad, L. N., Huang, B., and Ragavendra, A., "Characterization of Superpave Mixes Utilizing the Superpave Shear Tester." Presented at the 1999 Louisiana Transportation Engineering Conference, Baton Rouge, LA, February 21-24, 1999.
- 176. Mohammad, L. N., Huang, B., Puppala, A, and Allen A., "A Regression Model for Resilient Modulus of Subgrade Soils." Presented at the at the 78th Annual Meeting of the Transportation Research Board, Washington, D.C., January 10-14, 1999.
- 177. Mohammad, L. N., and Gokman, R."Structural Properties of Bituminous Mixtures Modified With Hydrated Lime." Presented at the 1<sup>st</sup> Asia Pacific Conference on Transportation and Environment, Singapore, May 13 15, 1998.
- 178. Mohammad, L. N., and Tan, Z., "The Influence of Aggregate and Binder Type on the Fundamental Engineering Properties of Stone Mastic Asphalt and Coarse Matrix High Binder Mixtures." Presented at the 1<sup>st</sup> Asia Pacific Conference on Transportation and Environment, Singapore, May 13 15, 1998.
- 179. Mohammad, L. N., and Gokman, R., "Fatigue And Permanent Deformation Characteristics of Bituminous Mixtures Modified With Hydrated Lime." Presented at the 3rd International Conference on Road & Airfield Pavement Technology, Beijing, P. R. China, April 28 30, 1998.
- 180. Huang, B., <u>Mohammad, L. N.</u>, Zhu, J., and Zhu, X., "Design, Construction and Monitoring for the Excavation of Shanghai World Plaza." Presented at the International Conference on Case Histories in Geotechnical Engineering, St. Louis, MO, March 9-12, 1998
- 181. <u>Mohammad, L. N.</u>, Paul, H., and Altinsoy, R., "Fundamental Properties of Bituminous Mixtures Modified with Hydrated Lime." Presented at the 1997 ASCE's 1997 Annual Conference and Exposition, Minneapolis, Minnesota, October 5-8, 1997.
- 182. <u>Mohammad, L. N.</u>, "Performance of Stone Mastic Asphalt Mixtures." Presented at the 1997 Transportation Engineering Conference, Baton Rouge, LA, February 23-26, 1997.
- 183. Puppala, A. J., Allen, A., and Mohammad, L. N., "Estimation of Permanent Strains of Subgrade Soils from Repeated Load Triaxial Test." Presented at the at the 76th Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 1997.
- 184. Roberts, F. L., <u>Mohammad, L. N.</u>, Ludfi, Djakfar, and Raghavendra, A., "Design, Construction, and Analysis of Pavements Under ALF Loading." Presented at the at the 76th Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 1997.
- 185. Mohammad, L. N., and Paul H.R., "Permanent Deformation and Fatigue Characteristics of

- SMA Mixtures." Presented at the 1996 ASCE Materials Engineering Conference, Washington, DC, November 11-14, 1996.
- 186. Mohammad, L. N., "Design of SMA Mixture for an Orthotropic Bridge Deck Resurfacing." Presented at the Joint 18th Australian Road Research Board Transport Research Conference, Christchurch New, Zealand, September 2 6, 1996.
- 187. Puppala, A., <u>Mohammad, L. N.</u>, and Allen, A., "Non-Linear Model for Resilient Modulus Characterization of Granular Soils." Presented at the 1996 ASCE Engineering Mechanics Conference, Fort Lauderdale, Florida, May 19-22, 1996.
- 188. Puppala, A., and Mohammad, L. N., "Engineering Behavior of Lime Treated Soil." Presented at the at the 75th Annual Meeting of the Transportation Research Board, Washington, D.C., January 7-12, 1996.
- 189. Mohammad, L. N., "Design of Stone Mastic Asphalt Mixture for an Orthotropic Bridge Deck Resurfacing." Presented at the Louisiana Transportation Engineering Conference, Baton Rouge, Louisiana, February, 5-8, 1995.
- 190. Daly W., Mohammad, L. N., Negulescu, I., Paul, H. R., and Youngblood, J., "Fundamental Properties of Asphalt Rubber Blends." Presented at ASCE 1994 Materials Engineering Conference, San Diego, Ca., November 13-16, 1994.
- 191. <u>Mohammad, L. N.</u>, Puppala, A., and Alavilli, P., "Effect of Strain Measurements on Resilient Modulus of Granular Soils." Presented at the ASTM Symposium on Dynamic Geotechnical Testing II, San Francisco, CA, Jan. 27-28,1994.
- 192. Mohammad, L. N., Puppala, A., and Alavilli, P., "Influence of Testing Procedures and LVDTs Location on Resilient Modulus of Soils." Presented at the 73rd Annual Meeting of the Transportation Research Board, Washington, D.C., January 9-13, 1994.
- 193. Mohammad, L. N., Puppala, A., and Kathavate, S., "Design and Reliability Assessment of a Data Acquisition System for the Louisiana Accelerated Loading Device." Presented at the 73rd Annual Meeting of the Transportation Research Board, Washington, D.C., January 9-13, 1994.
- 194. Mohammad, L. N., Alavilli, P., and Puppala, A., "Data Acquisition System for Determining the Resilient Modulus of Soils." Presented at the Advances in Site Characterization: Data Acquisition, Management and Interpretation Sessions, ASCE Convention, Dallas, Texas, October 18-25, 1993.
- 195. <u>Mohammad, L. N.</u>, "Viscoelastic Characterization of Polymer Modified Asphalt." Presented at the Louisiana Transportation Engineering Conference, Baton Rouge, Louisiana, February 7-9, 1993.
- 196. Mohammad, L. N., and Paul, H.R., "Evaluation of the Indirect Tensile Test for Determining the Structural Properties of Asphalt Mix." Presented at the 72<sup>nd</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., January 10-14, 1993.
- 197. Mohammad, L. N., and Paul, H.R., "Evaluation of a New Indirect Tensile Test Apparatus."

- Presented at the 71st Annual Meeting of the Transportation Research Board, Washington, D.C., January 12-16, 1992.
- 198. Mohammad, L. N., "Performance and Repeatability of the Indirect Tension Test." Presented at the 16th Annual Southwest Geotechnical Conference, Rancho Cordova, California, April 16-19, 1991.
- 199. <u>Mohammad, L. N.</u>, "Factors Affecting the Resilient Modulus Values." Presented at the 22<sup>nd</sup> Annual Southeastern Transportation Geotechnical Engineering Conference, New Orleans, Louisiana, October 29 Nov. 1, 1990.
- 200. Mohammad, L. N., "Louisiana's Experience with Resilient Modulus Testing for Bounded Materials." Presented at the AASHTO Region II Research Advisory Committee, Baton Rouge, Louisiana, March 1990.
- 201. Voyiadjis, G. Z., and Mohammad, L. N., "Theory vs. Experiment for Finite Strain Visco-Plastic Constitutive Model." Presented at the Symposium of Constitutive Equations and Life Prediction Models for High Temperature Applications, Joint Meeting of the ASME and Society of Engineering Science, University of California, Berkeley, California, June 1988.
- 202. Voyiadjis, G. Z., and Mohammad, L. N., "Finite Element Analysis for Visco-Plastic Lagrangian Constitutive Models." Presented at the International Conference on Computational Engineering Science, Atlanta, Georgia, April 1988.
- 203. Voyiadjis, G. Z., and Mohammad, L. N., "Constitutive Equations for Rate Sensitive Materials Subjected to Finite Strains." Presented at the Second International Conference on Constitutive Laws for Engineering Materials, Tucson, Arizona, January 1987.
- 204. Voyiadjis, G. Z., and Mohammad, L. N., "Experimental Determination of the Material Parameters for Finite Strain, Rate-Dependent Plasticity Model." Presented at the Tenth U.S. National Congress of Applied Mechanics, Austin, Texas, June 1986.

## WORKSHOPS, SHORT COURSES, SEMINARS, AND WEBINARS ATTENDED

Category	Quantity
Webinars	37
Workshops	11
Short Courses	8
Seminars	6

## Webinars

■ Webinar. Evaluating Tack Coat Materials' Durability in Asphalt Pavements. March 31, 2021. Sponsored by: TRB.

- Webinar. Improving Pavement Sustainability and Resiliency. March 23, 2021. Sponsored by: FHWA.
- Webinar. Measuring Resiliency Tools for Analyzing Resilient Transportation Systems . March 18, 2021. Sponsored by: TRB.
- Webinar. Concrete Overlays of Asphalt. March 11, 2021. Sponsored by: TRB.
- Webinar. Chemical Treatments on Low-Volume Roads . March 3, 2021. Sponsored by: TRB.
- Webinar. Centering Seams Maintaining Centerline Joints in Asphalt Pavements . February 17, 2021. Sponsored by: TRB.
- Webinar. Understanding Pavements Long-Term Pavement Performance Program Updates. February 4, 2021. Sponsored by: TRB.
- Webinar. Material Management & Handling. January 14, 2021. Sponsored by: ATS.
- Webinar. Specifying Clay and Gravel for Road Surfacing. December 9, 2020. Sponsored by: TRB.
- Webinar. Automated Connected Civil Infrastructure. November 19, 2020. Sponsored by: TRB.
- Webinar. Tools of the Future Printing Cement-Based Materials in 3D. November 17, 2020. Sponsored by: TRB.
- Webinar. Where Are We Now with Performance-Based Pavement Warranties? October 19, 2020. Sponsored by: TRB.
- Webinar. Introducing an Improved Design Procedure for Unbonded Concrete Overlays. October 5, 2020. Sponsored by: TRB.
- Webinar. On the Road Again Engaging Students in Road Engineering Careers. September 16, 2020. Sponsored by: TRB.
- Webinar. Fabricating Asphalt for Laboratory Testing. September 9, 2020. Sponsored by: TRB.
- Webinar. Chip Seal Introduction, Site Selection, Design and Materials. August 20, 2020. Sponsored by: FHWA and PPRA.
- Webinar. Using Otta Seal as a Surface Treatment on LowVolume Roads. August 4, 2020. Sponsored by: TRB.
- Webinar. An Introduction to Life-Cycle Assessment for Pavements: Part II—EPDs and PCRs. July 23, 2020. Sponsored by: FHWA.
- Webinar. Strategic Issues Affecting Highway Preservation, Maintenance, and Renewal. July 23, 2020. Sponsored by: TRB.
- Webinar. Smooth Road Ahead Applying Pavement Condition Data for Airports. July 7,

- 2020. Sponsored by: TRB.
- Webinar. Pavement Deflections Past, Present, and Future. June 24, 2020. Sponsored by: TRB.
- Webinar. An Introduction to Life-Cycle Assessment for Pavements: Part I--Fundamentals. June 18, 2020. Sponsored by: FHWA.
- Webinar. Pavement Preservation: Hot In-Place Recycling (HIR), Processes & Best Practices. June 16, 2020. Sponsored by: FHWA and PPRA.
- Webinar. How to Certify and Verify Pavement Surface Condition Data. June 10, 2020. Sponsored by: TRB.
- Webinar. An Introduction to Life-Cycle Cost Analysis for Pavements: Part II--Application and Examples. May 21, 2020. Sponsored by: FHWA and LCCA.
- Webinar. Crack Treatments: Overview, Project Selection & Design. May 21, 2020. Sponsored by: FHWA and PPRA.
- Webinar. Attracting the Future Construction Workforce Case Studies. May 12, 2020. Sponsored by: TRB.
- Webinar. Sustainable highway construction. April 28, 2020. Sponsored by: TRB.
- Webinar. An Introduction to Life-Cycle Cost Analysis for Pavements: Part I Fundamentals. April 16, 2020. Sponsored by: FHWA.
- Webinar. Introduction to Slurry Surfacing Systems. April 16, 2020. Sponsored by: FHWA and PPRA.
- Webinar. Pavement End-of-Life Considerations. March 19, 2020. Sponsored by: FHWA.
- Webinar. How rough is your pavement? March 17, 2020. Sponsored by: TRB.
- Webinar. Quantifying the performance of your pavement preservation. March 5, 2020. Sponsored by: TRB.
- Webinar. How to preserve your pavement through better crack seal. February 24, 2020. Sponsored by: TRB.
- Webinar. Sustainable Pavement Construction. January 30, 2020. Sponsored by: FHWA.
- Webinar. Sustainable Design Approaches. December 19, 2019. Sponsored by: FHWA.
- Webinar. Sustainable Pavements Materials. November 21, 2019. Sponsored by: FHWA.
- Webinar. Driving Surface Aggregate Improving Performance and Sustainability. November 13, 2019. Sponsored by: TRB.
- Webinar. Automated Pavement Condition Surveys. October 21, 2019. Sponsored by: TRB.

- Webinar. Pavements Sustainability Basics. October 17, 2019. Sponsored by: FHWA.
- Webinar. Open Graded Pavements: A Primer with Emphasis on Water Quality Benefits. September 19, 2019. Sponsored by: TRB.
- Webinar. Recent Developments in Cold Asphalt Recycling. August 26, 2019. Sponsored by: TRB.
- Webinar. Use of Life Cycle Assessment in Public Procurement: State of Practice. April 20, 2019. Sponsored by: TRB.
- Webinar. Evaluation of Superheavy Load Movement on Flexible Pavements. April 23, 2019. Sponsored by: TRB.
- Webinar. Building Better Micro Surfacing and Slurry Seals. April 24, 2019. Sponsored by: TRB.

## Workshops

- Tack Coat Best Practices Workshop. May 20, 2015. Baton Rouge, Louisiana. Sponsored by: Federal Highway Administration and the Asphalt Institute.
- Semi Circular Bend (SCB) Test Training Workshop. April 16, 2015. Baton Rouge, Louisiana. Sponsored by: LADOTD.
- Dynamic Shear Rheometer Workshop. February 27, 2014. Baton Rouge, Louisiana. Sponsored by: LADOTD and Anto Paar USA.
- Drainage Workshop on "Construction of Pavement Subsurface Drainage Systems." August 6, 2002. Baton Rouge, Louisiana. Sponsored by: FHWA and LADOTD.
- Sooner City Workshop on "Integrating Design in the Undergraduate Civil Engineering Curriculum." July 31-August 2, 2000. Norman, Oklahoma. Sponsored by: University of Oklahoma and the National Science Foundation.
- Workshop on "Construction of Student-Generated Webpages as a Learning Tools." May 16-19, 1999, Baton Rouge, LA. Sponsored by: the Louisiana Board of Regents LaCEPT.
- National Asphalt Training Center "FHWA Superpave Mixture Design Workshop." February 10-14, 1997, Lexington, Kentucky. Sponsored by: FHWA and the Asphalt Institute.
- Northwestern University Traffic Institute "Fundamental of Geometric Design Workshop." April 8-12, 1996, Baton Rouge, Louisiana. Sponsored by: LADOTD and FHWA.
- Shell Workshop on Polymer Modified Asphalt. March 5, 1992, Shell Westhollow Research Center. Sponsored by: Shell Chemical Company, Houston, Texas.
- Workshop on Resilient Modulus Testing, State of the Practice. March 28-30, 1989, Corvallis, Oregon. Sponsored by: AASHTO, FHWA, Oregon Department of Transportation, Oregon Transportation Research Institute, and Oregon State University.

■ Workshop on Effective Communication, Time and Stress Management. March 25, 1988, Baton Rouge, Louisiana. Sponsored By: LTRC.

### **Short Courses**

- Short Course on "Leap not Creep: Accelerating Innovation Implementation." March 2-3, 2010. Baton Rouge, Louisiana. Sponsored by: FHWA and LADOTD.
- Short Course on "An Introduction to the Bailey Method; Achieving Volumetrics and Compactability." January 3, 2008. Baton Rouge, Louisiana. Sponsored by: FHWA and LADOTD
- Short Course on "Introduction to Mechanistic Design for New & Rehabilitated Pavements (NHI Course No. 131064)." December 17-20, 2007. Baton Rouge, Louisiana. Sponsored by: FHWA and LADOTD.
- Short Course on "Asphalt Pavement Recycling Technologies (NHI Course No. 131050)." February 27-28, 2007. Baton Rouge, Louisiana. Sponsored by: FHWA and LADOTD.
- Short Course on "Scientific Approaches to Transportation Research (NHI Course No. 123002A)." May 20-23, 2002. Baton Rouge, Louisiana. Sponsored by: National Cooperative Highway Research Program and LADOTD.
- Short Course in Analysis of Pavement Distress Data, Pavement Distress Indices, and Remaining Service Life. August 22, 1991, Louisiana Transportation Research Center. Sponsored by: LTRC's Technology Transfer Program and LADOTD.
- Short Course in Asphalt Pavement Materials, Design, Construction, Pavement Management, Maintenance, and Rehabilitation. February 27 March 3, 1989, New Orleans, Louisiana. Sponsored by: Asphalt Institute and Plant Mix Asphalt Industry of Louisiana.
- Short Course in the Operation of the 458 Controller and Related Electronics for the MTS Testing System. December 14-18, 1987, Minneapolis, Minnesota. Sponsored by: MTS Testing System Corporation.

#### **Seminars**

- Seminar on "Principles of Quality Hot Mix Asphalt Pavement Construction." February 15, 2012. Baton Rouge, Louisiana. Sponsored by: FHWA and LADOTD.
- Seminar on "Chip Seal Pavement Construction." February 2, 2011. Baton Rouge, Louisiana. Sponsored by: FHWA and LADOTD.
- FHWA Demonstration Project #87, "Drainable Pavement Systems." October 27-28, 1992, Louisiana Transportation Research Center, Baton Rouge, Louisiana. Sponsored by: LADOTD and FHWA.
- Airport Pavements. May 20 22, 1992, Center for Transportation Research, The University of Texas at Austin. Sponsored by: Texas Department of Transportation and The University of Texas at Austin, Austin, Texas.

- Professor Training Short Course in Asphalt Technology. June 10-21, 1991, National Center for Asphalt Technology, Auburn University. Sponsored by: NAPA Educational Foundation and Auburn University.
- Experimental Stress Analysis Techniques. July 17-20, 1987, Raleigh, North Carolina. Sponsored by: Micro-Measurements Group, Inc.