Professor Louay Mohammad, Ph.D., P.E., Fellow ASCE

Dr. Mohammad is an Endowed professor of Civil and Environmental Engineering and Transportation Faculty Group Coordinator at Louisiana State University. an award-winning professional engineer, an Emeritus member of the National Academies of Science, Engineering, and Medicine Transportation Research Board (TRB), an elected Fellow of the American Society of Civil Engineers (ASCE), and an honorary member of the Association of Asphalt Paving Technologists. Dr. Mohammad also currently serves as the Founding Director of the Sustainable and Resilient Pavement Materials and Technologies Center at the Louisiana Transportation Research Center.

Dr. Mohammad teaches and conducts research in the areas of highway construction materials, pavement engineering, infrastructure resiliency and sustainability, accelerated pavement testing, and advanced materials characterization and modeling. He is a preeminent expert in the fundamental characterization and modeling of highway construction materials and asphalt pavement performance within our multi-trillion-dollar transportation infrastructure, backed by more than 37 years of industrial and academic experience.

Dr. Mohammad's research has resulted in numerous awards. As a leader in national-level tack coat research, Dr. Mohammad's work has shaped national tack coat specifications, contributing to an approximate 21% increase in pavement life. He has been actively involved in the development and implementation of the Balanced Asphalt Mixture Design Method, which has transformed the engineering state-of-practice for flexible pavements through revisions to the Louisiana Asphalt Specifications for Roads and Bridges. Dr. Mohammad's work in sustainability and use of Low Carbon Transportation Materials has also created significant local and national impacts, as he introduced and developed test methods demonstrating how waste tires can be recycled into Louisiana roads without compromising performance quality. Dr. Mohammad work was ranked at the top 2% globally of most cited scientist from natural sciences and medicine; and social sciences as reported by Stanford University (2021). According to Google Scholar, his work has an h-index of 57 with 10,768 citations (as of May 8, 2025).

Dr. Mohammad has served as the principal or co-principal investigator on 73 research projects totaling over $65.2 million. Dr. Mohammad has authored and coauthored over 410 technical publications in pavement engineering, including 254 refereed journal articles, 69 refereed proceedings papers, 69 technical reports, 9 books/edited books, and 11 invited articles in technical magazines. Dr. Mohammad has delivered over 450 presentations, including 255 keynote and invited presentations at prominent national and international conferences.

Dr. Mohammad serves in a leadership role in professional organizations, including the American Society of Civil Engineers (ASCE), American Society of Testing Materials (ASTM), the National Academic of Science Transportation Research Board (TRB), and Asphalt Paving Technologist (AAPT). He is past chair of TRB Standing Committee on Surface Requirements of Asphalt Mixtures, past chair of ASCE Bituminous Materials Committee, past chair of ASCE Transportation & Development – Louisiana Chapter Executive Committee, and chair of ASTM D 4.25 on Bituminous Mixture Analysis. Dr. Mohammad is also a member of the FHWA Asphalt Pavement and Materials Technical Feedback Group. He currently serves as Co-Editor-in-Chief of the American Society of Civil Engineers Journal of Materials in Civil Engineering.

Dr. Louay Mohammad has received numerous prestigious awards throughout his distinguished career, highlighting his exceptional contributions to asphalt science, pavement engineering, and civil engineering education and practice. Recent Honors and Recognitions:

- 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.
- 2024 prestigious Lifetime Achievement Award by the ASCE, Louisiana Section—Baton Rouge Chapter. 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.
- 2018 AAPT Walter J. Emmons Award for A Paper of Outstanding Merit.
- 2013 Best Paper Award at the 8th International Conference on Road and Airfield Pavement Technology

Presentation Title
Leveraging Advanced technologies to Improve Asphalt Pavement Performance