

Walaa Mogawer, PhD, PE, F.ASCE

Commonwealth Professor, Department of Civil &
Environmental Engineering
University of Massachusetts Dartmouth
285 Old Westport Rd., North Dartmouth, MA 02747

Director, Highway Sustainability Research Center
(HSRC)

University of Massachusetts Dartmouth
151 Martine Street, Fall River, MA 02723

Phone Number: +1 (508) 910-9824

E-mail: wmogawer@umassd.edu



EDUCATION

- PhD, Civil Engineering, University of Rhode Island, May 1989
- MS, Civil Engineering, University of Rhode Island, May 1984
- BSc, Civil Engineering, Kuwait University, Kuwait, June 1981

PROFESSIONAL EXPERIENCE

- Commonwealth Professor, Civil Engineering, UMass Dartmouth, September 2021–Present
- Professor, Civil Engineering, UMass Dartmouth, September 2002–August 2021
- Director, Highway Sustainability Research Center, UMass Dartmouth, 2002–Present.

SELECTED RESEARCH PROJECTS

- Investigator: Walaa Mogawer. *On-The-Job Training Supportive Services Program*, Sponsor: FHWA and MassDOT, Duration: September 1, 2020–August 31, 2023, Total funding: \$101,000, Role: PI
- Investigator: Walaa Mogawer. *Improving the Long-Term Condition of Pavements in Massachusetts and Determining Return On Investment: Implementing the AASHTO Mechanistic-Empirical Pavement Design Guide–Phase II*, Sponsor: MassDOT, Duration: July 1, 2021–September 31, 2022, Total funding: \$200,630, Role: PI
- Investigator: Walaa Mogawer. *Optimizing of MassDOT’s High Performance Asphalt Overlay (HPOL) Mixtures*, Sponsor: MassDOT, Duration: July 1, 2021–June 30, 2023, Total funding: \$253,224, Role: PI
- Investigator: Walaa Mogawer. *Understanding Asset Management Systems Utilized By Municipalities In Massachusetts*, Sponsor: MassDOT; Duration: July 1, 2020–September 30, 2021, Total funding: \$200,497, Role: PI
- Investigator: Walaa Mogawer. *Development of a Balanced Mixture Design Procedure for MassDOT with Associated Performance Related Specification, MassDOT Annual Profiler Certification, & Upgrade of the MassDOT Pavement Distress Manual*, Sponsor: MassDOT, Duration: July 1, 2018–July 31, 2022, Total funding: \$993,178, Role: PI

SELECTED PUBLICATIONS

- Zhou, F., R. Steger, and **W. Mogawer**. 2021. Development of a Coherent Framework for Balanced Mix Design and Production Quality Control and Quality Acceptance. *Construction and Building Materials*, Vol. 287.

- Abdalfattah, I., **W. Mogawer**, and K. Stuart. 2021. Quantification of the Degree of Blending in Hot-Mix Asphalt (HMA) with Reclaimed Asphalt Pavement (RAP) Using Energy Dispersive X-Ray Spectroscopy (EDX) Analysis. *Journal of Cleaner Production*, Vol. 294.
- Abdalfattah, I., **W. Mogawer**, and K. Stuart. 2021. Recycled Polyethylene (RPE) Modified Asphalt Binders and Mixtures: Performance Characteristics and Environmental Impact. The Association of Asphalt Paving Technologist (AAPT). *Transportation Research Record Special Publication*.
- Zhou, F., **W. Mogawer**, and R. Steger. 2021. *Short- and Mid- Term Loose Mix Conditioning Protocols for Asphalt Overlay BMD and QC/QA*. AAPT. *Transportation Research Record Special Publication*.
- Ashtiani, M., **W. Mogawer**, and N. Tabatabaee. 2021. Local Calibration of the Hirsch Model to Determine the Degree of Blending Between Aged and Virgin Asphalt Binders. *Road Materials and Pavement Design*.
- **Mogawer, W.**, K. Stuart, A. Austerman and A. Soliman. 2020. Influence of Reclaimed Asphalt Pavement (RAP) and Asphalt Sources on RAP Specifications and Balanced Mix Design. *Journal of the Association of Asphalt Paving Technologist (AAPT)*, Vol. 89.
- Stuart, K., **W. Mogawer**, and S. Underwood. 2020. Use of Polymer-Modified Asphalts (PMA) in Dense-Graded Mixtures: Internet Survey and Tools to Measure Return on Investment. *Journal of the Association of Asphalt Paving Technologist (AAPT)*, Vol. 89. [**Walter J. Emmons Award Winning Paper**]
- **Mogawer, W.**, A. J. Austerman, K. Stuart, F. Zhou, and P. Romero. 2019. Balanced Mix Design Sensitivity to Production Tolerance Limits and Binder Source. *Journal of the Association of Asphalt Paving Technologist (AAPT)*, Vol. 88. [**Walter J. Emmons Award Winning Paper**]

PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- American Society of Civil Engineers (ASCE) Fellow, lifetime member of AAPT, member of various national and international committees and organizations related to pavement engineering, served on committees for Transportation Research Board (TRB) including currently AFM10: Production and Use of Asphalt, peer reviewer for various journals and publications related to asphalt materials, pavement, and pavement engineering

GRADUATE ADVISORS AND POSTDOCTORAL SPONSORS/ THESIS ADVISOR AND POSTGRADUATE-SCHOLAR SPONSOR

- Supervised 14 students' Master thesis (Master of Science Degree offering started in 2007)
- Supervised 3 students' Doctoral dissertation (PhD offering started in 2016)

AWARDS, RECOGNITIONS

- 2020, AAPT, Walter J. Emmons for the best paper
- 2019, AAPT, Walter J. Emmons for the best paper
- 2014, Field of Design and Construction of Transportation Facilities, K.B. Woods Award for Outstanding Paper