

## **Kai-Wei (Victor) Liu, Ph.D.**

Doctor of Philosophy, Civil Engineering, Texas A&M University, 2015

Master of Engineering, Civil Engineering, Texas A&M University, 2009

Master of Science, Civil Engineering, National Cheng Kung University, 2004

### Professional Experience

- Adjunct Faculty, Civil Engineering, Prairie View A&M University. 2022-present
- Assistant Research Scientist, Texas A&M Transportation Institute, 2020-2022
- Visiting Assistant Professor, Civil Engineering, Texas A&M University-Corpus Christi, 2020-2021
- Faculty and Program Coordinator, Engineering, Galveston College, 2021
- Assistant Research Scientist, Texas A&M Transportation Institute, 2020-2022
- Assistant Transportation Researcher, Texas A&M Transportation Institute, 2016-2020
- Post-Doctoral Research Associate, Texas A&M Transportation Institute, 2015-2016

### Selected Publication

- Saraswatula, P., A. Mukhopadhyay, and K. W. Liu (2022). "Development of a screening tool to predict fly ash dosage necessary to mitigate alkali silica reaction in concrete." *Transportation Research Record*: 03611981221094291.
- Goehl, D., C. Gurganus, K. W. Liu, and J. L. Hsu (2021). Seal Coat Binder Rate Adjustments Using LiDAR Data. Texas Department of Transportation and Texas A&M Transportation Institute, Technical Report FHWA/TX-21/5-6963-01-R1.
- Mukhopadhyay, A. K., K. W. Liu, M. Jalal, and J. L. Hsu (2021). Verification of ASR Resistance Property of the Commonly used Concrete Mix Designs by the Precast Industries in Texas. Texas Department of Transportation and Texas A&M Transportation Institute, Technical Report FHWA/TX-21/5-6656-01-R1.
- Liu, K. W., Goehl, D., C. Gurganus, and J. L. Hsu (2020). "Management of chip seal through binder rate adjustments predicted by LiDAR reflectivity data." *Management* 3(5): 30-39.
- Liu, K. W. and J. L. Hsu (2020). " $\alpha$ -Periodicity is spontaneously phased in an acicular sulfuric-recrystallized precipitate of copper phthalocyanine." *European Journal of Applied Sciences* 8(6): 81-92.
- Gurganus, C. F., S. Messhenas, K. W. Liu, and E. Fernando (2020). Determine Proper Selection of Ride Quality Pay Adjustment Schedule and Re-evaluation of Current Bonus/Penalty Structure. Texas Department of Transportation and Texas A&M Transportation Institute, Technical Report FHWA/TX-21/0-6986-R1
- Mukhopadhyay, A. K., R. M. Ganesh, K. W. Liu, and Y. Deng (2019). Direct determination of cement composition by x-ray diffraction. Texas Department of Transportation and Texas A&M Transportation Institute, Technical Report FHWA/TX-19/0-6941-R1.
- Udayakantha, M., J. Cho, K. W. Liu, A. Mukhopadhyay, S. Gupta, C. Hong, and B. Sarbajit (2019). "An evaluation of the reduction of heat loss enabled by halloysite modification of oilwell cement." *Engineering Research Express* 1(2): 025028.
- Mukhopadhyay, A., K. W. Liu, and M. Jalal (2019). "An innovative approach to fly ash characterization and evaluation to prevent alkali-silica reaction." *ACI Materials Journals* 116(4): 173-181.
- Liu, K. W. and J. L. Hsu (2019). "An innovative self-weld framework of microscale copper phthalocyanine." *SCIREA Journal of Materials* 4(1): 1-13.

- Mukhopadhyay, A. and K. W. Liu (2018). "Innovative approach for formulating ASR-resistant mixtures." *ACI Concrete International* 40(12): 39-45.
- Liu, K. W., A. Mukhopadhyay, X. Shi, and J. L. Hsu (2018). "Chemical approaches to prevent alkali-silica reaction in concrete – A review." *Engineering Solid Mechanics* 6(3): 201-208.
- Liu, K. W. and J. L. Hsu (2018). "The use of chemical admixtures to prevent delayed ettringite formation in concrete." *American Research Journal of Civil and Structural Engineering* 2(1): 1-6.
- Shi, X., A. Mukhopadhyay, and K. W. Liu (2017). "Mix design formulation and evaluation of Portland cement concrete paving mixtures containing reclaimed asphalt pavement." *Construction and Building Materials* 151: 756-768.
- Liu, K. W. and A. Mukhopadhyay (2015). "Accelerated concrete-cylinder test for alkali-silica reaction." *ASTM Journal of Testing and Evaluation* 44(3): 1-10.