TEXAS STATE VITA

I. Academic/Professional Background

A. Name: Shyaamkrishnan Vigneswaran Title: Dr.

B. Educational Background

Degree	*Year*	*University*	*Major:*	*Thesis/Dissertation*
PhD	2025	Texas State University	Material Science Engineering and Commercialization	Performance evaluation of Guss asphalt binder: A comprehensive study on properties and applications.
MS	2023	Texas State University	Construction Management	Effect of CRM particle size on storage stability of rubberized binders.
BE	2013	Karpagam Academy of Higher Education	Civil Engineering	Partial replacement of cementitious material using Flyash

C. University Experience:

Graduate Instructional Assistant (Jan 2021- May 2023)- Texas State University
Doctoral Research Assistant (May 2023-August 2023)- Texas State University
Doctoral Instructional Assistant (August 2023- December 2024)- Texas State University
Doctoral Research Assistant (January 2025- June 2025)- Texas State University
Graduate Teaching Assistant (June 2025- August 2025)- Texas State University

D. Relevant Professional Experience:

7 Years' Industry Experience in QA/QC and Project Execution

E. Other Professional Credentials (licensure, certification, etc.)
AUTOCAD, STAAD PRO, PRIMAVERA

II. TEACHING

A. Teaching Honors and Awards: N/A

B. Courses Taught: Construction Engineering Survey (Labs)

C. Directed Student Learning (i.e. theses, dissertations, exit committees, etc.): N/A

D. Courses Prepared and Curriculum Development: N/A

E. Teaching Grants and Contracts

1. Funded External Teaching Grants and Contracts: N/A

2. Submitted, but not Funded, External Teaching Grants and Contracts: N/A

3. Funded Internal Teaching Grants and Contracts: N/A

4. Submitted, but not Funded, Internal Teaching Grants and Contracts: N/A

F. Other: N/A

G. Teaching Professional Development Activities Attended

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press):

1. Books:

a. Scholarly Monographs:

b. Textbooks:

c. Edited Books:

d. Chapters in Books:

e. Creative Books:

2. Articles:

a. Refereed Journal Articles:

1. Yun, J., Vigneswaran, S., Lee, M. S., Choi, P., & Lee, S. J. (2023). Effect of blending and curing conditions on the storage stability of rubberized asphalt binders. Materials, 16(3), 978-991. https://doi.org/10.3390/ma16030978.

2. Hemmati, N., Vigneswaran, S., Kim, H. H., Lee, M. S., & Lee, S. J. (2023). Laboratory evaluation of asphalt binders containing styrene-butadiene-styrene (SBS) and processed oil. Materials, 16(3), 1235-1242. https://doi.org/10.3390/ma16031235.

3. Vigneswaran, S., Yun, J., Jeong, K. D., Lee, M. S., & Lee, S. J. (2023). Effect of crumb rubber modifier particle size on storage stability of rubberized binders. Sustainability, 15(18), 13568-13573. https://doi.org/10.3390/su151813568.

4. Yun, J., Vigneswaran, S., Lee, M. S., & Lee, S. J. (2023). A laboratory investigation regarding storage stability of the CRM-modified bitumen—CRM processing method (untreated vs. treated). Sustainability, 15(14), 10825-10830. https://doi.org/10.3390/su151410825.

5. Hemmati, N., Vigneswaran, S., Mazumder, M., Lee, M. S., & Lee, S. J. (2023). Laboratory assessment of modified asphalt binders using crumb rubber modifier (CRM) and processed oil. Construction Materials, 3(1), 93-109. https://doi.org/10.3390/constructionmaterials3010009.

6. Vigneswaran, S., Yun, J., Kim, H., Lee, M. S., & Lee, S. J. (2024). Enhancing asphalt binder performance and storage stability with Trinidad Lake Asphalt (TLA). Applied Sciences, 14(14), 6023. https://doi.org/10.3390/app14146023.

7. Vigneswaran, S., Yun, J., Lee, M. S., & Lee, S. J. (2023). Effect of kaolinite and cloisite Na+ on storage stability of rubberized binders. Materials, 16(11), 3902-3913. https://doi.org/10.3390/ma16113902.

8. Vigneswaran, S. (2023). Effect of CRM particle size on storage stability of rubberized binders. Thesis.

9. Vigneswaran, S., Yun, J., Lee, M. S., Jeong, K. D., & Lee, S. J. (2024). Revolutionizing roadways: High-performance warm mix asphalt binder with Trinidad Lake Asphalt and recycled tire rubber. Applied Sciences, 14(16), 7211. https://doi.org/10.3390/app14167211.

10. Vigneswaran, S., Yun, J., Lee, M. S., & Lee, S. J. (2024). Optimizing asphalt binder performance: The synergistic impact of Trinidad Lake Asphalt (TLA) and crumb rubber modifier (CRM). Applied Sciences, 14(15), 6725. https://doi.org/10.3390/app14156725.

11. Yun, J., Vigneswaran, S., Kim, H., Lee, M. S., & Lee, S. J. (2024). Laboratory evaluation of storage stability for asphalt binder modified with crumb rubber and styrene–isoprene–styrene depending on evaluation factors and blending.

12. Vigneswaran, S., Yun, J., Kim, H., Amiri, M. D., & Lee, S.-J. (Year). Performance Evaluation on Nanocomposite Clay Modified Rubberized Binders. *International Journal of Pavement Research and Technology.*

13. Vigneswaran, S., Yun, J., Lee, M.-S., & Lee, S.-J. (Year). Effect Of Nanocomposite Clays on Storage Stability of Rubberized Binders Under Different Curing and Blending Conditions. *International Journal of Pavement Research and Technology.*

b. Non-refereed Articles:
Effect of CRM particle size on storage stability of rubberized binders.(2023)

3. Conference Proceedings:

a. Refereed Conference Proceedings:
Digital Technology Readiness Among Undergraduate Construction Management Students: An Exploratory Study (April 2025)

b. Non-refereed:

4. Abstracts: N/A

5. Reports: N/A

6. Book Reviews: N/A

7. Essays: N/A

8. Poems: N/A

9. Short Stories: N/A

10. Other Works in Print: N/A

B. Works Not in Print: N/A

1. Papers Presented at Professional Meetings: N/A

2. Invited Talks, Lectures, and Presentations: N/A

3. Consultancies: N/A

4. Workshops: N/A

5. Other Works not in Print:

a. Works "submitted" or "under review":
Yun, Jihyeon and Bhattarai, Sushmit Sharma and Vigneswaran, Shyaamkrishnan and Lee, Soon-Jae and Kim, Hyunhwan, Evaluation of Storage Stability for Crm Asphalt Binder Based on Rheological Properties and Topographical Images.

b. Works "in progress":
Advancements in Ultraviolet (UV) spectroscopy and Spectroscopy Ellipsometry (SE) for Asphalt Binder Characterization: A State-of-the-Art Review

c. Other Works Not in Print:

C. Scholarly / Creative Grants and Contracts:

1. Funded External Grants and Contracts: N/A

2. Submitted, but not Funded, External Grants and Contracts: N/A

3. Funded Internal Grants and Contracts: N/A

4. Submitted, but not Funded, Internal Grants and Contracts: N/A

D. Scholarly / Creative Fellowships, Awards, Honors:

E. Scholarly / Creative Professional Development Activities Attended:

F. Media Recognition:

IV. SERVICE

A. Institutional

1. University:

2. College:

3. Department/School:

Mentor, Texas Asphalt Pavement Association (TXAPA)/Asphalt Road-eo student competition (2023- Present)

B. Professional:
Reviewer, Construction and Building Materials (Elsevier) (2025 ~ present)
Reviewer, Discover Applied Sciences (Springer) (2025 ~ present)
Reviewer, Mechanics of Time- Dependent Materials (Springer) (2025 ~ present)
Reviewer, Discover Sustainability (Springer) (2025 ~ present)

Reviewer, Scientific Reports (Springer) (2025 ~ present)

C. Community: N/A

D. Organization Memberships:
Student Member at Academy of Pavement Science and Engineering (APSE 2024- Present)

E. Service Honors and Awards:

F. Service Grants and Contracts:

1. Funded External Service Grants and Contracts:N/A

2. Submitted, but not Funded, External Service Grants and Contracts: N/A

3. Funded Internal Service Grants and Contracts: N/A

4. Submitted, but not Funded, Internal Service Grants and Contracts: N/A

G. Service Professional Development Activities Attended: N/A