Tam Minh Phan

(Ph.D.)

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I am an energetic, ambitious person who has developed a mature and responsible approach to any task that I undertake, or situation that I am presented with. I am excellent in working with others to achieve a certain objective on time with excellence.

Education

2012 – 2017 ◇ **[B.S.] Ho Chi Minh City University of Technology**, Build. and Const. Materials.
Thesis title: *Designing and Optimizing of Geopolymer Concrete Using Fly Ash.*

2017 – 2019 ◇ **[M.S.] Kunsan National University**, Roads and Pavement.
Thesis title: *A Study on the Healing Performance of Hot Mix Asphalt with Microwave Heating.*

2019 – 2023 ◇ **[Ph.D.] Kunsan National University**, Roads and Pavement.
Thesis title: *Evaluation on Delaying Black Ice and Improving Low-Temperature Properties of Asphalt Mixture Using Micro Encapsulated Phase Change Materials.*

Skills

Languages ◇ Strong reading, writing and speaking for English, beginner level for Korean

Coding ◇ Python, MATLAB, LaTeX

Software ◇ ANSYS, ABAQUS, Autocad, Sketchup, SolidWorks

Misc. ◇ Academic research, technical training, development of technical computer program, problem-solving, working under pressure, teamwork

Projects

2017-2019 ◇ Evaluation on healing performance of steel slag modified asphalt concrete

2019-2021 ◇ Synthesis of micro-encapsulated phase change materials to delay black ice and improve properties of asphalt concrete

2021-now ◇ Prediction of black ice using weather data and geographic information system data

2022-now ◇ Development on automatic crack and pothole repair using 3D printing technology

Miscellaneous Experience

Awards and Achievements

2019 ◇ **Poster Presentation**, Transportation Research Board (TRB-98), Washington-DC, USA

2021 ◇ **Best Poster Award**, Korea Society Road Engineers Conference (KSRE-2021)

2022 ◇ **Oral Presentation**, Transportation Research Board (TRB-101), Washington-DC, USA

◇ **Best Poster Award**, Korea Society Road Engineers Conference (KSRE-2022)

◇ **Best Paper Award**, International Conference for Road Engineers (ICRE-2022)

Miscellaneous Experience (continued)

Certification

2021 ◇ **Scientific Computing with Python**. Awarded by freeCodeCamp.org

◇ **Data Analysis with Python**. Awarded by freeCodeCamp.org

2022 ◇ **MATLAB Programming Techniques**. Awarded by MathWorks Training Service

Research Publications

Journal Articles

1. **Phan**, **T. M.**, Jang, M.-S., Seo, J.-W., Yoon, J.-H., Park, D.-W., & Le, T. H. M. (2023). Impact of air voids and environmental temperature of asphalt concrete on black ice. *Road Materials and Pavement Design*, 1–16.
2. Kim, Y.-T., Nguyen, T. A., **Phan**, **T. M.**, & Park, D.-W. (2022). Stripping resistance evaluation of bead coating via hamburg wheel tracking test and image analysis. *International Journal of Highway Engineering*, *24*, 47–52.
3. Lee, S.-H., **Phan**, **T. M.**, Lam, M. P., & Park, D.-W. (2022). Effect of volumetric properties on indirect tensile strength and cracking tolerance index of cored asphalt pavement. *International Journal of Highway Engineering*, *24*, 39–45.
4. Lee, S.-Y., **Phan**, **T. M.**, & Park, D.-W. (2022). Evaluation of carbon grid reinforcement in asphalt pavement. *Construction and Building Materials*, *351*, 128954.
5. **Phan**, **T. M.**, Jang, M.-S., & Park, D.-W. (2022). Black ice prediction model for road pavement using weather forecast data and gis database. *The Baltic Journal of Road and Bridge Engineering*, *14*, 63–79.
6. **Phan**, **T. M.**, Le, T. H. M., & Park, D.-W. (2022). Evaluation of cracking resistance of healed warm mix asphalt based on air-void and binder content. *Road Materials and Pavement Design*, *23*(1), 47–61.
7. **Phan**, **T. M.**, Park, D.-W., & Kim, H.-S. (2022). Utilization of micro encapsulated phase change material in asphalt concrete for improving low-temperature properties and delaying black ice. *Construction and Building Materials*, *330*, 127262.
8. **Phan**, **T. M.**, Nguyen, S. N., Seo, C.-B., & Park, D.-W. (2021). Effect of treated fibers on performance of asphalt mixture. *Construction and Building Materials*, *274*, 122051.
9. **Phan**, **T. M.**, Park, D.-W., & Le, T. H. M. (2021). Improvement on rheological property of asphalt binder using synthesized micro-encapsulation phase change material. *Construction and Building Materials*, *287*, 123021.
10. Le, T. H. M., Park, D.-W., Seo, J.-W., & **Phan**, **T. M.** (2020). Anti-chemical resistance and mock-up test performance of cement asphalt mortar modified with polymer for ballast stabilizing. *Construction and Building Materials*, *232*, 117260.
11. Park, D.-W., **Phan**, **T. M.**, & Kim, Y.-M. (2020). Influence of antistripping additives and rejuvenators on healing performance of moisture-damaged hma. *Advances in Materials Science and Engineering*, *2020*.
12. **Phan**, **T. M.**, Park, D.-W., & Kim, H.-S. (2020). Simulation on heat transfer of phase change material modified asphalt concrete for delaying black ice formation. *International Journal of Highway Engineering*, 35–43.
13. Le, T. H., Park, D.-W., Park, J.-Y., & **Phan**, **T. M.** (2019). Evaluation of the effect of fly ash and slag on the properties of cement asphalt mortar. *Advances in Materials Science and Engineering*, *2019*.
14. Dinh, B. H., Park, D.-W., & **Phan**, **T. M.** (2018). Healing performance of granite and steel slag asphalt mixtures modified with steel wool fibers. *KSCE Journal of Civil Engineering*, *22*(6), 2064–2072.

15 **Phan**, **T. M.**, Park, D.-W., & Le, T. H. M. (2018). Crack healing performance of hot mix asphalt containing steel slag by microwaves heating. *Construction and Building Materials*, *180*, 503–511.

Books and Chapters

1 **Phan**, **T. M.**, Park, D.-W., Le, T. H. M., & Park, J.-S. (2020). Evaluate healing performance of asphalt mixture containing steel slag by using induction and microwave heating. In *Icscea 2019* (pp. 485–491). Springer, Singapore.

References

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