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EDUCATION

- PhD, Civil Engineering, Iowa State University, 2006
- MS, Civil Engineering, Iowa State University, 2004
- BS, Civil Engineering, Korea University, Seoul, South Korea, 1998

PROFESSIONAL EXPERIENCE

- Research Scientist, InTrans, Iowa State University. 2017– present
- Assistant Research Scientist, InTrans, Iowa State University. 2015 – 2017
- Associate Director of PROSPER, InTrans, Iowa State University, 2013–present
- Research Assistant Professor, CCEE, Iowa State University, 2013–2015
- Postdoctoral Research Associate, CCEE, Iowa State University, 2007–2012
- Civil /Civil Material Engineer, Hyundai Development Company Engineering & Construction, Seoul, South Korea, 1998–2002

SELECTED RESEARCH PROJECTS

- *Iowa Granular Road Structural Design Tool*, IHRB
- *Have Minnesota’s Warmer Winters Increased the Number of Freeze Thaw Cycles?–Phase 1*, MnDOT LRRB
- *Development of Pavement Structural Analysis Tool (PSAT) for Iowa Local Roads*, IHRB
- *Investigation on Pavement ME Design Reflective Cracking, Faulting, IRI Prediction Models, Concrete Overlays Design Tool, and Performance Threshold Levels for Iowa Pavement Systems*, Iowa DOT
- *Development of Iowa Pavement Analysis Technique (IPAT)*, IHRB
- *Self-Heating Electrically Conductive Concrete Demonstration Project*, Iowa DOT/IHRB
- *Concrete Grinding Residue: Its Effect on Roadside Vegetation and Soil Properties*, MnDOT
- *Investigation into the Feasibility of Using Electrically Conductive Asphalt Cement Concrete for Heated Airport Pavements*, FAA Center of Excellence (COE)
- *Evaluation of Otta Seal Surfacing for Low-volume Roads in Iowa–Phase I and Phase II*, IHRB
- *Impact of Curling and Warping on Concrete Pavement–Phase I and Phase II*, Iowa DOT/IHRB

- *Evaluating Roadway Subsurface Drainage Practices – Phase I and Phase II*, IHRB

SELECTED PUBLICATIONS

- **Authored/co-authored more than 200 peer-reviewed publications and more than 100 technical presentations.**
- Chen, Y., Ceylan, H., Nlenanya, I., Kaya, O., Smadi, O. G., Taylor, P. C., Kim, S., Gopalakrishnan, K., and King, D. E. 2020. Long-term Performance Evaluation of Iowa Concrete Overlays. *International Journal of Pavement Engineering*, DOI:10.1080/10298436.2020.1766687.
- Gopiseti, L. S. P., Ceylan, H., Kim, S., Cetin, B., and Kaya, O. 2020. Sensitivity Index Comparison of Pavement Mechanistic-Empirical Design Input Variables to Reflective Cracking Model for Different Climatic Zones. *Road Materials and Pavement Design*, DOI: 10.1080/14680629.2020.1747523.
- Yang, S., Zhang, Y., Kaya, O., Ceylan, H., and Kim, S. 2020. Investigation of Longitudinal Cracking in Widened Concrete Pavements. *Baltic Journal of Road and Bridge Engineering*, Vol. 15, No. 1, pp. 211–231.
- Luo, C., Wang, Z., Kordbacheh, F., Zhang, Y., Yang, B., Kim, S., Cetin, B., Ceylan, H., and Horton, R. 2019. The Influence of Concrete Grinding Residue on Soil Physical Properties and Plant Growth. *Journal of Environmental Quality*, DOI:10.2134/jeq2019.06.0229.
- Kim, S., Gopalakrishnan, K., Ceylan, H., and Steffes, R. F. 2014. Performance Evaluation of Roadway Subdrain Outlets in Iowa. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2462, pp. 68–76.
- Kim, S., Gopalakrishnan, K., and Ceylan, H. 2012. Moisture Susceptibility of Subgrade Soils Stabilized by Lignin-Based Renewable Energy Co-product. *Journal of Transportation Engineering*, Vol. 138, No. 11, pp. 1283–1290.
- Kim, S., Gopalakrishnan, K., and Ceylan, H. 2011. Unbound Material Characterization with Nottingham Asphalt Tester (NAT). *Proc., ICE – Construction Materials*, Vol.165, No 6, pp. 355–365.
- Kim, S., Ceylan, H., Gopalakrishnan, K., White, D. J., Jahren, C. T., and Phan, T. H. 2011. Comparative Performance of Concrete Pavements with Recycled Concrete Aggregate (RCA) and Virgin Aggregate Subbases. *Proc., ASCE’s 1st T&DI Congress*, Chicago, IL, March 13–16.
- White, D., Ceylan, H., Jahren, C., Phan, T. H., Kim, S., Gopalakrishnan, K., and Suleiman, M. 2008. *Performance Evaluation of Concrete Pavement Granular Subbase—Pavement Surface Condition Evaluation*, IHRB Project TR-554. Institute for Transportation, Iowa State University, Ames, IA.

PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- Participated in developing new pavement structure assessment program using FWD deflection data for Iowa DOT

AWARDS, RECOGNITIONS

- Professional and Scientific Excellence Award, Iowa State University, Ames, Iowa, 2022
- Jimenez Faculty/Researcher Award, FAA PEGASAS, 2020