

Ilker Karaca, PhD

Lecturer
Iowa State University
2167 Union Dr.
Ames, IA 50011
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EDUCATION

Ph.D. Civil, Construction and Environmental Engineering (Aug 2015 – Aug 2017)

IOWA STATE UNIVERSITY

Major in Construction Engineering.

- Modeling airport business risks and valuation of flexibility options in airport expansion projects;
- Volatility of airport activity levels and stationarity of capacity use for U.S. airports;
- Impact of life-cycle cost thresholds in the alternate design pavement bidding practices of public transportation agencies.

M.S. and MBA (Jan 1998 – Aug 1999)

TEXAS TECH UNIVERSITY

Master of Science in Civil Engineering:

- An Analysis of Statewide Seal Coat Constructability Review and Quantifying Seal Coat Surface Condition Using Digital Image Processing Based on Information Theory.

B.S. Civil Engineering (Sep 1993 – Jul 1997)

BOGAZICI UNIVERSITY

PROFESSIONAL EXPERIENCE

IOWA STATE UNIVERSITY, Ivy College of Business, Ames, Iowa (Aug 2017 – present)

Lecturer of Finance, Lecturer of Civil Engineering

- FIN 472 Real Estate Finance (Fall 2019)
- FIN 301 Principles of Finance (Fall 2017)
- FIN 310 Corporate Finance (Spring 2018, Spring 2019)
- FIN 480 International Finance (Spring 2018)
- FIN 415 Business Financing Decisions (Fall 2018)
- CE 503 Construction Accounting and Financial Management (Fall 2017, Spring 2019)
- CE 502 Construction Project Engineering and Management (Spring 2019)
- CE 594A Special Topics in Construction Engineering and Management: Planning and Scheduling (Fall 2017)
- CONE 322 Construction Equipment and Heavy Construction Methods (Spring 2018)

CAPITAL ONE FINANCIAL SERV. CORP., Richmond, Virginia (Sep 2006 – Sep 2008)

Senior Analyst

CONSTRUCTORS & ASSOCIATES, Dallas, Texas (Aug 1999 – Jul 2004)

Project Manager, Project Engineer

PUBLICATIONS

- Karaca, I. “Modeling Airport Business Risks, Enplanement Volatility, and Valuation of Flexibility Options in Airport Expansion Projects”. Transportation Research Record: Journal of the Transportation Research Board. 2018.

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- Gransberg, D., Karaca, I., and Buss, A. "Life Cycle Cost Adjustment Factors in Alternate Design/Alternative Bid Pavement Bids: Added Value or Added Controversy?" Transportation Research Record: Journal of the Transportation Research Board. 2018.
- Gransberg, D., Karaca, I., Buss, A., and Loulakis, M. "NCHRP Synthesis 499: Alternative Design/Alternate Bid Process for Pavement Type Selection." Transportation Research Board of the National Academies. 2017.
- Karaca, Ilker, and Peter T. Savolainen. "Transportation Safety Performance of US Bus Transit Agencies and Population Density: A Cross-Sectional Analysis (2008-2014)." TRB 97th Annual Meeting Proceedings. No. 18-00015. 2018.
- Karaca, I., Savolainen, P. "A U.S. County-Level Cross-Sectional Study of Pedestrian and Bicyclist Fatal Crashes Considering Socioeconomic Characteristics and Commute Data". TRB 97th Annual Meeting Proceedings. 2018.
- Gransberg, D., Jeong, H. D., Karaca, I., & Gardner, B. Top-down Construction Cost Estimating Model/Guide Using a Neural Network (No. FHWA/MT-17-007/8227-001). 2017.
- Gransberg, D., Karaca, I., and Burkett, W.R. "Quantifying Seal Coat Surface Condition Using Digital Image Processing Based on Information Theory." International Journal of Pavement Engineering 3.4 (2002): 197-205.
- Gransberg, D., Karaca, I., and Senadheera, P. "Calculating Roller Requirements for Chip Seal Projects." Journal of Construction Engineering and Management 130.3 (2004): 378-384.
- Gransberg, D. D., S. Senadheera, and I. Karaca, Analysis of Statewide Seal Coat Constructability Review. Texas Department of Transportation. Re-search Report TX-98/0-1787-1R. Texas Tech University, Lubbock, 1998.

CONFERENCE PRESENTATIONS

- Karaca, I. Information Content of Aggregate Speed Measurements and Autonomous Vehicles, 2019 Mid-Continent Transportation Research Symposium, Ames, Iowa. August 22, 2019.
- Barutha, P., I. Karaca, M. Pinto, "Project Risk Perception on Public Private Partnerships" Transportation Research Board", TRB 98th Annual Meeting (Scheduled for a presentation to the TRB Board's Revenue and Finance Committee in January 2019).
- Karaca, I. "Modeling Airport Business Risks, Enplanement Volatility, and Valuation of Flexibility Options in Airport Expansion Projects". TRB 97th Annual Meeting (Presented to the TRB Airfield and Airspace Capacity and Delay Committee (AV-60) on January 9, 2018).
- Karaca, I., Gransberg, D., and Buss, A., "Impact of Life-Cycle Costs Threshold Criteria in Alternate Design Pavement Bidding Practices of Public Transportation Agencies." TRB 96th Annual Meeting (January 9, 2017).
- Karaca, I., and P. Savolainen, "Transportation Safety Performance of U.S. Bus Transit Agencies and Population Density: A Cross-Sectional Analysis (2008-2014)", TRB 97th Annual Meeting (Presented to the TRB Transit Safety and Security Task Force Committee (AP018T) on January 9, 2018).
- Chawla, H, I. Karaca, and P. Savolainen, "Contrasting Crash- and Non-Crash Involved Riders: An Analysis of Data from the Motorcycle Crash Causation Study", Transportation Research Board", TRB 98th Annual Meeting (Scheduled for a presentation to the TRB Board's Motorcycles and Mopeds Committee in January 2019).