**Faculty Profile: Bismark Agbelie**

Assistant Professor

Department: Civil and Environmental Engineering

School: School of Engineering

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Education: PhD, Transportation Engineering and Infrastructure Systems Management, Purdue University, 2013; MS, Economics, Purdue University, 2012; MSCE, Transportation Engineering, Purdue University, 2010, BSc, Civil Engineering, KNUST-Ghana, 2003.

**Research Interests and Expertise:**

Transportation safety, transportation systems analysis, transportation economics, finance and policy, transportation infrastructure economics and management, econometric and statistical analysis, multi-objective optimization, connected and autonomous vehicles in relation to transportation safety and transportation infrastructure operations and management.

**Biography:**

Bismark Agbelie joined the Catholic University of America in 2016 where he is currently an assistant professor in the Department of Civil and Environmental Engineering. Bismark Agbelie has over 20 years of combined experience as a transportation engineer and a researcher in the fields of transportation design and engineering, transportation asset management, transportation safety, statistics/econometrics, transportation infrastructure science, and economies. His research work has been supported by various agencies including U.S. Department of Transportation, Federal Highway administration, Indiana Department of Transportation, and The World Bank. As of now, he has published 25 peer-reviewed journal articles, 23 conference papers, and 9 technical reports. He is a reviewer for several transportation and infrastructure journals, currently a panel member of four National Cooperative Highway Research Program (NCHRP) projects from the Transportation Research Board (TRB), and very active in three TRB technical committees: Economics and Finance, Transportation Asset Management. Also, Dr. Agbelie is a Vice Chair for Conferences for the ASCE’s Transportation Development Institute.

**Five Selected Papers:**

1. Agbelie, B. R. (2014). An empirical analysis of three econometric frameworks for evaluating economic impacts of transportation infrastructure expenditures across countries. *Transport Policy*, *35*, 304-310.
2. Agbelie, B. R., and Roshandeh, A. M. (2015). Impacts of signal-related characteristics on crash frequency at urban signalized intersections. *Journal of Transportation Safety & Security*, *7*(3), 199-207.
3. Agbelie, B. R., Labi, S., and Sinha, K. C. (2017). Estimating the marginal costs of bridge damage due to overweight vehicles using a modified equivalent-vehicle methodology and in-service data on life-cycle costs and usage. *Transportation Research Part A: Policy and Practice*, *95*, 275-288.
4. Agbelie, B., 2021. Impact of Highway Nonuser Revenue on Equity Ratio: Exploratory Analysis. Journal of Infrastructure Systems, 27(3), 04021017.
5. Jaafaru, H., Agbelie, B. (2022). Bridge maintenance planning framework using machine learning, multi-criteria decision making and evolutionary optimization models. Automation in Construction, 143, 104585.

**Professional Activities (please also include STEM education/diversity/outreach activities)**

1. Faculty member on DC FUSION Professional Development for STEM teachers in K-12 educational levels.