ANGELA EDES KITALI

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EDUCATION

• **Ph.D.** in Civil Engineering (Transportation), Florida International University, Summer 2020 (Expected Graduation)

Tentative Dissertation Topic: Identification and Likelihood Prediction of Secondary Crashes using Real-Time Traffic Data.

Committee Chair: Dr. Priyanka Alluri

Master of Science in Civil Engineering, University of North Florida, April 2017, 4.0 GPA
 Thesis: Bayesian Approach on Quantifying the Safety Effects of Pedestrian Countdown
 Signals to Drivers.

Committee: Dr. Thobias Sando (Chair), Dr. Donna Mohr, Dr. Don Resio, Dr. O. Patrick Kreidl

 Bachelor of Science in Civil and Transportation Engineering, University of Dar es Salaam, Tanzania, July 2015, 3.6 GPA

PROFESSIONAL EXPERIENCE

- Graduate Research Assistant, Lehman Center for Transportation Research, Florida International University, 2017-present
- Graduate Research Assistant, Center for Accessibility and Safety for Aging Population, University of North Florida, 2015-2017

SPONSORED RESEARCH PROJECTS

- 1. Evaluation of Incident Response Improvements for Statewide Application: Learning from the New Regional Traffic Management Center in Jacksonville, FL, Traffic Engineering and Operations Office, Florida Department of Transportation (Subcontract from University of North Florida), 2017-2018.
- 2. An Investigation of Pedestrian Signals to Reduce Intersection Crashes and Red Light Violations for Elderly Drivers (DTRT13-G-UTC42-004139-004485) United States Department of Transportation Grant, Center for Accessibility and Safety for an Aging Population (Subcontract from Florida A&M University), 2015-2016.
- 3. Micro-Analysis of Collisions in Crash Clusters: Creating Crash Patterns and Conducting a Driver Simulation Study (DTRT13-G-UTC42-03317-34490) United States Department of Transportation Grant, Center for Accessibility and Safety for an Aging Population, 2015-2016.

Page 1 of 5 Updated 11/7/2017

PUBLICATIONS

Journal Papers Under Review

1. **Kitali, A.,** Kidando, E., Martz, P., Alluri, P., Sando, T., Moses, R., and Lentz, R. (in 2nd review). "Evaluating Factors Influencing the Severity of Three-plus Multiple-vehicle Crashes Using Real-Time Traffic Data". *Transportation Research Record: Journal of the Transportation Research Board*.

2. **Haule, H.,** Sando, T., Kitali, A., Richardson, R. "Investigating Proximity of Crash Locations to Aging Pedestrian Residences". *Accident Analysis and Prevention*.

Refereed Journal Papers

- 1. **Kitali, A.,** Sando, T, Castro, A., Kobelo, D., Mwakalonge, J. (2017). "Appraisal of Safety Effects of Pedestrian Countdown Signals to Drivers using Crash Modification Factors," In Press, *Journal of Transportation Engineering, Part A*.
- 2. **Kitali, A.,** Kidando, E., Sando, T., Moses, R., Ozguven, E. (2017). "Evaluating Aging Pedestrian Crash Severity with Bayesian Complementary Log–Log Model for Improved Prediction Accuracy". In Press, *Transportation Research Record No. 2659: Journal of the Transportation Research Board*. 10.3141/2659-17.
- 3. **Kitali, A.,** Sando, T. (2017). "A Full Bayesian Approach To Appraise The Safety Effects Of Pedestrian Countdown Signals To Drivers". *Accident Analysis & Prevention Journal*, Vol. 106, pp. 327-335. https://doi.org/10.1016/j.aap.2017.07.004.
- 4. **Kitali, A.,** Sando, T., Moses, R., Ozguven, E. (2017). "Understanding Factors Associated with Severity of Aging Population-Involved Pedestrian Crashes in Florida". *Accident Analysis & Prevention Journal*, Vol. 42, Issues 3, pp. 85-98. 10.4399/97888255035246.

Full-Paper Refereed Proceedings

- 1. **Kitali, A.**, Kidando, E., Martz, P., Alluri, P., Sando, T., Moses, R., and Lentz, R. (2018). "Evaluating Factors Influencing the Severity of Three-plus Multiple-vehicle Crashes Using Real-Time Traffic Data," Proceedings of the 97th Annual Meeting of the Transportation Research Board, Washington, DC.
- 2. **Kitali, A.,** Kidando, E., Sando, T., Moses, R., Ozguven, E. (2018). "Predicting the Likelihood of Aging Pedestrian Severe Crashes Using Dirichlet Random-Effect Bayesian Logistic Regression Model" Proceedings of the 97th Annual Meeting of the Transportation Research Board, Washington, DC.
- 3. Kidando, E., Moses, R., **Kitali, A.,** Lyimo, S., Kwigizile, V., Sando, T., Chimba, D. (2018). "Exploring the Influence of Rainfall on a Stochastic Evolution of Traffic Conditions" Proceedings of the 97th Annual Meeting of the Transportation Research Board, Washington, DC.
- 4. Haule, H., Sando, T., **Kitali, A.,** Angel, M., Ozguven, E. (2018). "Influence of Intersection Charactersitics on Elderly Drivers Crash Involvement" Proceedings of the 97th Annual Meeting of the Transportation Research Board, Washington, DC.

Page 2 of 5 Updated 12/1/2017

5. Salum, J., **Kitali, A.,** Bwire, H., Sando, T., and Alluri, P. (2018) "Factors Influencing the Severity of Motorcycle Crashes in Dar es Salaam," Proceedings of the 97th Annual Meeting of the Transportation Research Board, Washington, DC.

- 6. **Kitali, A.,** Sando, T, Castro, A., Kobelo, D., Mwakalonge, J. (2017). "Developing Crash Modification Factors to Quantify Impacts of Pedestrian Countdown Signals to Drivers" Proceedings of the 96th Annual Meeting of the Transportation Research Board, Washington, DC.
- 7. **Kitali, A.,** Kidando, E., Sando, T., Moses, R., Ozguven, E. (2017). "Evaluating Aging Pedestrian Crash Severity using Bayesian Complementary Log-Log Model for Improved Prediction Accuracy" Proceedings of the 96th Annual Meeting of the Transportation Research Board, Washington, DC.
- 8. **Kitali, A.,** Sando, T, Castro, A., Machumu, K., Kobelo, D., Mwakalonge, J. (2017). "Impact of Pedestrian Countdown Signals on Vehicle Approach Speed for Drivers of Different Age at Signalized Intersections" Proceedings of the 96th Annual Meeting of the Transportation Research Board, Washington, DC.
- 9. Matata, F., **Kitali, A.,** Sando, T., Bwire, H. (2017). "Operational Characteristics of the Newly Introduced Bus Rapid Transit in Dar es Salaam" Proceedings of the 96th Annual Meeting of the Transportation Research Board, Washington, DC.
- 10. Machumu, K., Sando, T., Mtoi, E., **Kitali, A.** (2017). "Simulation-Based Comparative Performance Measures for I-295 Express Lanes in Jacksonville, Florida" Proceedings of the 96th Annual Meeting of the Transportation Research Board, Washington, DC.

Conference Presentations

- 1. **Kitali, A.,** Alluri, P., Sando, T. (2017). "Real-Time Estimation of Secondary Crashes using a Bayesian Network Model". 2017 Southeastern Transportation Research Conference (Poster Presentation).
- 2. **Kitali, A.,** Alluri, P., Sando, T. (2017). "Identifying Secondary Crashes on Freeways using Real-Time Traffic Data". 2017 Florida Section Institute of Transportation Engineers and Intelligent Transportation Society Annual Meeting (Podium Presentation).
- 3. **Kitali, A.** (2017). "Identification of Secondary Crashes: A case Study of I-95 in Jacksonville". 2017 Florida Section Institute of Transportation Engineers and Intelligent Transportation Society Annual Meeting (Poster Presentation).
- 4. **Kitali, A.,** Machumu, K. (2016). "Using Naturalistic Driving Data to Analyze the Effects of Drivers' Deceleration on Safety and Travel Time". 5th International Naturalistic Driving Research Symposium, Blacksburg Virginia (Podium presentation).
- 5. **Kitali, A.,** Kwayu, K, Sando, T. (2016). "Modeling and Comparative Analysis of Injury Severity Sustained by Children, Adult, and Older Pedestrian in Florida". 15th Annual Showcase of Osprey Advancements in Research and Scholarship (Poster Presentation).
- 6. Lwambagaza, L., Machumu, K., Sando, T., **Kitali, A.** (2016). "Modeling Older Drivers Behavior on Merging Ramps". 15th Annual Showcase of Osprey Advancements in Research and Scholarship (Poster Presentation).

Page 3 of 5 Updated 12/1/2017

7. **Kitali, A.** (2015). "Strategy to improve the accessibility of public roads for people with disability in Tanzania". 2015 Tanzania Women Engineers Convention Exhibition (Poster Presentation).

Project Presentations

1. "Evaluation of Incident Response Improvements for Statewide Application: Learning from the New Regional Traffic Management Center in Jacksonville," FDOT Project Workshop, November 6, 2017.

PROFESSIONAL SERVICE AND MEMBERSHIPS

Professional Service

- *Peer Reviewer*, for:
 - Advances in Transportation Studies (2016 present)
 - ASCE Journal of Transportation Engineering (2017 present)
 - Transportation Research Record: Journal of the Transportation Research Board (2017 present)
 - o Committee on Safety Data, Analysis and Evaluation (ANB20)

Professional Memberships

- Member, Phi Kappa Phi Honor Society (inducted April 2017)
- Member, Institute of Transportation Engineers (ITE) (2017 present)
- Member & Treasurer, Florida International University ITE Student Chapter (2017 present)
- Member, Women's Transportation Seminar (WTS), Florida International University Chapter (2017 - present)
- Member, Women's Transportation Seminar (WTS) (2016 present)

Honors, Awards & Scholarships

- NOCoE TRB Student Contest Winner, 2017
- FIU GPSC Travel Fund Scholarship Recipient, 2017
- 1st Place, FSITE Student Poster Competition, 2017
- 2nd Place, Mobility Miami FasTrack Ideation Challenge (One of the team member), 2017
- University of North Florida Graduate Research Grant Recipient, 2016
- Research Recognition Award & UNF Statewide Symposium Representative, 2017
- University of North Florida Graduate Research Grant Recipient, 2016
- AASHTO Transportation Fellowship, 2015
- 3rd Place, Tanzania Women Engineers Convention Exhibition Poster competition, 2015
- 1st Place, Powering Africa Research Competition, 2015

CONFERENCES ATTENDED

- 1. Florida Section Institute of Transportation Engineers (FSITE) and Intelligent Transportation Society (ITS) Annual Meeting, Orlando, Florida, November 2017
- 2. FSITE Summer Meeting, Naples, Florida, June 2017
- 3. 16th Annual Showcase of Osprey Advancements in Research and Scholarship, Jacksonville, Florida, March 2017
- 4. Transportation Research Board 96th Annual Meeting, Washington, D.C., January 2017

Page 4 of 5 Updated 12/1/2017

5. International Naturalistic Driving Research Symposium, Blacksburg, Virginia, September 2016

- 6. 15th Annual Showcase of Osprey Advancements in Research and Scholarship, Jacksonville, Florida, March 2016
- 7. Transportation Research Board 95th Annual Meeting, Washington, D.C., January 2016
- 8. 3rd Annual Florida Automated Vehicle Summit, Jacksonville, Florida, December 2015
- 9. Tanzania Women Engineers Convention Exhibition, Dar es Salaam, Tanzania, July 2015

Page 5 of 5 Updated 12/1/2017