Kwabena Ofosu

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OBJECTIVE
Position requiring strong analytical, organizational, and problem solving skills in the fields of transportation/ traffic engineering and infrastructure systems. Ability to communicate complex concepts to many audiences.

EDUCATION
Ph.D. in Civil Engineering, Florida State University
Dissertation: An Integrated Approach to Transportation Infrastructure Management
Concentration: Transportation Engineering.

M.S. in Civil Engineering, Florida State University
Thesis: Modeling Functional Deficiencies on Florida Highway Bridges
Concentration: Transportation Engineering.

B.S. (Honors) in Civil Engineering, K.N. University of Science and Technology
Concentration: Transportation and Highway Engineering.

PROFESSIONAL LICENSURE
State of Florida: Professional Engineer (PE) License # 71729.
State of Ohio: Professional Engineer (PE) License # 73059.
Institute of Transportation Engineering: Professional Traffic Operations Engineer (PTOE).

COMPUTER SKILLS
Office Applications: MS Word, Excel, Access, PowerPoint
CADD: AUTOCAD Civil 3D, SolidWorks
GIS: ArcView/ArcMap, ArcObjects
Databases: SQLServer, MS Access, Oracle, Sybase
Programming: Visual Basic, C/ C++, Java, Python, MATLAB, MathCAD, FORTRAN, Pascal
Internet Applications: HTML, JavaScript, VBScript, ASP, PHP
Statistics: Minitab, S Plus
Traffic/ Transportation Engineering: Synchro, CORSIM, TRANSYT-7F, HCS+, Cube Voyager, TransCAD
Operations Research: LINGO, Lindo, Evolver
Project Management: MS Project, Primavera

SELECTED PUBLICATIONS AND PRESENTATIONS
Refereed Proceedings
Sobanjo, J. O., Buxton-Tetteh, Bernard, Ofosu, Kwabena, Thompson Paul, Lewis Mathew, & Kerr Richard. (2005). Simplified Queue Model for Estimating User Costs on Florida Moveable Bridges. In *85th Annual Meeting of the Transportation Research Board*. Transportation Research Record, CD-ROM Proceedings, National Research Council.

Refereed Papers at Conferences
Sobanjo, J. O., Buxton-Tetteh, Bernard, Ofosu, Kwabena, & Thompson Paul. (presented 2005). *Simplified Queue Model for Estimating User Costs on Florida Moveable Bridges*. Paper presented at 85th Annual Meeting of the Transportation Research Board, Washington, DC: Transportation Research Board, National Research Council. (National)

<u>**RELEVANT GRADUATE COURSEWORK**</u>:
Civil/Transportation Engineering: Traffic Flow Theory, Highway Geometric Design, Pavement Design, Bridge Engineering, Construction Planning and Scheduling, Project Controls in Construction.
Industrial Engineering: Systems Modeling and Simulation, Engineering Experiments, Engineering Data Analysis.
Math/ Statistics: Applied Regression Methods, Reliability Theory and Life Testing, Bayesian Models, Applied Optimization, Multivariate Statistics.
Urban and Regional Planning: Methods in Transportation Planning, Urban Information Systems.

WORK EXPERIENCE
Traffic Engineer, Traffic Operations Division
PUBLIC WORKS DEPARTMENT, CITY OF PALM BAY, FL, June 2011 – Present
- Division responsible for road sign and roadway marking program, and traffic signal maintenance program.
- Supervise six traffic operations personnel with annual budget of approximately $400,000.
- Traffic studies: traffic signal timing, impact fees, development review, parking studies, traffic calming, speed limit studies, crash analysis, systems operational analysis.
- Roadway geometric design, design and review of Citywide maintenance-of-traffic (MOT).

Transportation Planner/ Traffic Engineer
LAND DEVELOPMENT DIVISION, CITY OF PALM BAY, FL, October 2005 – June 2011
Highlights
- Traffic impact study review for large residential developments
- Traffic impact study review for major commercial/ retail developments such as Palm Bay Lowes', and Palm Bay WalMart.
- Traffic impact studies for large institutional developments such as Bayside High School (extension), Heritage High School, and Palm Bay Community Hospital.
- City transportation impact fee study which was codified in July 2006. Responsible for all aspects of periodic reviews and updates.
- Signal timing studies: Palm Bay Road – 18 coordinated signals across multijurisdictional major corridor. Malabar Road and Babcock Street – 15 coordinated signals across multijurisdictional 2-dimensional network.
- Parking studies for office and commercial projects.
- Speed limit review study for City collector and minor arterials network.
- Bayfront Community Redevelopment Project: Geometric design of sidewalk improvements and intersection improvements including signal retiming.
- Developed from scratch the City traffic crash database. Access and Visual Basic
- Developed from scratch web-based database tool for Paving and Drainage Plans for the City Stormwater Program (JavaScript)
- Other studies authored include Palm Bay School Crossing Guard Study (adopted by Palm Bay Police Department), School Bicycle Helmet Usage Study (adopted by Community Traffic Safety Team), and Study of Nighttime Crashes in Palm Bay (adopted by Public Works Department for implementation of streetlight improvements program).
- Brevard Intelligent Transportation System: Represent the City in this multi-jurisdictional project involving the design, construction, and implementation of a countywide ITS system covering over ninety intersections.

Graduate Research Assistant
FSU-FAMU COLLEGE OF ENGINEERING Tallahassee, FL January 2001 – October 2005
- Truck weight and truck height study on Florida highway bridges
- Conducted traffic impact studies on drawbridges in Florida
- Developed engineering economic models for impacts of structurally deficient and functionally obsolete bridges on the Florida highway system.
- GIS analyst for Traffic and Crash Software development, a state funded project to automate police crash reports in Florida.

Adjunct Professor
VALENCIA COLLEGE, Orlando, FL, August 2010 to Present
- EGS 1007 Engineering Concepts and Methods: This class involves teaching AutoCAD, MathCAD, MATLAB, SolidWorks, and Advanced Excel, to undergraduate engineering students.
- EGS 2025 Statistics and Probability for Engineers: This course introduces undergraduate students to the general concepts of statistics and probability, and how they are applied in engineering and the physical sciences.
- EGS 2310 Engineering Analysis – Statics. This course introduces undergraduate engineering students to topics such as Equations of Equilibrium, Force vectors, Structural Analysis. Friction, and Moments of Inertia.
- EGS 2321 Engineering Analysis – Dynamics. This rigorous course introduces undergraduate engineering students to topics such as Kinematics, Kinetics, Rigid Body Motion, and Simple Harmonic Motion.

TALLAHASSEE COMMUNITY COLLEGE, Tallahassee, FL September 2004 – May 2005
- Taught undergraduate classes in Transportation and Highway Engineering, Construction Materials and Methods, and Construction Management.

CERTIFICATIONS
Advanced Maintenance of Traffic   – Florida Depart. of Transportation.

AFFILIATIONS
Member: Institution of Transportation Engineers (ITE).
Member: American Society of Civil Engineers (ASCE).
Member: International Municipal Signal Association, Inc. (IMSA)

REFERENCES
Available upon request.