UTC Project Information	
Project Title	Spatial-Context Intersections Safety Analysis for the Aging Population: An Integrated 3-Dimensional Visualization and Human Factors Simulation Approach
University	Florida A&M University (FAMU) Florida State University (FSU)
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Start and End Dates	1/5/2015 – 8/5/2016
Brief Description of Research Project	The proportion of the aging population is growing significantly. Aging road users can be expected to experience difficulties navigating the roadway as drivers and pedestrians as a consequence of normal age-related changes to their perceptual, cognitive, and psychomotor abilities, presenting many challenges to transportation planners and engineers who must ensure system safety while increasing operational efficiency. In 2008, 13% (34 million) of the total U.S. population were people age 65 and older. This age group is projected to grow to exceed 50 million by 2020, accounting for roughly one-fifth of the population of driving age in this country. In effect, if design is controlled by even 85th percentile performance requirements, the "design driver" of the early 21st century will be an individual over the age of 65. In 2008, 183,000 older individuals were injured in traffic crashes, accounting for 8% of all the people injured in traffic crashes during the year. These older individuals made up 15% of all traffic fatalities, 14% of all vehicle occupant fatalities, and 18% of all pedestrian fatalities. Therefore, there is an urgent need to improve the safety and mobility of the nation's growing aging population. This multi-disciplinary research aims to provide countermeasures and recommendations for the ageing population's safety, by analyzing geographically referenced spatial data surrounding aging road users through 3-dimentional (3D) visualization. Data from the visualization analysis will be simulated as scenarios to study human factors affecting ageing road users such as normative age-relate declines in perception, cognition, and psychomotor performance. The focus of the case studies will be the state of Florida, but this research approach can be utilized anywhere in the country. The expected outcome will be specific planning and geometric design recommendations, as well as specific guideline for education, licensing, and training for the ageing resulting from the spatial context human factors analysis to improve the safety of the aging population.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links • Reports • Project website	