



TRB **AM** 2020
ANNUAL MEETING

99TH Annual Meeting
Washington, D.C.
January 12–16, 2020

DIVISION OF HIGHWAY & TRAFFIC DESIGN

BUREAU OF ROADWAY DESIGN

Jhonatan Diaz-Santana

Workshops, Presentations, Events & Meeting

- **Impacts Connected and Automated Vehicles Could Have on Geometrics**
 - **Assessing the Effectiveness of Managed Lane Strategies for the Near-Term Deployment of Cooperative Adaptive Cruise Control**
 - **An Update on NCHRP Project 20-24(112): Connected Roadway Classification System Development**
 - **The Impacts of CAVs: Compromise Between Law and Design**

Workshops, Presentations, Events & Meeting

- **Designing Safer Streets in Developing Countries: Hands-on Workshop**
- **Road Safety Challenges for Pedestrians and Cyclists in Emerging Economies**
- **Introduction to the Global Street Design Guide**
- **Hands-on Workshop: Let's Redesign an Intersection**

Workshops, Presentations, Events & Meeting

- **Geometric Design Research: Freeways, Intersections, and Alignments**
- Exploration- and Exploitation-Based Ant Algorithm for Optimized Vertical Highway Alignment
- Design Optimization of Single-Lane Entrance and Exit Ramps
- Roadside Safety Design Committee Meeting

Workshops, Presentations, Events & Meeting

- **Design of Barriers for Containment of Trucks**
- **Development and Testing of Structurally Independent Foundations for High-Speed Containment Concrete Barrier**
- **Design and Full-Scale Testing of New Mash Tl-4 Alaska 2-Tube Bridge Rail**
- **Development and Testing of a Test Level 4 Concrete Bridge Rail and Deck Overhang**
- **Development of a Test Level 4, Side-Mounted, Steel-Tube Bridge Rail**

Workshops, Presentations, Events & Meeting

- **Advancements in Mapping and 3D Technologies Using LiDAR and Photogrammetry**
- **Pothole Mapping and Patching Quantity Estimates Using LiDAR-Based Mobile Mapping Systems**
- **Applicability of Photogrammetry for Inspection and Monitoring of Dry-Stone Masonry Retaining Walls**
- **A Voxel-Based Methodology for Automated 3D Sight Distance Assessment on Highways Using Mobile LiDAR Data**

Workshops, Presentations, Events & Meeting

- **Design and Analysis of Roadside Barrier Systems**
 - **Development of the NCHRP 17-43 Roadway Departure Database**
 - **In-Service Performance Evaluation of Median Cable Barriers and Strong-Post W-Beam Guardrails on I-85 in Alabama**
 - **Crash Testing and Evaluation of Culvert-Mounted Midwest Guardrail System**
 - **Evaluation of W-Beam Guardrail and Terminal Posts Installed in Metal Sleeves**
 - **Modeling and Simulation for the Design and Evaluation of Roadside Safety Hardware**
 - **European Rules for the Use of Virtual Testing and Examples**

Thanks!

