

I-STREET: An Overview

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The I-STREET Testbed

- UF, FDOT, CoG partnership
- Quarterly stakeholder meetings
- Industry involvement

UF | University of Florida
Transportation Institute



CITY OF
GAINESVILLE
every path starts with passion
FLORIDA

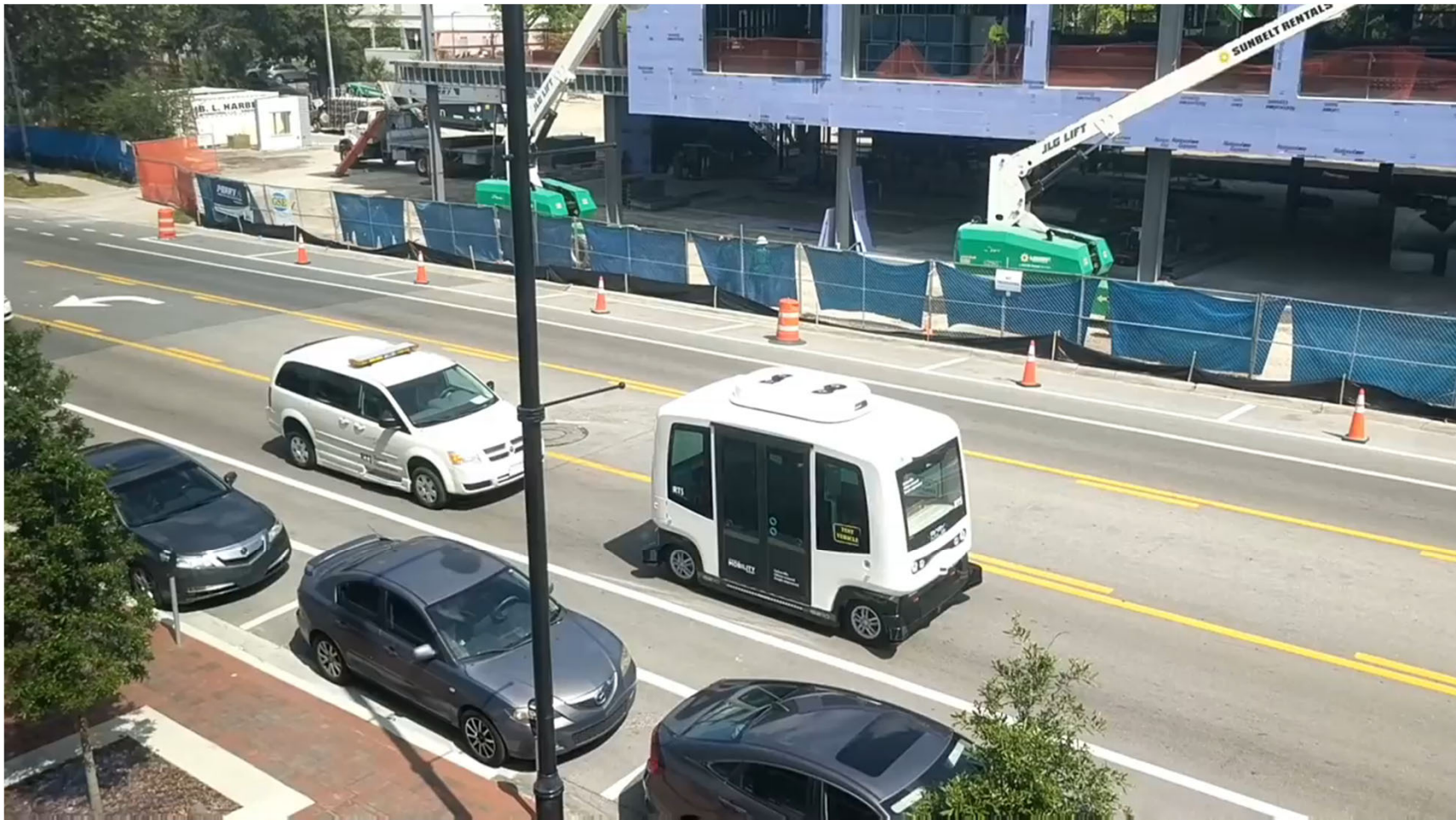
**FDOT-Funded Project
(completed Sept. 2017):**
Develop a plan for an
advanced transportation
technologies testbed at
UF/CoG



Why Gainesville, FL?



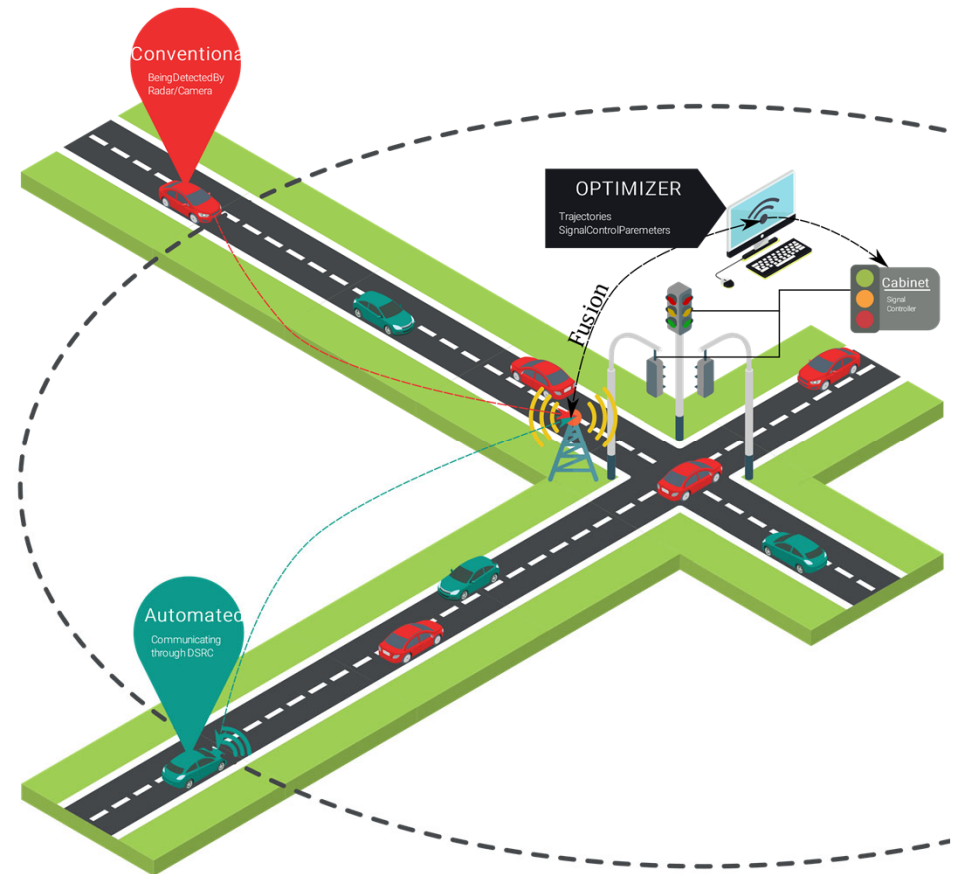
Autonomous Shuttle



NSF - CAV Intersection Operations

Given: the arrival information of automated vehicles and conventional vehicles

Goal: to optimize the average delay by advising automated and connected vehicles and controlling signal phase and timing





frame 71

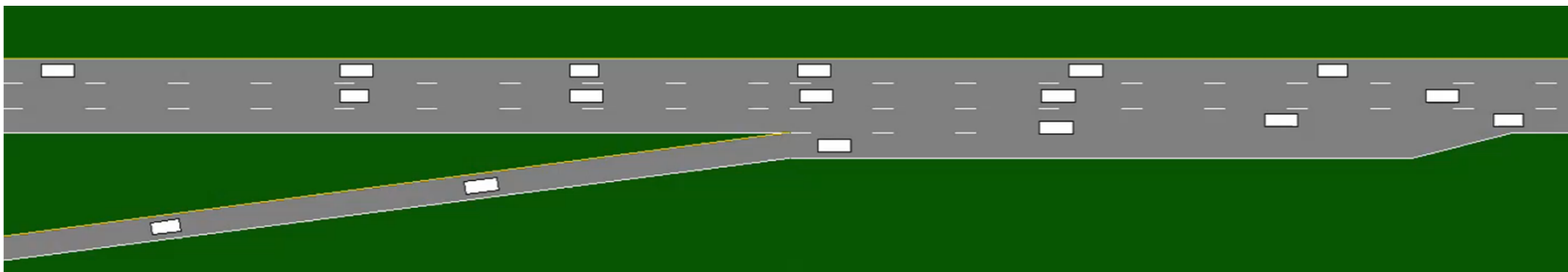


Stadium Rd @ Gale Lemerand Dr

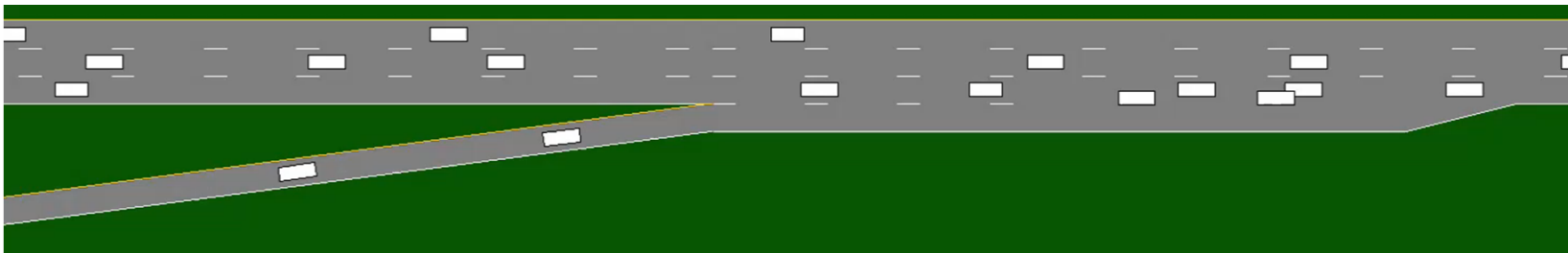
07/01/2019 17:11:20

Simulation Application to Freeways

Autonomous Vehicles



Conventional Vehicles



Data Analytics: Web Interface

Ituran
RTS - Rosco Collision Avoidance

Map | Latitude: 29.66014 | Longitude: -82.54769 | Address...

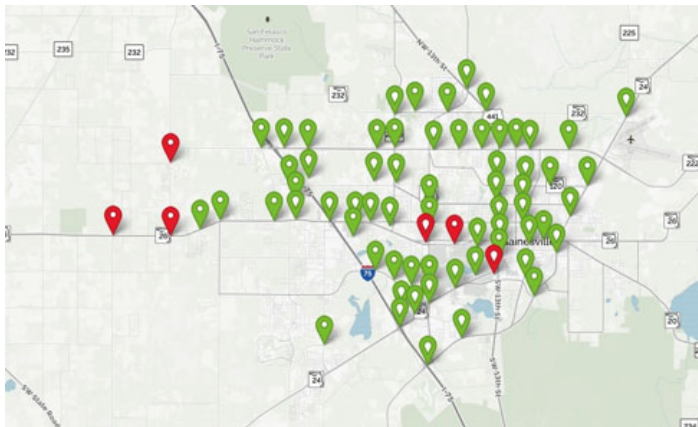
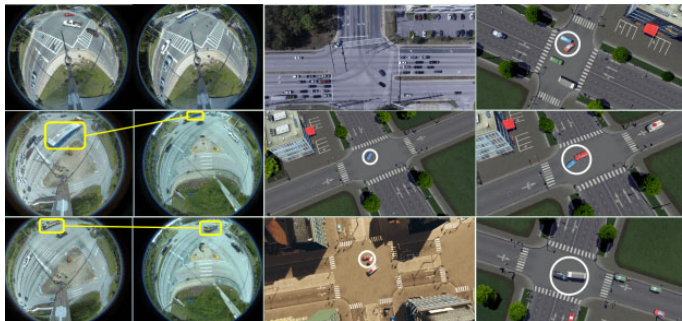
Search Vehicles

Search Filter [OFF] [OFF] [OFF]
Cars on map Directions Labels

All Vehicles 10
RTS 10
 [x] RTS 0701
 [x] RTS 0703
 [x] RTS 1016
 [x] RTS 1017
 [x] RTS 1301
 [x] RTS 1302
 [x] RTS 1803
 [x] RTS 1804
 [x] RTS 1805
 [x] RTS 1806

GROUP	PLATE	LABEL	DRIVER	TIME	ADDRESS	STATUSES	SPEED	AREAS	MILEAGE
	ZXC033	RTS 0701	RTS 0701	03/25/2019 15:25:19	Veterinary Science Bldg, Gainesville, FL 32608, USA		37	305I, 305O, 1 IB, 38I, 1 OB, 37I, 37O, 38O	6992
	ZXC121	RTS 0703	RTS 0703	03/25/2019 15:25:31	Sam's Club, Florida 32608, USA			75I, 75O, 1 IB, 12I, 12O, 1 OB, 37I, 62I, 62O, 37O	7069
								305I, 305O, 303I, 303O, 301O, 301I, 300O, 300I.	

Detecting near-misses



← → ⚠ Not Secure 128.227.248.3:9001/IF

	Speed				Turn			
	From	Total	Avg.	Max.	Min.	Left	Right	Straight
N	21	26.02	59.44	10.27	0	0	21	
S	23	32.17	57.55	3.54	0	5	18	
W	0	0.00	0.00	0.00	0	0	0	
E	0	0.00	0.00	0.00	0	0	0	
U	18	14.11	41.61	0.85	N/A	N/A	N/A	
								Total Tracks: 82

Intersection: 6 2019-07-15 11:02:29 Current Cycle: 15 Current Num of Tracks: 6 Average Speed: 11.92 Average Gap: 2.30 Turn Count: 3

Vehicle Type: car Tracks color of car:

Phases Arrangement: 1 5 3 7 Scaling of Intersection: 11

Display Length (Seconds): Show Abnormal paths: Show History by Cycle: 0:00:30

Historical Length (Cycles):

Next steps:

- Industry collaborations
- Hackathon – Spring 2021
- Additional OBUs

Questions?



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