Gainesville’s
Special Event Management Initiatives

Winter 2020 – Turnpike HQ - Orlando
Dept. of Mobility - Traffic Operation – ITS & CAV Team
[ Dustin | E | Jeff | Rob ]
02/28/2020
Special Event Examples
SW 2nd Ave at O'Connell Center

- SW 2nd Ave
  - One way westbound to SW 34th St (SR 121)

- O'Connell Lot Center Gate
  - (new for 2019)
  - Allow exit only to West University Avenue (SR 26)
SW 2\textsuperscript{nd} Ave at SW 34\textsuperscript{th} St

Westbound
- Two Left Turn Lanes to Southbound
- One Thru Lane

Prohibited Movements
- No Northbound Right
- No Southbound Left
- Only Right or Left for Eastbound
SW Archer Rd and SW 13th St

Prioritize Southbound and allow Southbound Right to Westbound Archer Rd

Prohibited Movements
- No Northbound Left
- Only Right or Left for Westbound
Active Arterial Management

[ Pre-requisites | Gator Football | Future outlook ]

3Ps
Product
Process
People

Open System Interconnection (OSI Model)
Foundations of internet connectivity

Transportation Technology
Image from Iteris / Albeck Gerken Inc and Hillsborough County (Pete Yauch et al)
Active Arterial Management

[ Pre-requisites | Gator Football | Future outlook ]
Performance Measures Experiments

- ATSPM
- GS2-FishEye
- UF I-STREET
- Network & Hardware

Updated / Modernize

- Dusty
- Rob

Traffic Signals
- ATMS 2.9
- TraffOps ATSPM

Server Stack
- Nutanix VM
- Win 10, ’12 Svr

Network
- Solarwinds NPM
- RADIUS Server, AD integration for Network Equipment passwords
- new IP-scheme with VSTP
Performance Measures Experiments

[ ATSPM | GS2-FishEye | UF I-STREET | Network & Hardware ]

Images from Sanjay Ranka PhD et al, UF CISE, UFTI

Mini Map Trajectory Demo
White: car
Green: bike/motorbike
Yellow: pedestrian
Performance Measures Experiments

[ ATSPM | GS2-FishEye | UF I-STREET | Network & Hardware ]

Multiple Sources of Data for Validation and Fusion

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NB Phase 4

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Performance Measures Experiments

[ ATSPM | GS2-FishEye | UF I-STREET | Network & Hardware ]

- **Supporting UF (examples)**

  NSF Grant 1446813 – Traffic Signal Control with Connected and Autonomous Vehicles in the Traffic Stream

  NSF Grant 1922782 – Video Based Machine Learning for Smart Traffic Analysis and Management

Other ATSPM and Machine Learning Applications – Sharing 10Hz ATSPM data
Traffic Operations Challenges

Talent Challenges

- 2/8 Signal Tech Job Family is Vacant. 2 Retirements this 2020
- Standing up CV/AV Team at a municipal level.

Capital and O&M (Finance) Challenges

- Capital infrastructure and reimbursements are growing
- O&M Funds are flat or declining

Challenged Drivers?
-- This Fall 2019
(Hawthorne & 18th, Newberry and Tower)
Thank you! - Gainesville OBU Photos

[ TraffiCast/Denso | SiriusXM/Brandmotion ] -- Hardware Based OBU
[ AudiConnect | TravelSafely | Enlighten | Travel Smart | ] App Based
Thank you!

TMS Fiber Network

Fiber Information
Total Mileage: 105.2 miles