**Overview of GA Smart communities, resources and activities**

* **Policy Environment**
  + *Nation’s model law on autonomous vehicles (AV) passed in 2017*

*The state does not require AV companies to turn over data. Exempts passengers of operating an Autonomous Vehicle with the automated driving system engaged from the requirement to hold a driver's license. Permits a vehicle to operate without a human driver present in the vehicle, and specifies conditions that must be met for lawful operation, including insurance and registration requirements.*

*Defines automated driving system, dynamic driving task, fully autonomous vehicle, minimal risk condition and operational design domain.*

<http://www.legis.ga.gov/Legislation/en-US/display/20172018/HB/717>

<http://www.legis.ga.gov/Legislation/en-US/display/20172018/SB/219>

* Companion law on platooning

*Georgia also passed companion legislation on vehicle platooning.  The permissive legislation exempts the operator of a trailing vehicle in a coordinated platoon from restrictions on following too closely.*

<http://www.legis.ga.gov/Legislation/en-US/display/20172018/HB/472>

* **Ga Smart Challenge**
* *A first-of-its-kind opportunity for communities of any size in Georgia to receive funding and support that enables them to envision, explore, and plan for their “smart” future. Communities will be given matching grant funding, a partnership with a Georgia Tech research team, networking opportunities, and access to additional, unique resources to execute their projects. These unique resources include connections to industry experts and access to technology solutions provided by our provider-partners.*

<http://www.smartcities.ipat.gatech.edu/georgia-smart>

* **Smart Communities**
  + **City of Chamblee Last Mile-Autonomous Shuttle (GA Smart Challenge project)**

*Autonomous bus will transfer passengers from the Peachtree Station shopping center to the Chamblee MARTA Station and Chamblee City Hall.*

<http://smartcities.ipat.gatech.edu/city-chamblee>

* + **Gwinnett County-Connected Vehicles (Ga Smart Challenge project)**

*This pilot will cover 50 intersections over a 20-mile stretch of roadway through areas which experience some of the highest traffic counts in the region. Using a smart risk approach, Gwinnett’s traffic system will demonstrate what is possible with recent scientific advances.*

*The Connected Vehicle Master Plan will be used to evaluate seamlessness and compatibility with other transportation systems, develop a public outreach strategy, and evaluate important benefit/cost considerations.* <http://smartcities.ipat.gatech.edu/gwinnett-county>

* + ***North Avenue Smart Corridor (City of Atlanta, Ga Dept. of Transportation, Ga Tech*.)**

*The North Avenue Smart Corridor Project involves multiple Smart City technology components designed to facilitate and promote safety for pedestrian and bicycle traffic; use the latest technology, such as, adaptive traffic signals for a safer, more efficient flow of bus and vehicular traffic in real time conditions and prioritize fire engines and ambulances traveling along the corridor on emergency response calls. This corridor is serving as a living lab for active, multi-modal traffic management through technology deployment and data analytics. Smart technology solutions applied here are improving roadway and public safety, mobility and the environment.* <https://smartatl.atlantaga.gov/>

* **Curiosity Lab at Peachtree Corners (City of Peachtree Corners sponsored project)**  
  *A 1.5 mile intelligent mobility and Smart City living laboratory. Curiosity Lab at Peachtree Corners is a publicly funded living lab designed to provide a real world test environment to advance next generation intelligent mobility and smart city technology.  Assets include a 1.5 mile autonomous vehicle test track located within a commercial office park, fully operational 5G, 1G of dedicated fiber, DSRC units, video surveillance, smart poles and a 25,000 square foot technology incubator.*<https://curiositylabptc.com>
* **City of Doraville- Autonomous Shuttle (City Sponsored project)**

*A driverless vehicle service will ferry passengers between Assembly Yards and nearby MARTA stop*.

<https://atlanta.curbed.com/2019/3/19/18272103/autonomous-shuttle-doraville-transit-oriented-marta-last-mile-connectivity>

* **Smart Highway**
* **The Ray (Connected Vehicles and Autonomous Vehicles)**

*An 18 mile stretch of interstate that serves as a proving ground for emerging technologies. A P4 partnership between GDOT, 3M and The Ray resulted in physical infrastructure along the road for machine vision systems and wayfinding. A cost sharing partnership between GDOT, Panasonic and The Ray resulted in the connected, digital environment for V2X. This corridor is serving as a living laboratory for the active traffic management of interstate lanes, and enables real world testing of advanced mobility/modalities, such as platooning and autonomous driving.* [www.theray.org](http://www.theray.org)

* **Manufacturing**
  + SK Manufacturing EV batteries
  + Projected EV Sales for US - 1.1 million/year by 2025
* **Connected Vehicle Ecosystem**
  + Gwinnet County Connected Vehicles Projects
  + GDOT - largest number of connected vehicle roadside units (11-1200 in ATL, Gwinnett, Peachtree corners)
    - At The Ray, the “CIRRUS by Panasonic” data management platform, GDOT will gain trial access to a V2X ecosystem that constantly receives actionable information and transmits critical roadway information between state traffic roadway operators and vehicles equipped with V2X technology.
* **MaaS (Mobility as a Service)** digital and physical infrastructure halfway between downtown Atlanta and the Atlanta Hartsfield-Jackson International Airport.
  + Cox Mobility fleet depot - first of its kind in the world
    - Sample Services
      * EV battery recharge and/or battery swap
      * Tire check
      * Cleaners
      * Recalibration of computer sensing and vision systems, including cameras, LIDAR and radar