



#### **NEWSLETTER #2**

# PODCAR CITY DECEMBER 9-10 PROGRAM & SPEAKER UPDATE

This newsletter has an updated program. We have today over 30 speakers, 90 registrations including in person and VR by Zoom. We can only handle about 35 more in person so register fast!



A few words from Christer Lindstrom

Well, do you believe that we have reached the optimal way of mobility for the rest of all time by now? I have found few if anyone saying "yes" to that question. Of course we need to explore. The idea that the private car can be improved is already out there with tons of research going into everything from the driving experience to lean production methods. This conference is about the public transit technology innovation that has been poorly focused for decades. We need to know - is there a real way to combine the flexibility of the private car, the capacity with public transit and make it not only efficient and comfortable but possibly even better than enything else? Can it be safer, faster, even maybe just plain fun?

So, Why is this conference important, for Atlanta and the rest of the world?

I certainly believe that there is a future that is incrementally better for all of us and this conference is all about that - what options and ideas we have today, what there is at the horizon and how to get us into **a New Mobility Path** for all.

Don't miss the full scale demonstration Thursday at noon from Oceaneering!



Workshop Wednesday Dec 8 at 2pm for those of you who want to start planning a network. We will use Podaris & 4Dialog technology. Email us at <a href="mailto:info@podcarcity.org">info@podcarcity.org</a> to participate and have a separate program sent to you. The workshop is available for all who have registered.

#### In this newsletter:

Program update #2, speakers, list of technologies today, articles + more.

Register by Credit card:

#### **REGISTER**

If you would like to be invoiced rather than pay via credit card, please email:

#### info@4dialog.com.

All prices include Wednesday Networking reception and Thursday Dinner.

Also, Beep presentation page 8-9!



















# Program – Overview

(VR) indicates sessions which are accessible to remote (virtual) participants (Zoom). Moderated by Aurora Lindstrom, 4Dialog

#### Wednesday December 8 – Pre conference activities

2 pm- A workshop will be hosted on Wednesday at 2pm for those of you who want to start planning a network. Please send email to info@podcarcity.org before this day so we can prepare for your ideas and questions. Address: 1400 Centre Parkway, Atlanta Suite 132. We will send separate program for those who have registered for this event. 5.30 pm – **Networking reception** at the Kimpton conference hotel

### Thursday December 9 – Main conference day (VR all Day)

8.30 AM – Breakfast coffee/tea & Registration 9.00 – Introductions & Welcome – Gerald McDowell, ATL Airport Community Improvement Districts, Host

#### 9.10 - **Keynotes**

Andrew Young, former US Ambassador to the United Nations Robb Pitts, Chairman Fulton County Board of Commissioners Jeffrey E. Turner, Chairman Clayton Board of Commissioners Ellen Dunham-Jones, Architect, Georgia Tech "Retrofitting Suburbia: Urban Design Solutions for Redesigning Suburbs"

MAIN PANELS AND DEMONSTRATIONS (VR all day exxcept demonstrations)

- 10.15 -- New Podcar Industry and Global Effects Christer Lindstrom, CEO 4Dialog 10.25 -- Automated Transit Networks - A Vision for the Future - Peter Muller, **President Advanced Transit Association**
- 10.45 New and emerging projects Moderator Steve Hamilton, ATRA Modutram, Alexander Kyllmann Utltra MTS, Nigel Clarke Glydways, Zach Zeliff Claude Escala, Supraways
- 12.10 **Demonstration at site**, exhibitors and box lunch, Introduced by Matthew Lesh Oceaneering, Beep, 4Dialog, ATRA, AACID
- 1.20 PM **Technology, Transit and Infrastructure** Moderated by Krystal Harris, ATL Airport Community Improvement Districts Jennifer Foote, SVP Business Development at Beep, Inc. Aileen Daney, Director with the Atlanta-Region Transit Link Authority (ATL) Fred Payne - Board Memeber, Carolinas Alliance 4 Innovation (CA4I) Kenneth Williams - Airport Transportation Systems Director, Hartsfield-Jackson Atlanta International Airport (HJAIA)
- 2.45 **Scandinavian Studies** Moderated by Matthew Lesh The Uppsala case - Magnus Hunhammar, CEO ISTCAB Gothenburg example with design process for Podcar Networks Ingmar Andreasson, Logistikcentrum & Mineta Transportation Institute Stockholm Arlanda Airport - Christer Lindstrom, 4Dialog
- 3.50 Coffee, exhibitors
- 4.15 What's next? Open Discussion & Q&A Moderated by Matt Lesh
- 5.00 Adjourn
- 7.00 **Conference Dinner** at The Porsche Experience Center. NOTE: Government issued ID required.











































9.00 AM Georgia Tech Airport Systems Design Research Group (VR)

School of City and Regional Planning, School of Aerospace Engineering, School of Architecture and Smart Cities & Inclusive Innovation, in collaboration with ATL Airport Community Improvement Districts (AACIDs)

Airport cities are emerging as a global city landscape. Many global cities are turning their "city airport" to "airport city", in which city centers are built around globally significant airports (Kasarda, 2013). Hartsfield-Jackson Atlanta International Airport as the largest hub of the U.S. and as an "urban center" has 110-million passengers in 2019, a daily average of 300,000 people flowing in/out. The future airport city hub is a transportation interchange, a complex urban system that contains flows of people, goods, energy, water and information. Airports and airline operations have been significantly affected due to Covid-19. How will the future airport city system be redesigned to become safer, cleaner, nimbler and more resilient to mitigate the impact, while being able to adapt to future disruptions? The panel will discuss how we envision the post Covid-19 future airport city as smart systems design. It covers the following topics:

- 1. Post Covid-19 airport city environment to be safer, resilient and socially inclusive.
- 2. Airport city hub planning and design
- 3. Smart mobility technologies and integration
- 4. Near-zero energy and carbon neutrality

# Georgia Tech

#### Future Airport City Systems Design Concepts (Students' presentation) (VR)

Moderated by Dr. Michael Balchanos, Georgia Tech

- Airport City Hub Design Carter Hehir, Cara Marchesani, Karina Vigario Coelho
- Carbon Neutral Design Strategy Shenelle Campbell
- Future Mobility by PRT Xiaofan Liang, Brahma Harshini Ongole
- Urban Air Mobility and Vertiport Xi Wang, Yuexuan Chen
- Airport City Digital Systems Platform Gayatri Navya Narayanam, Timothy Elrick

#### 1010 – 11.30: Panel of Future Airport City (VR)

Moderated by Prof. Perry Yang, Eco Urban Lab, School of City & Regional Planning and School of Architecture, Georgia Tech. Panelists:

- Georgia Tech Airport City Systems Design Research group
- Prof. Dimitri Mavris, Aerospace Systems Design Laboratory (ASDL), School of Aerospace Engineering, Georgia Tech
- Professor. Nancey Green Leigh, College of Design, Georgia Tech/ Kenneth Williams, HJAIA
- ATL Airport Community Improvement Districts (AACIDs) Mr. Gerald McDowell, Executive Director of AACIDs
- Hartsfield-Jackson Atlanta International Airport (HJAIA) Ms. Jaimi Tapp, Director of Strategic Planning of HJAIA











### 11.30 - 12.45am: Innovative Transit Network Project - A three year multi city project (VR)

Moderated by Magnus Hunhammar, ISTCAB

- \* The ITN Project, Christer Lindstrom 4Dialog
- \* Planning Cities Mobility Lisbon Case, Rita Castelbranco
- \* City Information Modelling (CIM) and Urban Design Todor Stojanovski
- \* Planning Cities Mobility using Podaris, Nathan Koren

12.45 - Adjourn









# Speakers (to be extended)

Gerald McDowell, Executive Director, ATL Airport Community Improvement Districts



With over 30 years of professional experience, McDowell is humbled by his experiences and remains diligent in his commitment to provide a strong, safe, attractive, and vibrant community for South Metro Atlanta

Krystal Harris, Program Director, ATL Airport Community Improvement Districts



Krystal Harris, brings a wealth of strategic planning and high level project management skills to our team. She worked at GDOT for 12 years in various roles in Planning and Asset Management. While at GDOT, she focused on working in the most feasible way while meeting the goals and objectives of the Department. Understanding projects from conception to construction gives Krystal a unique perspective as a Program Director and enables her to look at challenges from various perspectives while keeping the company's mission and vision top of mind.

Ellen Dunham-Jones, Architect & Director Urban Design Program, Georgia Tech



Ellen is Director of the Master of Science in Urban Design degree, an authority on sustainable suburban redevelopment, and a leading urbanist. Author of over 100 articles, she is co-author with June Williamson of the retrofitting suburbia book series documenting successful retrofits of aging big box stores, malls, and office parks into healthier and more sustainable places. Retrofitting Suburbia: Urban Design Solutions for Redesigning Suburbs,

Peter Muller, President, Advanced Transit Association (ATRA)



Imagine public transit where all trips are express, premium trips are nonstop and economy trips cost the same as bus fare. Imagine public transit that takes traffic off the roads, uses ¼ the normal energy per passenger mile and is renewably powered. Imagine public transit where everyone lives and works within 5 minutes' walk of a station. This is the dream I am working to realize through ATRA and my work with companies including PRT Consulting and Vuba.

Andrew Young, Andrew Young Foundation



The Andrew J. Young Foundation is an extension of Ambassador Young's vision, values and virtues that continue to inspire leaders around the world to work toward a global community of peace, prosperity and inclusion. The Foundation embodies his philosophy of creative nonviolence, exemplary of his work as pastor, civil rights leader, diplomat, politician and humanitarian

establishing a model and legacy of effective servant leadership for current and future leaders in Atlanta, America and the world.

Robb Pitts, Fulton County board of Commissioners



Before being elected Chairman in 2017, Robb Pitts served on the Fulton County Board of Commissioners for twelve years. As a commissioner, he advocated to relieve the tax burden on Fulton property owners, supported the library system, protected animal rights, and helped encourage economic development in South Fulton County.

As chairman, Robb has worked to defend Fulton County's elections system and voters, navigate the COVID-19 crisis, and bolster minority-owned financial institutions.

Jeffrey E. Turner, Chairman Clayton Board of Commissioners



Jeff Turner's belief is that we all play a vital role in building a better future and quality of life for every citizen in every community. As Chairman of the Board of Commissioners, he provides dependable leadership in the development of a progressive vision for Clayton County. Since taking office, Chairman Turner has been appointed to numerous committees which include the Governor's Funding Committee on Juvenile Justice, the Executive Board of the Atlanta Regional Commission (ARC), and the Metro Urban Chairs Committee, just to name a few.

Rita Castelbranco, Architect and researcher at CITUA/IST, Lisbon Portugal



Architect. Urban planner and mobility expert, from strategy to project development. Researcher at CiTUA/IST. Currently doing a PhD in Architecture on the topic Reshaping the City: new parameters for a better urban environment.

Fred Payne, Chair, CA4



Fred Payne is Chair, Carolinas Alliance 4 Innovation, a public private consortium promoting innovative

economic development in transport & infrastructure. From 2006 until 2018, Payne was a Greenville County Councilman, and was recognized as a County leader for 21st Century mobility solution.

Christer Lindstrom, CEO 4Dialog



My interest is focused on sustainability, democracy and the processes that supports these important parts of life. At 4Dialog I work with immersive visualization and simulation technology for better communication between key stakeholders in developing cities.

Matthew Lesh, Director TESIAC



I am passionate about mobility for all. My diverse background spans government, non-profit, bioscience, and transportation. I spent roughly 13 years in the federal ecosystem developing, supporting, and executing policy and programs for the United States Department of Transportation and have worked across the industry from research to deployment.

Magnus Hunhammar, CEO IST, Sweden



ISTCAB is a partner for integrated urban and traffic planning for more sustainable cities. ISTCAB does Consultancy, research & conferences. Founder of the International Podcar City Conference. Magnus is the former executive Director of the City Network KOMPASS, an organisation focused on researhing possibilities for new modes of urban mobility

Dr Michael Balchanos, Georgia Tech



Michael Balchanos is research faculty with the School of Aerospace Engineering, where he serves as the Resilient Systems Branch lead at the Aerospace Systems Design Laboratory. He is also leading ASDL's Automotive Systems Research Initiative with applications in electric vehicle energy-based sizing and optimization (EVs) as well as the development of SoS-level frameworks for the connected autonomous mobility ecosystem of the future.

Aurora Lindstrom, CMO 4Dialog



Aurora is responsible for project coordination at 4Dialog and works part time for supporting youth projects in the UIDC project. Aurora is currently Project coordinator at the Stockholm County Administrative board and holds a master degree in Environmental sciences at Lund University.

Todor Stojanovski, Royal Institute of Technology, Stockholm Sweden



Todor hold a PhD in Urban and Regional Studies at the KTH Royal Institute of Technology in Stockholm. His research focuses on urban form and mobility, urban design and transportation infrastructures, habitation and mobility (sub)cultures.

Kenneth Williams, HJAIA



Kenneth have over 20 years experience oper ating and maintaning Automated People Mover systems. I'm efficient with mechcanial, Automatic Train Control (ATC), Supervisory Control and Data Aquistion (SCADA) and Propusion systems. I have also been in a supervisory or in a management position for over 10 years. I'm a member of the Automated People Mover Standards Committee which is part of the American Society of Civil Engineers.

Steve Hamilton, ATRA & CityTram



I am spending my time in a philanthropic effort to improve mass transit (working mostly in the Miami area). This involved self-directed study in Civil and Mechanical engineering (enough to be dangerous) sufficient to do realistic first pass design of a Personal Rapid Transit system, for the primary purpose of cost estimation.

Nathan Koren, CEO Podaris, UK



Infrastructure projects are becoming ever-more sophisticated, requiring the integration of more and more technologies and disciplines. At the same time, they are also becoming more democratic, with the input of increasingly diverse stakeholder groups. Podaris is a platform for real-time interdisciplinary planning and design of infrastructure projects, putting collaboration and transparency front and centre.

Ingmar Andreasson, Certified Research Associate at Mineta Transportation Institute



Ingmar specializes in planning, design and evaluation of generic (vendor-independent) Personal Rapid Transit systems, operating strategies and interplay with other transit modes. Ingmar previously was a professor at the Swedish Royal Institute of Technology, Stockholm



Dimitri Mavris, ASDL



Dr. Dimitri Mavris is a Regents' Professor, Boeing Professor of Advanced Aerospace Systems Analysis, and an S.P. Langley Distinguished Professor. He also serves as the director of the Aerospace Systems Design Laboratory (ASDL) and executive director of the Professional Master's in Applied Systems Engineering (PMASE).

Nancy Green Leigh, Georgia Tech



Nancey Green Leigh is Associate Dean for Research in the College of Design and Professor of City and Regional Planning at the Georgia Institute of Technology. She is a Fellow of the American Institute of Certified Planners. She specializes in economic development planning and policy that incorporates the principles of equity, sustainability, and resiliency. Leigh has published more than 60 articles and book chapters as well as four books. She is the lead author of Planning Local Economic Development (6th edition, 2017), a college textbook as well as resource for practitioners working in planning and policy development.

Perry Yang



Perry Yang is an Associate Professor and Director of Eco Urban Lab at School of City and Regional Planning and School of Architecture of Georgia Institute of Technology. Yang's work focuses on incorporating data analytics into urban design to improve ecological and energy performance of cities. He has published more than fifty articles in this area from 2009, including a new book Urban Systems Design: Creating Sustainable Smart Cities in the Internet of Things Era that he co-edited and co-authored six chapters in 2020 by Elsevier. Beyond writing, Yang has been awarded more than ten prizes in international competitions continuously from 2005 in Asian cities, including the 2009 World Games Park at Kaohsiung, Taiwan that opened in July 2009, featured by CNN as "an eco-friendly venue".

Jaimi Tapp, Directos, HJAIA



Jaimi Tapp is the director of strategic planning, overseeing the strategic plan development and implementation for Hartsfield-Jackson Atlanta International Airport. Mrs. Tapp has 25 years of airport management experience. She began her career at focusing on airport master planning, aviation systems planning and airport noise issues. She has worked ATL since 1991 as an airport employee or consultant.

Alexander Kyllmann, CEO Modutram



Alexander is the founder of the Autotran system. It is an innovative public transport transport solution, based on a fleet of autonomous mini-trains (without human conductor) that uses a very high-speed infrastructure. Median means intelligent passenger transport, the system offers express routes (without intermediaries) and service on demand.

Zach Zeliff, Head of System Design and Sales



Glydways, Inc. is an American transportation technology and clean energy company based in

South San Francisco, CA. The company specializes in the design, manufacture, installation and operation of affordable autonomous transportation for low, medium and extremely high capacity needs

Claude Escala, CEO Supraways, France



Supraways develops an autonomous, fast and sustainable mode of public transportation. Based on a light infrastructure it supports cabins for passengers (7 to 9 people) and goods. The system is using solar energy and is both effective and comfortable.

Nigel Clarke, Chairman, Ultra MTS



Nigel is chair of Ultra Micro Transit Systems Ltd situated in London, United Kingdom The company develops personal rapid transit (PRT) systems, based on the Ultra technology solution.

Kiel Clasing, Demonstration at site



Kiel Clasing is responsible for Entertainment & Mobility Solutions at Oceaneering in Florida. Oceaneering International, Inc. is an applied technology company servicing offshore oil & gas, aerospace & defense, industrial automation, entertainment and emerging transportation markets worldwide.

Jennifer Foote, Executive, Beep



Jennifer Foote has more than 20 years of experience in glob-

al technology-enabled transformation programs and delivering first of its kind technology initiatives for both public and private sector clients from municipal to federal and start-up and Fortune 500 companies. Jennifer is an executive at mobility solutions provider Beep, Inc. serving as SVP Business Development. She is responsible for driving and leading the customer journey from presales through operational support.

Aileen Daney, Director with the Atlanta-Region Transit Link Authority (ATL)



She manages the development of the ATL Regional Transit Plan (ARTP), the foun-

dational document for future transit planning, and the Annual Report and Audit (ARA). She also leads other efforts like the Regional Fare Policy Study and the ATL's local transit technical assistance program. planning. She is motivated by a deep commitment to advance transit, walking, and bicycling as safe, equitable, and accessible means of transportation. Aileen holds a Master of City and Regional Planning degree from Rutgers University

# **Existing and Emerging Technologies**

There is a plenthora of both existing and emerging technologies for Podcars - small, slower mini buses, medium sized self driving buses, systems operating on their own tracks or shared with regular traffic and more. We list here some of the systems available to use today and some emerging, some conceptual. We have filtered out systems without funding.

#### Oceaneering/2Getthere - Existing (Masdar, Rotterdam)

The REVO-GT™ is a unique vehicle system that uses self-guided, driverless group transit vehicles, each capable of transporting up to 24 passengers on a dedicated guideway allowing passengers to select from pre-programmed routes connecting different origins to one or more specific destinations.

#### Modutram/Autotren - Emerging, run on its own track, test track available

Autotrén is a rapid transit system based on GRT (Group Rapid Transit) technology that offers agile and sustainable mobility, particularly for congested urban corridors and medium sized cities.

#### <u>Morgantown - Worlds oldest operational system</u>

Morgantown Personal Rapid Transit (WVU PRT) is a personal rapid transit (PRT) system in Morgantown, West Virginia, United States. The system connects the three Morgantown campuses of West Virginia University (WVU) and the city's downtown area.

#### Supraways - Conceptual, test track underway

Spacious and comfortable 7 to 9 seated cars (belts). Supras Transport on demand, no timetable, direct trips from origin to destination, 24 / 7 service availability. Supras High speed, 50 km/h on average. Supras Solar canopies, CO<sup>2</sup> -neutral.

#### Vuba - Conceptual

Vuba is a USA and Rwandan Smart City mobility company that provides an ICT solution for public transport. We focus on driverless electric vehicles that are powered by solar energy for zero emission transportation.

#### Beep - Operational vehicles in several places

Beep is Autonomous Mobility as a Service provider offering fully managed mobility solutions to both public and private communities. Beep's fully managed autonomous mobility, turn-key mobility offering delivers a safe, reliable, stress-free transportation service.

#### Easymile - Oerational vehicles in several places

EasyMile's unique technology allows autonomous vehicles to drive safely with cars, bikes, pedestrians and so on. They understand the environment as it is. No need to build or make anything extra!

#### Skytran - Maglev based hanging PRT

vehicle only stops at your chosen destination. Bypassing stations along the way, you travel at high-speed for the duration of your trip. This is the very definition of seamless point-to-point travel. The maglev technology allows vehicles to move along the track on a cushion of air. This means that your ride is always fast, smooth, and quiet.

#### <u>ULtra - The London Heathrow System</u>

Ultra pods are a new type of transportation technology, which consists of small, lightweight, driverless electric vehicles running on special-purpose guideways. Ultra pod provides on-demand, non-stop transportation in your own personal vehicle.

#### Glydways - California emerging system with test track

Glydways is currently helping cities and communities supplement existing public transportation networks with faster, more efficient, more sustainable self-driving shuttles.



















## AV Solutions for Public Transit – What to Know Now

By now, most of us have heard about the use of autonomous vehicles as solutions for certain first- and last-mile use cases in public transit. To date, many of the deployments in public transit have been short term trials funded by grants with specific research requirements around vehicle performance and integration with other modes of public transit. While many of these trials were successful in achieving pre-determined goals and objectives intended to satisfy grant requirements, many were not able to satisfy the reliability and passenger expectations required of an autonomous public transit service. For many public transit agencies leaning into the integration of autonomous vehicles to solve for gaps in first and last mile requirements, enabling a viable solution that is reliable and efficient is vital to long-term success. Implementing sustainable autonomous solutions should account for several key considerations related to operational capability, passenger experience, regulatory, and cost. Sit back, buckle up, and read on to learn how deploying AV - with the right expectations - can satisfy very real needs that exist today in your service area.

#### **Operational Capability:**

Multi-passenger autonomous vehicles (AV) first made their way into the US transportation scene in 20141. Since then, hundreds of thousands of passengers across the world have been transported hundreds of thousands of miles in controlled speed, geo-fenced



first and last-mile use cases in scenarios inclusive of highly pedestrianized and mixed traffic roadways. Topping out at a speed of approximately 12mph in autonomous mode, the speed of these vehicles compares favorably to the average speed of other modes of public transit – 14.1mph for bus and 7.7mph for streetcar. 2 AVs have consistently proven to be a safe complement to existing modes of public transit but do have limitations that can make some use cases more complex than others to satisfy in autonomous mode including lane merges and unprotected left turns. Infrastructure and environmental considerations - such as lane widths and grade, posted speed limits, traffic calming features, and weather - must also be analyzed to determine if today's AVs capabilities can meet an identified use case.

#### Passenger Experience:

AV technology doesn't get tired or distracted, experience road rage, text and drive, or have too many cocktails before getting on the road. Additionally, when you consider 94% of car crashes are attributed to human error and that AVs can process an obstacle in about a half a



second 3, you can see the advantage in significantly reducing the probability of a crash. Yes, AV technology can keep us safe. Yet, at current technical maturity, it can be frustrating in equal measures. Consider this: all the compute power is on the vehicle and machine learning isn't yet enabled in AV in use on roadways today. That means an AV will slow or stop for environmental factors such as overgrown vegetation or even heavy precipitation, which a human might otherwise be able to process as a non-threat. Put simply, if the AV sees something that shouldn't be in its path, it's going to be "safer than sorry", which could create a less than desirable experience for the passenger.

#### Regulatory:

Currently, there is no built for purpose multi-passenger autonomous shuttle on the market that meets Federal Motor Vehicle Safety Standards (FMVSS). For that reason, the AVs are regulated by the US Department of Transportation (DOT) National Highway Transportation Safety Administration (NHTSA) through a special waiver process allowing the AV to operate on public roadways for research and development purposes. It's necessary to allow for advancement of the industry – we all want to get there. But it also adds a layer of complexity and compliance not easily navigated. To date, only three built for purpose autonomous shuttle suppliers – Navya, EasyMile, and Local Motors - have been permitted to operate their vehicles on public roadways in the US, and only after rigorous inspection and understanding by NHTSA of the automated drive system capabilities, safety features, and operational programming. Beyond this, each individual route must be assessed and approved for operation by NHTSA, in partnership with the vehicle operator. Other regulatory considerations, like that for ADA compliance, must be factored in to ensure implemented solutions satisfy all obligations put in place by federal, state, and local authorities.

#### Cost:

To understand the true and realistic costs of implementing built for purpose multi-passenger autonomous vehicles, one has to look at the factors contributing to a premium price in today's market. First, there is no mass production of these form factors today. Second, stewards are still required onboard to accommodate for the lack of over the net, low latency connectivity with a remote command and control center. Taking all this into account and it's likely the cost per mile or per passenger will exceed existing first and last-mile solutions. So how do public transit agencies, as good stewards of public funds overcome this, when the charter is to safely move as many people as you can, at the lowest cost possible? The answer almost always lies in public-private partnerships (3Ps) and other creative funding opportunities made available by the US DOT and other grant-making entities with an interest in advancing our country's position in innovation and safety in public transportation. The call to action is to look past short-term costs to the greater vision of full autonomy, which will drastically reduce the cost of public transit, even beyond first and last-mile use cases.

#### Summary:

While a handful of expectations are vital to successfully and safely implementing autonomous vehicles, it's not impossible! The most critical success factor is partnering with a turnkey autonomous solutions provider who has the expertise to guide your agency to the best possible outcome while accounting for key considerations like `those outlined above. Beep was founded with the intent to identify the most viable use cases that not only serve a purpose but also provide operational learnings to safely advance the industry. Our team of AV experts have deployed and managed 15 routes across 4 states, with 60,000+ passengers transported over 100,000+ live road hours. We boast the largest and longest running fleet of autonomous shuttles at a single site in the United States and managed and operated the nation's first autonomous shuttle deployment in a national park setting at Yellowstone in the summer of 2021. If you're contemplating an AV deployment, we encourage you to seek out an operator that can provide a full suite of proven planning, deployment, and operations services. Remember to ask for and evaluate references.

Author: Jennifer Foote, SVP Business Development at Beep, Inc.









**Friday December 10** - Presentation of current and planned student projects all over the world - San Jose State University, NC State, Georgia Tech, HiG Sweden, The UIDC Project and the upcoming ITN Project - and more!

#### GENERAL INFORMATION

The conference takes place at the Kimpton Overland Hotel December 9-10 2021. You are invited to attend either in person or by internet connection (Zoom, limited number of participants). For booking rooms, please use the link <a href="here">here</a> or call 1-800-KIMPTON and mention the group "Podcar City" for the conference group rate (\$139+Tax). The Hotel is a fully accessible. Please call the Reservation Specialist at (470) 466-3300 or email accessible@kimptonoverlandhotel.com. The conference homepage with full program, prices, speakers and other information is available at <a href="https://podcarcity.org/podcar-city-conference-2021/">https://podcarcity.org/podcar-city-conference-2021/</a>



Important Covid-19
Update:

All attendees will go though a health check at the Hotel. A mask is compulsory and we do practice distancing at the conference.

We apologize for the inconvinience.



"We are proud to serve as the host city for the 2021 Podcar City Conference. The ATL Airport Community Improvement Districts (AACIDs) have a vision for technological innovation that will improve the quality of life and mobility for property owners in and around one of the world's busiest airport, Hartsfield-Jackson Atlanta International Airport (HJAIA). Our AACIDs PRT Advisory Group with representatives from key transit nfluencers such as MARTA, GDOT, and HJAIA are excited to support cost effective modes of transportation, such as Personal Rapid Transit (PRT), throughout South Metro." Gerald McDowell, Executive Director, AACIDS

#### Pricing

All Prices include Wednesday Networking Reception and Thursday Dinner at the Porsche Experience Center.

Full Thursday only	\$ 695 \$ 595	
ATRA + new membership	\$ 495	<b>REGISTER NOW!</b>
Student	\$ 195	
Academic/Government	\$ 495	
Exhibit Space without ticket)	\$ 595	
Exhibit Space with 1 ticket	\$ 995	
Virtual Attendees (limited, no dinner)	\$ 195	
Virtual Attendees - Student (Itd. sessions)	\$ 25	

Welcome! Aurora, Christer, Matt, Gerald, Charlie, Krystal and Kyana













