SA Govt Backed Driverless Vehicle Trials Get Underway

The first in a slew of South Australian government funded autonomous transport trials is due to commence in Adelaide next week.

Aurrigo, the Australian subsidiary of UK driverless shuttle supplier RDM Group, will begin testing its cargo-carrying autonomous vehicles at the Tonsley Innovation District, after receiving $1 million from the government's Future Mobility Lab fund.
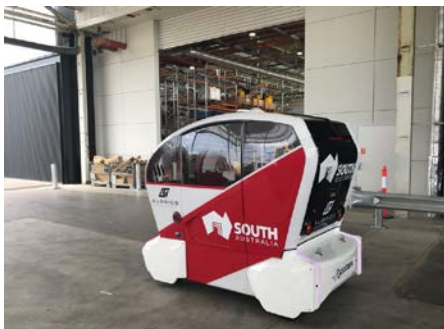
The first of three vehicles – which are fitted with multiple sensor technologies, including stereo cameras, LiDARS (laser-based light detection and ranging sensors), odometry and ultrasonics – has already arrived in Adelaide, with two more being shipped early next year.

They have a top speed of 24km/hour, and an operational range of 60 miles. They can be operated by an external driver if required and are able to communicate with each other to choreograph movements in complex environments like warehouses and airports.

Aurrigo opened a facility at Tonsley – which sits within the former Mitsubishi Motors manufacturing plant at Clovelly Park – in January to serve as RDM's Asia-Pacific headquarters. RDM has already hinted at plans to manufacturer its pods in the state.

https://www.computerworld.com.au/article/630111/sa-govt-backed-driverless-vehicle-trials-get-underway/
2017-11-16

France is Using Drones to Catch Dangerous Drivers

On a quiet road next to the busy Bordeaux beltway, a huddle of policemen watch as a drone climbs into the sky to fix its glass eye on the main road. On the ground, police captain Pascal Gensous scrutinises the images it sends down to the monitor.

"The drone is very useful because we can see dangerous drivers on the roads without being seen by them," he said.

Police in the Bordeaux area of Southwest France are pioneering the use of drones to catch drivers violating traffic laws. They started in summer and have already issued hundreds of fines thanks to the spy in the sky.

It is also a lot cheaper than helicopter surveillance that the police sometimes use to nab traffic offenders. The drone has a clear view of the traffic but the police are hidden behind trees. Today, they are going after truckers. They're watching out for dangerous behaviour, like driving too close to the vehicle in front or illegal passing. The police don't have to wait long.

https://www.marketplace.org/2017/11/13/world/france-drones
2017-11-13

La Trobe University Driverless Bus Trial Set for Early 2018

HMI Technologies yesterday launched the third trial of its driverless shuttle bus, at

the Bundoora campus of Melbourne's La Trobe University. HMI's previous two trial

spots were Auckland and Sydney, so this will be Victoria's first real look at the

vehicle.

The La Trobe Autonobus was launched yesterday, and will undergo testing, and mapping its route, from today. Then, in April through to July 2018, the general public will be able to trial the bus. The route will take passengers from the tram stop near Science Drive, to the main campus.

This Autonobus is a collaboration between VicRoads, Keolis Downer, La Trobe, University, HMI, RACV and the Australian Road Research Board (ARRB), and is part-funded by the Victorian Government Smarter Journeys Program.

"Automated vehicles will revolutionise how we move around our communities, that's why we're investing in trials that explore ways technology can be used to reduce congestion and keep people safe on our roads," said Victoria's Minister for Roads and Road Safety, Luke Donnellan.

"We will be transporting a range of people around the campus during the trial – focusing on picking up customers from tram/bus interchanges or car parks and allowing them to hop off close to their destination," said Dean Zabrieszach, HMI Technologies' CEO.

"This will give us a good idea of how the bus integrates with other modes of transport and interacts with people."

Stuart Ballingall, VicRoads' Director of Transport Futures, outlined the importance of the Melbourne and Sydney trials of Autonobus for the country. https://imovecrc.com/melbourne-autonomous-bus-trial-la-trobe-uni/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+iMOVECRC+%28iMOVE+CRC%29

2017-11-17

Blast-off for China's New-Generation Beidou-3 Satellites to Rival

GPS

China has launched the first of its most powerful generation of navigational satellites as part of efforts to expand the global reach of its rival to GPS and to cut reliance on overseas systems.

The launch of the two Beidou-3 satellites in Sichuan on Sunday after months of delays represents the start of a major upgrade to China's home-grown navigational strength.

The satellites are among more than 30 China plans to send up over the next three years to create a network that will be able to support military operations around the world without relying on competitors such as the US-developed GPS or Russia's GLONASS.

Yang Changfeng, BeiDou's chief designer, said the new satellites would be able to spot which lane a car was using on a motorway, detect the sway of a building in high winds and guide fire trucks to the nearest water hydrant.

Scientists involved in the project also said the new system would give civilian users an accuracy of 2.5 metres to five metres, putting it on a par with existing GPS

technology. The Chinese military and some government users would be able to use encrypted signals for millimetre precision, the scientists said.

The new satellites went up on a Long March rocket from the Xichang launch centre in Sichuan province on 5 November.
http://www.scmp.com/news/china/society/article/2118616/china-launches-satellites-extend-global-range-its-version-gps

2017-11-06

Cohda Wireless' V2X-Locate Positioning System

A critical part of Vehicle-to-Everything (V2X) Connected Automated Vehicles (CAV) is accurate positioning of vehicles. And in some environments, such as cityscapes, tunnels, parking stations, indeed anywhere where a view of the sky is blocked, or obscured, that presents problems for positioning via Global Navigation Satellite Systems (GNSS). In a V2X environment, accurate positioning of vehicles is crucial, without it CAVs are driving impaired at best, and blind at worst.

Cohda's V2X-Locate uses standard V2X transmissions, advanced wireless signal processing and positioning algorithms to position vehicles to within sub-metre accuracy, even in scenarios without any GNSS signal.

Cohda tested V2X-Locate in the crowded urban environment of New York City earlier this year. On Sixth Avenue, between 48th Street and 54th Street, near the Rockefeller Center in midtown Manhattan, Cohda installed six roadside low-latency units.

"These real-world results with Cohda's V2X-Locate solution are a powerful demonstration," said Paul Alexander, the Cohda Wireless CTO.

"V2X-Locate gives autonomous vehicles the ability to navigate through underground car parks just as easily as GPS-rich environments, providing the key to unlocking the full potential of CAVs."

https://imovecrc.com/cohda-wireless-v2x-locate/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+iMOVECRC+%28iMOVE+CRC%29

2017-11-10
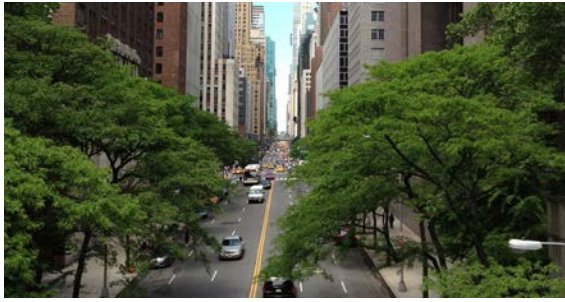
SBAS Testbed Has Begun, First Contracts Signed!

SBAS L1 legacy, Dual Frequency Multi Constellation (DFMC) and PPP (over L1 and over

L5) signals are being broadcast across the Australia and New Zealand region until 31

January 2019.

The CRCSI's SBAS team has been finalising the first 20 projects, covering ten sectors -- agriculture, aviation, consumer, construction, maritime, rail, resources, road, spatial and utilities. SBAS Testbed Program Manager, Julia Mitchell, said that the projects are looking at SBAS in applications as disparate as livestock positioning for cattle and sheep to positioning for automated vehicles. "The interest in SBAS from a range of sectors is great. We've got projects tracking sheep and cattle, looking at driverless vehicles and connecting intelligent transport systems to asset management," she said excitedly. "It really highlights that location technology and spatial information underpin a modern economy." Our SBAS team has been out in the field training project partners.

http://www.crcsi.com.au/edm/edition-61/#featureStory

2017-11-10

Uber Is Promising Flying Taxis by 2020 After Announcing Partnership with NASA

Uber is pushing to become the world's next airline — without buying any planes.

Instead, the company believes that a fleet of flying cars could solve the dilemma of daily commutes to work and between meetings in increasingly congested cities.

And with the announcement on Wednesday 8 November that Uber has secured a contract with NASA to develop software to make "flying taxis" possible, that push seems one step closer to reality.

The private car service company's argument is compelling. As the company reports in a whitepaper about its vision for "vertical take-off and landing" — or VTOL — vehicles:

"The average San Francisco resident spent 230 hours commuting between work and home — that's half a million hours of productivity lost every single day. In Los Angeles and Sydney, residents spend seven whole working weeks each year commuting, two of which are wasted unproductively stuck in gridlock. In many global megacities, the problem is more severe: the average commute in Mumbai exceeds a staggering 90 minutes."

http://www.cetusnews.com/life/Uber-Is-Promising-Flying-Taxis-by-2020-After-Announcing-Partnership-with-NASA.BybiadQMJf.html
2017-11-10

Spoofing: Black Sea Maybe Not, Baltic Maybe So

Spurious signals in the Black Sea have repeatedly placed seagoing vessels, according to their navigation systems, on the site of an airport hundreds of miles from their true positions.

The incidents were reported in the August and October issues of this magazine, and in Mike Jones' Defense PNT e-newsletter column for October. Experts initially concluded the problems probably indicated a spoofing attack in the area.

A reader of the Defense PNT e-newsletter commented, "We have been following this case for quite some time now. We track all merchant vessels worldwide on the basis of Automatic Identification System (AIS), 24/7. The AIS transponder uses the GPS receiver for its position report."

Our correspondent is the director of a company that offers server- and web-based tools that can be incorporated in GIS and asset tracking and tracing systems.

"The 'spoofing' is still going on," he continued. "Even today ships were placed on the airport runway. In total, over 600 vessels were placed on the runway since early June. Our preliminary conclusion is that the 'spoofing' is probably not done on purpose. The most likely cause of this spoofing is a GPS re-radiator transmitter located in the hanger close to the end

of the runway. This device is used for testing GPS when planes are placed inside the hanger. So, line-of-sight interference?"

Read more in *GPS World* article. http://gpsworld.com/spoofing-black-sea-maybe-not-baltic-maybe-so/?utm_source=gps_navigate&utm_medium=email&utm_campaign=gps_navigate_10312017_final&eid=376813635&bid=1911630

2017-10-24