Panasonic launches mobility service at Tokyo transportation hub

July 13 2020, by Peter Grad

Panasonic has begun testing robotic mobility devices at the newly constructed Takanawa Gateway train station in Tokyo.

The effort is art of a plan to bring a series of automated services to the airport and surrounding facilities that are part of a massive redevelopment project in the surrounding Shinagawa business district.

Three mobility devices, essentially intelligent electric wheelchairs, will be used as a single group in the trial. The experiment will focus on ensuring the safety of passengers with mobility issues as they are transported throughout the huge facilities.

The lead wheelchair will be controlled by a station employee as the two other wheelchairs automatically follow. The vehicles will be aware of obstacles, human or inanimate, in the vicinity. They are equipped with an automatic braking system; when the someone crosses in front of the lead vehicle, all three will slow down or stop as well.

The vehicles continuously monitor speed and carry sensors to detect malfunctions of any of the vehicles' components.

Panasonic is planning expansive projects involving mobility, including transport services for large groups of people traveling together, such as families and tourists.

The trial is taking place now through September.

Panasonic is conducting research for advanced automotive networks as well. Its CIRRUS project will utilize cloud analytics data for real time analysis and transmission of information such as vehicle activity and road conditions. The data will be shared by vehicles, infrastructure, roadways and operators. The aim is to improve safety, reduce carbon emissions and maximize travel efficiency.

Panasonic is scheduled to launch these transportation tests in Utah, Georgia and Colorado later this year.

The Takanawa Gateway Station electric wheelchair experiment is ideally situated in the middle of the Shinagawa Redevelopment Project, a several-year long mission to create a global hub in the Tokyo district.

Several train routes, including the Yamanote, Keihin Tohoku and Tokaido lines are conjoined in the district.

The Tokaido Shinkansen, the world's oldest high-speed train line, also crosses through the district. Haneda Airport, home base of Japan's two major domestic airlines, Japan Airlines and All Nippon Airways, is nearby.

The development of the area, including business and residential high-rise buildings, is expected to be completed by 2024.

As noted by David Szondy in a report for New Atlas, "As robotic systems become more sophisticated, they will move more and more into our daily lives, but for that to work, these robots have to be able to operate in the chaotic, unpredictable human environment. This means a lot of real-world testing by the likes of Panasonic, which sees a market not only for mobility devices for individuals, but also for moving groups of people about as well."

Assisting in the development of Panasonic's robotic mobility and safety control system was the New Energy and Industrial Technology Development Organization.

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