AI carves out new routes for urban transport

Yawning, eyelids sagging, nodding off – in the future, these signs of exhaustion will be captured and a warning to stop driving will sound.

The on-board AI system collects information of facial expressions, computes, and tells the driver to pull over.

“AI may someday help eradicate accidents caused by fatigue,” said Ye Jianjie of Sense Time, developer of the system.

At the 19th China Hi-tech Fair that closed Tuesday in Shenzhen, AI products were on display that may change the path of transportation forever, making traffic safer and roads less congested.

At the AI pavilion, Tong Xianqiao was showing off an autonomous driving system. Tong, with a doctorate in robotics, and his two partners established a business in Shenzhen this year after quitting jobs in the United States.

The roof box they designed passed a road test in Silicon Valley, enabling an ordinary car to run without a driver.

“The test run lasted around 30 minutes, and the difference with the assigned route was only five centimeters,” he said.

In formerly-congested Hangzhou, where Alibaba is based, AI has optimized urban transport. The smart transport system, or “brain of the city,” was set up by Aliyun, Alibaba’s cloud computing subsidiary.

Wang Jian, a technical officer from Alibaba, said the system analyzes real-time traffic flow and adjusts traffic lights accordingly.

Since its launch in October 2016, the average speed of cars has increased by 15 percent with congestion time dropping by 9.2 percent during rush hour, said Wang.

In the city’s Xiaoshan District, ambulances are given a green light at all intersections, which has cut the average arrival time for ambulances by half.

A national plan on AI was issued by the State Council, China’s Cabinet, in July. The plan said the AI industry should be a major new growth engine and have improved people’s lives by 2020, and set the target of China becoming a major center for AI innovation and leading the world in AI by 2030.

AI applications in the transport sector are a hot investment destination. According to the Tencent Research Institute in July, financing for aided or driverless driving reached 10.7 billion yuan (1.6 billion U.S. dollars) in China, third AI-related industry after vision-image analysis and voice processing.

Earlier this month, the Ministry of Science and Technology announced an AI innovation platform for unpiloted driving in cooperation with Baidu, as well as a platform for “brains of cities” by with Alibaba.

“AI is making urban traffic safer and more efficient,” said Peng Jinzhan, a designer of an unpiloted driving system.