

Jiading firms driving key creative technology

Li Huacheng, Hu Xindong
and Tom Qian

THE new automatic intelligent warehouse of Aptiv Central Electric (Shanghai) has been put into use, while Shanghai Hydrogen Propulsion Technology promoted the first fuel cell stack platform in Jiading last month.

Both projects aim to drive the development in technology industry in the district.

The fuel cell stack platform M4 is the first fuel cell stack platform of Shanghai Hydrogen Propulsion Technology Co.

The fuel batteries project was launched last year. Covering an area of 42,300 square meters, the project is costing

some 500 million yuan (US\$70 million).

In May, a production line of fuel cell stacks and systems was put into operation at Jiading Hydrogen Park in Anting Town.

It is the world's first production line with a capacity of over 10,000 units, and all the key processes are done by robots rather than human beings. The production line means high-quality fuel cells can be made in China instead of relying on imports.

By 2025, Shanghai aims to manufacture more than 10,000 fuel-cell vehicles with 70 charging stations for those types of vehicles.

Last year, 2.64 million vehicles were manufactured in the city, accounting

for more than 10 percent of the country's total production.

More than 238,000 new-energy vehicles were produced locally, a year-on-year increase of 190 percent. The total output value was 66.36 billion yuan, a year-on-year increase of 170 percent.

The Aptiv's new automated intelligent warehouse covers an area of 8,300 square meters and is 24 meters high. It can accommodate 8,530 standard trailers and 40,500 boxes of goods.

The intelligent warehouse not only facilitates the unmanned and automated management, but also the comprehensive intelligent management and automatic scheduling of material transportation, distribution and finished product entry

into the warehouse with each production line, as well as real-time transmission of management information systems.

"Big data is the core competitiveness of future manufacturing enterprises, and smart manufacturing factories are also the only way for the digital transformation and upgrading of the traditional manufacturing industries," said Yang Xiaoming, global vice president of Aptiv Connector Systems and president of Aptiv Asia Pacific, said.

One hundred percent of the key equipment in the factory is numerically controlled, and 90 percent of it has been connected. It is expected that by the end of the year, 100 percent of the key equipment will be connected.

Sports facilities open for communities

Zhou Yulin and Tom Qian

ALL sports facilities in 48 schools across Jiading District that meet the requirements for public use have been opened to local communities.

At the Primary School affiliated to Jiading No. 1 High School, many residents jog and do physical exercise in the evening.

"I come here three to four times a week and each time for one or two hours. Its very convenient after the school opened the sports facilities to local communities," a man surnamed Si said.

Si could only walk through his community when he felt like some exercise previously.

Another man surnamed Wang likes to play basketball, and now he can play on the school's court. Soccer field is also offered.

"It takes only three minutes for me to reach here on foot. The court including the lighting equipment is really good, which is quite nice for me," Wang said.

The sports facilities open to public from 6pm to 8:30pm free of charge. The school has also upgraded lighting and sanitation facilities and arranged volunteers to provide proper service.

The district education and sports authorities selected the

Forty-eight schools are involving in the new project with funds to support the maintenance and renewal and provide public liability insurance for residents doing physical exercise.

Also, a sports corner has been put into use at Malu Park. It's the first intelligent sports corner in Jiading.

"The facilities are really smart as they inform us how to do the physical exercises more scientifically," a resident surnamed Zhang said.



• Nurturing kids' interest in science

A child makes an airplane model driven by a rubber band with multiple parts, including its body, propellers and wings on November 21. "The game lets children focus on details. Also, they can find that the rotation direction is affected by the location of the rubber band's dot through practice," said the organizer surnamed Xia. Other activities included making robots arms and 3D prints to inspire their interest in science. — Li Jiaqi

Unmanned harvester reaps rewards

Zhou Hong, Gu Yaoxing
and Tom Qian

JIADING aims to expand the unmanned farm concept to around 10,000 *mu* land through digital technologies by the end of 2025.

An unmanned harvester was in operation, reaping rice at high-quality fields in Zhoujing Village of Waigang Town.

The harvester went back and forth and cut the mature rice neatly and quickly. After threshing, unloading and

loading, it turned into piles of golden rice.

At the other end of the farmland, workers sat in the control center and used mobile phones and large screens to control and monitor the process of the autonomous production of unmanned agricultural equipment in real time.

It is the first unmanned farm test base in Shanghai. Through the transformation of a number of existing agricultural machines, the base has developed unmanned

operations for cultivation, planting and management.

There are two devices look like mushrooms on top of the harvesters which can receive positioning signals from the Beidou satellite system and monitor production through the camera.

"The unmanned farm of Waigang Town is still in the test stage, and we aim to collect all the grain of 300 *mu* (20 hectares) without losing any rice," Gao Hao, from Shanghai Waigang Agriculture Development Company, said.

Hospital hooks into 5G remote services

Yin Qinqin and Tom Qian

THE Smart Medical Center of Nanxiang Hospital has moved into trial operation, providing remote medical services and 5G technologies.

"I was thinking about whether to transfer to another hospital or not, but I didn't expect to be able to consult with the experts from top hospitals at Nanxiang Hospital," a parent of a sick girl said happily.

The girl received consultations from experts of Ruijin Hospital North and Children's Hospital of Shanghai.

"In 2017, we joined the Pediatric Medical Consortium of Children's Hospital of Shanghai. After removing obstacles such as signal delays, we can communicate and transmit the reports through broadband in real time, which truly benefits patients," Dong Wei, director of the Pediatrics Department of Nanxiang Hospital, said.

The Smart Medical Center can also provide remote outpatient services to community-level hospitals, helping patients from Jiading to seek professional medical service.

The smart medical system can also help people from outside Shanghai to conveniently receive proper medical services.

A patient from Deqin County People's Hospital from Southwestern China's Yunnan Province received real-time medical service from Wu Hui at Nanxiang Hospital.

"It's magical as I thought I received medical checks from a robot at first," the patient said with a surprising smile. Three district medical institutions, Nanxiang Hospital, Maternity and Child Health Hospital and Nanxiang Town Community Health Service Center have all launched Internet diagnosis and treatment services.