

Intelligent vehicle industry in fast lane

Li Huacheng and Li Xinran

LU Fangzhou, Party secretary of Jiading, recently visited the Shanghai Intelligent Vehicle Software Park to learn about the development of the smart car software industry and the construction of car chips in Shanghai Automotive Chip Valley.

"The Shanghai Intelligent Vehicle Software Park is a key industrial layout in Jiading," said Lu, who arrived at the park to learn about the development of the smart car software industry in detail and inspect the production, research and development of enterprises.

Lu stressed that in the era of intelligent vehicles, software is vital.

With intelligent cockpit, intelligent driving and digital systems as the core, the park should make greater efforts in development and construction, investment attraction and environment creation, and make greater contributions to the high-quality development of Jiading's economy.

At the site of the Intelligent Computing Center, Lu was briefed on the progress of the hardware and software integration, and inquired about the technical support of the development of application scenarios in detail.

At the intersection of Changji Road E. and Yutang Road S., Lu observed the application scenario of holographic intersection to learn more about the demonstration application of automated driving.

At Baidu Apollo Park, Lu learned about a project on intelligent transportation, connected public transport and urban governance.

At the subsequent symposium, Lu pointed out that it is necessary to accelerate the pilot project of coordinated development of smart city infrastructure and intelligent connected vehicles, lead the development in both smart cities and intelligent driving, and achieve breakthroughs in some fields.

At Shanghai Automotive Chip Valley, Lu exchanged views with experts and technicians on further building industrial clusters and improving the economic density of the park.

He pointed out that, in the chip and auto fields, Jiading should take the initiative to carry out a good job of service, work hard on the professional direction and industrial development laws, and promote the high-quality development of the regional economy.

"We should speed up layout in the fields of vehicle software, car chips and other fields, and make positive contributions to high-quality development," Lu said.

Cars changing gears with future designs



Some of the design works on display at the recent China Car Design International Summit. — Li Huacheng

Hu Min

INNOVATION in car design will bring new inspiration and methods in tackling social challenges, attendees enthusiastic about the future of automobiles said at the recent China Car Design International Summit.

With the theme "Design in the New Eco," the summit held earlier this month gathered designers from universities, design plants and companies, as well as experts and scholars.

They shared the development trends of car design under the

theme of new ecology and explored the integration and innovation of art and technology. The summit was part of the 2022 Shanghai Auto Culture Festival.

Hosted by Anting Shanghai International Auto City and Tongji University, it is the only international exchange forum for automobile design directors in the world, with topics around the transformation of vehicle design and metaverse.

As part of the summit, a workshop was hosted with 16 young designers and university students presenting their design works.

The job of designers is not only working with colors, but also involves a lot of other aspects such as market research, overall layout, trend investigation and design verification, an attendee surnamed Xu said.

As part of the summit, the Cross University Mobility Design Exhibition featuring more than 80 design works from the students of 14 universities was held at Life Hub@Anting, a shopping mall in Jiading. A student from Jingdezhen Ceramic University won the design competition of this year.

Enterprises provide boost for spacecraft

Yang Yujie, Ceng Fei and Cyril Li

THE manned spaceship Shenzhou-15, atop the Long March-2F Y15 carrier rocket, blasted off from the Jiuquan Satellite Launch Center in northwest China on November 29.

Behind the successful launch, there was support from scientific research institutions and enterprises in Jiading.

The frequency synthesizer developed by the team of Shanghai Aerospace Electronics Co Ltd is an important part of the Shenzhou-15 manned spacecraft.

"It mainly provides the electronic equipment on the spacecraft with a variety of frequencies, waveforms and high stability frequency reference signals to ensure that each single machine can work effectively, which is equivalent to the heart of the spacecraft," said chief designer Bao Yujie.

Also playing an important role in the Shenzhou-15 spaceship is the propulsion manager. It undertakes the task of collecting, converting

and encoding all the temperature, pressure and related telemetry information of the propulsion module subsystem of the spacecraft propulsion subsystem, to ensure that astronauts can successfully "check into" the space station.

Ma Qiujun, the designer in charge of propulsion products, said the propulsion manager uses the collected temperature data to complete the temperature control of the propulsion cabin subsystem according to the set temperature control rules.

"This is equivalent to turning on the air conditioner for all pipelines of the propulsion cabin, heating it when it is cold, and cooling it when it is hot," Ma said.

The achievements of scientific research institutes such as Shanghai Institute of Technical Physics, Chinese Academy of Sciences in Jiading have also been applied to the Shenzhou-15 spaceship.

The spacecraft is equipped with rendezvous and docking lights, orbital and return module lights, plant

experiment bags and nematode chip experiment boxes developed by Shanghai Institute of Technical Physics.

As the spacecraft will periodically pass through the shadow area of the Earth when in orbit, and experience a long time of darkness, lighting is very important when connecting with the space station.

While the rendezvous and docking lamp provides lighting for cameras, the orbital and return module lights provide illumination for astronauts to work and live in the module.

There are two sealed bags for plant experiment sampling, which help scientists to study the physiological mechanism of plants in microgravity environment.

The nematode chip experimental box is used to carry nematode samples, and can realize the automatic cultivation, capture and release of nematodes, supporting the research and experiment of space radiation measurement and biological damage assessment.