

Stunning innovations & surprises as CIIF opens in Shanghai

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Cutting-edge products and innovations, from robots, 5G, low carbon to automation, are the stars at the China International Industrial Fair 2023, which opened in Shanghai on Monday, featuring global and national debuts and first-time exhibitors.

The CIIF, which returned to offline mode for the first time after three years, is turning into a global stage for companies and colleges to showcase innovation and latest results and points to rebounding demand in China's market.

Robots undoubtedly are a top highlight, with the world's top four robot makers — FANUC, ABB, KUKA and Yaskawa — present at the CIIF. In fact, several dozen robot firms have taken up two whole halls, 7.1 and 8.1, at the venue.

Switzerland-based ABB launched a modular software platform and the IRB 1090 educational robot at CIIF 2023, giving them global debuts.

"Robotics is experiencing

significant growth due to global megatrends, including a shrinking workforce, supply chain disruptions and a fundamental need to operate more sustainably and efficiently," said Marc Segura, president of ABB Robotics Division.

The new IRB 1090 robot is ABB's latest educational offering, featuring a fully-customizable education system and free licenses to help bridge the skills gap in robotics education by preparing students for the future of work. Due to security and regulatory requirements, its data and servers are set up locally, Shanghai Daily learned.

In 2022, ABB opened a Robotics Mega Factory in Shanghai to show its commitment and confidence in the Chinese market, one of the world's largest robotics markets.

France-based Schneider Electric is showcasing a new collaborative robot at the fair, representing its first step in creating the next-generation robotic systems. In the future, the company will help device manufacturers and even end-

users build automated devices and products that are more agile, efficient and flexible.

As "an expert and advocate for industrial automation" as well as for transformation towards green and smart manufacturing, Schneider Electric is building a "Future Industrial" blueprint, where advanced robots and technologies will be among the pieces of the puzzle, the company said.

Rockwell Automation, a first-time exhibitor at the CIIF, is showcasing smart city, digital industrial applications and carbon neutrality applications and its cooperation with Chinese partners.

The American company has joined hands with China Mobile to help clients build 5G automated factories with 5G, AI and IoT functions. Its Independent Cart Technology, or ICT, applications have been used by top Chinese battery firms, improving battery production efficiency with "Zero Carbon" target for carbon neutrality.

Shanghai firms are also flexing their tech muscles at the fair.

A helicopter-like aircraft model is displayed at the Jinshan smart manufacturing booth, the first "air taxi" model appearing at the CIIF.

The eVTOL, referring to electric vertical takeoff and landing aircraft, is often called an "air taxi," representing a future transportation method in the face of challenges like traffic jams and carbon emissions, according to its manufacturer Vertaxi, a Shanghai-based startup.

The driver-less Vertaxi eVTOL vehicle M1, featuring full electric energy, five seats and a 250-kilometer flight range, is expected to be used in urban transportation, disaster relief, as well as the energy



Exhibits at the China International Industrial Fair 2023 in Shanghai. — Dong Jun and Jiang Xiaowei



and logistics industries. Currently, it's undergoing trial flying tests, which will be followed by cargo transportation and eventually an autonomous "air taxi" service.

Shanghai-based industrial robot maker JAKA released a new 2.5D vision display platform to make robots smarter and improve control accuracy. At its booth, several dozen JAKA robots dance while other robots make coffee for visitors and play with Rubik's cube automatically, drawing hordes of visitors.

Eighty-seven universities from China and abroad are showcasing 815 latest innovative programs at the fair, including 20 from Shanghai, and six from Kazakhstan, Azerbaijan, Cuba, Australia and Thailand.

Among them, Shanghai's Fudan University is displaying its XINSORB biodegradable stent, developed by a team led by Dr Ge Junbo of Zhongshan

Hospital Affiliated to Fudan University over 15 years.

According to the team, the heart stent made with polylactic acid, the first of its kind in China, degrades into water and carbon dioxide one year after implantation and can be absorbed by human bodies in two to four years.

"Diseased blood vessels can restore their structure and don't need the stents' braced force in three to four months after implant. Patients who have received implants of traditional metal stent may face risks of inflammation or need to undergo another surgery to take the stents out," Chen Han, a member of the team, explained. "The degradable stent can solve the problems and benefit patients."

The CIIF is being held at the National Exhibition and Convention Center (Shanghai) in Qingpu District and will run through Saturday.