Parallel Session on Cooperation of Humanoid Robotics Innovation and Development

【Basic Information】

Moderator:

LIANG Liang	Executive Deputy Secretary-General, China Humanoid Robotics Committee of 100; Deputy Secretary-General, Chinese Institute of Electronics; Deputy Director (on secondment), Administrative Committee of Beijing Economic-Technological Development Area

Leader's Speech:

ZHANG Feng	President, China Humanoid Robotics Committee of 100; Secretary of the Party Committee, Board of Directors of the Chinese Institute of Electronics
LI Zelong	Deputy Secretary-General, Shanghai Municipal People's Government
YAO Jia	Deputy Director-general, Department of Science and Technology, Ministry of Industry and Information Technology of the People's Republic of China

Keynote Speeches:

WANG Xingxing	Founder and Chairman, Unitree Robotics Co., Ltd
Dennis Hong	Founding Director, Robotics & Mechanisms Laboratory (RoMeLa) , University of California, Los Angeles

Panel Discussion:

Moderator:

XI Ning	Chair, Robotics Society of the Chinese Institute of Electronics; Director, Advanced Technologies Institute, The University of Hong Kong
JIANG Lei	Vice Chair, Robotics Society of the Chinese Institute of Electronics; Chief Scientist, National and Local Joint Innovation Center for Humanoid Robots

Panelists:

JIANG Lei	Vice Chair, Robotics Society of the Chinese Institute of Electronics; Chief Scientist, National and Local Joint Innovation Center for Humanoid Robots
TANG Jian	Chief Technology Officer, National and Local Joint Innovation Center for Embodied Intelligent Robots
XIONG Rong	Vice Chair, Robotics Society of the Chinese Institute of Electronics; Chief Scientist, Zhejiang Humanoid Robotics Innovation
DING Ning	Director, Innovation Center for Embodied Intelligent Robotics of Guangdong Province
WANG Xiaogang	Co-founder and Chief Technology Officer , SenseTime
LENG Xiaokun	Vice Chair, Robotics Society of the Chinese Institute of Electronics; Chairman, Leju (Shenzhen) Robotics Technology Co., Ltd
Michael Xu	Founder and CEO of PaXini Tech
John Jiao	Vice President and Research Head, UBTECH

【Brief Introduction】

As one of the parallel sessions of the 8th Hongqiao International Economic Forum, the Cooperation of Humanoid Robotics Innovation and Development was held on the afternoon of November 5, 2025, in Conference Room B002, 3rd Floor, Office Building B, at the National Exhibition and Convention Center (Shanghai). The event was hosted by the Ministry of Industry and Information Technology of the People's Republic of China and the Ministry of Commerce of the People's Republic of China, organized by the Chinese Institute of Electronics, and co-organized by the China Humanoid Robotics Committee of 100 and the Robotics Society of the Chinese Institute of Electronics. The forum featured four segments: leader's speech, achievements release, keynote speeches, and panel discussion.

At present, new technologies, products, and business models represented by humanoid robotics are developing rapidly, emerging as a focus area of global technological innovation and a new engine for economic growth. This parallel session will focus on hot topics and trends in humanoid robotics, exploring cutting-edge technologies, application scenarios, and industrial ecosystems. It will bring together distinguished academic experts and leading enterprise representatives from China and abroad to deliver keynote speeches and engage in dialogues. The parallel session seeks to advance technological R&D and high-quality industrial development in humanoid robotics, and foster a new landscape for global cooperation and shared development.

【Leader's Speech】

During the leader's speech session, invited guests included: ZHANG Feng, President of the China Humanoid Robotics Committee of 100 and Secretary of the Party Committee of the Board of Directors of the Chinese Institute of Electronics; LI Zelong, Deputy Secretary-General of the Shanghai Municipal People's Government; and YAO Jia, Deputy Director-general of the Department of Science and Technology of the Ministry of Industry and Information Technology. The guests exchanged views on the positioning, current development status, and future direction of the humanoid robotics industry. They pointed out that humanoid robotics is a representative future industry, integrating multiple cutting-edge technologies, and serves as a new highland for technological competition, a new track for future industries, and a new engine for economic growth. Currently, humanoid robots are moving from the laboratory towards industrialization, achieving breakthroughs in hardware performance, AI integration, and support systems, and are accelerating their integration into industrial manufacturing and public service scenarios. Meanwhile, Shanghai, as a hub for industrial innovation, has achieved significant results in technological research, industry application, and ecosystem cultivation, and will focus on the technology chain, industrial chain, and application chain to create a "Shanghai paradigm" for the humanoid robotics industry. China can promote the high-quality development of the humanoid robotics industry from four aspects: innovation leadership, application traction, open innovation, and international cooperation.

ZHANG Feng, President, China Humanoid Robotics Committee of 100; Secretary of the Party Committee, Board of Directors of the Chinese Institute of Electronics, attended the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development and delivered a speech

LI Zelong, Deputy Secretary-General, Shanghai Municipal People's Government,
attended the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development and delivered a speech

YAO Jia, Deputy Director-general, Department of Science and Technology,
Ministry of Industry and Information Technology of the People's Republic of China,
attended the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development and delivered a speech

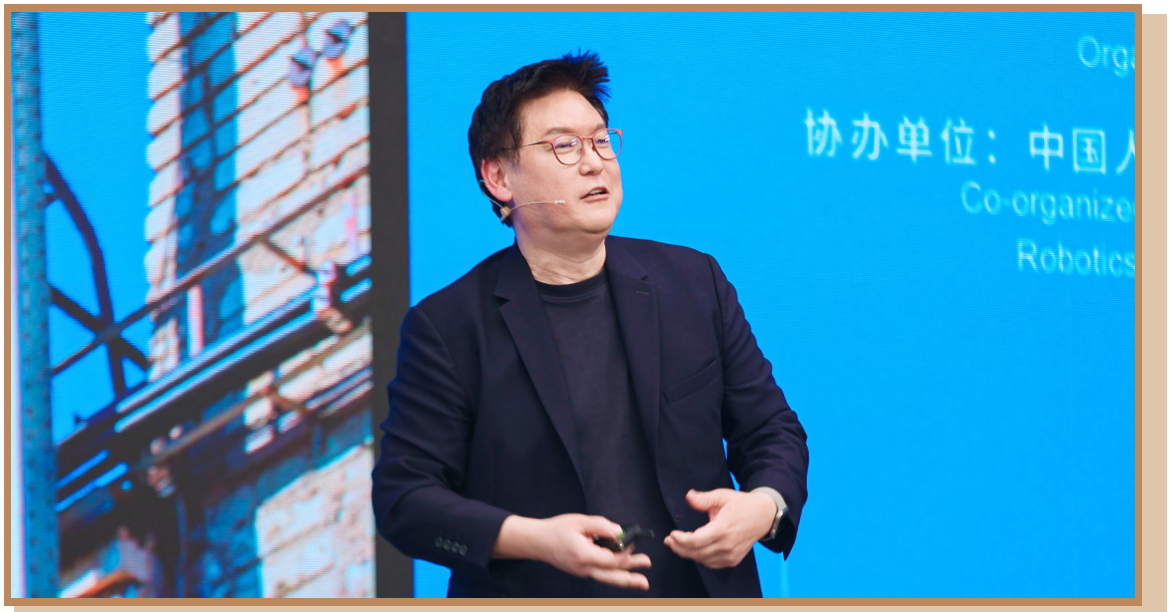
【Achievements Release】

Currently, humanoid robots are ushering in the "first year of mass production," accelerating the leapfrog development from technical prototype verification to engineering implementation and large-scale application. Guided by the Ministry of Industry and Information Technology, the "Landscape of the Humanoid Robot Industrial Chain (2025)" (hereinafter referred to as the "Landscape") compiled by the Chinese Institute of Electronics was officially released at this forum. This Landscape systematically outlines the technical indicators and development trends of core segments in the humanoid robotics industry chain, clarifies the industry's development context and innovation directions, provides clear guidance for collaborative efforts among industry, academia, research, and application, and facilitates industrial innovation and development.

【Keynote Speeches】

During the keynote speech session, invited guests included: WANG Xingxing, Founder and Chairman of Unitree Robotics Co., Ltd., and Dennis Hong, Founding Director of the Robotics & Mechanisms Laboratory (RoMeLa) at the University of California, Los Angeles. The guests shared insights on humanoid robot product development, technological progress, and future visions. They introduced multiple types of humanoid robot products, including models of different sizes and weights, with some products demonstrating outstanding motion performance, such as winning championships in robot competitions, possessing capabilities like fast running, stable recovery to standing, and learning various movements. Companies both domestically and internationally place high importance on developments in areas like software algorithm upgrades and dexterous hand research, as well as the current growth trend of the humanoid robotics industry. The progress of robot large models is currently slightly slower than expected; mainstream models have both advantages and challenges, and there is room for improvement in models and data. The "ChatGPT moment" for embodied intelligence – where robots can complete tasks in unfamiliar daily life scenarios with high success rates – is anticipated in the future. Unique principles of robot creation were also shared. Using various robot cases from the laboratory, the design concepts and application scenarios of humanoid robots were explained, analyzing their advantages and shortcomings. Achievements of different robots in terms of motion performance, stability, and adaptation to special environments were demonstrated, along with the integration of robotics and art, noting that engineering solves problems while art can evoke emotional resonance.

WANG Xingxing, Founder and Chairman, Unitree Robotics Co., Ltd.,
attended the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development
and delivered a keynote speech



Dennis Hong, Founding Director, Robotics & Mechanisms Laboratory (RoMeLa), University of California, Los Angeles,
attended the Parallel Session on Cooperation of Humanoid Robotics Innovation
and Development and delivered a keynote speech

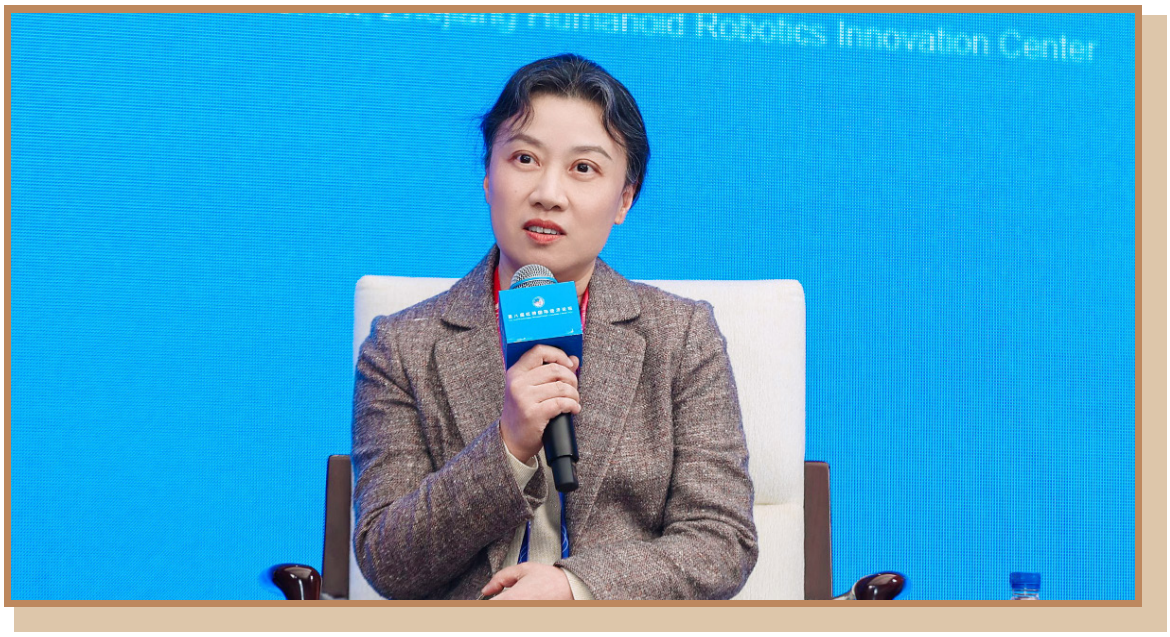
【Panel Discussion】

During the panel discussion, invited guests included: XI Ning, Chair of the Robotics Society of the Chinese Institute of Electronics and Director of the Advanced Technologies Institute, The University of Hong Kong (Moderator); JIANG Lei, Vice Chair of the Robotics Society of the Chinese Institute of Electronics and Chief Scientist, National and Local Joint Innovation Center for Humanoid Robots; TANG Jian, Chief Technology Officer, National and Local Joint Innovation Center for Embodied Intelligent Robots; XIONG Rong, Vice Chair, Robotics Society of the Chinese Institute of Electronics and Chief Scientist, Zhejiang Humanoid Robotics Innovation Center; DING Ning, Director, Innovation Center for Embodied Intelligent Robotics of Guangdong Province; WANG Xiaogang, Co-founder and Chief Technology Officer, SenseTime; LENG Xiaokun, Vice Chair, Robotics Society of the Chinese Institute of Electronics and Chairman, Leju (Shenzhen) Robotics Technology Co., Ltd.; Michael Xu, Founder and CEO of PaXini Tech; and John Jiao, Vice President and Research Head, UBTECH. The guests discussed the role of data in the control and planning of humanoid robots, and how industry standards can guide humanoid robots from "showing off skills" to practical application and implementation. Model-driven and data-driven methods each have their own advantages; they are not replacements for each other but are complementary. Currently, data-driven approaches face bottlenecks such as insufficient data volume, data quality needing improvement, and lack of diversity. It was suggested to promote the construction of high-quality data from aspects such as government policy, industry consensus, and commercial operation. Regarding the construction of industry standards, standards should accelerate industry development rather than constrain innovation. Currently, priority should be given to formulating data standards and safety standards, with technical pathway-related standards being gradually improved as the industry matures. Standards should originate from scenario requirements, build industry consensus, promote the scaled development of the industrial chain, avoid early-stage internal competition, and foster healthy industry development.

XI Ning, Chair, Robotics Society of the Chinese Institute of Electronics; Director, Advanced Technologies Institute, The University of Hong Kong, moderated the Panel Discussion of the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development

JIANG Lei, Vice Chair, Robotics Society of the Chinese Institute of Electronics; Chief Scientist, National and Local Joint Innovation Center for Humanoid Robots, attended the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development and participated in the discussion

TANG Jian, Chief Technology Officer, National and Local Joint Innovation Center for Embodied Intelligent Robots, attended the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development and participated in the discussion



XIONG Rong, Vice Chair, Robotics Society of the Chinese Institute of Electronics; Chief Scientist, Zhejiang Humanoid Robotics Innovation Center, attended the Parallel Session on Cooperation of Humanoid Robotics Innovation and Development and participated in the discussion

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