

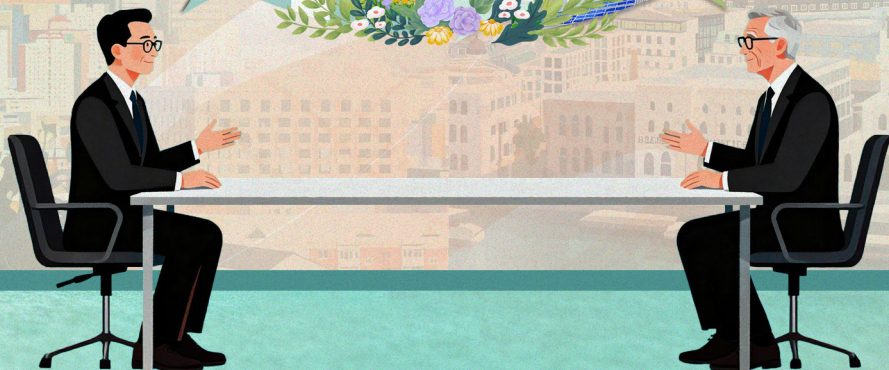


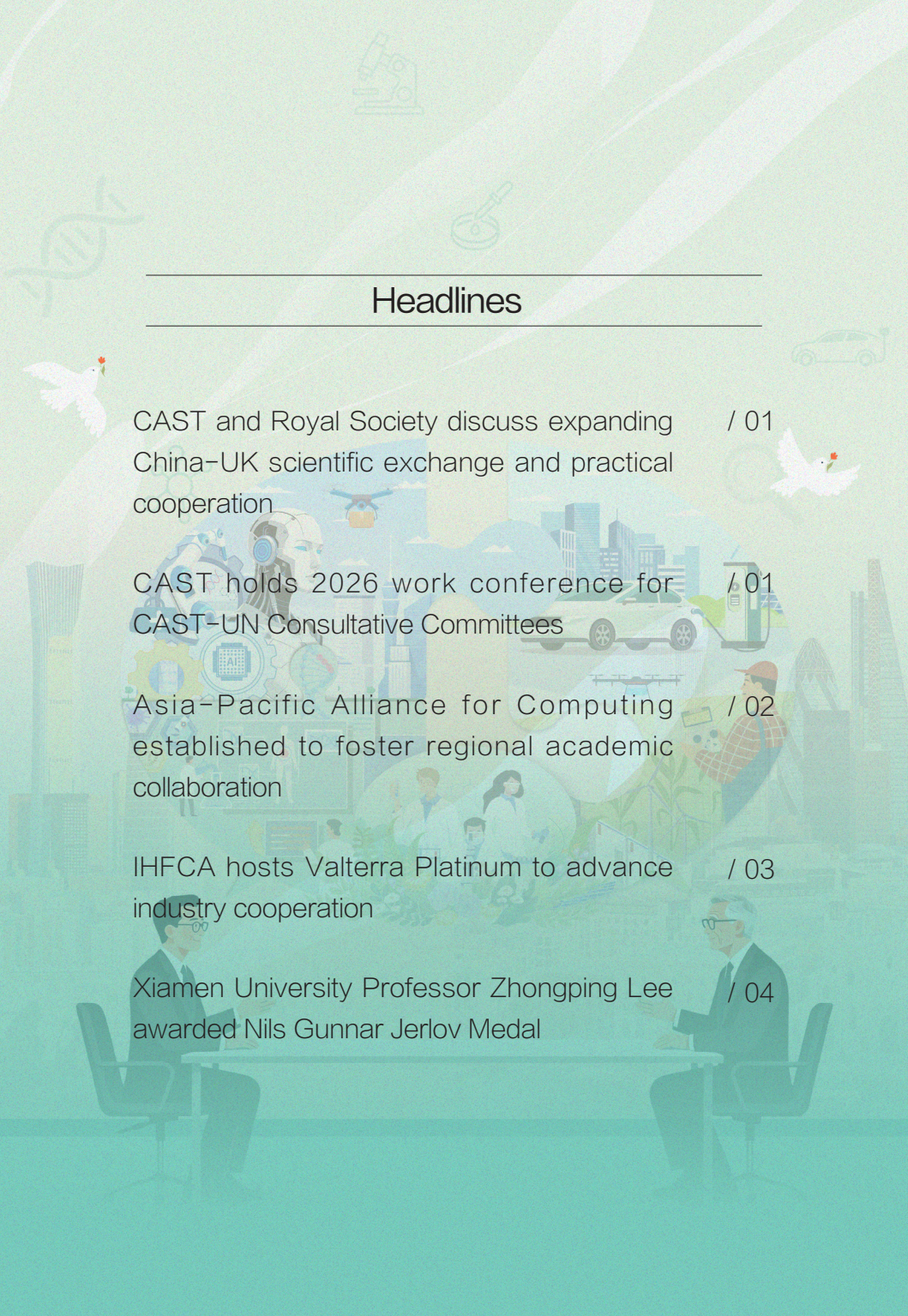
中国科学技术协会
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CAST Newsletter

CAST and Royal Society discuss
expanding China-UK scientific exchange
and practical cooperation





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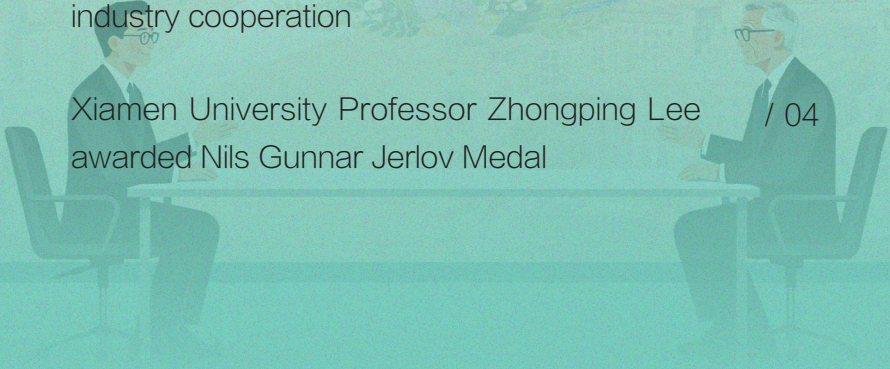
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Headlines

CAST and Royal Society discuss expanding China-UK scientific exchange and practical cooperation

On January 14, 2026, CAST President Wan Gang met in Beijing with Sir Paul Nurse, President of the Royal Society of the UK and Nobel Laureate in Physiology or Medicine, along with his delegation. The two sides exchanged views on strengthening ties between the Chinese and UK scientific communities and deepening institutional cooperation.

Wan briefed the delegation on China's recent advances in areas such as artificial intelligence, life sciences, and new energy vehicles. He expressed hope that both sides would enhance collaboration in these fields and jointly explore ways to ensure that science and technology

serve the public good and benefit humanity. He noted that, as leading representatives of their respective national scientific communities, CAST and the Royal Society could work together to advance scientific publishing, promote public understanding of and engagement with science, facilitate exchange among scientists, particularly early-career researchers, and strengthen collaboration within international frameworks.

Nurse said he would work to advance more substantive cooperation under the framework of the memorandum of understanding between the two organizations. He added that closer interaction between the Chinese and UK scientific communities would send a positive signal globally and help sustain openness, trust, and cooperation across the international scientific community.

(Source: Official website of CAST)

CAST holds 2026 work conference for CAST-UN Consultative Committees



2026 work conference for CAST-UN Consultative Committees

On January 19, 2026, CAST convened the 2026 work conference for CAST-UN Consultative Committees in Beijing. The meeting reviewed the annual report on consultative activities, and each committee shared its experiences and outlined priorities for the year ahead.

Aligned with the UN 2030 Agenda for Sustainable Development, the committees organized 14 side events in 2025 alongside major UN mechanisms and conferences. These included the 10th Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum), the UN High-Level Political Forum on Sustainable Development (HLPF), the UN Ocean Conference, the 69th session of the UN Commission on the Status of Women, and the 81st session of the Economic and Social Commission for Asia and the Pacific (ESCAP). The committees also

put forward a series of professional policy recommendations in areas such as artificial intelligence and sustainable marine ecosystems.

The conference emphasized that consultative work should be guided by the vision of building a community with a shared future for humanity and by advancing China's four global initiatives. Efforts should remain closely aligned with the UN 2030 Agenda, track major global issues and events, and actively participate in international rulemaking and agenda-setting processes. By leveraging the strengths of national scientific societies and multidisciplinary experts, CAST will enhance strategic coordination and results-oriented implementation, deepen practical cooperation in fields such as artificial intelligence, climate change, and sustainable urban development, and contribute Chinese expertise to

global governance. Participants also called for stronger cultivation and capacity-building of young scientific talent to support high-quality development of consultative work, provide more dynamic intellectual input to UN decision-making, and inject fresh momentum into global science and technology governance.

(Source: Official website of CAST)

Academic Exchange

Asia-Pacific Alliance for Computing established to foster regional academic collaboration

On January 10, 2026, the Asia-Pacific Alliance for Computing (APAC) was officially established in Beijing. The alliance was jointly initiated by five leading societies: the China Computer Federation

(CCF), the Hong Kong Computer Society (HKCS), the Information Processing Society of Japan (IPSJ), the Korean Institute of Information Scientists and Engineers (KIISE), and the Singapore Computer Society (SCS).



Inaugural ceremony of APAC

At the inaugural ceremony, Hu Shimin, head of the APAC Preparatory Committee and Vice President of CCF, said the alliance aims to build a regional academic platform for computing societies across the Asia-Pacific. It will promote knowledge sharing and cross-regional collaboration, launch flagship conferences, organize bilateral and multilateral academic events, and enhance the visibility of both APAC and its member societies. He noted that the five founding organizations each have long histories, distinctive strengths, and strong influence in their respective countries or regions. The establishment of APAC, he added, will help strengthen cooperation among computing societies, advance academic and technological development across the region, and foster a robust academic ecosystem.

The meeting also included in-depth discussions on APAC's future development. Participants agreed that the alliance should cultivate internationally recog-

nized conferences and workshops, promote and support activities organized by member societies, and establish dedicated awards to recognize outstanding professionals in computing across the Asia-Pacific. Founded by the five initiating organizations, APAC plans to expand its membership to include additional computing-related associations in the region and may also invite organizations from outside the region to participate as observers.

(Source: Official WeChat account of the China Center for International Science and Technology Exchange)

IHFCA hosts Valterra Platinum to advance industry cooperation

Recently, the International Hydrogen Fuel Cell Association (IHFCFA) welcomed a senior delegation from Valterra Platinum, one of its vice chairman organizations, to its Beijing headquarters.

The two sides held in-depth discussions on the development prospects of the hydrogen energy and fuel cell vehicle sectors. The visit aimed to strengthen collaboration between IHFCA and its members and to explore issues such as supply-chain coordination, policy interpretation, technological innovation, and market expansion, with a view to building consensus on promoting high-quality growth of the hydrogen fuel cell industry in China and globally.



Headquartered in South Africa, Valterra Platinum is one of the world's leading producers of platinum group metals, which are critical materials for proton exchange membrane electrolyzers and fuel cells and play an enabling role in the hydrogen energy sector.

Participants also engaged in substantive exchange on current challenges facing fuel cell vehicle development, potential solutions, and future deployment pathways.

IHFCA representatives noted that the association will continue leveraging its platform to support member organizations in playing a greater role in technological R&D, standards development, and international

cooperation, thereby helping advance the commercialization of hydrogen energy. The Valterra Platinum delegation expressed appreciation for the association's support and voiced expectations for deeper collaboration in areas such as technical exchange and resource sharing.

(Source: Official website of IHFCA)

International Awards

Xiamen University Professor Zhong-ping Lee awarded Nils Gunnar Jerlov Medal

On January 13, 2026 (U.S. local time), The Oceanography Society (TOS) officially announced its 2026 award recipients. Dr. Zhong-ping Lee, Tang Shifeng Chair Professor of Marine Sciences at Xiamen University, was named the recipient of the Nils Gunnar Jerlov Medal.

2026 Nils Gunnar Jerlov Medal



Dr. Zhongping Lee

For his breakthrough in water transparency theory and outstanding contributions to the advancement of ocean color remote sensing

The Oceanography Society has selected Dr. Zhongping Lee of Xiamen University as the recipient of the 2026 Nils Gunnar Jerlov Medal, recognizing his transformative contributions to understanding how light interacts with the ocean, as well as his sustained leadership in education, interdisciplinary research, and collaborative work with meaningful societal impact. Dr. Lee will be recognized at The Oceanography Society Honors Breakfast, February 24, 2026, during the Ocean Sciences Meeting in Glasgow, Scotland, as well as during the Ocean Optics XXVII Conference in Ghent, Belgium, in September 2026.

Awarded biennially, the Jerlov Medal honors individuals whose work has fundamentally advanced ocean optics and its applications. Over more than three decades, Lee's research has reshaped the theoretical foundations and practical implementation of ocean color science, enabling robust global observations of ocean transparency, productivity, and optical properties from satellites.

TOS webpage naming Zhongping Lee as the recipient of the Nils Gunnar Jerlov Medal

TOS is an academic organization dedicated to serving the global ocean science community and presents four major medals recognizing achievements across different branches of oceanography. The Nils Gunnar Jerlov Medal is one of these honors and is awarded to individuals who have made outstanding contributions to theoretical research in ocean optics and ocean color remote sensing. Conferred biennially to a single recipient, it is widely regarded as one of the highest international distinctions in these fields. The medal is named after Swedish scientist Nils Gunnar Jerlov, a pioneer of ocean optics research.

Dr. Lee received the award in recognition of his breakthrough in water transparency

theory and outstanding contributions to the advancement of ocean color remote sensing, and his sustained leadership in interdisciplinary research, education, and socially impactful collaborative projects.

(Source: Official website of the College of Ocean and Earth Sciences, Xiamen University)

Tongji University Professor Wu Jiang assumes presidency of Architects Regional Council Asia

On January 17, 2026, at the Architecture in Asia: Challenges and Oppor-



Wu Jiang at the ARCASIA Handover Ceremony

tunities Symposium and the Architects Regional Council Asia (ARCASIA) Handover Ceremony, Wu Jiang, Executive Council member of the Architectural Society of China and professor at Tongji University, formally assumed office as the 23rd President of ARCASIA (2026–2027). He received the presidential chain from the outgoing president (2024–2025), Saifuddin Ahmad.

Wu stated, “The future of architecture lies ahead. As an architectural educator, I feel a strong responsibility during my term to further promote extensive exchange among architectural education communities across Asia and to enhance the quality of education.”

Experts attending the event noted that Wu’s appointment reflects ARCASIA’s high recognition of his academic contributions as well as of China’s achievements

in architectural development. At a time when the global architecture and planning sector is undergoing profound transformation, they expressed hope that Wu will unite architects across Asia and lead efforts to advance architectural culture and technological progress both regionally and worldwide.

(Source: *Science and Technology Daily*)

Chinese Society for Corrosion and Protection President Li Xiaogang receives Corrosion Awareness Honour



The screenshot shows the WCO website with a navigation bar including 'About', 'Sustainability Platform', 'Members', 'Events', 'Corrosion Resources', 'Awards', and 'SIGN IN'. The main content area features a large image of rusted metal with the text 'Contribution of Corrosion to Sustainability: The WCO Sustainability Platform' and buttons for 'MORE INFORMATION' and 'ABSTRACT SUBMISSION'. Below this is an announcement for the 'Winner of the Corrosion Awareness Honour 2025', featuring a photo of Professor Li Xiaogang and a text box stating: 'The World Corrosion Organization (WCO) is pleased to announce that Professor Xiaogang Li has been selected as the recipient of the Corrosion Awareness Honour 2025. Professor Xiaogang Li, a leading international expert in corrosion science, serves as Professor at the University of Science and Technology Beijing (USTB) and is the President of the Chinese Society for Corrosion and Protection. He also directs the Chinese National Materials Corrosion and Protection Data Center, the largest corrosion research and data platform in China. The WCO congratulates Professor Li on this well-deserved recognition. His achievements exemplify excellence in corrosion research and significantly advance the global mission of promoting corrosion awareness and prevention.' To the right, there is a section for 'Upcoming events' listing 'EUROCORR 2025' (07.09.2025 - 11.09.2025 / Stavanger, Norway) and 'PractCORR 2025' (25.11.2025 - 27.11.2025 /).

WCO webpage naming Li Xiaogang as the recipient of the Corrosion Awareness Honour

Recently, the World Corrosion Organization (WCO), a non-governmental organization of the United Nations, presented the Corrosion Awareness Honour 2025 to Li Xiaogang, President of the Chinese Society for Corrosion and Protection (CSCP) and professor at the University of Science and Technology Beijing (USTB). The award recognizes his outstanding contributions to corrosion research and practice, which have significantly advanced the global mission of corrosion prevention.

Established in 2021, the Corrosion Awareness Honour

was jointly initiated by the World Corrosion Organization, the European Federation of Corrosion, and the Chinese Society for

Corrosion and Protection. It is awarded to scientists whose work has had significant impact, raised public awareness of corrosion and its preven-

tion, and made exceptional contributions to corrosion control.

(Source: Official website of CSCP)

Scientist Profile

Chinese scientist Li Chuanyou develops tomato varieties with authentic flavor



Li Chuanyou is Dean of the College of Life Sciences at Shandong Agricultural University, a professor and doctoral supervisor, and a research fellow at the Institute of Genetics and Developmental Biology, Chinese Academy of Sciences. His research centers on the mechanisms underlying plant systemic defense and plastic development. He pioneered a conceptual framework defining plant wound responses as two inseparable physiological processes—defense and regeneration. His team identified plant regeneration factors and elucidated how plants regulate immune homeostasis, providing technological pathways to address two major bottlenecks in modern crop breeding: genotype dependence in genetic transformation efficiency and the negative correlation between high yield and strong resistance traits. He has also conducted high-resolution genomic analyses of tomatoes and, benchmarking against leading international varieties, developed the Taifan premium cultivars capable of replacing imports. Li has published more than 130 papers in leading international journals, including *Cell*, *Nature*, *Nature Plants*, *Developmental Cell*, *PNAS*, *Molecular Plant*, and *The Plant Cell*, and has authored one English-language monograph. He was named a Clarivate Highly Cited Researcher (top 1% globally) in both 2020 and 2021.

Li Chuanyou in his lab

How does a seed of curiosity planted in the field grow into a discovery that rewrites textbooks? How can the tomatoes on our tables regain their long-lost “true flavor”? The answers lie in Li Chuanyou’s decades-long scientific journey, during which he has overcome one plant science challenge after another.

Recently, Li received the Humboldt Research Award in recognition of his groundbreaking contributions to the study of plant systemic defense and plastic development. The prize is one of Germany’s highest honors for international scholars and is awarded to researchers who have demonstrated outstanding achievements in fundamental research, theoretical innovation, and academic leadership.

From a sweet potato vine to a lifelong scientific journey

Animals can flee or fight

when threatened, but plants, rooted in place, survive damage through remarkable capacities for tissue repair and organ regeneration. This phenomenon has long puzzled scientists worldwide and became the original inspiration for Li Chuanyou’s research career.

As a child, Li once accidentally snapped a sweet potato vine while helping his father in the fields, only to learn that breaking the vine was in fact a traditional farming technique used to boost yields. That moment planted a seed of scientific curiosity. Years later, while studying crop science in the Department of Agronomy at Shandong Agricultural University, he encountered a yield-enhancing method proposed by Professor Yu Songlie, a member of the Chinese Academy of Engineering. The technique involved cutting shallow wheat roots in late autumn and again

when growth resumed in spring, encouraging the roots to grow deeper. This scientific principle echoed Li’s childhood experience and further strengthened his determination to uncover the mechanisms behind it.

Plants’ extraordinary regenerative capacity has long attracted scientific attention. In the 1970s, Professor Clarence Ryan of Washington State University discovered systemic defense responses in plants, demonstrating that the peptide signal systemin and the plant hormone jasmonic acid jointly regulate systemic defense through a shared signaling pathway. He proposed that systemin served as the long-distance mobile signal in plant systemic defense, a conclusion later incorporated into American textbooks. However, using tomato as a model system and conducting grafting experiments, Li demonstrated that the true long-distance

signaling molecule is jasmonic acid rather than systemin. His findings prompted Ryan to remark in *Proceedings of the National Academy of Sciences* (PNAS) that it was “a new discovery,” and the work was selected by *Science* as one of the “Breakthroughs of the Year” in 2002.

Decoding the tomato genome and transforming breeding paradigms

Li Chuanyou has devoted decades to tomato genetics and breeding. In 2003, he joined scientists around the world in launching the International Solanaceae Genome Project, serving as a member of its Executive Committee and China’s liaison while leading the sequencing and functional genomics research of chromosome 3. The project ultimately deciphered the tomato’s “genetic dictionary,” and in 2012 the team’s findings were published as a cover article in *Nature*,

laying a critical foundation for subsequent research.

With this genomic “dictionary” in hand, Li’s team began identifying target genes aligned with specific breeding objectives. Their goal was to develop tomato varieties with improved texture, richer flavor, enhanced resistance to decay, and greater tolerance to mechanical pressure and disease. Li notes that many tomatoes on the market today lack authentic “flavor,” a consequence of breeding strategies that prioritized firmness and early harvestability over taste.

The team has since achieved a series of major breakthroughs. In 2023, Li’s group successfully cloned the tomato FS8.1 gene and elucidated the cellular mechanisms and transcriptional regulatory network through which it controls fruit shape. This discovery explained the compression resis-

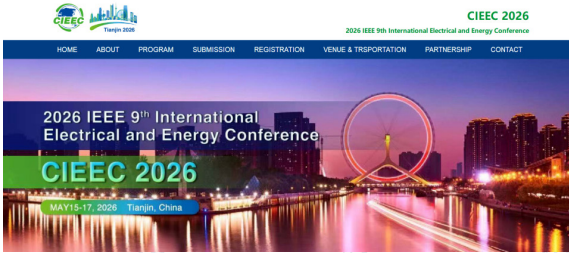
tance of processing tomatoes and enabled the development of fresh-market varieties that are both flavorful and suitable for mechanized production. In 2024, the team addressed another long-standing challenge—postharvest spoilage—by enhancing disease resistance and storage life through relieving ethylene’s suppression of jasmonic acid signaling.

As Li explains, “Our tomato breeding has transitioned from traditional experience-based methods to modern, precision-guided approaches, and we have already developed tomatoes with a rich, authentic flavor.” Receiving the Humboldt Research Award has further strengthened his commitment to advancing scientific research and promoting industrial upgrading.

(Source: *Science and Technology Daily*)

Upcoming Conferences

2026 IEEE 9th International Electrical and Energy Conference to convene in Tianjin



The IEEE 9th International Electrical and Energy Conference (CIEEC 2026) will take place in Tianjin from May 15 to 17, 2026. The event is jointly organized by the China Electrotechnical Society (CES), the IEEE Beijing Section, and Tianjin University. Renowned experts, scholars, and academy members from China and abroad in electrical engineering and energy applications will gather to exchange insights on technological and engineering developments.

This year's theme is "Electrical Engineering and Energy Equipment Technologies." Discussions will span a wide range of topics, including power systems, power electronics, electrical equipment, electrical materials, new and renewable energy, energy interconnection and storage, high voltage and plasma technologies, as well as interdisciplinary areas related to electrical engineering.

For more information, please visit: <https://www.cieec.com.cn/?sessionid=>

(Source: Official website of CES)

Technical nominations open for Global NEVs Innovative Technologies Selection 2026

The World New Energy Vehicle Congress (WNEVC) has played a pivotal role in shaping the global direction of the automotive industry, deepening industrial transformation, advancing technological innovation, promoting international exchange and cooperation, and strengthening global collaboration and cross-sector integration. One of its flagship parallel events, the Global NEVs Innovative Technologies Selection, has officially launched the technical nomination process for 2026.

The selection aims to capture the latest advances in innovative technologies applied to new energy vehicles worldwide, identify cutting-edge directions emerging from cross-industry integration, and



accelerate breakthroughs in core NEV technologies. The nomination period runs from February 12 to April 30. This year's selection focuses exclusively on innovative technologies within the new energy vehicle sector. All nominations must be submitted through the online platform. The results will be announced globally at the main forum of the 2026 World New Energy Vehicle Congress. For details, please visit: <http://cnselection.wnevc.com>.

Scope of selection

Onboard energy and energy supply

This category covers power batteries, fuel cells, charging and battery-swapping infrastructure, hydrogen/low-carbon/zero-carbon fuel infrastructure and key components, materials, integrated information-energy management and interaction technologies, as well as supporting technologies such as manufacturing and recycling processes and specialized software and hardware tools.

- Vehicle platforms and power systems

This category includes complete vehicle platforms, hybrid power systems, low- and zero-carbon internal combustion engines, electric drive systems, steer-by-wire and brake-by-wire chassis systems, thermal

management systems and key components, power electronic devices and materials, along with supporting technologies such as manufacturing processes and design and development software and hardware tools.

- Intelligent connectivity and artificial intelligence

This category encompasses electronic and electrical information architectures, autonomous driving, smart cockpit technologies, communication technologies, connected vehicle and cloud platforms, sensing technologies, chips, in-vehicle software, large-scale AI models, as well as specialized supporting software and hardware tools.

(Source: Official WeChat account of WNEVC)

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Editor: Ying Wenqi
Proofreader: Bai Ge
Designer: Zhang Shan

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newsletter@cast.org.cn