

IUSTC International Union for Science & Technology Communication

National Sci-tech Awards Nomination Regulations Updated

Policy

By ZHONG Jianli

The Ministry of Science and Technology of China recently issued the Regulations on Nomination for National Science and Technology Awards, in a bid to further standardize the nomination process for the awards and motivate scientists' enthusiasm for sci-tech innovation.

The newly released regulations state that the nomination for national science and technology awards should strengthen incentives for basic research in natural science and applied science. It encourages both cutting-edge technology research and research with social welfare implications.

Moreover, the regulations have emphasized the support for national major sci-tech missions, major sci-tech infrastructure, and vital engineering projects.

Of particular note is that the regulations stress importance of creative contributions of nominees, stating that nominees



Engineers debug equipment for the Comprehensive Research Facility for Fusion Technology (CRAFT) system, one of China's major scientific engineering projects. (PHOTO: XINHUA)

should be scientists and front-line technical personnel who have genuinely made creative contributions.

Eligible nominators include recipients of the highest national sci-tech awards, academicians of the Chinese

Academy of Sciences and the Chinese Academy of Engineering, as well as individuals who have been primary awardees for National Natural Science Awards of second class or higher, National Technology Invention Awards of first class or

higher, and National Science and Technology Progress Awards of first class or higher since the year 2000.

The nominators themselves should not be candidates for the national sci-tech awards in the same year, and should not participate in the evaluation of awards in which they have proposed nominees.

To improve the nomination process, the regulations call for increased academic oversight. Before nominations are made, the opinions of no fewer than five experts in the relevant professional fields need to be sought.

In terms of maintaining discipline and fostering a positive atmosphere, the regulations outline several measures, including establishing a clear supervisory mechanism, exerting stricter penalties for violations, and setting up a "black-list" credit management system.

That means the names of individuals and organizations engaging in dishonest behavior during the nomination process will be recorded in the database, and punitive measures will be implemented in accordance with relevant national regulations.

S&T Daily Joins Hands with South Africa's HSRC

By LI Linxu

As part of efforts to promote sci-tech exchanges between China and South Africa, *Science and Technology Daily* (S&T Daily) has established a cooperative relationship in news communication with the Human Sciences Research Council (HSRC).

Zhang Biyong, president of S&T Daily, and Palesa Sekhejane, director for the Strategic Partnerships of HSRC, signed an MOU on November 27.

Under the MOU, the two sides will strengthen information sharing and news communication, in a bid to disseminate Sino-South African cooperation stories in the field of science and technology.

Meanwhile, relevant events will be co-hosted to boost the sci-tech cooperation

between China and South Africa at various levels.

Zhang said that as the two countries' sci-tech exchanges and cooperation become more frequent, S&T Daily will take the opportunity to expand the communication channels with South African partners, to facilitate the two-way exchange of sci-tech knowledge.

Focusing on leveraging the power of sci-tech innovation, HSRC hopes to strengthen cooperation with its Chinese partners to find solutions in areas such as food security and poverty alleviation, said Sekhejane, adding that media should play a greater role in such a process.

Established in 1986, HSRC is engaged in cutting-edge research that supports development in South Africa, the Southern African Development Community and Africa.

ANC: Learning from China on Poverty Alleviation

The African National Congress (ANC) says it is taking lessons from China's unprecedented development and poverty alleviation story, seeking to implement the strategies locally for the benefit of all South Africans.

The remarks were made by Dakota Legoete, an ANC national executive committee member and member of the party's sub-committee on international relations while speaking at the Chinese Embassy in Pretoria.

Legoete said in contrast with the Western media narrative, China has experienced unprecedented success in fostering equality for all, including ethnic minorities.

"We have witnessed growing strength in which China's ethnic minorities have enjoyed the best years in the last two decades, in terms of economic and social development, ethnic unity, culture, education, protection of freedom of religious belief and many other aspects,"

said Legoete.

The fight against poverty in Xinjiang has made remarkable achievements, included in the celebration of elimination of absolute poverty.

Through the development of the people and economy, Xinjiang has achieved great progress in human rights development, with greater integration and greater celebration of cultural diversity.

"This is a great theme for us in South Africa, a nation also born from histories of colonialism and apartheid, which historically stoked racial and ethnic divisions. Our task as a democratic government continues to be to inculcate building of one nation, unity in diversity, a phrase popularly known and associated with our inaugural President Nelson Mandela," he said.

Source: Independent Online, 07-12-2023

China Spurs Biodiesel Consumption

By CHEN Chunyou

China will expand the use of domestic biodiesel to establish a replicable policy and development path for wider application of biodiesel and other green liquid fuels nationwide, the National Energy Administration (NEA) said in a notice in November.

Derived from vegetable oils, animal fats, or recycled restaurant grease, biodiesel is an internationally recognized green

and clean fuel. China has always encouraged the consumption of biodiesel. For example, the report to the 20th National Congress of the Communist Party of China in 2022 proposed to speed up the construction of a waste recycling system. China's Renewable Energy Law encourages the production and use of bio-liquid fuels, while the 14th Five-Year Plan for the Modern Energy System also calls for the development of biodiesel.

According to the NEA notice, demonstration projects to promote eco-friendly liquid fuels will be piloted in automotive biodiesel and marine biodiesel.

Industrial parks, logistics parks, mining areas, tariff-free zones and free trade zones are being encouraged to use automotive biodiesel while marine biodiesel will be promoted in tariff-free zones, free trade zones and waterways.

The NEA will give priority to eligible pilot demonstration projects for receiving medium- and long-term loans

for the manufacturing industry. It will promote the establishment of a biodiesel carbon emission reduction methodology, and push ahead with the inclusion of biodiesel into China's certified emission reduction mechanism.

The NEA will also encourage local governments to conduct demonstration projects across various segments of the biodiesel industry. It proposes to optimize the approval process for the pilot projects and extend financial support for them.

Henan Redefines Itself by Gaining Edge in 5G

Case Study

By CHEN Chunyou & CUI Shuang

Henan province in central China has been frequently appearing on social media platforms for its innovative representation of traditional Chinese culture in TV programs. However, this month it caught public attention again due to the recently-concluded 2023 World 5G Convention in provincial capital Zhengzhou,

where 115 cooperation projects with a total investment of more than 11 billion RMB were signed. The convention has provided new opportunities for the development of Henan's digital economy and informatization.

In April, Henan released a plan to accelerate 5G network construction and industrial development to enhance 5G development.

According to Tao Manxi, deputy director general of the Henan Provincial Department of Science and Technology, Henan has built a new digital infrastruc-

ture system based on 5G and gigabit optical networks, with computing infrastructure such as super-large data centers as the core.

The rapid development of 5G has strengthened the convergent development of cross-industries, giving Henan a competitive advantage in 5G development.

One example is the Jinling Coal Mine in Henan's Dengfeng city. Affiliated with the Zhengzhou Dengcao Group, it has become an intelligent coal mine with 5G signal in its deep underground areas, and a digital intelligent scheduling center equipped with 45 safety monitoring and control subsystems. With 5G, the mine has achieved information sharing, data interoperability and real-time monitoring.

This application scenario was made possible thanks to cooperation with China Mobile and Huawei Technologies, making Henan the first province in China to realize full coverage of commercial 5G-A network in underground areas in October. The uplink speed can go up to 1.1 Gbps, enabling data return from more than 100 high-definition camera videos simultaneously.

Moreover, 5G-A base station equipment can cover 50 percent more than the area covered by the original 5G network equipment, while the deployment

cost has been reduced by over 30 percent. Underground miners can use explosion-proof mobile phones to connect with the world outside at any time and report the underground situation. Both the voice and video calls are clear and smooth.

Henan's superior regional transport access, broad market, and massive data resources have contributed to its digital economy development and 5G reform. The integration of 5G with cloud computing, big data, the Internet of Things, AI, intelligent sensing and machine communication has led to the creation of vertical industrial applications in intelligent manufacturing, industrial Internet, vehicle networking, smart medical care and smart logistics.

In November, Songshan Laboratory based in Zhengzhou announced two research achievements: a multi-modal network environment and an endogenous cloud-native security platform. These will be promoted in sectors such as electric power, healthcare and finance to provide Chinese solutions for network environment facilities and network security protection.

"This new round of 5G innovation will bring major opportunities for consolidating Henan's economic strength and building it into an innovation hub in central China," Tao said.



A visitor learns the operating process of an intelligent mining production platform at the exhibition of the 2023 World 5G Convention in central China's Henan province. (PHOTO: Zhou Weihai / S&T Daily)

Competition Helps Foster Entrepreneurship

By CHEN Chunyou

The national finals of the 2023 China Innovation & Entrepreneurship Competition was held in Chengdu, Sichuan province in southwest China, from December 12 to 14, under the guidance of the Ministry of Science and Technology (MOST), Ministry of Finance and three other departments.

A total of 100 enterprises were shortlisted from the fields of new-generation information technology, biomedicine, high-end equipment manufacturing, new materials and new energy for the national finals. Twenty-two of them were awarded the top three prizes.

As a comprehensive sci-tech innovation race, the competition focuses on national strategies and highlights key areas of high-tech industries and strategic emerging industries. The aim is to build an enterprise-led and innovation factor-gathering platform that stresses deep integration of industry, academia and research institutes, and create a new engine for high-quality industrial development.

Qin Haoyuan, deputy director-general of the department of research commercialization and regional innovation at MOST, said in the opening speech that China has always given

priority to strengthening the role of enterprises as major innovation drivers in research activities. The competition provides a state-level platform to advance the commercialization of research results, and promotes a virtuous cycle among science and technology, industry and finance, thus fostering an innovative and entrepreneurial spirit across society.

"The competition has pooled talented individuals with the same ambitions nationwide. During this event, we not only established friendship with other contestants but also found potential partners," said Li Xuefa, the founder of the Yangzhou Nanopore New Materials Technology Co., Ltd., which won the second prize for the development of innovative battery materials.

"Following its inception in 2012, the China Innovation and Entrepreneurship Competition has grown from a small event with fewer than 6,000 participating enterprises to a large-scale competition with over 320,000 enterprises," Qin said.

"To date, it has attracted over 100 billion RMB financing by banks and other investors for these enterprises, and facilitated more than 200 participating enterprises to list on the stock market," Qin added.

NEVs Help Shift to Low-carbon Future

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According to Li, the vehicle industry should steadily transition from the control of energy consumption to the management of carbon emissions, and

focus on promoting green and low-carbon technological innovation, and establish eco-friendly and low-carbon manufacturing systems.

Wan stressed that global automot-

ive industries should strengthen collaborative breakthroughs in key technologies such as power battery systems, new chassis architectures, and autonomous driving systems. He also highlighted the

significance of hydrogen energy for achieving a green and low-carbon transformation, and emphasized the need to focus on core technological innovations in hydrogen and fuel cell vehicles.