



Science and Technology Daily

VOL.4-NO.158

SEPTEMBER 14-15, 2024

Building China into Leading Country in Education

Chinese President Xi Jinping has urged efforts to make solid progress toward the strategic goal of building China into a leading country in education.

Xi, also general secretary of the Communist Party of China (CPC) Central Committee and chairman of the Central Military Commission, made the remarks at a national meeting on education held in Beijing from September 9 to 10.

September 10 marked the 40th Teachers' Day in China. On behalf of the CPC Central Committee, Xi sent greetings to teachers and others working in the education sector across the country.

Xi said it was decided to speed up the drive to modernize education after the 18th CPC National Congress in 2012 and a goal has been set to build China into a leading country in education by 2035.

This goal will bolster China's efforts to build a great country and advance national rejuvenation on all fronts through Chinese modernization, he added.

Xi described building a leading country in education as a complex and systematic endeavor, which requires focusing on education's fundamental task of fostering virtue.

Xi emphasized the need to enhance innovation capacity in developing the education sector, and promote the development of basic and emerging disciplines and interdisciplinary subjects, as well as the cultivation of top-tier talent.

He also called for strengthening collaboration between universities and enterprises in scientific research.

Xi underscored the significance of improving the inclusiveness, accessibility and convenience of education as a public service.

He stressed the need to develop high-quality and balanced compulsory education and narrow gaps between urban and rural areas, regions, schools, and social groups.

Xi called for continued efforts to advance the national education digitalization initiative to broaden access to quality educational resources.

He urged the cultivation of a high-caliber teaching workforce, stressing the need to raise teachers' status, pay, and welfare to make teaching one of the most respected professions.

Xi also emphasized the importance of further opening China's education sector to the world, including expanding international academic exchanges and broadening cooperation in education and scientific research.

Source: XINHUA



Themed "Global Services, Shared Prosperity," the 2024 China International Fair for Trade in Services is held from September 12 to 16 in Beijing. Photo shows a view of the China National Convention Center. (PHOTO: XINHUA)

China Pledges Open Environment for Sci-tech Innovation

By YU Haoyuan

The 17th Pujiang Innovation Forum, held in Shanghai from September 7 to 10, saw 300 experts from 40 countries discuss its overarching themes, "Sharing innovation and shaping the future" and "Towards an open environment for scientific and technological innovation."

China is committed to building an inclusive, open, fair, just and nondiscriminatory environment for the development of science, technology and innovation, Chinese Minister of Science and Technology Yin Hejun said in his keynote speech.

Achievements and commitments

Yin also outlined China's achievements:

- Sci-tech cooperation relations have been established with more than 160 countries and regions, and 116 inter-governmental agreements signed on sci-tech cooperation.

- China's International Science and Technology Cooperation Initiative has been released globally, contributing Chinese solutions and wisdom to global science and technology innovation and development.

There are several future commitments:

- China will continue to strengthen open cooperation in science and technology, in accordance with the common aspiration of people in all countries as well as reflecting the trend of sci-tech development worldwide.

- Inter-governmental and non-governmental cooperation in science and technology will be deepened, and people-to-people exchanges in science and technology strengthened.

- Joint research and strategic cooperation projects will be initiated in key areas to address global scientific development needs and tackle common challenges.

- China will continue to build a

high-quality Belt and Road into a road of innovation, staying committed to the principle of extensive consultation, joint contribution and shared benefits.

- China will also participate in global innovation governance, and boost the progress of human civilizations with more sci-tech power.

Integrating sci-tech with culture

"Innovation culture now holds an even more significant position within the national science and technology innovation system," said Zhang Biyong, president of *Science and Technology Daily* in a sub-forum.

Zhang pointed out that the integration of culture and technology has always been a driving force for social progress throughout history. He mentioned papermaking and printing technique, two of the "Four Great Inventions of Ancient China", as some of the best examples of that.

See page 2

IPR Cooperation Among BRI Nations Enhanced

International Cooperation

By QI Liming

Since the Belt and Road Initiative (BRI) was put forward in 2013, China has signed cooperation agreements on intellectual property rights (IPRs) with 57 BRI partner countries and IPR has become an important bridge for their exchanges on sci-tech innovation and for enhancing connectivity.

"We are committed to providing equal protection to the IPRs of domestic and foreign enterprises," Sheng Li, deputy director general of the Department of International Cooperation, China National Intellectual Property Administration (CNIPA), said. "We have established a regular communication mechanism to attract more foreign enterprises to invest in China and share the dividends of China's development and the super-large market."

According to statistics released by the CNIPA on September 4, since 2013, China has held more than 50 training courses and trained more than 1,300 IP practitioners in BRI partner countries. A total of 230 students from over 50 countries have enrolled in the BRI IP master's program.

Patent applications in China from BRI partner countries are increasing. By the end of 2023, the number of valid patents in China from BRI partner countries reached 153,000, an average annual growth rate of nine percent, compared with the end of 2013.

From 2013 to 2023, the cumulative number of patent applications and grants from Chinese enterprises in BRI partner countries and related organizations hit 70,000 and 35,000 respectively, maintaining an average annual growth rate of more than 20 percent. The patent innovation momentum of constructing a digital BRI is notably strong.

Sheng mentioned that next, the CNIPA will strengthen international cooperation on IPR, carry out more practical cooperation projects, and serve high-level opening-up.

WEEKLY REVIEW

Reusable Experimental Spacecraft Lands as Pre-designed

China's reusable experimental spacecraft returned to its scheduled landing site on September 6, after 268 days of in-orbit operation. This successful reusable technology paves the way for more convenient and affordable round-trip methods for the peaceful use of space in the future.

1st Atlas of Remote-sensing Infrared Images Released

The International Research Center of Big Data for Sustainable Development Goals in Beijing has released the world's first atlas of remote-sensing thermal infrared images, providing valuable data support for sustainable development research.

Scientists Decode Marine Microorganism 'Genetic Trove'

A team of scientists from China, the U.K., and Denmark has constructed a comprehensive global marine microbiome database, demonstrating the potential of marine microorganisms for marine science research and biotechnological and biomedical applications. More than 20,000 of these genomes were identified as potential novel species.

Breakthrough in Creating Blood Stem Cells for Transplant

Australian researchers have created lab-grown blood stem cells that closely resemble those in the human body in a world-first, according to a team from the Murdoch Children's Research Institute in Melbourne. This paves the way for treating children with leukemia and bone marrow failure disorders with lab-grown cells.

Researchers Identify High-protein Rice Genes

Using genetics and artificial intelligence classification methods, a team of researchers at the Philippines-headquartered International Rice Research Institute has identified a superior set of lines that exhibited ultra-low glycemic index (below 45 percent) with an unprecedented protein level (15.99), which is twice the content usually found in conventional milled rice.

New Graphic

China's Rapid Growth of Trade in Services

4,230.18 billion RMB

up 14.7% y/y

Service export 1,732.5 billion RMB

Service import 2,497.68 billion RMB

up 12.4% y/y

up 16.4% y/y

Service trade from January to July, 2024

Source: Ministry of Commerce
Designed by SONG Ziyao & YAO Yulu / Science and Technology Daily

WECHAT ACCOUNT



E-PAPER



Editor's Pick

Breakthrough in Continental Shale Oil Exploration

By LIANG Le, ZHU Tong & WANG Jing

After more than 10 years of research, Jiqing Oilfield Operation Area (Jiqing Oilfield) has developed a comprehensive technical system for continental shale oil exploration and development.

"We have been able to drill vertically and horizontally thousands of meters underground, which has greatly improved the exploration rate of shale oil," said Guo Xuguang, general manager of the Exploration Division of the Xinjiang Oilfield Branch, China National Petroleum Corporation (CNPC).

Finding the 'sweet spots'

Shale oil refers to oil-bearing shales,

or underground rock formations that contain trapped petroleum, which is difficult to extract. Previously, only the U.S. had the ability to extract shale oil and gas.

China is dominated by continental shale oil, which is mainly distributed in Xinjiang Junggar Basin. Because of its small continuous distribution area, low maturity and high clay content, the drilling is extremely difficult.

CNPC took up the challenge. In 2011, the Xinjiang Oilfield Branch deployed the first vertical well in Jim-sar Depression, and managed to extract shale oil. Experts estimated that there are more than one billion tons of shale oil reserves in this area, which shocked the entire oil industry

worldwide.

"But after the discovery of high production wells, we found that the oil production varied widely," said He Jixiang, an engineer at the Research Institute of Petroleum Exploration and Development of Xinjiang Oilfield Branch, adding that subsequent drilling operations had to be suspended because the standards for stable production had not been met.

Generally speaking, the favorable parts of shale oil with good oil content and high exploitation value are called "sweet spots". "We had not found the 'sweet spot', so the exploitation result was far from what we expected," He told *Science and Technology Daily*.

See page 3