

# The Pyongyang Times

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## RESPONSE

### International community hail DPRK leader's New Year Address

Personages and political and other organizations of different countries issued statements in support of Supreme Leader Kim Jong Un's historic New Year Address.

Atanas Ivanov, honorary chairman of the Bulgarian Communist Union, said that Kim Jong Un's New Year Address clarifies the tasks to be fulfilled by the Korean people this year.

The DPRK leader reviewed the proud achievements made last year and called for bringing about a revolutionary upswing on all fronts of socialist construction, he stated.

We fully support his New Year Address and are convinced that the Korean people will make great strides in socio-economic development and inter-Korean and external relations, he added.

Mexican political parties and organizations including

the People's Socialist Party and the National Coordinating Committee for the Study of the Juche Idea, in their joint statement, extended firm support and solidarity to the Korean people in their efforts to defend peace in the Korean peninsula and the rest of the world.

Kim Jong Un brought about a fresh turn in the development of inter-Korean relations through the three rounds of north-south summit meetings and talks, the statement said.

He, in his New Year Address, brought forward practical proposals for making the Korean peninsula a durable and lasting peace zone, it noted.

Expressing the belief that all lines advanced by him are just, it hoped that the Korean people would win good successes in 2019 in their efforts to improve the people's livelihood and ensure peace and security on the peninsula under the leadership

of the Supreme Leader.

Such events as seminars and gatherings for newspaper reading were held in Italy, Nepal, Egypt, the Democratic Republic of Congo, Ethiopia, Guinea and other countries to support his New Year Address.

The administrative chief of a Guinean company referred to the fact that the DPRK made notable achievements in economic construction last year under the wise guidance of Kim Jong Un and the Korean people made remarkable progress by relying on their own efforts, technology and resources without yielding to harsh sanctions by hostile forces.

This year, too, the world will witness the might of the single-minded unity of the DPRK, he said.

A congratulatory message to the DPRK leader was adopted at an event in Nepal.

By Pak Song Min PT

### National memorial days designated

The Presidium of the DPRK Supreme People's Assembly on Thursday issued a decree setting national memorial days.

The decree says that July 8 and December 17, death anniversaries of President

Kim Il Sung and Chairman Kim Jong Il, are set as national memorial days and it has been decided to fly flags at half-mast on the days every year.

Compiled from KCNA

## EVENT

### Kimjongilia Festival to open

The 23rd Kimjongilia Festival is to be held on a large scale in Pyongyang to mark the Day of the Shining Star, birthday of Chairman Kim Jong Il and a greatest national holiday.

Kimjongilia shows will also take place and visits to Kimilsungia-Kimjongilia greenhouses be made in local areas during the festival.

It will add festive mood to the February spring holiday as a flower festival in praise

of the peerlessly great man that is held supported by the profound reverence of the Korean people and progressive humankind for the Chairman, who made a great contribution to accomplishing the cause of independence for the masses of the people and the cause of global independence by devoting his whole life to the prosperity of the country and wellbeing of the people.

Compiled from KCNA

## MEETING

### Joint conference adopts appeal to put inter-Korean declarations into practice

A joint conference of the DPRK government, political parties and organizations took place at the People's Palace of Culture in Pyongyang on January 23.

It was attended by senior officials Yang Hyong Sop, Kim Yong Chol and Ro Tu Chol, the leader of a friendly party, officials of public organizations, members of the North Committee for the Implementation of the June 15 Joint Declaration, the north headquarters of the Pan-National Alliance for Korea's Reunification and the Pan-National Alliance of Youth and Students for Korea's Reunification and the National Reconciliation Council, and representatives of the government, political parties and organizations.

The conference discussed the tasks to be tackled by the government, political parties and organizations in carrying out the tasks for national reunification set forth by Supreme Leader Kim Jong Un in his New Year Address.

Yang Hyong Sop, vice-

president of the Presidium of the DPRK Supreme People's Assembly, made a report, followed by speeches delivered by Ri Son Gwon, chairman of the Committee for the Peaceful Reunification of the Country, Kim Yong Dae, chairman of the Central Committee of the Korean Social Democratic Party, and Ju Yong Gil, chairman of the Central Committee of the General Federation of Trade Unions of Korea.

The way to national survival and the future of the fellow countrymen lie in adhering to and implementing the Panmunjom Declaration and the September Pyongyang Joint Declaration, the speakers said, pointing to the need to check and frustrate all obstructive moves of anti-reunification forces and accelerate the nationwide advance for implementing the declarations with a firm belief in their validity.

They called on all the fellow countrymen in north, south and abroad to respond to the fervent patriotic appeal of the Supreme Leader with the nationwide

advance for carrying through the north-south declarations and thus glorify this year as a historic one when another radical change is brought about in the journey for the development of inter-Korean relations and peace and prosperity.

The meeting adopted an appeal to all the Koreans at

home and abroad.

The appeal referred to the fact that dramatic changes, which were unprecedented in the history of national division, and successive eye-opening events of last year made all the fellow countrymen bubble with great excitement and optimism.

It appealed to all the fellow

countrymen to eradicate military hostility between north and south so as to make the Korean peninsula a durable and lasting peace zone, upholding the slogan "Let us usher in a heyday of peace, prosperity and reunification of the Korean peninsula by thoroughly implementing the historic north-south declarations!"

When the Korean nationals unite as one, they can carry out any great work, it said, calling for glorifying this year as a historic one.

Compiled from KCNA



A joint conference of the DPRK government, political parties and organizations is held at the People's Palace of Culture in Pyongyang on January 23.

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## LEADING ARTICLE

# Strategic resources and weapon for socialist construction

Supreme Leader Kim Jong Un said in his New Year Address that the talented personnel, science and technology are the country's major strategic resources and weapons with which to bring about a great leap forward in socialist construction.

Today, the level of scientific and technological development is an important index to a country's overall strength and status. That is why the interest and investment of each country in science and technology grow worldwide and the competition to push back the frontiers of sci-tech fields gets fiercer.

The DPRK has long paid close attention to the development of science and technology and is now concentrating national efforts on it. Moreover, given that outside forces are sticking to economic sanctions and sci-tech embargo, the Workers' Party of Korea put it forward as the most important matter of the state and the Party's strategic line to attach importance to science and technology, seeing their development as a crucial matter decisive of victory of socialism and the future of the country.

Last year, the Supreme Leader made his first

inspection tour of the year to the State Academy of Sciences and, at the April Plenary Meeting of the WPK Central Committee, declared it as the Party's strategic line to concentrate all efforts on socialist economic construction and made sure that a decision was adopted to open a broad avenue to the building of an economic giant on the strength of science and technology.

The WPK's target in developing the country's science and technology is to make the DPRK join the ranks of the world's advanced nations in terms of overall sci-tech power in the near future. Therefore, it set forth militant slogan "Let us make a leap forward by dint of science and guarantee the future by dint of education!"

Under its leadership the sci-tech sector presses on with a campaign to break through the cutting edge in order to develop technologies with international competitive edge and focuses on solving problems of key importance in revitalizing the economy while striving to realize the integration of science and

technology with the economy. It also attaches importance to talented personnel and devotes utmost attention to making all the people well versed in science and technology.

The state promotes sci-tech development purposefully and increases investment in it.

The sci-tech sector needs to set a high goal for developing new technologies and concentrate efforts on the research into core technologies of great practical and economic significance, so as to secure the tractive force of economic growth. It is also needed to take institutional measures so that scientific research institutes and enterprises, in close cooperation, can boost production and technological development and enhance intellectual creativity.

Though the tasks are challenging, the country's science and technology will make rapid progress this year, too, thanks to the burning enthusiasm and great creativity of scientists, technicians and other people.

**Sim Chong Ryong,**  
researcher at the Academy of Social Sciences

## INSPECTIONS

## Premier Pak visits local industrial units

Premier Pak Pong Ju, member of the Presidium of the Political Bureau of the Central Committee of the Workers' Party of Korea and vice-chairman of the State Affairs Commission of the DPRK, inspected various units in South Hamgyong Province.

Inspecting the February 8 Vinalon

Complex, he gave a pep talk to workers of the complex stepping up the production of caustic soda, vinyl chloride and carbide, called for fully displaying the advantages of the operation and management method of our own so as to rapidly increase the production, and underlined the need for the relevant units

to supply materials and fuel to the complex in a responsible manner.

At the Ryongsong Machine Complex, he also called for finishing the production of the custom-built equipment such as large toothed wheels and compressors for hydro-power stations and key factories and enterprises as early as possible and for improving the quality of products.

Inspecting the Hungnam Fertilizer Complex, the Sinpho Fishery Station and others, he discussed the issues arising in increasing the production of fertilizer badly needed in the agricultural field and in improving the field of fisheries.

The consultative meetings on the spots took measures to prioritize science and technology and to reenergize the production by exploring and using all reserves and possibilities.



Premier Pak Pong Ju (second from right) on his visit to the February 8 Vinalon Complex.

Compiled from KCNA

## WHAT THEY SAY

## 'Koreans lead a charmed life'

Foreigners are impressed by what life the Korean people lead.

The head of the Russian delegation of the Kim Jong Suk women's union said:

"All social assets in the DPRK are devoted to promoting the well-being of the people."

"It is clearly evidenced by the Rungna Dolphinarium, the Munsu Water Park and other structures."

"I was deeply touched when I visited the Pyongyang Kim Jong Suk Silk Mill."

"Its working people are blessed ones as they live in the embrace of Supreme Leader Kim Jong Un who regards and puts forward his people like God."

A member of the World Peace Council delegation said after looking round the Okryu Children's Hospital:

"Hospital generally reminds us of its doctors and medical appliances for the treatment of patients."

"This children's hospital, however, is furnished with splendid classrooms so that young in-patients can go on with their study without interruption."

"It will be unbelievable for those who have not witnessed such a reality with their own eyes."

"The Okryu Children's Hospital built under the special concern and guidance of Supreme Leader Kim Jong Un is at an advanced level in all aspects."

"I have been moved by the noble affection of him who spares

nothing for the benefit of rising generations."

The secretary general of the Bulgaria-DPRK Friendship Association said that the DPRK puts forward children as the king of the country, loves them devotedly and provides them with all necessary conditions, adding the Mangyongdae Schoolchildren's Palace is a palace for children where they fulfil their wishes according to their talents and aptitudes.

The chairman of the Altai Republic branch of the Russian Association for the Study of the Juche Idea said in an article:

"During my stay in Pyongyang, I have come to know well that the Western countries' propaganda against the DPRK is filled with falsity and fabrication."

"The policies of the Workers' Party of Korea are directed only to making the masses of people lead a dignified and proud life."

"The DPRK demonstrates to the full the advantages of socialist educational and public health systems in the face of harsh sanctions by hostile forces."

"Homeless people wandering streets cannot be seen in this country, and there is no social evil bringing uneasiness to the people."

"I'm very envious of the Koreans leading a charmed life under the warm care of the state."

Compiled from KCNA

## Choe Ryong Hae visits chicken farm, poultry institute

Choe Ryong Hae, member of the Presidium of the Political Bureau of the Central Committee of the Workers' Party of Korea, vice-chairman of the State Affairs Commission of the DPRK and vice-chairman of the WPK Central Committee, inspected the Hadang Chicken Farm and the Poultry Engineering Institute under the Academy of Agricultural Science.

Looking round various places of the chicken farm, Choe Ryong Hae underlined the need to add glory to the farm as a unit associated with leadership exploits of President Kim Il Sung and Chairman Kim Jong Il by breeding good species, making effective use of the sci-tech learning space, carrying out the breeding in a scientific way and automating production processes and introducing production line into them.

At the Poultry Engineering Institute he said that it should

correctly set the goals of research as it plays an important role in developing the country's poultry farming, attain them step by step and settle sci-tech problems in time by giving full play to the creativity of researchers.

The consultative meetings held on the spots discussed such



Senior Party official Choe Ryong Hae visits the Hadang Chicken Farm.

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## COAL

# Production picks up at coal mines nationwide

Coal mines across the country have been boosting production since the outset of the new year.

They dig out thousands of tons of more coal every day than the plan in a campaign to increase production for satisfying the demand for fuel and power for different sectors of the national economy, while channelling efforts, first and foremost, into supplying coal to thermal power stations so that they can normalize production.

The Tokchon and Tukjang area coal-mining complexes overfulfilled their ten-day plans by 27 and 15 percent respectively by bringing good results day after day.

The Kangdong, Hungnyong and other coal mines under the Kangdong Area Coal-mining Complex exceed their daily plans by increasing production drastically in each shift as they keep building on their successes in tunnelling. The Sunchon Area Youth Coal-mining Complex hits tunnelling and coal mining targets by operating various facilities at full capacity.

The Kyongwon Area Coal-mining Complex carries out its production assignments at more than 103 percent every day, and the Anju, Kujang and Onsong area coal-mining complexes produce more coal than in the same period of last year.

According to information available, coal mines throughout the country produced tens of thousands of tons of more coal in the first ten days of the

new year.

While pushing ahead with main production, they make substantial preparations for executing ambitious economic plans by shoring up all the coal production processes, especially prospecting, tunnelling, coal mining and coal conveying.

The February 8 Jiktong and Chonsong youth coal mines press on with the tunnelling for the future purpose, while the Tukjang and Kaechon area coal-mining complexes make good preparations for the development of new coal mines. Undertakings for securing new coalfields with rich deposits are under way in different places of the Tokchon area.

According to statistics, hundreds of thousands of metres of heading excavation and preliminary tunnelling have been carried out across the country.

A technical innovation drive is conducted in all coal mines to reenergize all pits and sectoral production processes by relying on their production potentials and science and technology.

They are working to make effective use of multifunctional inertial loader, modern compressor and other facilities in keeping with their specific conditions and improve the performance of coal-dressing plants installed in dozens of coal mines in the shortest possible time.

The machine-building factories and machine parts plants in the coal-industry sector and engineering and repair bases make different kinds of efficient loaders and conveyors to introduce them into coal faces and supply a great deal of materials, accessories and small tools with their own efforts and technology.

By Yun Kyong II PT



Pitmen monitor a train of fully-loaded cars at the Hoean Youth Coal Mine.

## ADDITIVE

## Fuel additive saves oil

A fuel additive developed by the Pyongyang Taehung Fur-tanning Exchange Company has widely been introduced in the country.

In recent years many units have gained big economic profits by using fuel oil mixed with this additive in various kinds of vehicles and dynamotors.

"The additive has proved to be effective scientifically through several years of field testing and examination," Ri Kyong Min, director of the company, told KCNA.

It satisfies all physico-chemical and mechanical characters for fuel oil.

It prevents corrosion and abrasion of engine and dilatation of piston and ring.

by thermal expansion.

The allowable numerical values of all its elements, which may have negative effects on the fuel feed system, conform with international quality standards.

The additive can save more than 15 percent of fuel oil and considerably decrease the content of harmful gases in car exhausts.

The Taehung-brand fuel additive was registered as one of the national sci-tech achievements in June last year.

The company set up a process to mass-produce this additive.

Compiled from KCNA

## CONSTRUCTION

## Projects completed

### Oxygen, kimchi factories

Factories producing medical oxygen and kimchi have been built in North Phyongan Province.

The production processes of the factories are germ- and dust-free, automated and computerized.



An external view of the newly inaugurated South Hamgyong Provincial Sci-Tech Library.

## TOOL

# Company eyes efficient evaporated tools



CHAE MYONG RIM / THE PYONGYANG TIMES  
A variety of cutting tools produced at the Pyongyang Evaporated Tools Development Company.

The Pyongyang Evaporated Tools Development Company channels big efforts into developing various convenient tools.

The company produces tool leaf for various purposes using a hard alloy powder.

"Evaporated throwaway hard alloy tips account for over 60 percent of the tools that are used worldwide," said Jong Kwang Chol, deputy director in charge of production of the company.

According to him, the company set up a modern base for producing hard metal powder and succeeded in producing a high-purity alloy powder using locally available materials.

Its researchers studied and introduced a throwaway hard alloy tip with chip grinding groove for high force cutting. As it maximizes heat dissipation during cutting, its cutting capacity is 1.5 times greater than previously.

They also introduced a technique of producing high-purity methane, which is used in chemical evaporation, by a chemical method, instead of by the fermentation of bio-wastes,

thereby solving the problem of the gas for which they relied on imports.

In order to develop a hard alloy tip containing tantalum carbide, they solved many technical problems including the establishment of the content of tantalum carbide, the moulding method, sintering method based on vacuum sintering furnace and temperature curve.

Most recently, they succeeded in lightening the dies badly needed in various sectors including the machine industry.

Various bites manufactured by the company are efficiently used at factories with CNC machine tools, universal lathes and other sophisticated machines.

Its evaporated alloy tools were highly appreciated at tool exhibitions held in different countries.

"Our target is to develop and produce various efficient tools in larger numbers and contribute to the economic development of the country," said Jong Kwang Chol.

By Chae Hyang Ok PT

and dietary life of the locals.

### Home for persons with disabilities

A disabled people's home have risen up at a beauty spot in Sorim-ri, Yomju County, North Phyongan Province. It is equipped with everything needed for the convenience of dwellers including bedrooms, fitness rooms, bathrooms and a clinic.

Built according to a government plan to construct such a modern facility in every province, it will contribute to carrying out the state policy of protecting persons with disabilities.

### Sci-tech library

The South Hamgyong Provincial Sci-Tech Library has been built at the foot of Mt Tonghung in Hamhung City.

The multifunctional library which provides network browsing and Q&A services has all conveniences for visitors including working people and students.

By Ri Sung Ik PT

AI

# Institute develops integrated retrieval system

The intelligence technology institute of Information Science College of Kim Il Sung University has distinguished itself as a leading artificial intelligence developer at home in recent years.

Having been ranked among the top ten IT businesses of 2018, the institute has a competitive edge in the AI field.

Especially, its Korean letter and voice recognition technologies are dominant in the local market.

It developed a German-Korean translation program and constantly upgrades it as a major index. The software gives a glimpse into its high level of machine translation knowhow.

The institute was also designated as an excellent IT business in 2016 and 2017 with its network security management system, webpage and apps among others.

Last year, it carried out a project for upgrading the quality management system related to software development and was counted among the nation's few businesses with the top-level quality management system certification.

On the basis of this, it developed an integrated retrieval system.

*By Ri Sang Il PT*

## CONDIMENT

# Traditional method helps make bean paste palatable

"Our factory produces soybean paste by using the traditional method the Korean nation has developed for thousands of years," said Jon Ho Chol, manager of the Taedonggang Foodstuff Factory.

As he said, soybean paste is still the most basic foodstuff indispensable for the Koreans' dietary practices.

Bean paste is made by mixing an additional helping of boiled grains and salt with soybean malt made from the proteinous and starchy materials of soybean, wheat, barley and maize before fermenting and maturing them.

Balls of soybean malt, which were made by steaming and mashing soybeans and hung from the eaves of every house in the old time, are often seen in farmhouses in the rural areas.

The Taedonggang Foodstuff Factory produces soybean paste by the traditional method: it uses soybeans as raw materials and puts them through natural maltase breeding and maturing processes without using preservatives at all.

Processes from the selection of soybeans to steaming in silo, mixing maltase and natural maturing have been mechanized

"Since large-scale retrieval systems that provide service for quick collection and search of information have been developed and used worldwide, it was a challenge for us to establish a system that collects extensive data and supports full-text searching as soon as possible," said Director Choe Chol.

The institute's retrieval system collects, stores and manages data provided by websites and offers analysis and retrieval service with the database.

An IT product of a Korean style, it is now the flagship of the institute.

It was included in the excellent IT products of last year together with the institute's integrated electronic procedure system.

The Pyongyang Cosmetics Factory and the Pyongyang Trolley Bus Factory, which achieved fame in recent years with great successes in production, and many other units have greatly benefited from the introduction of the institute's integrated production and management information system and sci-tech diffusion system.

*By Ri Sang Il PT*

## FOOTWEAR

# Quality improvement makes brand popular

The Wonsan Leather Shoes Factory is a small local factory, but has earned repute with its Maebongsan brand.

Especially, its products were highly appreciated at the national footwear exhibition-2018 held at Pyongyang Department Store No. 1.

Chief engineer Jo Myong Sik ascribed the success to the factory's steady efforts to ensure the aesthetic appeal of goods, make them lighter and more durable and improve other qualitative indexes.

The factory has recently established a process of making foam soles with locally-available materials and reduced the weight of leather shoes by 20-30 grams.

Technical innovation plans are positively introduced into production processes.

A laser cutter has been made and applied to the cutting process to accurately cut various shapes of patterns according to a computer program, and an automatic sewing machine installed with a control program has been introduced into the uppers-making process. And an automatic gumming machine for various shapes and sizes of footwear is nearing completion

in the shoe-making process.

The factory especially makes a point of improving the skills of employees.

"Our workshop is in assembly line operation and equipped with more than 30 machines including those for making toecap and heel and spreading adhesive and a sole press. Goods can be up to the mark when all workers ensure their quality in each process," said Jin Song Ho, shoe-making workshop manager. According to him, as all employees are encouraged to be conversant with all machines, even recruits can operate the toecap-making



PAK KWANG HUN / THE PYONGYANG TIMES

The Wonsan Leather Shoes Factory turns out a variety of footwear.

## SYNTHETIC LEATHER

# Permeable synthetic leather made from local materials

When it comes to PVC shoes, you think first that they are clean and light with beautiful colours and shapes. And then their defects also come to your mind that they are stiff, tight and sweaty.

Today people's understanding of PVC shoes has changed completely because synthetic leather with far better physical properties is used for shoemaking.

The Phyongsong Synthetic Leather Factory provides synthetic leather to light industry factories such as footwear and leather shoes factories across the country. Most recently, it has developed permeable synthetic leather by relying on domestic raw materials and begun to mass-produce it.

The new product is made of polyvinyl chloride resin and knitted goods produced in the country instead of previously imported polyurethane.

The technical staff of the factory designed a new plastic layer structure in the direction of improving the moisture permeability of synthetic leather and solved scientific and technological problems that arose in forming a synthetic leather resin layer and technical and

engineering problems arising in establishing a production process, thus providing a sure guarantee for the production of a new kind of synthetic leather of polyvinyl chloride origin.

The new PVC synthetic leather is better than the previous synthetic leathers in terms of physical properties such as tensile strength, extension rate and repeated bending strength. In particular, its damp permeability is more than double the natural leathers like cowhide and is highly resistant to water on the surface, and therefore recognized as an ideal material for shoe uppers.

"For its production we use 15 percent less raw and other materials than before. And for its good flexibility and moisture permeability, infiltration and wetting property of bonding agents and porous structure, the new product increases the adhesive strength of the upper and shoe sole," said a technician of the factory.

The factory is now working on increasing the output of the new product while lengthening its lifetime and improving its physical properties.



SONG YONG SOK / THE PYONGYANG TIMES

The Taedonggang Foodstuff Factory makes soybean paste by the traditional method.

*By Choe Kwang Jin PT*

## ALPHABET

# Hunminjungum pride of Korean nation

It is 575 years since *Hunminjungum*, the Korean alphabet, was created in January 1446.

It exalted the fine qualities of the Korean nation and made a great contribution to the development of history.

In this respect, *The Pyongyang Times* reporter Kim Rye Yong interviewed Prof Kim Yong Hwang (pictured), academician and PhD who is an authority on Korean linguistics.

*The unique Korean alphabet, also known as Hunminjungum meaning a "wonderful alphabet that teaches people and writes correct sounds", is still highly appreciated for the scientific accuracy in the theory of its creation, I think.*

*Hunminjungum* is based on an advantageous theory of alphabet creation unprecedented in the world history of alphabets.

It consisted of 17 consonant letters and 11 vowels, 28 in total, whose combinations can make hundreds of syllabic letters.

The 17 consonant letters contained five basic letters that were made by copying the shapes of the five articulators of molars, tongue, lips, teeth and throat, and 12 others made by adding strokes to the basic ones. And still others were made by doubling letters when



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necessary.

The 11 vowel letters consisted of three basic ones symbolizing the sky, land and man and eight letters made by combining them. And 12 more vowel letters were made by joining vowels when necessary.

Some consonants and vowels were not used with the passage of time. So 40 letters are used today in all, including 19 consonants and 21 vowels.

*Hunminjungum* is also better than other alphabets in that it can mark any sound of all Eastern and Western languages.

No other alphabets are better than the Korean alphabet in the light of possibility to write the sounds of all languages. It is evidenced by the fact that a tribe

in Melanesia in the Pacific uses the Korean alphabet as it had not developed its own alphabet.

*The IT age today has largely changed the values of everything. What do you think about the Korean alphabet?*

In fact, before the IT age the Korean alphabet in which syllabic characters are formed with consonants and vowels was considered less rational than those of other countries in which consonants and vowels continue to be written, because it was inefficient and complex for printing.

But in the IT age in the 21st century such a problem does not arise as computer can readily process any natural language.

Rather, it is more advantageous to use syllabic symbols in light of reading speed. In the language information processing by computer the initial sound letter "o" with no sound value which was considered to be an unnecessary being in the past has become a very necessary one as it is regarded to be an essential element in syllabic section, which makes clearer the sections of letters in syllables.

We take great pride in having *Hunminjungum*, which is based on a scientific theory of creation, as the alphabet of the Korean nation.

the well-furnished tissue culture room.

The medicinal herb seedlings produced there have higher medicinal efficacy, disease resistance and yielding ability than those bred naturally, says Pak In Sik who works now as the head of the tissue culture room.

The success in the production of medicinal herb seedlings by tissue culture inspired its employees with self-confidence in advanced technologies.

It was highly appreciated at the 2018 national exhibition of sci-tech achievements in the public health sector held last year.

By Jong Chol PT

RYU KWANG HYOK / THE PYONGYANG TIMES  
Researchers work on a tissue project at the medicinal herb management station in Chollima District, Nampho.

## EDUCATION

# Investment into education keeps growing

The world people observed the International Day of Education, the first of its kind, on January 24.

The International Day of Education was designated at the 44th plenary meeting of the 73rd UN General Assembly last year.

The designation highlights the growing position, role and importance of education in achieving social progress and sustainable development.

Education plays a key role in building sustainable and resilient societies.

It helps all people develop professional skills needed for sustainable development, and contributes to resolving such social issues as eradicating poverty and hunger and promoting gender equality, peace, the rule of law and the respect for human rights.

That is why the UN calls on all countries to ensure inclusive and equitable quality education at all levels so that all people can have access to lifelong learning opportunities.

It is not easy to ensure the quality of universal education on a high level.

It is evidenced by serious cases revealed in so-called "developed" countries.

More than 1.2 million students drop out of high schools every year in the US as they fail to pay school fees, while one tenth of students give up their university courses halfway in Australia.

In the long run, universal education depends on

educational policy, instead of economic power of relevant countries.

The DPRK is making positive efforts to make all the people well versed in science and technology in keeping with the requirements of the era of the knowledge economy.

It increases investment in education, works to establish a social atmosphere of attaching importance to education, and tries to make education modern and scientific.

Last year alone, the construction of over 140 exemplary schools were completed across the country, many schoolchildren's palaces and halls, universities of physical education, provincial Taekwon-Do and football schools and juvenile sports schools built, reconstructed and repaired and over 12 500 classrooms and labs renovated.

The secondary general education sector updated the programme for the universal 12-year compulsory education and made its teaching content practicable, comprehensive and modern. The higher education sector introduced high-tech subjects and created and generalized advanced teaching methods.

The DPRK will continue to strive to develop education.

The theme for this year's International Day of Education is "Education; a key driver for inclusion and empowerment".

By Kim Kum Myong PT

## ROBOTICS

# Articulated industrial robot developed

The robot that imitates the movements of man's arm or hand is a modern automatic machine which is highly smooth and accurate in operation, and therefore different countries manufacture it in series and constantly improve its performance.

The controlled machine research institute of the State Academy of Sciences has developed an industrial articulated robot with six degrees of freedom in line with the trend of developing robot manufacturing technology.

The multi-purpose robot can carry out such work as welding, coating, assembly, cutting and printing.

It largely comprises control, machine and sensor systems.

The control system manipulates six swivel joints. The machine system consists of a fixed body and arms or jibs

connecting six swivel joints. Each joint is a combination of a motor and a speed reducer. The lower part of the body can take up any position in three-dimensional space and its upper part or wrist is designed to determine directions in any fixed position.

The robot passed a test for performance evaluation by the ISO standards. All characteristic values were up to the standards and it was highly appreciated as its repeat accuracy was better.

"We'll diversify industrial robot, ensure its serial production and expand the range of its application at a higher level in line with the country's specific conditions by dint of our local efforts and technology," said Kim Song Chon, PhD and section chief of the research institute.

By Kil Chung Il PT

## AMUSEMENT

# Rink bustles with schoolchildren spending winter holidays

The stylish People's Open-air Ice Rink on the banks of the Taedong River in Pyongyang seems to have turned into a haven for schoolchildren in this winter vacation.

It is visited by hundreds of students of primary and secondary schools a day.

They indulge their passion for ice-skating, laughing boisterously.

Old hands glide past to the tune of light music and novices learn to skate from instructors.

Some boys who have flaunted themselves on the ice become laughing stocks as they slip and fall.

What draws special attention is the competition held round the rink.

A primary school pupil from Songyo District is vying with middle schoolers.

He is the winner of speed skating competitions of his school and district and is preparing for a city-level contest.

Though some boys run faster than girls on ground, they lose to girls on ice. Then the winners are called "ice rabbits" and the losers "ice tortoises".

"I want to visit many places

and do a lot of things during my winter vacation. Now I'm on the rink, I want to be a skating player," says Ro Phyong Gwon, second-year student from Moranbong Middle School No. 1.

"When I was young, I went skating on rivers or lakes, so my mother was very worried. But now we have no worry about the safety of our children as ice rinks and other resting and amusement facilities are found everywhere. And they can learn to play any sports there," says



CHOE MI GYONG / THE PYONGYANG TIMES  
Young people enjoy skating at the People's Open-air Ice Rink in Pyongyang.

## SURGERY

# Surgeons give mobility to paralysed children

The department of neurosurgery of Okryu Children's Hospital established advanced surgical operation methods for the treatment of cerebrospinal diseases to ensure quality care.

A noticeable method is surgery on cerebral infantile palsy.

Caused by the softening of a white matter around the ventricle of the brain, cerebral palsy is an incurable disease known as kinesipathy.

In the past, the cure for the disease was limited to

medications and functional recovery, and it did not have apparent effects though applied for many years.

Reading latest medical documents, the surgeons of the department found a case in which cerebral palsy was cured by cutting a certain part of the spinal cord and intensified research into it.

As so many nerves are distributed around the spinal cord, it was not an easy job to establish a new treatment method on the basis of a

short passage in a document. However, they studied the anatomical structure of the spine and the role of every nerve, and practised their operating skills according to findings.

They finally succeeded in establishing the selective dorsal rhizotomy, a surgery for relieving patients with kinesipathy caused by cerebral palsy by cutting off the dorsal root.

Last November, they operated on Song Yon Hui who was unable to stand up and had to crawl until she was six years old, and helped her walk out of the hospital on her feet.

They also developed advanced surgical methods including the cerebrospinal tumour operation which is not detrimental to children's growth and the ones for treating moyo-moya disease peculiar to children and severe head injuries, and thus raised the level of scientific treatment for cerebrospinal diseases.

The hospital has so far brought back to health over 100 children who were once diagnosed as hopeless with cerebrospinal diseases.



KIM YONG CHAN / THE PYONGYANG TIMES  
Surgeons consult to cure cerebrospinal diseases at the department of neurosurgery of the Okryu Children's Hospital.

## MARINE SCIENCE

# Academy works to protect marine resources

The Academy of Fisheries is notching up successes in research into protecting and increasing the country's aquatic resources.

According to its Vice-President Kim Kyu Jung, now that the world aspires after the sustainable development of fishing industry, the criterion for assessing the level of development of fisheries in each country is defined by how many more aquatic resources it protects and multiplies.

The academy directs primary efforts to protecting the offshore resources and developing offshore fish farming and culture.

It especially focused on resolving the problem of initial feed.

"Just as the nourishment of newborn babies is very important, so is the feed for fry. The settlement of the feed problem makes it possible to raise fry in great numbers, stock the sea with them and increase fish resources," said Kil Chuk Won, department chief of the academy.

Researchers channelled energy into addressing the problem based on locally-abundant raw materials. As a result, they succeeded in establishing techniques of rearing walleye pollack, flatfish and shellfish which are sedentary and of high industrial value and, on this basis, they released hundreds of thousands of pollack fry into the sea on three occasions last year alone.

They made an assorted feed in a scientific way for the artificial multiplication of croaker, a migratory fish of quality. And

By Ri Myong Jun PT

## GADGET

# Intelligent pen wows children

The Meari Acoustics Company has developed an audio book reading pen "Sori Yonphil (reading pencil)" for preschool children.

According to Sok Myong Song, section chief of the company, the gadget can optically identify pictures and letters in specially-printed textbooks and read them in a correct voice.

With the help of this device, children can learn spoken and written Korean language, calculation, foreign language and others by themselves at the early stage.

Textbooks for the audio book



KCNA  
A reading pencil developed by the Meari Acoustics Company.

## REUNIFICATION

# Nation should be reunified by Koreans themselves

Supreme Leader Kim Jong Un said in his New Year Address that the surprising changes which took place in inter-Korean relations last year convinced all the fellow countrymen that when they join minds and efforts, they can turn the Korean peninsula into the true home of the nation, which is the most peaceful and will prosper forever.

Last year, north and south held three rounds of inter-Korean summit meetings and talks amid great expectations and interest of peoples at home and abroad, and this clearly showed that north-south relations entered a completely new stage. The Panmunjom Declaration, the September Pyongyang Joint Declaration and the north-south agreement in the military field were adopted as a virtual nonaggression declaration in which north and south have committed themselves to terminating fratricidal war based on force of arms.

Sportspersons of north and south jointly entered international competitions and artistes came and went to Pyongyang and Seoul to fire the enthusiasm for national reconciliation and reunification. North and south also promoted cooperation projects in various fields including railways, road,

forestry and public health while resolutely overcoming manifold obstacles and difficulties.

All the achievements made last year have proved that when north and south join hands firmly and rely on the united strength of the fellow countrymen, no external sanctions and pressure, challenges and trials will be able to hinder the Koreans in their efforts to open a broad avenue to national reunification and prosperity.

National independence is the lifeblood of the reunification movement that ensures improved north-south relations.

Inter-Korean fence-mending and reunification are, in all respects, an internal issue of the Korean nation that should be resolved by north and south as those responsible for it.

It is needed to never tolerate the interference and intervention of outside forces who stand in the way of national reconciliation, unity and reunification with the design to subordinate inter-Korean relations to their tastes and interests, and it is more important to hold fast to the principle of independence in solving the problem of reunification, or the problem of the nation.

It is none other than the

Koreans who earnestly wish for reunification as they will have to live in a reunified country.

It is self-evident that foreign interference in the reunification issue will reduce the destiny of the nation to a plaything of outside forces and a victim of their fights.

Independence is precisely reunification, and it is the most important principle of and solution to reunification.

Only when the Koreans disallow foreign interference and join efforts among themselves, can they open a broad avenue to national prosperity.

All the fellow countrymen should unite as one, being conscious that the master of national reunification is the Korean nation, and they should worship their own nation, believe in their national strength and discuss the reunification issue among themselves.

Today when all the nationals' interest in and aspiration for reunification are growing unprecedentedly, north and south should actively try to find a peaceful reunification plan based on nationwide agreement and direct sincere efforts to this end.

By Choe Yong Nam PT

## CRIME

# Emperor poisoning illustrates what Japan did to Korea

Japan's *Mainichi Shimbun* newspaper once reported that the documents concerning the crimes Japan committed against the Asian peoples in the past century would be 20 000 metres high when they are piled up.

Among them is the one about the poisoning of Korean Emperor Kojong on January 22 1919.

The assassination of the Korean sovereign was a heinous murder the Japanese imperialists perpetrated to consolidate their colonial rule over Korea.

Kojong refused to sign and put the state seal on the Ulsa five-point treaty of 1905 in the face of Japan's persistent threat and blackmail. And after the Japanese cooked up the pact, he strived to inform the international community that it was null and void.

In his personal letter to his counterparts of nine world powers, the Korean sovereign wrote that he had never entrusted government ministers with the conclusion of the Ulsa five-point treaty and that the Japanese imposed it on the ministers by

holding them in confinement, asserting that "to claim that the treaty was concluded under such circumstances is a breach of public law and therefore it is naturally invalid". And in order to announce to the world the illegality and invalidity of the pact, he dispatched three emissaries to the Second International Peace Conference held in The Hague, the Netherlands, in 1907.

Afterwards, when the Japanese imperialists forced him to sign the Jongmi seven-point treaty of 1907, he also refused to give prior approval for it and to sign and put the state seal on it.

Feeling very uneasy with his struggle to defend national rights, the Japanese killed him with poison, not content with forcibly dethroning him.

A century has passed since his assassination. The appalling outrage of trampling on the dignity and sovereignty of the Korean nation gives a glimpse of Japan's history of vicious colonial domination of Korea.

And though over seven decades have passed since

Japan's defeat in WWII, the insular nation has not yet made sincere soul-searching and reparations for the past crimes. Rather, it distorts and justifies the wrong and clamours for the settlement of any "abduction issue" in a bid to cover up its crime-ridden past.

Japan has made it a routine to visit the Yasukuni Shrine that honours war criminals, openly flies the "rising sun flag" associated with its imperialist past on the international arena and tries in every way to realize the wild ambition for overseas reinvasion, while revealing its intention to develop and expand the Self-Defence Forces into attack-oriented armed forces.

Not only the Korean nation but also many other Asian nations who were under the Japanese jackboot in the past always remember the past wrongdoings of Japan. If it keeps rushing towards a military power as it negates its past, it will only hasten its destruction.

By Min Chol PT

## POLICY

# Independence, peace and friendship consistent foreign policy

It is the consistent stand of the Workers' Party of Korea and the DPRK government to develop foreign relations under the ideals of independence, peace and friendship.

The DPRK continues to bolster up the ties of friendship, unity and cooperation with socialist countries and actively develop external relations as required by the changed times.

The strategic communication and traditional ties of friendship and cooperation among the socialist countries were increased a step higher last year through the three rounds of Supreme Leader Kim Jong Un's historic visit to China and the Cuban delegation's visit to the DPRK.

In the new year, the Supreme Leader visited China again, demonstrating to the full the will of the DPRK to promote the traditional bilateral ties of friendship in an all-round way and make the current of peace formed on the Korean peninsula and in the region a durable one.

The DPRK develops relations with all the countries that are friendly to it.

Last year alone, it promoted visits and exchanges at all levels with many countries, deepening mutual understanding in this course.

Li Zhanshu, chairman of the Standing Committee of the National People's Congress of China, Mohamed Ould Abdel Aziz, president of the Islamic Republic of Mauritania, Salvador Antonio Valdes Mesa, first vice-president of the Council of State and first vice-president of the Council of Ministers of Cuba, Helal Al-

By Om Ryong PT

## around the world

The Dalian municipal medium people's court in Liaoning Province, China, recently sentenced a Canadian citizen to death and forfeiture of personal property on a charge of drug trafficking.

According to the court, the accused smuggled over 220 kg of drugs in conspiracy with other criminals in an organized international drug deal.

Some media outlets analyse the case in connection with Canada's detention of a Chinese citizen at the end of last year. On December 1 last year, Canada, according to the US' demand, arrested the chief financier of the Huawei Technologies Co Ltd on suspicion of doing business with Iran in violation of the sanctions resolution against the country.

China denounced the US and Canada for that and afterwards arrested two Canadians on suspicion of threatening its national security.

Helal, deputy regional secretary of the Baath Arab Socialist Party, Valentina Matvienko, chairwoman of the Russian Federation Council, and other party, state and government delegations, special envoys and personages visited the DPRK to participate in its 70th founding anniversary celebrations and expressed their willingness to boost solidarity with the DPRK.

Many other delegations and delegates also visited Pyongyang, especially the delegation of the United Socialist Nationalist Party of Nepal, Russian government's economic delegation and delegations of the Spanish People's Communist Party, the Communist Party of the Democratic Republic of Congo, the China Association for International Friendly Contact and Brazilian senators. During their stay they promoted understanding with the DPRK and held in-depth discussions on the matters of developing bilateral relations and improving cooperation and exchanges.

The historic, first-ever DPRK-US summit meeting and talks last year brought about a dramatic turn in the bilateral relationship which was the most hostile on the earth and made a great contribution to ensuring peace and security of the Korean peninsula and the region.

The DPRK will continue to strive to make the whole world independent under the ideals of independence, peace and friendship.

The Sino-US conflict is escalating outside the domain of trade war and Canada is being entangled in the bilateral clash.

Recently, the US and Israel officially withdrew from UNESCO.

The media have ascribed the US decision on breakaway in 2017 to its indebtedness to the UN agency.

In 2011 when the UNESCO general conference adopted the resolution on Palestine's admission to it as member, the US called a halt to the payment of dues to it on the pretext of the domestic law which disallows funding the international organizations that admit Palestine as a state.

Foreign media described the US withdrawal as a last resort for getting out of its plight and that of Israel as kowtowing and aping.

Compiled from KCNA

## GAMES

# Annual junior games open

The 45th Jongilbong Prize National Schoolchildren's Sports Contest opened with due ceremony at the Basketball Gymnasium on Chongchun Street in Pyongyang on January 22.

The sporting event will bring together more than 10,000 schoolchildren, who won the city, county and provincial preliminary matches. They are members of sports groups of schools throughout the country.

They will compete in 18 events including basketball, Taekwon-Do, ssirum and skiing.

The opening ceremony was attended by Kim Sung Du, chairman of the Education Commission, Kim Il Guk, minister of Physical Culture and Sports, youth league officials and schoolchildren.

Pak Chol Min, first secretary of the youth league central committee, in his opening address said that the current contest is of great significance in training promising young players and developing the country's

overall sports techniques by making sporting activities mass-based and everyday routine among schoolchildren.

He called on all competitors to give full play to the high sports techniques, resolution, team spirit and sportsmanship they have developed through their sporting activities to produce better results in every match.

After the ceremony, there was a men's basketball match between Kang Pan Sok Senior Middle School

School and Kim Ju Hyok Senior Middle School in Mangyongdae District, Pyongyang.

*Compiled from KCNA*



A scene from the men's basketball match between Kang Pan Sok Senior Middle School and Kim Ju Hyok Senior Middle School.

## CUISINE

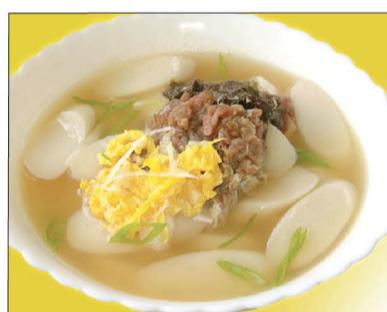
## A traditional dish for lunar New Year's Day

Rice-cake soup making has been inscribed as a national intangible cultural heritage element of the DPRK.

Since olden times rice-cake soup has been regarded as a symbolic food of lunar New Year's Day and an everyday dish in all areas of Korea centring around Pyongyang.

National classics *Ryolyangsesigi* and *Kyongdojapji* refer to "pyongthang", meaning rice-cake soup, which details the method of its making and shows that the Korean ancestors ate it as a must-have on lunar New Year's Day.

As it has pharmacological effects of rice, chicken, beef and egg, rice-cake soup helps strengthen spleen and stomach and is particularly effective against physical weakness after



Rice-cake soup.

illness and very good for the recovery of health.

How to make rice-cake soup slightly varied according to regions and ingredients. In the Kaesong area rice-cake bar was cut with a bamboo knife to make peanut-shaped rice cake and in Chungchong province hot-water dough was made before putting its thin and round pieces into boiling

soup.

To prepare rice-cake soup, rice-cake bar is made of rice powder first. And cut it into regular sizes, wash them in cold water, put them into pheasant or chicken stock and boil it for three to five minutes.

The stock is made by roasting meat in hot pan and salting it when it is more than half done. The boiled soup is ladled out into a large bowl and sliced spring onion and powdered black pepper, sesame and laver are spread over it.

The tasty and nutritious rice-cake soup has widely been encouraged under the government policy on the protection of national heritage.

By Kim Ryong Jin PT

## LIVING MONUMENT

## Pine trees remain lush for hundreds of years

"In accordance with the government's policy of protecting national heritage, dozens of pine trees have been listed as living monuments for scores of years," Ri Song Chol, deputy department director of the National Authority for the

Protection of Cultural Heritage, told KCNA.

They are found in Pyongyang and North and South Phyongan, Jagang, North Hwanghae, Kangwon, North and South Hamgyong and Ryanggang provinces and other areas.

Typical of them are Yonjibong pine growing in the highest place of the country, 450-odd-year-old Hamhung pine with rare-to-be-seen peculiar shape, 430-odd-year-old Changdo pine with a 21-metre-wide crown, 350-odd-year-old Kajin pine and 250-odd-

## CALENDAR

## Int'l sporting events set to be held in Pyongyang

Various international sporting events including games are to be held in Pyongyang in 2019.

They include the 26th Paektusan Prize International Figure Skating Festival for celebrating the Day of the Shining Star, birthday of Chairman Kim Jong Il (February 16), and the 30th Mangyongdae Prize International Marathon on the occasion of the birth anniversary of President Kim Il Sung (April 15).

The ITTF Pyongyang Open Table-Tennis Tournament will be held in July on a five-day schedule and the celebrations of

the 20th founding anniversary of the International Martial Arts Games Committee and the Autumn Amateur Marathoners Competition in September.

In October there will be the 2019 Asian Juvenile and Junior Weightlifting Championships. During the championships, participants will compete in 10 weight divisions for 120 gold medals.

Pyongyang hosted the 2013 Asian Cup and Interclub Junior and Senior Weightlifting Championship.

*Compiled from KCNA*

## CERAMICS

## White porcelain showcases national sentiment

Among Korean ceramics treasured by the world people since ancient times are white porcelain of the feudal Joson dynasty along with Koryo celadon.

White porcelain was widely used in the period of the feudal Joson dynasty because there was a growing trend towards using it in everyday life and various kinds of ceramics were in great demand as living got relatively more diversified than before. In actuality, commoners used it as tools for serving and eating food as it was mass-produced in the period.

At that time potters were said to have devoted time and energy to creating a soft muted yet attractive white colour.

The warm and sweet white colour of this porcelain meets the taste of the Korean people who have liked clean and pure things since olden times.

Typical examples of white porcelain in the period of the feudal Joson dynasty were the simple ones with no patterns, embossed ones giving an impression of elegance as patterns were embossed on soup or rice bowls to a proper height, inlaid ones on which such patterns as flowers were painted with red clay inlaid and those with cobalt blue drawings which were heated after painting pictures with blue pigment



Bowl with cobalt blue character patterns.

on the surface of containers and finishing it in white and transparent enamel.

White porcelain with cobalt blue drawings was called by different names, and historical records refer to it more than any other kinds.

Potters at the time created such a wonderful work of art, which formed an organic whole of bright, clean and vivid colour and gentle and soft one, in the course of developing white porcelain with creative wisdom.

It is characterized by concise patterns and neat design.

White porcelain from the feudal Joson dynasty remains a valuable showcase for the rich artistic talent of craftsmen at the time and its kinds, shapes and patterns mirror the life customs and emotion of the Korean nation.

By Jong Tang Song PT

year-old Tanchon pine.

The Ryongsanri pine grove around the Mausoleum of King Tongmyong, founder of Koguryo (277 BC-AD 668), the Maengsan black pine wood which is believed to have covered hundreds of hectares of land for hundreds of years and other pine forests can also be claimed to be the proud

wealth of the country.

The government has taken strict measures to protect them from natural disasters and pushed ahead with the work to find and register pine trees of academic and ornamental value as natural monuments.

*Compiled from KCNA*

