

OPINION

Role Of Agriculture In Pakistan



Muhammad Dilawaiz Khan, Nargis Naheed

Agriculture has a huge contribution toward the GDP of Pakistan economy. It contributes about 25% of total GDP, which is larger than other sectors of Pakistan.

"Agriculture is the process of cultivation of land or soil for production purpose". As an agriculturist/agronomist, Agriculture plays a very vital role in the economy of Pakistan and its development. 48% of the labor force is engaged directly with agriculture. So, it is the main source of living or income of the major part of the economy population. About 70% of the population is related to agriculture directly or indirectly. Agriculture is the major source of food for the huge population of Pakistan. Agriculture is also the major source of the provision of raw material to the industrial sector of Pakistan. Its contribution towards GDP is about 25% which is higher than the contribution of any other sector. The following are the main points of the importance of agriculture for the Pakistan economy.

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Technologies To Minimize Errors Of Pre And Post Analytical Phase Of Clinical Laboratory



Noor-e-Sahar

Medical laboratory or clinical laboratory is the place where pathology tests are conducted on biological specimens to diagnose the disease and confirm about the health of patients.

Without laboratory testing doctors just guess about patient health for accurate diagnosis doctors rely on lab reports it signifies patient treatment depends on laboratory diagnosis. So, it is mandatory that laboratory reports must be accurate, reliable, and precise. Any inaccuracy or error in diagnosis can harm the patient health.

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Camel Milk Vs Human Milk: A Scientific Perspective



Kashif Hussain

Camel milk is quite similar to human milk in that it contains large levels of lactalbumin and lactoferrin and lacks lactoglobulin.

Camel milk is quite similar to human milk in that it contains large levels of lactalbumin and lactoferrin and lacks lactoglobulin.

Camel survives best in hot environments, with limited water supplies and with few kinds of grass.

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FBR Illegally Takes Action Against Fake Withholding Transactions

In a nutshell, the complainant files income tax returns declaring only salary-related income as a Deputy Secretary in the Ministry of Law and Justice.

In violation of the law, the Federal Board of Revenue (FBR) took action against a salaried person whose tax profile contained 23,800 fictitious entries for import declarations and withholding transactions.

The Federal Tax Ombudsman (FTO) has taken serious note of the situation and has instructed the Member (Information Technology) to fully investigate it. He has also mandated that the Directorate of General Intelligence and Investigation Inland Revenue

conduct an IT audit of all fictitious transactions in order to determine the extent of revenue leakage and assign blame to the appropriate parties.

In a nutshell, the complainant files income tax returns declaring only salary-related income as a Deputy Secretary in the Ministry of Law and Justice.

According to reports, he found thousands of unknown entries in his tax profile. In fear, he contacted the Commissioner-IR, RTO Islamabad, but no response was received. He had complained to the FTO about tampering with his tax profile, and his complaint was dismissed with the recommendation that

he update his tax profile. The recommendation does not appear to have been followed, even after almost five years have passed.

According to an examination of the record provided by the complainant, there are roughly 23,800 fictitious entries in the complainant's name, including import declarations and withholding transactions made in accordance with various provisions of the Ordinance. These were most likely caused by the test NTN 1234567-9 being assigned to the complainant.

Anyone could enter this test number and get away with it if they didn't have an NTN or didn't want to reveal their NTN. This situation is a blatant

example of the systemic inefficiency and neglect of FBR and PRAL employees, which needs to be addressed. In addition, the FTO has ordered the FBR Member-IR (Operations) to give instructions to all field formations on how to take legal action against withholding agents who have improperly used the complainant's identity to recover underpaid taxes. These agents were found through a refereed investigative IT audit. "The GM PRAL's explanation for failing to address the situation, which was raised by this office and earlier by concerned IR field formation, and for failing to report compliance in 45 days," the FTO continued...[Read More](#)

Launch Of New PTV Virtual Studio To Help Bridging Tech Gap

With the launch of Virtual Studio, PTV News viewers will have access to up-to-date information about national, regional, political, cultural, educational, current & global affairs.

The Minister for Information and Broadcasting declared that largest virtual studio of Pakistan Television PTV would aid in closing the tech gap in the era of modern technology on Friday.

She made this statement while launching virtual studio of PTV alongside the minister responsible for power distribution. The minister claimed that Pakistan Television had the necessary resources but that they needed to be utilised to their full potential.

She claimed that PTV was now using IT solutions, which was necessary for the modern era, thanks to the efforts of the staff and management. "The creation of Virtual Studio is another landmark for Pakistan Television," she said, adding that it holds the distinction of being the country's largest virtual studio.

She claimed that PTV News will now operate in a contemporary manner, giving viewers accurate news.

She said that Pakistan Television's cutting-edge virtual set will innovatively present national, regional, and international news as well as weather, sports, and current affairs programmes to the public. Over the course of its 58-year existence, Pakistan Television has reached many milestones. Pakistan Television News will now keep the public informed with news, analysis, and real views of Pakistan in a contemporary way thanks to its largest virtual studio. With the launch of the Virtual Studio, PTV News viewers will have access to up-to-date information...[Read More](#)

NADRA To Conduct Bio Metric Verification Of Vehicle Owners



The process of biometric vehicle owners verification would begin through the NADRA Sahulat Program and would initially last for more than three years in the first phase.

Through its "Sahulat Program," NADRA will conduct biometric verification of vehicle

owners across Sindh to deter vehicles from operating on open letters, forged documents, or without transfer.

At a signing ceremony held here on Friday, a contract was signed between the Sindh Department of Excise and Taxation and the National

Database and Registration Authority and Anti-Narcotics.

In the presence of Secretary Excise and Taxation and Anti-Narcotics Sindh Atif Rehman, Director General Excise and Taxation Aurangzeb Panhwer, and other officers, the agreement was signed by Director Excise Admin Waheed Sheikh on behalf of the Sindh Excise Department and Head of e-Government Salman Malik on behalf of NADRA. According to the agreement, the process of biometric vehicle owners verification would begin through the NADRA Sahulat Program and would initially last for more than three years in the first phase...[Read More](#)

Saudi-Pakistan Tech House To Facilitate Trade Between Two Countries

The founding of the Tech House is a significant milestone in the digital cooperation between Pakistan and Saudi Arabia.

Prince Fahad bin Mansour Al Saud of Saudi Arabia announced on Saturday the opening of a special Saudi-Pakistan Tech House to facilitate trade between the two countries.

In a virtual address at the Future Fest 2023 conference, the prince, who is a co-founder of the tech giant ILSA Interactive, which was established in 2009 by Pakistani entrepreneur Salman Nasir, made the announcement.

The founding of the Tech House is a significant milestone in the digital cooperation between Pakistan and Saudi

Arabia. The prince had earlier announced more than 300 projects that he hoped would generate more than 1,000 jobs for Saudis and Pakistanis worldwide.



"I'm deeply honoured to be a part of such a respected and prestigious gathering of the IT industry with thought leaders of Pakistan at the country's largest

tech conference and expo, Future Fest 2023," Prince Fahad said during his address. "My trip to Pakistan began five years ago to investigate the viability of opening an IT firm in Lahore," he continued. According to him, Pakistan has "very talented resources in all fields; technical resources, user experience resources, and quality assurance resources have been great to work with."

He expressed satisfaction with the "delegation of Saudi startups" attending Future Fest 2023 and noted that Saudi "venture capitalists will have the opportunity to meet Pakistani companies and key stakeholders to explore investments...[Read More](#)

Ceremony Held To Mark Acquisition Of Cloudways By DigitalOcean

This is the largest acquisition of a Pakistani software company by a foreign company in terms of value.

The Rt. Hon. Lord Aamer Sarfraz of Kensington, a Senior Advisor to several NYSE-listed technology companies, including Yancey Spruill, CEO of DigitalOcean, and Aaqib Gadit, the Founder of Cloudways, were welcomed by the Pakistan Stock Exchange (PSX) with a gong ceremony to commemorate the acquisition of Cloudways by DigitalOcean Holdings Inc.

This is the largest acquisition of a Pakistani software company by a foreign company in terms of value.

Speaking at the event, Farrukh H. Khan, MD and CEO of PSX, welcomed the guests to the Pakistan Stock Exchange. He said, "DigitalOcean's acquisition of Cloudways is proof that Pakistani tech companies offer strategic and portfolio investors enticing business opportunities. There is a lot of potential in the information technology (IT) ecosystem because of the talent pool there."

"Importantly, the IT sector can expand service exports at a compound rate, which is crucial for Pakistan at this point. If we look at venture capital investments, startup funding was \$347 million in 2022, despite difficulties."

To support the IT industry, Pakistan's Securities and Exchange Commission has developed legal definitions for startups, and the federal government has assisted in the establishment of Special Technology Zones. In the end, Farrukh H. Khan thanked the guests and hoped this acquisition would augur well for the IT



industry of this country.

Speaking at the event, Lord Sarfraz said: "The Pakistan Stock Exchange will play a significant role in the redistribution of wealth across the country as the economy starts to rebound under the leadership of its dynamic CEO, Farrukh Khan."

The year has been difficult for Pakistan due to devastating floods and pressures from the world economy. The Cloudways story is still worth celebrating because it shows that Pakistani businesspeople continue to produce top-notch innovation. "We are honoured to be welcomed to the Pakistan Stock Exchange and are incredibly excited about the long-term growth potential of our investment in Pakistan through our Cloudways acquisition," said Yancey Spruill, CEO of DigitalOcean Holdings Inc...[Read More](#)



Govt Issues Cybersecurity Advisory Regarding Darkweb To All Ministries



According to the report, users primarily use cryptocurrencies to make payments and are largely anonymous and untraceable. The federal government has sent a cybersecurity advisory to all of its ministries and provincial departments, advising them to take the necessary precautions to prevent official data from being breached or posted on the dark web, according to a media report.

The cybersecurity advisory has recommended a number of actions, such as using two-factor authentication on all email, social media, and banking

accounts; refraining from installing dubious software and pointless plugins on browsers; and never forwarding or clicking a link shared via email or WhatsApp by unknown sources.

A portion of the internet that is hidden from search engines is known as the "dark web," also known as the "darknet." According to the report, users primarily use cryptocurrencies to make payments and are largely anonymous and untraceable. The dark web is also being used by criminals, terrorists, hostile intelligence agencies (HIAs), and non-state actors. The advisory, titled "Leakage of Sensitive Data on the Dark Web," notes that the dark web contains 96% of all data available on the internet and that its anonymity makes it a "gateway to the world of crime."...[Read More](#)

Baloch Skilled Workforce Can Play Positive Role To Uplift Country



The federal minister claimed that our goal is to give preference to local and fishing community children in Gwadar for the 65 open positions on the campus there.

The federal minister for science and technology has stated that the educated, skilled workforce of Balochistan has the potential to play a significant positive role in the development of both the nation and the province.

He made these remarks at the Pakistan Council of Scientific and Industrial Research (PCSIR) and COMSATS University Gwadar Campus opening cere-

mony, which was sponsored by the Ministry of Science and Technology.

In particular, an educated and skilled workforce can help to drive innovation, increase productivity, and support the development of new technologies and industries.

The leader of the party and the prime minister, he claimed, want genuine development in the province. The advancement of the Gwadar population, particularly the fishermen, is essential to the success of CPEC.

He claimed that the Gwadar Technical Training Center for Precision...[Read More](#)

Excessive Use Of Pesticides Poses Serious Risks To Human Health

The women workers are more vulnerable to pesticide risks than men because they are more frail and have lower immunity levels than men.

Overuse of pesticides and insecticides in agriculture poses serious risks to soil fertility, human health, and the environment in South Punjab, the nation's agricultural centre and primary source of food.

Since 70% of South Punjab's population lives in rural areas and the majority of them are employed directly in the agricultural sector, both male and female field workers are typically exposed to this phenomenon.

Around five million farmers, the majority of whom are women, are known to work in agriculture fields to assist their men and eke out a living in order to combat extreme poverty, according to the South Punjab Agriculture Secretariat.

These women workers are more vulnerable to pesticide risks than men because they are more frail and have lower immunity levels than men. The results of a survey and lab analysis carried out a few months ago by the

Agriculture Secretariat of South Punjab to ascertain the presence of chemical pesticide residue in cotton fields were alarming.

After analysis at the Chemical Pesticide Residue Lab in Kala Shah Kaku revealed the presence of a significant amount of triazophos and gamma-cyhalothrin in samples, three parts of cotton bolls (peel, lint, and seed) were collected from the pesticide usage fields.

According to European standards, the permissible residue limit for the pesticide Triazophos should be 0.01 mg/kg, but in Multan's sample, it was 20.34 mg/kg, in addition to the significant amounts of Gamma-cyhalothrin present.

Medical professionals observe the deadly effects on people exposed to pesticides and insecticides, fearing these individuals will experience unconsciousness, lung and liver complications, and cancer if the disease becomes chronic.

According to Dr. Waqas Arqam, "acute and chronic complications are emerging from excessive use of chemical pesti-



cides." When the condition is acute, farmers who are spraying or who are visiting farms soon after spraying pass out. They experience cancer, liver and lung issues, and other fatal diseases in their chronic form.

He claimed that during the cotton season, a sizable number of patients affected by pesticides are brought to emergency rooms. Contact dermatitis brought on by overuse of chemical pesticides can result in many different complications, including bleeding, infection, and itching.

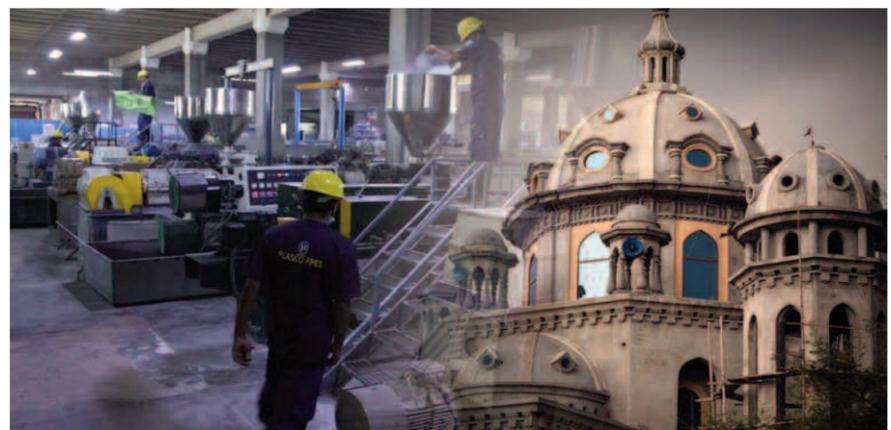
He claimed that after prolonged exposure to pesticides, residues begin to build up in their bodies, and at a certain level of accumulation, these residues cause cancer, liver problems, and infertility, particularly in female farmers. "Occasionally, this poison enters their stomachs when they eat with dirty hands," Women are more susceptible to this phenomenon, which can cause infertility, skin problems, liver and breast cancer, stunted growth, and other problems, according to Dr. Waqas...[Read More](#)

Saudi Startups Participate In Pakistan's Largest Tech Expo

DCO director Abdul Karim Samakie told the audience, "I'm hoping we come out of this event with some MoUs and deals signed, and possibly new hires in Pakistan as part of this event."

A number of Saudi startups were present at Future Fest, Pakistan's largest tech conference and expo, to explore opportunities for cooperation and expansion. Future Fest 2023, a three-day expo with the hashtag #SaveTheFuture, will feature 50,000 attendees, 500 startup representatives, and 200 exhibitors from more than 30 nations. The second iteration of the largest tech expo, which had its debut in Islamabad the previous year, is held in Lahore in collaboration with the provincial government of Punjab and the Punjab Information...[Raed More](#)

Punjab CM Announces To Establish Engineering University In Gujrat



The establishment of a modern engineering university and the provision of employment opportunities for graduates could promote regional economic development.

The Punjab Chief Minister announced on Friday that he would invest Rs 9 billion in Gujrat to build a cutting-edge engineering university. The establishment of a modern engineering university and the provision of employment opportunities for graduates could promote regional economic development.

Access to high-quality education and training is a critical first step in building a more prosperous and vibrant society. Speaking at the University of 7th convocation of Gujrat, he promised that students who graduated from the Engineering University

would also be given jobs.

The chief minister also stated that eight new buses would be purchased for the University of Gujrat for a cost of Rs 150 million,

along with the construction of girl hostels at a cost of Rs 420 million.

The construction of girl hostels and the purchase of new buses will enhance the university experience for students and increase its accessibility to a wider range of people.

He stated that an information technology (IT) lab would be established at Gujrat University for a cost of Rs 40 million and continued, "We are also planning to build an auditorium in collaboration with US Aid and other philanthropists."

The establishment of an IT lab

will provide students with access to modern technology and resources, which can help enhance their learning experience and prepare them for careers in the IT industry.

Additionally, the plan to build an auditorium in collaboration with US Aid and other philanthropists suggests that there is a strong commitment to supporting the growth and development of the university.

Such investments in education and infrastructure can help create a more dynamic and prosperous society and contribute to the overall development of the region. The CM cited the Gujrat University's 62 percent female enrollment as a shining example of women's empowerment...[Read More](#)

UHS Introduces Modular Integrated Curriculum For Medical Colleges

Basic medical science courses were taught to medical and dental students for the first two years, and clinical courses began in the third year.

For its affiliated colleges, the University of Health Sciences (UHS) has chosen to implement a new modular integrated curriculum syllabus. Beginning on March 1st, new classes will be held in medical and dental colleges, and the new syllabus will go into effect.

The medical and dental colleges connected to the UHS will implement a modular integrated



curriculum, per the specifics. Students studying medicine and dentistry will begin their first year of study with clinical subjects under the new curriculum.

Basic medical science courses were taught to medical and dental students for the first two years, and clinical courses began in the third year.

Vice-Chancellor (VC) UHS Prof. Ahsan Waheed Rathore said during a meeting in this regard that the decision was made on the recommendation of the Pakistan Medical Commission (PMC) in accordance with the accreditation criteria of the World Federation of Medical Education (WFME).

In order to gain international recognition for Pakistan's medical and dental degree programmes, PMC is already collaborating with the WFME. In order for Pakistani doctors to be able to practise abroad...[Read More](#)

Better Input Situation Expects To Boost Crop Production In Rabi Season

Finance division is optimistic that rabi season will bring positive returns for the nation's agricultural sector because of favourable circumstances made possible by Kissan Package

The finance division is optimistic that the rabi season will bring positive returns for the nation's agricultural sector because of the favourable circumstances made possible by the prime minister's Kissan Package, which was announced in the wake of last year's devastating floods. Crop production is anticipated to rise during the rabi season due to the improved input situation.

The wheat crop has been sown on an area of 20.77 million acres for the Rabi season 2022-23, according to the Q-monthly



block's report for the end of the previous year. The Kissan Package 2022 incentives, which will increase production in rabi season, are expected to keep the input situation favourable, according to the report.

The irrigation water supply

was 6.32 MAF for November 2022, up from 5.50 MAF for the same month the previous year, according to IRSA. When compared to the same period in FY2022, the agriculture credit disbursement increased by 35.9% to Rs 663.9 billion (from

Rs 488.5 billion).

Urea and DAP off-take were 583 thousand tonnes (1.6 percent more than November 2021) and 236 thousand tonnes, respectively, during Rabi 2022-23 (November 2022). (7.5 percent higher than November 2021).

Floods brought on by climate change had seriously damaged the nation's agriculture and jeopardised its food security in the previous year. Pakistan is already a net importer of food, and its struggles with self-sufficiency are getting more and more difficult.

The floods in Pakistan were the biggest news of the year, not just in agriculture but also in the rest of the nation and possibly the entire world...[Read More](#)

CCLC Approves Proposed Agenda Of Safety Standards Of Vehicles

The safety standards being developed by PSQCA, an organisation of the Ministry of Science and Technology, have previously caused disagreements among the stakeholders.

Major automotive industry players have agreed to reach a consensus regarding the safety standards of a few of the locally assembled vehicles for the first time in Pakistan's history. The proposed safety regulations were approved on Friday by the Cabinet Committee on Legislative Cases (CCLC).

The CCLC, which met in this location on Friday, is said to have discussed and approved the agenda item regarding safety standards of vehicles, including electric vehicles (EVs), which



will now be forwarded to the federal cabinet for approval.

The committee discussed a list of standards for various parts developed by the Pakistan Standard and Quality Control Authority (PSQCA) in consultation with all stakeholders, including the manufacturers and assemblers, parts manufacturers, and Engineering Development Board (EDB), an arm of the Ministry of Industries, the Ministry of Climate Change, and others...[Read More](#)

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M. Dilawaiz Khan

The population growth rate of Pakistan is increasing rapidly. According to UNDP (United Nations Development Programme) human development report, the population growth rate of Pakistan is 2% per year. So, with the rapidly increasing population, the food requirement is also increasing rapidly



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Source of Employment:
Pakistan as a developing economy the employment on a consistent level has much importance. In this behalf, agriculture has much importance because it provides employment directly or indirectly to the public. Employment directly affects the GSP of the economy

as well as the per capita income. With the increase in per capita income living standard increases, higher hygiene facilities & better education facilities are also increasing. All these signs are the factors of economic development. So, we can say that agriculture has a great contribution to economic development by providing employment.

Food Requirement:
The population growth rate of Pakistan is increasing rapidly. According to UNDP (United Nations Development Programme) human development report, the population growth rate of Pakistan is 2% per year. So, with the rapidly increasing population, the food requirement is also increasing rapidly. In this behalf agriculture is the only major sector which is meeting the increasing requirement of food. It also reduces the import of food from other economies. So, we can say that the agriculture sector is playing a very vital role in the development of Pakistan by providing food for massive population as well as supporting economic growth.

Contribution in Exports:
Major exports or cash crops of Pakistan are wheat, rice, and cotton. 9.8 billion Bales of cotton are produced per year. Rice crop is produced 4.3 million tons per year. These agricultural commodities are exported to various countries against foreign exchange. This foreign exchange is utilized for the import of industrial or technological equipments such as machinery or automobiles. Further this foreign exchange is

utilized to improve the infrastructure of the economy or for improving the other sector of the economy like education, health, and investments.

Raw Material for Industries:
Industries have great importance for the development of any country especially for developing economies like Pakistan. Industries need raw material to produce finish goods. In Pakistan agriculture provides raw material to industries. Cotton is a very important agricultural production which is also a major export of Pakistan. It is used as a raw material in textile industries. The production of these textile industries is exported to various countries against foreign exchange. Livestock is also an agricultural sector. It also plays a very important role to export goods by providing the raw material to various industries like sports goods industries and leather industries. So, in this way agriculture helps to Pakistan economy and its growth toward development.

Infrastructural Development:
Infrastructure plays a very important role in the development of any economy. It is fuel to the economic development. Well organized infrastructure is a key to development because of quick means of transportation of agricultural goods or commodities (raw material or finish goods)

and communication. On the distribution purpose of agricultural products good and quick means of transportation are required this intends to improve the infrastructure rapidly.

Hence, agriculture plays an important role in the development of transportation for the purpose of distribution of goods.

Increase in GDP Level:
Agriculture has a huge contribution toward the GDP of Pakistan economy. it contributes about 25% of total GDP, which is larger than other sectors of Pakistan. An increase in GDP shows the development progress of the economy. It has played a very important role since independence toward the GDP of Pakistan. Now agriculture is the 3rd largest sector of contributing to GDP. Livestock and fisheries are a huge sector of agriculture in order to provide employment. Employment contributes to GDP; it is as with the increase in employment the per capita income will increase which results in to increase in the GDP rate of the economy.

Decreasing in Rural Poverty:
The agriculture sector has played a very important role in order to reduction of rural poverty. From 1975 to 2000 the GDP growth rate of agriculture was about 4.1% per year. Green revolution technology in irrigation, improved seeds, and fertilizers played a very vital role to increase the agricultural production which results in increase in GDP.

Through this technology farmers with land gain the opportunity to increase their production. So, in this way, arable lands became cultivated lands and farmers got the market of agricultural products against some return.

Development of the Banking

Sector:
Agriculture has also contributed a great role in the development of the banking sector. As the government realized the importance of agriculture, it takes steps to improve the productivity of crops by providing the credit facilities to the farmers at low-interest rates. With utilizing these credits farmers can produce more and more crops. For this purpose, the government established the ZTBL and other financial institutes for the provision of credit facilities. So, in this way the development of the banking sector takes place.

Farm Mechanization:
The introduction of farm mechanization in the agricultural sector had played a very effective role in the development of the economy. With the use of modern machinery in agricultural lands causes more and high-quality production of crops. So, the provision of raw material to the industries increases. Due to an increase in productivity level the export rate of major export crops is increased which causes foreign exchange and economic development.

Use of Nanotechnology:
In the agricultural sector use of modern technology like nanotechnology has played a very vital role in the development of the economy.

This technology is used for producing high yielding variety with high-quality products. High-quality products result in a high rate of return to the farmers and the per capita income of farmers increases...**Read More**

My life is now a constant assessment of whether what's happening in real life is more entertaining than what's happening on my phone."

-Damien Fahey
American writer, voice actor, DJ, television host, comedian, and former video jockey.

Noor-e-Sahar

Pre-analytical robotic workstation. Pre analytical phase entail many steps or process due to which most prone to error but error can reduce when whole specimen processing becomes automated that possible by pre-analytical workstation the automated system that minimize most of human errors it enables sample identification, sorting, aliquoting, decapping, recapping, level detection, automated centrifuge and detect interfering elements



Technologies To Mimimize Errors Of Pre And Post Analytical Phase Of Clinical Laboratory

Medical laboratory or clinical laboratory is the place where pathology tests are conducted on biological specimens to diagnose the disease and confirm about the health of patients.

Without laboratory testing doctors just guess about patient health for accurate diagnosis doctors rely on lab reports it signifies patient treatment depends on laboratory diagnosis. So, it is mandatory that laboratory reports must be accurate, reliable, and precise. Any inaccuracy or error in diagnosis can harm the patient health.

To certain the accuracy and make lab diagnosis and reports accurate and reliable it ought that carry out each task with great care and make every step of laboratory free from errors. Basically, laboratories working is divided in three phases pre analytical, analytical and post analytical phases. Today laboratories are taking forward steps and more focus on analytical phase or quality control to ensure accurate results but sometimes the pre and post analytical phase are neglected that prompt the inaccuracy. To maintain quality system, it is must to make every phase free of errors.

As the world advances day by day many technologies have been developed that make humans work easier. As same there are many technologies that significantly minimize laboratory errors. This article appraises about those technologies that contribute to reduce errors of pre and post analytical phase.

Pre analytical phase is paramount phase of laboratory where your laboratory process is started so any error in start can continue error at the end. Pre analytical phase of lab contains many steps due to which it is prone to errors. For accurate diagnosis it's essential to make first step accurate. Most common errors of pre-analytical phase are:

- Wrong order entry
- Wrong specimen labelling or identification
- Presence of interfering substance
- Improper handling

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These errors can be minimized by introduction of some technologies like

Computerized physician order entry system. For accurate diagnosis and result firstly it is must that select appropriate test,

wrong test selection prompts whole process going to wrong, delay patient treatment, repeated testing, and financially affect patient. The paper-based test requisition causes this error due to poor or understandable writing. This error can be minimized many percent by establishing "computerized physicians order entry system that enables the physician to request a test directly through computer in this way the wrong entries of tests can be reduced. This technology improves efficiency and accuracy of laboratory.

Automated patient or specimen ID system. Specimen identification error is ubiquitous error that directly affects patient health because misidentification or mislabelling lie at the root of misdiagnosis. Handwritten labels cause this error owing to omit a line, number or name. But many technologies have been elaborated that meliorate to avoid this error. Barcode identification system is one of effective way that eliminates human errors and significantly decreases misidentification of sample. Even the lab automated machines entail barcode scanners that enormously decrease rate of error. Not only that but Radiofrequency identification, magnetic strips, optional charac-

ter recognition also same technologies to reduce patient ID error.

Serum indices. Presence of interfering substance in sample is one of most deleterious error of pre analytical phase that causes incorrect measurement of analyte. Haemolysis, lipemia and icterus are most frequent interfering substance that befall due to inappropriate collection, handling, and timing. Presence of interfering substances change concentration of analyte in sample by absorbing light with different wavelengths. Most lab detect these interferences by visual examination that prompt unreliable results. But this can be fix by serum indices the automated system that enable lab to quantify these interfering substances with confidence. Serum indices use bio chromatic wavelength for measurement then by calculation of absorbance show level of haemolysis, lipemia, and icterus in sample and increase accuracy and reliability of results.

Pre-analytical robotic workstation. Pre analytical phase entail many steps or process due to which most prone to error but error can reduce when whole specimen processing becomes automated that possible by pre-analytical workstation the auto-

mated system that minimize most of human errors it enables sample identification, sorting, aliquoting, decapping, recapping, level detection, automated centrifuge and detect interfering elements. In this way improve accuracy and integrity of specimen processing not only that but also protect lab personnel from biohazard, infection and contamination by decrease sample handling.

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Post analytical phase last and ultimate phase of laboratory that give appraisal of lab diagnosis or sum up of pre-analytical and analytical phase. This phase necessitates transmission of accurate and reliable report to authentic person on time. Any error in this phase annihilate total testing process. The most common error that occurs in post analytical phase are

- Delay transmission of reports
- Reported to wrong patient
- Inappropriate verification of results

But these errors can diminish by implementing new technologies as such

Auto validation of results. Transmission of laboratory report to authentic person on time that must be accurate and reliable is prior goal and target

of lab. But as with population health issues or problems propagate owing to increase number of testing due to which some time this goal doesn't come true. Manual validation of results takes significant time and may omit step that causes errors. But Auto validation of test results can demote this issue or error. It is automated system that verify result without need of lab person. Auto validation system is based on predetermined rules and criteria that implemented in Laboratory information system (LIS).

These rules entail analytical measurement range (AMR), pre analytical and analytical flags, limit check, critical value, delta check and consistency check. If result is fulfilling on these parameters verified automatically if any result doesn't fall any of parameter not verified automatically. This technology ambitiously minimize error that previously befall, help to catchup out of range result, alert about critical value etc. It not only reduces errors but also enhance patient safety and lab quality.

Electronic transmission of reports, patient treatment and diagnosis rely on lab reports, so it is fundamental to deliver report on time to authentic person. **..Read More**



Kashif Hussain

Lactoferrin, GlyCAM-1, immunoglobulins, lactoperoxidase, peptidoglycan recognition protein (PGRP), lysozyme, and acidic whey protein are only a few of the bioactive proteins with potential antibacterial action that have been discovered in camel milk



Camel Milk Vs Human Milk: A Scientific Perspective

Camel milk is quite similar to human milk in that it contains large levels of lactalbumin and lactoferrin and lacks -lactoglobulin.

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Camel survives best in hot environments, with limited water supplies and with few kinds of grass. As a result, camels are often produced in nations with sizable desert areas.

Camels can be used for various things, including transportation, racing, tourism, agricultural work, cosmetics, milk, meat, and wool.

Camels are a great source of milk production. African nations (such as Somalia, Sudan, Nigeria, Kenya, Chad, Mauritania, Ethiopia, and Mali), which produce the majority of the world's fresh whole camel milk, are followed by Asian nations in terms of milk production (e.g., India, Yemen, Saudi Arabia, United Arab Emirates, China, and Pakistan).

Camel milk is regarded as a great substitute for human milk when access to human milk is restricted because it provides nutritional value that is superior to that of bovine milk and analogous to human milk.

Camel milk lacks allergy-inducing lactoglobulin contains a high percentage of easily hydrolyzed caseins and provides a good balance of key amino acids for human diets. In addition, camel milk is rich in vita-

mins, minerals, and protective proteins with anti-cancer, anti-diabetic, and antibacterial qualities, such as immunoglobulins, lactoferrin, lysozyme, and lactoperoxidase.

Macro-nutrients and bioactive compounds in camel milk

The composition of camel milk has been examined worldwide, and most studies indicate significant variances. Various ingredients of camel milk are mentioned below:

Camel milk vs human milk 2 Proteins

In camel milk, caseins ranges from 61.8 to 88.5% of the total protein. S1-casein, S2-casein, kappa-casein, and other camel casein components comprise 21, 10, 65, and 3.5% of the total caseins, respectively. Camel milk has a high concentration of casein (65% of all caseins), similar to human milk. Since casein is less resistant to peptide hydrolysis than -S-casein, its quantity in camel milk is one of the primary factors in Camel's milk ease of digestion for newborns.

Casein fractions from camel and bovine milk have amino acid compositions that are relatively comparable, with the exception that camel caseins contain more proline and less cysteine.

Lactalbumin, serum albumin, immunoglobulins, lactoferrin (also known as glycosylation-dependent cell adhesion molecule-1 or GlyCAM-1), and lactoferrin are the primary components of camel milk whey proteins.

Capillary electrophoresis was used to evaluate the amounts of lactalbumin, serum albumin, and lactoferrin in camel milk. These

values were 2.01, 0.40, and 1.74 mg/mL, respectively.

Camel milk is quite similar to human milk in that it contains large levels of lactalbumin and lactoferrin and lacks -lactoglobulin. The absence of lactoglobulin in camel milk makes it a possible alternative protein source in the newborn formula because it is one of the main allergens in cow's milk.

Studies demonstrate that Camel's milk hypoallergenic proteins make it a viable substitute for human milk.

Lactoferrin, GlyCAM-1, immunoglobulins, lactoperoxidase, peptidoglycan recognition protein (PGRP), lysozyme, and acidic whey protein are only a few of the bioactive proteins with potential antibacterial action that have been discovered in camel milk.

Lipids

In a study, the fatty acid composition of camel milk was thoroughly studied and contrasted with that of cow and human milk. Compared to bovine and human milk fats, camel milk fat has a lower concentration of short-chain fatty acids (C4-C12) and a higher concentration of long-chain saturated fatty acids.

Camel milk fat had the highest amount of branched-chain fatty acids (3.03%) compared to bovine and human milk fats, which had concentrations of 1.82 and 0.36%, respectively. In addition to oleic acid, 18:1 cis-9 (17.2%) and palmitoleic acid, 16:1 cis-9 (10.1%), camel milk fat also contains substantial levels of these cis-monoenoic fatty acids.

Bovine milk fat had a solidification temperature of 22.8 C and

a melting point of 32.6 C, compared to camel milk fat's 41.9 C and 30.5 C, respectively. Because of its high concentration of long-chain fatty acids, low concentration of short-chain fatty acids, and trans18:1 isomer, camel milk fat may have a higher melting point.

Triacylglycerols (TAGs, C40) with greater molecular weights dominate the melting profile of milk fat. The main factors for camel milk fat's substantially greater melting temperature than those discovered for bovine, goat, sheep, horse, donkey, and water buffalo milk in the same study were considered to be its low levels (1% of TAG C24-C40) and very high amounts of TAG C48-C52.

Camel milk has the smallest average diameter of milk fat globules (2.99 mm), followed by goat milk (3.2 mm), sheep milk (3.78 mm), cow milk (3.95 mm), and buffalo milk (8.7 mm). From 0.1 to 4.0 m, relatively smaller fat globules make up 80.6, 68.4, 55.3, 73.3, and 23% of the total fat distribution in camel, bovine, sheep, goat, and buffalo milk.

Camel and goat milk are thought to be easier for humans to digest because tiny fat globules are more susceptible to lipolytic enzymes.

Lactose

Dromedary camel milk has a lactose concentration comparable to cow's milk. At the calf's delivery, the camel milk lactose content was determined to be low (2.8%, w/v), but it rose to 3.8% during the first day of nursing. While camels with free access to drinking water had an average lactose concentration of 5%, those dehydrated had an

average lactose content of 2.9%.

The reported variations in Camel's milk taste (sometimes sweet and occasionally bitter) have largely been attributed to lactose concentration variations.

Camel milk appears to be an interestingly safer and healthier solution for those with lactose intolerance. The lower content of casomorphin in camel milk, which causes reduced intestinal motility and exposes lactose to lactase action more frequently, is one potential explanation for the easier digestion of camel milk.

The high concentration of L-lactate in raw camel milk, which is 100 times greater than that in bovine milk, may also contribute to Camel's milk lower lactose intolerance than that of bovine milk.

Minerals and vitamins

The average amount of ash in dromedary camel milk is higher than that in human milk but equivalent to that in bovine milk.

Calcium, magnesium, phosphorus, sodium, and potassium are the primary camel milk minerals with the following mean values (mg/100 g), while the comparable concentrations in bovine milk are 119.9, 13.4, 95.0, 49.7, and 147.0.

Human milk has substantially lower quantities of these minerals: 32.4, 3.4, 14.0, 16.0, and 51.8 mg/100 g, respectively.

Ca:P ratios for camel, human, and bovine milk are correspondingly 1.5, 1.29, and 2.1. A CM-based formula is preferable for feeding infants because a high phosphate content in infant formula may result in hyperphosphatemia and low serum calcium. Additionally, camel milk has a six-fold higher iron concentra-

tion than cow's milk.

Vitamins A, C, D, E, and the vitamin B family are among the many vitamins in camel milk. The high vitamin C content of camel milk, three to five times more than that of cow's milk, makes it well known.

Bovine milk includes more vitamins A and B2, whereas camel milk has a higher quantity of vitamin B3 than bovine milk. B1 and B6 levels in camel and cow milk are comparable. Recently, a thorough analysis of the many vitamins found in camel milk was published.

Biological functionalities of camel milk

Hypoglycaemic effect

In camel-rich regions, using camel milk to treat diabetes has a long history. In Rajasthan, India, a group that consumed camel milk had a much lower prevalence of diabetes than a society where camel milk was not consumed (0 vs 5.5%).

A large number of clinical investigations have supported the anti-diabetic properties of camel milk. After consuming camel milk for three months, type I diabetic patients needed 30% less insulin. Additionally, after 1- and 2-year trials, camel's milk long-term efficacy and safety as adjuvant therapy for type I diabetes were validated.

Due to a considerable rise in insulin levels seen after consuming camel milk for two months, camel milk may also help people with type II diabetes control their insulin levels.

In animal models, the hypoglycemic impact of camel milk was also studied. After taking camel milk for four to five weeks...**Read More**



Muftiha Noor

Rosalind Franklin was a pioneer of the study of molecular structures receiving recognition among scientists for her research on the molecular structure of coal, viruses, and DNA. Her X-ray diffraction images of DNA enabled the University of Cambridge's Francis Crick and James Watson to identify the molecule's double helix structure



Women Role Models In Science

The saying, "If she can't see it, she can't be it," speaks to the importance of women role models in science, mathematics, and technology.

The saying, "If she can't see it, she can't be it," speaks to the importance of introducing girls to female role models, especially in areas where women's accomplishments were often overlooked or minimized such as in science, mathematics, and technology. A new poster collection aims to bring more of these women's stories to light — and inspire today's Mighty Girls with the knowledge that she can be whatever she aspires to be!

The free downloadable posters, created by Nevertheless, feature eight trailblazing women who have made an impact in STEM fields. Each poster is also uniquely designed by a different female artist from around the world. Nevertheless, a podcast which celebrates women transforming teaching and learning through technology, hopes that you will download the posters and print them out for your school, home, or workplace. Below, you'll find links to download each poster, as well as a description of the scientist featured and recommended reading for both kids and adults to help you explore her

story in more depth.

Of course, one of the best ways to encourage kids' interest in science is through stories, and there are fortunately an ever-growing number of high-quality books about female scientists, engineers, and mathematicians being written for children and teens!

To learn about the best new books for all ages, you can find both books about real-life female scientists and fictional stories about curious Mighty Girls who love science in our blog post, Ignite Her Curiosity: Books to Inspire Science-Loving Mighty Girls. You can also browse A Mighty Girl's entire collection of books about pioneering female scientists for children and teens in our Science Book Collection, which is sortable by reader age using the left menu filter.

From beautifully illustrated picture books to fascinating teen biographies, the growing numbers of great books about female scientists for children and teens show our girls how women have made critical contributions to science throughout history. And, of course, these titles are just as important to share with boys because all kids need to know that science is for girls!

Dr. Cynthia Breazeal is an Associate Professor of Media Arts and Sciences at the Massachusetts Institute of

Technology where she founded and directs the Personal Robots Group at the Media Lab. She is also founder and Chief Scientist of Jibo, Inc. She is a pioneer of Social Robotics and Human Robot Interaction. She authored the book Designing Sociable Robots, and she has published over 100 peer-reviewed articles in journals and conferences on the topics of Autonomous Robotics, Artificial Intelligence, Human Robot Interaction, and Robot Learning.

Rosalind Franklin was a pioneer of the study of molecular structures receiving recognition among scientists for her research on the molecular structure of coal, viruses, and DNA. Her X-ray diffraction images of DNA enabled the University of Cambridge's Francis Crick and James Watson to identify the molecule's double helix structure. For years her work on the structure went unnoticed as only Crick, Watson and Franklin's colleague Maurice Wilkins received the Nobel Prize for the discovery in 1962. In 2003 The Royal Society established the Rosalind Franklin Award to bring attention to outstanding work of women in STEM.

Mae C. Jemison is an American engineer, physician and NASA astronaut. She

became the first African American woman to travel in space when she went into orbit aboard the Space Shuttle Endeavour on September 12, 1992. She resigned from NASA in 1993 to found a company researching the application of technology to daily life. She has appeared on television several times, including as an actress in an episode of Star Trek: The Next Generation. She is a dancer and holds nine honorary doctorates in science, engineering, letters, and the humanities. She is the current principal of the 100 Year Starship organization.

Maria da Penha is a Brazilian biopharmacist and human rights defender. She advocates for women rights, particularly against domestic violence. When Maria da Penha was almost killed by her husband, there wasn't a single police station she could go to in Brazil that specialized in violence against women.

The case Maria filed languished in court for two decades, while her husband remained free. Years later, in a landmark ruling, the Court of Human Rights criticized the Brazilian government for not taking effective measures to prosecute and convict perpetrators of domestic violence. In response to this, the Brazilian government in 2006 enacted a law now known as the Maria da

Penha Law on Domestic and Family Violence, which increased the severity of punishment for domestic violence against women, whenever it occurred in a domestic or family environment.

Juliana Rotich is a technologist, strategic advisor, entrepreneur, and keynote speaker. She is co-founder of BRCK Inc, a hardware and services technology company based in Kenya. BRCK was formed to realize a vision for enabling communication in low infrastructure environments by developing useful, innovative technologies. Juliana also co-founded Ushahidi Inc., a non-profit tech company, which specializes in developing free and open source software for changing how information flows in the world.

Dr. Hayat Sindi was born in Makkah, Saudi Arabia and is one of the world's leading biotechnologists. She is the Founder and President of the i2 Institute and a co-founder of Diagnostics For All.

She was ranked by Arabian Business magazine as the 19th most influential Arab in the world and the ninth most influential Arab woman. Sindi has a Ph.D. in biotechnology from Newnham College, Cambridge, which she obtained in 2001; she was the first Saudi woman to be accepted at Cambridge University to study the field of

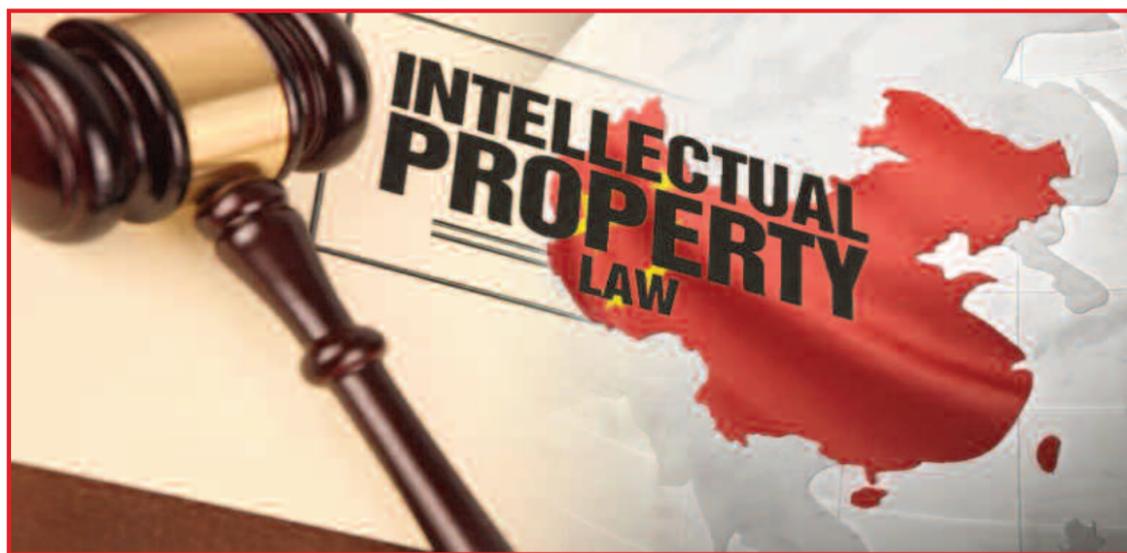
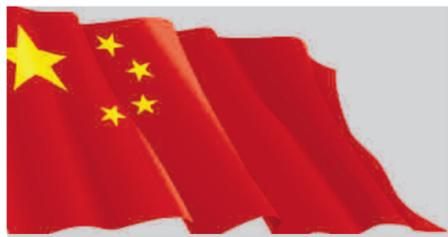
biotechnology, and the first woman from any of the Arab States of the Persian Gulf to complete a doctoral degree in the field.

Tu Youyou is a Chinese pharmaceutical chemist and educator. She discovered artemisinin (also known as qinghaosu) and dihydroartemisinin, drugs used to treat malaria. Her discovery was a significant breakthrough in 20th-century tropical medicine, saving millions of lives around the world.

For her work, Tu received the 2011 Lasker Award in clinical medicine and the 2015 Nobel Prize in Physiology or Medicine, jointly with William C. Campbell and Satoshi Ōmura. She is the first Chinese Nobel Laureate in physiology or medicine, and the first female citizen of the People's Republic of China to receive a Nobel Prize in any category. She is also the first Chinese person to receive the Lasker Award.

Tu Youyou was born, educated and carried out her research exclusively in China.

Gladys West is an American mathematician known for her contributions to the mathematics underpinning GPS. Her contributions to GPS were only uncovered when a member of her sorority, Alpha Kappa Alpha, read a short biography West had submitted for an alumni function.



China To Take Initiative In Formulating International IP Rules

Increasing efforts will be made to promote multilateral cooperation, such as those with BRICS and ASEAN countries, Shen Changyu said.

China will take the initiative in formulating and amending more international intellectual property IP rules to better support the country's opening-up, according to a senior IP regulator.

Shen Changyu, commissioner of the China National Intellectual Property Administration, said, "We'll continue our active participation in enhancing international rules on patents, trademarks, industrial designs, and geographical indications under the multilateral framework, with

global exchanges on the review rules in fields of emerging technology."

As he summarised last year's accomplishments and introduced this year's major work to sub-bureaus of intellectual property across the country on Friday, he made the remark.

Increasing efforts will be made to promote multilateral cooperation, such as those with BRICS and ASEAN countries, he said, adding that the administration will strengthen IP cooperation on the Belt and Road Initiative.

In order to participate in international IP-related exchanges, he continued, "we'll also support industrial associations and social organizations."

When reflecting on the work done in the previous year, he praised the fight against erroneous trademark registration, saying that "it helped improve high-quality development in IP-related fields." He claimed that the administration disallowed 3,192 trademark registrations that were made maliciously, including those for the Beijing Winter Olympics' mascot Bing DwenDwen and the FIFA World Cup's mascots La'eeb and La'eeb. In addition, it announced the invalidity of 2,629 trademarks and restricted the transfer of 3,522 trademarks suspected of being used maliciously.

"The conflict served as a reminder that we always review

IP applications rigorously in an effort to improve the business environment," he added.

He claimed that the administration also sped up the process for reviewing IP applications in order to continuously provide stronger support for creating a creative business environment.

He added that the average time for reviewing trademark applications was cut from 10 to 4 months in 2022 and that the average time for reviewing invention patent applications was reduced from 22.6 to 16.5 months in 2022.

He added that the administration tightened its control over IP service providers and urged them to encourage discipline...[Read More](#)

Experts Criticise Dell For Switching Away From Chinese Chips



Experts said the decision of Dell Technologies to eliminate Chinese semiconductors from its products by 2024 will only weaken the strong ecosystem the company has built in China.

Given China's indispensable position in the global supply chain for consumer electronics, experts said the reported decision of Dell Technologies, a US-based personal computer manufacturer, to eliminate all Chinese semiconductor chips from its products by 2024 will only weaken the strong ecosystem the company has assiduously built in China over the last several decades and also erode Dell's global competitiveness.

After Nikkei Asia reported that Dell had instructed suppliers to lower the amount of chips and other Chinese components in its products, the remarks were made. One of Dell's competitors, HP Inc., a maker of personal computers, has reportedly begun polling its suppliers to determine whether production and assembly could be moved abroad.

"The supply chain in China is largely responsible for Dell's current production." The business would have a very difficult time locating a substitute in the near future, said Xiang Ligang, the Information Consumption Alliance's director general and a representative of the telecom sector.

Since the PC has a relatively low profit margin, according to Xiang, production costs are important, particularly given that chips made in China are typically less expensive...[Read More](#)

Foreign Ministry Urges To Adopt Science Based COVID Measures



Mao Ning stated that "no country should politicise the pandemic or adopt discriminatory measures to affect typical people-to-people exchanges and cooperation." After some nations decided to impose new entry requirements on visitors from China, the Foreign Ministry called on all nations to adopt a science-based and objective approach when formulating COVID-19 response measures and to avoid politicising the pandemic on Thursday. Speaking at a routine

news conference, Mao Ning, a spokeswoman for the foreign ministry, said, "We always believe that all countries' COVID response measures should be based on science and be proportionate." She stated that "no country should politicise the pandemic or adopt discriminatory measures to affect typical people-to-people exchanges and cooperation." Countries including the United States, Japan, Australia, and the United Kingdom...[Read More](#)

Chinese Tech Enterprises Intend To Maximise Overseas Market

At this year's CES, Chinese Tech enterprises of all sizes have one common objective: to look overseas for new growth opportunities in the wake of the pandemic.

At this year's Consumer Technology Association (CES), Chinese Tech enterprises of all sizes, including household names, unicorn startups, and small businesses, have one common objective; to look overseas for new growth opportunities in the wake of the pandemic.

Chinese Tech enterprises intend to maximise their overseas market share with their international business partners by increasing global exposure



and bringing their best products to the consumer electronics show in Las Vegas.

Major Chinese consumer electronics manufacturer TCL set up

its 1,650 square metre booth next to those of rivals like Sony, LG, Samsung, and Panasonic at the Las Vegas Convention Center. TCL's line of ultra-large-

screen Mini LED QLED TVs, sound bars, smartphones, and augmented reality demonstrations are among the products on display at CES.

A company can only expand by competing against the strongest players on the global stage and remaining viable in the most cutthroat of markets, according to Mark Zhang, general manager of NABG and TCL Industries.

In the first three quarters of 2022, 16.62 million smart screens were sold globally, according to TCL. Now, TCL is a top-two LCD brand both worldwide and in North America and maintains top positions...[Read More](#)

Chinese Kerosene Rocket Engine Completes 50-Second Test Run



Researchers concluded that the engine performance of kerosene rocket complied with the test requirements after interpreting the data.

A super 120-tonne high-thrust liquid oxygen and kerosene rocket engine has successfully completed a 50-second test run, according to the Xi'an Aerospace Propulsion Institute, a division of the 6th Academy of the China Aerospace Science and Technology Corporation (CASC).

Researchers concluded that the engine performance of kerosene rocket complied with the test requirements after interpreting the data.

This will ensure China's high density of over 60 space launch missions in 2023 when it is delivered for the Long March 7 rocket mission.

In its annual work report released on Tuesday, CASC, the principal contractor for the Chinese space programme, stated that it has more than 50 aerospace projects planned for 2023.

Ten spaceflights using its Kuaizhou-1A and Kuaizhou-11 solid-propellant rockets are also planned by China Aerospace Science and Industry Corp. (CASIC), another state-owned space company...[Read More](#)

China Owns World's Third Largest Fleet Of Civil Nuclear Reactors

By 2050, installed capacity in China could surpass 300 GWe as new reactor construction moves forward quickly.

China has the third-largest fleet of civil nuclear reactors in the world, after the United States and France, with an installed capacity of 56 GWe, and its ambitious expansion plan will make it the largest fleet by 2030.

The four policy goals of the government that are driving this programme are: improving energy supply security; lowering carbon dioxide emissions; fostering advanced industrial and technological development; and increasing technology exports.

About 4.8% of China's electricity, 2.3% of its primary commercial energy supply, and 25% of its non-hydro, low-carbon electricity will come from nuclear power in 2021.

With Generation III and high-temperature gas-cooled reactors in particular, the nation has made significant strides toward catching up to the most cutting-edge developments in other nations...[Read More](#)

First ECMO Device To Play Crucial Rule In Treating COVID Patients

A type of life support system for patients with serious heart or lung issues is ECMO. It is thought to be crucial in the treatment of COVID-19 patients who are critically ill.

The official debut of the nation's first extracorporeal membrane oxygenation (ECMO) device will be crucial in treating COVID-19 patients who are in critical condition and advancing the production of sophisticated medical equipment.

A type of life support system for patients with serious heart or lung issues is ECMO. It is thought to be crucial in the treatment of COVID-19 patients who are critically ill.

The first domestic ECMO apparatus, produced by Chinabridge Medical in Shenzhen, Guangdong Province, has been approved for emergency use by the National Medical Products Administration, China's top drug regulator.

Key performance indicators

for the product are comparable to those of its international competitors, the administration claimed in a statement. For China, the launch represents a significant advance in the design, research, development, and production of such high-end medical equipment, which has been dominated by foreign countries.

The Shenzhen Institute of Advanced Technology of the Chinese Academy of Sciences, Mindray, and Chinabridge Medical collaborated on the project as part of the National Innovation Center for Advanced Medical Devices.

According to Xin Guobin, vice minister of the Ministry of Industry and Information Technology, at the certificate-presenting ceremony in Shenzhen on Friday, the successful development closes a market gap in China and marks a significant turning point in the country's development of high-end medical equipment...[Read More](#)

