


IN BRIEF

Practo makes online booking available for Covid-19 tests

 Practo, a digital healthcare platform, said Covid-19 testing is now available for booking on its platform. Practo said it has partnered with Thyrocare, a chain of diagnostic and preventive care laboratories, to conduct Covid-19 detection test, which has been authorised by the government and ICMR. While starting from Saturday the test has been made available for Mumbai residents, it will be expanded to the rest of the country. "Widespread testing is critical to track the scale and prevent the transmission of Covid-19. To ensure that everyone can get tested, the government is constantly working on expanding the list of labs and centres. We've partnered with Thyrocare to ensure that access to these tests is not an issue," said Dr Alexander Kuruvilla, chief health strategy officer, Practo.

Infosys engineer sacked for FB post on coronavirus



An Infosys software engineer, who gave a call to the public to sneeze in public to spread coronavirus, has been sacked, the company said. The firm, which had initially believed that it could be a case of mistaken identity, confirmed later that Mujeeb Mohammad was its employee and stated that he has been terminated from service. "Infosys has a zero tolerance policy towards such acts and has accordingly terminated the services of the employee," it tweeted.

Tech M tweaks logo in solidarity with fight against corona

Tech Mahindra made a temporary change in its brand logo to reflect its commitment towards the well-being of its associates and clients. The "e" in the IT firm's logo is boxed inside the picture of a home for the next few weeks. The tweak showcases how Tech Mahindra's over 130,800 associates have adjusted to the crisis and are meeting the organization's commitments to keep critical systems running for global clients, it said on Saturday.

Trump to GM: Stop 'wasting time', produce ventilators

REUTERS
Washington/Detroit, 28 March
US President Donald Trump on Friday invoked emergency powers to require General Motors (GM) to build much-needed ventilators for coronavirus patients after he accused the largest US automaker of "wasting time" during negotiations.
Trump for the first time invoked the Defense Production Act, saying GM was not moving quickly enough even though earlier on Friday the largest US automaker announced it would begin building ventilators in the coming weeks.
Asked about negotiations with GM over ventilators, Trump expressed anger with the company's decision to close an assembly plant in

politically important Ohio. He also criticized GM's prior decisions to build plants outside the US. "I didn't go into it with a favourable view," Trump told a news conference of the GM talks.
White House advisor Peter Navarro said the administration ran into "roadblocks" with GM this week.
GM said in a statement in response to Trump that it has been working with ventilator firm Ventec Life Systems and GM suppliers "around the clock for over a week to meet this urgent need" and said its commitment to Ventec's ventilators "has never wavered".
The act grants the president power to expand industrial production of any key materials or products for national security and other reasons.

IT firms may lose exports revenue worth \$15 billion

DEBASIS MOHAPATRA
Bengaluru, 28 March

IT services players are set to face higher client specific issues in the coming quarters, mainly in the airlines, oil and gas, and tourism sectors.

According to experts, clients in these sectors are likely to hold back their IT spends, which could potentially affect 10-12 per cent of IT exports revenues, aggregating around \$15 billion. "All



CORONAVIRUS PANDEMIC

major airlines such as Delta Air Lines, Cathay Pacific; major cruise companies, apart from firms involved in oil and gas segments, are likely to cut their IT spend in the coming quarters. However, there are no project cancellations as of now though clients are asking for furloughs owing to halting of operations amidst the Covid-19 outbreak," said Pareekh Jain, an IT outsourcing advisor and founder of Pareekh Consulting.

With travel ban imposed by many nations, several airlines have informed their investors regarding the cut in their budgets.

While US-based Delta Air Lines has gone public about reducing its expenditure, its peers such as United Airlines, American Airlines, JetBlue, and Southwest Airlines have hinted at the same.

Similarly, Hong Kong-based air-

line Cathay Pacific has said it will incur losses in the first half of 2020 owing to the pandemic.

With airlines industry being largely impacted, manufacturers like Airbus and Boeing are also expected to spend less on digital technologies. "All major firms, including TCS, Infosys, HCL Technologies, Mindtree, and L&T Technology Services, have exposure to these firms or their supply chains in some way or the other," said another outsourcing advisor.

Similarly, with cruise companies coming to a halt, many of the global IT firms, including some marquee Indian names, can see adverse impact. Carnival, Royal Caribbean, and Norwegian Cruise Lines have sought a bailout from the US administration, indicating the state of affairs of the industry. Even falling oil prices have

added to the worries of IT players. Plunging of crude oil prices is likely to adversely impact the major oil processors' ability to spend on new-age technologies, though this may not impact the tech maintenance and support work.

With the auto sector also taking a severe hit, all major global original equipment manufacturers are feared to cut their spending in coming quarters. Mid-tier IT firm KPIT Technologies' red-flag over earning can be seen as early warning on supply side disruption.

IT firms can take solace from the fact that they don't have much exposure to Italy since the country is home to many luxury brands. "Italy's fashion firms like Versace, Gucci, Armani, Valentino, and Prada don't have much exposure to Indian IT firms. These high-end fashion firms, which never face any demand slowdown, usually work with global biggies like Accenture and IBM," added Jain.

COVID-19 HITS CLIENTS HARD

■ Airlines, cruises, firms in oil & gas and automotive segments plan budget cuts

■ 10-12% of revenue of about \$15 billion may be affected due to ongoing spread of virus

■ Even though project cancellations have not yet started, clients are asking for furloughs

■ Indian IT firms don't have much exposure to Italy, home to major fashion brands

Sugar mills boost hand sanitizer production

VIRENDRA SINGH RAWAT
Lucknow, 28 March

Sugar mills have ramped up production capacity of hand sanitizers to about 100,000 litres a day to cater to the rising demand in the wake of the coronavirus pandemic. Apart from sugar mills, grain-based distilleries have also augmented production capacity, taking the capacity to 200,000 litres a day.

Responding to the advisory by the central and state governments to increase production of ethanol/ethyl alcohol-based hand sanitizers, sugar mills, particularly in Uttar Pradesh, have moved fast to supplement sup-

ply with greenfield facilities at their captive distilleries. "The central and state government departments and agencies, including sugar, excise, drug controllers, have worked in perfect coordination resulting in speedier sanctions of licenses and subsequent hand sanitizer production," Indian Sugar Mills Association (ISMA) Director General Abinash Verma told *Business Standard* on Saturday.

He said while production data was being collated, about 50 sugar mills had capacity totaling 100,000 litres per day with the majority producing roughly 2,000 litres each. While, some sugar firms are



producing and marketing hand sanitizers, or supplying it to other firms for bottling and marketing, others have formed up contracts to supply its raw material viz. ethanol/ethyl alcohol/extra neutral alcohol (ENA) to external sanitizer units.

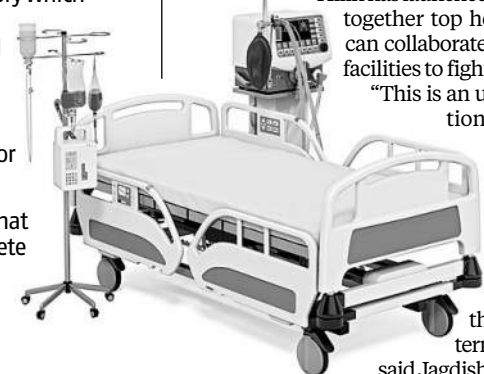
Verma also said there were no reports of any disruption in crushing operations after the 21-day lockdown was announced, and there was no reason yet to revise the seasonal sugar production estimates pegged at about 33 million tonnes (MT). "There was a little disruption at lime quarries in Rajasthan and lime transportation to the mills. However, it has now been sorted out with the intervention of the relevant central and state authorities," Verma added.

Prakash Naiknavare, managing director of National Federation of Cooperative Sugar Factories, said there was over 35 MT of standing sugarcane crop.

Budding devices firms go on a war against Covid-19

ADVANCED TECH TO THE RESCUE

- Smart ventilators that can reduce lung injury
- Sensors and AI to quantify the level of hand sanitization
- Screening devices based on the non-touch thermometer
- Digital advisory which connects doctors, social workers and psychologists with patients and families for support
- Face masks that ensure complete leak-proof coverage of eyes, ears, nose



PEERZADA ABRAR
Bengaluru, 28 March

Smart ventilators that reduce lung injury, contactless devices for sanitization and a software for detecting infection on CT scan and X-ray are some of the innovations budding medical devices firms are coming up with to tackle the coronavirus (Covid-19) pandemic.

All these will be available on Healthcare Innovation for Indian Healthcare (HiIih), a medical entrepreneurship and innovation-enabling platform.

HiIih has launched an initiative to bring together top healthcare firms that can collaborate and provide critical facilities to fight the disease.

"This is an unprecedented situation in the history of humankind. We need to be able to think and act in an agile manner and innovate as required. HiIih was created to enable the Indian medical fraternity respond quickly," said Jagdish Chaturvedi, founder

of HiIih, a noted ENT surgeon and stand-up comedian. "This platform is doing a small bit to help the society and hopefully gives strength to all of us to fight this disease," said Chaturvedi. He said medical start-ups are critical to fighting the epidemic, as they are nimble and have innovative ideas that can be deployed easily.

There are seven categories of start-ups that are working to help ease the Covid-19 crisis. They include ventilator development, disinfection and sanitization as well as mask and personal protective equipment. The other categories include drug development and helpline and support services.

One firm, Aerobiosys Innovations, is developing Duo-Vent, an artificial intelligent (AI)-enabled cost-effective and smart ventilator that can reduce lung injury and provides targeted therapy so that the ventilation time can be reduced. This allows the next person in the queue to get ventilation early.

Another firm Aikenist Technologies is providing automated detection of the severity of pneumonia due to Covid-19, based on artificial intelligence via X-ray and CT scan. This can also be used as an effective screening solution, along with reverse transcriptase-polymerase chain reaction (RT-PCR) tests. Aikenist said it provides solutions for detection of 'opacities' and 'consolidation' using AI algorithms on CT scan and X-ray images. This will help as AI assistance to radiologists for quick

diagnosis. The solution is cloud-based and compatible with all CT and X-ray machines.

Pink Tech Design has worked on developing solutions for digitally assuring sanitization. It has built three inter-connected systems for sanitization. This includes a hand sanitization station, which uses IoT (Internet of Things) sensors and AI to quantify the level of hand sanitization. The system shows a red light when hands are not properly sanitized and a green light when they are. Many employees like pantry boys, street food vendors and paramedics are also required to wear gloves and masks. Pink Tech's AI-based system uses a camera and underlying computer vision algorithms to detect if a person has worn gloves and a mask.

Using a phone or a standalone system with a camera, it can detect if the user is wearing gloves and masks and record that in an adherence database.

Sensesmile Technology is developing a Covid-19 screening device based on a non-touch thermometer. This can be used to screen people at public places like parks, community halls, cinema halls, bus and train stations to avoid community spread.

BillionLives, a social impact start-up, has launched Coronacare.Life, a digital advisory and specialist consulting platform which connects doctors, social workers and psychologists with patients, who are seeking accurate and actionable advice on the virus.

Indian start-up debuts on global quantum computing stage

AJAI SHUKLA
New Delhi, 28 March

An Indian company called QNu Labs aims to be a global player in the futuristic field of quantum computing, after becoming the world's fourth company to build a deployable "Quantum-Safe Security" product.

Only three companies worldwide can boast of such an achievement. Quantum-Safe Security is regarded as a relatively small, billion-dollar niche in the overall field of quantum computing, which could soon be a trillion-dollar industry.

The Bengaluru-based QNu Labs has matched global firms QuintessenceLabs, ID Quantique, and Toshiba in developing Quantum-Safe Security solutions. These safeguard sensitive data by upgrading conventional network encryption to foil "hacking" attempts from hostile quantum computers. In the emerging era of "quantum supremacy", hackers using quantum computing can quickly crack contemporary encryption algorithms.

Quantum computing relies on vastly enhanced computing capacity to quickly crack problems that would

take conventional computers years to solve.

The benefits of supercomputing were highlighted last fortnight in the context of the Covid-19 pandemic, when IBM's Summit supercomputer quickly identified 77 chemical compounds that might form the basis of an eventual drug against the virus.

A quantum computer could do the job far faster. Last October, Google's Sycamore processor — a quantum computer — performed a calculation in 200 seconds that would have taken the world's most powerful supercomputer 10,000 years to solve.

India's government has announced its intention of becoming a global leader in quantum computing. The 2020-21 Union Budget allocates ₹8,000 crore towards this end.

But quantum computing also has a dark side. Its computing power can quickly overwhelm ("hack") the encryption that protects data and communications in critical systems such as military and nuclear command networks, government agencies, banks, financial institutions and power grids.

"We at QNu anticipated that the power of quantum computing, in the wrong hands, has immense



Quantum computing relies on vastly enhanced computing capacity to quickly crack problems that would take conventional computers years to solve

destructive capability. So there is a need for Quantum-Safe Encryption (or Quantum-Safe Security) to safeguard networks against malevolent quantum computing," says Sunil Gupta, one of the four co-

founders of QNu Labs. The Bangalore-based QNu Labs, which describes itself as a "true research & development-led, intellectual property-focused quantum player", believes that the

current public-key encryption method is highly vulnerable and is a huge Indian security weakness.

"Hackers carry out 'harvest now, decrypt later' attacks, where they can copy and store encrypted data and decrypt it at a later stage with quantum computers... QNu Labs intention is to protect data at a national level," says the company.

With critical networks now looking at Quantum-Safe Security solutions to ward off break-in attacks from quantum computers, this niche will become a \$25 billion industry within three years, say industry experts.

Eying that market segment, QNu Labs has recently launched a "Quantum Random Number Generator" called Tropos and "Quantum Key Distribution System" called Amros, which it says is fully resistant to hacking attacks from adversarial quantum computers.

The national security establishment is clearly interested in QNu Labs' expertise. Potential adversaries like China's People's Liberation Army are developing sophisticated capabilities to hack into, and paralyse, Indian command and infrastructure networks.

QNu Labs has given technical

briefings to the National Security Agency and the Defence R&D Organisation (DRDO). The company has signed a memorandum with Bharat Electronics (BEL), in case quantum-safe security systems are required to be built in the future through a public sector entity.

"We have about 14-15 critical trade secrets, which we will safeguard as our own intellectual property. We have filed four patents already and will be filing nine more for our technologies," says Gupta.

QNu Labs was incorporated in 2016, after being incubated in Indian Institute of Technology, Madras. Gupta says the Coronavirus pandemic will restrict the current year's turnover to \$250,000 (₹2 crore) but, with his products ready to hit the market, the target for 2020-21 is \$5 million, \$15 million for 2021-22 and \$30 million for 2022-23.

The four co-founders own the company, along with some angel investors who are high-net worth individuals (HNIs) interested in deep technology. Funds are also being raised from venture capitalists, nailing its global ambitions, QNu Labs has incorporated a subsidiary in the US in October 2019, called QNu Inc.



Tea plantations may incur losses of ₹2,000 crore

AVISHEK RAKSHIT
Kolkata, 28 March

Tea plantation companies may head towards a consolidated loss of nearly ₹2,000 crore this calendar year, as all estates have been closed to contain the spread of Covid-19.

Initially, estates were kept open as plantation firms were of the opinion that the risk of infection at the gardens is extremely low. But the call to shut down was taken following the announcement of the 21-day lockdown by the Centre and state governments.

All the 1,422 registered tea estates and more than 250,000 micro-small planters have stopped production. This is due to the safety of workers, unavailability of transport to ferry finished tea and practically no demand either domestically or from importing countries. "It is of utmost importance to stop the spread of coronavirus and estates are thus closed," said Arun Kumar Ray, deputy chairman at the Tea Board.

Estimates from plantation companies pegged production losses in excess of 100 million kg (mkg) across India, which is worth around ₹2,000 crore.

Usually, plantation firms in Assam and West Bengal produce around 15 per cent of the total tea during March-April. Referred to as the tea pot of India, Assam produces around 50 per cent of the beverage in

the country annually. The figure was around 1,390 mkg in 2019 in India.

The closure period incidentally has affected the prime first flush in the Darjeeling and Dooars region. During this time, teas are usually sold at a premium. However, there aren't any buyers this time.

"Even after the estates open, another 10 days will be needed for skiffing to clear overgrown leaves," said Atul Asthana, managing director at the Goodricke Group.

Plantation companies are of the view that if the estates are

shut till mid-April,

production cannot commence

before May. The second flush season, which produces the best quality teas that are priced extraordinarily high, begins from May.

"However, a lot of preparation is needed to produce the best teas from the second flush. If

operations start from May itself, it may be too late to produce the priciest teas," said a planter from Darjeeling, who exports luxury teas to Germany and Japan.

On the other hand, exporters said there is practically no demand from major importing countries as most of them, including Iran, Japan, Germany, the UK and the US among others, are currently grappling with the pandemic.

It, in fact, led to the cancellation of the Mombasa auctions as buyers are unable to travel.

COUNTING COSTS

■ Production loss estimated at a minimum 100 mkg

■ Prized first flush teas from Darjeeling and Dooars have not found any buyer yet

■ Owing to Covid-19 outbreak, there is hardly any demand from domestic and international buyers