

REJIG 2020

Adopting a new normal



**Department of
Information Technology**



Agnel Charities' Fr. C. Rodrigues Institute of Technology, Vashi

Agnel Charities' Fr. C. Rodrigues Institute of Technology

Institute Vision

To evolve and flourish as a progressive centre for modern technical education, stirring creativity in every student leading to self-sustainable professionals, through holistic development; nurtured by strength and legitimate pride of Indian values and ethics.

Institute Mission

To provide industry oriented quality education.

To provide holistic environment for overall personal development.

To foster relationship with other institute of repute, alumni and industry.

Department of Information Technology

Department Vision

To become a leading centre of excellence for quality education, advance research and development in the field of Information Technology for self-sustaining professionals.

Department Mission

To provide industry oriented quality education and training to students related to cutting edge technologies in the field of information technology.

To promote multidisciplinary activities that inspires students to serve society through innovative applications.

To promote entrepreneurship skills in students with overall personality development.

Program Educational Objectives (PEO)

Adapt technological changes in the field of information technology.

Excel in higher education and professional career.

Demonstrate multidisciplinary and entrepreneurship skills.

Program Specific Outcomes (PSO)

Apply knowledge of Mathematics, Science and Information Technology to define, analyse, build, test and integrate subsystems to provide solutions for real life problems.

Inculcate self-learning and research attitude to offer IT services for sustaining as excellent professional or entrepreneur.

Faculty



Message from HOD

The Department of Information Technology is committed to impart state-of-the-art education and develop future technocrats in the stream of information technology. As in-charge Head of the Department, I am tremendously proud of my role in providing high-quality education and offer a multitude of avenues for students to partake in continuous learning and also help them to inspire to acquire industry-relevant skills.



We believe in tailored grooming of each student's needs by organizing technical workshops and competitive events such as Hackathons, Seminars from eminent voices of the industry, which helps them to access every sub-domain in the field of Information Technology. To bridge the gap between industry and academia, the CSI students section are actively organizing events listed above/below. Students not only participate in these events but lead them, thus helping them to improve on important attributes such as collaboration, communication, and teamwork. Our annual events like AITSS and Infobits empowers our students to collaborate with students from other colleges, thus inculcating a sense of community.

Our students have won several accolades at University, National and International levels.

Our Department's placement records are unvaryingly high and we are proud that the number of students who are getting placed is increasing year after year. We have a strong alumni network who work with renowned organizations such as Shell, Cognizant, TCS, Infosys, Accenture, Capgemini, etc

I attribute the phenomenal growth of the Department to the winning combination of dedicated and experienced faculty, brilliant students, and supporting staff.

Ms. Dhanashree Hadsul

Magazine Committee

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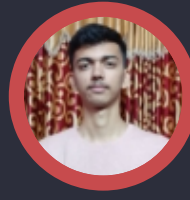


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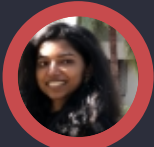
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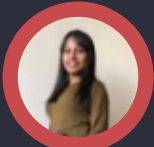


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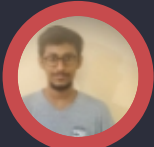
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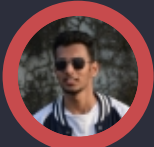
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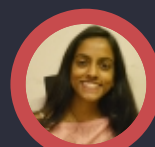


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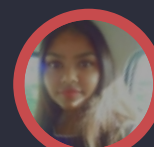


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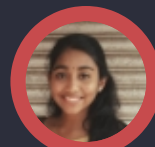
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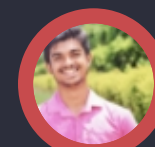
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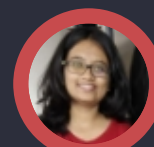
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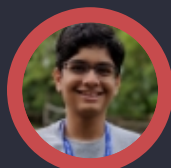


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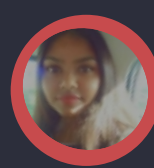


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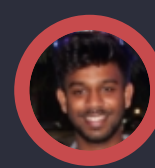
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Immanuel Gnanadurai

Editorial

by Abigael Rachel Kumar

Six months ago, the world came to a stand-still. A contagious and deadly virus had crossed the species barrier and infected humans. Soon it rapidly spread faster than health professionals could contain it and has infected millions of people. Socialization was limited as a precaution.

Masks, swab tests, and temperature checks controlled all forms of locomotion. Confined to these four walls, we had power over one aspect-'time'.

The universe is 13.8 billion years old. Throughout history, we sought to define this unfathomable expanse called time in an attempt to conquer it, often complaining at the lack thereof. Yet, when acquired in surplus, we often fail to optimize it.

With time to kill, we sought new skills, binged on virtual entertainment, adjusted to new forms of social interaction and work environments as the world around us changed in immeasurable proportions. Economies fell, stock markets crashed, unemployment increased and twitter chirped "canceled".

We became immune to these episodes of turmoil and distress. Time became a series of unfortunate events and humanity was the Baudelaire children.

But the glass is half full. We saw countless heroes rise to the occasion.

Numerous stories of sacrifice, compassion, and charity restored our faith in humanity. During the lockdown, we saw a massive decline in carbon dioxide emissions. People spent quality time with their families and reconnected with acquaintances. We created a support system for each other to rely on.

The pandemic will leave long-lasting changes. As the world gradually and cautiously emerges from the lockdown, we must accustom ourselves to this new world.

The theme for this year's issue is -Rejig. Rejig means "to organize differently" or re-arrange. Here is a compilation of inspirational stories, effects of the pandemic, and what we can look forward to as we adapt to the new norm. The future is bright for those who embrace change.

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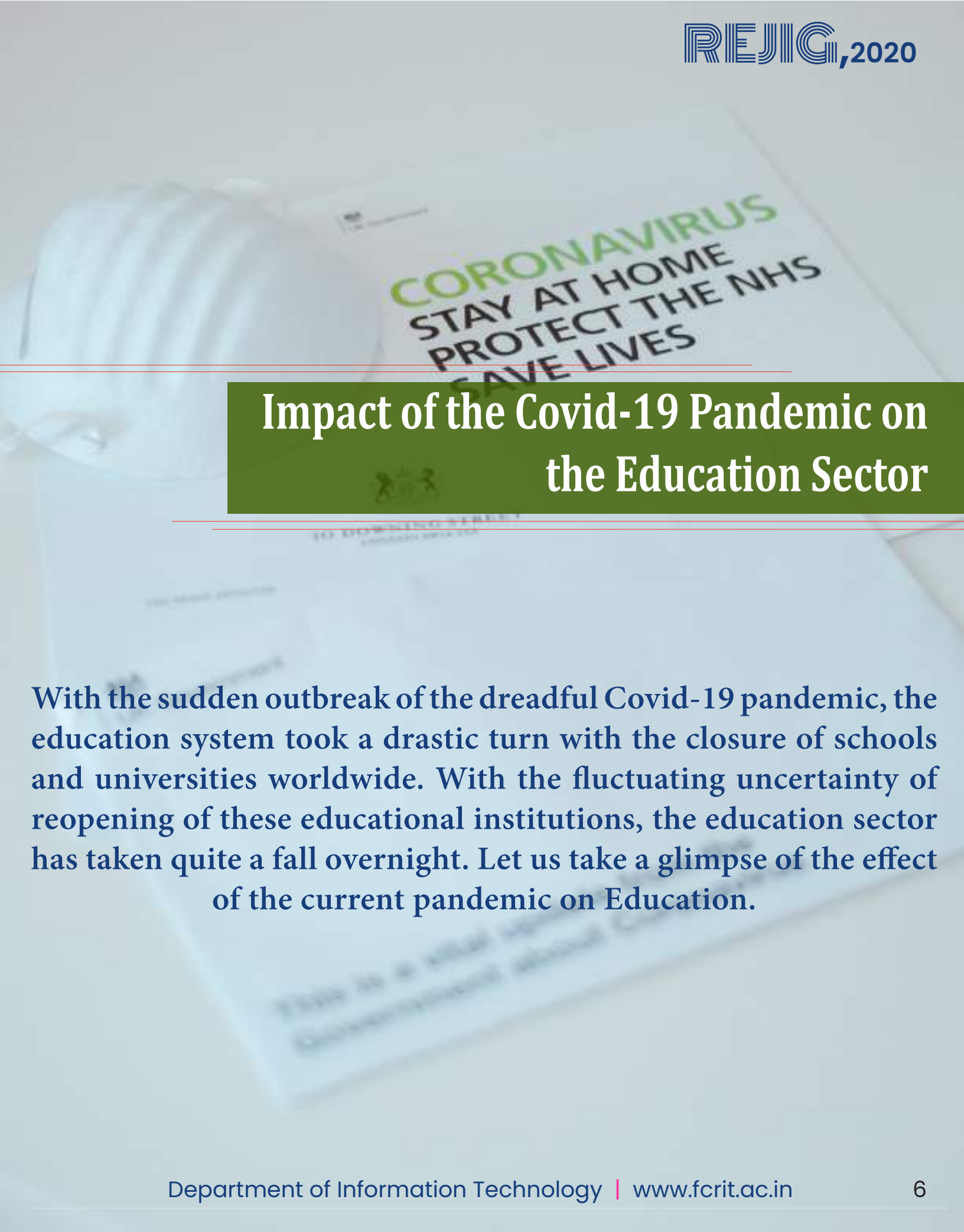
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Impact of the Covid-19 Pandemic on the Education Sector

With the sudden outbreak of the dreadful Covid-19 pandemic, the education system took a drastic turn with the closure of schools and universities worldwide. With the fluctuating uncertainty of reopening of these educational institutions, the education sector has taken quite a fall overnight. Let us take a glimpse of the effect of the current pandemic on Education.

Examinations

A crucial time worldwide with this period being the season of university entrance tests and competitive examinations, the pandemic has left the students in a muddle. With no clarity whether these exams will be conducted or not, how the grades will be awarded, mode of examinations, all these questions have left everybody in frenzy. In this state, prepping up for an examination only looked like a dream amidst this confusion. The biggest turmoil about examinations in India was for the final year students. After deciding on several decisions on the trot throughout these 6 months, the government finally declared to conduct the tests online.

Student Learning Outcomes

Schooling provides essential learning and opportunities for growth and development. With the sudden closure of education centers, there has been a negative impact on student learning outcomes. Parents with limited education are struggling to facilitate their children with quality education. Along with providing education, schools are also a hub for human interaction and social activities. It is estimated that the rate of reading ability gain in kindergarten children in the U.S slowed down by 66% during school closures compared to active schooling.

Access to technology and educational resources

Whether it is your mic not responding or unstable wifi, technology plays a huge role in online learning. It's nonetheless an annoyance to tolerate these issues until you get used to the new normal. Teachers in India seem to struggle to take control of the situation as they are used to the traditional methods of offline education. Hence, they have come under tremendous stress since the shutdown. Lack of access to good internet connectivity also demotivates students from disadvantaged families to continue learning. In Kerala, earlier in June, a Class X student ends life over a lack of access to online education. With the closure of public libraries, students are left with no other medium to access textbooks and study materials they need for learning.



Disrupted Schedules

For maintaining discipline and good physical and mental health, a consistent schedule plays a key role in a student's life. With procrastination and low motivation due to the ongoing pandemic, it has left the students with nothing but a lot of stress and anxiety. Students find it very hard to pull themselves up to properly manage time and remain productive with this major hit on their regular life. This has not only taken a toll on them physically but mentally too. There has been an increase in depression in students during this unfortunate time. Various countries in the world have circulated helpline numbers to provide professional guidance to people in need.

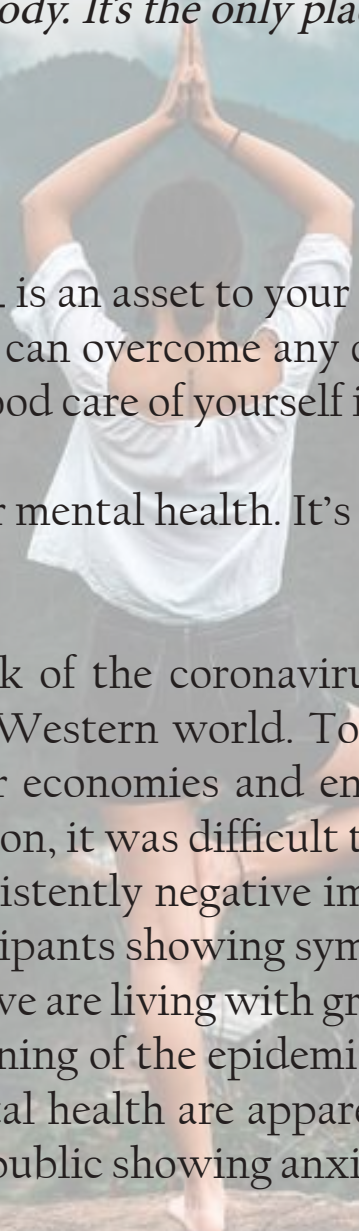
This year's educational journey has surely been quite a bumpy ride. But like every coin has two sides, the education sector has adapted to the new normal at full tilt and was able to come up with reliable solutions to overcome this unfortunate situation. This couldn't have been possible without the strenuous efforts of teachers all around the globe and their hard work and dedication are indeed commendable.

This academic year has depicted a vast magnitude of perseverance proving that everything is possible with the right amount of dedication. With this undying resilience, teachers and students thrive to face this new normal together one day at a time.

*-Benitta Mariam Babu
(Sem 5)*

Impact of COVID-19 on Mental and Physical Health.

Take care of your body. It's the only place you have to live in.
-Jim Rohn



Good health is an asset to your body as it helps you physically and mentally. A fit person can overcome any disease and can lead an active and stress-free life. Taking good care of yourself is paramount to the success of your recovery process. Self-care isn't just about your mental health. It's also about taking care of your physical personality.

In March 2020, the outbreak of the coronavirus diseases 2019 (COVID-19) reached all countries of the Western world. To de-catalyse its enlargement, many countries slowed their economies and enforced restrictions on public migration. Due to this situation, it was difficult to maintain a healthy lifestyle. Recent reviews found a consistently negative impact of COVID-19 on mental health, with 16–18% of participants showing symptoms of anxiety and depression. The survey shows that we are living with greater fear, worry, and psychological stress since the beginning of the epidemic. The adverse effects of lockdown on our collective mental health are apparent worldwide. The statistics show the average number of public showing anxiety and depression during the pandemic.



Simple exercise and yoga as much as possible can help prevent these problems. As we grow old, most of us tend to adapt to this inactive lifestyle. This is when an active exercise routine becomes even more important. The loss of everyday peers-to-peer contact, uncertain academic career, and use of online learning has created a new reality also in education. So the best we can do is to take care of

These could include physical, mental, emotional, and behavioral sectors. During this situation, we can be positive by taking care of your body, exercising regularly, eating a healthy diet, learning to manage stress, and developing a good balance between work and social life. As there is undoubted evidence that a COVID-19 can cause widespread fear, panic, anxiety, and xenophobia.

- Nefi Nisen
(Sem 5)

IMPACT OF COVID-19 ON SOCIAL MEDIA

“Don't use social media to impress people; use it to impact people.”

— Dave Willis

Social media are interactive computer-mediated technologies that facilitate the creation or sharing of information, ideas, career interests, and other forms of expression via virtual communities and networks. It is the most widely used sources of information in the World, the easy and inexpensive access to the internet and a large number of registered users in these platforms make them one of the easiest and most effective ways to disseminate information. to our setting and available resources and follow a responsible use of social media when disseminating information.

It has been noticed that there is a peak of searches for information on the Internet and social media platforms regarding the COVID-19. During sudden outbreaks, the public needs access to timely and reliable information about the disease symptoms and its prevention. Nowadays, social media are often seen as fast and effective platforms for searching, sharing, and distributing information among the general population.

On the other hand, various fake news, misinformation, and rumors spread across the digital media that panicked people into making panic decisions but the Government are taking measures to prevent such miscommunications.

July 2020 saw a rise of 10.5% in social media usage, compared with July 2019, according to a GlobalWebIndex survey. Some 46% of women and 41% of men said they've spent more time on social media during the pandemic.

Social media has both advantages and disadvantages, the responsible use of these tools can help during a pandemic to quickly spread a piece of important information, sharing diagnostic, treatment, and follow-up protocols, comparing different approaches from other parts of the World to adapt them to our setting and available resources and follow a responsible use of social media when disseminating information.

*-Jose Ashley
(Sem 5)*

Economic Impact of Covid-19

The pandemic has had far-reaching consequences apart beyond the spread of the disease itself and containing it. Economists are hinting at a global recession.

A country is said to go through a recession when it has a negative GDP growth rate for 2 consecutive quarters or more. A depression occurs when a recession occurs recursively. For instance, The Great Depression of 1929, which went on for more than 10 years. The GDP growth rate of the world economy had almost touched -15 percent.

But how does economic growth and GDP affect each other? What is India's economic situation and how can it be improved? Let's start with the basics.

Economic growth means an increase in real GDP – an increase in the value of national output, income, and expenditure.

GDP(Gross Domestic Product) is a measure of the total of all goods and services in the country.

$GDP = \text{Public Consumption}(C) + \text{Private Investment}(I) + \text{Government Spending}(G) + \text{Net Exports}(NX)$

Consumption refers to “consumer spending”. The money that you spend on haircuts, food, clothes all come under consumer spending.

Investment is a measure of money businesses spend on buildings, land, equipment, etc.

Government spending is the money that the government spends on roads, schools, and other development.

The final aspect is the Net Exports(NX).

Net Export = Exports-Imports

Negative NX means that a country brings in more imports than the exports it sends out.

GDP growth rate is the percentage change in GDP over time. This implies that if the economy is in bad shape, the growth rate decreases.

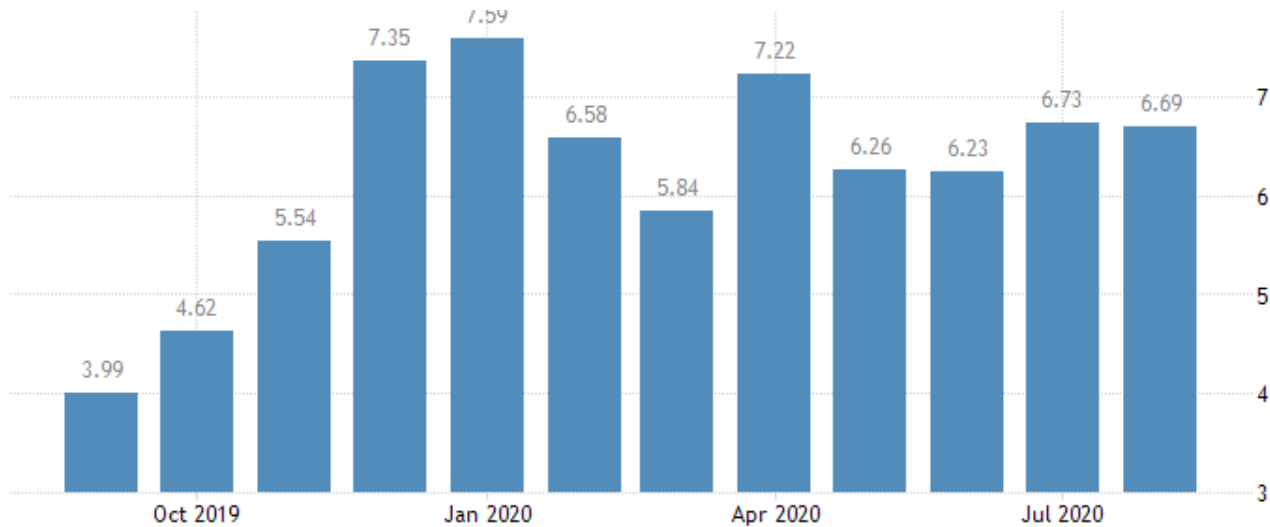
What effect has the pandemic had on India’s GDP? Trading Economics stated, “The Indian economy shrank 23.9% year-on-year in the second quarter of 2020, much worse than market forecasts of an 18.3% drop.” This is a quarter to quarter calculation, not to be confused with the annual GDP. While most countries saw a dip of about 7%-9%, India saw a drastic fall in its GDP mostly because of the prior decisions by the government like GST, demonetization, bank frauds, etc. It is the worst economic performance since 1947.

Unemployment has seen a sudden surge in various sectors. In April and May, unemployment peaked at 23%. However, it decreased to 11% in June.

Moneycontrol News stated, “Gross value added (GVA) declined by 22.81 percent on a Year on Year basis. Apart from agriculture, all other sectors were severely impacted. Among the industries and construction, construction activities were down by half at 50.3 percent, manufacturing down 39.3 percent. In the services sector, trade and hotel were down 47.01% percent.” This was the report for April to June. This growth in the agriculture sector is because many people lost their jobs and returned to the agricultural sector for their livelihood.

Inflation refers to the rise in the prices of most goods and services of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.

India's Consumer Price Index(CPI) Inflation rate grew 6.69% in August, crossing the upper margin of 6%.(source- Indian Express)



SOURCE: TRADINGECONOMICS.COM | MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION (MOSPI)

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Trading Economics stated, "Consumer prices in India increased 6.69 percent year-on-year basis in August of 2020, following a downwardly revised 6.73 percent rise in the previous month and below market forecasts of 6.85 percent. Still, the inflation remains above the central bank upper band 2 percent-6 percent target range. A slow-down was seen for food (9.05 percent vs 9.27 percent). Prices of vegetables went up 11.41 percent, pulses 14.44 percent, cereals 5.92 percent, meat, and fish 16.5 percent, and sugar 3.93 percent. Other increases were recorded for fuel and light (3.1 percent), clothing and footwear (2.77 percent), transport (11.1 percent), and education (1.61 percent)."

Why is our GDP affected? Remember the formula for GDP? GDP is affected by Public Consumption, Private Investments, Government spending, and Net Exports.

First of all, a drop in the GDP was inevitable. A nation-wide lockdown was necessary to inhibit the transmission of the disease. However, this triggered, many people to lose their jobs and many businesses went through a loss. This was followed by inflation. People curtailed on expenditures to save money. Due to this, the amount of public consumption halted significantly. This led to a sharp decline in business investments. Companies did not invest in either manufacturing or marketing new products since the sales would not be as high as expected. Exports also hit a new low during the lockdown.

Hence it is in the hands of the government to intervene and take some necessary steps.

Economists suggest a bailout for small industries or increase government spending by investing in schemes like MNREGA (Mahatma Gandhi National Rural Employment Guarantee Act). This will increase employment and thus increase consumption.

Another method is to increase its debt-to-GDP ratio. The debt-to-GDP ratio is the ratio between a country's government debt and its gross domestic product. As of now, India is at 69.62%. Economists suggest increasing this ratio will give state governments more money to spend on the welfare of the people. While this may cause a short term strain, it is a good move for the long term.

Also, since we are slowly emerging from the lockdown, the growth rate will slowly and gradually improve and become positive. The growth in the next 2 years is what will truly define the economic condition of our country.

*-Abigael Rachel Kumar
(Sem 5)*



Covid-19 Impact | Is Touch-Less Technology a way forward?

Do you remember the last time you went out in public and didn't think about what you touched?

Yeah, we're struggling to remember that time too. But in a world that is ravaged by the pandemic, Touch-less Technology is a leap forward towards technological advancement. We will need to touch as little as possible in the coming weeks, months, and yes, even years. Furthermore, a few months from now, your attendance will be marked by a facial recognition system or by voice. You can make your payments through your wristwatches. In airports, you will print your boarding pass through gestures. Touch-less technology is here to stay and will witness growth much faster than earlier due to the COVID-19 outbreak. Experts point out that touch-less technology is likely to accelerate adoption across sectors such as aviation despite a slump in business.

What exactly Touch-less Technology is?



Touch-Less technology implies that you don't have to physically come in contact with any public surfaces like door handles, elevator buttons, or shared screens. This is where your smartphone and other personal devices come in. It doesn't take a huge behavioural change because we're all on our devices all day long anyway, so it can even add a layer of convenience.

The technology uses sensors to recognize your gestures, facial features, or voice to complete a task. For instance, voice assistants such as iPhone Siri or Alexa, which use voice-based technology. The technology interprets speech using automated speech recognition (ASR), a technology that helps humans interact with the computer using voice.

The same goes for facial recognition or gestures. In case of gesture, as the name suggests you use gestures to control and interact without actually touching the device. This technology uses a computer vision algorithm to interpret the sign language for the action to be complet-



Types of Touch-Less Technology

-Gesture recognition-

This the most common form of no-touch technology. Users can do simple gestures to control or interact with devices. Waving your hand to trigger an automatic door, for example, removes the need to touch handles or a physical button.

-Touch-less sensing-

Touch-Less sensing or motion sensors can detect the presence or motion of a person under a sensor. Like gesture recognition, they are well integrated into our lives. Every one of us has gone through an automatic door at a grocery store, hotel, or commercial building.

-Voice recognition-

Voice recognition system, lets a user interact with technology simply by using their voice. This is extensively used in our home. We can make hands-free requests, set reminders, and perform other simple tasks by talking to Apple's Siri, Amazon's Alexa, or the Google Assistant.

-Facial recognition-

Facial recognition takes things one step further since it doesn't require a conscious effort by the user. As these days many smartphones can be unlocked with a glance at the screen, imagine a video conference starting when you walk into a room.

-Personal devices-

For technology to be completely touch-free it must operate without the need for physical contact, like in the examples above. But the introduction of smartphones and other personal devices have made nearly touch-free technology possible as well. Anything that operates at the command of your device allows you to avoid touching public surfaces.

-Voice recognition-

Voice recognition system, lets a user interact with technology simply by using their voice. This is extensively used in our home. We can make hands-free requests, set reminders, and perform other simple tasks by talking to Apple's Siri, Amazon's Alexa, or the Google Assistant.

Developing and In-use Touch-less Technology

Mobile payments through wristwatch:



You can now make payments with your watch. MasterCard teamed up with Laks and announced the first wristwatch that can be used to make payments. Not only does it sound cool, but it's also simple and uses a well-known technology.

How hotels are preparing for a post-COVID guest experience:

For the past few years, one of the biggest buzzwords in travel has been “seamless,” envisioned as a utopian experience in which every moment of a journey - before, during, and after a trip - happens effortlessly and yet is customized to the needs and interests of the traveller. Then came COVID-19 – upending the travel industry, the way business is conducted and the expectations of consumers. Vouch’s digital concierge system enables hotels to receive and respond to any sort of question or request from guests – from needing more towels, to ordering room service or making spa bookings – without the need for the guest to pick up a room phone or stand in line in the lobby. Guests access the bot using their mobile device and either scanning a QR code or putting the phone near an NFC tag, which Vouch creates to blend in with the property’s branding.

Drone-delivery:

The Covid-19 pandemic has given a tremendous boost to online delivery platforms and retail drone technology will see a commercial rollout on a larger scale in the not-too-distant future, Indian-origin researchers have stressed. The study found that both the number of last-mile warehouses and the delivery speed of the drones will increase as the technology matures. In other words, last-mile delivery networks will become more decentralized, with drones operating at increasingly faster speeds.

Challenges for Touch-Less Technology:

The cost of sensors is a challenge. Contact-Less sensing products are expensive and it might not be possible for an individual as well as firms to implement them in all aspects. In Wipro, washrooms are now equipped with sensors. An analyst pointed out that firms cannot make the entire office premises touch-less given how expensive it would be at a time when businesses are hit. While wider adoption might bring prices down, firms will be judicious, the analyst added.

Another issue is with the use of facial recognition that is likely to gain pace with COVID-19. Facial recognition uses facial features to recognize an individual. Unlike fingerprints or iris, the identification is not accurate though works are on to improve accuracy. There have been cases where the technology has made inaccurate identification when it comes to people of color, especially transgenders and ethnic minorities. At this juncture, wide implementation, especially by the enforcement personnel like police, could result in inaccurate identification. Privacy is another major concern too. There will be a need for more clarity from the government on how the data will be used and for what purpose. There is a need for stronger regulation before it is adopted widely.

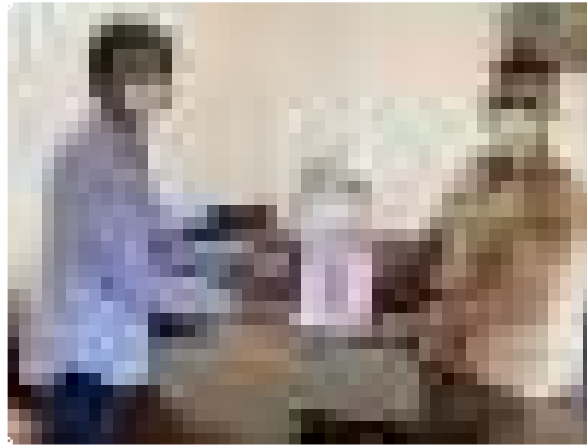
*-Abdul Majeed Inamdaar
(Sem 5)*

Innovation during the times of Pandemic.



In this devastating pandemic, it has become a norm to have our hands washed, with either handwash or sanitizers. Today within our sight of confluence, we see people wearing masks and using hand sanitizers. Usually, the area of confluences are equipped with sanitizers, and people use it by sheer physical contact, which might account for the metastasizing of the coronavirus. To tackle this problem one of our final year students- Prathamesh Patil has come up with a brilliant solution of Automatic. Sanitizer Dispenser, you just have to put your palm below the spout and it would sprinkle sanitizer onto your palm.

Hence feeding two birds with one seed. His expertise in areas of hardware and PCB designing and development has proved to be beneficial to the whole humankind. Prathamesh says only four-five components namely plywood, plastic bottle, DC motor, pipe, and sensors have gone into the making of the device, which can dispense the exact amount of sanitizer without even touching it. The state-of-the-art automatic hand sanitizer dispenser is not only low cost but also is easy to refill, doesn't use much electricity, and is compact & light enough to be placed anywhere. Being battery-based it can be used for two days straight without electricity once it is charged for 4-5 hours. Moreover, he has thoughtfully made the machine in 2 variants- 1 liter and 5-liter capacity according to the need for residential and official spaces respectively.



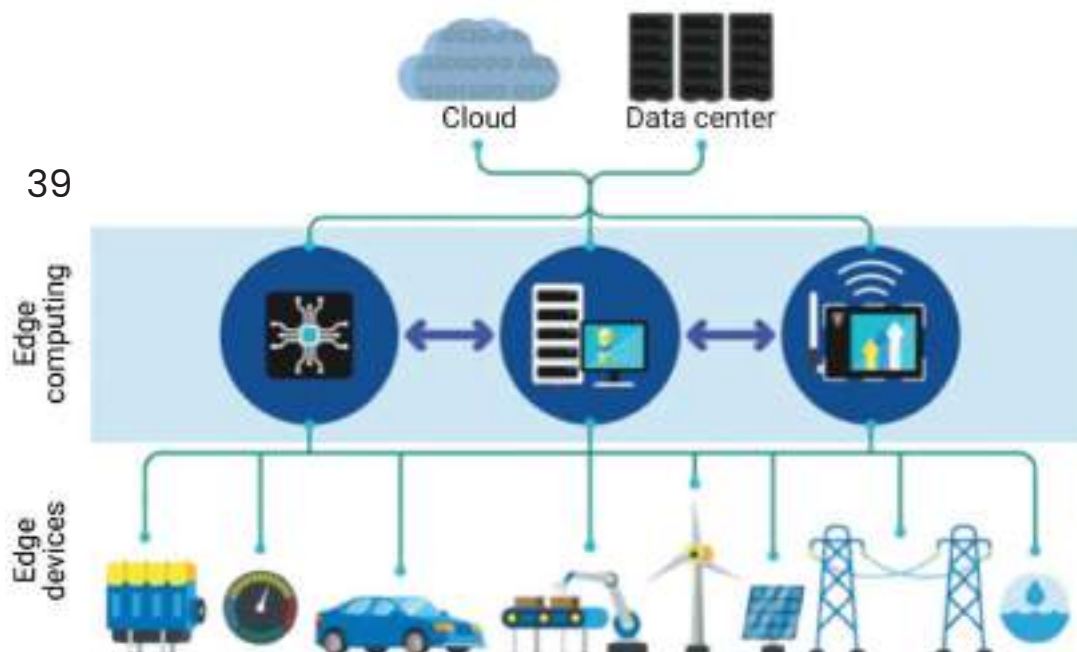
Upon asking about the inspiration behind this wonderful innovation, he proudly replies that it was his sense of responsibility as an IT engineer from F.C.R.I.T, to show compassion and be servile towards the numerous policemen, doctors, nurses, and other COVID warriors who are working diligently for our safety. Also, he says our Honorable prime minister's Aatmanirbhar Bharat initiative added to his zeal.

As of now he has already made and gifted 30-35 such dispensers to the police stations, schools, and hospitals across his city. He aims to make these dispensers viable for many more police stations, schools, government offices, and hospitals who might not be able to afford the costly dispensers in the market. Our best wishes to Prathamesh for taking this wonderful initiative that makes health more affordable for people.

-Vasudha Sude
(Sem 3)

Edge Computing

In the beginning, there was One Big Computer. Then, in the Unix era, we learned how to connect to that computer using terminals. After a few years, we have personal computers, which was the first time regular people owned the hardware that did the job. Now, in 2020 we are firmly in the cloud computing era. Many of us still own personal computers, but we mostly use them to access centralized services like Dropbox, Gmail, Office 365, etc. Edge computing is helping everything from IoT to digital advertising technology evolve in terms of speed, scale, and security.



What is Edge Computing?

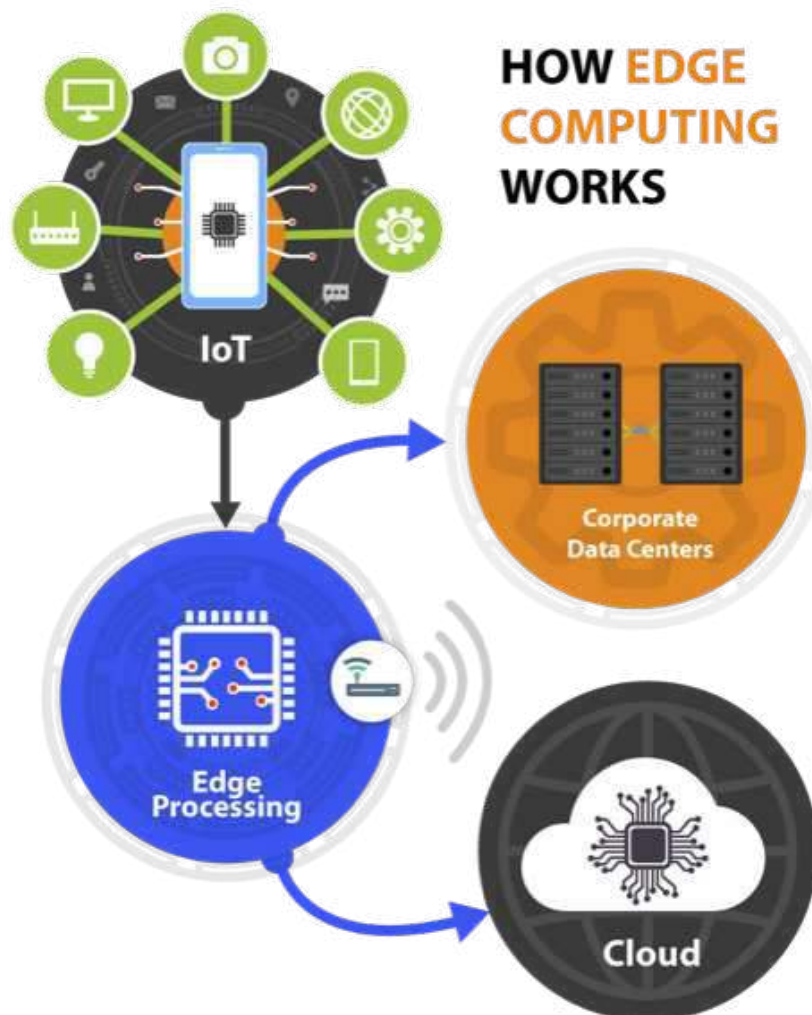
Edge computing is transforming the way data is being handled, processed, and delivered from millions of devices around the world. Edge computing in telecom, often referred to as Mobile Edge Computing, MEC, or Multi-Access Edge Computing, provides execution resources (compute and storage) for applications with networking close to the end-users, typically within or at the boundary of operator networks. The explosive growth of internet-connected devices along with new applications that require real-time computing power continues to drive edge-computing system.

The benefit of Edge Computing

- Speed and latency
- Security
- Cost Saving
- Greater Reliability
- Scalability

How does it work?

Edge computing works by moving data, applications, and computing power from the core network to the fringes so that information can be distributed across distributed server networks. Your target users will remain Internet customers using commercial Internet application services. Formerly available for large enterprises, it is now available for small and medium enterprises due to cost reductions on large deployments.

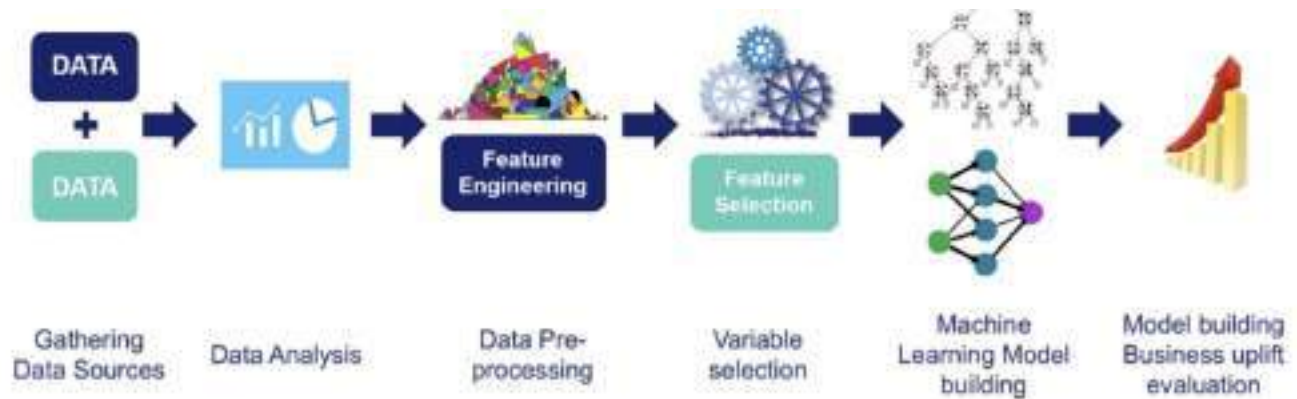


Future of Edge Computing

In our data-intense future, with billions of devices connected to the internet, faster and more reliable data processing will be of vital importance. The consolidation and centralized nature of cloud computing have proven cost-effective and flexible over recent years, but the rise of IoT and mobile computing has put a strain on networking bandwidth. Ultimately, not all smart devices need to utilize cloud computing to operate. In some cases, the back and forth can and should be avoided. That's where edge computing comes in. Edge computing allows data to be processed closer to where it is created (i.e. motors, pumps, generators, or other sensors), thus reducing the need to move data between the cloud. Edge computing can be an alternative, but still, the technology is in its nascent stage and it becomes difficult to predict its future successes. Challenges around device capabilities - including the ability to develop software and hardware that can handle computational off-loading from the cloud are likely to arise. Being able to teach machines to toggle between a computation that can be performed at the edge and one that requires the cloud is also a challenge. Even so, as adoption picks up, there will be more opportunities for companies to test and deploy this technology across various sectors. And while some use cases may prove the value of edge computing more clearly than others, the potential impact on our connected ecosystem as a whole could be game-changing.

*-Nefi Nisen
(Sem 5)*

Machine Learning



Machine Learning applications learn from experiences (well data) like humans without direct programming. When exposed to new data, these applications learn, grow, change, and develop by themselves. In other words, with Machine Learning, computers find insightful information without being told where to look. Instead, they do this by leveraging algorithms that learn from data in an iterative process. It is a core sub-area of Artificial Intelligence (AI).

TYPES OF MACHINE LEARNING

Algorithms play an important role in Machine Learning. On the one hand, they are responsible for recognizing patterns to generate solutions. Approximately 70 percent of Machine Learning is supervised learning, while unsupervised learning ranges from 10 – 20 percent. Another method that is used less often is reinforcement learning.

SUPERVISED LEARNING

Here in the course of monitored learning, example models are defined in advance. In other words, the system learns based on given input and output pairs. In the course of monitored learning, a programmer, who acts as a kind of teacher, provides the appropriate values for a particular input. The aim is to train the system in the context of successive calculations with different inputs and outputs and to establish connections.

