NIC in News

07-April-2020

N1. Slew of Apps Aiding People Tackle Covid-19

BW Businessworld- 07 April 2020

Mobile Applications Aarogya Setu, MapmyIndia among others to help people during the Corona virus outbreak. Under the public-private partnership, it was developed by ***National informatics Centre***. This application is available in 11 languages. Currently, the application ...

In the times like Covid-19, Government and some startups, with the help of mobile applications, are putting in their efforts to bring in awareness among people. These apps are supporting during the lockdown either by answering the queries related to Covid-19 or letting the citizen report their nearby happenings.

Government's recent launch, Aarogya Setu is helping people to track down the coronavirus infections cases near them via GPS system and Bluetooth in the device. Under the public-private partnership, it was developed by National informatics Centre. This application is available in 11 languages. Currently, the application has over 15 million users. Another useful app by the Government of India in collaboration with Reliance Jio is Haptik, conversational AI platform. The app uses WhatsApp chatbot 'MyGov Corona Helpdesk' to address queries regarding coronavirus outbreak like symptoms, precautionary measures, Government advisories, etc. The information on this app is being verified by Telegram messenger.

An existing location application Move by MapmyIndia has added a feature for Covid-19. The app will now enable to locate and reach nearby Coronavirus testing labs, isolation and treatment facilities by both government and private healthcare service providers. MapmyIndia resources are designed for early detection and isolation of infected persons.

Facilitating Citizen Journalism during COVID-19, Inshorts' latest app, Public is providing its users to share information and stay connected to their community with verified and real-time local updates. The information includes the locations and timings of essential services like grocery stores and hospitals in their surroundings.

Co-Founder and CEO of Inshorts and Public, Azhar Iqubal said, "Everyone needs credible sources of information and ways to stay connected with their communities. We are putting in our best efforts to ensure the same through our apps, Inshorts and Public, which are witnessing an unprecedented surge with more than 3 lakh downloads combined."

Available in five Indian languages (Hindi, Bengali, Gujarati, Tamil and Telugu), App is also being used by local politicians and District officials to share valuable updates around COVID 19 in their locality and help debunk rumours and fake news to prevent misinformation and panic in the community.

News Source: http://www.businessworld.in/article/Slew-of-Apps-Aiding-People-Tackle-Covid-19/07-04-2020-188514/

N2. SC issues guidelines for video conferencing across courts

New Kerala- 07 April 2020

The Director General of *National Informatics Centre*, present in the hearing, said three things are required for video-conferencing -- good broadband connection, ...

New Delhi, April 6 : Courts, at all levels, must respond to the call of social distancing and ensure that court premises do not contribute to the spread of coronavirus, said the Supreme Court on Monday, passing a slew of directions for all courts in the country extensively using video-conferencing as a medium to conduct hearings.

A bench headed by Chief Justice S.A. Bobde and comprising Justices D.Y. Chandrachud and L. Nageswara Rao, exercised its plenary power under Article 142 of the Constitution to direct all the High Courts to frame a mechanism for hearing through video conferencing.

"The Supreme Court of India and all High Courts are authorized to adopt measures required to ensure the robust functioning of the judicial system through the use of video conferencing technologies," it observed.

The district courts in each state shall adopt the mode of video conferencing prescribed by the High Court concerned, it said. "The concerned courts shall maintain a helpline to ensure that any complaint in regard to the quality or audibility of feed shall be communicated during the proceeding or immediately after its conclusion, failing which no grievance in regard to it shall be entertained thereafter," said the apex court.

The court shall duly notify and make available the facilities for video conferencing for such litigants who do not have the means or access to video conferencing facilities. "In no case shall evidence be recorded without the mutual consent of both the parties by video conferencing. If it is necessary to record evidence in a court room, the presiding officer shall ensure that appropriate distance is maintained between any two individuals in the Court," said the court.

The top court has taken suo motu (on its own) cognizance of a letter written by senior advocate and Supreme Court Bar Association's (SCBA) former President Vikas Singh, who suggested measures for use of technology for hearing. "The presiding officer shall have the power to restrict entry of persons into the court room or the points from which the arguments are addressed by the advocates. No presiding officer shall prevent the entry of a party to the case unless such party is suffering from any infectious illness," said the court.

Attorney General K.K. Venugopal contended the lawyers will be the best judge having the most efficient system, and the department concerned should examine the aspect which is the most efficient and cheap application for lawyers across the country. Solicitor General Tushar Mehta told the bench that this is the best solution would be to have short hearings.

"Modern technology has enabled courts to enhance the quality and effectiveness of the administration of justice. Technology has facilitated advances in speed, accessibility and connectivity which enable the dispensation of justice to take place in diverse settings and situations without compromising the core legal principles of adjudication," said the top court.

The Director General of National Informatics Centre, present in the hearing, said three things are required for video-conferencing -- good broadband connection, good devices and conduct of people, where people should use mute while the other person is arguing.

News Source: https://www.newkerala.com/news/2020/60206.htm

N3. PIB rejects media report claiming COVID-19 tracker AarogyaSetu is a surveillance App

Zee News- 07 April 2020

The government launched the AarogyaSetu app to track COVID-19 patients in the country. The ArogyaSetu app has been made available on both Android and iOS devices. Launched under the banner of the Ministry of Electronics and Information Technology (MeiTY), the app has been developed by the ***National Informatics Centre***.

NEW DELHI: The Press Information Bureau (PIB), which is the government's nodal agency, has rejected a media report claiming that the newly launched AarogyaSetu is a surveillance App. Taking to its Twitter handle, the PIB tweeted, "Claim: a prominent newspaper has alleged in an Op-Ed that #AarogyaSetu will be used for surveillance.''

The PIB tweet clarified that the media report is "baseless'', adding that "the App does not link user location and data with any sensitive personal data. Also, it does not make users vulnerable to hacking."

The clarification from the PIB came days after the government launched the AarogyaSetu app to track COVID-19 patients in the country. The ArogyaSetu app has been made available on both Android and iOS devices.

Launched under the banner of the Ministry of Electronics and Information Technology (MeiTY), the app has been developed by the National Informatics Centre.

The app lets users check whether they have been in contact with infected people by using location and Bluetooth data from smartphones. The app requires users to give continuous access to their smartphone's location that would let it figure out where the user has been. The Bluetooth location lets users figure out a person's proximity to others.

AarogyaSetu is available in 11 languages, including English, Hindi, Bangla and Marathi. It is one of many location-based surveillance apps that have been launched by governments across the world to help with contact tracing efforts for COVID-19.

"Your data is shared only with the Government of India. The app does not allow your name and number to be disclosed to the public at large at any time," says a disclaimer on the App Permissions page of the application, on Android.

News Source: https://zeenews.india.com/india/pib-rejects-media-report-claiming-covid-19-tracker-aarogyasetu-is-a-surveillance-app-2274500.html

N4. App to update status of home-quarantined

Telegraph India- 07 April 2020

Assam CM launches COVID QCheck app in Hojai . Northeast Now-06-Apr-2020

This application has been designed by *National Informatics Centre*, Assam. By Nikhil Kumar Mundra in Hojai.

Assam chief minister Sarbananda Sonowal visits an isolation ward at Morigaon on Monday.

ssam chief minister Sarbananda Sonowal laun-ched COVID Qcheck, an Android application at the district headquarters of Sankardev Nagar in central Assam's Hojai district on Monday, where he had come to review the preparedness to deal with the coronavirus pandemic.

COVID QCheck application has been especially developed by Hojai district administration to keep an eye on all the 2,641 home-quarantined persons at present in the district.

This application has been designed by National Informatics Centre, Assam.

The 693 Asha workers of the district will a play a major role here, as they all have to daily update the status of quarantined persons through the app, whether they are following the health department's guidelines. The app is not available in Google Playstore; the district administration will personally provide it to the Asha workers.

Addressing reporters, Sonowal said the state is fighting in unison against Covid-19. He said the people of Assam have extended full support to the lockdown announced by Prime Minister Narendra Modi.

He appealed to the people to maintain the same spirit in the coming days. Sonowal praised the 931,000 people of the Hojai district for ensuring successful compliance of lockdown norms in the district. He lauded the efforts the role of the officials of health, police, food and civil supplies, transport and power departments who are working relentlessly day and night in these difficult times.

Sonowal said though 26 positive cases have been detected in Assam, people should not panic. He also expressed the hope that successful compliance of the lockdown till April 14 would significantly help minimise infection.

Earlier, the chief minister held a meeting with Hojai MLA Shiladitya Deb, Lumding MLA Sibu Mishra, Hojai deputy commissioner Sadnek Singh, superintendent of police Ankur Jain, subdivisional medical officer Dr D. Chetia Phukan and other officials.

After Hojai district, the chief minister also took a stocktaking trip to Nagaon and Morigaon districts, also in central Assam.

News Source: https://www.telegraphindia.com/states/north-east/coronavirus-outbreak-app-to-update-status-of-home-quarantined/cid/1762630

N5. How NIC is helping govt to connect during lockdown

Economic Times- 06 April 2020

NEW DELHI: The *National Informatics Centre*, established in 1976, has been playing a crucial role in connectivity during the current lockdown. The PM's conferencing with CMs, Saarc contemporaries, sportspersons and heads of embassies and high-commissions too were done using NIC's video-conference service.

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NEW DELHI: The National Informatics Centre, established in 1976, has been playing a crucial role in connectivity during the current lockdown. The Union Cabinet for the first time had a video-conference using the NIC platform on Monday.

Road transport minister like Nitin Gadkari joined the meeting from Nagpur and other ministers from their respective offices in Delhi. Only defence, home and health ministers were at 7 Lok Kalyan Marg with PM Narendra Modi.

The PM's conferencing with CMs, Saarc contemporaries, sportspersons and heads of embassies and high-commissions too were done using NIC's video-conference service. It has a permanent setup at the PM's residence and office and over 1,800 studios across the country including state and district capitals and union territories.

NIC has held 97 VIP sessions since February. NIC has coordinators in every state who handle the backend of videoconferencing sessions and security of the dialogue is ensured with password protecting and unique conference ID access for participants who may reach any of its studios.

While this is one of the largest and most secure videoconferencing networks in the country, some other private global platforms for video conferencing which have become popular lately have faced security and privacy issues.

The series of VCs done by the Prime Minister from his residence during the lockdown required extensive groundwork by PMO officials to line up participants from diverse fields like doctors and paramedical staff, sportspeople, heads of social welfare organisations, Ayush practitioners, radio jockeys and stakeholders from industry who were desirous of a dialogue with the Prime Minister on the Covid-19 pandemic.

All these videoconferencing on NIC platform is in high-definition, officials told ET. The government had launched web-based high definition VC services in 2011 for conference over desktops even in low bandwidth environments, including wi-fi and 4G public network.

News Source: https://economictimes.indiatimes.com/news/politics-and-nation/how-nic-is-helping-govt-to-connect-during-lockdown/articleshow/75017679.cms

MeitY in News

07-April-2020

M1. Nasscom launches AI learning course for free

Economic Times. 07 April 2020

... Ajay Prakash Sawhney, Secretary, Ministry of *Electronics and Information Technology* Nasscom also plans to provide learning modules on other technologies ...

This initiative will allow individuals to learn, get familiarized with AI-enabled technologies and practice AI tools in order to get a deeper understanding of the technology, said the IT services industry body Nasscom.

With an aim to enhance AI readiness among, Nasscom in partnership with Meity, today launched an on-demand courseware on Artificial Intelligence.

The Foundational AI course from SkillUp Online, is aligned to the industry's recommended Foundation AI curriculum (retail price Rs 6800) free for everyone till May 15, 2020.

The Big Data Analytics course from Digital Vidya, aligned to the industry's recommended Foundation BDA curriculum will also be soon made available free of cost (retail price Rs 5000).

The campaign to upgrade the skills of the workforce has been launched under the Nasscom FutureSkills initiative which has curated deep learning programs for their partner ecosystem that will be available for free on the Nasscom website for all users.

"COVID -19 has thrown unprecedented challenges for the world and industries alike. While we continue to fight these challenges as a nation, it's important to use this opportunity to upgrade our skills, in order to remain industry relevant and future ready. This campaign will urge IT professionals, students and everybody else interested in technology to enhance their understanding of emerging tech",

said, Ajay Prakash Sawhney, Secretary, Ministry of Electronics and Information Technology

Nasscom also plans to provide learning modules on other technologies like Big Data, IoT, Cybersecurity along with live webinars for participants to create more interactive learning on these themes.

News Source: https://cio.economictimes.indiatimes.com/news/enterprise-services-and-applications/nasscom-launches-ai-learning-course-for-free/75028859

M2. WhatsApp clamps down further on frequent forwards to stem misinformation

Business Standard- 07 April 2020

WhatsApp limits forwarding messages to only one chat at a time . Livemint-07 April 2020

Once a message has been previously forwarded five times, it can henceforth only be forwarded one chat at a time. Minister of *Electronics and Information Technology* Ravi Shankar Prasad recently said action will be taken against social media platforms if they do not prevent ...

In an attempt to fix the problem of spreading of misinformation, WhatsApp on Tuesday said it is launching a new feature to limit frequently forwarded messages. Once a message has been previously forwarded five times, it can henceforth only be forwarded one chat at a time.

The Facebook-owned messaging app, which has over 400 million users in India, also acknowledged reports that its latest beta release is working on a method to allow users to find out more information about messages that may be loaded with misinformation and which are likely being shared multiple times by users.

"That idea involves displaying a magnifying glass icon next to these frequently forwarded messages, giving users the option to send that message to a web search where they can find news results or other sources of information. Double-checking these messages before forwarding may help reduce the spread of rumours," WhatsApp said in a statement.

The Indian government has time and again raised the issue of misinformation being spread through different platforms.

Minister of Electronics and Information Technology Ravi Shankar Prasad recently said action will be taken against social media platforms if they do not prevent fake news from being circulated about the ongoing Covid-19 pandemic.

Facebook-owned WhatsApp has been working on the issue of misinformation for some time now. In January 2019, it set global limits on forwarded messages to constrain virality.

It introduced new privacy settings and an invite system to let users decide who can add them to groups, and bans up to two million accounts per month for attempting to send bulk or automated messages.

In order to help disseminate authentic information about coronavirus and Covid-19, WhatsApp is working with agencies and governments in India and abroad.

In India, WhatsApp has launched the MyGov Corona Helpdesk on the service in partnership with the the Indian government's crowdsourced ideas platform.

Similar services have been introduced in several states of India (Delhi +91 88000 07722, Maharashtra +91 20 2612 739, Gujarat +91 74330 00104, Telangana +91 90006 58658 and Kerala +91 90722 20183) to allow users to find credible and accurate information across the country both in English and their specific regional language, with more helplines expected to launch in the coming weeks.

News Source: https://www.business-standard.com/article/current-affairs/whatsapp-clamps-down-further-on-frequent-forwards-to-stem-misinformation-120040700841_1.html

M3. MEITY starts consultations on amending the Information Technology Act, 2000

MediaNama.com. 07 April 2020

The Ministry of **Electronics and Information Technology** (MEITY) has started inter-departmental and industry consultations to amend the Information ...

The Ministry of Electronics and Information Technology (MEITY) has started inter-departmental and industry consultations to amend the Information Technology Act, 2000, the Economic Times reported. It has also reached out to the Ministry of Home Affairs and the Department of Telecommunications for their inputs, per the report.

The first such open house discussion will take place today at 2:30 pm. MEITY Additional Secretary Gopalakrishnan S. and Group Coordinator (Cyber Laws) Rakesh Maheshwari will attend the meeting. Participation of a number of industry stakeholders is also expected. The discussion has been organised by the Centre for Digital Economy Policy Research. MediaNama reviewed a copy of the invitation. Interestingly, this call is taking place on the sharechat.zoom.us domain.

The Department for Promotion of of Industry and Internal Trade (DPIIT) had written to industry bodies, including NASSCOM, the Confederation of Indian Industry (CII), FICCI and ASSOCHAM, last week, as per the ET report. The Department had sought their feedback and inputs on what amendments can be made to the IT Act, 2000. The amended IT Act is expected to include regulation of e-commerce, digital payments, AI, data security, and cyber crime. The law was last amended in 2008.

MEITY is already in the process of notifying the Information Technology (Intermediaries Guidelines) Rules, 2011, which will regulate the rules around online content takedowns, and limiting safe harbour for intermediaries.

News Source: https://www.medianama.com/2020/04/223-meity-information-technology-act-amendments/

M4. 1 crore phones have Aarogya Setu app, but is it useful, will it respect your privacy?

Deccan Chronicle . 07 April 2020

... any communication about the sharing of Aarogya Setu data from the Union ministry of **electronics and information technology** or the health ministry.

Hyderabad: A week ago, the Centre released a contact tracing application named 'Aarogya Setu' which records a user's movements of employing Bluetooth and GPS. The app alerts the user if they come into contact with a Covid-19 patient whose location data is also recorded in the app.

Contact tracing apps have recently been used in countries such as Singapore and China too. But privacy experts in India note that when it comes to Aarogya Setu, there is very little information on how the app will be operated and how it will collect, store, and share user data.

How the app works

Upon downloading the Aarogya Setu app, users are asked to register using their mobile numbers and enter their name, gender and age. They are also asked to select any medical conditions they may have from a list of options provided. Most importantly, it asks users to keep their Bluetooth and location services (GPS-based in most phones) on at all times.

The app will use both technologies to pinpoint a person's location with reasonable precision. The app also has a "self-assessment" tool which allows you to assess your risk using an automated chat bot.

A description of the app says that personal information of users would be stored locally in the user's device. The government will get access to the same data in "anonymised, aggregated datasets for the purpose of generating reports [...]". If a user tests positive, however, this personal information could be given to the government.

Within a week of going live on Google Playstore and Apple App store, Aarogya Setu has been downloaded by more than one crore people, giving the government a wealth of information.

There is very little clarity on who will have access to this data, and if it will be shared with the state governments in any form.

There is such a dearth of information that it isn't clear how the main objective — of alerting people about positive cases — will work.

How to know a test result?

The app itself doesn't allow users to self-report as positive, so how is it supposed to know of the person's Covid-19 test result?

A senior bureaucrat from the Telangana state government speculated that it could be done through data furnished by the Indian Council of Medical Research (ICMR), the nodal agency that approves Covid-19 testing facilities in the country.

"ICMR has all details of all people who have tested positive so far, along with their mobile numbers. Perhaps, once someone is tested positive, his mobile number is fed into the Aarogya Setu app," he said.

So far, the state government hasn't received any communication about the sharing of Aarogya Setu data from the Union ministry of electronics and information technology or the health ministry. "Right now, the app seems to be targeted only for individual-citizen use," the senior official said.

Sidharth Deb, policy and parliamentary counsel of digital rights advocacy group Internet Freedom Foundation (IFF), said that the legal/legislative grounds on which the app is functioning is unknown.

“Our surveillance architecture is not aligned with the right to privacy,” Deb said. “Firstly, the government needs to elucidate the value of contact tracing and location surveillance in this situation. They also need to be transparent about how the data will be stored, the extent to which it is collected, the purpose for which it will be processed and by when it will be deleted.”

He said the government must also clarify which government departments will have access to the data.

Additionally, Deb said the app’s claim of “anonymised aggregation” also requires scrutiny. “There are cases wherein anonymised datasets remain information security risks and can still be vulnerable to re-identification of personally identifiable information,” he said.

Mr Srinivas Kodali, an independent researcher and privacy rights activist, noted that that mass adoption of Aargoya Setu would be an essential factor in its success. “Almost everyone needs to have the app installed on their phones. We don’t know if this is feasible in India where internet and mobile connectivity is just picking up,” he said.

Additionally, he argued that whatever insights the app is able to provide needs to be given to the state governments as well, since it is they who are at the forefront of pandemic response activities. “In any case, an app won’t solve everything. We need vaccines, medical and safety equipment to address the situation,” he added.

News Source: https://www.deccanchronicle.com/technology/in-other-news/070420/1-crore-phones-have-aarogya-setu-app-but-is-it-useful-will-it-respec.html

M5. India's S&T Institutions Raise their Game Against #COVID19

India Education Diary . 07 April 2020

... Ministry of **Electronics and Information Technology** (MEIT), Council for Scientific and Industrial Research (CSIR), Atal Innovation Mission (AIM), ...

New Delhi: COVID-19, also known as coronavirus, is making people all over the world go helter-skelter and clueless. As per 'worldometer', over one million people have already fallen prey to this virus as of writing this and the numbers are increasing thick and fast. Over 59,000 people have succumbed to death and still counting. In India, it has affected over 3000 people and has witnessed around 60 deaths so far. Department of Science and Technology's Senior Scientist Jyoti Sharma and Head, International Bilateral Cooperation Division, S.K. Varshney, in this feature write up, give details of the efforts by Indian scientists and institutions in the fight against COVID-19.

The World Health Organization (WHO) has pooled in resources and scientists from across the world in its search for a potential vaccine. India is also playing a big role in this at WHO. In addition, thousands of researchers around the world are offering their expertise, time and help through international platforms such as Crowdfight COVID-19 to fight against COVID-19. Researchers are also connecting through social media apps such as Twitter, Facebook, and LinkedIn to provide their services voluntarily.

With no vaccine in sight for at least the next 12-18 months, it seems the fight for rescuing humankind from this deadly virus has only just begun. With no real global consensus on the response mechanism, each nation is left to fend for itself when it comes protecting its own citizens.

India's quick response

With over 1.3 billion people in Her bosom, the spread of coronavirus in India and India's response mechanisms are being closely watched over by the rest of the world. Led by the Prime Minister, Shri Narendra Modi, India is battling this virus with all its might. Invoking the Disaster Management Act of 2015, India announced a complete lockdown on 25 March for a period of 21 days. The early announcement of a lockdown, when the infected count was less than 400, was well appreciated by WHO. Setting up of a COVID-19 Task Force and announcement of a series of 'social distancing' and other serious measures followed suit. A few such important measures are listed below.

Started tracing contacts of COVID-affected people.
Suspended all existing visas (except diplomatic, official, UN/international organisations, employment, project visas).
Suspended all international and domestic flights, trains and bus services until April 15.
Initiated economic measures targeting the poor so that none goes hungry during this period.
Converted the coaches of Indian Railways as isolation wards.

R&D Institutions Taking Up The Challenge

While India's pro-active, pre-emptive, and a 'whole government' approach to fighting the COVID-19 pandemic is happening on one side, the slowdown in trade between India and the rest of the world works as counter-productive on the other side. This slowdown in trade is disrupting the supply chains of many essential commodities needed for the fight. The list of such essential commodities includes COVID-19 testing kits, masks, alcohol-based sanitizers, personal protective equipment (PPEs), dress materials for frontline health workers, ventilators (breathing devices) for patients, etc.

The challenge is to produce these as quickly as possible and in bulk. This situation prompted the Government of India to vigorously activate the 'Make in India' Programme, and involved various Research & Development (R&D) institutions of the country.

Under the leadership of Dr Harsha Vardhan, Minister for Health, Science and Technology, and Earth Sciences, a well-coordinated approach has been adopted to activate the scientific community of the country. This approach has helped in providing a common platform for sharing of best practices, collaboration of work, development of need-based innovations, and in avoiding duplication of research work. To cut it short, in such a short period of time, India was able to put thousands of researchers in the country to work round the clock to develop new testing kits, protective equipment, respiratory devices, etc.

India's apex S&T agency and its efforts

Department of Science and Technology (DST) is India's apex science and technology (S&T) agency. With the help of institutions under DST and sister ministries, DST is taking the lead in coordinating the effort to map and upscale appropriate technologies in India for addressing a plethora of issues related to COVID-19. It is also scouting for solutions that are more relevant to the country and also to help prepare the country for exigencies arising out of COVID-19 pandemic.

DST through its autonomous institutions and statutory bodies has instituted three ways to fight COVID-19:

extensive mapping of solutions requiring R&D support, startups with viable products requiring facilitation and manufacturing support;
identification of market deployable products requiring seed support; and
support for solutions already in the market but requiring substantial scale-up to augment their manufacturing infrastructure and capabilities.

Intensification of Research in High Priority Area (IRPHA)
Science and Engineering Research Board (SERB) is an autonomous body under DST. Under its Intensification of Research in High Priority Area (IRPHA) scheme, SERB had invited competitive proposals having a strong interdisciplinary component to ramp up national R&D efforts for epidemiological studies, studies on immune response and immunity during respiratory viral infections, new anti-virals, vaccines, and affordable diagnostic against COVID-19 and related respiratory viral infections. Apart from this, SERB also invited short-term 'Core Research Grant Special Call on COVID-19' to meet the current requirements of the health workers such as (a) affordable and portable rapid diagnostic kits or tools, (b) computational identification and validation of COVID-19 molecular targets, and (c) drug repurposing against key COVID-19 targets and in-vitro/clinical dose testing of nutritional supplements for immunity.
The first set of five projects has been selected by SERB, which will be supported for further development into implementable technologies. Three of these projects concern the highly important issue of antiviral and virustatic surface coating of inanimate surfaces, such as personal protection equipment (PPE); the fourth one deals with the identification of metabolite biomarkers in COVID-19 infected patients enabling therapeutic target identification; and the last one concerns with the development of antibodies against the receptor-binding domain of the spike glycoprotein of coronavirus.
Tracking and trailing the virus through a data-driven approach is an important step to contain its spread. In this direction, SERB has announced short-term project on mathematical modeling of COVID-19 spread; statistical machine learning, forecasting and inferences from pandemic data; focused algorithms for infectious disease modeling and quantitative social science approaches for epidemiological models. In the absence of preventive and curable measures, mathematical models may help in assessing the potential for sustained transmission to occur in new areas.
Research Proposals Invited By TDB

The Technology Development Board (TDB), a statutory body under DST, has invited proposals from Indian companies and enterprises to address protection and home-based respiratory interventions for COVID 19 patients. Industries may help in this crucial condition to provide need-based indigenously

developed/imported technologically and innovative solutions like low-cost masks, cost-effective thermal scanning devices, technologies for sanitization of large areas as well as for contactless entry, rapid diagnostic kits and oxygenators, and ventilators.

Artificial manual breathing unit (AMBU)

Sri Chitra Tirunal Institute of Medical Science and Technology (SCTIMST), Trivandrum, has developed a ventilator system based on an artificial manual breathing unit (AMBU). The institute's automated AMBU ventilator with inputs from clinical faculty will assist in the breathing of the critical patients who have no access to ICU ventilators. The technology has rapidly moved into clinical trials and manufacturing through Wipro3D, Bangalore. Apart from this emergency ventilator, the Institute is also making efforts in developing low-cost AI-enabled digital X-ray detectors for screening COVID-19 patients.

Anti-microbial coating

The Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), an autonomous institution under DST, has come up with a one-step curable anti-microbial coating. This coating is capable of completely killing the influenza virus and resistant pathogenic bacteria and fungi, including methicillin-resistant Staphylococcus aureus, fluconazole-resistant C. albicans spp. and a range of virus type Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV-19). It is anticipated that the coating will not allow microorganisms to become active on coated surfaces. During the COVID-19 outbreak, the coating may be used to protect personal protective tools, clothes and equipment of health workers.

Grassroots Innovations

The National Innovation Foundation (NSF), another autonomous institution of DST encourages and supports grassroots innovations developed by individuals and local communities in any technological field. NSF has invited citizens to come up with creative and innovative ideas through its 'Challenge COVID-19 Competition (C3)' for tackling the following issues: (a) healthy food for nutrition and boosting immunity; (b) reducing transmission of coronavirus; (c) sanitising one's hands, body, home items and home, public places wherever required; (d) supply and distribution of essential items to people, especially the elderly living alone; (e) gainful engagement of people at home; (f) PPEs and rapid diagnostic testing facilities for capacity building of healthcare; and (g) rethinking "contactless" devices for post-corona implementation needs and varying needs of the different segment of the population during COVID-19. Besides inculcating scientific temperament among masses, this initiative will also encourage them to participate actively in the government's programmes against the pandemic.

Synergizing S&T efforts

As mentioned earlier, the Government of India has set up a 'COVID-19 Task Force' for mapping the COVID-19 related technology capabilities in start-ups, academia, research and development labs and industry. The capacity mapping group consists of representatives from DST, Department of Biotechnology (DBT), Indian Council for Medical Research (ICMR), Ministry of Electronics and Information Technology (MEIT), Council for Scientific and Industrial Research (CSIR), Atal Innovation Mission (AIM), Ministry of Micro, Small and Medium Enterprises (MSME), Startup India and All India Council for Technical Education (AICTE).

This Task Force has identified over 500 entities in the areas of diagnostics, drugs, ventilators, protection gear, disinfecting systems, etc. The solutions identified include masks and other protective gear, sanitizers, affordable kits for screening, ventilators and oxygenators, data analytics for tracking,

monitoring, and controlling the spread of outbreak through AI and IoT-based solutions, to name a few.

The Department of Biotechnology (DBT) and the Biotechnology Industry Research Assistance Council (BIRAC), a sister department of DST, have also announced COVID-19 Research Consortium Program and are seeking proposals from industry, academia, industry-academia partnership with a focus on affordable diagnostics, vaccines, novel therapeutics, repurposing of drugs or any other intervention for control of COVID-19.

The Council of Scientific and Industrial Research (CSIR), under its New Millennium Indian Technology Leadership Initiative (NMITLI), is also seeking proposals from industries for effective containment interventions, assistive devices such as affordable ventilators, innovative diagnostics (rapid, affordable, cutting edge), novel drugs or repurposed drugs, new vaccines or repurposed vaccine, and track-and-trace technologies.

Other innovative, rapid and economic solutions are also coming from other institutions. For instance, CSIR-Institute of Genomics and Integrative Biology (IGIB) has developed a paper strip-based testing assay. This testing assay can detect the viral RNA of the novel coronavirus SARS-Cov-2 within an hour.

Many research groups are focussing on basic science and other social aspects of this pandemic like virus morphogenesis & development, sequencing of local strain, virus-host interaction, genetic variants linked with virulence, evolution and transmission pattern, pathogenesis studies and collection of epidemiological data. These studies are very much necessary for development of vaccines and therapeutic drugs against COVID-19.

S&T at private labs

Efforts and contributions from private players have indeed accelerated the process of the development of diagnostics, vaccines and novel therapeutics. A Pune-based molecular diagnostics company, Mylab Discovery Solutions, has developed the first COVID-19 rapid testing kit in India. This testing kit has been approved by the Indian Food and Drug Administration, the Central Drugs Standard Control Organisation (CDSCO), and the ICMR. This kit can give test results within 2.5 hours. After joining hands with Serum Institute of India and AP Globale, the test capacity of Mylab has increased from 1.5 lakh tests a week to 20 lakh (2 million) tests a week.

An incubate company of the Pune-based Science and Technology Park (STP or Scitech Park) has come up with an innovative anti-COVID-19 solution through a product called ‘Scitech Airon’ under the ‘Nidhi Prayas’ programme of DST. The start-up claimed that the ionizer machine generates negatively charged ions at approximately a hundred million per 8 seconds (10 ions per sec). This machine has the potential to reduce the viral load within a room by 99.7 percent (based on room size). This can be of good help to sanitise the quarantine facilities and hospitals.

Along with technological and medical solutions, preparation of science-based IEC (information, educational and communication) material and disseminating the same to the larger public also form an important task. Such IEC material can dispel the myth, panic, and psychological stress being faced by the public. One such government-led AI-based app called ‘Corona Kavach’ was developed in that direction. Other similar tracking apps are also available to alert users when they come in the proximity of a confirmed coronavirus positive person. However, these apps have not gained enough traction among the public so far.

Comprehensive efforts at war foot

The Government of India is fully committed to facilitating Indian health and scientific community in the fight against COVID-19. The government scientific agencies are not leaving any stones unturned in order to provide full support to the community, researchers, private and public research labs, start-ups, incubators, entrepreneurs and industries. Funding agencies are making an effort to link national projects with global projects to share the expertise among nations, avoid duplication and speed up the entire process when and where required.

On 21 March, Indian scientists were given access to collect blood, nasal and throat samples from COVID-19-infected people through a memorandum issued by the government's Empowered Committee on COVID-19. This announcement has spurred several research projects related to the sequencing of local COVID-19 strain, the development of diagnostic kits, vaccine and so on. Furthermore, the government allows all national research laboratories including those under CSIR, DBT, DST and Department of Atomic Energy (DAE) to carry out COVID-19 testing. This will help to speed up the screening process and fasten tracing of contacts.

On 3 April, DST has set up a 'Centre for Augmenting WAR with COVID-19 Health Crisis' (CAWACH) at a total cost of Rs 56 Cr to evaluate and support up to 50 innovations and start-ups that address COVID-19 challenges. CAWACH is set up in the Society for Innovation and Entrepreneurship (SINE), a technology business incubator at IIT Bombay. Supported by DST, CAWACH will provide timely support at different stages for fast-tracking the commercialization process and scale-up of technologies across the country. The Government of India firmly believes that these R&D initiatives will certainly help the country in overcoming the pandemic in the not-too-distant future.

News Source: https://indiaeducationdiary.in/indias-st-institutions-raise-their-game-against-covid19/

M6. ESDS Software to set up new data centers in 5 cities: Piyush Somani

Tech Observer . 06 April 2020

... government and dozens of states that started giving business to CSP's empanelled with MietY (Ministry of **Electronics and Information Technology**).

With demand from government and banking customers going up for cloud technology-based solutions, homegrown cloud service provider ESDS Software Solution said it is in the process of massively ramping up its data centers capacity.

According to a senior executive, the Nashik-based firm will be setting up new data centers in five cities and existing three DC locations will see Phase-2 of expansion.

"We will have operational data centers in Chennai, Bangalore, Mumbai, Nashik, and Indore by end of FY21 and then three more DCs will be added at three other cities – Hyderabad, Kolkata and New Delhi," said ESDS Software Solution CEO and founder **Piyush Somani** in an interview with *TechObserver.in* Ankush Kumar.

Edited Excerpts:

ESDS works with various government organisations, PSUs and enterprises in India. How ready are these organisations for Digital Transformation?

What we have observed in the case of a lot of our customers is going to change the perception of people about government organisations. Many state governments, central government entities and PSU's have adopted 'cloud-first' strategy and many of them are now using SaaS offerings from cloud service providers. We have hundreds of enterprises and banks that have not considered cloud as an option yet and keep on asking the same 10-year-old question about security, but there are these PSU's or state governments that were spending large amounts on buying hardware and building data centres, but now they are consuming everything on a pay-per-use or pay-per-consume model.

The world's second-largest IoT project is happening in India and it is being implemented by a government organisation named EESL, this is to replace 250 million traditional utility meters with smart meters. Government lotteries are now running on the cloud without any interruption and they are fully utilising the scalability of the cloud technology. Close to 30% seaports of India are now running on the cloud and within the next 2 years, we will see complete automation of all ports.

Chief Ministers of many states are monitoring the key metrics of their state using a dashboard and these dashboards are running on cloud. In the state of Maharashtra, all collector offices have become paperless and the software they are using is on a SaaS model. Maharashtra is the first state in India to come up with a SaaS policy for government departments and PSUs to consume cloud services.

Over the last few years, ESDS strategy has evolved, what are your key focus areas currently?

We started our cloud journey 10 years ago when the cloud was an alien concept. It took us 5 years to repetitively give the same answers to the same question about cloud security. The opinion has gradually shifted towards the cloud. The only other option to keep data safe without the cloud is to keep it offline. Now that cloud is being accepted by most of the business verticals, we have come up with several initiatives to transform our country.

From the year 2012 onwards, we started putting a lot of focus on banking and government customers. We were very clear in our minds that if a major transformation in India has to be brought, then it can only be through the government and banking sector. We envisioned a mission for our organisation to positively transform the lives of one billion people in India using our cloud-enabled digital

technologies. Planting 1 billion trees and connecting 1 billion smart devices with us became the other two missions for us. Today we are extremely proud to say that ESDS has managed to touch lives of 500 million Indians through more than 135 government organisations hosting their data on our cloud and more than 325 banks hosting their CBS solution as well as the channels with us.

We are continuously coming up with a lot of SaaS and PaaS offerings for government and banking customers. In parallel, we have now come up with IoT, Blockchain, AI and ML solutions for enterprises to improve the efficiency of manufacturing industries. Our focus will continue to be on all the business verticals where we can add value through our existing solutions or where we can innovate and implement solutions for a brighter tomorrow.

There seems to be some kind of uncertainty in the global economy. Do you see any change in the demand?

There is a lack of positive sentiment right now in the market, people are worried about their health and their future. Currently, the only ones experiencing high demand would be online games, videos, and the lottery. We are hoping to see the change in sentiment happening around mid of April. Recovery of Indian companies would start happening from the end of April onwards and by Diwali, we hope to see everything back to normal and then India would be again looking to achieve 7-8% growth.

When the sentiment of the market is negative, then any small incidence or health scare can ruin the entire market. Coronavirus has killed many businesses that will find it difficult to return to operations once the scare goes away. We, humans, need to look back and analyse if the response given to this virus was the only way to handle it or could we have done some better preparation earlier, knowing that such kind of biological infections have been coming a lot in the last couple of years and they will increase further in years to come. Our wants for luxury and comfort are causing a severe decline in our immunity development against viruses.

How do you look at India's data protection bill? Is your organisation ready to meet the compliance?

While the entire world is in the process of implementing some or the other kind of data localization policy, we in India are taking a long time to come up with our data localization policy. Our biggest worry right now is that how the western world will react to our data localization policy, considering that millions of Indians are employed by our tech giants having a major play in the western countries.

Entire European union and most of the Middle East countries have already implemented their data localization policy. We are also working in multiple African countries where data centers are being built to bring their data back in their country. Though India has always been a soft country with an online positive approach and full of gratitude and empathy for the entire world, there will be some neighbours and some of their supporting countries who want to keep control of our data. The choice is between the long term or a short term benefit of our 1.35 billion citizens.

What are ESDS plans for FY21?

ESDS has mapped out its future for FY21. We are in the process of setting up data centers in five new cities and our existing three DC locations will see Phase-2 of expansion. We will have operational data centers in Chennai, Bangalore, Mumbai, Nashik, and Indore by end of FY21 and then three more DCs will be added at three other cities – Hyderabad, Kolkata, and New Delhi.

Besides the data center facilities, we are also anticipating huge growth from IoT solutions that we are implementing for dozens of manufacturing companies. ESDS now has India's biggest SAP HANA

community cloud with more than 160 customers on the SAP HANA Community Cloud and moving forward we are expecting this to cross 500 customers in the next 2 years.

We are already No.1 in India for Government Community Cloud and the Banking Community Cloud as we have 135 large government customers and 350 banking customers hosted on these community clouds. Digital Transformation of the entire nation is our mission in the coming five years. We hope to leave a strong and very positive impact on the entire country in this decade.

How government business is doing for ESDS?

We've positioned ourselves as No.1 in India due to our unique patented cloud technology, which has been accepted by 135 government organizations in India. The central government had started a process to empanel cloud service providers in the year 2014 and ESDS was amongst the first few organizations to get empanelled. We supported this move from the government and it helped us to win business from central government and dozens of states that started giving business to CSP's empanelled with MietY (Ministry of Electronics and Information Technology).

SDS alone has helped 135 government organisations to save large investments on hardware that would have become obsolete in the coming years. Cloud has helped various government organisations in India to quickly roll-out their digital plans and make a positive impact on the lives of Indian people. We at ESDS feel extremely proud to be a part of this digital transformation of the world's largest democracy. We are anticipating to take the tally from half a billion people to 1 billion people in India in the next five years, that will connect to our cloud-enabled services and get benefitted.

News Source: https://techobserver.in/2020/04/06/esds-software-to-set-up-new-data-centers-in-5-cities-piyush-somani/