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**Governance
in the COVID - 19 era**

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SOCIAL INNOVATION

by **'Powering Good'**

Rajan Bhandari, CEO,
Hitachi Systems Micro Clinic

S M A C S



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Smart City Summit, Kanpur

Santosh Kumar Sharma
Commissioner, Kanpur Municipal Corporation
& CEO, Kanpur Smart City



> MAGAZINE

It compiles ICT-related advancements being introduced, exercised by various government organisations via eGovernance module.

> NEWS

Dealing with various key developments and policy-related decisions that define Indian governance style at large, this section throws light on the most important aspects.

> WEBSITE

With a reach of sixty lakhs, the website is pushing the Digital India campaign of the Government of India. It highlights various dimensions of anything and everything related to the changing trends of governance in India.

> EVENT REPORTS

This segment narrates the discussions and deliberations of participants at the occasional conferences held nationally or internationally.

> CASE STUDIES

It deals with in-depth detail of various projects being implemented in any part of the country, worth inspiring others in providing solutions.

> VIDEOS

The youtube channel 'EletsTV' deals with live recorded versions of tech-experts and key decision makers who participate in key debates or discussion of Elets knowledge conferences.

> INTERVIEWS

This section highlights various stakeholders, bureaucrats and policy makers influencing governance in the country.

India Transforming to be 'Aatmanirbhar'

India is en-route to become 'Aatmanirbhar' and the process of its transformation is underway. The Prime Minister Narendra Modi-led Government of India has been actively driving the country towards a better future ahead. From coming up with schemes to increase the farmers' income by two folds to building an ecosystem adaptive enough to support businesses for holistic upliftment of the economy, there are many such initiatives that are transforming India.

Bringing in the spotlight, the transformation of India, Elets Technomedia Pvt. Ltd. organised the 'India Transformation Summit'. The three-day summit was graced by the presence of Nitin Gadkari, Minister for Road Transport and Highways and Minister for Micro Small and Medium Enterprises (MSMEs) as the Chief Guest. It saw participation from senior policymakers, renowned industry leaders and academia brainstorming on India's transformation. The deliberations addressed growth and development in various sectors such as agriculture, MSMEs, water, food, disaster management, transport, urban development, and so on. The summit highlighted how India is spearheading to transform into 'Aatmanirbhar Bharat'.

This issue of the EGov Magazine carries a detailed report of the India Transformation Summit. The report will detail out deliberations from the policymakers on government's work, actions, and policy reforms to transform India. Besides, the role of private players in strengthening governance and economy in the country. This issue further intends to bring in light how the effective measures and impactful strategies by the government have resulted in infrastructure development, enhanced mobility and connectivity, technology-powered processes and systems.



रविगुप्त

DR RAVI GUPTA

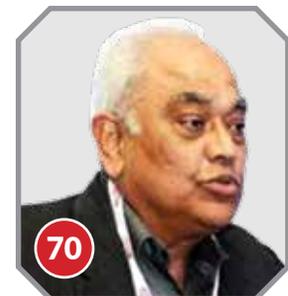
Editor-in-Chief, eGov magazine, and
Founder Publisher & CEO,
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INDIA TRANSFORMATION SUMMIT 2020 REPORT



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Governance in the COVID-19 era

India Transformation Summit 2020 Report

India, one of the world's fastest-growing economies, is on a path to transformation. The Indian government's schemes and programmes to open new opportunities for businesses, foreign investments, development, etc. is a leading example of India's route to be a developed nation. To bring in light, the government's efforts for transforming the world's fifth-largest economy, Elets Technomedia organised India Transformation Summit 2020 from July 10 to July 12.

The three-day Summit witnessed eminent speakers from various walks of life ranging from renowned policymakers, senior government officials to industry leaders and domain experts. The summit was graced with the presence of the Union Minister for Road Transport and Highways and the Minister for Micro, Small and Medium Enterprises, Nitin Gadkari as the Chief Guest.

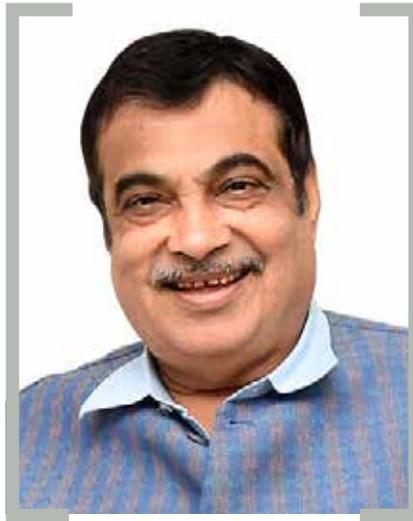
Aatmanirbhar Bharat Abhiyan to Strengthen MSMEs

Nitin Jairam Gadkari, Minister for Road Transport and Highways and for Micro, Small and Medium Enterprises (MSMEs) graced the virtual India Transformation Summit with his presence as a Chief Guest. The three-day summit was organised by Elets Technomedia from July 10 to July 12.

The nationwide lockdown induced by the Government of India came in tough for the MSMEs and big businesses causing huge losses and layoffs. However, the Government launched in Aatma Nirbhar Bharat Abhiyan under which a fund of Rs 20,000 crore was allocated to kickstart the drooping economy and aid businesses. Gadkari, in his Chief Guest address, briefed how the Aatma Nirbhar Bharat Abhiyan Fund will be benefitting MSMEs majorly.

The Minister, citing Aatma Nirbhar Abhiyan Funds, said, "We are providing financial support to MSMEs in this time of crisis... We are trying to create marketplaces like Alibaba to create digital procurement and selling space for MSMEs." Further, 11 crore jobs have been created in MSMEs as of yet and it is our target to achieve five crore more jobs in the coming year, he added.

Mentioning it a revolutionary move, he said, "We have also changed the definition of MSMEs which is again a significant step." Adding on to the significant measures taken, he said, "We are looking forward to increasing import. Also, many countries are taking out business from China and we are



NITIN JAIRAM GADKARI

Minister for Road Transport and Highways and for Micro, Small and Medium Enterprises (MSMEs)

looking forward to creating better technologies and systems to grab business opportunities coming our way."

Further, on MSMEs, he said, "We are also trying to fetch more foreign investments and public-private investment in the MSMEs sector."

The Minister mentioned during his address that the focus of the government is more on to strengthen the agricultural, rural and tribal areas. Also, the aim of making India self-reliant will not become a dream come true if the local trade, craft and products do not gain investment to be taken to a bigger platform. From biofuel to fishing

to agriculture and to tribal economy are areas where we can tap the further potential, he added.

Backing his words on government's approach focussing on the local trade, Gadkari said, "We are very much urban-centric. We need to focus more on the rural and tribal sector and develop these areas. We need to build smart villages, smart cities and industry clusters."

He also presented the perspective of the Ministry of Road Transport and Highways and talked about the initiatives taken towards shifting to biofuels.

"We are very much urban-centric. We need to focus more on the rural and tribal sector and develop these areas. We need to build smart villages, smart cities and industry clusters."

Elaborating on developments on biofuel to reduce vehicular pollution levels, the Minister said, "We are using sugar molasses to create ethanol which will further be used to create aviation fuel and will be added in petrol."

Further, he said, "We are also creating green highways... I want that farmers should produce CNG. From five tonnes stubble one ton CNG is produced. We are looking forward to using ethanol which is a green fuel." 

“Going Digital is the Way Forward”

Rajesh Aggarwal, Additional Secretary & Financial Advisor, Ministry of Petroleum & Natural Gas, Government of India while talking about but not limited to the petroleum domain, touched points on policy and guidelines, ‘Aatma Nirbhar Bharat’, Make in India, Ease of Doing Business, and more. He said, “When we talk of Aatma Nirbhar Bharat and Make in India, Ease of Business mantra must reach the ground.”

On subsidies offered during the time of Coronavirus crisis, Aggarwal stated, “In petroleum, we pushed in money in advance for three months for cylinders for Jan Dhan Account holders, Rs 500 per month. Luckily, people do not have to fill any forms or do any formalities. The government had the account details and benefits were transferred to beneficiaries directly in their bank accounts.” Active tracking of the DBT transfers was done, and it was seen that the banks were pushing Rs 3 crore, Rs 4 crore every day to the accounts of the beneficiaries, he added.

Adding on, he said, “However, in many processes, people still have to fill up forms. So we need to work on that. Every form is input, there is processing involved, and then there is an output.”

Elaborating on the forms, Aggarwal said, “We can make the collection of data in a home-delivery manner wherein a person from the authority can reach to people’s house and collect the relevant and needed data.” Citing an example of a few foreign countries as a corrective step, Aggarwal added that in



RAJESH AGGARWAL

Additional Secretary & Financial Advisor, Ministry of Petroleum & Natural Gas, Government of India.

many countries there is ‘Tell Me Once’ concept wherein the government takes the data only once and that is used for every service and department whenever in need.

“Besides, many times, we have to pay fees with the forms or input and filling a bank challan for that payment is one of the worst methods. There have to be various payment modes- like online, through UPI, cards, etc.”, Aggarwal highlighted. However, as a good move by the Indian government such payment mechanism, consent-based data sharing, digital and prefilled forms are getting available for various processes.

On the use of e-governance, Aggarwal

gave an example of Maharashtra. He said, “A few years back, the Maharashtra government released a notice saying that for conventional processes there should be no more than two steps. Even for policies, no more than three steps to be taken for complete processing.”

Further, he said, “The processing should be transparent, and the citizens must be able to track their applications and its status.” The output part of the government process, he added, it should be digital to avoid the citizens visiting the office time and again. Aggarwal cited the example of Digilocker saying, “We first designed it in Maharashtra and I am happy that the Government of India took our model and modified it for more services and better delivery and recognised it for use pan India.”

“As a good move by the Indian government various payment options, consent-based data sharing, digital and prefilled forms are getting available for various processes.”

While concluding, he addressed issues where the business owners or startups have to fill up numerous forms for setting up their businesses. Aggarwal stated that pre-filled forms should be there for such processes to reduce the processing time significantly. [mca.gov](https://www.mca.gov.in)

India Upscaling Tech to Impact Lives

Abhishek Singh, President and CEO, NeGD and MyGov, Ministry of Electronics & Information Technology (MeitY) focussed his address on how IT and technology have been used to improve the lives of citizens of India. He said, "In the last few years, huge platforms have been built and new steps have been taken which enables seamless communication of the citizens with the government. This shows our growth in e-governance and has revolutionised communications in the country." The scale at which the projects are been taken today is massive and has not been done in any other country, he added.

Citing examples of the large scale projects, Singh said, "We have the Aadhaar system which is one of the most robust unique ID system involving 126 crore unique numbers provided to the citizens for their identity." Not only limited to the identity card role, but the Aadhaar system has also played much crucial role in managing schemes and government offerings for the world's second-largest population. It is linked to bank accounts, enabling govt to provide direct benefit transfers (DBT) to beneficiaries of various schemes. More than Rs 1.7 lakh crore have been saved from Aadhaar implementation. The DBT transfers otherwise would have been a troublesome and humongous task to identify beneficiaries and transfer money to their bank accounts. With Aadhaar in place, within no time, the beneficiaries of various schemes were transferred



ABHISHEK SINGH

President and CEO, NeGD and MyGov, Ministry of Electronics & Information Technology (MeitY).

money to their bank accounts under Garib Kalyan Yojana, he added.

Speaking on the Unified Payment Interphase (UPI) system, Abhishek Singh said, "We have UPI transfers, I don't think any other country allows such instant transfers even for small amounts." From huge sums to even Re 1 can be transferred through UPI. Also, UPI transactions have been growing day by day, he added.

Digilocker project is another achievement displaying India's step towards the adoption of better technology. "The Digilocker has more than four crore users today and they have over 3.78 billion documents.

Ranging from Aadhaar cards, pan cards, driving licenses, to even school certificates can be procured digitally and stored safely", told Singh.

Further, he said, "The three major moves by the Government of India is giving a facelift to the country's systems and processing. The Aadhaar resolves the identity issues and is a single ID for every requirement either for age, residence, unique ID, facial recognition, etc., whereas UPI is driving towards a cashless economy. Similarly, Digilocker is a major move to make processes paperless."

Concluding his session, he briefed about the 'MyGov' portal of MeitY, Government of India. Singh said, "MyGov is basically a bridge which

"Aadhaar resolves the identity issues and is a single ID for every requirement, whereas UPI is driving towards a cashless economy. Similarly, Digilocker is a major move to make processes paperless."

delivers government announcements, decisions and moves in a simplified and creative manner." Hence, MyGov is using various communication modes to bridge the communication gap between the government and the citizens. [meit.gov.in](https://www.meit.gov.in)

India's Power Sector Evolving with Technology

Ajitabh Sharma, Principal Secretary, Energy Department & Chairman DISCOM, RRECL, REDCL, Government of Rajasthan commenced his address with a brief about the power sector saying, "After the enactment of the Electricity Act in 2003, the generation sector which was delicensed in the year 2003 has settled. Also, private companies stepped in the sector."

Citing such issues, Sharma said, "The major problem lies with the distribution sector. In some states, a part of the distribution sector is privatised but the real problem lies with the distribution sector as in whole." In the current times of the COVID pandemic, because of the squeeze in liquidity, the Rajasthan government has deferred the recovery of dues from the customers and the distribution company faces a lot of problems, added Sharma.

He said, "The power sector is the only sector which was in business without recovering money. This led to a huge liquidity crunch. To offer relief, the Centre and the Rajasthan government played its role by providing some concessions. However, we somehow managed the survival and now we have started getting money from the consumers."

Speaking of innovations in the power sector, Sharma said, "Using IT in the power sector we have started energy auditing at different levels. We are auditing at 33 kV, 11 kV, then low tension lines. Further, we have stepped in distribution transformer metering." Under the retail consumer metering, a project worth of around Rs 500 crore has been taken up wherein we



AJITABH SHARMA

Principal Secretary, Energy Department & Chairman DISCOM, RRECL, REDCL, Government of Rajasthan.

are installing smart meters at the retail consumers' end, he added.

Sharma, further, said, "If we start doing the voltage level assessment and auditing on a large scale, we will be able to identify the technical and commercial losses which the distribution companies are facing." Adding on the losses of the distribution company, he highlighted that the premier customers are getting out of the nets of power distribution companies.

"With the rise in the renewable energy sector and energy-saving mechanism, the power consumption especially of the commercial establishments like malls have gone down. Moreover, in some cases, they

prefer to source power directly from the power exchanges or set up their own renewable energy plant such as solar panels. Such moves reduce the power consumption from the distribution company leading to a reduction in their revenues generated", said Sharma. This put pressure on the state and the centre subsidies to keep the power tariffs at the lower end for the poor consumers, he added.

Further, addressing innovations, Sharma said, "Based on the analysis report which we get from the smart metering project we have brought down our losses of around two per cent... We have already started using the Aadhar and K no. of the electricity consumer so that the bill amount is being generated to the farmer and the subsidy is transferred directly to the bank account of the farmer", added Sharma.

“With commercial establishments preferring renewable energy and setting up their own smallscale solar plants, their power consumption from dicoms have gone down and hence, our revenues.”

While wrapping his address, Ajitabh Sharma stated, "We announced our new solar wind and hybrid policy in 2019... We have brought in changes in new energy policy and are promoting hybrid policies... And we have already started installing 600 MW of hybrid power plant. Adani group has taken up the project." [et.gov](https://www.et.gov.in)

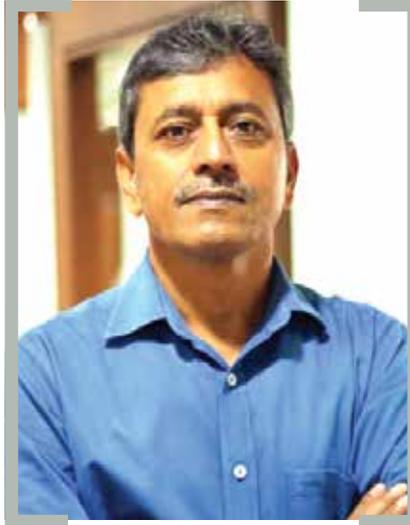
“India Aspires to be Software Product Industry by 2025”

Dr Omkar Rai, Director General, Software Technology Parks of India (STPI), Ministry of Electronics & Information Technology (MeitY), Government of India, commenced his address referring to the rise in e-governance, digital mechanisms, various development works, smart cities etc. He said, “The tremendous amount of work and efforts put into and the kind of achievement that has been achieved by the stakeholders in India is remarkable.”

Briefing about the STPI, Dr Rai said, “STPI was setup way back in 1989 by the government of India to strengthen India’s IT infrastructure and digital functioning of processes.” Further, he said, the achievements achieved by the stakeholders have been powered by the IT industry in India which clogged \$191 billion revenue. And this has been instrumental in the flagship development of various platforms and smart systems like Aadhar, GSTN, UPI, Aarogya Setu, etc., he added.

Adding on the significant contribution of the IT industry, Dr Rai said, “The same industry also powered the vibrant startup ecosystem in the country amounting to \$55 billion.” The IT industry that drove the growth of India in the digital phase and strengthened the technological infra in the country was actually serviced by STPI, MeitY for a long time, Dr Rai added.

Citing the example for how IT and technology came for rescue in times of



DR OMKAR RAI

Director General, Software Technology Parks of India (STPI), Ministry of Electronics & Information Technology (MeitY), Government of India.

COVID crisis, Dr said, “During the lockdown, we saw that when things were brought to a halt and no physical interaction was allowed, it was technology which kickstarted work, education and various other things online.” IT and technology sector saw the least disruption due to the pandemic woes, he added.

Role of STPI

Speaking on the contributions by STPI, Dr Rai said, “STPI which started supporting the government in setting up infrastructure for technology, powering digital networks and functioning, technical services have actually repositioned itself and is at

the forefront of the creation of centres of excellence, essentially incubators and we ensure that we provide necessary infrastructure not only physical but also financial and other supportive infra.”

Dr Rai, said, “We have so far got approval for 12 centres for excellence in Meditech, fintech, blockchain, shared vehicle, etc. We are ensuring that the young innovators if they want to come up with new technologies or ideas then they can be provided with the right platform where they can turn their dreams into reality.”

Dr Rai said that the MeitY already speculated the upcoming opportunities and hence, “We came up with a policy NPSP - National Policy for Software Products in 2019 wherein India aspires to become a software

“During the lockdown, when things were brought to a halt, it was technology which kickstarted the work, education and various other things online.”

product nation. And due to the policies we have, the ecosystem for IT and tech, a keen young workforce supports the NPSP which aspires to make India software product industry worth \$70-80 million by 2025.”

He concluded his address on the note that due to the policy support, improved infra, growing market, better skilled and keen workforce, “India was never the way we are today”. [e.gov](https://www.meit.gov.in)

SAP India Facilitating India's Digital Growth

Krishnan Chatterjee, Chief Customer Officer and Head of Marketing, SAP India, commenced his inaugural note by saying, "In terms of digital policy and digital governance, India is way ahead of every other country on the planet. Examples like UPI, Aadhar, etc. are instances where we are the world's best." Looking back in the 90s when India's IT industry was pretty much nothing and today the sector is world-leading, he added.

Considering 'Aatma Nirbhar Bharat' as a goal, the way India is trailing the path of development, especially in technology perspective, it is great to see such capability, potential and confidence, said Krishnan Chatterjee.

Chatterjee addressed Ajitabh Sharma's points on renewable energies and said that renewables energy is where India can leapfrog. "India has always been an energy-dependent nation, and in renewables, we can be the world leader", he added.

Turning his words to SAP, Krishnan Chatterjee briefed about SAP, its area of operations and its workforce in India. He said, "SAP Labs in India has a tremendous co-innovation capability and is also working with startups. It might be interesting for a governance perspective to seek out SAP to innovate with the facilities they have in India." Moreover, in the two decades, SAP has crossed over 10,000 customers in India, he added.

Further, talking about SAP and how it



KRISHNAN CHATTERJEE
Chief Customer Officer and Head of Marketing, SAP India.

has been a step ahead, Krishnan said, "SAP was very early of the block in enabling each of its customers to be GST ready. From oil and gas perspective, almost 90 per cent of the public companies in the oil and gas sector uses SAP software. Over half of India's installed capacity of power generation runs on SAP." Besides this, every single IT company, making India proud, leverages SAP software, he added.

"India has been a growing economy, but inclusive growth has been a challenge, and we had a view that

digital literacy could be democratized. Hence, we started 'Code Unnati' programmes with a lot of our customers wherein we set up learning centres in rural areas. SAP provided the curriculum to make underprivileged youth and women digitally literate. And, it is good to know that the number has surpassed two million and we have 1500 centres running", told Krishnan.

Further, Krishnan also talked about SAP's Global Bharat Programme, which focusses on MSMEs. He described the importance of the programme by saying, "Unless the MSMEs in India becomes strong, growth-oriented, and globally competitive, our economy will have a serious challenge." Moreover, touching the Corona crisis issue and how things are turning digital, he said, "We have

“In terms of digital policy and digital governance, India is way ahead of every other country on the planet. Examples like UPI, Aadhar, etc. are instances where we are the world's best.”

modified the Code Unnati programme into digital course or programme which can be accessed through a mobile application. We have over 400 courses on the Code Unnati app now, and we are making it available to all MSMEs so their workers can be trained. [gov.in](https://www.gov.in)

GeM posing a boon for MSMEs

Government e-Marketplace (GeM) is an online public procurement portal which was primarily brought in with a focus to aid MSMEs for the procurement and selling of products. Throwing light on how GeM portal is declining the supply chain challenges for MSMEs and taking India a step ahead towards self-reliance, Talleen Kumar, CEO, GeM joined in India Transformation Summit organised by Elets Technomedia.

“In a study by the World Bank, it was found that price less than 9.57 per cent was offered. Hence, the World Bank identified GeM as a cost-effective platform.”

Kumar, mentioning the efforts by the Ministry of Micro, Small and Medium Enterprises (MSMEs), said, “The Ministry has taken various measures to strengthen the business environment for MSMEs and GeM has been one of the most significant steps.”

“The three pillars of GeM are - Inclusivity, a perk of the Government e-Marketplace, wherein from small



TALLEEN KUMAR
CEO, GeM joined in India Transformation Summit

vendors to business owners all are equally allowed to use the services available on the portal. Second is Usability and Transparency, a feature where the authorities ensure complete transparency and from craftsmen, artisans to shopowners, wholesalers and companies all can use the GeM portal. The third pillar is Efficiency and Cost Saving. In a recent study by the World Bank, 1,63,000 tenders have been analysed and it was found that at GeM 9.57 per cent less than the median price was offered. Hence, the World Bank identified GeM as a

cost-effective platform”, told Kumar.

Further, describing how GeM has posed as a gamechanger for the micro, small and medium enterprises, Kumar said, “Apart from this, we have over four lakh sellers and out of this 26 per cent are from MSMEs. Moreover, the contribution from MSMEs on the GeM portal is over 56 per cent of the total of Rs 56,000 crore. This simply implies that the MSMEs are benefitting from the GeM portal.”

Kumar also talked about policy and guidelines regarding payments. He mentioned that the Government of India has taken a historic step in fine-tuning the payment receiving. “We have filters regarding PPPMI and PPPMSE at the portal and we

“The MSME Ministry has taken various measures to strengthen the business environment for MSMEs and GeM has been one of the most significant steps.”

also encourage the practice. As per a recent historic decision taken on July 3, if anyone delays payment over 10 days after Consignment Receipt Acceptance Certificate (CRAC) they have to pay 12 per cent interest.” [et.gov](https://www.et.gov.in)

“With Innovations, India’s e-Governance has Leapfrogged”

Dr Neeta Verma, Director General, National Informatics Centre (NIC) commenced her address by saying, “COVID-19 combined with lockdown was an unprecedented situation. Though for many, the amount of work significantly dropped, for the government it increased manifolds.” While the government has to deliver the regular service, they also have to manage the COVID pandemic and even neutralise the challenges that surfaced due to lockdown, said Dr Neeta.

Adding on she said, “Initially, there was a shortage of masks, PPE kits, sanitizers, etc. Then surfaced the challenge of upscaling testing facilities, treatments, and all of this needed close coordination between the various entities of the Centre and the State governments and also with the industry. So, the very first thing needed was a robust digital network to support online functioning and coordination. The demand for video conferencing raised manifolds and even now we have to cater to around 1200 to 1300 video conference meetings daily.”

Apart from meetings, active online monitorings were being done, COVID war rooms were functioning, and so forth. Moreover, many government examinations and selection commissions are requesting NIC for providing facilities to hold online interview for selection for various positions in government services. So, it’s a new kind of innovation in the functioning of various government services which is setting in and will



DR NEETA VERMA
Director General, National Informatics Centre (NIC)

soon become the new normal even in government offices, highlighted Dr Verma.

Further, she said, “Integrating technologies like augmented reality, virtual reality with video conferences will enhance the user experience giving it a sense of reality. This will be highly beneficial for students attending online classes for various courses.” There is a need to augment existing technologies and integrating such advanced tech to give students real school-like experience, she added.

Speaking on how mobile applications posed a gamechanger in boosting service delivery, Dr Verma said, “As lockdown was in place and there was a

need to mobilise the supply chains, testing and treatment in an augmented fashion, a lot of new systems were brought in to help the cause. We were developing an application in a day or two and some of them have a robust system like Aarogya Setu.”

RTPCR was another new app introduced which has made the collection of the sample to its movement to labs a streamlined process. The mobile application has not only enhanced the collection of the samples but it has also improved accuracy of the information delivered, she added.

Besides this, Dr Verma highlighted, “With the help of IIT Madras there was a mechanism developed which helped us to locate the emerging hotspots across the country. This helped the respective governments to take timely action to control the spread of the disease further.”

Speaking on the e-pass systems, Dr Verma pointed out, “E-pass system was essentially brought in existence for facilitating the movement of people for emergency reasons, medical reasons, etc. during the lockdown days. The system came in handy to manage people’s movement, movement of goods, vehicles across the country.”

Closing her address, Dr Verma said, “Like the private sector, the government offices are also moving towards remote functioning. We have e-offices in place which we are gradually implementing in all the government offices. However, one of the biggest challenges that come up is cybersecurity. So, the officials have to be careful while working online.” Technologically we are pretty ready to realise the dream of digital governance, however, we need to ramp up our protective systems for preventing cyberattacks, she added. [.gov](https://www.gov.in)

NITI Aayog Actively Working for Economic Recovery

Avinash Mishra, Advisor, NITI Aayog began by highlighting the fact that apart from COVID pandemic, India is facing a major economic crisis. Hence, there is a dire need to bring in major changes in governance to bring the dwindling economy back on track.

Mishra said, "To help the cause we announced an agrarian fund worth Rs 1 lakh crore to help the farmers for their post-harvest expenses. And, more such innovative measures were taken but before this, we had to ensure enough supply of water to meet the domestic, agriculture, and industrial needs." Aatma Nirhar Bharat Abhiyan can only be possible with the availability of land and water, he added.

Further, he said, "As we know that the distribution of water in all across the sector is very skewed. The agriculture alone consumes 89 per cent of water which needs attention. There are ways and methods by which this heavy consumption can be reduced. We started awareness programmes for farmers and one such programme is 'Jal Jeevan Mission'. Under this we tried to sensitize the farmers and various other stakeholders at state-level, district-level and even at the panchayat-level about how more water can be conserved."

Moreover, strengthening the move to conserve water, Mishra further talked about 'Catch the Rain' - where it falls, when it falls campaign. He told the attendees that the Ministry of Jal Shakti is taking measures to train the people



AVINASH MISHRA
Advisor, NITI Aayog

and sensitize them on rainwater harvesting and capturing rainwater. "Similarly, if we want industrial development to happen and to be self-reliant then the land and water must be easily available to the industries setting in", Mishra pointed out.

"Hence, to resolve water issues we are trying to reuse and recycle the water to the most extent so that it can be supplied wherever it is needed. Subsequently for the land, recently, NITI Aayog has come up with a conclusive land titling model act and rules. Also, the model agriculture land easing policy has been developed by us and the act has been shared with the states", he added.

Adding on, Mishra said, "Some forward-

looking states like Uttar Pradesh have come up with a norm that if a farmer owns agricultural land, he is allowed to use it himself or collaborate with someone for setting up dairy, or godown, industry. This will empower the people of that area economically."

Mentioning of recently passed ordinances for farmers, he said, "Recently, ordinances have been passed which allows the farmers to sell their produce wherever they find better price across the country. Hence, not limiting the farmers to mandis for selling their produce."

Further, talking about the dairy sector, he mentioned that the government is planning to offer more incentives and benefits to the people. However, in the tourism sector, the government is

"If we want industrial development to happen and to be self-reliant then the land and water must be easily available to the industries setting in."

planning to provide enhanced facilities and various tax exemptions. Further, we are trying to bring those wanting to visit foreign countries to visit more places in India and eco-tourism is being promoted which is already a popular aspect among the tourists today as most of the people are residing in cities.

Closing his address, he said, "All these initiatives are working and we are quite sure that these will bring back the economy on track." 

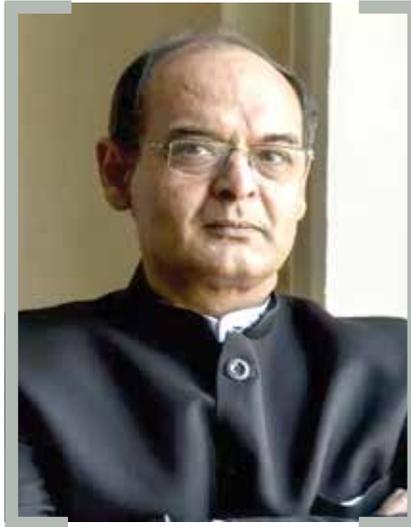
Mumbai Port Geared Up To Tackle COVID Crisis

Sanjay Bhatia, Chairman, Mumbai Port Trust and Indian Ports Association, Maharashtra commenced his address with a brief on Mumbai Ports. Moving his words to the COVID pandemic, he said, "At first, we declared ourselves an essential service. The decision to mark ports as essential was taken at the ministerial level and hence, throughout the lockdown all the 12 ports were functioning."

There was a general slump observed in the demand and supply, so the operations were about 75 to 80 per cent when compared to the previous year, he added.

Talking about innovations in governance during COVID era, Bhatia said, "In governance, what is important is if we can anticipate things. Since February, we had started planning to deal with this pandemic. The first thing we did was to create working hostels in the custom bound area. We have an island via through which our 70 per cent of oil cargo and chemical cargo goes. So the hostels were created there." It was decided in March that the workers will be staying there on a tenure basis. So, the first batch of workers stayed there for around a month. Even now we have a seven-day tenure for the workers, he added.

Adding on, Bhatia said, "We also created quarantine areas nearby the working hostels... Simple precautions were taken like temperature check, sanitisation tunnels which were discontinued following a statement from the Ministry of Health on spraying chemicals on people for sanitising purposes. However, other measures were actively



SANJAY BHATIA

Chairman, Mumbai Port Trust and Indian Ports Association, Maharashtra

continued." Most of the administrative work was shifted from physical files to online systems and video conferencing tools. E-office is the platform being used for the office works. No staff that can work from home was called to the office and even now we are following this rule, he added.

Further, speaking on the challenges during the COVID era, he said, "One of the biggest challenges was to get passes for various stakeholders to keep the port operations ongoing. Ports cannot operate in silos there are a lot of private firms and various government agencies working in tandem with us. So, passes for all of them had to be arranged. In the first month, all the cargo was stored at the port and cannot be moved out as many factories were shut."

"Moreover, we had to help the stakeholders so that their transport services get back on track... We also have a port hospital which has never dealt with anything like COVID. However, due to our proactiveness, we bought about 20,000 PPE kits and various other equipment required.

He said, "When the hospital was getting crowded we opened a COVID Ashram where we placed people without comorbidities and needs to be isolated. Therein, people were free to move out, however, doctors and nurses have to wear PPE kits. Moreover, a team of doctors used to sit in the control room and monitor the movement of people." Wrapping up his address, while speaking on a few more initiatives taken during COVID times, Bhatia said,

"We have a port logistics community which we are looking forward to taking online so that everything that an importer or exporter is doing can be done on a single portal electronically."

"We have a port logistics community which we are looking forward to taking online so that everything that an importer or exporter is doing can be done on a single portal electronically. So, COVID helped us grow faster in terms of technology and upgrade systems." [et.gov](https://www.et.gov.in)

Jharkhand Augments Food Supply to Combat COVID Crisis

Arun Kumar Singh, Additional Chief Secretary, Department of Food, Public Distribution & Consumer Affairs, Government of Jharkhand commenced his address by briefing about the impact of COVID on Jharkhand and how the state is dealing with it. Singh said, "We had set up a supply chain management task force and the challenge was to ensure uninterrupted supply and availability of essential commodities." Also, another part of the job was to take care of those people who do not have ration cards, he added.

Further, he said, "We have a good number of people coming here and working but do not have rations cards. So, we opened up community kitchens or 'daal bhat kendras' wherein we offered them free food." Also, to cater to the emergency needs we had dry ration ready. Moreover, every possible thing was done to ensure the smooth functioning of the supply chain while keeping social distancing in check, added Singh.

Speaking on coping up with the challenges, Singh said, "For those who were not covered under the National Food Security Act, a state government-sponsored scheme was launched wherein as much as 10 kg of rice per family has been distributed. Further, the Centre came up with Aatma Nirbhar Bharat Abhiyan under which we again distributed ration to those uncovered in the earlier schemes." Moreover, we had a disaster management relief fund under which food packets with other essentials were also distributed to those stranded and had no access to essential commodities, he added.



ARUN KUMAR SINGH

Additional Chief Secretary,
Department of Food, Public
Distribution & Consumer Affairs,
Government of Jharkhand

On additional measures taken to keep the supply chains functioning, he said, "We were regularly keeping a tab on the availability and requirement of the food grains, vegetables, fruits, and other essential commodities." In order to bring in a sense of food security among people and ensure that no one stays without food, Singh said, "Emergency ration funds were set up at panchayat level and ward level for cities. Under these, Rs 10,000 has been kept for fulfilling any food requirements in emergency cases."

Further pointing out the initiatives taken, Singh said, "We had discontinued the biometric system for authenticating ration

cardholders to prevent contact to the most extent." Adding on he said, under 'One Nation One Ration Card' launched by the Government of India, biometric is required for authentication. However, there are certain issues with this system as the rate of subsidies vary from state to state, not everyone gets registered under the scheme; preference of diet like in Rajasthan it is wheat whereas in Bihar, Jharkhand, rice is more preferred; availability of buffer stock for people from other states, etc.

While concluding his address, Singh marked out a few innovations during the COVID era, saying, "Allocation was made online to prevent long queues and make a contactless system for the people. GPS enabled trucks were used for transporting essential supplies. These trucks were also installed with load meters. Further, for

"We had set up a supply chain management task force and the challenge was to ensure uninterrupted supply and availability of essential commodities."

augmenting storage, we set up an online warehouse management system for active record keeping and monitoring of goods coming in and going out. Also, the storages had IT-enabled weighbridges. To improve distribution, e-PoS machines were used for NFSA cardholders through biometrics were suspended the Aadhar number was inserted manually. Further, to transfer funds to beneficiaries direct benefit transfers (DBT) were used. Also, the mobile app was used for transferring benefits for non-NFSA beneficiaries." 

SAP Aiding Authorities in Economic Recovery

Mukesh Kumar, Lead - Digital Transformation Office, SAP India commenced with a note "Developing economy, society and environment through digital technology is our core purpose."

Adding on how SAP is contributing to their core purpose, he said, "We have a project called 'Core Unity' where we collaborated with the government and private sector wherein we are coming together to take digital literacy to rural India. Through this, we are educating thousands of youth which otherwise we would not have been able to do." One of the examples he quoted was '1 billion lives' a programme by SAP which is around the social entrepreneurship where we seek ideas to improve healthcare, sanitation, disaster management, etc. we nurture those ideas and then take them to the market, he added.

“SAP's efforts have ensured open access to the global markets during the COVID pandemic.”

Further, Kumar mentioned how SAP's efforts have ensured open access to the global markets during the COVID pandemic. He added that the MSMEs were really stressed and global access has not only allowed them to sail through



MUKESH KUMAR

Lead - Digital Transformation Office, SAP India

the crisis but has also provided them with the opportunity in India to grow.

Speaking on the SAP's initiative in managing COVID crisis, he said, "We have seen Arogya Setu app in India. Similarly, we helped many countries in developing a tracking and monitoring app. We opened the marketplace for MSMEs and for everyone to bridge the gap between the demand and supply. There are examples where we have created a 1000-bed hospital overnight by getting the right supplier. And, of course, there are a lot of innovations that we have done. Similar to Vande Bharat Mission, we started a mission in Germany for citizen repatriation. In Singapore, we took measures to filter out fake news so

that what reaches the citizens is true in all sense. We also opened our digital literacy platforms so that the employees stay relevant at the time."

Kumar said, earlier it was about managing the crisis but now it is about how to recover. Hence, the whole paradigm has shifted to how to maintain social distancing, how to maintain employee health and safety, and all of these are the areas where the innovations are coming up recently. Therefore, we are co-innovating with various stakeholder to come up with better solutions.

Considering the short and medium-term working, he said, "We are also working with the policymakers in the health sector to cover the sector holistically. Moreover, the education sector has seen a massive change with not only online

“We have a project called 'Core Unity' where we collaborated with the government and private sector to take digital literacy to rural India.”

lectures but even examinations are shifted to online modes. Similarly, the work in the government, as well as the private sector, is moving to remote working and digital platforms. Hence, these are the areas we are looking at to augment with SAP's digital solutions.

"We think that with our digital technology we will be able to help the authorities to respond much better in a proactive manner," said Kumar, while concluding his address. [e.gov](https://www.e.gov.in)

Maharashtra at Forefront of India's Transformation

Trailing the path of development, India has not only ramped up its IT and technology infrastructure, e-governance but also took initiatives to improve the ease of doing business and came up with a huge bunch of policies aiding business owners, especially the MSME sector. With better e-governance and digital infra in place, the country had sailed through the tough COVID-19 crisis.

Addressing one of the technical sessions themed - 'Using IT and E-Governance for Transforming India', SVR Srinivas, Principal Secretary, Department of Information Technology (IT) & Chairman, MahaIT Corporation Limited, Government of Maharashtra talked about how Maharashtra government is contributing towards India's growth.



SVR SRINIVAS

Principal Secretary, Department of Information Technology (IT) & Chairman, MahaIT Corporation Limited, Government of Maharashtra

"We are probably the first state to come up with a proper cloud management policy for public cloud platforms", highlighted Srinivas. For cybersecurity, we came up with the hybrid cybersecurity model which was launched by the present Chief Minister of the State and is operational now, the Principal Secretary IT added.

Speaking on the implementation of the e-governance initiatives, Srinivas mentioned, "We have rolled out CSCs and through that, we are running about almost 400 services which we are delivering online... Moreover, another important project is the Data Interoperability Project and Data Standardisation project. We need data standardisation as it is

"We are establishing an IT backbone - Maha Net. The project is being carried through Bharat Net and is expected to be up and running soon."

not possible to come up with decision support systems without standardisation... We operate in silos whether government or private firms. We have our data in different languages and pieces. Unless the data is communicative and shared the decisions can be delayed and even wrong decisions can be taken. So we need to have standardised data so that the data can be used for all government departments as and when required." 

"We are probably the first state to come up with a proper cloud management policy for public cloud platforms."

He said, "Government of Maharashtra is doing a lot of things to strengthen India's technology infrastructure. We are establishing an IT backbone

named as Maha Net. The project is being carried through Bharat Net and is expected to be up and running in the coming six months." The network will connect all the village panchayats with IT to ensure the service delivery, added Srinivas.

Further, he said, "We are in talks with the telecom secretary for the release of funds. We have already spent as much as Rs 1200 crore for the project in one and half year and about 1200 gram panchayats have been connected." The remaining is expected to be completed in six to eight months.

“Need to Enhance Computing Capacity to Improve Digital Processing”

MK Yadav, IFS, Additional PCCF & Managing Director, Assam Electronics Development Corporation Ltd. said, “The first thing that we need to focus on to scale up e-governance is the operating system... We need to have our own operating systems - our browsers, our search engines, etc.”

“In Assam, we are using a local version of one of the deviant distributions called SuperX developed locally. It is a really good operating system. We are funding to the local initiative to the extent we can,” he highlighted.

Further, Yadav spoke on the significance and need of computing clusters and data clusters. He said, “We have our own locally nurtured virtual private cloud. We are currently hosting on that and we have almost over 300 VMs running in our state government on it. Almost every application

“In Assam, we are using and promoting a local version of one of the deviant distributions called SuperX developed locally.”

or system running in the departments including some of the NIC applications are operating on the cloud.” There is a scope to experiment with local clouds, he added.



M K YADAV

IFS, Additional PCCF & Managing Director, Assam Electronics Development Corporation Ltd.

Adding on, Yadav said, “Clouds in itself are not the remedies. For clouds to be operational we need infrastructure, we need machinery and we need several of these mechanical clusters.” Citing the lack of infra for blockchain technology in India as an example, he stated, “Where is the infrastructure for the blockchain. Can we make blockchains in a couple of servers kept here and there in the districts?” Hence, while talking about blockchain implementation there is a need to think of data centres that are needed to be multiplied across states, districts and collaboration from states are needed.”

Yadav said, “If I want to map Guwahati, I will get millions of photographs through

drone survey. So, do we have that capacity of computing to process such data?” The drones capacity is not being used optimally. They are merely used as toys for fetching a quick video or surveillance. However, “We need to realize that drones can be an excellent tool for resource mapping, planning”, underlined Yadav.

Adding on drones and their utilisation, he said, “We can rope in startups or entrepreneurs who wants to extend drone services and provide them with cheap compute platforms so that majority of the cost of the project is saved. Also, by doing so the data remains localised and it can be shared.”

On data sharing, Yadav said, “GIS data sharing is not an easy task. However, we have a platform ‘Bhuvan’, but even that is not quite apt for the job. We need

“The drones’ capacity is not being used optimally. They are merely used as toys for fetching a quick video or surveillance.”

multimode implementations of Bhuvan as we do not want the data to be stored singularly but it should be on a platform in a multiple-priority system like Google Maps.” Google Maps is successful because it is a distributed architecture, he added.

“We need a distributed architecture powered by high performing clusters and data centres where GIS attributes and data is shared. Then only we can have meaningful governance in the country, as far as decision making is concerned,” Yadav said while ending his address. 

Leveraging Technology to Enhance Digital Infra

Prabhat Malik, Chief Operations Officer (COO), Chhattisgarh Infotech Promotion Society, Department of Electronics & IT, Government of Chhattisgarh started with sharing his experience of tackling the Coronavirus pandemic. He said, "Apart from COO, Chhattisgarh Infotech I am also Officer on Special Duty (OSD), Health Department... To prepare our team on the ground for fighting COVID we needed three things - tracking, testing and tracing." But, the traditional process of procuring systems is a tedious one wherein there is a need to mention software requirements and other requirements and then the tender is floated. The processing takes from a year to three years sometimes, he added.

"However, an advantage for us during the COVID time was our introduction to low code application platforms. We have been using Microsoft-powered platforms. These are easy to use and can be made ready as per our requirements in very less time", told Malik. Talking about e-passes and how the low code application platform has been an enabler for the authorities, he said, "Today, whosoever is coming to Chhattisgarh gets an e-pass within 15 minutes. With basic details like name, contact number, address, the pass can be availed. Moreover, using these details the authorities track the person and also confirms from the district that if he has been briefed about the SOPs, if home quarantine needs to be done, etc."

Further, speaking on the contact tracing and testing, Malik said, "When it comes to the sample collection and testing we have Government of India portals. However,



PRABHAT MALIK

Chief Operations Officer (COO), Chhattisgarh Infotech Promotion Society, Department of Electronics & IT, Government of Chhattisgarh

when a positive case is found, the district authorities upload the relevant details of contacts to be traced on a contact tracing portal that we have developed. Even if the contacts are outside the district, other districts are also sent alerts."

Simultaneously, the authorities can track logistics and mass supplies using IT, he added.

"At the backend using the government portal as well as our data analysis, we can give pinpoint information to the districts on which areas to be focussed on, how many numbers of tests to be conducted, etc. Also, through a weekly review, districts are being fed with a weekly

strategy for the upcoming days", told Malik. The digital scenario is changing, the government needs prompt responses and now when we are processing huge amounts of data we need systems which are capable to process data a large scale in a short time, he added.

Speaking on training the local force on low code application platforms for better response during pandemics and disasters, Malik said, "Chhattisgarh is looking forward to expanding the use of low code application platforms, training our local workforce in using those platforms and customising such platforms. Further, we are trying to reduce our response time to any such event like COVID. We are going for an MIS platform which is source-based. This will help in capturing the transactions and thereby generating actionable intelligence to supplement a field-level staff."

"With rapid digitisation, now we are processing huge amounts of data and we need systems which are capable to process data at a large scale in a short time."

Concluding his address at the session, he said, "All these initiatives have helped us in keeping our caseload low. Our active caseload has had a slow growth rate. Also, the ability to trace and quarantine people who are asymptomatic has been high. This has helped us in preventing the spread of the virus in a larger area effectively." 

Technology Transforming Governance in UP

Neha Prakash, Special Secretary, Department of IT & Electronics and Managing Director, UPDESCO and Managing Director, Shretron India Limited, Government of Uttar Pradesh commenced her address by highlighting the scale of governance in Uttar Pradesh. She highlighted, "In UP, we had a robust IT infrastructure even before the onset of the Coronavirus pandemic. This is one of the reasons why we were able to handle the crisis effectively."

"One of the innovations is the CM helpline on which people could call and register their grievances. During the COVID crisis, we used the same number for the outbound process. We called lakhs of gram pradhans, ASHA workers, and all the village-level government representatives for spreading awareness and keeping in check the compliance of lockdown norms", told Neha. There has been a huge influx of migrants during this time. Using technology, the authorities were able to reach out to these people in distress and help them accordingly, she added.

Further, Neha mentioned, "In UP, we have State Wide Area Network (SWAN) and 884 points of presence of the network. This is a huge network which connects districts, tehsils and blocks to the state headquarters. We have state data centres and 264 applications on which over 61 departments are hosted." Besides this, technology has been a great enabler in tracking and monitoring during the Corona crisis, she added.

"We have control rooms and we are monitoring all our hospitals, health



NEHA PRAKASH

Special Secretary, Department of IT & Electronics and Managing Director, UPDESCO and Managing Director, Shretron India Limited, Government of Uttar Pradesh

centres, community kitchens, at a real-time basis. All these are monitored through CCTVs", said Neha. Moreover, due to social distancing and lockdown in place, people were not allowed to visit any of the government offices, hence, e-districts played a crucial role in answering the needs of the citizens during that time.

On e-district, there are over 200 services which were functional for people even during the lockdown. So, people can sit at their home and access whatever government service they need. "I would say the COVID crisis has completely changed the way the government and

the citizens interacts", said Neha. This defines the level of e-governance. The way UP implemented e-governance, it will help the state to go a long way ahead, added Neha.

Talking about the IT industry scenario in the state of UP, Neha said, "We have Uttar Pradesh Electronics Manufacturing Policy under which we give a lot of grants and subsidies. We also provide relief to file patents. So, all of these are steps taken to lure more players to invest in the state."

When asked about the integration of data of the various government departments which are working in silos, Neha said, "The Government of UP has identified that various departments have various beneficiaries. So, to integrate these beneficiaries on a common database we thought of using Aadhar. So to fetch the redundancy of the beneficiaries Aadhar

"We have control rooms and we are monitoring all our hospitals, health centres, community kitchens, at a real-time basis through CCTVs."

can be a reliable source. The system that we are trying to develop is a system wherein all the beneficiaries under all the schemes of all the departments will be enlisted on a common database, Hence, in future when we want to know about what benefits a particular family or beneficiary is getting and from which schemes." Such data can be of great help in proactive public planning. UP is moving in this direction, she concluded. e.gov

India Witnessing Digital Transformation

Kumar Bachchan, Co-founder and COO, Niveshan Technologies India Pvt Ltd, speaking on the transformation in India, said, "Undoubtedly, ICT, IT and other technologies has been the driving force for making India digital." As an industry, rapid IT growth has been seen. There was a time when the government departments were using Gmail IDs but today we have systems wherein we are using video conferencing tools.

"In fact, under the smart city mission, local data centres and integrated command and control centres were built at city level", said Bachchan. The past three to four years have been the best for the IT industry, he added.

“In the times to come emerging technologies will play a crucial role in taking the growth to another level.”

The transition from traditional to digital defines how India's growth has progressed. He said, "Today we see the government is using e-office, video conferencing, and other digital platforms and this is the growth that we are seeing... Today we can see that a lot of video conference meetings are being conducted by PM and CMs and now other government offices are also using such



KUMAR BACHCHAN
Co-founder and COO, Niveshan Technologies India Pvt Ltd

tools. The best example is Indian Railways which has implemented e-office for over 13 lakh users."

"Our traditional system which worked in silos is slowly vanishing. Now data-driven systems wherein all the information needed is available on integrated platforms prevail. This is the need of the hour and

with such systems, in place, we have improved our governance significantly", Bachchan highlighted. Taking such initiatives and adapting to such systems helps us to become an efficient nation.

Speaking on the role of the IT industry in the development of a better India, he said, "IT industry is helping India to be a

transformed nation. With the boost to technology and IT in India, the companies have taken the advantage to innovate and come up with improved tech. In turn, we as an industry make sure 24x7 uninterrupted and efficient operation of the government systems and all our customers."

Talking about the COVID crisis Bachchan said, "When COVID hit us, even after imposing strict lockdowns, our GSTN, our government offices, corporates, municipal services, health services and other departments were operational. This was because of technology. During the time of crisis, we saw the real use of IT. We used tools for video conferencing, e-office, emergency helplines, monitoring systems, drones, COVID tracking apps, COVID war rooms, etc." India handled the pandemic efficiently, even better than many of the developed nations, he added.

“When COVID hit us, during strict lockdowns, our GSTN, government offices, municipal services, health services and other departments were operational. This was because of technology.”

Concluding his address, Bachchan said, "In the times to come emerging technologies will play a crucial role in taking the growth to another level. And, with the government's efforts and scenario in India to accept the technologies, it seems to take it a long way ahead." 

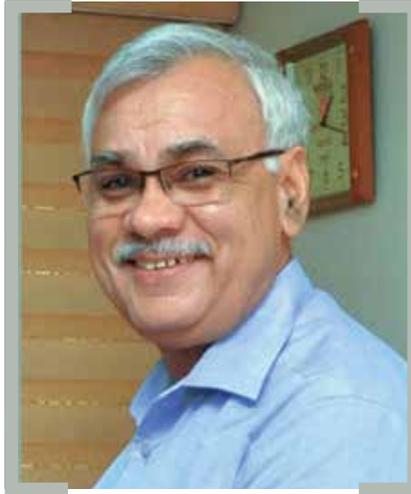
Urban Transformation Significant in Past 6 Years

Durga Shanker Mishra, Secretary, Ministry of Housing and Urban Affairs (MoHUA) participated in the summit as a Keynote Speaker and spoke on 'Urban Development and Smart Cities in a Transforming Nation'.

Addressing the core theme of the summit, he said, "Considering the urban scenario, the world has not seen this kind of urban transformation which took place in the past six years." Over Rs 12 lakh crore has been spent in the urban sector to improve facilities and enhance liveability, the Secretary added.

He mentioned the Swachh Bharat Mission and presented his views on how the ambitious mission by the Government of India played a crucial role in transforming India's picture. Mishra said, "The mission was officially launched on October 2, 2014, by the Prime Minister and soon turned into a revolutionary move. Today, we see a great change when it comes to cleanliness, sanitation, number of toilets and the number of people who have access to either private or community toilets." The Clean India Mission remained a pivotal point during the COVID crisis as 'swachhta' was again the most needed aspect. "I would like to salute all our sanitation workers for cleanliness", he added.

Adding on the Swachh Bharat Mission, the Secretary said, "We have almost 100 per cent of the cities open defecation free (ODF) and many of them are ODF+ while a few are ODF++ as well." Laying down a few figures, Mishra highlighted that over 66 lakh toilets have been constructed for individual households and over six lakh



DURGA SHANKER MISHRA

Secretary, Ministry of Housing and Urban Affairs (MoHUA)

toilets have been constructed as community toilets. The toilets are not just constructed but are used and are well maintained keeping hygiene in consideration. Also, behavioural changes have been observed among people today. People do not throw waste on the street or in open now when compared to the scene six years ago.

Further, he said, "Earlier we were processing only 15-16 per cent of the garbage in 2014. But, today we are processing 66 per cent garbage. Over 90 per cent of the wards are having a door-to-door collection and around 75 per cent segregation of waste is done at the source is there. There has also been good learning in the waste management sector and now

we are heading to what the PM said - waste is wealth."

Mishra addressed the smart cities as well. He said, "Smart cities played a very important role during the COVID era... Today we have well placed 47 ICCCs and a few are yet to be commissioned." The ICCCs were turned into COVID war rooms by the smart cities and that enabled the authorities for active tracking, monitoring, data collection, helpline services, telemedicine, and more, he added.

"Another transformation during COVID times is housing for all. The demand was 1.12 crores. But today we have already grounded 66 lakh houses and we have completed and delivered 36 lakh houses to people", told Mishra. In addition, he said, "These houses are equipped with facilities like bedrooms, living rooms, kitchen, water pipeline, electricity, gas facility, and more."

“Considering the urban scenario, the world has not seen this kind of urban transformation which took place in the past six years.”

Resting his words, he said, "Under Aatma Nirbhar Bharat Abhiyan the government launched an affordable rental housing scheme wherein the government complexes and other existing housing complexes will be used." Another scheme launched was PM Swanidhi Scheme launched for street vendors. Nearly 80,000 street vendors have already applied for the loans and over 25 thousand loans have already started under the scheme, he added. [mohua.gov](https://www.mohua.gov.in)

DAY 1 - SESSION

Smart Policing & Technology

Improving Security

The virtual India Transformation Summit witnessed two sessions addressing technologies strengthening policing and the overall safety and security prospect of India's development. The fourth session on July 10 saw the participation of an eminent panel of senior police officers. The session was themed 'Safety, Security and Smart Policing'



LOKANATH BEHERA, State Police Chief and Director General of Police (DGP), Kerala Police presented how Kerala Police is leveraging technology to upgrade policing and improve safety and security. DGP Behera began by putting forward the tech-savvy nature of the citizens of Kerala saying, "In Kerala, people are fond of technology. We heavily use technology every day."

Taking his words ahead on technology grounds he said, "We came out with a decision that we will establish India's first smart police station. However, due to the onset of COVID-19 pandemic, we needed to tweak the plan. So we proposed to have a virtual police station where people can log in and get the services which the real police station is also offering."

Laying emphasis on improvement in security systems, DGP Behera said, "Systems like CCTVs, ITMS and more have been introduced and this has made the operations better. However, there is a need for standardization of data but other than that things have improved with time."



BRIJESH SINGH, Inspector General (IG) of Police, Training, Maharashtra Police moderated the session.

IG Singh said, “Today the local police is using technology for even a regular investigation like link analysis, crime databases, etc. Technology is a day to day thing in policing these days.” Non-lethal technological aids are being used for crowd control. Traffic control is another area where technology is being leveraged, he added.

Using CCTNS contains a realtime capture of all policing work that goes on in a police station and it can be used as evidence in court. So things are improving and such systems not only streamlines policing but also fastens the procedures by providing appropriate data records. However, it depends on us how better we can use these technologies to improve functioning, IG Singh added.



MAITHILI SHARAN GUPTA, Special Director General of Police (SDGP), Police Reforms, Madhya Pradesh Police talked about broader reforms and brought in light legal aspects and a need for their revision. “I feel that it is a high time that the Supreme Court should announce an extension of Article 21 as a fundamental right - Right to Safety and Security”, said DGP Gupta.

Speaking on the functioning, especially the filing of complaints, DGP Gupta said, “FIRs can be registered through web portals, 100 dial number, or from nearby kiosks.” However, by engaging private firms, the police department can have a qualitative system for lodging complaints. Emphasising on the use of technology, DGP Gupta said that IoT powered devices are to be placed at various locations to help to capture evidence for the crime scene.

Taking the discussion on technology forward, he said, “There are smart apps which we use. Further, we intend to have a drone or robotic systems to capture data. And would prefer that such things should not be directly given to the police but some startups should be allowed to collaborate with the police.”

Moreover, AI engines can be deployed to identify fake news. The moment any fake news is identified, the backend engine must come in action immediately, he added.



MAHESH BHAGWAT, Additional Director of Police & Commissioner, Rachakonda Police Commissionerate, Government of Telangana commenced his address saying, “the word ‘SMART’ is very important in the theme of the session. Smart refers to Simple, Moral, Accountable, Responsible and Transparent policing.” These five aspects are very much required if the technology is being used in policing, he added.

Detailing on the use of technology, CP Bhagwat said, “Technology being used should not be rocket science but simple so that the general people know and can relate to it.” In 2013, when Telangana was not an independent state, the police passed an Act namely Public Safety Law Enforcement Act wherein it was made compulsory for establishments to have over 150 people working to fix CCTV cameras and share the backup data of every 15 days with the police, he added. “Today, we have six lakh cameras in the state including one lakh cameras in public places”, he added.

Further, CP Bhagwat said, “Considering Telangana if we talk about dial 100, we see 3-4 minutes of response time from our police reaching the site.”

Mentioning steps taken during the COVID times, he said, “We used our social media handle like WhatsApp, Twitter, Facebook, etc. to spread messages and awareness among people.”



DR RAVINDER K SINGAL, Special Inspector General of Police, Aurangabad, Maharashtra Police said, “In Maharashtra, we started using MPIAS - a Police Information and Analysis System.” In the times to come, a major use of technology will be to predict areas which are hotspots, he added. Further, on the use of technology to predict hotspots, Special IG Dr Singhal said, “We are lacking in this phase at present.

Speaking on crowd management he said, “Crowd management is an area where the prestige of a country is at stake. All big gatherings like Kumbh require technology for its management, especially when we look at the massive number of people attending these gatherings. Similarly, sharing of information is also important as the location of Kumbh changes so knowledge sharing can play a crucial role in effective planning and execution.” In such cases as well, predictive policing can be of great help and technology is a resort for it, he added.

DAY 2 - SESSION

The first session on the second day of India Transformation Summit, on July 11, also witnessed a preeminent panel of senior police officers and industry experts from SAS India discussing 'Leveraging Technology for Smart Policing'.



YASHASVI YADAV, Special Inspector General of Police, Maharashtra Cyber Department, Maharashtra Police commenced by saying, "Before framing strategies we need to understand real problems and points of focus in the cybersphere." He further cited four incidents to highlight how grim the cybercrime can go and said that it is no more limited to fraudulently loot money but has now turned lethal. Citing examples of cybercrime, he said, "Recently, the Maharashtra police found a marketplace on the darknet which was selling the blood of COVID recovered patients at a price of Rs 10 lakh per litre for plasma therapy. "Darknet is one of the major

challenges in the cybersecurity space", he added.

Further, Special IG Yadav said that the extent of cybercrime in times to come will be double than our vision of \$5 trillion economy viz \$10 trillion.



DR ARSHINDER SINGH CHAWLA, Additional Director General of Police (ADGP), Telecom, IT

cum Nodal Officer, CCTNS, Haryana Police threw light on the change in scenario post the adoption of technology-powered systems like Crime and Criminal Tracking Network and Systems (CCTNS). ADGP Dr Chawla said, “Earlier we used to search out files and paper-based data which is high. But today we can straightaway fetch out the data linked to crime from CCTNS database. Today, investigating officers can access the previous record of any criminal or suspect they arrested from anywhere in the country, he added.

Talking about the way forward, ADGP Dr Chawla said, “Today there is a need for facial recognition systems to identify criminals in gatherings or crowds using smart cameras...Eyes of police personnel must be supplemented.” Modern technological inputs in any sphere is art now. How better you can arrive at it defines the fate of one’s actions, he added.



SHARAT KAVIRAJ, Deputy Inspector General (DIG), SOG, Rajasthan Police addressing how in Rajasthan the police used technology to overcome lockdown challenges. DIG Kaviraj said, “The moment the lockdown came in, there was a need for passes. We started designing a system for issuing passes in a no-contact manner. Firstly, what we did was to ducktail the whole thing where we used the RajCop app. Once you apply for a pass the thing will automatically move to the district police for approval. So, by designing this we ensured that we were able to cater to people who needed passes. Also, we used emails as a solution and a format to run the entire process.”



HARMEET SINGH, Additional Director General of Police (ADGP), Assam said, “During the lockdown, we used a two-pronged strategy for two-way communication so we can connect with people and people with us.” Platforms like social media, WhatsApp and videos were used for communication purposes, he added. Further, he said, “We have a very robust system of WhatsApp connectivity and if we are sending messages on that portal we reach almost every individual in the state having a smartphone.” Moreover, an immediate helpline call centre was set up and the helpline service was not limited to phone calls but the services are extended to WhatsApp messaging and social media platforms, ADGP Singh added.

ADGP Singh also mentioned various initiatives that the Assam police had taken during different phases of lockdown ranging from helping migrants to reach back to their home state or town, providing e-tickets, set up system for delivering essentials and medicines, and much more. While concluding his address, ADGP Singh said, “We need to remember that while focusing on technology we should not forget the human aspect. The technology itself should be user friendly. It should not be for the tech people but for a layman.”



ASIMARUN, Additional Director General (ADG), UP 112, Uttar Pradesh Police addressing smart policing said, “Until we had Call 112 system in place there were a lot of complaints from people stating that no hearings are being done. However, following the implementation of the Call 112 system things have improved significantly.” As a system, this has been hugely successful and it transformed policing, he added. Further, on improving the Call 112 UP system, ADGP Arun said, “We need to collaborate for knowledge sharing with private firms like the cab aggregators, food delivery apps, etc. Such a move can be beneficial for us to design a better system.” There is a need for stronger systems

and not supercops, he added.

Speaking on responding to COVID situation, ADGP Arun said, “In the initial 10 days we developed a robust system by communicating through videoconferencing platforms.” The lesson learnt here is if we are able to adapt quickly to the situation and if we are able to execute things we can mitigate adverse situations effectively and timely. Further, he added, “We should go for online training programmes as a knowledge-sharing platform for police forces from different states to learn from each other.”



MANOJ ABRAHAM, Additional Director General of Police (ADGP) - Headquarters, Kerala Police joined the session and expressed his paradigm on the digital arena and the use of digital media for improving policing. ADGP Abraham highlighting the work by Kerala Police said, “When it comes to social media usage, we are the top police force in the world. We used drones effectively to keep a check on lockdown norms being followed. We brought out a unique SOP for how to function in cases like COVID. Moreover, we came out with a fraud prevention app which was very useful for the public and it sends alerts to people whenever a fraudster calls them.” Kerala Police is using mobile

sanitisation vehicles.

Also, we have improvised the PPE kits as the traditional ones were uncomfortable to use while on the field, he added.



ANKIT JAIN, Director, SAS India also participated in the discussion and laid out his views on how policing has changed with time and how technology has enabled law and enforcement agencies to effectively prevent crimes, investigate, collect data, surveillance, complaint redressal and regular policing. B Radha Krishna, CFCS, Director, Fraud and Security Intelligence, SAS India talked about six key issues that the law enforcement agencies are facing including growing available information, growing public expectations, political imperative for action, need to the evidence decision-making process, drive towards “intelligence-led”, calibration to encompass prevention/ deterrence.

Further, he mentioned a few cutting edge technology which can be leveraged to improve policing. Krishna, moreover, presented solutions from SAS for strengthening policing.

Liveability & Improving Social Fabric is our Focus

Dr C Vanlalramsanga, Secretary, Urban Development and Poverty Alleviation Department (UD&PA) Department, Government of Mizoram started on the note that cities are the drivers of transformation. Briefing about the cities, he said, "Today about 55 per cent of the world's population lives live in cities which accounts to 4.2 billion. As per the World Bank estimate, the urban population will double its current size and nearly seven of 10 people will live in cities." This is the scale of urbanisation today, he added.

Cities are at the forefront of combating the COVID pandemic as over half of the world's population resided in cities, said Dr Vanlalramsanga. Adding on the pandemic's impact, he said, "It is impacting not only the public health but also the economy and the social fabric worldwide." The major steps taken to control pandemic are from the cities. This is due to the economic structure, preparedness for such crisis and service delivery system, added Dr Vanlalramsanga.

Adding on he said, "Hence when we talk about building smart and resilient cities, we need to look beyond the spectrum of infrastructure. People need to be brought at the centre of planning and development to better the upcoming cities." Economic, health and social, all the three aspects have to be in focus to build smart and resilient cities, Dr Vanlalramsanga added.

While answering about the initiatives in Mizoram for urban development, he said, "Aizwal is a smart city, and also it is an AMRUT city; hence, a lot of initiatives are being taken in the city." Backing Dr Kajal's



DR C VANLALRAMSANGA

Secretary, Urban Development and Poverty Alleviation Department (UD&PA) Department, Government of Mizoram

statement, Dr Vanlalramsanga said, "The focus is not only on the technological development but also on the people, liveability, social fabric improvement, and resilience, etc."

"We have realised that cities play a pivotal role in social transformation as well. So, we have centres of architecture, scientific and technological innovation, and for culture and education as well. Hence, our focus has been on improving the social fabric covering people from all ages and all walks of life besides improving technology and service delivery", told Dr Vanlalramsanga. Also, there are specific programmes for uplifting the poor and the vulnerable. So, improving liveability

and resilience is at the core, he added.

Speaking on the transformation in the energy and the transport sector in urban areas, Dr Vanlalramsanga said, "The city, where I am residing, is a small city and the challenges which we face are quite different from metro cities. For example, 'Cycles 4 Change' is a commendable step but for a hilly city like our's, it may not be the apt move. Hence, there are challenges, it is also difficult to promote non-motorised transport due to the terrain of the city. Our challenges are different... We are currently promoting pedestrianisation. Also, due to safety concerns, we have restricted the public transport systems so that social distancing can be followed." Taxis have been restricted to carry only two passengers, buses need to follow precautionary guidelines, wearing of masks is mandatory for everyone, he added.

"We have realised that cities play a pivotal role in social transformation as well. So, we have centres of architecture, scientific and technological innovation, and for culture and education as well."

"For Aizwal, we have a project with the Asian Development Bank (ADB) in the pipeline to develop a cable-car system. With the implementation of this system, the mobility in the city will be improved", told Dr Vanlalramsanga. Concluding his address he said that such a transit system can better the congestion issues and ease travelling from place to place for the people. e.gov

Cities Evolving Resilience with Time

Dr Kajal, Director, Urban Local Bodies and Mission Director, Smart Cities Mission, Government of Uttar Pradesh addressed the Indin Transformation Summit on 'role of urban development and smart cities mission in transforming India'.

She commenced her address by saying, "The Coronavirus outbreak has given us an opportunity to innovate rapidly. Also, it has impacted our lifestyle in a big way... There is a shift to a newer phase where things are more online, offices are working remotely, and more." There are a lot of things that were needed to be done like preparing COVID war rooms out of the integrated command and control centres (ICCCs), active monitoring, upgrading healthcare, tracking and tracing applications, mapping of the hotspots. There is an evolution which could be observed in this COVID phase considering the disaster preparedness and response, added Dr Kajal.

Adding on to the impact of the COVID pandemic, Dr Kajal said, "The pandemic was an unprecedented crisis. However, following the onset of the pandemic, the transformation is in not just technology but the lifestyle, service delivery, social fabric and in almost every aspect is visible." Systems have evolved with leaps and bounds within a few months. Today we have systems like smart traffic signals which detect any violation of the traffic norms and generates a challan automatically which the defaulter can pay via online modes. Such technologies are the upcoming normal. The pandemic has impacted



DR KAJAL

Director, Urban Local Bodies and Mission Director, Smart Cities Mission, Government of Uttar Pradesh

political, economic, social, and almost every sphere she added.

Answering a question on how the COVID pandemic has impacted the mobility and transportation in cities, Dr Kajal explained, "Definitely, the pandemic has impacted the mobility to a greater extent. However, in the long term, this is a fact that things cannot be brought to a standstill, hence the mobility will resume. But, there has to be proper planning from both the government's side as well as the citizens' side before resuming public transport."

"People need to take precautions whenever stepping out of their houses.

However, one should ensure that venturing out should be for urgent work or only when required. Also, physical distancing norms need to be followed. Whereas from the government's side it is important to make sure that the timings are restricted, also congestion in buses must be avoided", told Dr Kajal.

Further, speaking on the smart cities mission progress and impact of the pandemic on the mission works, Dr Kajal said, "Smart Cities has come up as a brilliant concept especially during the COVID pandemic. The use of ICCCs and other smart initiatives were evident to show the significance of the mission. However, when it comes to progress we are evolving with time. The pandemic has put to test the tech, infrastructure, resilience, laws & policies, and other initiatives taken under the mission... In

“Following the onset of the pandemic, the transformation is in not just technology but the lifestyle, service delivery, social fabric and in almost every aspect is visible.”

general, while working on the smart cities the core focus has been on bringing in advanced and better technologies to improve the functioning and to improve the liveability in cities. With these initiatives, service delivery has also been improved and further development is on the way." At present, the resilience of cities has been put to a major test with the onset of the pandemic. And, the cities are developing and evolving with the growing risks and disaster or pandemics like COVID for a safer future, she added. [e-gov](https://www.e-gov.in)

“Technology Helped Authorities to Effectively Combat COVID”

Dr Garima Mittal, Chief Executive Officer (CEO), Faridabad Smart City Limited, Government of Haryana addressed a session themed ‘role of smart cities and urban development in transforming India’.

Dr Garima commenced her address with the note that integrated command and control centres (ICCCs) have been enabler during the COVID phase for the civic bodies. She said, “We were able to monitor the lockdown very well and ICCCs came in handy there.”

Adding on COVID preparations and actions taken, Dr Garima said, “Right now we are working on bed management and for that, we have a dynamic dashboard where the info is generated and updated at the source by the nodal officers at COVID Care Centres and COVID Hospitals. So all the nodal officers upload the data in realtime and that helps us to manage the situation effectively.” The dashboard is not only for the authorities but is also for the people so that they can

“We had a series of webinars with the RWAs, field staff, Asha Workers, etc. so as to train them remotely for the changing times as the physical meetings were no more viable.”



DR GARIMA MITTAL

Chief Executive Officer (CEO),
Faridabad Smart City Limited,
Government of Haryana

know where the beds are available, where ventilators are available and accordingly can reach out to the hospital when in need, she added.

Further, she said, “Apart from this, Artificial Intelligence (AI) and Analytics have been utilised during the lockdown phase. Wherever there was a public gathering we get automatic alerts and this enabled us to effectively monitor the area.”

Speaking on the impact of the COVID pandemic, Dr Garima said, “The changes are going to last for a long time.” Highlighting changes in the lifestyle of people, she mentioned that the Government of India launched ‘Cycle 4 Change Challenge’. In the times to come

people will be opting for more private transport and cycles can be a good option, she added. “Hence, there is a need to include such factors and infrastructure preferences in our urban planning”, added Dr Garima.

“Under the challenge, a pilot for three-months will be conducted and then 11 cities will be selected for taking up further projects. Such kind of a shift in paradigm is encouraging as well as will be more frequent in the times to come. Moreover, we have a bus project going on. The project will also be radically changed”, told Dr Garima.

Further, talking on community engagement, she said, “Faridabad had a series of webinars with the community - RWAs, field staff, Asha Workers, etc. So, we were training them remotely for the changing times as the option of physical

“AI and Analytics have been used actively to monitor people’s movement and gatherings during the lockdown phase. It posed an effective solution to crowd management.”

meetings was no more viable.” However, the web-based training that we conducted was a convenient and effective method to sensitise the staff and train them. Technology has brought in easy solutions to such problems, she added.

Concluding her address she said, “Technology can tweak and add value to the traditional systems. So, we should look at technology as a tool where it can add value to the existing functioning.” [et.gov](https://www.et.gov.in)

“LEDification is First Step to Transformation”

Shakti Leekha, Senior General Manager & Head Marketing - Illumination, Bajaj Electricals Ltd spoke on 'the role of urban development and smart cities in India's transformation'. He also spoke about Bajaj's contribution to the smart cities mission.

“There is no denying that COVID era is a challenging time but we need to adapt adjust with the changes and move further. Hence, businesses and people have adapted to a new normal and have resumed functions”, said Shakti while beginning his address.

Adding on the impact of the pandemic he said, “Services and products like lighting, fans, are essential. We were also involved in the smart city project in Maharashtra. The work for the project has resumed. Though we had a lull time because of the pandemic, things are coming back on track now.”

“As the first step is LEDification, on the consumption side we are trying to use more energy-efficient mechanisms.”

“We are now realising Prime Minister Narendra Modi's dream of smart cities as integrated command and control centres



SHAKTI LEEKHA

Senior General Manager & Head Marketing - Illumination, Bajaj Electricals Ltd

(ICCCs) built under the mission posed as nerve centres to combat the pandemic”, said Shakti. Further, he added, “The ICCCs have been helpful in controlling the city activities centrally and locally. Fortunately, we have been a part of the projects be it in Jaipur or Ahmedabad.”

Shakti, speaking on the initiatives by Bajaj and its contribution to smart cities mission, said, “Bajaj has been part of urban and rural transformation since its inception. One of the first smart cities was Jaipur which we did. It all started by sustainability as the driver and energy is the domain tapped first. Further, with the ICCC deployment and use of smart LEDs with dimming capabilities to look at the traffic load.

Lighting has also been used with cameras for active monitoring and surveillance. Hence, we are moving towards lighting as a service model. So lighting is now beyond simply lighting.”

The transformation's first step is LEDification. Power cables are being done underground to reduce power losses. The whole model is changing. Lighting is also being used to send signals. We have facade lightings like the ones at the Parliament and Chatrapati Shivaji Terminus, etc. Therefore, the city communicates today and lighting is one of the major modes, added Shakti.

Further, he said, “As the first step is LEDification, on the consumption side we are trying to use more energy-efficient mechanism. Whereas, at the city and the transmission side, people are talking about laying power cables

“There is no denying that COVID era is a challenging time but we need to adapt adjust with the changes and move further.”

underground so that power losses can be declined.” Under efficiency mechanisms, the focus is not only to install LEDs but to monitor them and keep in check the regular maintenance, he added.

Concluding his address he said that the liveability aspect has also been looked at. Hence, we are looking into more of Area-Based Development (ABD), development of parks and more social space, etc. [eGov](https://www.eGov.gov)

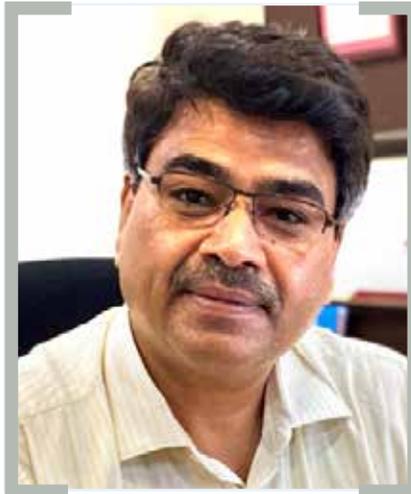
PSUs Boosting Economy & Making India Self-Reliant

Prashant Kumar Mittal, Managing Director, National Informatics Centre Services Inc. (NICSI), Ministry of Electronics & Information Technology (MeitY), Government of India, began with a note that the PSUs have always been a constant performer since independence. He stated, "Today, in this time of crisis when the government needs us the most we are here." PSUs have been constructed as a foundation of self-reliant India since 1947 and thereafter PSUs have been working as basic pillars for the development of the nation, he added.

"PSUs have been significant in not only developing infrastructure but have been involved in income generation, capital formation, generating employment opportunities, and more.", told Mittal. From developing and reaching towards developed, with increased export promotions and import stabilization, PSUs have contributed significantly in India's development, he added.

Further, adding on the contributions by PSUs, he said, "PSUs have done a lot when it comes to removing regional disparity. We could find PSUs operating in every nook and corner of the country as far as macroeconomic zones are concerned. PSUs were built to achieve these and to reduce dependency on foreign countries and imports." They have been proven shock absorbers, he added.

On the COVID situation in India and highlighting how PSUs have managed to help the government to neutralise the situation, Mittal said, "People were



PRASHANT KUMAR MITTAL

Managing Director, National Informatics Centre Services Inc. (NICSI), Ministry of Electronics & Information Technology (MeitY), Government of India

facing difficulties in getting basic services like electricity, water, etc. We provided those to the citizens. People who needed medical services, we helped them with low-cost ventilators, face shields, masks, etc." Due to the scarcity of things, cost of living spiked during the COVID period. PSUs helped to control the pricing in the time of crisis, he added.

Apart from this, he added, transport facilities were provided. DTC came forward to support for the cause. This move was significant as during lockdown all the transportation was brought to halt. However, "we need to keep up the trust of the citizens. To build that trust

we need newer ideas and newer approach", said Mittal.

On NICSI, he said, "It is now about to complete its 25 years of successful operations. It has proved to be an excellent support system to MeitY and it is working closely with NIC which forms the backbone of e-governance in India."

Further, he said, "Many of our people were working from home and they were not having good enough laptops so we provided better systems to ease their working." Moreover, we arranged digital facilities to process files from wherever the employee is working from, he added.

"The NICSI is supporting other industries like rural development, health, transport, labour and employment, online education, homeland security, etc."

Besides these, the NICSI is supporting other industries like rural development, health, transport, labour and employment, online education, homeland security, etc., told Mittal.

Speaking on Aatmanirbhar Bharat Abhiyan and the way forward, he said, "The demand for indigenous goods will increase with time and if this happens nothing much is further needed..."

We are also providing guidance to MSMEs and startups and we are trying to make a favourable environment for them so that they can flourish." [meit.gov](https://www.meit.gov.in)

BECIL Augmenting India's Media & Broadcasting Sector

Mr Kuruvilla commenced with a brief about BECIL saying, "BECIL was set up in 1995 and we completed 25 years of our service in March this year." Adding on he said, "We started as small consultancy company Prasar Bharti which includes Doordarshan and All India Radio (AIR) but later on we expanded our horizon of work. Our original expertise is in television and broadcasting. Later on, cable TV came in and we became the first to educate people about the new technology."

Hence there was a need to structure training and auditing and apt infrastructure for the cable TV industry as it started mushrooming in the early 1990s post the Iraq war. With these opportunities to tap, we started evolving as the cable TV industry, told Mr Kuruvilla. Later on, private FM came in and all the private FM setup was built up by BECIL on the AIR platform. From using AIR and Doordarshan towers for setting up private FM and fitting transmitters in over 86 cities we supported the private FMs to flourish, he added.

Moreover, Mr Kuruvilla said, "We provided studios for the education sector. Many central universities have their media centres where they record their TV programmes. BECIL provided them with studios and FM setup." Therefore, across the gamut of broadcasting, BECIL contributed significantly to opening more and more opportunities for the media and broadcasting sector to flourish in India



GEORGE KURUVILLA

Chairman and Managing Director,
Broadcast Engineering Consultants
India Limited (BECIL)

in the last 25 years, add Mr Kuruvilla. Talking about the last five years and the aim of BECIL for further growth, he said, "Our main purpose was that how do we leverage the technologies that we know and spread it across into a converged world today." There is a huge convergence between, telecommunications, broadcasting, IT, and a whole gamut of technologies that are coming in and once we understand these techs we started getting into CCTVs, GIS, surveillance, smart cities, IoT, access control and integrating end to end solutions for various departments and more. So, BECIL has now diversified into different technology-oriented areas, added Mr Kuruvilla.

Further, citing the example of COVID-19 crisis and working of BECIL, Mr Kuruvilla highlighted, "We are working and connected with most of the central government departments. We continued providing our services even during the COVID-19 time." Mr Kuruvilla announced that BECIL has always been there to aid the government and worked to help the government procure technology or other things in the time of emergency. He added, "BECIL has been and is available for the centre and the state departments for any sought of procurement of technology, instruments or even other things."

"We provided studios for the education sector. Many central universities have their media centres where they record their TV programmes. BECIL provided them with studios and FM setup."

Concluding his insightful address, he said, "PSUs have been always delivering their services to bridge the gap between the private and the government sectors and ministries providing both technological and non-technological services... We have been helping startups, the private sector which do not know how to engage government departments for using their products and that is where our role comes in. So, PSUs have been actively contributing to India's growth and development. 

NRDC Backing India's Growth With Apt Technologies

Mr Pradhan commenced by giving a brief about NRDC stating, "We are a PSU under the Ministry of Science and Technology. We are in the process of technology transfers to industries since 1953.

Over the years we have transferred over 5000 entrepreneur technologies."

Speaking of the trends in technology since 1956, Mr Pradhan said, "Many technologies were not there with us initially like a tractor. So our research institute developed a tractor and we transferred it to the industry. Now, the tractor is being exported to over 80 countries."

Citing examples of various technology developing organisations in India, Mr Pradhan said, "We have various organisations like CSIR, DRDO, ICMR, ICAR, etc which are developing various technologies in different fields. These technologies are going to impact the economy in future." Adding on NRDC's work and achievements, he added, "In times of COVID-19 we have identified around 200 technologies which can effectively combat the pandemic-related issues. So we have marketed these technologies to the industries for benefitting the masses."

"We have also organised the technology development programme and under which we called on the innovators for new innovative technologies to battle the pandemic. The technologies we are looking for are majorly under three domains - tracking, tracing and treatment. Hence, we are promoting technology



ARUNABHA PRADHAN

Senior Consultant, National Research Development Corporation (NRDC)

development in this difficult phase", Mr Pradhan added.

Further, he said, "We are prompting the startup companies as well. We have a scheme for seed funding and we are helping and promoting the startups. We are checking the innovativeness and then we are certifying them and then we are supporting the startups in the form of equity, seed capital, patenting, etc." Moreover, there is the incubation centre in our office where we guide startups on how to go ahead with their plan, how to get fundings, how to establish their firms and so on and so forth, added Mr Pradhan.

Adding on to how NRDC is supporting startups and entrepreneurs, Mr Pradhan

said, "We are also promoting the scheme of Entrepreneur Skill Development programme in many regions of the country. And, a large number of micro and small entrepreneurs are taking up the programme which is a good sign considering the future growth and development in the country." The Government of India has developed huge infrastructure for entrepreneurs which is a gamechanger definitely. It will give businesses and the economy in India a significant boost, he added.

"In times of COVID-19, we have identified around 200 technologies which can effectively combat the pandemic-related issues. So we have marketed these technologies to the industries for benefitting the masses."

Addressing how India has grown with time in innovation and technology, Mr Pradhan pointed out that recently, in the Global Innovation Index, India's rank improved from 57th to 52nd. He said, "With the active efforts of the Government of India and implementation of effective strategies India has leapfrogged in innovation scenario.

Speaking on Aatma Nirbhar Bharat as a major move to transform India, Mr Pradhan said, "With a major move like Aatma Nirbhar Bharat Abhiyan by the Government of India, I am certain that many innovative technologies would come up. I hope this will prove to be true to make India Aatma Nirbhar." 

PSUs Need To Expand Functions To Make 'Atma Nirbhar Bharat'

Mr Kumar briefed about the PSU stating that it was established in 1974 under the Ministry of Science and Technology. "The PSU aimed to commercialise various technologies being developed in the different labs and institutes", he told.

Taking up the core discussion agenda, Mr Kumar said, "The CEL is already on the path of 'Aatma Nirbhar Bharat Abhiyan' and we are producing and manufacturing different technologies for defence, public use, railway signalling and systems, etc." Elaborating on the technologies CEL is developing for the defence forces, he added, "For defence, we are manufacturing different components which are critical for the India radars. So far we have contributed around three lakh component supplies to the defence which is approximately worth Rs 2000 crore. We are the only in the country who can manufacture these components." Further, CEL is also producing various substrates. These components and products are of high importance for the Defence Research and Development Organisation (DRDO) programmes, he added.

Mr Kumar also said that many other material-based components are produced by CEL. CEL is one of the organisations which is well equipped with facilities and equipment to produce such technologies like high-frequency materials, defence components, etc. Adding on, he said, "Another area where we excel is railway signalling. We are producing systems for monitoring the railway tracks, controlling the train traffic, and more." CEL is known across the country for its exceptional



SURENDRA KUMAR

Assistant General Manager,
Microwave Electronics Division,
Central Electronics Ltd (CEL)

work in a photovoltaic cell. "We have pioneered in commercialising solar modules, solar cells, etc. in 1979 when the solar cell was manufactured for the first time in the country and we are still doing it", added Mr Kumar.

Talking about the present-day development work carried by CEL, Mr Kumar said, "Currently, we are manufacturing radomes for missiles and bulletproof jackets for the army, high-frequency materials, ceramic substrates, etc." Starting from top to the end product, the entire processing is being followed at CEL, added Mr Kumar.

Speaking on how CEL is continuing its functions during the Coronavirus

pandemic situation, Mr Kumar highlighted that considering the scenario and the need, CEL came up with mask manufacturing machines and ventilators. Further, Mr Kumar said, "So we have seen that in the past two to three months several manufacturers have come up for ventilator manufacturing but many of them faced issues for components like sensors, flow meters, etc. As a PSU involved in developing various technologies, we have the capacity to develop these sensors, valves, flow meters, etc. So we came up with these technologies." CEL is developing such components in-house and within a month these will be out in the market for those manufacturing ventilators, he added.

"The CEL is already on the path of 'Aatma Nirbhar Bharat Abhiyan' and we are producing and manufacturing different technologies for defence, public use, railway signalling and systems, etc."

Resting his words he addressed a few areas where PSUs' presence is not much. Mr Kumar said, "Some of the areas where PSUs are still missing are manufacturing wafers for solar applications. Hence, I am requesting other PSUs to come together to take initiative in manufacturing wafers for solar applications. Another is the foundry programme. Our country has no foundry at the moment so we do not have the component. Air is another area. These areas are still critical and we are dependent on other countries for these areas. [et.gov](https://www.et.gov.in)

Policy Changes can Better Business Scenario in Bihar

RS Srivastava, Investment Commissioner, Department of Industries, Government of Bihar commenced his address by announcing that the Government of Bihar has passed an amendment to the Bihar Investment Industrial Policy 2016 on June 29, 2020, wherein a new clause 6.9 has been introduced. It states that the state PSUs will be able to undertake joint ventures (JVs) with private sector players. "This is a bold decision that the government has taken. We are making guidelines for these JVs. All our departments their corporations, PSUs and their authorities have been sounded. They are talking with various private players", told Srivastava.



R S SRIVASTAVA
Investment Commissioner,
Department of Industries,
Government of Bihar

Adding on he said, "We are also looking at the latest amendment of DPIIT on June 4, 2020, wherein the JFR has been utilised to push 'Make in India'. Under this, if any company is manufacturing in India which is not an L1 company will be given 50 per cent of the work provided the company is Indian and is working in India." Similarly, the Department of Industries has moved amendments to the Bihar finance rule. Once this comes, it will open doors for many private companies, he added.

On the working model of Bihar, Srivastava said, "Today we are in a mode where we are disinvesting from government companies. However, this is not a retrograde stage. Places where the business is difficult, the government has to step in and build a market. Once the market is operational, the government has to step down and exit. So exit is an important aspect and we are working currently on that."

Speaking on COVID situation in Bihar, Srivastava said, "We received over 25 lakh workers from across India migrating back to Bihar during the lockdown. This was a big challenge for us." The government had leveraged technology to resolve the issues. The government created a database of the workers and used a matrix provided by the UNDP which has got 65 columns. Under this matrix, a detailed report was carried and the entire data is today available with the labour department, he added.

Adding on he said, "Secondly, we came up with the JV policy wherein the state PSUs will be able to enter into JVs leveraging their purchasing power. And, thirdly, we have empowered DMs to set

up small clusters in their respective districts. Within these clusters, the DMs will be working with 50-200 workers and providing them plug and play facilities." The government wanted to have these workers to be employed in Bihar, he added.

Citing one of the significant moves from the Bihar government, he said, "If there is any industry which is willing to come to Bihar we will share 80 per cent of the relocation cost of that factory or the working unit."

Further, he said, "As far as clearances are concerned, we looked at it very seriously. We have state investment promotion board which works as a single-window system. We have a system of a common application form which has to be filled online. Once, it is done, we even discourage the applicant to reach out to various departments as it is our job. If something is pending then

"The Government of Bihar has passed an amendment to the Bihar Investment Industrial Policy 2016 on June 29, 2020, wherein PSUs will be able to undertake JVs with private sector players."

there is a provision of penalty on the officer who kept it pending." Moreover, there is a system of deemed approval. So, if the approval is not given in 30 days, deemed approval is given. The department has actually given deemed approval in more than six cases, he added. egov.gov

RIICO Taking Effective Measure to Lure Investments post-COVID

Ashutosh AT Pednekar, Managing Director, Rajasthan State Industrial Development and Investment Corporation (RIICO), Government of Rajasthan commenced his address by presenting a brief on RIICO saying, "RIICO is one of the oldest PSUs in the state. We are tasked with infra development and also we are the investment arm of Rajasthan." Though RIICO is primarily an organisation for infrastructure development, this field is also kept open for the private players as well. This means that RIICO is in direct competition with the private sector, he added.

"RIICO has been the profit-making organisation since its inception. And, in fact, this current year has also been good with a 325 per cent increase in terms of the sales of industrial land", told Pednekar. Further, speaking on the steps Rajasthan is taking to fetch more investments in the state, he said, "One of the moves is, we have a favourable policy environment - Rajasthan Investment Promotion Scheme (RIPS). The scheme, as we believe, is an effective measure to lure investments in the state. Apart from the policy environment, on a strategic level, we believe that the location advantage gets us investment. For example, the Delhi Mumbai corridor which has its 60 per cent area in Rajasthan has helped to get more investments. The 'dedicated freight corridor' is also an important aspect for us to lure investments."

Further, he said, "We have been concentrating on the petrochemicals and petroleum industry because we have the second-largest crude oil reserve in the country. Also, a massive refinery worth Rs



ASHUTOSH AT PEDNEKAR
Managing Director, Rajasthan State Industrial Development and Investment Corporation (RIICO), Government of Rajasthan

56,000 crore is coming up in Barmer district. We are now targeting for a long term investment of Rs 1 lakh crore for an anchor unit of HPCL which is the refinery being set up at Barmer." Apart from this, the organisation is focussed on a specific investment. For example, we have a Japanese zone in Neemrana where 45 Japanese companies are based like Honda, etc. and this has been a successful model which was first done by us and now is being replicated in other parts of the country as well, Pednekar added.

Moreover, "One of the weaknesses identified was in the service sector. Hence the focus is also encompassing the IT, Finance, and Technical service sector, he added.

Apart from this, "Pharmaceutical sector, medical equipment, sports and toys goods sector, the zones for which we had already launched in the state. Hence, the overall strategy is to leverage the favourable policy environment, to leverage the investment potential from the freight corridor, from the refinery, to leverage the presence of country-specific zone like the Japanese zone, etc."

Talking on the impact of COVID on the industrial capacity and investments, Pednekar stated, "The industrial capacity is not anywhere near normal due to COVID so we first need to get that to normal. Further, we have prepared ourselves for the Aatma Nirbhar Bharat package and we also have set up our own package to ensure that the existing industries stay."

"We have engaged with the European Union and their business groups, also from the US, Korea, Singapore and from Japan."

On the labour aspect, Pednekar said, "We are also leveraging IT for preparing a database of all the returned Rajasthani labourers and trying our best possible to indulge them in works within the state."

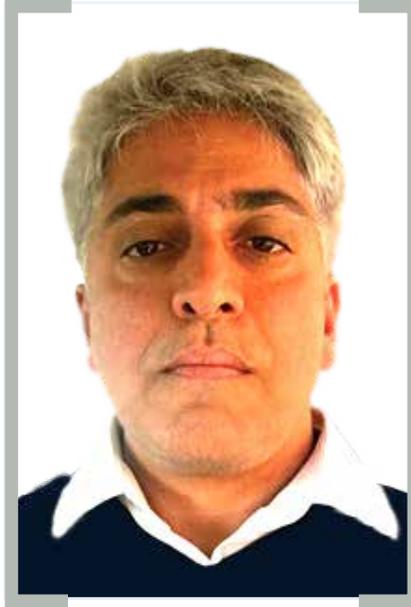
On a concluding note, as far new investments are concerned, he said, "There will be new trends that are setting up. We have engaged with the European Union and their business groups, also from the US, Korea, Singapore and the traditional investors in Rajasthan from Japan. We are also seeing results from this approach which is a good omen." 

Punjab Mandi Board Strengthening Agro Supply Chains

Elets Technomedia organised India Transformation Summit to showcase how India is leapfrogging to be an example for other developing nations. With the Government of India's attempts and various schemes and programmes, the country has taken leaps in the past few years. H Brar, Additional Secretary, Punjab Mandi Board, Government of Punjab addressed a session on how Punjab Mandi Board have been backing the state's growth and development.

“There is a single department called ‘Punjab Invest’ which looks after the licensing and setting up of companies. This improves the state’s ease of doing business.”

Brar initiated with a brief about Punjab Mandi Board. He said, “The board was established in the 1960s before the green revolution in Punjab. It was set up with an aim to regulate the marketing of the agriculture produce as earlier there were a few farmers in the state and they were exploited with lesser rates.” Adding on the functions



H BRAR

Additional Secretary, Punjab Mandi Board, Government of Punjab.

of the Mandi Board, he added, the board provides the infrastructural development in the rural areas, finances for water supply, rural roads, sanitation, and today there is also an insurance for the farmers of up to Rs 5 lakhs which is free of cost.

“Punjab is predominantly an agricultural state but we also have our strengths in industries as there are many companies set up like Hero, Trident, Pepsico, Ardent, etc. This is because Punjab is ranked second in the ease of logistics in India due to good connectivity, open roads, etc. We have a vibrant Industry Policy 2017 which has contributed

majorly in getting industries in the state”, told Brar. In addition, there is a single department called ‘Punjab Invest’ which looks after the licensing and setting up of companies. This improves the state’s ease of doing business. This is a single point contact for any business or industry-related concerns in the state, he added.

While concluding his address to the session, Brar spoke on the COVID scenario in Punjab and how Punjab Mandi Board took steps to keep up the supply chain during the crisis. Punjab Mandi Board proactively took various noteworthy measures to fight the COVID-induced challenges impacting the supply chains. While talking on the agriculture sector and procurement during the COVID outbreak, he said that not a single case of COVID

“We procured about 130 lakh metric tonnes in 40 days, we established over 4000 procurement centres. Earlier the centres were 180 but to ensure lower footfall in every mandi we increased the number of centres.”

surfaced in the procurement related workforce. “We procured about 130 lakh metric tonnes in 40 days, we established over 4000 procurement centres. Earlier the centres were 180 but to ensure lower footfall in every mandi we increased the number of centres,” he added. [eletsonline.com](https://www.eletsonline.com)

Maharashtra Easing Industry Establishment Norms for More Investments

ERavendiran, Member Secretary, Maharashtra Pollution Control Board started on the note that Maharashtra is a high industrialist state with over one lakh industries. "If we want to retain the status and if we want to attract more investments, we need to take proactive steps compared to other states", he added.

Addressing the session, Ravendiran said, "Just like other states, Maharashtra has also taken a lot of initiatives to fetch more investments and ease business in the state. For any industry to set across India, it has to apply at least 13 departments and take a minimum of 40 to 42 permissions which pose an issue for the industries. Secondly, the availability of a skilled workforce is another challenge." To do away with such a tedious process, the Government of Maharashtra, recently, announced a policy that any industry which is investing more than Rs 50 crore will be issued the permissions within 48 hours, he added.

Such moves promote the ease of doing business and allow industries to set up easily. However, Ravendiran said, "There are around 25 statutory permissions of the 42 which takes their own time of three to four months or sometimes six months. So these are a few critical areas where the government wanted to intervene and reduce the time so that investments to industries can be promoted."

Adding on he said, "If we look at recent policy and guidelines by the government, the timelines have been shortened. For example, is we talk about pollution control. We issue the certification or permit for different categories of industries to operate. As per the new



E RAVENDIRAN

Member Secretary, Maharashtra Pollution Control Board started on the note that Maharashtra.

policies, the permit has to be given within 30 days as after that it will be deemed given."

Elaborating on the steps taken by the state to resolve the skilled labour issue, he said, "Due to the COVID pandemic a huge number of labourers have migrated back to their home states. This raised challenges in front of the government to create a skilled workforce by skilling up the local labour. And, we are working on it." Moreover, the government came up with a workers' bureau wherein the government will be accelerating the skilling of the labour, he added.

Further, he mentioned that Mumbai is the financial capital of the country and to

retain that position there is a need to focus on region-based development. Detailing this, Ravendiran said, "Maharashtra is a big state and has many regions. For example, if we look at the Konkan region, the government is focussing on the food processing industry. Similarly, in Mumbai how the film industry can be improved, whereas, for the Aurangabad region the government is focussing on automobiles and EV industry, etc."

Further, he stated, "COVID-19 is a global pandemic and it has affected the economy globally which has directly impacted the businesses and industries. The pandemic comes with the possibility of joblessness as layoffs are taking place worldwide. So there is a possibility that many Indians working abroad may come back and look for opportunities in India. This may take us to a state of underemployment as we would be having more skilled labour but limited jobs."

"The Government of Maharashtra, recently, announced a policy that any industry which is investing more than Rs 50 crore will be issued the permissions within 48 hours."

He concluded by raising a few concerns, "Observing a six-month-long lockdown will simply equate to killing the economy. In Maharashtra, today, not even 30 per cent of the production is back. There are various challenges like unavailability of skilled labour, availability of the supply chain, and even if the production is on the roll where is the consumer to buy it." [e.gov](https://www.e.gov)

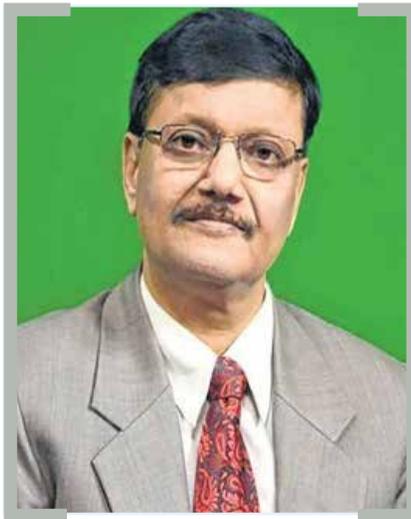
Effective water Management should be at Core of Urban Administration

KP Bakshi, Former Chairman, Maharashtra Water Resource Regulatory Authority, Maharashtra initially briefed about the Water Regulatory Authority saying, "Maharashtra was one of the first few states to have regulatory authority in the water sector." The Government of Maharashtra came out with a state water policy for the first time in 2003, he added.

The core job of the authority is to regulate the distribution of the water in a way to fulfil the maximum requirement possible with an equitable distribution as water in the state is limited. Also, fixation of tariff for the distribution of water to commercial and domestic establishment also comes under the functioning of the authority.

Addressing the theme of the session, Bakshi said, "Urban administration has become complex now. It is one of the most important sectors of administration for an administrator." The municipal commissioner has a very tough job as he does not have complete control over his priorities. Priorities can be set but they tend to slide down due to lateral and vertical pressures. By lateral pressures, it is from the elected representatives, people, activists, etc. and the vertical pressures come from the hierarchy like the chief secretary, urban minister, etc., he added.

Bakshi pointed out that all the people, elected representatives, activists, etc. look for visible development like construction activities, transit systems, beautification work, and so on. However, the other important aspects which are not visible gets a low priority. For example - the underground drainage system, sewage



K P BAKSHI

Former Chairman, Maharashtra Water Resource Regulatory Authority, Maharashtra.

treatment plants which people do not visit and see, and more."

Another problem is with the allocation of funds. Primarily, funds are allocated for the construction of roads, drinking water supply but not much for sanitation unless the Centre steps in. And, lastly, the treatment of sewage water does not have an established market. Hence, sewage treatment goes down in the priority list as after putting so much money, time and efforts, the returns are not worth all this, Bakshi added.

Aligning a few solutions to the challenges, Bakshi said, "The urban administrator should have the power to notify the sewage treatment plant surrounding area

as the 'no-freshwater use zone'. Such a power should be conferred to the commissioner by the Urban Development department or regulatory authority." Once, notifying the zone as 'no-freshwater use zone' then the department will not be in a position to supply freshwater to this area. By doing so, a market for treated water can be created and tariff for the same can be negotiated with farmers, industrialists or domestic establishments there for the supply of treated water, told Bakshi.

Adding on he said, in case people refuse treated water and demands for freshwater then the tariff for freshwater should be exorbitant. However, if people accept the use of treated water the tariffs for the treated water must be brought down fairly.

Summing up his address, Bakshi said, "Trading of wastewater has been a concept in the water policy of Maharashtra and we have started working on it. As a first step, we started Wastewater Certificate which is

“Urban administrator should have the power to notify the areas surrounding sewage treatment plant as the 'no-freshwater use zone' so, a market for treated water can be created.”

tradable in case there is a need to procure more water. Also, if we need to incorporate efficient water management, there is a need for a ranking system for cities on the basis of reuse and recycling of water. Moreover, the rankings must be linked to tariffs so that those cities performing good in rankings have soft tariffs but those performing poorly must have hard tariffs so that people and the management can realise the drawback." e.gov

Agra Smart City Transforming Health & Education

Anand Menon, Vice President, Agra Smart City, Uttar Pradesh addressed a session on 'Innovations in ULBs: Future of Urban Governance'. He commenced his address by saying that there are two aspects on which Agra Smart City has laid much emphasis - health sector and education sector. "As far as health is concerned, we are trying to set up smart health centres at 10 locations all across the city which will provide affordable diagnostic services to all sects of the society."

Further, talking about the health centres, Menon said, "There are a few smart health centres which are already functioning. So, what all the smart health centre comprise of - a diagnostic lab which provides over 200 diagnostic services at CGHS rate, a dental clinic, a pharmacy for generic drugs on cheaper prices, an ophthalmology clinic providing eye test free of cost."

Almost 4000 citizens of Agra have taken the services from these smart health centres since 2019 when these came into existence. Even from the nearby places like Mathura, Vrindavan, etc. people are coming to Agra for the health services we offer, added Menon.

Taking his words towards the smart city interventions implemented in the education sector, he said, "We have taken up two to three municipal schools and equipped them with smart classes. Also, the schools' infrastructure has been upgraded."

Adding on the smart classes intervention, Menon told that the impact of these



ANAND MENON

Vice President, Agra Smart City,
Uttar Pradesh

smart classes was seen when we recorded a 4.5 per cent increase in the admissions to these schools in the present academic year. Then, we ran training programmes for teachers and students to cope up with the smart classes. So it was observed that learning through audio-visual lessons and illustrations has benefitted many students to understand various concepts in a better manner.

Speaking on the role of Agra Smart City during the COVID pandemic, Menon pointed out, "Following the onset of the pandemic, the Agra Smart City's Integrated Command and Control Centre (ICCC) was actually set up as a COVID war room wherein the activities of various departments were linked and the situation was actively monitored. We

launched a lockdown monitor app which came in handy for the Agra Police to cite any violations of the lockdown norms. Then, we also rolled out e-doctor seva which was completely free of cost. This was an extension of the smart health centres wherein a doctor used to consult with the people in need online. The app had a provision to download prescriptions and reports."

Adding on he said, "Further, we rolled out an online portal for grocery shopping and delivery. We also used GIS for heat mapping of the areas and that is being continued even now. Moreover, using GIS-based application we were doing contact tracing and we were helping the police to draw a barricading outside the areas when positive cases surface. Then we helped the district administration to identify sensitive zones and also helped them with the sanitisation process."

"We rolled out an online portal for grocery shopping and delivery. We also used GIS for heat mapping of the areas and for contact tracing."

Summing up his address, Menon concluded, "Smart city has been playing the role of the change agent and a thought leader. How the data coming from the various departments can be actually analysed and how inferences from these analyses can be used efficiently for effective decision making by various authorities. So we appointed a chief data officer and data champions for collection and compilation of data." [egov](https://www.egov.gov)

Need to Stand United Against All Single-Use Plastic

Dinesh Chandra, Commissioner, Nagar Nigam Ghaziabad, Uttar Pradesh attended the summit and delivered his address on 'Innovations in ULBs: Future of Urban Governance'. He commenced his address by supporting KP Bakshi's words. He said, "Bakshi mentioned about two types of developments - visible and hidden. Visible is mostly preferred as people can see it and the hidden aspects are not on the priority list. However, in today's time, we are vulnerable to risks due to the lack of hidden development."

“In Delhi and Haryana, plastic above 50 microns thickness is not banned, whereas, in UP all types of single-use plastic is banned. Until we stand united against plastic we will not be able to shun it.”

Briefing on Ghaziabad's topography, Chandra said, "Situated at the delta of Yamuna and Ganga rivers, Ghaziabad has been blessed with enough availability of water. However, due to water pollution problems have surfaced. And, one of the major reasons for river pollution is plastic waste. To curb the plastic menace, Chief Minister Yogi



DINESH CHANDRA

Commissioner, Nagar Nigam Ghaziabad, Uttar Pradesh

Adityanath imposed a ban on plastic in the state and to abide with the ban we in Ghaziabad have implemented it effectively." There is a dire need for us to shun plastic use and we can only achieve that if we unite in the fight against plastic, just as we are standing against COVID pandemic, he added.

Speaking on the solid waste management in Ghaziabad, Chandra said, "Following the establishment of Solid Waste Management Act 2016, Ghaziabad Municipal Corporation has been proactively working to effectively and methodically manage the solid waste generated in the city." Adding on he said, the National Green Tribunals (NGT) have set a few guidelines which we have to follow while executing our duties. Also, penalties are charged on the ULB if

found violating the norms.

In an innovative response to effective solid waste management, "We started door to door segregation of waste. We collected all the recyclable waste such as plastic and utilised it to make as many as seven roads in Ghaziabad", told Chandra. Further, "We also made the bulk waste generators responsible for the waste they were generating and asked to recycle their waste in their own premises. We also imposed penalties on those not abiding by the producer's responsibility given under the solid waste management rules", he added.

Speaking on the improvements in wastewater management, he said, "In Ghaziabad, we implemented the scheme of one city one operator for STPs. So, under that, we have given the contract for wastewater treatment and we are hoping to see better results in the coming times."

“We started door to door segregation of waste. We collected all the recyclable waste such as plastic and utilised it to make as many as seven roads in Ghaziabad.”

Concluding his address, Chandra said, "There are a few issues we face as we are bordering with Delhi and Haryana where plastic above 50 microns is not banned, whereas, in UP all types of single-use plastic is banned. So, I would like to say that until we stand united against single-use plastic irrespective of its thickness in microns, we will not be able to curb this menace to the extent we visualise." [e.gov](https://www.e.gov)

Smart City Initiatives Transforming India's Urban Landscape

Raj Cherubal, Chief Executive Officer, Chennai Smart City Ltd, delivered his address on 'Innovations in ULBs: Future of Urban Governance'. He began his address in a note that there is a need for us to leapfrog as all of us at some point or the other agree that our cities are in pretty bad shape. He said, "India has a long way to go when compared to even the second world countries... Innovations are much needed in various spheres because of our limited resources."

“Some of the innovations like the citywide parking management system we have in Chennai is a good example. So we have cameras, artificial intelligence-driven systems for the parking management.”

On initiatives taken in Chennai, Cherubal said, "Some of the innovations like the citywide parking management system we have in Chennai is a good example. So we have cameras, artificial intelligence-driven systems for the parking management. So the system guides you to a spot nearby wherever a parking space is available. Also, payments can be done electronically. However, more than technology what is important is the organised parking of



RAJ CHERUBAL

Chief Executive Officer, Chennai Smart City Ltd

private vehicles in the city and the project is completed on PPP mode." The parking management system is very effective but it is tough to implement, he added.

Considering COVID and post-COVID eras when there is a crunch of funds for the urban administration, parking is an area which the authorities are tapping as it is very much required and pose a source of income, told Cherubal.

Speaking on smart cities mission's new cycling programme, Cherubal said, "Cycle for cities has initiated by the smart cities mission which aims to create alternate transportation and also ensuring that people remain healthy." Luckily for Chennai, a PPP based cycling system is being implemented. E-cycles are also being introduced in the system, he added.

Calling KP Bakshi's advice on water conservation, recycling and reuse 'valuable', Cherubal said, "In Chennai, we are actively taking up a project for installation of smart water meters. There have been gaps in knowing the exact amount of water utilised by big commercial and establishments. Also, the leakage loss, non-revenue water, etc. have also created a dire need to install smart meters to keep accurate count and stats on water usage." So the first step to correct the faults is to measure the extent of loss, he added.

Cherubal, continuing on the water topic, said, "I proudly say that as we speak, Chennai is done with the restoration of over 200 water bodies. So, at all the water bodies, under the corporation of Chennai, we are doing eco-restoring works." Such works recharge groundwater effectively which is the most important aspect. Also, wells are being created, especially in areas where groundwater levels have slumped, so that the rainwater can percolate down

“Chennai is done with the restoration of over 200 water bodies. So, at all the water bodies, under the corporation of Chennai, we are doing eco-restoring works.”

to the underground water table, he added.

While concluding his address, Cherubal said, "Honestly, there are not much funds and workforce to monitor the restored waterbodies manually every day. Hence, we are trying to use CCTVs, drones and satellite imaging to monitor the water bodies regularly." This is expected to resolve Chennai's water woes. Similar steps are being taken to monitor footpaths and public areas which are vulnerable to encroachments. [e.gov](#)

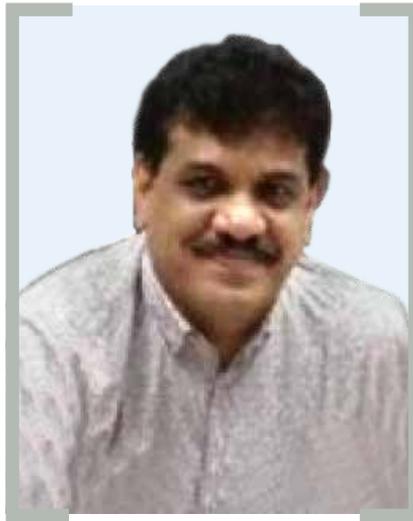
Our Proactiveness led to Effective COVID Control

Rajan Satardekar, Director, Directorate of Transport, Government of Goa talked about 'Innovations in ULBs: Future of Urban Governance'. He began with a brief about Goa saying, "Goa is a tiny state with beautiful landscape and we have Panjim as a Smart City as well."

Speaking on how Goa dealt with the COVID pandemic, Satardekar said, "Goa started preparations much earlier in January 2020 unlike other parts of the country. Our proactive approach helped in dealing with the pandemic in an efficient and effective manner."

"We have a multilayer mechanism for combating the pandemic and active monitoring. The mechanism was given by the State Executive Committee (SEC). So under this, every morning we had meetings where the progress and drawbacks both were discussed in a transparent manner. Also, the authorities have been very strict about the situation and implementation of the control measures. We have been actively participated in providing every sort of transport-related help to the citizens and other departments", told Satardekar.

Bringing in light the challenges in Goa, he said, "In Goa, we have a different set of challenges. Though its a small state, the floating population that we have is almost four times the population of the state." Hence, while the Coronavirus outbreak, it was a big challenge for us to transport the



RAJAN SATARDEKAR

Director, Directorate of Transport,
Government of Goa

tourists (the floating population) back their home states. So, we managed to shift about one lakh stranded labourers to their home states through our fleet of 500 buses and over 10,000 foreigners to about 80-100 different countries, he added.

Policing played an active role in managing traffic and people's movement during the lockdown period. Everyone from municipalities to police to NGOs and many volunteers worked together during the time of crisis. Underlining initiatives, Satardekar pointed out, "We started an initiative - 'groceries on wheels' and similar initiatives like - vegetables on wheels, fish on wheels, ATM on wheels, etc."

Speaking of innovations in governance, he said, "We have been aggressively using technology to improve the reach of government services to people in an effective manner. Tech is being used for video meetings by the Hon'ble Chief Minister. Also, we are leveraging technology to spread awareness among the people and spread correct information to counter fake news."

Moreover, "We are providing online passes to people for moving out during the lockdown period. Further, there are various dashboard created which is accessed by concerned teams to collect data and analyse it for taking further corrective actions", added Satardekar. A 100 per cent survey of households was conducted to check the spread of the disease and mark containment zones. Adding on to the innovations, Satardekar told that many alcohol units were converted for producing sanitisers during the COVID outbreak.

Speaking of technology, he said, "Goa authorities have been IT savvy and we (transport department) implemented e-services way back before the Amendment of Motor Vehicles Act. Citizens were not visiting transport authority offices for applying for services or paying challans. We have full integration of 'Saarthi' and 'e-Vahan'. Driving licenses in the state are smart cards with a feature supporting digital payments. Also, we have CSCs operational for helping people who are not comfortable with online procedures."

Satardekar said, "Goa, prior to the onset of COVID pandemic, has been working on a Comprehensive Mobility Plan wherein there is a provision for Intelligent Transport Management System (ITMS). We have a fleet of 500 state buses and over 1000 private buses and we incorporating both in the ITMS." 

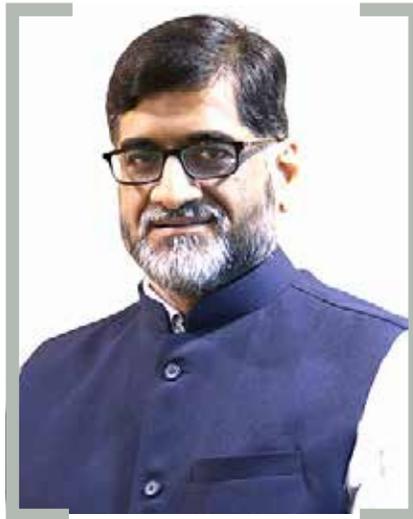
Private Participation, Citizen Engagement is Needed for Better Cities

Sameer Unhale, Practitioner, Smart Sustainable Urbanism attended the summit and delivered his address on 'Innovations in ULBs: Future of Urban Governance'. He started off by underlining a fact, "India's urban system is almost the third-largest in the world. As the population in urban India is equal to the US population." Hence, the significance of India's urban systems in all the aspects is extremely crucial and this century is going to be the century of cities, he added.

Speaking on urban governance, Unhale said, "The system of municipalities is one of the oldest urban systems in place in India. It was established by the British. Today, we see that we have smart cities and other urban bodies which simply reflects how various organisations and institutions are trying to work in the city space and trying to contribute their bit."

“The municipalities must focus on the core governance aspects and release service delivery to local entrepreneurs or private firms.”

Adding on the urban governance and institutional participation, he said, "When we talk about the municipalities we bring in to focus the elected representatives, the human resource,



SAMEER UNHALE
Practitioner, Smart Sustainable Urbanism

we talk of the strengthening of the municipalities and of finances. However, when we talk of innovations, I think the monopoly of municipalities needs to be dismantled. Some basic services and functions should go to local entrepreneurs or private firms." The population size of our cities is so much that we may not be able to fetch all the services from one institution like the municipality hence private intrusion should be allowed, he added,

Unhale, tabling his suggestions said, "The municipalities must focus on the core governance aspects and release the service delivery to local entrepreneurs or private firms." Moreover, in Indian municipalities,

citizens play only three roles - voter, complainant or taxpayer. The citizen engagement with municipalities is still not there and there is a need to bridge this gap. Citizen and community engagement in running municipalities is significant, he added.

Citing examples of municipal works and importance of citizen engagement, Unhale said, "You talk of COVID control, citizen support is needed; you talk of solid waste management, we require citizens' participation; for water we require citizens, hence, municipalities need to directly involve citizens."

“For COVID control, citizens' support is needed; for solid waste management, we require citizens' participation; for water, we require citizens, hence, municipalities need to directly involve citizens.”

Putting forward his inputs on financing, he said, "We are dependent on taxes or debt finances. Therefore, for managing finances municipalities need drastic innovations."

Concluding his address, Unhale summarised by saying, "There is a need for municipalities to leave off their monopoly and let private players set in for service delivery. Secondly, citizens and community engagement is the core aspect and that should be practised. Finally, there is a need to look at innovative methods for finances." 

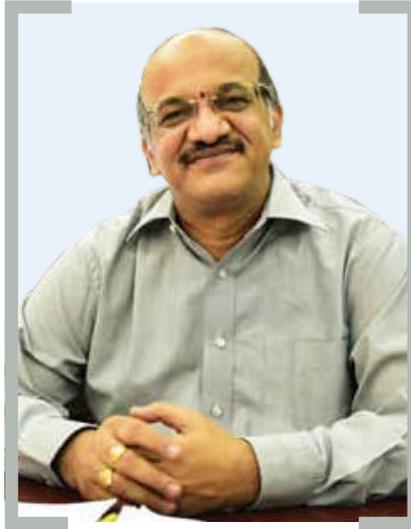
Contactless Service Delivery Strengthening Governance

GT Venkateshwara Rao, Commissioner, e-Governance, Mee Seva & Managing Director, Telangana State Technology Services, Department of IT, E & C, Government of Telangana, commenced on the note that COVID pandemic has brought in focus the presenceless and contactless delivery of government services. "Before all this, three things have been crucial for governance - accountability, transparency and innovation. However, now the focus is on contactless", said Rao.

On the service delivery by the government, Rao said, "We have Aadhar based identification in India wherein following the biometrics and other identifying factors, the identification is authenticated. And, once authentication is done then transactions are done." Hence, such a manner of service delivery does not require citizens to reach out to government offices.

Further, Rao said, "However, there are certain limitations to Aadhar authentication. It requires proper biometric hardware, sometimes the physical presence of the person is required. Moreover, in the case of old people many times fingerprint mismatch issues arise and also following the Supreme Court judgement there are various restrictions for using the Aadhar system."

Speaking on an alternative mechanism for authentication and contactless delivery of service, he said, "As an alternative, we came up with three-factor authentication check: user's live photo, compared with the given pic, and demographic information."



GT Venkateshwara Rao
Commissioner, eGovernance, Mee Seva & MD, Telangana State Technology Services, Department of IT, E & C, Government of Telangana

Adding on, Rao said, "For authentication, AI-based liveness check is implemented to ensure the person is live while authentication process. Secondly, the citizen has to upload a selfie which will provide the real-time picture of the citizens. This picture clicked will be compared with the photo already provided to the department. As the pics can have variations so algorithms used are specific and effective to match and relate to all the variations. The third is the demographic information where the data is matched and this is where the big data and machine learning comes into play."

Rao claimed that such a remote AI-based real-time authentication is a first of its

kind in the country and even across the globe there are only a few examples.

On withdrawing of pension funds, he said, "To apply for pensions, the retired officers have to either go to banks or the government office from where they can be facilitated but either which ways it requires the person to visit physically. So, in our contactless system, we have an app - 'Pensioner's Life Certificate through Selfie'. So, the person has to enter their name id and a selfie. Following this, the system will provide the certificate once the selfie and other details are matched and confirmed."

Rao, based on the real data on the state's portal, showed variations in names, photographs and other details wherein matching and recognising the person would have been difficult manually. But, with the use of AI accurate matching and

"We have an app - 'Pensioner's Life Certificate through Selfie'. So, the person has to enter their name, id and a selfie. Following this, the system will provide the certificate once the details are verified."

confirmation has become possible which led to successful contactless delivery of services.

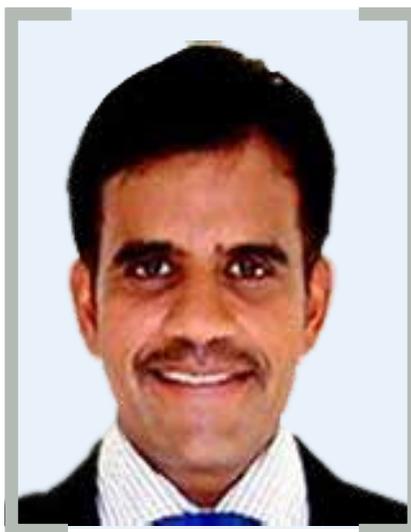
Concluding his address, Rao highlighted a few numbers saying, over 30,000 people have used the systems of which nearly 28,000 have been identified as the pensioners. [eGov](#)

Governance 4.0: Upscaling Knowledge & Expertise Required

B Sundar, Special Secretary, IT, Electronics & Communications Department, Government of Andhra Pradesh, while opening his address said, "Governance 4.0 is a take from Industry 4.0 which essentially meant that we have to use advanced technologies like AI, IoT, etc. And, when we look at the private sector landscape, it is surprising to see nearly 20-30 per cent of the companies have any idea of using such technologies in the coming two or three years."

Speaking on the Governance 4.0, he said, "How prepared are we, the government? This is Governance 4.0 and, in the post-COVID scenario, how ready are we is the big question."

Adding on Sundar said, "Simple achievements are not going to solve complex issues that we might face in



B SUNDAR

Special Secretary, IT, Electronics & Communications Department, Government of Andhra Pradesh

the near future. To be prepared and surface successfully with better and efficient systems we need to look at agencies which are well equipped with technology and immensely trained in topics like mathematics, statistics and various computer programming languages."

Moreover, "There is a lack of knowledge amongst the key government officials regarding the latest technologies coming up and hence for the capacity in implementation of the technology. And, this is one of the key challenges", he added.

Taking his words towards online education and challenges faced by students, he pointed out, "Students are struggling with online education. Many of them are not actually understanding the concept being taught and it is becoming difficult for students to cope up with such a format. What skills are we expecting the students to develop, typing skills, WordPress skills or drawing specific skills!"

Criticising telemedicine, Sundar said, "Telemedicine is not at all solving problems because for treating the patient the doctor needs to do the physical examination of the patient... For governance 4.0, I think that we need to first look at how we will deliver services to the citizens to the extent we think, how we will cope up with the technology angle and more."

“For Governance 4.0, I think that we need to first look at how we will deliver services to the citizens, how we will cope up with the technology angle and more.”

Concluding his address, Sudar stated, "I am presenting a pessimistic image but this is the harsh reality. When we talk of big technologies and management and other ambitious concepts we need to realise that we are short on knowledge, expertise and capacity to deal with the coming times in the ambitious manner we hope to." [e.gov](#)

“There is a lack of knowledge amongst the key government officials regarding the latest technologies, hence for the capacity in implementation of the technology. This is one of the key challenges.”

Governance 4.0: Adopting New Technologies & Policies

Divakara TS, Officer-on-Special-Duty (Admin), Odisha Computer Application Centre, Department of Electronics & Information Technology, Government of Odisha commenced his address saying, "The novelty of the pandemic is such that all the states have to use IT to combat the challenges. However, every cloud has a silver lining, so the COVID crisis has pushed governance towards transformation."

Speaking on the core theme, he said, "There is a need for us to first understand the evolution of governance. Governance in the first phase was characterised by regulatory governance, then good governance comes in wherein accountability and transparency play an important role, and in the third phase comes citizen-centric services. Whereas, Governance 4.0 is a real transformation, especially in a way the citizens interact with the country and the interaction of all the stakeholders for that matter."

Further, categorising the challenges due to the Coronavirus pandemic, he said,

“Governance 4.0 is a real transformation, especially in a way the citizens interact with the country and the interaction of all the stakeholders for that matter.”



DIVAKARA TS
Officer-on-Special-Duty (Admin),
Odisha Computer Application
Centre, Department of Electronics
& Information Technology,
Government of Odisha

"The challenges can be categorised through three perspectives - citizens' perspective, health perspective, and governance perspective." On citizens' perspective is the COVID loop where the people gets infected, tested & detected, quarantined, recovered and back to normal living. For this particular perspective, almost every state has used technology for monitoring people under quarantine, GIS mapping of containment zones, testing, tracking applications, etc. From the health perspective, this is the real case where artificial intelligence and machine learning can come in handy. Next, the governance perspective is of great importance as the government has

to enable systems to function remotely with more efficiency and effectiveness than traditional systems, he added.

Talking on the adoption of IT solutions, Divakara said, "To adopt IT solutions, we require willingness and ability. So, the willingness has been lacking and following the onset of COVID pandemic, it became a compulsion and hence this provided a strong stimulus to upgrade to digital interventions and solutions." Further, the ability to adopt technology was always there but the ability of the common citizens is still in question. In a survey, it was found that in tribal areas of Odisha only 15 per cent of the people had access to the basic internet services. Hence, the digital divide is going to increase post-COVID and only providing access to the internet is not only what is required, added Divakara.

“The digital divide is going to increase post-COVID and only providing access to the internet is not only what is required.”

Wrapping his address, he said, "Governance 4.0 is all about adopting newer technologies. However, we do need a proper policy framework governing digital platforms and functioning. Finally, cybersecurity is a big challenge. And, I think that the governments must look towards the engagement of private sectors for providing effective cybersecurity solutions just for the sheer capacity that they have... As a government agency, we need to be more focussed on making policy frameworks, laws and guidelines surrounding them, implementation of various initiatives, etc." 

Citizen Data-Based Policymaking is Pivotal

“Governance 4.0 as compared to Industry 4.0 and how it has impacted the post-COVID era is significant. Just like private companies, public authorities are also under pressure to digitise their processes. And, what we see is that the governments are also gearing up to get on track with the digital functioning”, Rajeev Singh, Vice President and Business Head Public Services, SAP India opened his address on this note.

Talking on the collaboration of SAP India with the Government of Andhra Pradesh, Singh said, “We have one our flagship programmes running with the Andhra government for ‘comprehensive financial management system’. We believe that the success of that project has been really good.”

“**Unlike Industry 4.0, which is majorly driven by technologies like IoT, in Governance 4.0, the citizen experience data will play a pivotal role.**”

Addressing on transformation through Governance 4.0, he said, “With the Governance 4.0, there are huge opportunities both for the government agencies and private players.” Unlike



RAJEEV SINGH
Vice President and Business Head
Public Services, SAP India

Industry 4.0, which is majorly driven by technologies like IoT, in Governance 4.0, the citizen experience data will play a pivotal role, he added.

Besides this, “As the government and public undertakings have huge citizen data, the experiential data will play a key role. And, here when we are talking about experiential data it has to be combined with the operational data. This requires immense research as the experiential data has to be captured right at the moment. This will lay the foundation of data-based policymaking.”

For capturing experience data, surveys are one of the options but the data can be captured through various mediums

when the citizens interact with the government, told Singh. “When a citizen reaches out to social media and expressing his/her angst on it, that is also where the experience data can be captured. Hence, such data that reflects the experience of individuals can be a stepping stone to what we call data-driven policymaking”, he added.

Concluding his address, Singh said, “Governance 4.0 will eventually create its own smart supply chains that will

“**Governance 4.0 will eventually create its own smart supply chains that will employ various smart devices to manage different government services.**”

employ various smart devices to manage different government services. These smart devices will possibly not only regulate energy consumption but it will also monitor soil health, regulate traffic congestions, initiate garbage collection and much more. As we have worked with multiple small social enterprises, we believe that industries are ready to contribute to Governance 4.0.” 

Cybersecurity Is Utmost Important!

Bhavin B Bhansali, Founder & CEO, ProgIST Solutions presented his perspective on how cyberattacks will impact trust and confidence, which are the two pillars of strong governance, in terms of citizen interactions or intra-governmental interactions.

"We've been working with a large set of government, public and private organisations and our platform ProDMARC is developed to provide them with visibility of spoofing and phishing attacks which are going on with their domain impacting their affairs", said Bhansali.

Adding on he said, "When it comes to a cyber breach, 90 per cent of all the attacks start with a simple email which is attached with some link or malware seeking permission from the recipient. So, when it goes out from a trusted source it becomes more impactful as the recipient trusts the name of the organisation and breaching on these terms becomes easier." Gone are the days where the fraudsters, hackers send out emails from a different set of domains. What has been observed in the past few months that the hackers are sending emails in the name of trusted organisations and the email will look exactly the same, he added.

Sharing a case study of 'Lazarus' - a hacker group from North Korea, Bhansali explained, "It was notified that over two million email IDs of Indian citizens and businesses are with them and on the pretext of free COVID-19 testing they might send out an email which will be a ditto of emails from the government. Through this, information regarding bank



BHAVIN B BHANSALI
Founder & CEO, ProgIST Solutions

“
In the last one month, ProIST Solutions have mitigated as many as 1.4 crore phishing emails impacting trusted organisations.”

details, personal information or other financial details can be stolen.”

Further, he said, "This is something we have been noticing that from the past few weeks, the World Health Organisation

(WHO) which has an official domain - who.int, the fraudsters have been using their domains to reach out to people asking donations on a certain bitcoin wallet. Hence, such domains which are trusted, if used for cyberattacks, can have a strong impact on the recipients.”

Speaking on the changing trends in phishing attacks, Bhansali pointed out that since the onset of COVID pandemic the phishing attacks with trusted brands have increased by 300 to 400 per cent.

Elaborating on the kind of cyberattacks ProDMARC is witnessing, he said, "On ProDMARC, we've been witnessing a number of malicious emails targeting trusted brands in a country both from the public and the private sector. These emails are being spoofed with domain names of real organisations and they've been coming from countries across the globe.”

“
Since the onset of COVID pandemic, the phishing attacks with trusted brands have increased by 300 to 400 per cent.”

In the last one month, ProIST Solutions have mitigated as many as 1.4 crore such emails impacting trusted organisations.

While closing his remarks and underlining the solutions provided by ProIST Solutions, Bhansali said, "To prevent such attacks and help the firms, we are providing them with ProDMARC which allows the firms to see the ones who are misusing the brands and the platform also helps them to mitigate the attack." 

‘Vocal for Local’ can Bring Major Economic Transformation

Mr Narahari, briefing on the ‘Vocal for Local’ said, “In an effective response to an unprecedented COVID-19 pandemic, Prime Minister Narendra Modi gave a clarion call to be ‘Vocal for the Local’ while launching the Aatma Nirbhar Bharat Abhiyan.” India has used a similar method during the Swadeshi Movement to fight British rule, he added.

While setting a diversified economy for steel and heavy industries, coal, petroleum, oil, etc. during the prior attempt, India lagged behind on the quality, technology and productivity. However, the PM has clarified on the current approach that it is aimed at a quantum jump to tap the economic potential of the country, told Mr Narahari. This can be realised by strengthening the existing infrastructure, creating a robust supply, enriching human resources, and using modern technologies, he added.

Adding on he said, “If we succeed with the Self-Reliance move by the government, it will be a major milestone in regaining a bigger economy.” However, highlighting issues with local manufacturing and selling, he said, “Local products need to be properly identified and need to be effectively marketed. Branding is another issue which needs to be looked upon. The quality of our local products needs to be enhanced. Moreover, there are pricing issues which need revision possibly.” There are federal issues pertaining to the Centre and the states, hence, Ease of Doing Business needs to be actively taken up added Mr Narahari.



P NARAHARI

Managing Director, Madhya Pradesh Marketing Cooperative Federation, Secretary & Commissioner, Government of Madhya Pradesh

Talking on the emerging opportunities, especially considering that many countries that are in an attempt to shift businesses from China, Mr Narahari said, “There are immense opportunities emerging for India to catch hold of. Also, there is a sudden change in India’s image globally as it is projected which is turning positive for us. There is a huge demand for certain products like Ayurvedic products, especially considering immunity boosting potential of such products in this time of COVID pandemic.” Moreover, the way India has been dealing with the pandemic with such a massive population, it has portrayed a better image that is

benefitting the India Ayurvedic product market, he added.

“Another area where the demand is rising is handicrafts, handlooms and other handmade products. The demand for these products, from the rural economy, has suddenly gone up”, told Mr Narahari. Further, mentioning a few more such businesses which have seen a sudden boost in the demand, he said, “Beans and pulses production, spices farming, poultry farming and dairy, fish farming, hence, farmers can take up cultivation of various products at their farms.”

“Local products need to be properly identified and need to be effectively marketed. Branding is another issue which needs to be looked upon. The quality of our local products needs to be enhanced. Moreover, there are pricing issues which need revision possibly.”

While concluding he addressed the MSMEs saying, “The Government’s efforts have been quite focussed on the MSMEs including the launch of various schemes, policies, programmes and a significant share of stimulus funds from the Aatma Nirbhar Bharat Abhiyan... Further, with training and proper utilisation of the skilled labour, the rural economy can take off to achieve newer heights.” 

Strengthening Agriculture & Rural, Curbing Economic Crisis

Mr Pradyumna began with a mention of the COVID pandemic saying, “The pandemic made us realize that there were a lot of practices in our country which was termed as unscientific by the westerners. Supporting his statement he gave an example of organic agriculture which has hyped as the trend these days.” To make ‘Vocal for Local’ a success, it is essential that the skillset of the local farmers and local entrepreneurs is respected and the decisive steps are not taken only on the basis of educational qualifications, he added.

Speaking on the policies, he said, “Our policies have been very simple and the first thing is there should be no rural distress. We bought the farm produce fairly more than what we buy normally as due to the COVID pandemic the national and international prices crashed. Hence, the increased purchase helped to generate a minimum income for the farmer. Secondly, new supply chains have been created to keep the agriculture market running and farmers get sufficient prices.”

Further, he added, “Now we are focussing on marketing the agricultural products. Earlier marketing was not given that much of significance. Also, with the help of the Centre’s schemes like eNam coupled with State schemes, we have entered actively into marketing agriculture and local rural products.” The department is also looking forward to networking with private players for contract farming, selling fresh commodities, etc.



P S PRADYUMNA

Commissioner, Agriculture Marketing & Co-operation Department, Andhra Pradesh

Talking about the use of technology to improve the agriculture economy, Mr Pradyumna said, “There should be a common nationwide portal for the exchange of commodities which I think eNam is trying to create. Secondly, each agricultural commodity should be quality assured. If the local people are trained to do the quality assessment, the physical; testing and chemical testing, our agricultural products will get more value for export. Next, transport aggregators can be brought in the agro-processing industry for logistics and other requirements. This can streamline the work.”

Emphasising on the operation of agriculture market and rural economy, he said, “There is a need to remove the concept of distress in the agriculture market. Citing the Centre’s move where the MSP was revised, he said, it was commendable and further improvement can be done nationwide.” Highlighting the crux Mr Pradyumna added, “If we can bring the quality assurance of each agricultural product along with traceability coupled with organic farming, I think agriculture alone can kickstart the economy.”

“Each agricultural commodity should be quality assured. If the local people are trained to do the quality assessment, the physical; testing and chemical testing, our agricultural products will get more value for export.”

Wrapping his address with a concluding note, Mr Pradyumna said, “The transformation is visible and the world today looks at India with respect. Moreover, our image for our own people has seen an upliftment... With Centre’s active steps to empower the small industries, tribal and rural economy, we can have multiple growth centres than a few in metropolitans only. e.gov

DBT System Improving e-Governance in India

Arun Sharma, Director, Direct Benefits Transfer (DBT), Government of India began by bringing the extent of Digitech percolation in India in the spotlight. Sharma said, "Sometimes back there was statistics going around that we have the cheapest data cost in the world... All in all, we are a very deep and horizontally rich digital society." The percolation or the penetration of Digitech is quite vast in our country, he added.

Adding on he said, "We have over 50 crore smartphone users. The penetration of phones in the country is about 160 per cent in urban areas. However, in rural areas, the ratio is a bit less. Overall, there are about 80 crore mobile phones available in the country. And, most of these are smartphones." India is the third-largest consumer of data after the US and China and most of this is for infotainment, he added.

Governments are largely going digital putting information and actions on the digital domain. Speaking on the wave of digital transformation in India, Sharma said, "While proposing any new model there are two sides to it - demand and supply. The government has taken a lead on the supply side but on the demand side there are basic essential services, as it reaches the poorest of the poor section wherein people are not much used to gadgets and digital functioning so there is some gap. However, more the demand pushes the government is heading to revamp systems."

Taking his words to DBT, Sharma said, "There are about 400 plus DBT schemes from the Government of India. Under



ARUN SHARMA

Director, Direct Benefits Transfer (DBT), Government of India

these, the money is directly transferred to the beneficiaries... Our idea now is to push these services and schemes to mobile phones. More and more of these services are now available on the Umang app."

These schemes are categorised on the app for students, farmers, women and children and more. So this helps in easier understanding of the user to clearly know which service is applicable where told Sharma. Citing a few examples he added, "So, there are various services available, like for farmers, they can know where is the nearest seed shop, nearest CSC, nearest fertilizer shop, or can apply for various kisan schemes, etc."

"As per estimates, on the Central government level where the money is

spent out of the Consolidated Fund of India, there are central schemes where the money is completely given by the Centre like in the age aspect of NREGA, some aspects of the food scheme, scholarships, etc. Then there are sponsored schemes, where the money is shared by the Centre and the states. Mostly it is 60 per cent, the Centre's share, so that much amount is transferred to the state and then the state adds their share and that money is finally disbursed by the state government" In addition, he said, "Then, there are state schemes and district level schemes. So, the administration of these schemes decides - where the money comes from, who is the beneficiary and how the entire

“There are about 400 plus DBT schemes from the Government of India. Under these, the money is directly transferred to the beneficiaries.”

sum will be disbursed." Further, Sharma said, "Once the beneficiary is identified, then the amount is to be calculated to him or her and the cash benefits are directly transferred to the beneficiary's bank account by the department which enrolls the beneficiary." Moreover, once the money is calculated and disbursed to the banks, it becomes the bank's procedure. All the transfers done are done through Public Financial Management System (PFMS).

Briefing on the DBT systems he said, "The beneficiary need not have to carry any debit cards for withdrawing the funds. The system can be accessed through biometrics. And, this is the world's largest biometric financial system. During the COVID pandemic, the use of this system saw an increase of 200 per cent." 

Digital Marketplace for Businesses, a Step Towards Self-Reliance

Shine P Sasidhar, Infrastructure Expert and Strategist addressed the session on 'Using Digital Infrastructure and Technology for Better Governance'. He commenced his address by saying, "The Trade Receivable and E-Discounting (TRED) System is an amazing example of digital infrastructure and how it will be improving the governance. TREDs is majorly for the benefit of the MSMEs."

Adding on he said, "The major problem that MSMEs are facing today is of liquidity. While using this digital platform like TRED we could increase the liquidity and TRED is a solution for it." Further, to help MSME, it must be ensured that the seller is an MSME and all the companies earning above Rs 500 crore turnover and also the Centre PSUs should mandatorily come into this system, added Sasidhar.

Further speaking on the liquidity part, Sasidhar said, "There are three platforms which RBI has approved for selling and buying on the digital domain... Once the buyer has approved the receipt of the transaction, then the intermediaries will provide bidding to the buyer. So the buyer will get the best financial option. Hence, the buyer will get some benefits like they may get some extended credit days or other such benefits and the seller will get the immediate payment. This way, the liquidity will be improved in the system." However, the major buyer from the MSME, whether service industry or product-based, the government is a significant



SHINE P SASIDHAR
Infrastructure Expert and Strategist

stakeholder. And, the government is not registered in the system neither it is a mandate for the government to register, he added.

Elaborating on the government's role, he said, "When we look at the Centre, for any of the procurements, there will be not much delay in the payments. However, in case of many of the state governments, the payment gets delayed for sometimes over a year." So, until the state government companies come on to the portal, the system will not be complete. Hence, all the stakeholders must come on this single trading system and that can lead to achieving benefits to economy and industries, he added.

Talking on 'Aatma Nirbhar Bharat Abhiyan', Sasidhar said, "The Aatma Nirbhar Bharat Abhiyan is also laying emphasis on empowering MSMEs to augment the entire economic growth."

Further, he spoke about Government e-Marketplace (GeM), "On GeM, around 51 per cent of the sale is of the MSMEs. Hence, it is one of the leading examples of e-governance through digital infrastructure platforms."

On his closing remarks on the way forward, Sasidhar said, "The digital infrastructure is having a big scope in the infra sphere. Today, we may be

"On GeM, around 51 per cent of the sale is of the MSMEs. Hence, it is one of the leading examples of e-governance through digital infrastructure platforms."

using it for a specific domain like for MSMEs or for some large corporate. But, we need to bring this for the entire system and not only to a specific area of work... Today the definition of MSMEs have changed and it is now the companies having a turnover of up to Rs 200 crore. However, there are numerous companies in the bracket of Rs 200 crore to Rs 500 crore and there is a need for these companies to also be incorporated on the trading platforms and such systems. This will be helpful for the liquidity and to achieve the dream of self-reliant India." 

COVID-19: A Lesson on Importance of Local Governments

Rajesh Kankipati, Collector and District Magistrate, Surendranagar, Gujarat addressed the summit on 'Local Governance Through Digital Transformation'. He commenced his address by throwing light on the importance of local government and the leaders driving these governments. He cited examples like Subhash Chandra Bose was once the Mayor of Calcutta, similarly, Sardar Vallabh Bhai Patel headed Ahmedabad. He also stated that the local government leaders are at the forefront and are working at the grassroots level to overall improve the village, city, taluk or the district they're heading.



RAJESH KANKIPATI
Collector and District Magistrate,
Surendranagar, Gujarat

Speaking on the transformation on the grassroots level, Kankipati said, "Prior to looking at the digital transformation of gram panchayats, we need to graduate the gram panchayat, the taluka panchayat and the district panchayat from school to college to university... The transformation somehow is haywire. And, the parameters that were decided - the funds, functions and functionaries, the devolution index - is not appropriately devolved in terms of the funds and functionaries."

Adding on he said, "In southern states, the local government set up is good and in the north, the impact of the local governments is not felt. However, in the case of disasters, pandemics, calamities, people reach out to the local governments for various reasons like - ration, food, various certificates, etc."

For digital transformation to really kick-off what is primarily required is not the development of software, applications but substance. "Shell with a structure is not

important but the shell with a substance is" and this what COVID-19 pandemic has taught to all the officers who are at the forefront, highlighted Kankipati.

Turning his words towards motivating the listeners, he underlined that the humans have an ability which animals do not have and that is the ability to narrate fiction. This fiction becomes a basis or a belief among us to hope that the upcoming future will be better. "Fiction gives one an ideology". Today there is a need to understand that digital transformation and capacity building of the local governments should go hand in hand, added Kankipati.

"We have had many training programmes, unfortunately, the programmes for the

local tier couldn't desocialise them with the existing skills and couldn't re-socialise them for the new skills required. So, this pandemic has been an eye-opener for us on the importance of a local government", he pointed out.

Kankipati said, "A movement 'Vocal for Local' has come in existence and recently concepts like 'glocal' which is an amalgamation of global and local have been seen. Looking at why our education system is moonwalking and our technology is leapfrogging, an example, let's assume a farmer sells a potato at Rs 2 but 100 g of chips are being sold at Rs 20. This is simply because the technology has leapfrogged but the farmers or the village community is still moonwalking."

"Today there is a need to understand that digital transformation and capacity building of the local governments should go hand in hand."

These systems have not percolated at the grassroots level simply because answers have been given to the gram panchayats but what they look for is a solution.

Concluding his address, Kankipati said, "It is in this perspective that we need to look at the digital transformation of the local governments. However, before creating these digital structures a system of interaction-influence has to be established wherein the voices and choices of the grassroots representative is respected by the other tier of the government." 

Ahmedabad augmenting e-Services' Accessibility Amid COVID Crisis

Arun Mahesh Babu, Collector and District Magistrate, Ahmedabad addressed the summit on 'Local Governance Through Digital Transformation' and spoke on how Ahmedabad is coping up with the COVID-19 pandemic-induced challenges.

Babu opened his address saying, "Ahmedabad is one of the worst-hit districts in the country and initially it posed a major challenge to handle the COVID-19 crisis. However, slowly we have been able to get the situation under control."

Talking about the digital transformation, he said, "People in the district are used to reaching out the government offices in a traditional manner like writing physical letters or visiting the office. However, in the city, people have started shifting to



ARUN MAHESH BABU

Collector and District Magistrate,
Ahmedabad

“The gram yoddha model has been well appreciated and is scaled in various other districts as well.”

online platforms but in other parts of the districts it is a major challenge to get people to shift to digital space." All the 'Jan Sev Kendras' and e-gram centres have been linked to satellite link of the Gujarat wide area network. And, BharatNet is adding as a benefit. All these 'kendas' and centres have been activated

and people have started using these to apply for various government services. However, the major challenge was convincing people, he added.

Adding on to the scenario, he said, "People have this tendency to reach out to the office and talk to the district head or the head of the department as they feel unsatisfied talking to junior officers. This mentality creates a situation that restrains people from adapting to online means. Hence, we started allowing only a certain number of people to the office and ensure that all the safety precautions are being taken care of. We have thermal scanners in place to check every individual entering the office and other precautions are also taken."

Another challenge was to deliver services to people's doorstep. So, 'gram yoddha' was introduced to serve the purpose. Under 'gram yoddha' the head of the village committee or sarpanch, one teacher, one constable and one worker, were appointed as a committee to decide who should enter the village and who should temporarily leave the village in case needed. The scheme was well appreciated by the Centre as well. Moreover, the committee also ensured that the online services are accessible to all through the e-gram centres and suvidha kendras, told Babu. So, these committees screen the applications initially and streamline the process for people.

Further, talking about the digital interventions, he said, "We also have a digital portal for agriculture-related services... Getting people online and using digital platforms was a major challenge and gram yoddha committees played a major role in bringing people to online platforms."

“Getting people online and using e-services was a major challenge and gram yoddha committees played a major role in bringing people to online platforms.”

Concluding his address he said, "The gram yoddha model has been well appreciated and is scaled in various other districts as well. How digital systems are placed, how the authorities engage the people online without causing them any discomfort and provide the services in a smooth manner as possible." 

Digitisation Augmenting Education & Health in Narmada

Jincy R Williams, District Development Officer (DDO), Narmada district, Gujarat participated in the summit and addressed on 'Local Governance through Digital Transformation'.

Narmada is one of the aspirational districts of Gujarat. It has an undulating terrain with around 14 per cent of its area under forest cover and 18 per cent of its population is predominantly tribal residing in villages. Hence, digital interventions have been quite a challenge in Narmada, said Jincy while opening her address.

Addressing digital interventions in Narmada, she added, "Despite all the challenges that surfaced while implementing digital interventions in the district, we came up with innovative solutions, especially for the field of education and health."

Considering the remoteness of Narmada district, especially the 290 villages, there was a need to introduce some offline programme as well for improving education in the district. Also, it was difficult for the district administration to monitor the presence of the teachers and other monitoring staff in the schools. To tackle all such inherent challenges in the district, we had to develop a special application named e-pen with the help of a Hyderabad-based IT firm. The application was developed such that it can function both in online as well as offline mode, told Jincy.

She added, "This application helped in monitoring the staff as now teachers can register their attendance on a real-time basis on the application. We, basically,



JINCY R WILLIAMS

District Development Officer (DDO),
Narmada district, Gujarat

wanted to ensure that the teachers mark their attendance in the real-time, the work on the field can be ensured, and the knowledge sharing and all the other messages from the district authorities reach them in real-time." This has been a successful programme in the district, told Jincy.

Adding on digit interventions in education, she mentioned, "We also have a command and control centre for education in the district with which the programme we started was also linked... We have used this programme for knowledge sharing and also for the clarification of complaints that we receive and we found the programme to be successful."

Talking about measures taken during the

COVID-19 pandemic-induced lockdowns, she said, "We have also tied up with different agencies and NGOs to help us with digital transformation, especially in the field of education." Further, she mentioned that in the district, the teaching of GCERT course was conducted through Diksha app as well as through QR codes in the textbooks of GCERT.

Speaking of the health sector, Jincy said, "We have also tied up with Piramal Foundation. Recently, NITI Aayog has developed a programme named - 'Surakshit Dada Dadi, Nana Nani' programme and Piramal Foundation is working closely with the district to help the elderly through digital interventions. We have around 56,000 elderly people in the district. We have collected the database of all the senior citizens with the help of Piramal Foundation and we

"We have collected the database of all the senior citizens with the help of Piramal Foundation and we track them to ensure their safety."

track them to ensure their safety. Besides this, we are also doing knowledge sharing and fulfilment of the needs of the Piramal Foundation and many other NGOs."

Concluding her address, Jincy said, "As we are able to augment the education services in the district and help the senior citizens by our various initiatives in the health sector, we have been able to bring in a certain level of digital penetration in the Narmada district. Hence, the attempt to augment the education and health sector using technology has been successfully implemented." 

“Digitisation Taking Centre Stage post-COVID”

Shivdular Singh Dhillon, Deputy Commissioner, Amritsar, Punjab, addressed the summit on ‘Local Governance Through Digital Transformation’ and highlighted the digital interventions being implemented in Amritsar. Also, he mentioned how Amritsar got over COVID-related challenges.

Dhillon commenced his address by comparing the pre-COVID scenario and the present, the COVID, scenario. He mentioned that in the pre-COVID era, governments at all levels were focussing on bringing in digital transformation, newer initiatives were coming in, but we had the physical space. Whereas, “If I look at the post-COVID era, the near future, I see technology and digital domains taking the centre stage”, he added.

Adding on the ‘ongoing COVID phase’ Dhillon said, “The digital space has become very important today. The one-to-one or physical human interactions are being curtailed. And, in this scenario, it is important that we go to digital space and allow people to access each other.” Further, he said, “People have various issues and they have to lodge complaints or raise grievances or protest for something or raise their voices, etc. For this, we have strictly asked people not to accumulate in numbers but use the online domain to show their presence. People’s grievances and complaints will be answered online.” There were ‘suvidha centres’ running already to help people apply for various government services online. However, now it is being ensured that people only apply online, he added.

Besides this, at the government offices,



SHIVDULAR SINGH DHILLON
Deputy Commissioner, Amritsar,
Punjab

today, meetings are being conducted on online video conferencing tools. It can be inferred that though we were heading towards a digital future, the COVID-19 pandemic fast-paced the digital transformation, told Dhillon.

Speaking on digital transformation, he said, “So, we are augmenting our online systems and digital platforms so that when the people apply for services online they receive the service at their doorstep in a streamlined way.”

Further, mentioning digital interventions, Dhillon said, “Today we have a system for active monitoring and tracking of people in the state of Punjab. Whoever is entering the border of Punjab has to get themselves e-registered prior to entering. This helps

us to track people and we know that who has been travelling from where and for how long. Moreover, we are geo-fencing people who are supposed to be home quarantined and anyone breaks that during the quarantine period strict actions will follow. This also allows us to track the compliance of quarantine norms and those who are found to break the norms repeatedly are being taken for institutional quarantine and fines are being imposed on defaulters.”

On a positive note, Dhillon pointed out that a behavioural change is being observed among the people. Now the people are moving to the digital space and instead of crowding the government office for their demands, suggestions or complaints are approaching online and the departments are answering online as swiftly as they can as well.

“We are augmenting our online systems and digital platforms so that when the people apply for services online, they receive the service at their doorstep in a streamlined way.”

Resting his words, Dhillon highlighted, “The wave of change sweeping the country is inducing an irreversible change. People today are adapting to the remote working environment and even in the government offices, it is taking place. It simply means that once people get their comfort level set in, it will be hard to get back to our traditional ways and hence we are heading to a digital age where the physical interaction will be least and only as per the need.” 

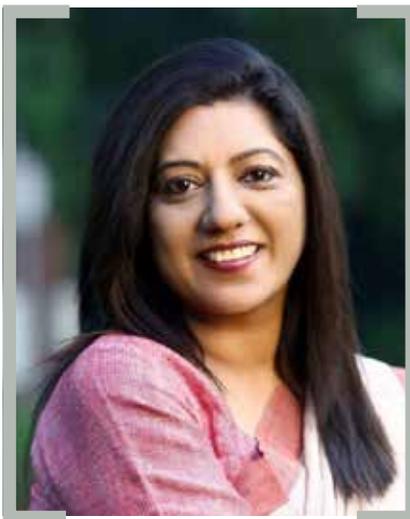
Online Education Reshaping Learning

Anju Sharma, Principal Secretary, Higher and Secondary Education Department, Government of Gujarat began by projecting an image of the changed scenario after the onset of the COVID-19 pandemic.

Speaking on the impact of the pandemic on the education system, she said, "When the lockdown was announced in March we came on toes to plan how things would go ahead. A lot of challenges surfaced and one among the most prominent ones was students could no longer be called to the institutions. With this came another challenge of testing and conducting examinations remotely." Guidelines were issued by UGC, however, there was not much consensus and this posed another challenge. In addition, institutions were not prepared for online teaching on such a massive scale and the staff, teachers were facing issues initially. However, with time, processes got streamlined, staff and teachers got used to remote operations and now online has posed a major platform for the new-way teaching, she added.

Further, on the adoption of online education, Anju said, "We started conducting a large number of webinars to keep the students engaged during the vacation period. The focus was on subject-specific learning and soft skills. For soft skills, we did a 50-hour course online and students can benefit out of this."

Talking about startups, the principal secretary said, "We are doing a lot of online work for startups other than the COVID challenge that we did. Moreover, a lot of online mentoring and webinars on



ANJU SHARMA

Principal Secretary, Higher and Secondary Education Department, Government of Gujarat

innovation are being conducted. Also, another significant initiative we took was a course on IPR which has been subscribed by over 51,000 people."

When the academic year started, an important challenge was how to start regular online classes. We started a program called 'Udayam'. Under this, using Microsoft software, regular online classes for the students were started. So, the regular timetables were drafted and accordingly teachers were given the freedom to take classes either from the institution or from their homes. "We also started a 'buddy college' wherein if your college does not have apt infrastructure then a nearby college is

assigned where he/she can impart the online classes", she told.

"Besides this, we developed a platform called 'Cogent' which is a part of Udyam and is a monitoring platform consisting of students' details, teachers details for attendance, marks, tests, etc. We have also ventured into online content development and teachers are being trained to develop content online", Anju added.

Speaking of the opportunities, she stated that as more and more people are moving to the online domain for studying there is an opportunity wherein physical learning can be focused on difficult areas of study or where practical knowledge plays an important role. So, segregation can be made with easy topics and subjects going online and difficult and practical subjects taught physically, she said.

"We started a program called 'Udayam'. Under this, using Microsoft software, regular online classes for the students were started."

Concluding her session she said, "Though COVID-19 posed a major challenge ahead of the education sector, with leveraging technology and implementing online education hurdles have been overcome and the new online education trend is setting in. The pandemic also opened immense opportunities especially covering a huge number of students as many as 5000 in a single lecture through online media and has turned up as a boon, fruits of which we have just started reaping." 

Upscale Digital Infra to Realise Effective Online Education

Shuchi Sharma, Secretary, Higher and Technical Education, Rajasthan addressed the Summit on 'Challenges & Opportunities in the Education Sector During COVID-19 Situation'. "No doubt COVID has put up a lot of challenges, however, the pandemic has given opportunities to come up with innovative solutions as well," she said while opening her address at the summit.

Speaking of various challenges surfaced in Rajasthan in the higher and technical education sector, she said, "There were a few existing challenges like overall admissions have reduced in engineering colleges as less number of students are opting for B.Tech courses and admissions in general, have also reduced. The COVID pandemic has weighed on the existing challenges. Now the situation has turned grave and we are facing issues like how to rate the students, how to conduct exams, etc." There are guidelines from UGC but the line of action is not clear, she added.

Mode of examination has posed a major challenge ahead of the students and the authorities. Earlier, students were waiting for March for their examination but March opened doors for the unprecedented crisis. Next, a decision to conduct the examinations by Septemeber end was taken which added to the existing challenges. Hence, "we raised this with the Ministry of Human Resource and Development (MHRD) to review the decision", Shuchi said.

"Offline exams were not possible as



SHUCHI SHARMA

Secretary, Higher and Technical Education, Rajasthan

social distancing norms were likely to be violated if exams were conducted. Also, many students have returned to their hometowns and have to come back to appear for the exams which will open up a new set of challenges altogether," she added.

Further, she pointed out, "In Rajasthan, the digital infra is not up to the mark for conducting online examinations. And, to an extent, the situation is the same in most parts of India and worse in rural areas." Fluctuating network speeds, power cuts, inapt digital infrastructure, are some of the hurdles in the way for implementing online education and examinations in the state.

"However, e-content is the solution to overcome such challenges but a need

to develop capacity do exist... In Rajasthan, we have started using YouTube as a platform for uploading apt e-content to help students during the COVID-induced lockdowns," Shuchi mentioned. Adding on she said, "I asked all the teachers/lecturers to record one lecture on every working day and upload it on YouTube. So, in many colleges, this practice was started... I had emphasised on converting all the written content into e-content so that students can keep up with their studies. The possible issues were that one to one online lecture as not feasible, also siblings sharing the smartphone or laptop was another such issue. Hence, uploading of the e-content was one of the possible solutions we figured out."

"In Rajasthan, we have started using YouTube as a platform for uploading apt e-content to help students during the COVID-induced lockdowns."

To inform students about the incoming lectures or the time when lectures were being uploaded, WhatsApp groups were formed through which the information was propagated.

Resting her words, she said, "Shortly, as the digital learning setting in as the new normal for the education sector, there is a need to upscale the digital infrastructure. Also, capacity building programmes need to be conducted for upskilling the teachers n terms of delivering lectures effectively through digital media. And, e-content should be kept in focus as it is one of the easily available and accessible form of content." 

Need Cost-Effective, 'Accessible to All' Solutions to Augment Education

Kumar Saurabh Raj, Director, Technical Education, Punjab started off with a few facts on education in the pre-COVID time. He mentioned, in the annual budget of 2019, Rs 98,000 crore was allocated for education and NITI Aayog had stressed that this amount which is three to four per cent of the GDP of India shall be increased to six per cent and this was prior to COVID pandemic, said Raj. "What COVID-19 has done to education! When we take feedback from primary, secondary, medical or technical education students, we see the learning is declining. Moreover, teaching quality has deteriorated, health and safety of the students is also at risk, and other challenges are also surfacing," he added.

The Director, Technical Education emphasised that education is not a loner sector but it has inter-dependency on various other sectors like finance for example. "The IMF says that the Global Economy will shrink by three per cent in 2020 and this is worse than the financial crisis of 2008-2009. This is going to start a reverse trend where problems like increase in child labour, child marriage instances may turn up," he pointed out.

Citing examples of the abovementioned scenario, he said, "In Ethiopia, in 2008, the dropout rate ascended from eight per cent to 13 per cent of which 1 per cent were girls. From 2008 to 2015, the dropout rate in Brazil raised from eight per cent to 20 per cent wherein the strength of secondary and higher secondary students were more. Similarly, when Ebola spread induced financial crisis in Sierra Leone the dropout rate reached



KUMAR SAURABH RAJ

Director, Technical Education
Punjab

16 per cent. During this time, the schools were shut down for almost a year in Sierra Leone... So, we can expect the increase in dropout numbers due to COVID crisis."

Speaking of the possible solution for the education sector, Raj said, "There are a few measures like online streaming of lectures, e-content, using 'Diksha' portal, transfer of mid-day meal funds to the student's family, etc., we need to enhance the scale of our measures. There is a need to provide apt financial support to students who belong to poor families and such support should directly come from the government. Following the implementation of such solutions which prove to effective and working to improve, we need to work on continuity."

Mentioning examples from countries like Singapore, China, Raj pointed out that if we implement the kind of solutions they have adopted, we need intense planning and even more financial backing which make such solutions unrealistic in India scenario.

"Diksha portal, which can possibly be a solution to many education-related problems, is NCERT's portal and the challenge that turns up is that every state in India has their own board and hence having a common portal becomes a bigger challenge", he pointed out.

Wrapping his address, he said, "We need to pool resources as by doing so we can make online content, video lectures, classes, illustration, etc. available for every student across the country." Citing

“Solutions like online streaming of lectures, e-content, using 'Diksha' portal, transfer of mid-day meal funds to the student's family, etc. can help to overcome the crisis.”

examples for his proposed solution, he said that Argentina is broadcasting around 14 hours of educational content or lectures on TV and seven hours of radio broadcast. In Kenya, a YouTube channel has been created for all the students to access study material. So, such measures can pose a potential solution to overcome COVID crisis." [ed.gov](https://www.ed.gov)

Openness to Newer Tech can Resolve Education Woes

Sachin Rana, Assistant Deputy Commissioner, Chandigarh and Director Technical Education, Chandigarh addressed one of the session themed 'Challenges & Opportunities in Education Sector during COVID-19 Situation'.

"We keep on pointing out things that we are doing but there is always a scope of improvement," said Rana while opening his address. Calling online education an effective solution for the COVID problem, he added, "The ratio of student: teacher for lower classes is 30:1, while, for graduation, the ratio is 15:1 and for post-graduation, it is 10:1. We are still maintaining the ratio as much as possible." There should be regular interaction of students and teachers via any possible means like WhatsApp, videoconferencing tools, etc., he added.

Citing challenges faced by the education sector, especially technical education, during the COVID pandemic, Rana mentioned, "The very first challenge is 'Adaptability'. Adaptability is a challenge faced by both the teachers and the students. Next is the shunning of traditional classroom teaching due to the pandemic for which online education has brought in to keep the education machinery running. Another challenge was that most students attending ITIs and Polytechnique courses are not from well to do families so many of them lack equipment for required for online mode. Many students do not have even smartphones. So such students have to share and doing so defeats the purpose of online education, considering COVID scenario."



SACHIN RANA

Assistant Deputy Commissioner,
Chandigarh and Director Technical
Education, Chandigarh

Digital literacy is another issue the authorities face when it comes to underprivileged students. And, power cuts are major problems that people face, added Rana.

Further, he highlighted, "In the traditional classroom teaching, the teacher can scold a student or can make the student study, whereas, in online classes, students have to be self-motivated and have to be prepared for the class in advance." Quality assurance is somewhere missing in the online mode and there is a need to bridge this gap, he added.

The deputy commissioner emphasised on the bridging the gap in digital literacy as

moving ahead, such online practices will be a norm in the industry. Hence, a need to enhance the capacity of faculties to teach and deliver knowledge online and through various ways be it in the form of lectures, illustrations, videos, etc. Also, the learning pace of the students have to be encouraged and regular assignments have to be there to keep students engaged.

While resting his words, he spoke on solutions that Chandigarh is implementing. Addressing the same Rana underlined, "Lectures or videos of renowned faculties should be recorded and documented and should be made readily available to students. Besides this, we are also encouraging students to visit Bharat Skill Portal for e-content on technical education. The portal is by the

"Most students attending ITIs & Polytechnique courses are not from well to do families and many even do not have smartphones for online lectures. So they have to share and that defeats the whole purpose, considering COVID scenario."

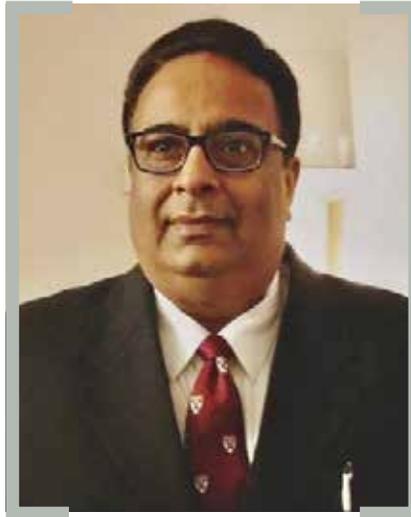
Government of India and is maintained by AICTE so we encourage students to visit the portal. We are also encouraging faculties to visit portals like Coursera where many free courses are available so as to enhance tier knowledge and skills. The most important task is to keep students and faculties engaged so they utilise their time wisely." 

“Going Online is necessity no more an option”

“E-governance was there from the past 15 to 20 years but the COVID pandemic has flagged it as the most essential thing in governance,” Sarvesh Kaushal, Former Chief Secretary to the Government of Punjab, opened his address on this note.

“Physical contact has to be minimised for combating the pandemic. There is no way that any government or any organisation can ignore the online handling of its systems or online delivery when everything has to be done contactless one has to go online. G2C and B2C services have no option but to digitise,” he highlighted. Pandemic is a tragedy but for the IT applications, it posed as the biggest opportunity, Kaushal added.

When asked about the challenges that the Government faced initially in implementing the IT applications, he answered, “Initially we lacked the backbone infrastructure. We did not have efficient connectivity and in many areas, there was no connectivity at all. Also, there existed huge digital illiteracy earlier. In addition, the hardware was not pocket-friendly, unmanageable in terms of size and was not even available easily.” Unfortunately, there was not an equitable spread of IT transformation and most of it was through central funding which started diminishing with time. The institutionalised and standardised growth of IT was missing and this caused regional imbalances, he added.



SARVESH KAUSHAL

Former Chief Secretary to the Government of Punjab

Speaking on the growth of IT in the past few years, Kaushal said that there have been excellent models of growth but unfortunately most of them have been silos. “So we are basically reinventing the wheel simultaneously at different places, synergy and integration are lacking.” There should be a national policy and a state policy which should be consistent, considering the next 20 to 30 years’ vision, deliberated Kaushal.

Pointing out a few solutions, Kaushal said, “There is a need to devise an open-source mechanism which allows integration of efforts so that officers (district/ city leaders or policymakers) do not end up reinventing the wheel every third year.” Emphasising on

integration and knowledge sharing, he added, “When some solution is being implemented in Delhi or Kerala and when it is adopted in Patna, then Patna should not start from scratch but it should start from the level where Delhi is at present.”

The national response to the COVID pandemic has brought out the best response in any country including India. The basic governance gets toned up in such times. If all the wheels of governance doing their individual jobs in a complete synergy then technology can be applied to their efforts so that their service delivery becomes effortless and contactless, he pointed out.

“There is a need to devise an open-source mechanism which allows integration of efforts so that officers do not end up reinventing the wheel every third year.”

On the way forward, Kaushal said, “I visualise a quantum jump as the issues are clearly flagged now, especially after COVID, however, for this we need apt manpower and liberal funds from the Centre. The potential to grow is now being tapped with all the goals, challenges, probable outcomes, clearly flagged. Also, the new generation of officers are digitally literate and hence, I see the next five years will be a revolution in the application of IT in governance.” [et.gov](https://www.et.gov.in)

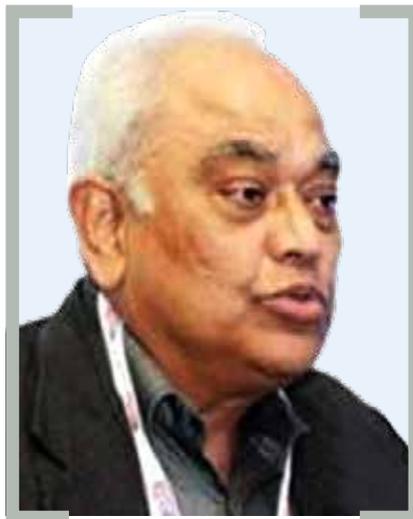
“Need Faster Ways to Absorb Innovation in Govt SOPs”

“This word ‘Innovation’ is misunderstood at times as many bureaucrats and other constituents feel that unless there is a huge change, it’s not an innovation. And, in such a complexity many times improvements do not take place,” Ranjan Dwivedi, Former Director General of Police, Uttar Pradesh, opened his address on this note.

He added, “We see many officers make good innovations, however, the process of governance is such that if you want to change a rule it is a long process. The problem of rule changing or rulemaking does really steps in while absorbing the innovations and changes.” The governance has been designed in this way to ensure that even if someone makes changes to it no harm is caused, cited Dwivedi.

Essentially all these improvements indicate changes in the rules of business. Some are reengineering workplaces and some are reengineering processes, however, everything follows a written procedure. Governments function as per certain standard operating procedures (SOPs). Therefore, what the government leaders, policymakers must look at is how to absorb innovations and corrective changes in the SOPs in the fastest manner possible to avoid unnecessary delays, Dwivedi deliberated.

Further, he said, “With the inclusion of IT technologies, bringing changes in the procedures shall be eased... We should have the latest and the authentic version on the web and



RANJAN DWIVEDI

Former Director General of Police,
Uttar Pradesh

quoting the URL then becomes the latest version and not the official version.” If such changes are introduced then it will become easier to absorb new innovations that the young officers are making, he added.

Shedding light on the way forward for the governance, he said, “The future of e-governance and the use of ICT for governance was always bright. However, the adoption of ICT has been very slow. One of the reasons is that the bureaucracy is extremely conservative... I would say that only 45 to 50 per cent have been achieved of what we could have achieved.”

On the impact of COVID pandemic on the governance, Dwivedi highlighted,

“COVID has been a blessing in disguise. We see that there is a deadly pandemic with which we have to fight, however, in that silver cloud, there are so many silver linings.” Citing an example of technologies augmenting governance, he said that earlier we had to submit live forms and that as no easy task. But, since the onset of COVID, one can now apply online, get formalities done within a few clicks and gets the service delivered at the doorstep.

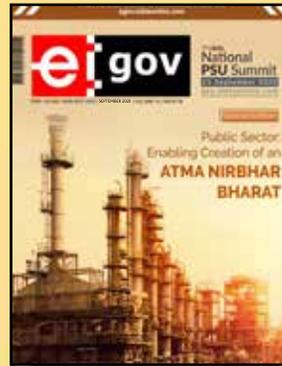
Contradicting his example above, he said, “But not all is so good. There are services where one can apply online but then has to visit the office for further formalities like for the vehicle registration certificate, one has to visit or take the vehicle to the authority.

“With IT, bringing changes in the procedures shall be eased. We should have the latest version on the web and quoting the URL shall be the latest version.”

However, it should be in a way that if I apply only submit the required documents online then there should be no need for me to physically visit an office. So, we’re halfway through.”

Concluding his address, Dwivedi pointed out, “Without bringing change and reengineering the business procedures, we cannot completely establish the e-governance or technology-based solutions. So, the government has to find out an easier way to change the rule book to absorb innovative solutions as soon as possible.” [et.gov](https://www.et.gov.in)

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10th elets Knowledge

Exchange Summit & Awards

10-12 DECEMBER 2020

DIGITAL GOVERNANCE | SMART CITIES | AGRI TRANSFORMATION

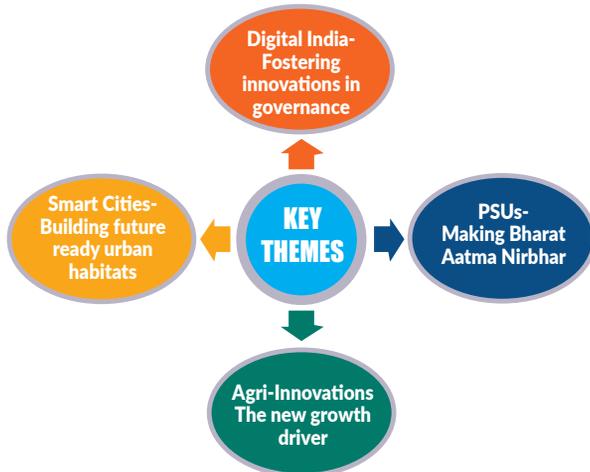


Elets Technomedia is delighted to announce “10th Elets Knowledge Exchange Summit” from 10-12 December 2020- a 3-days virtual summit on the theme of Transforming Governance amidst the New Normal.

A NEW DIGITAL CONFERENCING EXPERIENCE

The 10th Elets Knowledge Exchange Summit has been designed as an immersive and engaging digital experience to offer delegates the following features:

- Three full-day power packed live-streamed sessions of keynotes, panel discussions and workshops addressing various challenges and opportunities
- On-demand presentations from industry leaders and sector experts
- A virtual exhibition space, where delegates would be able to engage and network with government representatives
- Opportunity to interact with other delegates from around the world in a virtual networking space
- Access to all the digital contents (print and video) after the Summit.



WHO WILL BE THERE

Key Policy Makers from Government of India

Policy Think Tanks

Senior Officers from States & UTs

Captains of Industry

NITI Aayog

PSU Leaders

International agencies & experts

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