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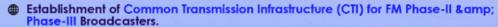
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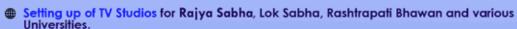


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- Providing Social-Media Relationship Management (SRM) Services to Ministry of Information and Broadcasting and other Government Departments.











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SMART CITIES

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'Lock City' is all set to become 'Smart City.'

Aligarh has come a long way from being known as 'Kol' to becoming the smart Educational and Industrial hub. It is one of the 13 Smart Cities identified in the state out of 100 in India. With the Smart City Mission in place, the City now envisages to "Re-define" itself into an attractive, vibrant and liveable destination. In line with this vision, Elets Technomedia Pvt Ltd, Asia & Middle East's premier media & technology research organization, is proud to announce its '23rd Smart City Summit-Aligarh on 10th November 2017.

The 'Aligarh Municipal Corporation' is an esteemed 'Host Partner' of this summit. 'Elets 23rd Smart City Summit-Aligarh 2017' will be unfolded in three parts:- **Conference, Awards & Expo**

KEY THEMES:

- Smart Cities
- . Swachh Bharat for Smarter India
- Safe & Secure Cities
- IT & eGovernance for Smart Cities
- International Experience of Building Smart Cities
- Waste Management
- Water Management
- Smart Housing & Infrastructures
- Smart Mobility & Transportation
- Effective Banking for Smart City Ecosystem
- PSU Participation for Building Smart Cities

FOCUS AREAS:

- Make in Aligarh
- IT & Digital Governance
- Uninterrupted Power Supply
- Smart Water Meters
- Effective Drainage System
- Recycling of Waste Water & Solid Waste Management
- Traffic Management
- Smart Education
- Smart Energy
- Smart Security & Surveillance
- Creation & Beautification of Open Space

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Our Publications and Initiatives











CONNECTING

Founded in 2005, eGov magazine is published in both print and online formats. Innovative use of ICT in Governance is at the heart of our all eGov initiatives.





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Smart City Summit

Dr Jitendra Singh

Minister of State (Independent Charge) DoNER, PMO, Government of India



PSU Summit

Vishnu Deo Sai Minister of State for Steel, Government of India



11th eINDIA

P P Chaudhary

Union Minister of State for Law and Justice; and Electronics and Information Technology, Government of India



Urban Development Summit

K T Rama Rao

Minister for IT. Municipal Administration & Urban Development, Government of Telangana



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 techexperts 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.

Goa's Landscape Transforming with Digital Governance

Goa, one of the most popular tourist destinations in the world is all set to become smarter and digital. Be it the first cashless State of India or one of the finest tourism spots in the world, the land with beautiful picturesque settings with rich legacy of historical and cultural heritage is striving for best for the digital and urban transformation.

And what better place Elets could think of than organising its landmark '8th Knowledge Exchange'— India's premier Summit on digital transformation than Goa. We are proud to organise its 8th edition here.

And, to document the IT & e-governance success story in Goa and across India, we have come up with a special edition of egov, India's First and Asia & Middle East's premier magazine on e-governance.

Our cover story "Goa Goes Smart and Digital" explores how an endeavour is being made to develop Goa as a world class livable city.

The issue carries a Special Message for the magazine from Goa Governor Mridula Sinha.

With a focus on Goa as the next IT destination for India, Rohan Ashok Khaunte, Minister of Information Technology, Government of Goa, has shared his views on how this 'Pearl of the Orient' is digitally transforming itself.

Among various distinguished officials featuring in this issue are Ashok Kumar, Secretary to the Chief Minister of Goa, Director, Municipal Administration, Chairman, Goa State Urban Development Agency (GSUDA), Ameya Abhyankar, Secretary, Department of Information Technology, Government of Goa, Padma Jaiswal, Secretary, Department of Cooperation, NRI Affairs, Official language, Labour and Employment, and Public Grievance, Government of Goa, Revathi Majumdar, CEO, Goa ELectronics Limited, and Ravi Jha, Director, Department of Information Technology, Goa.

Among other important officials featuring in egov magazine's latest issue are NK Xaxa, Secretary, Department of Revenue, Government of Chhattisgarh, O P Pal, Additional Commissioner, Department of Transport, Government of Chhattisgarh, Mukesh Bansal, Chief Operating Officer, Naya Raipur Development Authority (NRDA) and Kumar Keshav, Managing Director, Lucknow Metro Rail Corporation, Kumar Keshav, Managing Director, Lucknow Metro Rail Corporation, and Nitin Bhadauria, Vice Chairman, Haridwar Roorkee Development Authority (HRDA) and Commissioner, Haridwar Municipal Corporation.

We are carrying the Elets' Nagpur's Smart and Sustainable Cities Summit report, Nagpur, which throws light on various initiatives, challenges, and advantages related to Smart Cities. It was participated by Union Minister for Road Transport and Highways, and Shipping Nitin Gadkari and Maharashtra Chief Minister Devendra Fadnavis.

It is hoped our bouquet of special interviews and stories will evoke an invaluable readers' feedback.





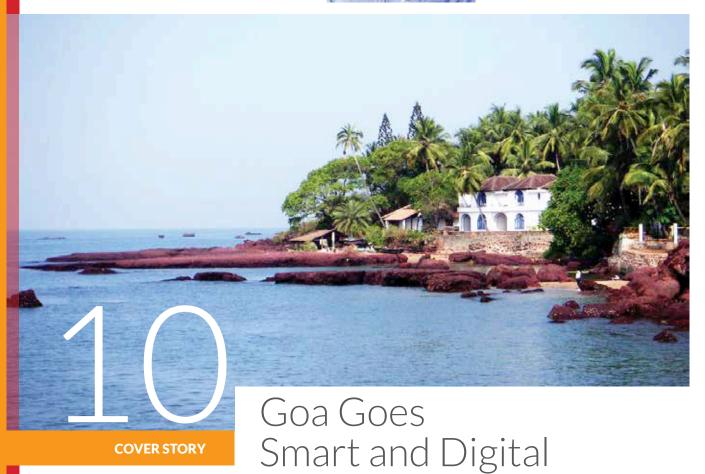
Editor-in-Chief, egov magazine & CEO, Elets Technomedia Pvt Ltd

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Ameya Abhyankar Secretary Department of Information Technology Government of Goa



Padma Jaiswal Secretary, Department of Cooperation, NRI Affairs, Official Language, Labour and Employment, and Public Grievance, Government of Goa



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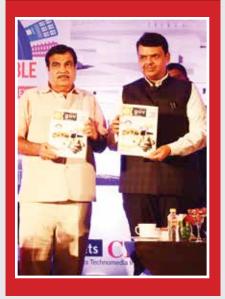
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Gyanesh Pandey Chairman and Managing Director HSCC (India) Limited



Elets'Smart &
Sustainable City
Summit, Nagpur



(Mrs.) Mridula Sinha Governor of Goa

(श्रीमती) मृदुला सिन्हा राज्यपाल, गोवा



Raj Bhavan Goa-403004

राज भवन गोवा–403004

MESSAGE

It gives me immense pleasure to learn that the Department of Information Technology, Government of Goa alongwith Elets Technomedia is organising '8th Knowledge Exchange' – a National summit on Digital Governance on 27 – 28 October, 2017, in Goa.

The summit aims to bring stakeholders of governance and industry from various parts of India and abroad to discuss and deliberate upon various aspects of use of ICT for Governance.

Government of Goa, in line with the vision of Hon'ble Prime Minister, Shri Narendra Modi is committed to build digitally empowered society through effective use of technology to reach out to citizens. I am hopeful that discussions in '8th Knowledge Exchange' summit will help us to find new ways of bringing Digital Transformation in the field of IT, BFSI, Smart Cities, Education, Health sectors.

I have learnt that a special issue of 'eGov,' Asia & Middle East's premier magazine on e-Governance will be launched during the summit highlighting various initiatives in Goa Government alongwith initiatives in other parts of the country and world over.

I extend my best wishes to '8th Knowledge Exchange' summit and eGov magazine.

(Mridula Sinha) Governor of Goa

16th October, 2017.



Rohan A. Khaunte

Minister for Revenue and Information Technology

Government of Goa

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MESSAGE

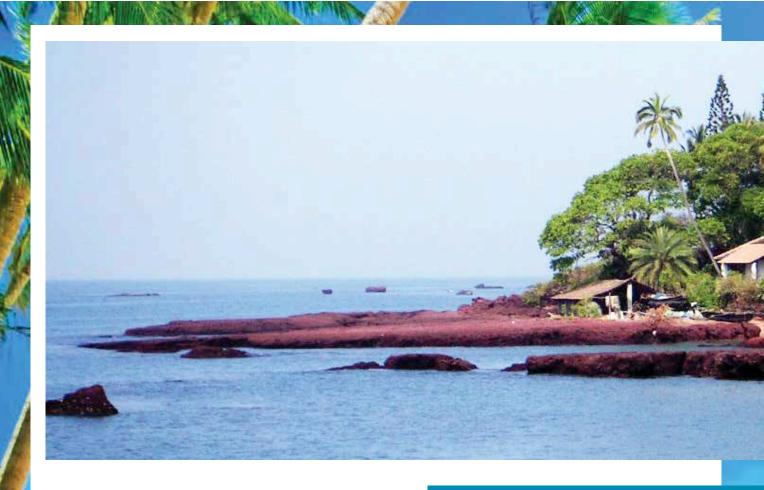
It gives me great pleasure to learn that the Department of Information Technology, Government of Goa is organising the 8th Knowledge Exchange- A National Summit on Digital Governance; in association with Elets Technomedia. On this occasion, they are bringing out a Special Issue of eGov magazine, which will highlight on the exemplary initiatives in the IT, Banking, Finance and Insurance and Urban Development sector from across the country and globe.

It is essential to ensure suitable participation from IT industry and BFSI sector to boost up Digital India and Digital Payments in transforming the Goa in lines with the vision of Hon'ble Prime Minister Shri Narendra Modi's vision for a Digitally enabled nation.

The Special Issue of eGov magazine will provide useful insights about the ongoing reform in the IT, banking and finance sector.

I extend my best wishes to the Elets Technomedia, as they move towards hosting the summit and launching of the Special Issue of eGov magazine.

Rohan A. Khaunte



GOA Goes **SMART** and Digital

Goa, also known as 'Tourist Paradise' hosts more than 56 lakh domestic and 63 lakh foreign tourists annually (as per Government of Goa tourist data). Panaji, the capital city of Goa, was selected in the first round of Smart Cities Mission. The Government has already started many Smart Cities projects to make it a world class livable city, writes **Privanka Sharma** of **Elets News Network (ENN).**



anaji has a natural setting and is also well provided with a range of amenities like markets, social and cultural institutions, as well as urban services. The vision of the State Government is to transform Panaji into a world-class, environmentally sustainable and liveable city for all, while preserving its heritage, cultural diversity and ecosystem through community participation, innovation and smart solutions. Citizens of Panaii are proud of their heritage. The Government is trying to reflect this heritage, architecture and way of life unique to the city in its projects. Promotion of local culture to attract tourism is a USP which the city has developed and would like to strengthen further.

Digital Litreracy in Goa

Extending the Prime Minister's Digital

India vision, the Government of Goa has signed a Memorandum of Understanding (MoU) with Google India to promote digital literacy and drive digital transformation across the State.

The Goa State Government has launched 'Internet Safety Education' for students in Goa in association with Google India. Internet safety education is now part of the school curriculum of classes IX and XII in government schools across the State.

Google has created this curriculum in consultation with experts, developed and shared modules for integration in curriculum. As part of the programme, Google India has initiated teacher trainings as well.

"Skill development is very important and needs upgradation in the IT sector. Through the Chamber of Commerce and the various engineering colleges in

Goa, we are trying to work out a programme so that students coming out of the colleges are industry-ready and aware of the requirement in the industry," said Ameya Abhayankar, Secretary IT, Government of Goa, while speaking to Elets News Network.

With an aim to transform students in villages as the digital face of villages, a group of passionate, like-minded people have put together the concept- Goans **Empowered with Information** Technology- GEIT. Here the focus is to make Goan village students digitally smarter.

This group is on a mission to make schools digitally inclined in order to provide essential support to help students learn. The group is currently involved in boosting knowledge and infrastructure in the three village schools in Goa namely: St Bartholomew's High School (Chorao, Tiswadi), Azmane High School (Neura, Mandur, Tiswadi) and Dayanand Bandodkar High School (Gokulde, Padi, Quepem).

Road infrastructure

The State Government is planning a signal-free city, with the help of uni-directional roads. Plans are in place for BRT and ferry routing.

Solid waste management

The Government aims to have 100 per cent household collection and segregation of waste. There are facilities for material recovery, coprocessing (cement factories), recyclables auctioned, and for the incineration of bio-medical waste.

To protect the environment, the State Government has banned plastic bags with effect from July this year. Any person making, selling or carrying plastic bags can be fined up to Rs 5,000, while any person who is caught throwing plastic bags in public places will be fined up to Rs 10,000.

Goa is already following a ban on the use of plastic bags below 40 microns under the Goa Biodegradable Garbage (Controlled) Act 1996.

Security enhancement

Goa has formed a special tourist police force which regularly patrol all the areas. A special helpline for women has started in Goa. Also women driver cab services have started their services. The Government has also started CCTV camera surveillance at vantage points.

Biometric attendance

The City Corporation of Panaji has started biometric attendance system for its staff since 2014-2015 to monitor staff/ conservancy workers' working hours, daily attendance and for the creation of monthly reports.

E-governance

Currently property tax payments can be made online in Goa. The Corporation of Panaji website displays certain statutory documents and the citizen charter.

Sustainable Municipal Services and Citizen Connect: The City Corporation of Panaji plans to strengthen civic amenities and municipal services, especially in slum-like settlements in the city, bringing them on par with the rest of the city.

Goa's Raj Bhavan at Dona Paula has gone cashless with Mridula Sinha, Governor of Goa, making the first transaction herself.

The Governor's Palace will do all its household expenses and tour expenditure cashless. Special training has been provided to its staff members so that cashless transactions go on smoothly.



The State Government has announced that it is moving towards making the whole state cashless. The Tourism Department of the State has moved most of its services online with various options of making cashless payment available.

"There are more bank accounts in Goa than people. Our State is currently focussing on Jandhan accounts. We are integrating all the three components i.e bank account, Aadhaar and mobile number so that people can do online transactions easily," said Revathi Majumdar, CEO, Goa Electronics Limited.

Pedestrianised Public Areas: The Government has planned to construct semi pedestrianisation at Church Square to create a public space that portrays the 'image of the city, portrayal of art and culture while carrying forward traditions of street fairs like the "Purumentachem Fest" - a traditional annual fair, open street restaurants on 18th June road, constitute a replicable model for pedestrianised public spaces in the city.

Ecomobility: Walkways, pedestrian links between core city and Patto area. pedestrianisation around Mala lake and along the Creek add to walkability. City-wide public bike share and reliable public bus transit systems have been proposed to be set up. Resultant modal shift and emissions reduction will contribute to mitigate the urban heat island effect.

Interlinking core city and patto area: Opening up Patto area and Patto parking after office hours have been proposed. For event based tourism, provision of creek side sit-outs, ecological restoration of abandoned Mala lake as a recreation zone are proposed.

Enhanced Green Cover: 5,000 fruit bearing trees in the two sq km area and mangrove plantation along the creek substantially will increase green cover in the area and the Government has already started the plantation.

The culture of citizen centric planning in Panaji, proven efficacy in revenue collection and the relevance of the area based proposal, will ensure its successful implementation.

Citizen centric planning: An active and involved citizenry characterises Panaji. Planning processes have always considered citizen engagement and developed plans have been a true reflection of the aspirations of the people. The holistic masterplan for the city, as an example, was prepared through a similar process of extensive discussions and city wide consensus. The Smart City Proposal was also prepared by seeking buy-in from all sections of the society, the Government and the political class. Ensuring adequate consideration of citizen aspirations, the Municipal Corporation accorded unanimous approval to the proposal.





EVENT CALENDAR 2017-2018

EVENT NAME	PLACE	MONTH
SMART CITY		
Smart City Summit	Aligarh	10 November
Smart City Summit	Warangal	November
Smart City Summit	Nashik	November
Smart City Summit	Gurugram	December
Smart City Summit	Jalandhar	December
Smart City Summit	Pimpri-Chinchwad	February 2018
GOVERNANCE		
National Energy Summit	Hyderabad	November
BFSI BFSI		
2 nd BFSI Cloud & Security Summit	Mumbai	8 December
2 nd NBFC100 Tech Summit	Bangaluru	January 2018
3 rd BFSI Leadership Summit 2018	Mumbai	February 2018
HEALTH CONTROL OF THE		
3 rd Healthcare Summit Rajasthan	Jaipur	10 November
Healthcare Summit Chhattisgarh	Raipur	December
Healthcare Summit Arunachal Pradesh	Itanagar	January 2018
EDUCATION		
School Leadership Summit 2018	Bengaluru	November
11 th World Education Summit	Dubai	26 - 27 November
Higher Education & HR Conclave	Jaipur	December



















Goa-The Next IT Destination of India



Give us an outline on the Startup policy envisioned by the Government of Goa.

The Startup Policy has been made as per requirements of the industry. Goa has always been a preferred industrial destination and we have to fulfill requirements of startups. When we talk about the incubation or an IT concept, we need to ensure that unemployment issues faced by a lot of people, especially in the IT, ITES and electronic segments, are taken care of. The idea of having Startup Policy in place is to make youths become a job-giver rather than a job-seeker. Hence we have outlined a policy which the industry has been awaiting. The type of policy Goa has outlined for Startups could be the best policy in the country. Implementation is, however, a challenge; and we have targeted December to be the deadline for it to fall in place.

Chief Minister Manohar Parrikar mandates to bring Goa among the first 25 startup hubs across the world within a stipulated period of time. How is the State Government intending to achieve the target?

An ambitious target of 100 startups in the first year was taken up at the launch of the policy. However creating an

The type of policy, Goa has outlined for Startups could be the best policy in the country. Implementation is a challenge, and we have targeted December to be the deadline, says Rohan Ashok Khaunte, Minister of Information Technology, Government of Goa, in conversation with Poulami **Chakraborty of Elets News Network (ENN).**

ecosystem, favourable for the industry, may take wo to three months. If the policy is implemented the way we have outlined, definitely, The Chief Minister's vision to make Goa the most preferable destination for the startups will become reality. In the five-year plan, a target to generate employment for minimum 5-7 thousand people in the I-T sector has been fixed. The Government is also investing on incubation centres aimed at creating an infrastructure for the startups. We will have partners running these incubation centres, ensuring that startup culture proceeds in a right manner. Thus, with a dedicated chain management focused on the sector, the end result achieve CM's vision in creating the best startup ecosystem.

Where does Goa stand in terms of IT setup and implementation?

We already have the setup in place but the challenge is to take it to the next level. Chief Minister envisages to connect every household in Goa with broadband services. Nine year back, the Government signed an agreement with United Telecoms Limited (UTL) through which we are already giving optical fibre broadband service to the Government offices and institutions, including the last-mile connectivity to panchayats. The agreement ceases in 2019. The challenge ahead is how will Goa ensure good connectivity, better power supplies, providing basic facilities in the next 10 to 15 years. A holistic approach is required to meet these challenges and by December, we plan to come-up with a concrete plan to meet these challenges.

IT and Ease of doing business:

Technology is the only answer to bring ease in doing business. Systems in Goa are already operational, however, more focus is being emphasised on making it user-friendly and citizen-centric. Furthermore, the initiatives are aimed at reducing the scope of corruptions, providing time-bound services to the citizens.



"Employment generation is one of the focused area where Government wants to ensure that it is taken care of. Skill development can bridge the gap of eligibility criteria to ensure that they are fit for the industry. The idea is to create fit people who are fit for the job. "

While Goa is evolving as a Startup hub, how is the skill development programmes imparting its role?

Youths of today are well-versed with the technology, but the gap is felt among people aged between 40 to 50 years and above. For them, we are conducting courses on basic computer knowledge along with educating them on online using MS Word, Excel, and how to use Paytm, Skype, operate smartphones, etc, at village or taluka level. The courses are already ongoing for scheduled caste, scheduled tribe, and senior citizens in various parts of the State. The idea is to ensure that Goa becomes digitally literate. In next six months, digital literacy, broadband services, infrastructures supporting the IT sector, electronic manufacturing cluster, etc, takes shape —which was only discussed in the last 20 years. Employment

generation is one of the focused area where Government wants to ensure that it is taken care of. Skill development can bridge the gap of eligibility criteria to ensure that they are suitable the industry. The idea is to create fit people who are fit for the job.

Goa is also evolving as IT hub. How is the response so far from the corporate giants participating in it?

We need an Act in place. As far as having IT park is concerned, it shall be running in a PPP (Public Private Partnership) model. Further, talks are on with the corporate giants, but we are also trying to understand how it would be beneficial for them. In the next three-six months, we will come up with an elaborate policy to address the issue. Besides an electronic manufacturing cluster and an IT Park at Chimbal, the Government is currently trying to set up incubation centres, IT related infrastructure, BPOs at various parts of the State.

How is Goa contributing to the ambitious "Digital India" project of Prime Minister Narendra Modi?

Digital India is a well-thought project and Goa is in tune with what Prime Minister Narendra Modi has envisioned. All-in-all 2019 shouldn't be a big target for Goa as the State has already inherited the idea of digital literacy or are digitally literate. Exposure, awareness are the only things that needs a boost. The Government in last six months has done a tremendous job.





Ashok Kumar Secretary to Chief Minister, Goa Director, Municipal Administration, Goa Managing Director, Goa State Urban Development Agency (GSUDA)

"Saligao waste management plant is on a PPP mode and takes care of all the waste that gets collected. It is one of the best state-of-the-art modern facilities of waste treatment in the country."

GSUDA Bringing Transformation to The Landscape of Goa

The main objective of Goa State Urban Development Agency (GSUDA) is to ensure that all the urban infrastructure facilities reaches the Urban Local Bodies (ULBs), so that they can be self-sustainable to fulfil their requirements, as the tax they are collecting is barely enough to take care of their expenses, says says Ashok Kumar, Secretary to Chief Minister, Goa, Director, Municipal Administration, Goa, Managing Director, Goa State Urban Development Agency (GSUDA), in conversation with Poulami Chakraborty of Elets News Network (ENN).



then Union Minister M Venkaiah Naidu visiting the Saligao waste management plant

Give us an overview of GSUDA.

In Goa, all the Centrally Sponsored Schemes (CSS) under the Ministry of Housing and Urban Affairs are facilitated through GSUDA (Goa State Urban Development Agency). Currently, we are developing a common service delivering web portal to centralise schemes for the Urban Local Bodies (ULBs) so that the user instead of visiting various different websites may

avail the information on one common website. It will also have digital payment accepting facility. For instance, a citizen while procuring a trade license may make the payment through this web portal, along with filing an application. Its launch is expected within a month's time. The idea is in line with Prime Minister Narendra Modi's vision of Digital India. All the payments which require payments to the ULBs, can be done

through this portal. We have brought payment gateway vendors also so that the citizen doesn't need to visit the ULBs offices in person.

What are the recent key achievements of GSUDA for the urban development?

The main objective of GSUDA is to ensure that all the urban infrastructure facilities reaches the ULBs, so that they can be self sustainable to fulfill their needs and requirements, as the taxation they are collecting is barely enough to take care of their expenses. We are trying to enhance the revenue base of the concerned ULBs by constructing municipal market, commercial complex, with grants from the State Government from which they can generate revenue out of it. Secondly, we have also taken initiatives like beautification of parks, mending the road, recreational activities, playgrounds, etc, are among few initiatives undertaken by the GSUDA.

We are constructing building for those Municipal bodies which do not have their own building.

Saligao has its own waste management plant. Can you brief us about the waste management policy of Goa?

Saligao waste management plant is on a Public Private Partnership (PPP) mode whereby land has been alloted by the Government and the plant has been set up the private player. They take care of all the waste that gets collected. It is one of the best state-ofthe-art modern facility of waste treatment in the country. Officials from other states are visiting this plant so that they can replicate this facility in their State as well.

The plant also takes care of Coastal Village Panchayat where it takes care of the waste generated by the tourists. It



Downtown area of Panaji

"The main objective of GSUDA is to ensure that all the urban infrastructure facilities reaches the ULBs, so that they can be selfsustainable to fulfil their requirements."

has a capacity of 100 metric tonne whereas the waste generated daily is about 400 metric tonne. Chief Minister Devendra Fadnavis has already announced that three such plants will be set up in the State of Goa. For one such plant, land has already been handed over to Goa Waste Management Corporation. Once all the facilities become opeational, waste problem will be solved in Goa.

We are also setting up a plastic waste to fuel plant. Currently, we are sending all the segregated plastic waste to a factory in Karnataka. The transportation cost is huge. The plant

will become opeational by March. The project is also in the PPP mode. The private player will also get some royalty out of the fuel which is generated out of the waste. It is a Rs 15 crore project. After this plant gets successful, we will replicate it at the other parts of the State as well.

What are your plans for installing LED lights in the State?

We have entered into an agreement with EESL whereby all the conventional lights will be replaced by the LED lights. The amount which will be saved by replacing them, will be made to pay to EESL. We are also into an agreement with them for replacing conventional pumps (water and sewerage etc). We are replacing them with more energy efficient pumps. Currently they are auditing these pumps and once it is done, we will start replacing them.

How are you bringing change to the public transport in the State?

During the peak tourist season, tourists are fleeced by the cab drivers. We are working towards removing them, with the help of TaxiGo app, people are getting better facilities.





Ameya Abhyankar Secretary Department of Information Technology Government of Goa

"IT park will be developed on a **Public Private** Partnership (PPP) basis unlike the conventional IT parks. We will focus more on having a clusterdriven approach looking at variety of segments."

Growing IT Ecosystem in Goa

There are over 250 IT companies in Goa of which 70 per cent of the companies are in the startup space. Secondly, Goa has a high number of English speaking population, which is more than the other parts of the country, says Ameya Abhyankar, Secretary, Department of Information Technology, Government of Goa, in conversation with Poulami Chakraborty of Elets News Network (ENN).



What plans do you have for the expansion of IT infrastructure in Goa?

We have a clear vision for expanding IT infrastructure in the State. The IT and Electronics Policy was announced in December 2015. A number of incentives have been announced since then, aimed at boosting the greenfield developments, brown field developments and also focussing on small and medium enterprises, particularly in the startup space. There are incentives related to tax, land and availability of reliable and affordable power.

The incentives are also given in terms of relaxation of electricity charges for small and medium enterprises, salary, concession on Internet bandwidths etc. So, right across the spectrum for large, small and medium enterprises, the policies have taken adequate care of all the segments. Apart from that, the Government of Goa has earmarked about 50 acres of land for the IT Park at Chimbel which is about 6 kilometre from Panaji and 150 acres of land at a place called Tuem which is in North Goa.

IT park will be developed on a Public







Private Partnership (PPP) basis unlike the conventional IT parks. We will focus more on having a cluster-driven approach looking at variety of segments.

What are the future prospects of Goa?

Our State is best known for its tourism IT sector is also growing significantly. There are more than 250 IT companies in Goa of which 70 per cent of the companies are in the startup space. Secondly, Goa has a high number of English speaking population, which is more than the other parts of country. Third, Goa has lowest attrition rate in the country.

There are a lot of interesting products and services that are coming out of Goa which are presently servicing international market. So, we have Goa-based startups who are developing tourism solutions, logistics solutions, transport solutions and e-commerce solutions for clients abroad. There are large number of companies that are into website design, packaging design and many new areas.

We firmly view IT as a sunrise sector for Goa and we are very optimistic for its growth. As far as infrastructure is concerned, with IT parks coming up and the policy falling into place, over the next five to seven years, Goa would be one of the most preferred IT destinations.

How do you see Goa as an IT and investment destination? What is the broadband connectivity in the State?

Goa is one of the great models of broadband penetration in in the country. Since 2009, we have rolled out and commissioned a Goa Wide Broadband Network where all 189 village panchayats are connected with one GB fibre link. All State, taluka headquarters and district



headquarters are connected on 10 GB fibre. Apart from that, we have other locations covering schools and colleges. We are moving towards phase two of broadband affordability where we are planning to connect every house with fibre. There is a sufficiently robust OFC infrastructure in Goa. We are going to leverage it and ensure that the required bandwidth is made available to IT industry or IT companies looking to invest in Goa.

What is your plan for the development of skill development in the State? What role can the IT industry play to boost skill development in the State?

Skill development is very important and needs upgradation in the IT sector. Through the Chamber of Commerce and the various engineering colleges in Goa, we are trying to work out a programme so that students coming out of the colleges are industry-ready and aware of the requirement in the industry.

Secondly, there is a vision in the department to try and create a virtual skill development sector where learning can be taken up through e-learning and different kinds of modules. We are presently scouting for different knowledge partners to provide this kind of virtual education system which can help people to take up short courses where they can develop specific skill sets, based on the extensive interaction and inputs from the industry.

We have very robust manufacturing setup in the State which contributes to 25-30 per cent to the GDP. We have large number of electronic manufacturing companies in Goa like Siemens, IFP, CommScope, Titan etc. These firms are unicorns in their own field.

How are you focussed on emerging technologies? What are the areas that these technologies are being used?

We are significantly focusing on Big Data, Analytics, Cloud and Internet of Things. As the capital city Panjim has already been selected in the Smart Cities Mission and is also a part of Atal Mission for Rejuvenation and Urban Transformation -(AMRUT) mission. We are working with the Urban Development department to see how IoT can be leveraged for the Smart City project. As far as cloud is concerned, we are launching a new data centre which will work on virtualisation of servers. So, it will essentially have cloud architecture. As far as analytics is concerned, we are looking at using social media tools for understanding public sentiments about different government services, their delivery, and reaching out to people by addressing their grievances. We also plan to do performance rating of different government departments through the use of big data analytics. We want to work on a platform where small and medium businesses can be visible and can be described as per the product and services they are offering.



Goa Cooperative Banks Empowering State in Digital Transactions





Give us an overview of Goa's Cooperative department. Apart from banks in which other sector, the cooperative industry is flourishing?

The real cooperative movement started with Maharashtra Cooperative Act, 1962 that was applicable to Goa as well. Goa got its own Cooperative Act in 2001. It is one of the States where cooperative movement has taken a momentum and empowered people. Apart from banks, housing sector is also flourishing in Goa. These Cooperatives are providing housing at very reasonable rates. Along with this, we have convenience stores which are dependent on horticulture. Agro farming cooperatives are doing well. Fishing cooperatives have empowered fishermen in the remote areas of Goa especially South Goa, Digital transactions ensure effective utilisation of resources by farmers. milkmen and Self Help Groups as indicated in one of the studies.

Goa has been a tourist destination, has it helped in the growth of housing cooperatives?

With the help of tourism, housing sector has also gained momentum.

"Our State is currently focussing on Jandhan accounts. We are integrating all the three components i.e bank account. Aadhaar and mobile number so that people can easily do online transactions."

People coming from foreign shores can get houses at very reasonable rates. This way they will be able to enjoy the art and culture of Goa in a much better way.

Is Goa also witnessing an online payment revolution?

Goa is small State with a high literate population. There are more bank accounts in Goa than people. Our State is currently focussing on Jandhan accounts. We are integrating all the three components i.e bank account, Aadhaar and mobile number so that people can do online transactions easily.

Through cashless payments, the Government is trying to maintain accountability and transparency in the whole system.

What are the digital initiatives started by the Goa Government?

In the era of digitisation, the Government of Goa has also taken up various initiatives to make things easier for its citizens. Earlier, citizens have to queue up to deposit fee, but now everything is online.

To make things more simplified, we are using Aadhaar based app. We have started the online process of license renewal. As far as cooperative banks are concerned, they are closer to people than any commercial bank.

What are the challenges you are facing in the digitisation of Goa?

People of Goa are themselves very active in online transactions and payments. Challenge lies in making the migrant labourers digitally literate. There are many mobile apps for there benefit. The stakeholders should take initiatives to make these mobile applications more user friendly.





Revathi Majumdar Chief Executive Officer Goa Electronics Limited (GEL)

GEL-Making E-Governance Possible in Goa

Goa Electronics Limited (GEL) is responsible for the development of software projects in the State. It also ensures that all the guidelines of Department of Electronics and Information Technology (DeitY) are met, especially for mission mode projects like the Rashtriya Krishi Vikas Yojana, says Revathi Majumdar, Chief Executive Officer, GEL, in conversation with Poulami Chakraborty of Elets News Network (ENN).



Inauguration of Goa Tourism Facilitation Centre

Give us an overview of GEL.

The IT department is the governing body for all IT-related governance in the State. GEL is an IT Corporation of the State which assists the IT department and the State in its various eGovernance initiates. With a strong team of over 100 engineers and robust CMMI standards, we are currently managing eGovernance projects of over 30 government departments in the State and neighbouring States of Maharashtra and Karnataka.

We have two decades of experience in e-governance initiatives. We have a major role to play in consultancy, advising the best practices of the country to the State. All the Mission Mode Projects are excecuted in line with the guidance of the Department of Electronics and Information Technology (DeitY), Government of India. We are the e-governance arm of the State.

"We are taking every facility to the citizen, making business easy which will make Goa the next big destination for industries."





What are the key components of GEL?

The key distinguishing factor of the company remains its over 2 decades of experience in e-governance and its ability to in-house develop and implement softwares which not only meet all DIETY standards but more importantly, are useful for efficient governance. Though our forte has been software development for the government over the last decade, we have successfully diversified in areas of consultancy, system integration and programme and project management.

We ensure that all the guidelines of DeitY are met, especially for mission mode projects like the Rashtriya Krishi Vikas Yojana. We act as a system integrator for all the key stakeholders like National Informatics Centre, DeitY, putting everything together. In additiion to this, we also provide services related to data entry, help in setting up of data centres etc. We are going to set up Common Service Centre in the State whereby services will be provided to the grassroot level.

How are startups doing in the State of Goa?

The Hon'ble Minister for IT has been driving hard on STARTUP Goa which is in line with the startup INDIA initiative to give the required boost to the startups in the state. The startup policy which is formulated through extensive interaction and participation from the startups and the industry at large, will definitely be a game-changer for the startup ecosystem in the State. The plan to setup incubation centres will give the required shot in the arm to the growing ideas of the startups as well.

How far we have come to implement IT policy in the State?

We are one of the States which has done well in the IT parameters. We



GEL Team

have the advantage of being a small State. We have the broadband connectivity to the village level till 1GB. The taluka level has broadband connectivity of 10 GB. All our applications are online. We have a centralised system due to the availability of proper infrastructure in the State.

What is the status of Wi-Fi in the State?

We are in the process of coming out with a solution whereby Wi-Fi will be available not only at prime locations like airports, railway stations, but tourist spots as well. We are in talks with various stakeholders to provide free Wi-Fi across the State.

We are coming up with the IT park and manufacturing cluster in Goa. These have been established to attract big and good industry players so that they can set up their plant there. The company wanting to expand their base in Goa should have the capaciy to hire manpower in the State.

How is Goa contributing to Digital India campaign of the Government of India?

IT departments in all the States are breathing Digital India. Everyone wants to be a part of Digital India. Our

ground work for Digital India is strong. IT literacy is something we have started working on. We have been organising IT camps in the State. We also have the concept of Gramin Mitras. We have strong internet connectivity in the State. Now we have started the journey of taking services to the common man through Common Service Centres.

Who is taking care of skill development in Goa and what measures have been taken to develop it?

We want students to prepare for the industry. Unless the kids are industryready, there is no point of providing them education. We are working towards the skill development of students in a big way.

Where do you see Goa in the next five years?

We have arrived already and are in line with the vision of the Government of India. In the next five years, it will emerge as the model State in India. Implemenaing any project is easier here than in any other State in the country. We are taking every facility to the citizen, making business easy for the business fratenity which will make Goa the next big destination for industries. 3 300





Ravi Jha Director Department of Information Technology Government of Goa

"The Goa State Data Centre is operational since March 2008 and is hosted with 47 e-governance applications, 75 web-based applications, 135 e-services applications."

DoIT Building World Class IT Infrastructure in Goa

The Department of IT, Government of Goa, has several initiatives under it which are aimed at building a strong IT infrastructure in the State, says Ravi Jha, Director, Department of Information Technology, Government of Goa, in conversation with Poulami Chakraborty of Elets News Network (ENN).



Give us a brief about the **Department of Information** Technology, Government of Goa.

The Department of Information Technology (DoIT), Government of Goa, was set up in 1999, with the aim of promoting and developing IT industry in the State in a planned manner. The vision was to keep pace with the rapidly growing IT industry of the country and yielding suitable IT programmes for the common man.

DolT wanted to empower Goa citizens digitally so that they can avail several services online without even visiting any government office.

DoIT has initiated various projects with the help of the State Government to benefit the citizens of Goa.

What are the various projects that DoIT Goa has undertaken to ensure a better IT infrastructure in the State?





The Department of IT, Government of Goa, has several initiatives under it, which are aimed at building a strong IT infrastructure in the State. The Department of Information Technology, Government of Goa is also focussed in bringing best e-governance initiatives in the State under the National e-Governance Plan. We are planning to introduce State Data Centre (SDC), State Wide Area Network, State Service Delivery Gateways and Citizen-Centric Services. The State Government has also recently launched several citizen-centric services, which is a landmark initiative to bridge the gap between the citizens and government, by ensuring seamless end-to-end service being ensured.



What new projects have you launched to build IT infrastructure in the State?

During the past few years, the State has ensured optimum ground work and will soon bear the fruits. Two proposed IT parks are supposed to be set up in Chimbel and Tuem over the period of three-five years. The State Government has a vision to make Goa the IT hub, as it envisages more collaboration with the multinational companies to

"The Wi-Fi connectivity is to be provided in view of the Cyberstudent Scheme wherein the Government of Goa has provided etablets to the students of class VI and VII. Surveillance solution shall help in monitoring the school premises, thereby, increasing the security of the school."

increase the prospect of the State. There are 2,000 professionals in IT sector who scout for jobs annually. Lack of job opportunities force them to cross the border, while many try for Government jobs. The upcoming IT parks in Goa will be set up soon, creating more and more job opportunities in the State. Apart from this, the State is also planning to bring in last mile connectivity and Wi-Fi connectivity in every household which will ensure that the State has high digital literacy.

What are the IT challenges for

Goa as a State is very well connected and strategically placed. The citizens residing in the State are well-educated.

But being a small region, it has its own limitation and we are working on improving them.

What is the idea behind State **Data Centres?**

The State Data Centre (SDC) is envisioned as the 'shared, reliable and secure infrastructure services centre' for hosting and managing the e-governance applications of Government of Goa and its constituent departments. The Goa State Data Centre is operational since March 2008 and is hosted with 47 e-governance applications, 75 web based applications, 135 e-services applications along with other Government applications such as State Service Delivery Gateway (SSDG), Mobile Service Delivery Platform (MSDP), SMS Gateway (e SMS) etc. The project is maintained and operated by external agency (Data Centre Operator).

There is a recurring cost involved for the operations and maintenance which is being paid in the form of quarterly guaranteed return. There is also a projected cost for the upgradation, operation and maintenance of SDC. A third party audit agency will be selected for the project for a period of two years.

The Goa Government has recently announced Wi-Fi solutions for schools and educational institutions in the State, what is the idea behind this move?

The Wi-Fi connectivity is to be provided in view of the "Cyberstudent Scheme" wherein the Government of Goa has provided e- tablets to the students of class VI and VII. Subjectwise e-contents for standard V to VIII have also been provided. Wi-Fi connectivity is required in the schools so that the students along with teachers can access the data from the server and upgrade the e-content on their tablets and also to access information in the educational domain. Surveillance solution shall help in monitoring the school premises, thereby, increasing the security of the school.





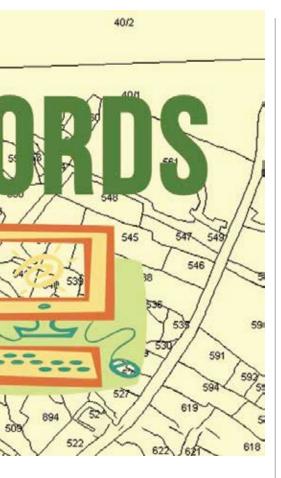
N K Xaxa Secretary Department of Revenue Government of Chhattisgarh

"To reach the last mile connectivity, we have to increase the Internet connectivity. We are providing the net connectivity to every region of the State at same pace of providing electricity connections."



Digitising Land Records to Empower Rural Masses

Anybody with Internet connectivity can check Chhattisgarh's land records. Not only this, even crucial land statistics of the State can also be easily accessed online, says, N K Xaxa, Secretary, Department of Revenue, Government of Chhattisgarh, in conversation with Susmriti Sahu of Elets News Network (ENN).



How is Digital India initiative changing the State Government's working on day-to-day basis?

The Digital India campaign has become a revolution in the country. Everything has become easy after digitisation. Earlier, it used to take a lot of paper to

"We have started a campaign to connect village areas and their land records with the Bhuiyan app. We are going to provide 'diverted land' information on the software."

maintain records. Searching files in the File Room was a big task.

But after digitisation, the whole process has turned easy. Chhattisgarh has digitised more than 2.18 crore land records.

Today, anybody can get information about land records online. Any person trying to modify these records illegally, can also be easily tracked.

How are you leveraging the mobile services to provide better services to citizens?

Anybody with Internet connectivity can check their land records. Not only

> this, even crucial land statistics of the State can also be easily accessed online.

To secure these online land records, we have integrated the mobile numbers with them. If someone is trying to change anything in these records without permission, a sms will be sent to the original customer's mobile automatically, thereby, alerting him.

This new facility is soon going to start with the help of Bhuiyan software which provides access to land records, details of the land owner, land registration, etc, to the common man. We have connected all the district offices through this software.

What is the concept of e-courts?

E-courts portal help people to know the current status and next date of their court hearing. Earlier, people had to visit the court to know about the status of their case. But now they can easily get the dates online.

We have 494 courts in Chhattisgarh and every court's information can be sought online.

To reach the last mile connectivity, we have to increase the Internet connectivity. We are providing the net connectivity to every region of the State with the same pace as we are providing electricity.

Have you provided any special training to you staff for digitisation?

We are trying to provide training to our staff and to people in general. We have given special internet training to Patwaris and Tehsildars compulsory.

Which digital initiatives are in the offina?

We have started a campaign to connect village areas and their land records with the Bhuiyan app. We are going to provide 'diverted land' information on the software. Aadhaar number will be linked with the land records soon.



Om Prakash Pal Additional Transport Commissioner Department of Transport Government of Chhattisgarh



"For the last five years, we are issuing smart card based driving licences and registration certificates with a chip which has all the details of the vehicle and holder of driving licence."

Chhattisgarh Heralds **New Era of Smart Transportation**

Chhattisgarh's transport department is using ICT for issuing driving licences, learning licences, registration of vehicles, payment of taxes and ownership transfer permits etc, says Om Prakash Pal, Additional Transport Commissioner, Department of Transport, Government of Chhattisgarh, in conversation with Susmriti Sahu of Elets News Network (ENN).



How are ICT initiatives changing the day-to-day operations of various Government departments?

There are multiple advantages of having ICT operations in Government departments as malpractices come down and bring a lot of transparency to the whole system. Through digital initiatives, it becomes easy to keep track of things. It helps in making the whole system more efficient and

"We are fast moving into an era of multi-modal transport system. Those days are not far behind when a single card will be used for multiple transport facilities."

makes the process convenient for the public.

How have you integrated ICT in Chhattisgarh's transport department?

All the transport offices and processes in the State have been fully computerised. We are using ICT for issuing driving and learning licences, registration of vehicles, payment of taxes, photo based fitness, permits etc. We have also signed an MoU with a private company for providing IT related services.

What are some of the IT initiatives you have undertaken in the transport department?

All the 25 district transport offices of Chhattisgarh have been digitised.

> We have dealer point registration wherein the dealer does the entire registration process. We are one of the first states in the country to have started 100 per cent payment of taxes and fees through online mode of payment.

For the last five years, we are issuing smart card based driving licences and

registration certificates with a chip which has all the details of the vehicle and holder of the driving licence. We have digitised the entire procedure of issuing driving license including the payment of fee online.

We are one of the first State in the country to have started the online mode of payment.

We are soon going to set up a computerised fitness testing centre for vehicles. We are also in the process of setting up automated driving test track for the applicants of driving licences. A control room will also be established in Raipur which will monitor the operation and movement of all the buses in the State. All the buses, including the private ones will be fitted with GPS so that their movement can be tracked. Through GPS, we can easily monitor whether these buses are following the traffic rules or not. In case of some mishappening, the GPS will help us in providing help at the earliest.

What are the major challenges in front of you?

In Chhattisgarh, we have shortage of staff which hampers the operations. Connectivity is sometimes a problem for far off areas. I am hopeful that all these issues will be solved soon.

How is ICT going to change the future of public transport in Chhattisgarh?

In Chhattisgarh, we don't have any State Transport Undertaking. There are only few city buses which are operating under Urban Development department. We are fast moving into an era of multi-modal transport system. Those days are not far behind when a single card will be used for multiple transport facilities. This will increase the efficiency of public transport operation.





Mukesh Bansal Chief Executive Officer Naya Raipur Development Authority (NRDA)

"The citizens are engaged with the State authorities through various channels that include social media apps (Facebook, Twitter, and YouTube), MyGov App, Survey Forms and direct citizen engagements."

Naya Raipur **Ushering** In a New Era of Development in **Chhattisgarh**

With Naya Raipur now included as Smart Cities Mission, it will help in channelising new projects like community schools, upgradation of schools, affordable housing, green compliance on existing buildings, vertical gardens for public building, parks etc, says Mukesh Bansal, Chief Executive Officer, Naya Raipur Development Authority (NRDA), in conversation with Susmriti Sahu of Elets News Network (ENN).

What has been the significant accomplishments of Naya Raipur as world's first integrated city so far?

Naya Raipur is India's first smart greenfield city. It is being developed in accordance with the provisions of Development Plan-2031 which is being finalised after a series of consultation at different levels.

Naya Raipur is divided into 40 sectors out of which 21 sectors are residential and, three are for Government offices and staff housing, others are earmarked for commercial, industrial. semi public and recreational activities. It is a matter of pride that the existing villages in Naya Raipur are an integral part of planning with a mandate to bring their amenities at par with the new development. It is the first city in India to adopt and implement TOD (Transit Oriented Development) approach with easily accessible transit nodes planned as per TOD guidelines.

Naya Raipur has over 100 km of state-of-the-art four-lane and six-lane roads with 53 kms of NMT network. Clean potable water is supplied 24X7 via a fully pressurised hydro pneumatic pumping system sourced through a 52 MLD Water Treatment Plant.

It is a zero discharge city with four decentralised STPs. The recycled water is used for watering the greens of the city.

It has 72 km of centrally controlled smart LED streetlighting. It has an intelligent public transport system with 13 BRT depots and 30 BRT buses.

It is also a home to premier health and educational institutes like Shri Satya Sai Sanjeevani Hospital, Vedanta Cancer Research Institute, IIIT, IIM, HNLU, and ITM etc.

Currently, under the scope of the smart city project, an integrated Command and Control Centre is being developed at Sector 19 through which all the city operations shall be monitored and controlled. The project





include city surveillance using CCTV cameras, intelligent transport system having speed and incident detection. It also includes SCADA for Electrical Distribution System, Water Distribution, and Sewerage System.

Naya Raipur is already developed on the concept of integrated city, now it has been chosen under Smart Cities Mission. What significance does it hold for residents?

With Naya Raipur now included as Smart Cities Mission, it will help in channelising new projects like community schools, upgradation of schools, affordable housing, green compliance on existing buildings, vertical gardens for public building, parks etc, aimed towards community on one side and infrastructure reinforcing projects like micro grid and solar energy, smart metering, rain water harvesting, real time water quality monitoring on the other side. This will help Naya Raipur to offer standards which no other brownfield city currently offers and no other Greenfield city is prepared to offer.

What are the plans of administration for Naya Raipur under Smart City project?

At present, the NRDA is a special area development authority constituted under the Chhattisgarh Nagar Tatha Gram Nivesh Adhiniyam 1973, as the nodal agency responsible for the planning and development of Naya Raipur.

At present, the entire area of 237.42 sq km is fully under the jurisdiction of NRDA which encompasses 41 revenue villages within three development blocks.

Moreover, after selection of Naya Raipur in the Smart City list, SPV is being formed currently. For the Naya Raipur, SPV will be single point of

contact (SPOC) for all project developments, infrastructure improvements, operation of utilities and services and to carry out regulatory works like approval of building plans, advertisement and property taxation etc.

Recently an MoU (Memorandum of Understanding) has been signed between Naya Raipur and PI data centre, tell us something about it.

Pi Datacentre will be investing Rs 198 crore approximately in Naya Raipur over a period of five years to develop a state-of-the-art tier-4 data center with many first-of-its-kind offerings like hosting, cloud, managed services and colocation services. It is built on an area of 10 acres. The facility will result in employment generation accompanied with strong CSR and being environment friendly. This creates an IT ecosystem for new companies in Naya Raipur and region where companies can quickly start their businesses tapping into Pi's infrastructure with lower capex and quick time-to-market for new companies.

What are the opportunities. Naya Raipur encircles for IT & manufacturing sector?

The Naya Raipur is located in natural surroundings. It has been envisaged as a lively, vibrant city equipped with state-of-the-art physical, social and economic infrastructure. The city is serving as the administrative capital of the State. It also caters to the infrastructural needs of industry and trade in the region with abundant 24X 7 underground power supply and adequate water CSIDC to boost ESDM sector in the State. It is establishing a Green field Electronics Manufacturing Cluster (EMC) in Sector 22, Naya Raipur. The Government is giving 80 per cent

subsidy on total land premium with payment done through Chhattisgarh IT department CHiPS (Chhattisgarh InfoTech & Biotech Promotion Society). The EMC cluster is being setup as per the EMC scheme of Ministry of Electronics and Information Technology (MeitY), Government of India. This is the first electronics cluster in the State.

What are your plans to draw foreign investment in Naya Raipur?

The land being offered by NRDA to the investors and developers are litigation free. The Government has acquired the land and has developed the infrastructure for the further usage. Whenever an investor would seek investment, the infrastructure development charges would be levied on case to case basis. Similarly, the rate of plots will be decided before calling the applications. Land diversion fee will be borne by NRDA. It is the sole agency that will provide - land, layout, diversion, building permissions etc.

How do you see Naya Raipur in the race of savvy urban cities among other Indian smart cities in the coming future?

Naya Raipur's importance is growing considerably as the major node in trade network and a host of industries in adjoining areas. It is expected that Naya Raipur will set an example of phased development in comparison to all other smart cities across the globe.

The most important aspect in the development and sustenance of Naya Raipur is based on continuous citizen engagement. The citizens are engaged with the State authorities through various channels that include social media apps (Facebook, Twitter, and YouTube), MyGov App, Survey Forms and direct citizen engagements.





Chief Minister Yogi Adityanath and Union Home Minister Rajnath Singh inaugurating first service of the Lucknow Metro.



Kumar Keshav Managing Director

Lucknow Metro: The New Lifeline of the City

LMRC had meticulously chalked out different strategies for achieving the completion of civil construction of the 8.5 km "Priority Corridor" between Transport Nagar and Charbagh in a very short deadline, says **Kumar Keshav**, Managing Director, Lucknow Metro Rail Corporation, in conversation with Arpit Gupta of Elets News Network (ENN).

Lucknow Metro Rail Corporation has started operations on the **Priority Corridor from Transport** Nagar to Charbagh. How has been the experience so far?

The 8.5 km "Priority Corridor" of the North-South Corridor (Phase 1A) between Transport Nagar and Charbagh has been completed and commissioned for public operations with effect from

5th September, 2017. This Metro Project has been opened in less than three years which is a record in itself. Lucknow Metro has, therefore, earned the distinction of being the fastest ever Metro Rail Project execution which has happened so far in the country.

What technologies have been used in Lucknow Metro and how will it ensure safety and security of the passengers?

LMRC has selected state-of-the-art technologies for Metro like:

- Rolling Stock (Metro Train) has been incorporated with the latest **Communication Based Train Control** (CBTC) Signalling system which ensures complete safety of passengers.
- The escalators have been provided with emergency stop button which can be used whenever a passenger feels he/she is uncomfortable while travelling on it. All LMRC escalators have been designed to stop in case of emergency.
- Fire detection/Fire Alarm and Protection System have been provided in Metro to deal with such
- Adequate CCTVs have been provided inside every Metro Train and at Metro station/premises to keep a proper electronic real-time surveillance inside the system.

The state-of-the-art equipment like CCTV, Door Frame Metal Detector (DFMD), Hand Held Metal Detector (HHMD), X-Ray Baggage Scanners etc. have been installed at all Metro stations and other Metro premises to ensure the safety of Metro system and the passengers. LMRC has equipped all its security personnel with latest communication system i.e. static wireless and hand-held wireless equipment for quick and fast communication among themselves.

What special initiatives have been undertaken for differentlyabled passengers?

LMRC Metro stations are completely barrier-free for the differently-abled people and senior citizens. These include:

- Braille plates are installed on lift buttons and inside trains for priority seats in the trains for the visuallyimpaired passengers. Tactile lines are installed at platform edges to enable visually impaired users to detect the location of the platform edge.
- Flashing system maps showing the current and the next station along with the direction of the train and the doors to be opened are provided in all trains for hearing impaired passengers.
- **Dedicated Automatic Fare Collection** (AFC) gates with wider bidirectional entry have been provided at Metro stations so that the physically handicapped persons can enter easily with wheelchairs.
- One low height AFC Ticket Office Machine Counter is provided at each station so that mobility impaired passenger can access counter without leaving the wheelchair.

LMRC GoSmart card is contactless smart card working on RF Technology. What are the salient features of GoSmart card?

Use of GoSmart card not only saves the time of travellers but will also provide users with freedom, convenience and flexibility of travel in the Metro. It is suitable for frequent travellers where they can enjoy 10 per cent rebate in fare on each Metro journey. Additionally, the Metro 'GoSmart' passengers can also avail free Wi-Fi facility at all Metro stations while in the Metro system. LMRC 'GoSmart' card is a multiple value single card which can also be integrated with other modes of public transport and mercantile for swift and a smart way of journey/transportation leading to the

realisation of the 'One City One Ticket' concept of the Government.

Please throw some light on the Green Initiatives of LMRC.

LMRC has been ensuring from day one of its construction activity that its every endeavour is eco-friendly so as to keep the city green and lively. Lucknow Metro is planned to provide an environmentalfriendly mass rapid transport for the public from the first day of its inception.

The Metro Stations and the Transport Nagar Metro depot have been designed and built as 'Green' buildings in accordance with the standards of the Indian Green Building Council (IGBC). All the eight Lucknow Metro Stations have received 'Platinum' certification before the start of its commercial services.

This is highest green rating for any civil structure or building which has been awarded to LMRC. With this, LMRC has become the first government entity in Lucknow region and first one in transport sector in UP to attain Indian Green Building Council's Platinum Certification. LMRC is, thus, taking forward the mission of "Cleaner and Greener Uttar Pradesh" in the area of mass rapid transport system.

Lucknow Metro has achieved many national and international recognitions, honours and awards. Please share your success mantra.

Our success is a joint effort of all LMRC officers, staff, contractors, agencies and every person associated with us in any manner. LMRC had meticulously and intelligently chalked out different strategies for achieving the completion of civil construction of the 8.5 km "Priority Corridor" between Transport Nagar and Charbagh in a very tight deadline. LMRC devised a strategy to work simultaneously from both the ends thus saving a lot of time in the construction stage.





Dr Praveen Gedam Commissioner Department of Transport Government of Maharashtra

"The central server will incorporate learner licence. driving licence, registration of vehicles, permits, fitness certificates. alteration in motor vehicle, Pollution **Under Control** certificate. insurance, PWM, e-challan, tolls. border check posts, CCTV, etc."

Maharashtra's Transport Driven by **Technology**

The Transport Department of Maharashtra is working round-the-clock to ensure road safety of citizens. For this, the department is undertaking the superior structural engineering of roads, vehicle fitness and ensuring drivers' skill set, says **Dr Praveen Gedam**, Commissioner, Department of Transport, Government of Maharashtra, in conversation with **Poulami Chakraborty** of Elets News Network (ENN). Excerpts:

What are the challenges you are facing in digitising the transport department?

We are currently working on the consolidation of our data. We have been collecting data since 2006. All the data stored in these 10 years is scattered at various places in the State. Further, we are working on compiling the data of vehicles and their owners and keeping it at a central location so that it can be accessed from anywhere. This requires robust IT infrastructure. We have successfully migrated data from 11 out of 50 offices.

What services will the transport department provide online?

We want to keep all our services online including learner's license, permanent driving license, services on learning license and permanent driving licence, endorsement of driving licence, application for Public Service Vehicle (PSV) badge, issuance of temporary registration, new vehicle registration, etc. Besides, there are several services

which are in the process of being made online such as issuance of No Objection Certificate (NOC), application for conductor license, international driving permit, and issue of duplicate registration certificates, approvals for schools buses, e-meter approval, and many more. Maharashtra accounts for over 65,000 accidents annually and is among the States with the maximum number of road accidents.

What measures are being taken to reduce the accidents?

The department is working on three components to ensure road safety for two-wheelers and to reduce road accidents namely, ensuring superior structural engineering of roads, vehicle fitness and ensuring drivers' skill set. We have already started issuing learning licences using a computerised system on the basis of the applicant's knowledge. A permanent licence is issued based on skills.

For the past two years, it is mandatory to declare helmet usage at the time of



vehicle registration or while obtaining a learning license.

How far have you succeeded in this drive?

Last year, helmet was made compulsory for the person riding the bike and the pillion rider. We have 61 flying squads to oversee the usage of helmets on the roads. As a matter of fact, our flying squads have collected a fine of Rs 345.50 crore in the last financial year for traffic violations across the State. Besides, our law enforcement agency acts as a supplementary to the traffic police. The responsibility of booking the offenders is primarily with the traffic police. However, certain cases are reported to us and we take action such as suspension of the driving licence.

Suggestions such as using CCTV cameras, Radio Frequency Identification (RFID) number plates, and e-challans to curb traffic violations have still not been implemented.Why?

E-challan is already operational in Pune and once it is operational in the whole State, the details of the offence and the offender will be recorded on a centralised server. The details will then be referred to the regional transport offices and traffic police for action.

Is there any additional strategy that the government is planning to adopt to ensure increased usage of helmets?

We are planning to conduct a comprehensive campaign on road safety. Besides, our traffic police are vigilant enough and penalises bikers, who are not using helmets, which is also making a significant change. We see lots of people using helmet these days, but its a behavioural change and will come only gradually.



Maharshtra transport department is leveraging technology to make running of traffic smoother across the state

"We have 61 flying squads to oversee the usage of helmets on the roads. As a matter of fact, our flying squads have collected a fine of Rs 345.50 crore in the last financial year for traffic violations across the state."

Will you also apprise us of the components that will be included in the proposed central system?

The central server will incorporate learner license, driving license, registration of vehicles, permits, fitness certificates, alteration in the motor vehicle, Pollution Under Control certificate, insurance, PWM, e-challan,

tolls, border check posts, CCTV, etc.

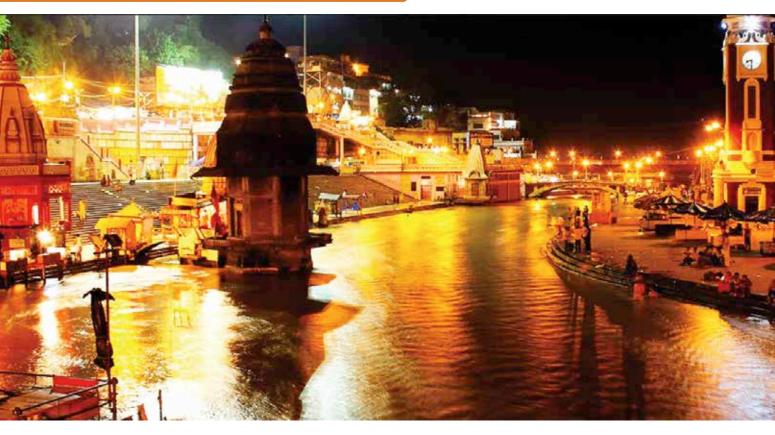
What are some of the challenges you are facing in Mumbai?

Mumbai is very populous city - about four to five times denser than New York in the US. So, we have a Herculean task when it comes to streamlining the transportation further. Transport department cannot work in isolation. Land Use and transportation must work together. In some European cities, land use and transportation work as one department. This is crucial for designing the transportation in the best possible manner avoiding longer time for the citizens to reach to common transportation junction.

Recently, a survey has revealed that the Light Motor Vehicle (LMV) population in Mumbai has crossed a million, which is 9.3 per cent increase over the previous year. Further, the twowheeler population has also gone up remarkably - the number has risen by 8.4 per cent.

However, the good thing is that the number of fatalities has not increased with the increasing number of vehicles on Mumbai roads.





'Gateway to Gods' Set to Shine in New Avatar: Haridwar's Tryst with Urban Transformation



Nitin Bhadauria Vice Chairman Haridwar Roorkee Development Authority (HRDA) and Commissioner, Haridwar **Municipal Corporation**

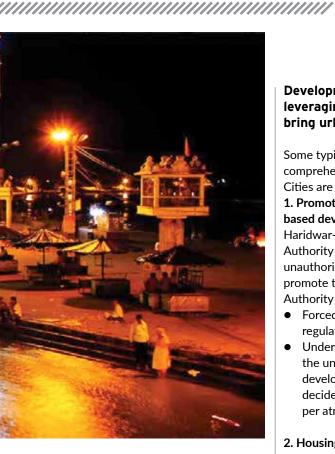
Haridwar city is being planned to be developed as pilgrim tourist destination, reveals Nitin Bhadauria, Vice Chairman, Haridwar Roorkee Development Authority (HRDA) and Commissioner, Haridwar Municipal Corporation, in an interview with Souvik Goswami of Elets News Network (ENN).

Give us an overview of Haridwar **Roorkee Development Authority** (HRDA).

Known as 'Gateway to Gods', Haridwar is a holy place and a religious place for tourist destination. Haridwar has some industrial area like SIDCUL. Haridwar

Roorkee Development Authority (HRDA) came into existence on May 2, 1986. The objective of the authority is to promote and secure the development of the area according to the plan. For this purpose, the authority shall have the power to acquire, hold, manage and dispose of land and other





property, to carry out building, engineering, mining and other operations, to execute works in connection with the supply of water and electricity, to dispose of sewage and to provide and to maintain other services and amenities and generally to do anything necessary.

On first notification of UP Government HRDA boundaries have the area of Haridwar Nagar Nigam, Rishikesh Nagar Palika, Muni Ki Reti Notified area, Ranipur Nagar Panchayat as well as 63 villages and 09 forest areas. Haridwar Development Authority is divided into two master plans i.e. Haridwar and Rishikesh.

On second notification of Uttarakhand Government, HRDA included the area of Roorkee Nagar Palika (Currently Nagar Nigam), Manglour Nagar Palika, Swarg Chowk Nagar Panchayat, Landhaura Nagar Panchayat, 112 villages of Tehsil Roorkee and Bhawaanpur.

How Hardwar Roorkee

Development Authority is leveraging Smart City Mission to bring urban transformation?

Some typical features of comprehensive development in Smart Cities are described as below:

1. Promoting mixed land use in area based developments-

Haridwar-Roorkee Development Authority is committed to control unauthorised construction and promote the authorised development. Authority main goals are as follows:

- Forced to deploy the rules and regulation of master plan.
- Under the area of Authority, stop the unmanaged and unplanned development. Authority has been decided to development of area as per atmosphere biological cycle.

2. Housing and inclusiveness -

- HRDA is developing the residential houses for different income groups, parks, parking areas, complexes and beautification plans for implementation.
- Demote the unauthorised construction.
- HRDA is approving authority to all type of Maps.
- Management of all types of residential / commercial plan development and distribution of properties.
- Under the Authority perform the different development work with the help of Infrastructure development fund.

3. Creating Walkable localities

- HRDA is developing a layout for densely populated areas. HRDA has selected the "Har-ki-Pauri" place for development. Under this layout, one way traffic, parking facility, cycle pathway and pedestrians provisions are there. Only battery operated vehicles will run in this area and HRDA is planning to develop different areas for walking, cycles and vehicles as well.

- 4. Preserving and developing open spaces - HRDA is regularly developing the park areas for beautification.
- 5. Promoting a variety of transport options - HRDA is planning to run local city bus service and Metro rail project with the help of Central Government.
- City Bus Service-Residents of Haridwar basically use three kinds of transport when moving around in the city. With Tri-cycles, auto rickshaws and local buses, residents of Haridwar have an easy reach to every place. As cheaper mode of transport, these are the most popular forms of reaching from one place to another. With local buses easily navigating their way through the back lanes, crowded streets are not a hindrance if you wish to visit somewhere in the city. Buses are always on high demand because tourists prefer government transport. SIDCUL also has a big crowd to demand government transport like city buses.
- Metro Rail Metro Rail track has been proposed from Haridwar to Dehradun. This project is under estimation and planning with the help of Central and State Government.

6. Making governance citizen-friendly and cost effective-

- Online Map Approval (Developing by UHUDA) All types of Maps Like Residential, Commercials and Industrials is applying online and customer can monitor application online and finally get approved map online.
- Public Grievance System (Maintain by IT Cell) HRDA online public grievance system is working and getting complains and suggestions regularly online.
- Online Property Management (Developing by IT Cell) HRDA IT Cell is developing a software for property department.





All HRDA customers can check the online property details as well as payment of EMI. Customer can deposit online EMI using our portal.

■ Online Notice Management (Developing by IT Cell) This software is also developing the 8. Applying Smart Solutions to infrastructure and services in areabased development to make them better. Haridwar lies on the banks of Ganges which has large size stones in bulk and can be used for park beautification.

How you are using ICT to bring urban transformation?

We have undertaken various ICT initiatives to bring about change in the system of delivering government services to the citizens. Some of them are:-





IT Cell. This software will manage the all legal notices, sealing and check the status of notice online. Party can get SMS when hearing is finalizing.

7. Giving Identity to the City-

Haridwar is one of the most popular Hindu pilgrimage centres. River Ganges enters the North Indian plains at Haridwar. Haridwar or, 'Gateway to Gods' is also known with the names of Mayapuri, Kapila and Gangadwar. Hindu pilgrims and devotees gather at Haridwar to offer prayers on auspicious occasions. The water of River Ganga is considered so sacred at Haridwar that pilgrims take Ganges' water to their homes. Haridwar is also one of the four venues of the Kumbh Mela (occurring every 12 Years) and Ardh Kumbh (takes place every six years). According to mythology, drops of Amrit (Elixir) fell in to the Brahmkund of Har-Ki-Pauri. Therefore, a holy dip in the Brahmakund on this particular day is considered very auspicious. HRDA is planning to develop the Haridwar city for pilgrim tourist destination.

What are the focus areas for improving the delivery of services to the citizens in Haridwar?

- 1. Development of Low Income Group House- Under the Pradhan Mantri Housing Plan
- Under the above plan, the Authority has decided to develop 10,000 houses for low income group by 2022. Authority has Indralok Phase-2 which has 10.50 acre land for 416 EWS (Economically Weaker Sections) group house and 320 low income houses.
- 2. Parking facility in Haridwar
- Haridwar city is holy place for pilgrims. Regularly traffic is increasing due to the pilgrims tourist destination. So it is very much needed for increasing the parking facility in the city.
- HRDA was decided the point to develop for parking which are -JatwaraPul, Near Bhagat Singh Chowk, Near to Pawan Dham.
- HRDA sent proposal to Nagar Nigam for adopting the Land for development of parking.

- Online Map Approval (Developing by UHUDA)
- All types of Maps Like Residential, Commercials and Industrials is applying online and customer can monitor application online and finally get approved map online.
- Public Grievance System (Maintain by IT Cell)
- HRDA online public grievance system is working and getting complains and suggestions regularly online.
- Online Property Management (Developing by IT Cell)
- HRDA IT Cell is developing a software for property department. All HRDA customer can check the online property details as well as payment of EMI. Customer can deposit online EMI using our portal.
- Online Notice Management (Developing by IT Cell)
- This software is also developing the IT Cell. This software will manage the all legal notices, sealing and check the status of notice online. Party can get SMS when hearing is finalizing.

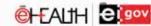


















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SMT VEENU GUPTA Principal Secretary, Department of Health & Family Welfare, Government of Rajasthan

SHRI NAVEEN JAIN

Mission Director, National Health Mission & Secretary, Department of Medical Health & Family Welfare, Government of Rajasthan









HSCC All Set. for Building **Smart** Health Infrastructure in Goa

Gyanesh Pandey, Chairman and Managing Director, HSCC (India) Limited, speaks about the organisation's engagement in Goa for building an effective healthcare ecosystem in an interview with Souvik Goswami of Elets News Network (ENN).

Gyanesh Pandey Chairman and Managing Director HSCC (India) Limited

What kind of smart healthcare technologies are you using in your projects?

Smart healthcare means that there are no physical barriers in getting doctor's appointment, accessing diagnostics test results, keeping the patient records and availing the medical treatment. Presently, we are ensuring that the patient should visit the hospital to receive all the treatments without any problem with the help of smart techniques, which we call "smart healthcare."

> Smart healthcare also means that ICT is used to book appointments from home and every medical record is available

on a chip to allow you to access it from anywhere in the world. It should also ensure that the entire history of a patient is available on the mobile. The operation theatres should be equipped to take advice from other experts present anywhere in the world in

What initiatives should be taken by the Government of Goa to provide good healthcare facilities to its citizens?

The healthcare infrastructure in Goa needs more aggressive improvement in healthcare sector considering large numbers of visitors in Goa. We have discussed this matter with the State government. The officials have agreed to add infrastructure to their existing healthcare system. So, our proposal for PMSSY Goa, from the Central Government, under which 200 beds was increased to 500 beds.

The other healthcare infrastructure improvement suggested to them was that we should have more and more medi-clinics spread all over Goa as people from all over the world come to Goa throughout the year.

When people visit a new place, it is likely that they may face some medical problems. Therefore, they need more and more medi-clinics that are connected to their secondary level and tertiary level care centres so that thousands of people reaching Goa should be able to get proper and advanced medical treatment.

real time.

How can HSCC engage more with Goa?

We have taken up the first project in Goa. The land issue is resolved. Very soon we'll be starting the work on a 500-bed hospital in the existing medical college. But at the same time, I would suggest they should immediately conduct a study on their healthcare needs and how to strengthen their healthcare infrastructure. This can be taken up in phases, starting from medi-clinics.

In Mauritius, they have very good medi-clinics serving an area of around 2-3 km around it. These clinics are very neat and clean and are serving local areas. Just like Mauritius, Goa is a tourist place with tourism as the main source of income. The State, therefore, should focus on tourists and add more and more health facilities keeping that in mind. Having good health facilities will attract more and more tourists to Goa and they can develop medical tourism as well.

The Government should engage a consultant at least to suggest them the best possible way of dealing with healthcare infrastructure of Goa.

As you have given the example of Mauritius, please shed some light on HSCC's operations there.

In the last two years, we were trying to get more works outside India. We have been working in Sri Lanka, Myanmar, Nepal, Bhutan, Afghanistan and Bangladesh. We had been trying to get some work from African countries directly because we had done enough projects in India and SAARC (South Asian Association for Regional Cooperation) countries in the last 35 years. I always thought that our knowledge and experience in developing healthcare infrastructure should spread in all those countries too.



Initially, we were assigned the first project. Over time they decided to give us two more projects. Recently, when we visited Mauritius, the Government of Mauritius asked us to develop the entire healthcare infrastructure project of their country. This happened only because of knowledge-sharing with them through regular meetings and communication on what all HSCC can do. They saw our credentials and the quality of the projects we have completed in the past. Now we have to improve their entire healthcare infrastructure starting from mediclinics. which are like the Primary Health Centres in our country, to tertiary and top medical care facilities like Victoria Hospital that is similar to AIIMS in our country.

Recently there have been some merger talks going on with HSCC. What is your vision for HSCC in the next few years in terms of its financial growth?

The merger talks could happen because HSCC has grown tremendously in the past five years. That is one of the reasons that a company like HSCC has been identified for mergers. HSCC is a Schedule C company and it had less than 100 employees a few years back.

The turnover of the company was less than 33 crores when I joined the company. So, nobody could think that HSCC can also be one of the big players and can be merged with some other company.

But in the last five years, HSCC has started working in more than 100 places and we have achieved a CAGR of 33 per cent, which looks almost impossible for any PSU or private organisation. Our presence is in every small town in India. Considering all these things, HSCC was also indetified.

This company has developed a great skill in developing healthcare infrastructure and it should always be recognised for building quality healthcare infrastructure in India. HSCC should be further strengthened so that the skills acquired in its 35 years of existence can be retained and utilised for government public and private healthcare sector in India and abroad.

Our work speaks for itself. We don't believe in advertisements. The merger should happen as per the government's plan, but the capability, strength and the technical competence of this company should be retained.





ELETS'SMART & SUSTAINABLE CITY SUMMIT, NAGPUR— A FLASHBACK









NITIN GADKARI Union Minister for Road Transport and Highways and Shipping

When Nagpur pondered Smart and Sustainable City initiatives

A two-day conference held in Nagpur, recently highlighted and discussed various initiatives, challenges, and advantages related to Smart Cities.

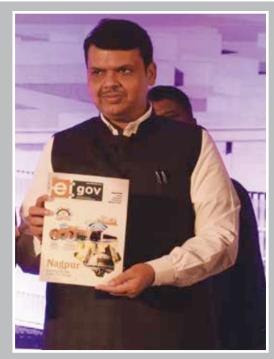
On this occasion, Maharashtra Chief Minister Devendra Fadnavis deliberated on various issues including the government's approach, Smart Cities Mission and its benefits, and the initiatives being undertaken to bring urban transformation. Union Minister for Road, Transport and Highways, and Shipping Nitin Gadkari during the summit highlighted various aspects of Smart Cities and effective road and transport infrastructure.

At the summit, the Nagpur Municipal Corporation's Commissioner Shravan Hardikar, Mayor Nanda Jichkar, Maharashtra Government officials, Central Government officials, State Government officials and dignitaries from foreign countries like Sweden, France, and Spain were also present. The summit hosted several panel discussions on Narendra Modi Government's ambitious programmes such as Swachh Bharat, Aadhaar-linked transactions, Intelligent Transport Management System (ITMS), Internet of Things (IoT) as the facilitator for overall smart infrastructure, among others. Various industries linked to development of Smart Cities also showcased products.

As Elets Technomedia, along with Nagpur Municipal Corporation as its host partner, organised the big extravaganza from April 7-8, 2017, we bring to you its glimpses:

LEADER'S SPEAK 43

THE BASIC ESSENCE OF A SMART CITY IS PUBLIC PARTICIPATIONFADNAVIS



Maharashtra Chief Minister **Devendra Fadnavis** Launching the eGov Magazine Special issue

aharashtra Government is in the process of laying a 1,200 km fibre network in Nagpur, Chief Minister Devendra Fadnavis announced recently while inaugurating the Elets Smart and Sustainable Summit in Nagpur.

Praising Nagpur Municipal Corporation's work in the Smart City, Fadnavis emphasised that Smart city initiatives should be planned in such a way so that development of common people could be accomplished while solving the challenge of urbanisation.

The summit was organised by the Nagpur Municipal Corporation (NMC) in association with Elets Technomedia Pvt Ltd.

Also present on the occasion was Minister for Road, Transport and Highways, and Shipping Nitin Gadkari. "Whatever Smart City initiatives we are taking up, it should have the quality to enhance people's lives. The basic essence of a smart city is public participation. Every single technology can change the landscape of the city. Authorities should try to engage people using the technology. In that way, we can have a collective wisdom through which we can make the city smarter at a greater speed," said Fadnavis, adding that the ICT 's backbone--infrastructure of the city--should be planned to reach people faster.

Also present at the summit were then NMC Commissioner Shravan Hardikar, Mayor Nanda Jichkar, officials from the Maharashtra Government, Central Government officials, officials from other states and dignitaries from countries like Sweden, France, and Spain.

Launching special issue of the eGov magazine, the Chief Minister said: "The basic motto of a Smart City is accessibility and affordability. Without them, Smart Cities cannot be created. Every programme of Smart City should work towards increasing the efficiency and transparency of services, which in turn should benefit the poorest in the society."

As the capital city of Maharashtra has already been selected in the Smart Cities Mission, he said, the State Government is developing metro network covering 200 km of Mumbai.

While stating to make Mumbai a safe city, the State Government has installed 6,000 cameras across the city, Fadnavis said. Through these cameras, smart traffic is being evolved where traffic cops no longer issue manual challans. 500 hotspots in the city have already been created, making it India's first wi-ficity.

Laying importance to the waste management, Fadnavis congratulated then Nagpur Commissioner Hardikar for a better solid and liquid waste management. Witnessing the success of Nagpur waste management model, Mumbai has started replicating it. Through Smart City initiatives, the State government is planning to cut the tariffs of utilities like water to make it affordable for the poor as well, the Chief Minister revealed.

Nagpur's First of Its Kind AC Green Buses Run on Bio-Ethanol—Gadkari



Nitin Gadkari Union Minister for Road Transport and Highways, and Shipping

nion Minister Nitin Gadkari has revealed that the Indian Space Research Organisation (ISRO) will provide lithium-ion battery technology for automobile sector. The technology will be provided free of cost to private sector for mass production.

"Lithium-ion battery is very important. We have decided to provide ISRO developed lithium-ion technology to everybody so that costs can be reduced," said the Minister for Road, Transport and Highways, and Shipping while participating at the Elets Smart and Sustainable City Summit in Nagpur in April.

Stating that the Central Government is also planning to set up a research institute where a laboratory will be established, especially focused on pollution-less fuels, he said, the Transport Ministry plans to run 50 buses on Bio-CNG in Nagpur. "About 600 to 800 auto rickshaws will also be converted to Bio-CNG soon."

Gadkari also said his ministry is also emphasising on LNG and methanol for fuel. "Within three months, we will start electric auto rickshaw and buses in Nagpur. We are going to start 320 electric taxis on experimental basis here. Nagpur is the first city where air conditioned green buses are running on bio-ethanol because we want to protect the interest of rural and agriculture sector."

Speaking on transport system in Smart Cities, the union minister said the

central government had also taken a decision to use multi-modal transport system in Smart Cities under which the airport, railway station and bus station would be set up at the same place. "This project will be implemented in Nagpur and Varanasi on a trial basis at a cost of ₹ 1.000 crore."

The minister also informed the audience that the Nagpur metro project is the first project in the country 75 per cent of the solar power.

The National Highways Authorities of India (NHAI) will construct eight-kilometre hyperloop transportation that would have direct connection from Wardha road to Hingna Square on Orange City Street in Nagpur, Gadkari announced during the summit.

It will also be the first pilot project in the country and NHAI is all set to invite tenders for the project. "The project will help the civic body to augment its revenue."

He also hinted at another pilot project aimed to create a centralised and integrated infrastructure facility linking bus stops, metro stations and railway stations in the city.

Stating that the centralised facility could either come up at Ajni or Khapri, while shifting the main railway station to Khapri, Gadkari said, would be part of Multi-Model Hub and Smart City project.



KEYNOTE SPEAKER

Dr. Abdulla Al Karam

Chairman of the Board of Directors and Director General, Knowledge and Human Development Authority (KHDA)

Dubai, the city known for its skyscrapers, with its vibrant private education system, which is one of the most diverse private education systems in the world, is all set to scale new heights.

Keeping in mind the importance of Dubai, as one of the leading education hubs around the globe, Elets Technomedia, Asia & Middle East's premier media & technology research organisation, is proud to announce to host prestigious

> 11º World Education Summit (WES) on 26-27 November, 2017 in Dubai at Le Méridien Dubai Hotel & Conference Centre



WES 2017 Summit at a Glance

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For Participation Query, Contact:

Pradeep Negi:+91 8527582595 | Chandan Anand: +91 8860635836 | wes@eletsonline.com



NANDA JICHKAR

Mayor of Nagpur

EXCERPTS:

- Projects like green buses, recycling of waste, cement roads are being undertaken in Nagpur.
- 24/7 water is being provided to the Nagpur citizens.
- E-rickshaws and LED projects are being implemented.
- International airport at Nagpur will soon be constructed.
- Many initiatives are taking place for e-governance.



KISHORE RAI

Mayor of Bilaspur

EXCERPTS:

- In Chhattisgarh's Bilaspur, underground water treatment plant is already in place.
- Under the Atal Mission For Rejuvenation and Urban Transformation (AMRUT) scheme, surface water will be provided to the residents at a cost of Rs 212 crore.
- By using surface water, underground water can be preserved for the future generations.
- We have started using e-governance in our projects.



ASHA JAISWAL

Mayor of Chandigarh

EXCERPTS:

- Replacement of LED lighting has started in Chandigarh.
- Areas like Green Belts, neighbourhood parks, all the roads are in the process of LED replacement.
- By the end of this year, no dark places will be left in Chandigarh.
- Use of latest technology in cleaning the underground sewage is in place.



PRAMOD DUBEY

Mayor of Raipur

EXCERPTS:

- We want less people to visit the Municipal Corporation office.
- A single smart card for various utilities like electricity bills, transportation etc has been introduced.
- Air conditioners will be installed at bus stops under the Public Private Partnership mode.
- As a pilot project, 12-15 bus stoppages will be made air-conditioned.
- Urinals and ATMs will be provided alongside the air conditioned bus stops.

MAYORS' **CONCLAVE**



Mayors from various cities of India attending the Mayors' Conclave at the summit

SESSION: International Experience of Building Smart Cities



Foreign dignitaries in the session on International Experience of Building Smart Cities



Municipal Corporation





V K GAUTAM

Principal Secretary, Information Technology Department, Government of Maharashtra



KAUSTUB DHAVSE

Officer on Special Duty for Chief Minister of Maharashtra



ARUN LAKHANI

Chairman, Vishwaraj Infrastructure Limited



ANIL NAIR

Managing Director, Digitisation
Acceleration, Cisco



HARSH CHITALE

CEO, Philips Lighting



N V PUJARI

Senior General Manager, Bank of Maharashtra



RAGHU ALLURI Director, NCC Limited



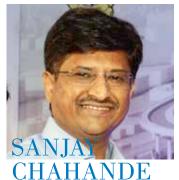
VINEETA SHETTY

Executive Editor, Smartcity Citizen



NILESH MAYEKAR

Head-Government Business, Maharashtra-Goa, ICICI Bank



Deputy Director General, UIDAI-Mumbai

SESSION: Smart and Sustainable Mobility & Smart Transactions in the era of Digital India, Smart Cities & Digital Payments



Policymakers' and industry leaders participating in the summit



PRAVEEN GEDAM Transport Commissioner, Government of Maharashtra



ASHWANI KUMAR Chairman and Managing Director, Dena Bank



DHARMADHIKARI Practice Head- IT Risk & Security

Management Services, Suma Soft Private Ltd







SUSHANT National Head-Government Affairs, Tata Motors Limited



Government of Gujarat

IRAVATI DAMLE

Public Policy Leas-West, Uber India



PRANJALI DESHPANDE

Programme Manager, Institute for Transportation and Development Policy

INDUSTRY PRESENTATIONS

RAHUL SAVDEKAR

Director-Industry Solutions (Government), Microsoft





ALOK KAPOOR

Assistant Vice President (Urban Transport and Railways), Tata Reality and Infrastructure Limited (TRIL)



DIPAK KUMAR BASU

Deputy General Manager, Indian Oil Corporation Limited



GOVIND CHAUHAN

Executive Director, ABM Knowledgeware



PK GERA
Managing Director, GACL

SESSION: Smart Infrastructure and Smart Housing for Smart Cities



Discussion on 'Smart infrastructure and smart housing for Smart Cities'



SUBRAT PANDA

President, Construction, KCT Group



ANIL NAIR

President, CREDAI



BALAJI RAMAN

Chief Executive Officer (M&G), Indus Tower

ISO 37120 BENCHMARKING OF NAGPUR WITH GLOBAL CITIES



Focus on ISO 37120 benchmarking of Nagpur with global cities



RAHUL BAGADIA

Secretary, Nagpur Smart City Council



Delegates participating in the 'Swachh India for a Smarter India' session

SESSION: Swachh India for a Smarter India



SUNIL CHAVAN

Addl. Commissioner, Thane Municipal Corporation and CRO, Thane Smart City Limited



RAKESH KUMAR

Director, NEERI



SATYAJEET RAUT

Director-Strategy, Vishwaraj Infrastructure Limited



Policymakers discussing on effective waste management for Smart Cities

SESSION: Effective Waste Management for Smart Cities



B JANARDHAN REDDY

Commissioner, Greater Hyderabad Municipal Corporation



P CHANDRA MOULISWAR REDDY

Commissioner, Kadapa Municipal Corporation



SANJAY S DESHMUKH

Then Additional Commissioner, Municipal Corporation of Greater Mumbai

SESSION: Water Management for Smarter Urban Local Bodies



Discussion on water management for smarter Urban Local Bodies



T BHOOBALAN

Commissioner, Bidar Municipal Corporation



DR UDAY KELKAR

Managing Director, NJS Engineers India Private Limited



FARHAT OURESHI

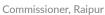
Head, Social Welfare, Orange City Waters



Dignitaries at the summit



RAJAT BANSAL





SHWETA RAJPAL

Director, Public Policy, Uber India and South Asia



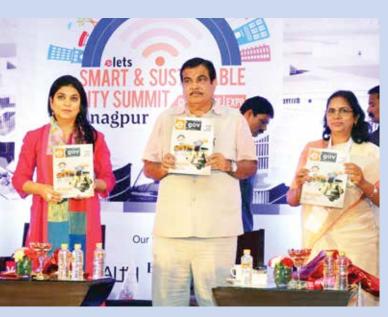
ATIKA CHONA

Director (Communication), Scania India



SHRIKANT PHANSE

Philips Lighting



Union Minister Nitin Gadkari launching the eGov magazine



Delegates at the summit







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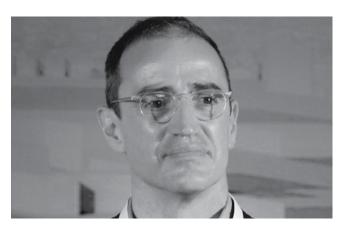
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ANTONY VIVES THOMAS
Former Deputy Mayor, Barcelona, Spain



ULRIKA SUNDBERG Consul General, Consulate General of Sweden



JEAN-MARC MIGNON
Economic Counsellor, Consulate
General of France



CÉCILE LEEMANS
Programme Manager, Partnership
Instrument, European Union



GAUTIER KOHLER
Project Chief at Agence Francaise
De Development



PROFESSOR IONNIS MINNIS
Partner, M Prime Advisory Services



Impacting India Innovatively







Putting India First

elecom is an important enabler for Digital India. A journey of a thousand miles begins with a single step. It's just over two decades since mobile telephony, which has transformed millions of lives, was introduced in India, and the telecom sector finds itself once again poised at a juncture where the 'right' step is critical for its next phase of evolution.

Digital India, the vision articulated by Hon'ble Prime Minister Shri. Narendra Modi has within its framework, the potential to transform our country in entirety by bringing all technological, economic and social initiatives under one unified umbrella-for the holistic development of the nation.

The mobile technology and its platform is most vital for realising this vision. Since the introduction of mobile telephony in 1995, seamless connectivity and easy availability have made it the engine for accelerating inclusion and propagation of information. Across sectors-education, empowerment, agriculture, healthcare, financial inclusion, rural outreach—the progress enabled by mobile is unparalleled.

Just as the success of banking sector is critical to the nation's economy, the triumph of Digital India rests on the robustness of the telecom sector.

Making the right calls

With mobile subscriber base having crossed the 1-billion-mark, the next big opportunity is to accelerate this power in the hands of the masses to boost GDP, improve inclusion and reduce wastage and leakages.

Given the complexities of the telecom industry, the multiple jurisdictions, its importance in connecting a large country with 16% of the world's population, and the critical role it plays in nation-building, the need is to incentivise the sector for propagating Digital India.

The need of a robust telecom infrastructure to realise the Digital India mission as telecom infrastructure will

enable various futuristic technologies such as 5G, IoT, M2M, artificial intelligence and virtual reality etc. It is imperative to develop 'state of the art' network architecture just like other infrastructure facilities such as water, sewage, railway, roads and transportation etc. as telecommunication services nowadays have become an integral and essential necessity of our daily lives.

Key concern areas of the industry such as non-discriminatory access to Right of Way (ROW) and inclusion of IP-1s in the RoW notified rules: extension of benefits under infrastructure status to tower industry; availability of Government resources such as Land and Buildings on a fair and non-discriminatory basis to both TSPs and IPs for installation of telecom infrastructure and alignment of States tower installation guidelines with the DoT guidelines/RoW Rules of November 2016.

Converged environment there is need of independent infrastructure players which will ensure orderly and stable growth of infrastructure. Further, it will also bring in economy of scale and the cost effectiveness due to the sharing of infrastructure at the backend. Infrastructure Players must have an active role in the provisioning of common duct, in-building solutions, pubic Wi-Fi and fibre lay etc.

The success of Digital India, financial inclusion lies in making internet available at the bottom of pyramid. The telecom infrastructure industry faces glitches in network rollout especially in rural and semi-urban areas. Apart from this, it is very important that the government ensure grid power supply to operate telecom tower sites in the upcoming National Telecom Policy (NTP) 2018.

The overall development of telecommunication services in the past few decades has been phenomenal with the help telecom infrastructure supporting these services at the backend. With the government's thrust on Digital India and Smart Cities, it is needless to

say that industry will unfold more new business avenues in the forthcoming time.

Further to that, government should also ensure priority EB connections and quality power on preferential tariffs rather than the commercial tariffs; Safety and security of telecom infrastructure is another long-pending demand of the industry.

In order to realize these flagship programs of government, it is imperative that sustained investments in this sector are safe-guarded which will only happen with due regulatory and policy support from the Government,

The industry is committed towards green sustainable source of energy to reduce its reliance on Diesel as an alternative energy source by deploying long-life, fast-charging Lithium batteries; shifting of indoor sites to outdoor; alternate energy sources like solar, wind, etc. These efforts have already resulted into the conversion of over 100,000 sites as 'Diesel Free Sites' consuming less than 1 litre of Diesel per day.

The growth in the Indian telecom and telecom infrastructure sector has been fuelled by various policies and regulatory reforms undertaken by the Government with a view to enable Ease of doing Business. As far as the telecom infrastructure is concerned, it needs to be leveraged to enable all citizens and businesses, both in rural and urban areas, to participate in the 'Online' economy thereby ensuring equitable and inclusive development across the nation.

To make the Digital inclusion happen it is necessary the inclusion of IP-1s in the RoW notified rules: extension of benefits under infrastructure status to tower industry; availability of Government resources such as Land and Buildings on a fair and non-discriminatory basis to both TSPs and IPs for installation of telecom infrastructure and alignment of States tower installation guidelines with the DoT guidelines/RoW Rules of November 2016.





Nagpur Mayor Nanda Jichkar and Consul General, Consulate General of Sweden, Ulrika Sundberg, at the expo



Nagpur Municipal Commissioner Shravan Hardikar meeting the exhibitors





Chief Minister of Maharashtra Devendra Fadnavis meeting people at the expo









Industry participation during the expo

"THANK YOU"

FOR PARTICIPATING IN ELETS' SMART AND SUSTAINABLE SUMMIT - NAGPUR







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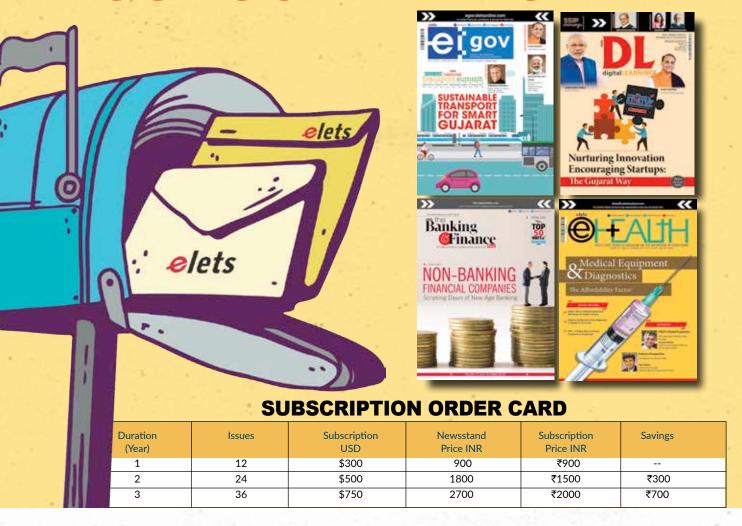




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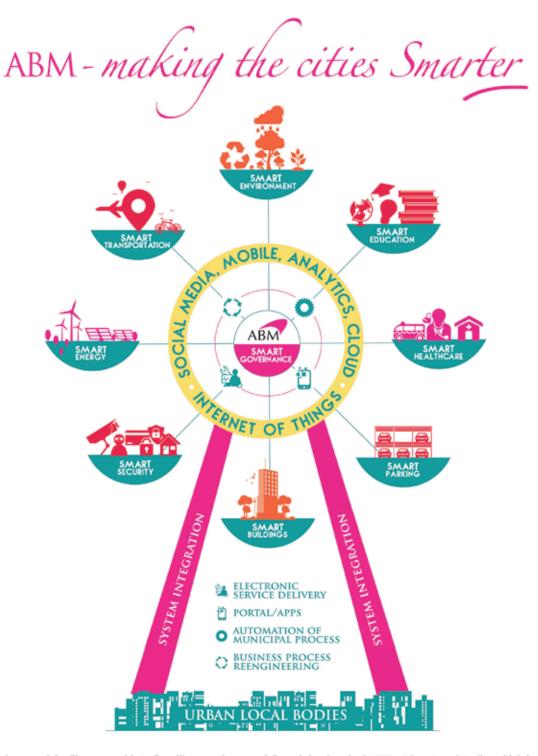








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