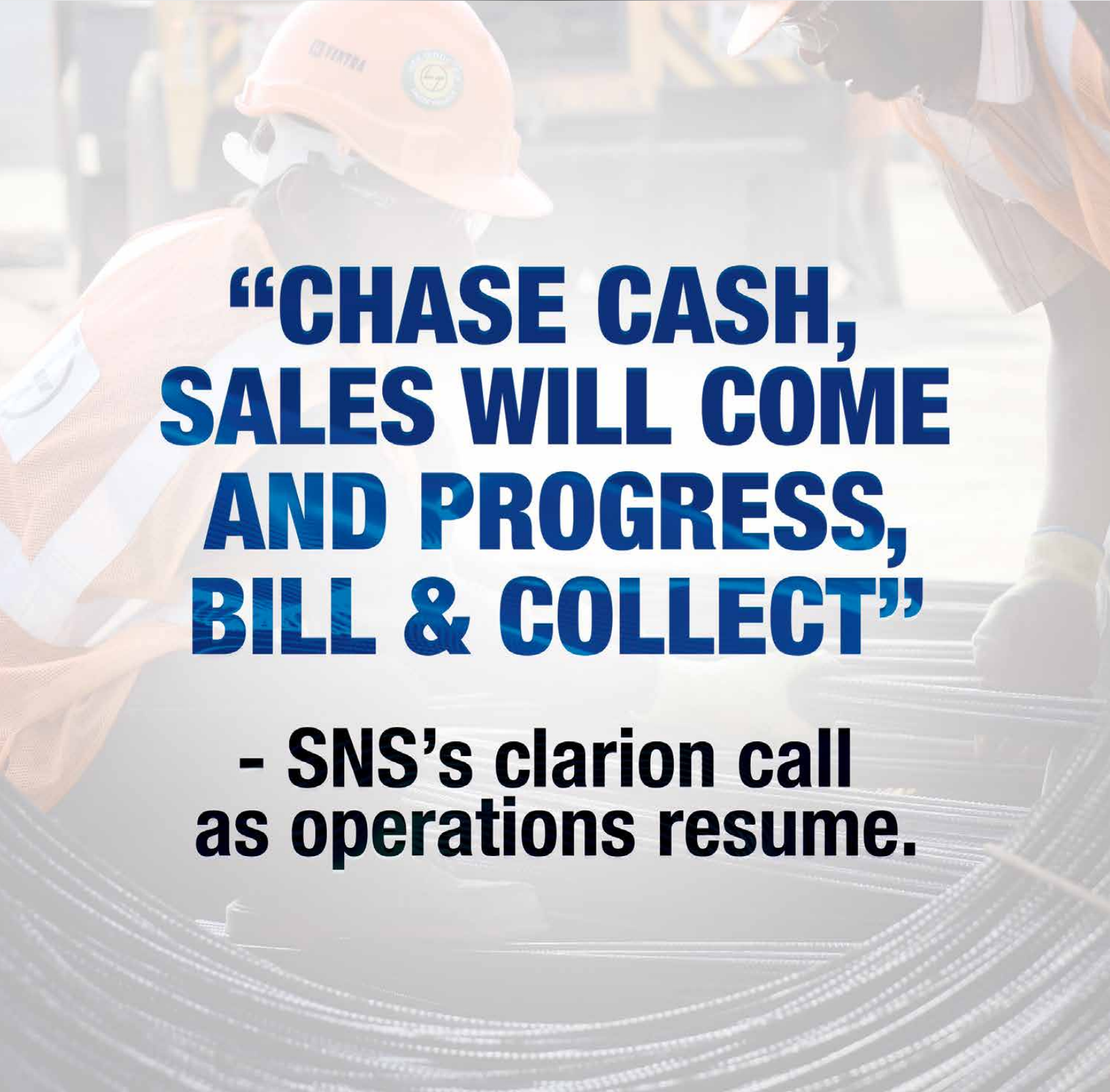


# ECC COLCORD

*In-house Journal of L&T Construction*

Volume - 43, Issue - 1

January - June 2020

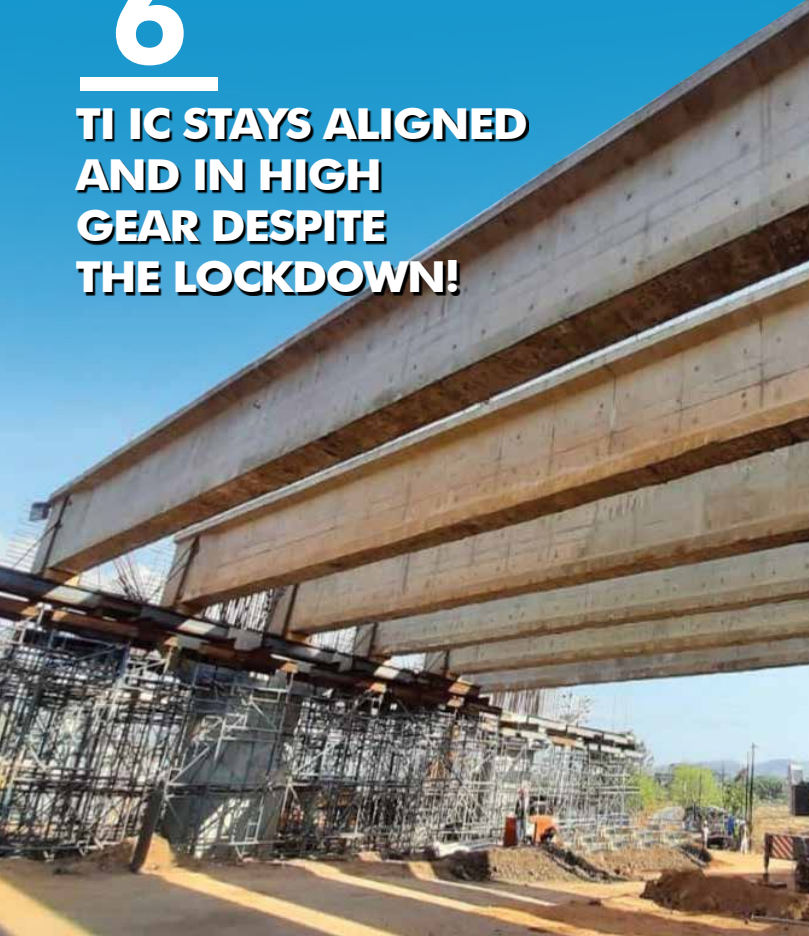


**“CHASE CASH,  
SALES WILL COME  
AND PROGRESS,  
BILL & COLLECT”**

**- SNS's clarion call  
as operations resume.**

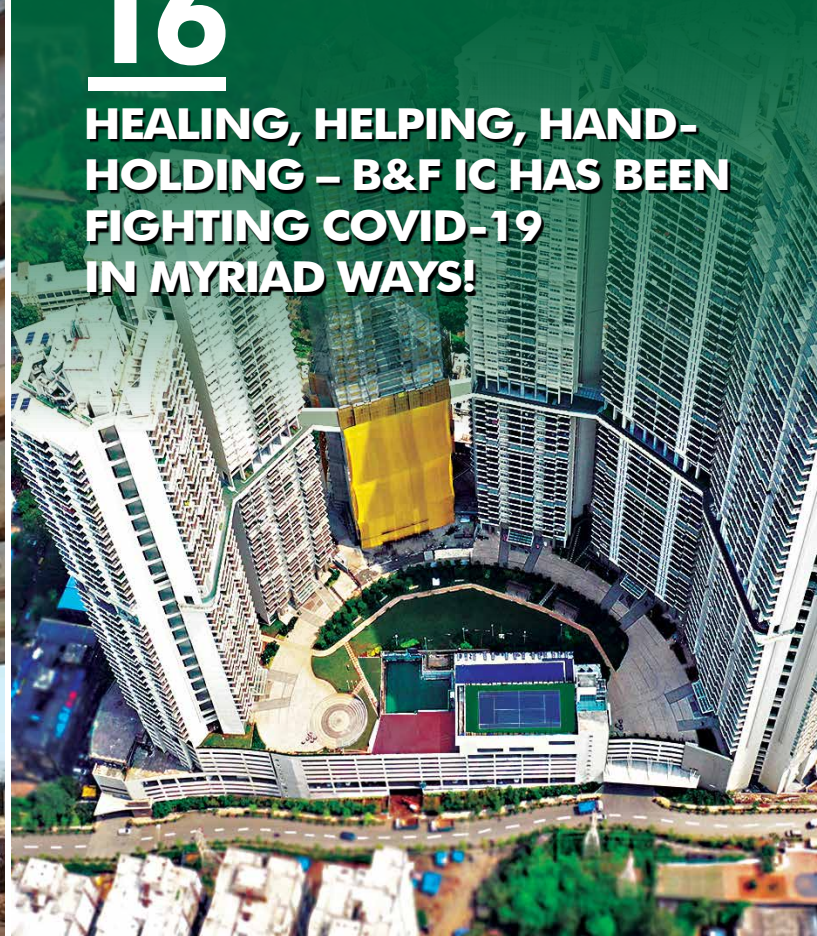
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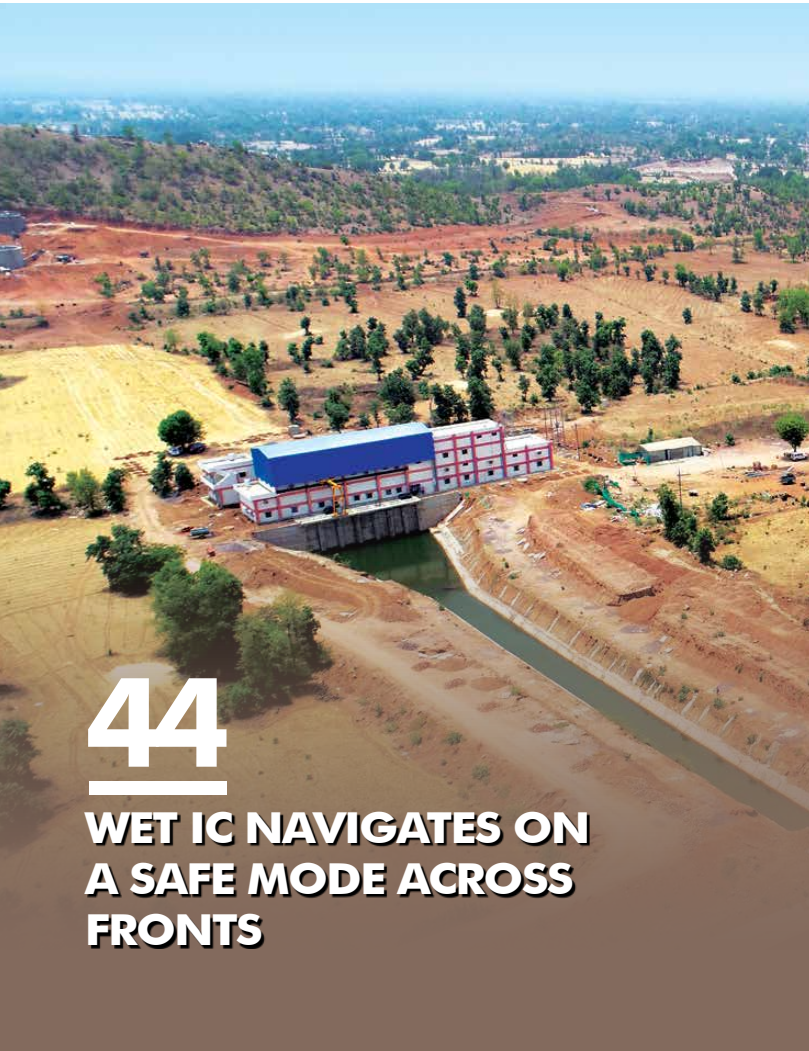
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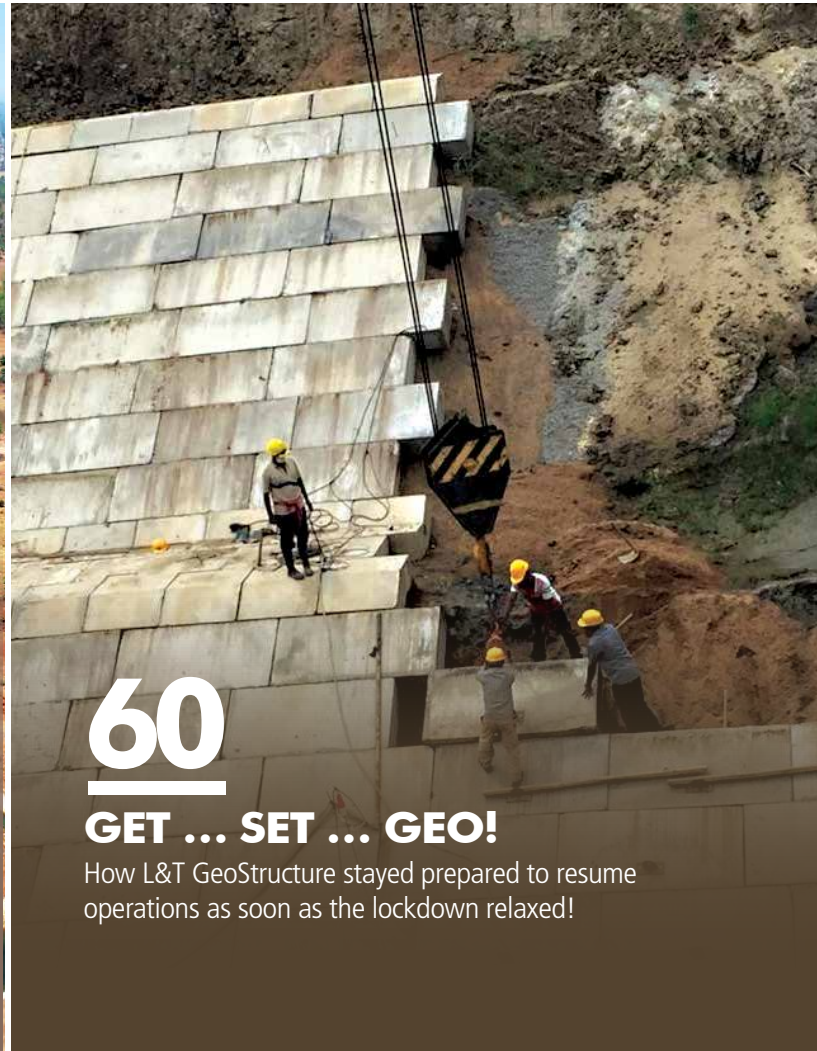
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### Acknowledgements

Even as we were in the middle of the lockdown, we started to put together this issue showcasing some sterling work done by some of our colleagues in extremely trying circumstances. We thank all the IC HR heads for your involvement and help to put these stories together. We thank our other comrades-in-arms who coordinated, 'pushed' and helped us complete the issue: in no particular order: Pooja Agarwal, Kiran Hasan Koramaddi, Hema Chandrasekharan, M P Rahul, A I Nachiappan, Anirudh Bharadwaj, P T Selvam, C V Bharadwaj, Akshara Asok, Anila Manoharan, Murugan Paramaguru, G Srinivas, L Vijayalakshmi, Vaibhav Kumar, J Venkateshwar and many others! This issue is a triumph of our teamwork.

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**Design & layout:** Global Print Design, Chennai

Our FY 20 numbers make for very good reading: a healthy order backlog of INR 3.3 lakh crore, orders grew by 9%, sales by 8% and profits by 7% that reflect a very creditable performance in a tough year with a particularly tough Q4 which is normally our best quarter. It reveals that we had enough fuel in our tank to partially offset the disruptions due to the pandemic. We have, however, lost two whole months of billing and therefore have a lot of catching up to do. Although we have entered Unlock #1, there are still several distractions like the spiralling number of positive COVID-19 cases across the country and around us, the lack of sufficient labour at many of our projects, rising tensions at several of our borders and, last and by no means the least, an economy that is still trying to recover.

In such times, it is imperative for each one of us to stay focused on our objectives. The mantra I have been advocating in all my interactions has been 'Chase Cash, Sales Will Come' and 'Progress, Bill & Collect.' Nothing else matters.

Almost 90% of our projects have resumed operations safely. You need to press the pedal to speed up delivery and keep it floored till the end of this fiscal to catch up on lost ground. At the same time, as we are facing situations that we have never encountered before, we must keep thinking innovatively, strategizing differently, evolving out-of-the-box solutions to stay ahead of the curve.

Across the world, companies and businesses are grappling with unprecedented situations and unexpected developments. Global GDP is set to contract and ours is showing definite contraction. In such a scenario, it is very

important to stick to the basics, stick to the knitting, as I say, and continue to do well what we do best. To achieve this, let me reiterate my 5 tasks or my 5 Cs that each one of you should concentrate on.

**1. Cash flow:** Our focus must be to monitor and proactively collect our monthly outlays. Since end-March, there has been almost zero billing, understandably so, but now that work has re-commenced, we need to chase revenue but with focus, strategy and a well chalked out action plan. Claims & penalties must be tracked more meticulously. Work

every expense incurred. Every area of functioning can be studied, analysed and costs saved be it for set-up expenses, hire charges, travel, or even certain administrative costs. Nothing is cast in stone and more so in these unprecedented times; every decision, every negotiation, every aspect of a contract can be re-visited to see if we can squeeze some savings from them. Bring new and competitive vendors on board, keep exploring opportunities for discounts from balance orders placed with significant quantities, strategically lock-in long term supplies of items that could be in short supply, such



**4. Clients:** Always be on the front foot and this will certainly reshape our position and improve our relationship with them. They must look at L&T as their most reliable partner even in these times. For

to selflessly safeguard the health and safety of your workmen and employees at our various project sites. The overall COVID-19 situation has not changed much and hence you need to remain in that same mode, meticulously following the SOPs to stay safe. Project Managers, Construction Managers and EHS personnel must take the lead to ensure that specific SOPs are adhered to. Our partners in the ecosystem including contractors and sub-contractors should also be impressed upon to abide by our guidelines. We must remain ever vigilant

to ensure that hygiene, catering, waste management and preventive measures including social distancing are rigorously maintained. That is non-negotiable.

Such times require focus, resolve and strength of character. We have all these in good measure to emerge from this situation stronger, safer, and more successful! Remember, my mantra: **'Chase Cash, Sales Will Come' and 'Progress, Bill & Collect.'**

All the best!

## **'Chase Cash, Sales Will Come' and 'Progress, Bill & Collect.'**

out all possible negotiations with our obligations and this is the perfect time for such discussions. Our claims with clients should be liquidated as quickly as possible to add cash flow – the most required support for the company in such times.



**2. Cost control:** Every employee can make a difference if one is disciplined about incurring costs which is one of the most vital tools to keep our company agile and resilient in these turbulent times. It is important to consider and reconsider

as construction bulk material. By being vigilant you can discover a hundred more ways to save costs. Apart from some of the big fish mentioned here, more savings can be made by being careful about the small things. Remember, many small drops of water make the might ocean.

**3. Catch up:** To begin well is half the battle won and it is great that most of our projects have resumed operations but now the onus is to keep up the momentum. Resource remobilization and optimization are key. Use optimal scenario planning, identify critical paths and resources for projects to be fast forwarded. Demobilization to close projects and handing over balance ones must be quick and precise.

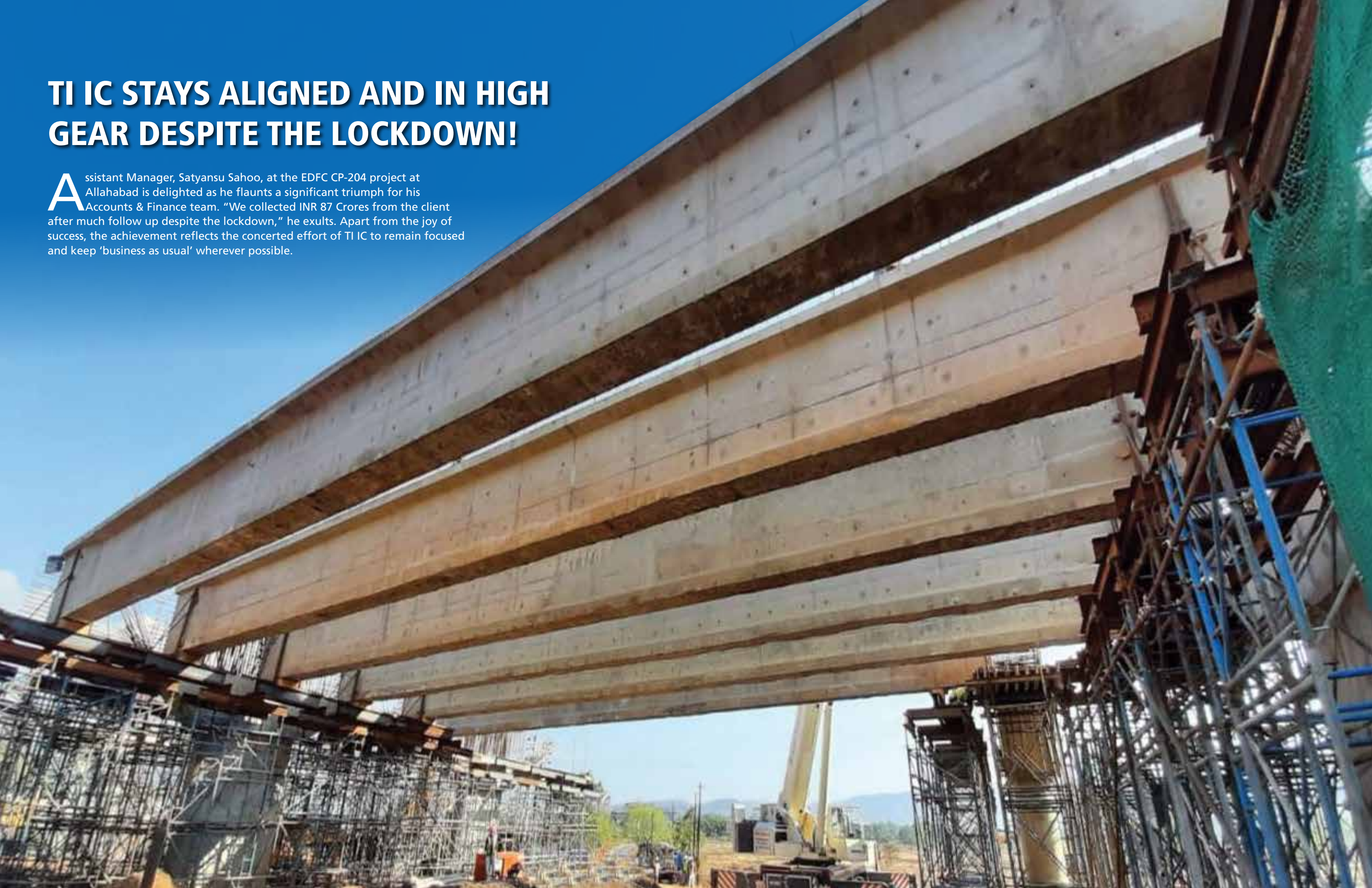


**5. Care:** This issue of ECC Concord is replete with stories from all businesses of how you have taken on the responsibility



# TI IC STAYS ALIGNED AND IN HIGH GEAR DESPITE THE LOCKDOWN!

Assistant Manager, Satyansu Sahoo, at the EDFC CP-204 project at Allahabad is delighted as he flaunts a significant triumph for his Accounts & Finance team. "We collected INR 87 Crores from the client after much follow up despite the lockdown," he exults. Apart from the joy of success, the achievement reflects the concerted effort of TI IC to remain focused and keep 'business as usual' wherever possible.



As the country went into a lockdown, the team at the Ghoshpukur-Salsalabari Road project, led by Project Manager, Niloy Mukherjee, was not deterred from delivering an invoice commitment linked to the completion of a critical deck slab at Teesta. Marshalling his able troops skilfully, Niloy ensured the operation of batching plants, transit mixers, boom placers and other necessary machines to complete the deck slab to ensure billing for his project and earn brownie points from the client as well.

## Overcoming roadblocks

At the Baharagora-Singhara Road project, Project Manager, Prantik Guha Roy, and team were putting in their best efforts to continue some deep piling work and excavation during the lockdown despite several challenges. "Our project is in a remote location and the lockdown immediately cut off our connectivity

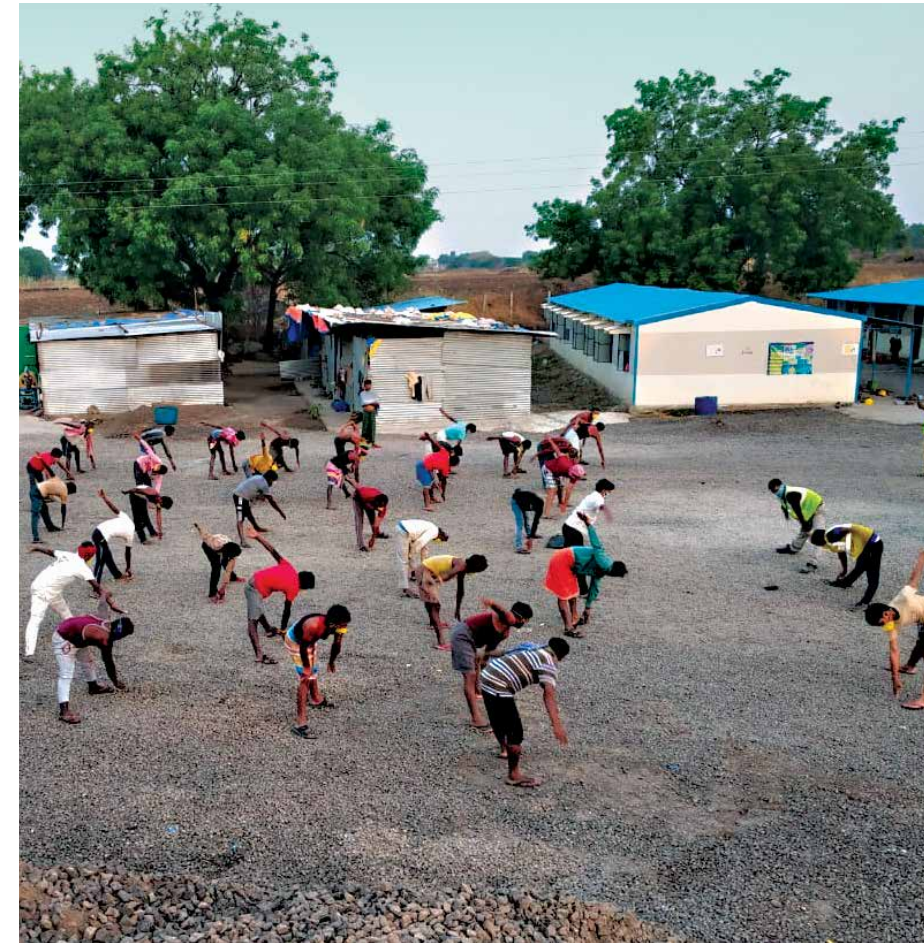


**We swung into action, took the necessary permissions from the border police which was a challenge in itself, mobilised some skilled manpower and executed some remarkable work which was well appreciated by client.**

**Vijay Nand Choudhary**  
Assistant Manager – Accounts,  
Baharagora-Singhara Road Project

with Kolkata, the primary source for our running spare parts," he points out. Prantik's alignment crosses two borders, viz; West Bengal-Jharkhand and Odisha-Jharkhand and with the state police sealing all borders, all movement of men and machinery came to a halt that proved to be another roadblock for the team. "We faced a lack of skilled manpower as most of our workmen from the adjacent districts could not travel to site owing to the lockdown. Even maintaining a minimum manpower was becoming a challenge."

Idling P&M incurring hefty hire charges was yet another challenge - a typical white elephant scenario. R Ramachandran, Senior Manager - P&M picks up the story. "We had hired an external pile at a monthly hiring charge of INR 16 lakhs but were finding it difficult to operate it both because of the lack of skilled manpower and the lack of spares."



*A fitness regime at site for workmen*

They also had a couple of wheel loaders in commission though idling due to lack of spares. "The situation demanded some quick thinking," remarks Assistant Manager - Accounts, Vijay Nand Choudhary, for whom the hiring charges of the rig were causing sleepless nights. "We swung into action, took the necessary permissions from the border police which was a challenge in itself, mobilised some skilled manpower and executed some remarkable work which was well appreciated by client," shares a relieved Vijay. For Ramachandran, there was more trouble in store as the rig cracked due to the hard rock strata but still, they were able to take this in their stride and deliver! Prantik heaps praise on his P&M staff, "who rose to the occasion to keep the job going despite so many hurdles and thanks to the active support of Sambhu Prasad, Subhash Barel and Saddam who operated the batching plant, paver and WMM plants."



*Workmen involved in rebar works maintaining social distancing*



**All the necessary engineering arrangements were made using wooden plank supports and hydraulic jacks that were designed and deployed. Despite the lockdown, we put together a team that worked continuously for 36 hours to ensure that the gantry was restored on rails without any damage.**

**M K Pradhan**  
P&M Head,  
Mumbai Nagpur Expressway Project

Early one morning, P&M Head, M K Pradhan (MKP) was jolted awake that his 40-ton gantry at the Mumbai Nagpur Expressway project (MNEP) had derailed. He had no crane or equipment support at his disposal. Along with his Project Manager, Rangoli Srinivas's support, MKP evolved a plan to retrieve the situation. "All the necessary engineering arrangements were made using wooden plank supports and hydraulic jacks that were designed and deployed. Despite the lockdown, we put together a team that worked continuously for 36 hours to ensure that the gantry was restored on rails without any damage." MKP is grateful for the significant support from the site P&M personnel notably from Sanjay Verma, G Soumen, S N Yadav and Arindam Gogoi.



“We were able to get special permissions from the District Magistrate for our conveyance vehicles which enabled staff movement to reach our stranded colleagues.”

Anud Koul  
Project Director,  
EDFC CP-204 Package



Girish Nandhyal. The Aurangabad Karodi Road project (KARP) team had to safeguard about 89 employees, 210 departmental workmen and 545 contract workmen with a team led by Project Manager, Randhi Surya Rao, EHS, Sarju Nandan Patra, IR Manager, Yugal Kishore Gupta and Site In charges – Bharat Singh and Pankaj Kale. “We deployed a micro monitoring plan,” informs Surya Rao. “dividing all the workmen into groups of 25 each with a mentor (respective engineer) appointed for each group whose responsibility was to take care of his group and keep me informed of developments on a regular basis.”

With COVID Action Teams (CATs) leading the charge, WhatsApp groups kept the various coordinators and the TI IC HQ connected enabling them to monitor the sites real time and always remain connected to exchange information, issues, solutions. Working almost round the clock, the CATs ensured the spread of awareness about the virus, instilled hygienic practices, conducted medical checks at all labour camps including remote localities. Although getting doctors to some locations was a challenge, it was managed and coordinated through various Government teams.

Senior Manager – Accounts, Dilip Choubey at the Veer to Bhogaon Khurd Road project (VBRP) stationed at Mahad in Maharashtra has a harrowing tale to narrate. “One of our sub-contractor’s workman took ill and was admitted to Mumbai’s KEM Hospital. Doctors confirmed that he was COVID negative but unfortunately, he succumbed to asthmatic pneumonia.” Despite the lockdown, Dilip and Anil Kumar Sharma (Admin & IR) travelled to Mumbai to complete the formalities including cremation rites. “Returning to site with the ‘asthi’ of the deceased workman proved to be an ordeal as we were questioned at every check post,



## Reaching across distances

Road and railway projects are spread across hundreds of kms that created a unique problem for the leadership and project teams during the lockdown. Without warning thousands of employees and workmen were stranded along alignments with no way to either return to base or leave for their hometowns. There was also the issue of reaching provisions, rations, medicines, PPEs, and the like to those stranded. Senior Engineer – Civil, Pramay Pratap Singh, in charge of Overhead Equipment (OHE) works at the CP-204 Package (EDFC Phase 2) Electrification of Mughal Sarai to New Bhaupur Section project, articulates the problem. “Our project stretches over 417 kms and workmen were stranded at different locations along the stretch. When they



realized their situation, they began to panic. With no execution work, we had to quickly plan ways and means to keep our staff and workmen calm, busy and engaged.” Foremost for Project Director, Anud Koul, PM-OHE, Manoj Kumar Mohanty, Manager – Safety, Subash Chandra Sethy, Pramay and the project team was to procure vehicle passes that would allow key staff to traverse the entire alignment. “We were able to get special permissions from the District Magistrate for our conveyance vehicles which enabled staff movement to reach our stranded colleagues,” says Anud with relief writ large on his face.

The Admin and IR teams at the MNEP ensured the health and safety of nearly 1500 workmen and 220 employees led by Satish Koti in Camp-1 and B. Kishore Kumar in Camp-2 guided by Vikranth Joshi, Rajasekhar, PV Santhosh Kumar and



Thermal scanning of workmen

system project teams have been at the forefront implementing most stringent EHS norms driven by rigorous standards to meet the requirements of the client 'Bechtel led consortium' the Riyadh Development Authority. 'The more we sweat in peace, the less we bleed in war' goes the saying and the meticulous adherence to EHS practices has enabled implementation and monitoring of COVID specific measures diligently, spearheaded by an ERT. Placing health and hygiene as top priorities, the team has implemented large scale sanitization across common areas and key locations, conducted regular medical screening, deployed emergency vehicles, established isolation rooms and tied up with local hospitals.



Pep talk by the core team involving police officials



**“ We had to rejig the IT infrastructure for a team of 150 – 200 Design Engineers in Mumbai to enable work from home. As soon as the lockdown was declared, we planned and executed this mammoth task of mobilizing IT hardware (desktops & laptops) at employees' homes and guesthouses. ”**

**Bibhuti Mishra**  
Assistant Manager – Systems

at times detained by the police without much food and water,” laments Dilip. More trouble followed as a fake video of a patient with shortness of breath started circulating in Mahad claiming that a L&T workman was COVID-19 positive. “We received several calls from local police stations, SDM, sarpanches and people inquiring about the video and the next day, they started creating a nuisance by not allowing our security, labour and RSW workmen to remain in our office, camp and labour colony. We had to approach the District Magistrate and the SDM to sort out the matter and convince the authorities, the local reporters and the villagers,” says Dilip wiping his brow.

### Fighting COVID-19 in foreign lands

Even during normal times, Railway SBG's Riyadh Metro line 1 & 2 track



Sanitization of vehicles



Pedal operated hand sanitizer

Naresh Ananthula, EHS Officer, has his hands full conducting awareness campaigns to ensure the safety and well-being of a multinational workforce in close co-ordination with representatives of Ministry of Health-Saudi Arabia while Kalvath Syed Mohamed, HR & Admin, has been ensuring that all needs for essentials are addressed at the earliest with the support of the ERT team.

### Ushering in WFH

The lockdown forced everyone to shift their offices to their home with Systems & ISD personnel becoming the 'go to' men as corporate India embraced 'Work From Home' big time. Digital meetings and reviews soon became the norm. “We had to rejig the IT infrastructure for a team of 150 – 200 Design Engineers in Mumbai to enable work from home,” informs

Assistant Manager – Systems, Bibhuti Mishra. “As soon as the lockdown was declared, we planned and executed this mammoth task of mobilizing IT hardware (desktops & laptops) at employees' homes and guesthouses.” Besides, project sites, Cluster Offices EDRCs at Faridabad and Chennai too had to be connected along with server access. There were firewall cyber security concerns too. The TI ISD teams coordinated the task seamlessly and completed the implementation, most notably with no cyber security breach thus far!

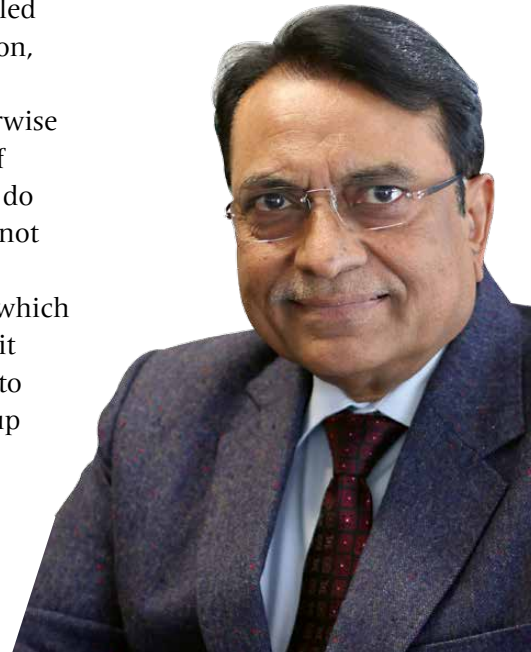
### Learning and development lead from the front

“With work halted at project sites, in essence, time was liberated for employee training and development needs,”



**RAJEEV JYOTI**  
Chief Executive, Railways SBG

The lockdown period enabled more time for introspection, create new concepts on management, which were otherwise latent and buried in the maze of actions. We need to continue to do various things at various levels not only in engineering and supply chain but also at project level - which is where the real action is. Now it is time to start work on ground to implement new ideas to cover up loss to the maximum extent.



mentions Poonam Chandok, Head – HR, TI IC, “so we decided to utilize the available man-hours of the employees to enhance their capabilities and keep them engaged and motivated. We were facing an absolutely new situation that we had never faced before so we had to do some quick blue sky thinking,” she smiles. Within 7 days of the announcement of the lockdown, Poonam and her team launched a Virtual Training Calendar. “The response was so overwhelming from the employees that nominations were being filled within a few minutes of releasing the session schedules during the first week,” remarks Poonam. To enhance the reach of training to more employees, the frequency of the sessions was increased, and new topics introduced in the subsequent weeks.

“We tapped into our 200 internal trainers asking them to quickly develop short modules,” shares Vandana Kaushik, Senior DGM – Human Resources, TI IC. “We engaged external subject matter experts to

deliver sessions on QMC & Plant & Machinery functions.” In the period from 30<sup>th</sup> March to 30<sup>th</sup> April, 122 online sessions were conducted covering 5,486 participants that constituted about 28% of TI IC’s workforce. Rapl saw a 75% increase in usage with 4,000+ TI IC employees active on the platform.

### Accepting the new normal

“We have been through a lot, all of which has only seasoned us and made us stronger than ever,” is how Whole Time Director & Senior Executive Vice President (Infrastructure), D K Sen described the COVID-19 ordeal. “Tough situations bring out the best in tough people. I am proud and delighted with the way the entire IC, irrespective of levels, functions or departments have come together as a team to fight this crisis. The easing of lockdown does not in any way lessen the danger hence we need to adapt our lifestyles to the



**D K SEN**  
Whole Time Director & Senior Executive Vice President (Infrastructure)



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“With work halted at project sites, in essence, time was liberated for employee training and development needs, so we decided to utilize the available man-hours of the employees to enhance their capabilities and keep them engaged and motivated. We were facing an absolutely new situation that we had never faced before so we had to do some quick blue sky thinking.”

**Poonam Chandok**  
Head – HR, TI IC



new norm. Nevertheless, as a team we must translate this synchronised effort to make up for lost time to achieve our Lakshya goals. We have two months to make up so let us realign ourselves to this new, tougher asking rate and deliver,” he exhorted his team.

“The lockdown period enabled more time for introspection, create new concepts on management, which were otherwise latent and buried in the maze of actions,” remarked Rajeev Jyoti, Chief Executive, Railways SBG. “We have steered multiple small teams for focussed initiatives on Operational Excellence which includes ‘Project right sizing’ about methods to enable monitoring, optimising and benchmarking of parameters. The other is ‘Project Sweat’ that is

aimed at stronger Interface between Central Planning, Execution and P&M teams to Stretch Productivity of High value mechanized assets.”

About his clientele, Rajeev opines, “The crisis, has brought about a remarkable change in client attitude and flexibility which we need to take advantage of more than the competition in terms of billing, invoicing and collections – all of which would result in business restarting.”

“We need to continue to do various things at various levels not only in engineering and supply chain but also at project level - which is where the real action is. Now it is time to start work on ground to implement new ideas to cover up loss to the maximum extent,” he concludes. ■



# HEALING, HELPING, HAND-HOLDING – B&F IC HAS BEEN FIGHTING COVID-19 IN MYRIAD WAYS!

**A**s the world combats the pandemic, project teams across B&F IC have come together and found extraordinary and myriad ways to reduce the impact of COVID-19 on their staff, employees, immediate stakeholders, and the general public.





“ We converted a section of the facility in Champaran, Bihar into isolation wards with 150 beds in just 10 days amidst the lockdown. ”

**V Sukumar Hebber**  
BU Head – Health,  
IT & Office Space

## Strengthening the hands of governments by enhancing healthcare facilities

Across the globe, perhaps the most beleaguered have been the medical fraternity as they fearlessly fight the pandemic at the front lines to heal and save lives. B&F’s Hospital BU has stepped in to strengthen the hands of the Central and various State governments to convert functioning hospitals into state-of-the-art facilities to combat COVID-19.

At the request of the Ministry of Health & Family Welfare, Government of India, in March 2020, three floors of the L&T-constructed 850-bed super specialty facility at the Safdarjung Hospital in New Delhi have been converted into COVID-19 treatment zones, with more portions in the process of being transformed. Elsewhere in New Delhi, 200 beds in the half-completed 700-bed Indira Gandhi Hospital at Dwarka, have been converted into quarantine facilities and made operational in extremely quick time. In Puducherry, the SSB Annexure block that had already been handed over has been modified to meet the requirements of the state to treat COVID-19 patients.



Select L&T-built Government Medical Colleges and Hospitals across the country are being given a new avatar as COVID-19 care centers. “We converted a section of the facility in Champaran, Bihar into isolation wards with 150 beds in just 10 days amidst the lockdown,” shares V Sukumar Hebber, BU Head – Health, IT & Office Space. The facilities include an emergency ward with necessary lighting and toilet facilities, a medical gas piping system, a curtain track system, temporary septic tank, temporary power supply from the Electricity Board and a separate approach road especially for the COVID block. Existing facilities at various medical colleges have been converted into state-of-the-art BSL-3 level testing labs for COVID-19 cases

like at the West Bengal Medical College at Diamond Harbour at the request of the West Bengal State Government, at the Government Medical College & Hospital at Madhepura, at the request of the Bihar Government and at AIIMS, Gorakhpur, at the request of the Uttar Pradesh government.

Away in Assam, B&F project teams under the dynamic leadership of Krishnendu Chakraborty, Project Manager (Upper Assam), Pradeepta Das, Project Manager (Lower Assam), Manish Kumar, Project Head (Dibrugarh) M. Rana Dhar and Project Head (Tezpur) Amitabha Pal have been straining muscle and sinew to achieve key milestones at the Assam Cancer Care Foundation by completing 18 Cancer Care Hospitals strategically



“ We are executing the largest brown field project and work was progressing at rapid pace when COVID-19 grounded a lot of our good work. Our focus immediately shifted to keeping our workmen safe, healthy, and in good spirits. ”

**K.V. Praveen**  
Executive Vice President &  
Project Head,  
Delhi International Airport

located in districts across the state. Their concerted efforts have attracted appreciation from the client, who has commended their progress, quality, and safety. The team has successfully completed the raft casting of the hospital, LINAC and STP/Ramp Block at ACCF site, Dibrugarh despite the challenges of the lockdown, always complying to the COVID-19 guidelines issued by the Governments of India and Assam.

## When work is grounded, humanitarian measures take off!

The huge task facing Project Director, Jitendra Agarwal and his team at the expansive **Delhi International Airport**



“ Our Special Task Force Committee comprising Admin, EHS and technical staff members put in place some robust and exclusive SOPs that were rolled out systematically and strictly implemented. ”

**Anup Chulliyil**  
Project Manager,  
Chennai Airport Phase II

– **Phase 3A** site was to keep a workforce of over 3700 safe. “We are executing the largest brownfield project work and was progressing at a rapid pace when COVID-19 grounded a lot of our good work,” rues Executive Vice President & Project Head, K.V. Praveen. “Our focus immediately shifted to keeping our workmen safe, healthy, and in good spirits. A central committee involving management representatives from both the verticals – airside and building side, medical officers, TFL functional heads review the implementation of SOPs and action plans daily. We have basically left no stone unturned,” he asserts.

The main challenge for Project Manager, Anup Chulliyil at the **Chennai Airport Phase II project** was the disconcerting proximity to a functioning airport that can be a hot bed for infections. “Aware of this, our Special Task Force Committee comprising Admin, EHS and technical staff members put in place some robust and exclusive SOPs that were rolled out systematically and strictly implemented.” Their excellent teamwork came in handy as young, Assistant Officer (IR), K Balamurugan narrates. “We have about 650 workmen and 45 staff at site and we faced a crisis when one of



our workmen, Kameshwar Gupta, fell seriously ill with high fever and a fast-declining platelet count. For two days, we struggled to find a donor during this critical period. But we managed the situation well, got him admitted and soon things worked out well and he is fine now," smiles Balamurugan with relief.

The efforts of Anup Chulliyil and his project team have won praise from their client, Airports Authority of India (AAI). "The local inspector visited our site followed later by an Intelligence Inspector," he shares. "Both were extremely appreciative of our preventive measures. Our biggest win, however, was our workmen, who stood by us as they know that we value them. We are ready to build together," he says with deep conviction.



“Workmen are a close-knit group used to interacting closely with each other as a family. While it was important to keep them bonded emotionally, it was equally critical to impress upon them the merits of social distancing.”

**CH Anil Kumar**  
Project Manager,  
Hyderabad International Airport



a close-knit group used to interacting closely with each other as a family," says Anil Kumar, on the psychology of workmen. "While it was important to keep them bonded emotionally, it was equally critical to impress upon them the merits of social distancing." A lot of ground was covered by talking and interacting with them, regularly addressing their concerns, and making them believe that the team was with them during these challenging times. "We are doing our best to ensure that our workmen remain optimistic about the future," quips Anil with a grin.

### Different horses for different courses

Project Director, Ganesan R with the active support of Rajeev Roshan (FAA- Manager), Gyan Prakash

Project Manager, S Ganesan at the **Multi-Level Car Parking, Chennai Airport Project** shares about another surprise inspection by a Government Inspector. "He visited all the camp areas like the kitchen, the dwelling rooms, provisional store and so on. After speaking to the workmen and enquiring about facilities provided to them, he appreciated our efforts," smiles Ganesan with a thumbs up.

The **Hyderabad International Airport Project** site had the task of managing a large workforce of 2500+ workmen spread across three labour camps within a radius of around 18 kms in the Hyderabad Airport Zone. The energetic duo of Project Manager, CH Anil Kumar and Dy. Project Director, P. V. Kurup, quickly realised the importance of boosting the morale of the workmen. "They are

(Planning In-charge), Mukesh Shukla (P&M In-charge) and Anil Kumar Chauhan (EHS In-charge), Kewal Singh Kaushal (IR Manager) & Arvind Singh (IR Officer) have adopted a slightly different ploy to deal with the 1950+ workmen at the **Central Armed Police Forces Institute of Medical Sciences (CAPFIMS)** project at Maidan Garhi, New Delhi. "For better results, we gave them ownership, involving them in our fight against COVID-19. We divided them into groups led by group leaders chosen from amongst them for better control and close monitoring. I would say that one of our key strengths is our involved and informed workforce," Ganesan states with the hint of a smile.

The scorching summer of Andhra Pradesh turned the heat on the AIIMS project team at Guntur. Housing 1600+ workmen in structures made



“When a company steps up at a time like this, it builds loyalty, commitment, and long-lasting teams and it is the best time to develop flexibility at the workplace, introduce more digitisation, virtual collaboration and wellbeing.”

**V Ravi**  
Project Manager,  
Wipro IT SEZ Project

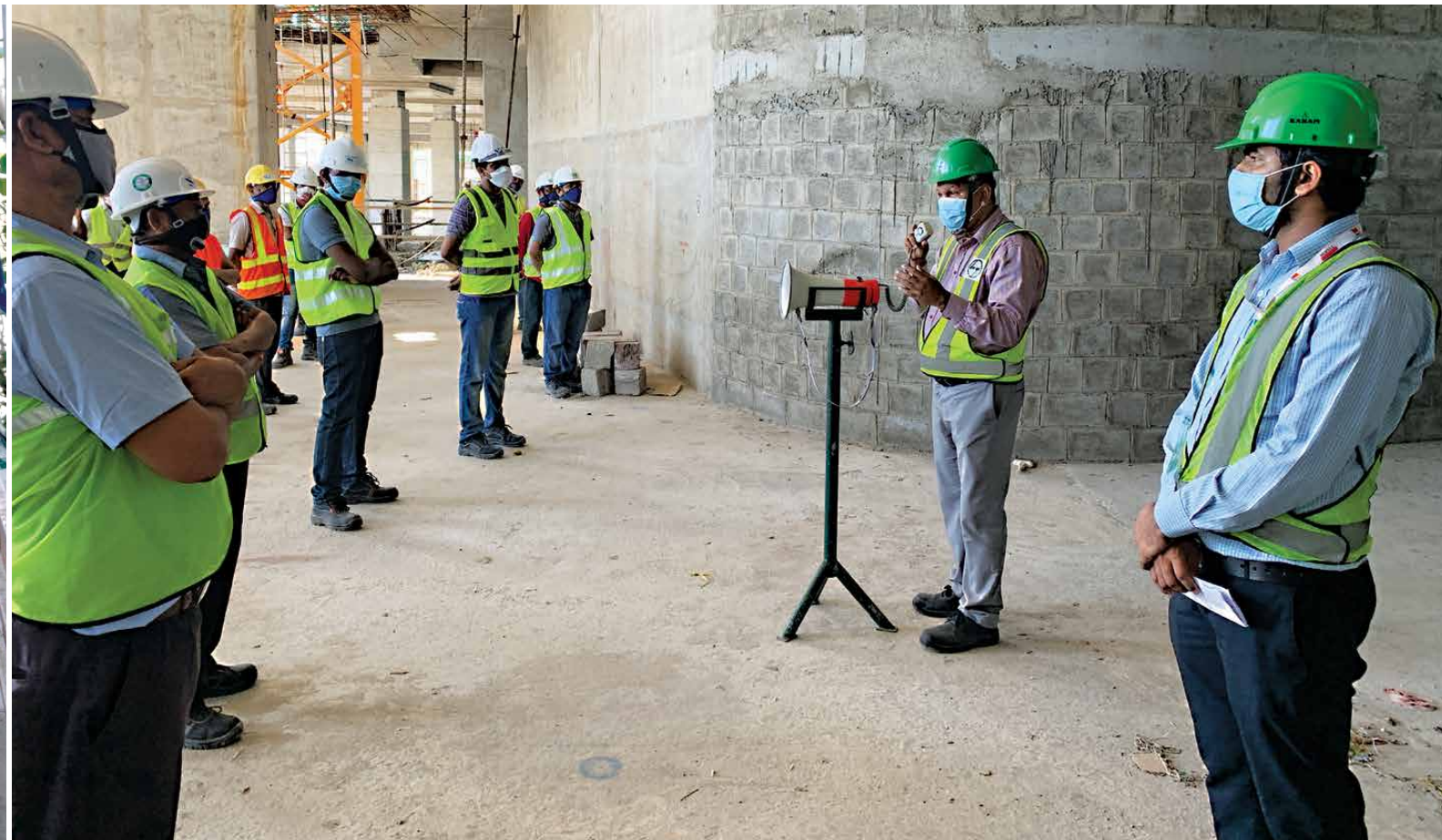
of GI sheets and Aerocon panels was proving to be unbearable where day temperatures soared past 40 degrees Celsius. The team, jointly with the client’s consent, shifted the workmen to the newly constructed hostel buildings located within the site.

“Now is the time for us to look after the people who work for us,” offers Project Manager, V Ravi, at the **Wipro IT SEZ Project**. “When a company steps up at a time like this, it builds loyalty, commitment, and long-lasting teams and it is the best time to develop flexibility at the workplace, introduce more digitisation, virtual collaboration and wellbeing.” He is full of praise for the efforts of Admin In-Charge, PGA Ramsudhakar, IR In-Charge, Senthil Kumar V, EHS In- Charge, Kannan S, MEP In-Charge, Sarvanan H, Planning



“Every single site in our Hyderabad cluster is in the process of reinventing themselves to adapt to the emerging challenges. COVID -19 has fostered the use of modern technology, which in turn, will bring in more efficiency in the system.”

**Madhava Kumar**  
Cluster EHS Manager



In-Charge Ganesh Kumar V and EHSO, Saroj Kumar Swain during these testing times.

“Every single site in our Hyderabad cluster is in the process of reinventing themselves to adapt to the emerging challenges. COVID -19 has fostered the use of modern technology, which in turn, will bring in more efficiency in the system,” says Madhava Kumar, Cluster EHS Manager.

### Taking the fight beyond Indian shores

The **ITC ONE Colombo 1 Project** team is fighting COVID-19 under the leadership and guidance of Project Director, Namachivayam. A team comprising E Arul (PM), Dr M K Parthasarathy (Head- Project Control), C S Lakshmanan (Head- Commercial, Admin & IR) and A Haleemdeen (Head -EHS) are

keenly and continuously monitoring the staff and workmen (of L&T and the subcontractors) at their accommodation with all necessary support. “We monitor and guide them via phone, WhatsApp, video conference calls, through regular formal daily checks to ensure strict compliance,” says Namachivayam. An Emergency Response Team, with key staff members, have spread the communication protocol and the procedures to be followed during an emergency in line with the local authority guidelines and as per the SOPs received from the HQ-EHS dept. They are also working closely with the area Public Health Inspector and the Deputy Labour Commissioner to maintain the required compliance levels. “Our focus presently is to resume operations taking all precautions adhering to the SOPs after the lockdown is relaxed in Colombo,” shares Namachivayam looking forward.

## Factoring in rapidly evolving changes

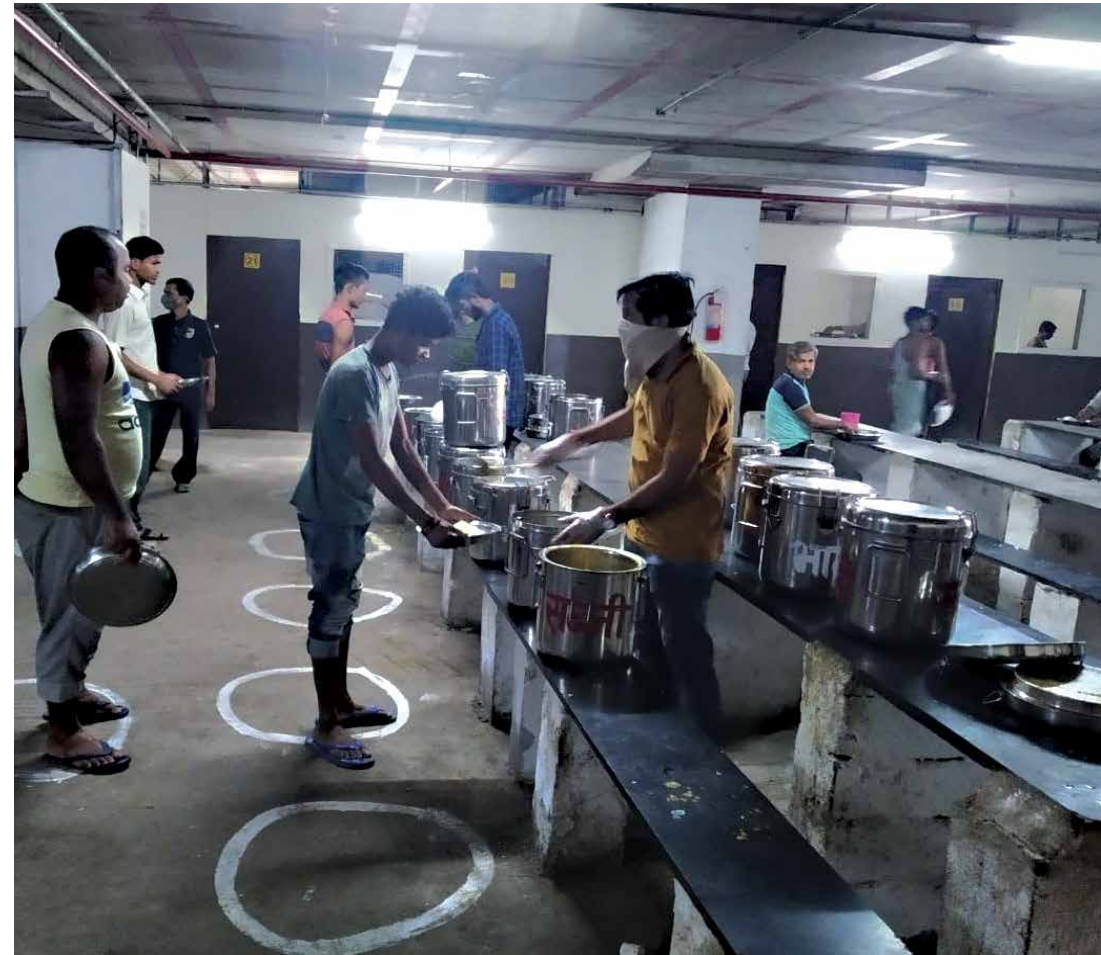
“To remain in sync with the government decisions and guidelines in a rapidly evolving scenario is our effort,” states Sanjeev Thakur, Project Manager, Grasim Expansion Project at Vilayat, Bharuch which resumed operations with nearly 2000 workmen. “We recognize that as situations change, our teams require fresh approaches to get work done.” Apart from social distancing protocols, all batching plants, vehicles and electrical sections of the site are being inspected daily. “We are prepared.” Sanjeev adds resolutely.

Meanwhile, Project Manager S. Asokan at the Ramco Cements Limited - Line III Expansion Works, Andhra Pradesh is leading a united combat against COVID-19 through well managed preventive measures. Ravi Kumar, Project Account/Admin

In-Charge of the project says, “The seismic shift that COVID-19 has brought about is in the way we start and end each day. It has made us realize that extraordinary efforts are required to overcome this ambiguous situation and keep our over 1350 workmen in our camp safe and engaged.”

## Standing tall and fighting in a red-hot zone

Mumbai, the Maximum City, has been under maximum threat with the spiralling number of positive COVID-19 cases. The onus on B&F's several residential project teams has thus been greater to maintain the health and safety of workmen at labour colonies, their families and staff. For Project Head C. K. Jana and his lead team of Safety Head, D. G. Patil, Accounts & Admin Head,



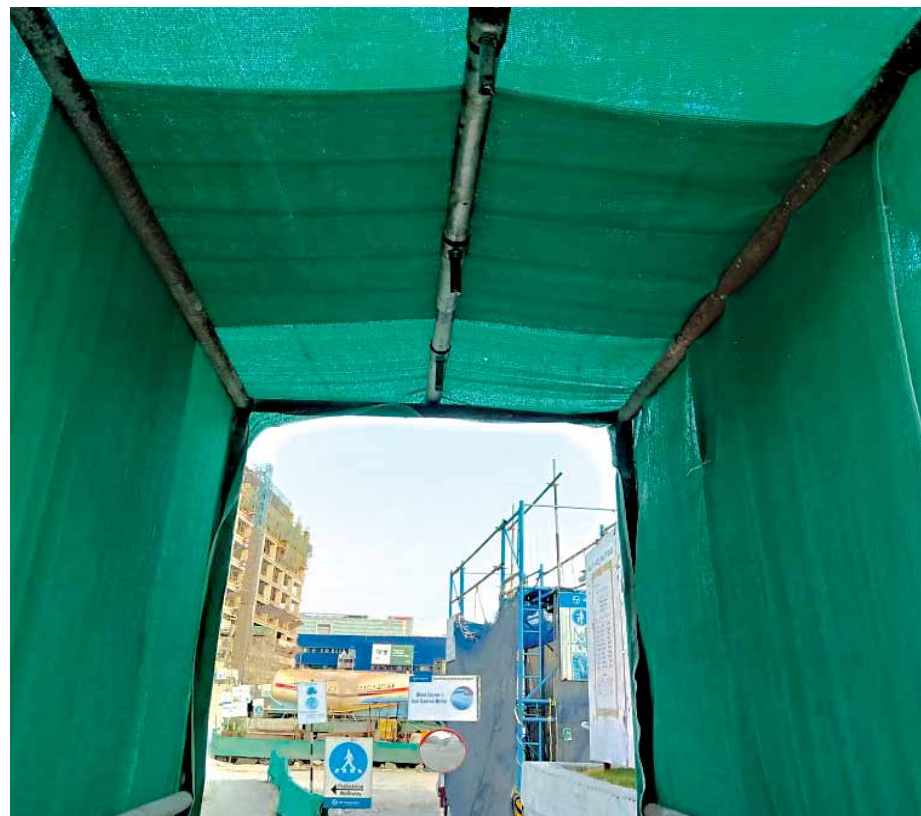
**M V SATISH**

Whole Time Director & Senior Executive Vice President (Buildings, Minerals & Metals)



In the post COVID-19 world, as we restart our operations, we must put in place the right mitigation measures and support to protect our human assets and business interests.

Restarting operations is akin to reinventing ourselves in many ways, adopting a ‘new normal’ of doing things differently with differing speeds. We will rely heavily on new and frontier digital technologies and we should be non-negotiable when it comes to safety. We are an organization that is adept to evolve and adopt rapidly and I am confident that B&F will lead the way.



Ravi Gupta and IR Head, Jayakumar at the Crescent Bay site, the task is tougher as 5 out of the 6 buildings have already been occupied and the under construction Tower No 3, is bang in middle of the site! While the project team at the Emerald Isle site is striving to keep their 600+ workmen safe, the Oberoi Sky City team at Borivali under the leadership of Project Director, Vinayak V. Bhosale, are focused to maintain the wellbeing, health and safety of their 800+ workmen. Project Manager, C.R. Mishra and team have their hands full safeguarding their workmen at the Lokhandwala Minerva Project in Mahalaxmi, right in the heart of Mumbai. An interesting initiative at all these sites has been the arrangement for lunch under the Maharashtra Atal Ahar Yojana.



## Reinventing with renewed vigour

“In the post COVID-19 world, as we restart our operations, we must put in place the right mitigation measures and support to protect our human assets and business interests,” shares M V Satish (MVS), Whole Time Director & Sr. Executive Vice President - Buildings, Minerals & Metals. “Restarting operations is akin to reinventing ourselves in many ways, adopting a ‘new normal’ of doing things differently with differing speeds. We will rely heavily on new and frontier digital technologies and we should be non-negotiable when it comes to safety. We are an organization that is adept to evolve and adopt rapidly and I am confident that B&F will lead the way,” he rounds off confidently. ■

# HEAVY CIVIL IC FINDS THE KEY TO OPEN THE LOCKDOWN!

Even as the country ground to a halt with the COVID-19 induced lockdown, teams at certain Heavy Civil IC projects either continued to work at the behest of their respective clients, meticulously following the prescribed SOPs and taking all the necessary precautions to keep their employees and workmen safe, or roared back into action as soon as relaxations were announced.



## No lockdown during the lockdown at the prestigious Mumbai Coastal Road project

On 21<sup>st</sup> May the Mumbai Coastal Road Project (MCRP), Package 1 achieved a peak supply of reclamation fill (graded crushed rock) of over 900 trips (i.e. in excess of 26,600 MT) in 24 hours made possible by the concerted and coordinated efforts of Project Director, Rakesh Singh Sisodia, Mumbai Cluster Head, I Chandran and Construction Manager, Suhas Deshpande and team who lined up supplies of filling material from as many as seven sub-contractors. "This was double the quantum of deliveries from 400-500 trips/day over the past week," says a beaming Rakesh. "We sourced the filling material from crushers at quarry sites based in Kundewahal, CIDCO airport in Raigad district, some 50-60 kms away from site and to achieve that during the lockdown was great!"

Rakesh's project site has continued to operate even during the lockdown managing the ongoing pre monsoon



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**Rakesh Singh Sisodia**  
Project Director,  
Mumbai Coastal Road Project -  
Package 1



Medical screening

works under 'Essential Services' for the Municipal Corporation of Greater Mumbai (MCGM) carrying out critical protection of 1,100 m of the constructed seawall, expanding its reclamation footprint by 4 hectares and bringing a total of 3 lakh MT of fill material during this period.

Over at the MCRP - Package 4, Project Director, Sandeep Singh and team have also been involved with pre-monsoon works. "We acted prudently by preempting the lockdown to form a task force and assign specific roles and responsibilities to keep our workforce of 350 workmen and 70 staff safe," he informs. The going, however, has not been easy by any stretch of imagination according to Assistant Manager IR & Administration Package - 4, Jai Kumar Sharma. "Our client informed us to proceed with the monsoon protection work and we had to quickly make available the required number of workmen for the works, arrange for their food, provide adequate PPEs, support staff movement from residence



Pep talk



"We acted prudently by preempting the lockdown to form a task force and assign specific roles and responsibilities to keep our workforce of 350 workmen and 70 staff safe!"

**Sandeep Singh**  
Project Director,  
Mumbai Coastal Road Project -  
Package 4



to site and provide for all the necessary facilities to perform work at site. With so many restrictions, so many precautions to be taken and without adequate support, it has been tough."

K Hari Narayan, Senior Manager - Accounts & Administration adds that "Remobilisation after the first few days of lockdown was difficult as lots of administrative issues cropped up and the day to day affairs were more difficult to manage due to lack of manpower. Moreover, since Mumbai was a hot zone and continues to be so, we had to be doubly careful with our safety norms so that the residents in the vicinity did not create issues." All the necessary permissions from authorities like the local police, traffic police, Collectors of Suburbs from where quarries were supplying material were sought and procured. The team was careful that their actions would not lead to any contractual or legal complications later for the organization. For unhampered movement and transportation of material, individual passes were issued to all the staff and workmen along with



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**K Hari Narayan**  
Senior Manager -  
Accounts & Administration  
Mumbai Coastal Road Project,  
Package 4

those for vehicles that would be engaged at site. All those working at site were COVID-19 tested and the workmen who were not staying in camps like operators, who could be potential 'carriers' were accommodated at the site itself.

Keeping the workmen mentally stable was critical as also was building their immunity against infections for which Vitamin-C and Vitamin-D tablets were distributed in the prescribed manner, Yoga sessions organized, regular medical check-ups conducted by a doctor along with health briefings, premises regularly inspected and frequent counselling and interaction between the employees and seniors through several internet platforms. Duties were assigned to both staff and workmen on a rotation basis for adequate rest.

A 'big' problem that landed on Sandeep's lap was in the form of a giant Tunnel Boring Machine (TBM) that arrived from China at the Mumbai Port. While the local authorities were only operating with minimal strength to transact



**“We have a whole set of unique challenges, but we are not perturbed, and have geared up to face and overcome them all.”**

**Sanjay Digambar Patil**  
Project Director,  
Mumbai Trans Harbour Link

essential works, the team also did not have the resources to shift the TBM to site. Again, Sandeep and his team won the day by arranging for special permissions for specialized trailers to reach the Mumbai Port from various locations by approaching the traffic police through the employer for special round-the-clock permissions for heavy vehicles to ply for the

Coastal Road project. The TBM was safely and efficiently shifted to site and unloaded in 6 days when normally it would have taken 10!

## Building India's longest bridge in the eye of the pandemic storm

With the number of infected cases spiralling, Mumbai is well and truly in the eye of this pandemic storm. The team constructing India's longest bridge – the Mumbai Trans Harbour Link (MTHL) is striving to keep essential services ticking over and protect their 3,000 workmen and 430 employees “We have a whole set of unique challenges,” says Deputy Project Director, Sanjay Digambar Patil, “but we are not perturbed, and have geared up to face and overcome them all.” His confidence is comforting.

The team engages a huge marine fleet of barges, boats, tugs, etc. managed by specialized crew and seamen who have been unavailable during the lockdown. Sanjay's problem was aggravated by a mini depression accompanied by high wind speeds that forced the crew to stay out at sea for the whole day; rough sea conditions, limited mobile connectivity and complete lack of entertainment are keeping them away. Addressing their concerns by promising them all the required support, the team has succeeded to bring them back with the Project Admin team and execution staff constantly in touch to allay their fears.

For a majority of the staff, the Work From Home regime was completely new. “51% were either Engineers or from the Supervisory cadre who are better tuned to site-based works,” Sanjay points out, “while about 68% of our staff were either bachelors



Mumbai Trans Harbour Link Project

or forced bachelors, staying away from their families, terribly worried about their families back home and, in some cases, under huge family pressure to return to their homes considering the alarming situation in Mumbai.”

With their work cut out for them, Sanjay and his team first targeted the staff: to retain and motivate them to keep performing for which a 3-Tier employee connect programme was adopted. HR connected with them formally and informally while the Project Director and Section Heads interacted almost daily. Several online programs were conducted like singing, poster and painting competitions for the employees and their families; they were encouraged to participate in various online training programs, online quiz competitions and one-on-one counselling was available for those who wanted help.







Nose mask distribution

“With so much false and fake information floating around, we had to ensure that our 3,000 workmen were given correct and authentic information across all the 11 labour camps,” says Sanjay. This was critical for them to remain mentally balanced. The team created WhatsApp groups with all the workmen representatives to create awareness, share information, address problems and concerns. Each workman was mapped to an employee through their representative, who was mandated to converse with the workman at least twice a day. Although there were a few and sporadic incidents overall, they remained under control. The team ensured that they were paid on time, medically looked after, continuously counselled and adequate facilities prepared for quarantining.

Finally, to carry out the essential pre-monsoon works and resume operations, a Standard Operating Procedure was prepared defining the new way of working with a task force set up drawn

from various sections / disciplines to examine various aspects of the project and identify the changes required



Thermal scanning

which were then subsequently shared with the client and their consent obtained.

Apart from himself and Project Director, Dr Yunkmook Na, Sanjay mentions his other comrades-in-arms in this fight – Yunus H Aziz, A M Patrawala, Pruthvi, Sidharth, Umesh Tiwari, Pabitra Parida, Ramesh, Pravin Sawant, Dr Ravindra Jain, Subhash Chandra and Rajendra.

## Building a bridge across the Ganges

Several hundred kms away from Mumbai, another team is busy building the Kachi Dargah bridge across the Ganges and Project Manager M Srinath has his hands full with a motley workforce of 2,945 (400 from Nepal and the rest from various Indian states) to handle at the time of the lockdown which subsequently reduced to roughly 1500. “We also had some JV staff,” he adds, “12 Koreans, 145 Indian staff and another 275 specifically recruited for this job.”

Since the site labour camp is sandwiched between two channels of the Ganga, logistics is an issue at the best of times and during the lockdown it is even more vexing. Barges are the only mode of transport and hence the supply of food and medicines were adversely impacted. With the entire alignment of the project spread over 20 km, moving from south to north of Bihar, the positioning and movement of emergency vehicles and ambulances are other challenges. Srinath frets as he is losing precious time in the process. “Once the monsoon hits, the water level will impede work,” he laments, casting a glance at the sky. “There are several other operational issues like shortage of materials, clearance of goods from ports and, of course, loss of revenue.”

Despite all these impediments, Srinath and team have been holding out to keep their work force engaged at site and primed to restart work as soon as relaxations are announced. Theirs has been a triumph of teamwork and Srinath mentions a few of his



colleagues who have been pulling their weight during these tough times: Rajesh Singh, Head Administration supported by a set of L&T & JV staff – Rajesh, Negi,

Dilip Behera, Anuranjan; Paras Abhay Singh and Bibin Arakkal from Safety, Ajay Nath from the HR department and Saurabh Mishra from operations.



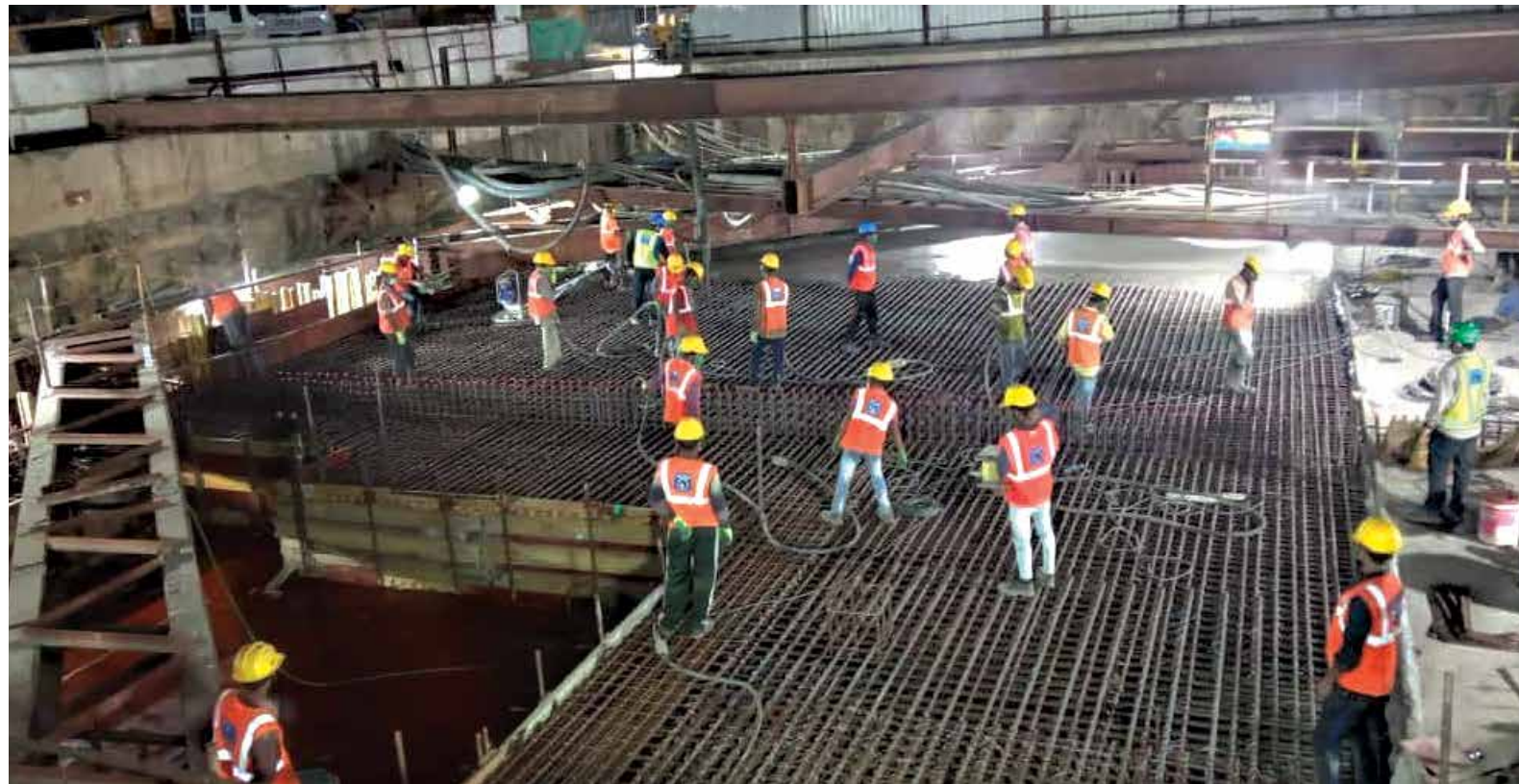


“The completion of the roof slab is another feather in the team’s cap, becoming the first station in the entire Mumbai Metro Line 3 to complete the structure works of the station box.”

**H Jayarama**  
Project Director,  
Mumbai Metro Project - Package 7

## Resuming operations with a bang!

When Mumbai went into lockdown, the Mumbai Metro project team at Package 07 with Project Director, H Jayarama (HJ) at the helm ensured



that the site was kept primed for a quick resumption of operations by maintaining the station box and tunnels to prevent mosquitos from breeding and continuously dewatered to prevent water stagnation. The moment they received the green signal, the project restarted work on 7<sup>th</sup> May by successfully completing the casting of its final roof slab pour (Concrete Quantity 330 cum) at the MIDC station under the guidance of A H Khan (Task Force Leader Mumbai Metro Project UGC01 and UGC07) and HJ. “The completion of the roof slab is another feather in the team’s cap, becoming the first station in the entire Mumbai Metro Line 3 to complete the structure works of the station box,” HJ proudly shares. Prior to achieving this feat, the MIDC station had achieved some remarkable milestones such as being the first station to complete piling, excavation, and base slab in the entire Mumbai Metro Line 3.



“Safeguarding the contractual interests of L&T STEC JV has been calibrated at every step by guidance from HQ and TFL, through detailed discussions among the core group members.”

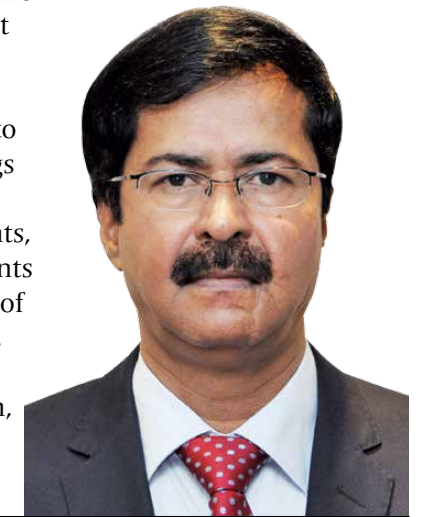
**Alope Dey**  
Project Director,  
Mumbai Metro Project - Package 1

Their neighbours at Package 1 have maintained close contact with the Employer adhering to their guidelines and priorities and with robust documentation and meticulous work methods, have gained the customer’s trust and confidence, while always safeguarding the contractual interests of L&T STEC JV. “This tightrope walk has been calibrated



**S V DESAI**  
Senior Vice President & Head,  
Heavy Civil Infrastructure IC

Without doubt, COVID-19 has set us back a long way and we have to work doubly hard to try and make up for lost ground, well aware of the extent of disruption. Even as things limp back to normal in certain pockets, we are going to be faced with a new normal and we need to both appreciate and understand that things may never be the same again. It calls for alacrity, quick thinking, speedy adjustments, always keeping in mind that even our clients are part of this new normal and their way of operating will also see significant changes. These are going to be testing times but as they always say when the going gets tough, the tough get going and that is what L&T have always proven!



*The systematic efforts put in by the entire team, right from arranging manpower for production and transportation of concrete at site with limited resource and COVID-19 restriction is highly appreciable. Such teamwork will definitely help to overcome the lost time due to COVID-19.”*

Project Manager, Vivek Maruti Pai’s Bangalore Metro team resumed operations on 25<sup>th</sup> April to successfully complete the first station concreting of 910 cum of M35 Grade concrete, a prerequisite to commence TBM launching activities thanks to the coordinated efforts of different departments with construction team lead by DPM, Rajuchambanna V Y & Station Manager, P Sateesh Babu, Quality team lead by Mrs. Nandita C and the P&M team lead by K K Nayak. “The pour started as planned on the evening of 21<sup>st</sup> May,” informs Vivek, “and continued till late night of 22<sup>nd</sup> May. Local traffic and authorities were effectively managed

by Admin and IR team, ensuring 160 smooth trips for the transit mixers.”

## Preparing for new battles

“Without doubt, COVID-19 has set us back a long way and we have to work doubly hard to try and make up for lost ground,” says a very practical S V Desai, Senior Vice President & Head – Heavy Civil Infrastructure IC, well aware of the extent of disruption. “Even as things limp back to normal in certain pockets, we are going to be faced with a new normal and we need to both appreciate and understand that things may never be the same again. It calls for alacrity, quick thinking, speedy adjustments, always keeping in mind that even our clients are part of this new normal and their way of operating will also see significant changes. These are going to be testing times but as they always say when the going gets tough, the tough get going and that is what L&T have always proven!” ■



# PT&D IC USHERS IN A NEW FORM OF REMOTE TESTING TO EXCEED CUSTOMER EXPECTATIONS

COVID-19 has disrupted global supply chains and brought about a paradigm shift in the way we do things. Even simple activities like taking a walk is now within confined spaces taking precautions never thought necessary before. In business, it has been all about adapting to the right mix of technologies to improve customer service and experience with minimum physical interactions and in the days to come, such channels of interfacing will be regular features in the 'new normal.'

## Ensuring productivity through connectivity

The Power Transmission & Distribution (PT&D) IC, the 'COLOMBUS' of L&T, with projects across various geographies, has developed some timely innovations for remote inspections at some of its ASEAN, Africa and Middle East projects during the lockdown. The Remote Factory Acceptance Test (RFAT) is a first-of-its-kind approach in the EPC segment with significant value advantages of zero cost, enhanced safety, transparency and flexibility and a considerable reduction in delivery time. Overall, the RFAT initiative has reinforced PT&D's credentials as a leading EPC player with superior project management capabilities.



**“We initially began RFAT for the Medamid to Lawas Town 275 kV transmission line project in Sawark, Malaysia. A check list on the various tasks was prepared taking on board the OEM and the client before conducting the remote test. Once the sequence was finalized, the whole testing was completed seamlessly with a saving of 3 days!”**

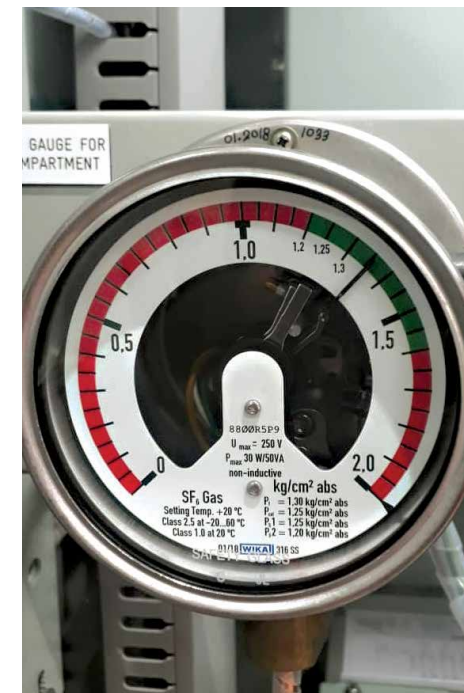
**J. Stalin Babu**  
Head ASEAN Cluster I

## Synchronizing remote testing

J. Stalin Babu, Head ASEAN Cluster I, along with his digital team of Nikhil, Ajay and Kasiraj, have successfully completed 4 inspections and with their momentum, he is confident of repeating the feat, “We initially began RFAT for the Medamid to Lawas Town 275 kV transmission line project in Sawark, Malaysia. Having delivered significant power infrastructure projects in recent times, we had built credibility with the client, Sarawak Energy Bhd, and were able to convince them to opt for remote inspections.” PT&D's scope covered supply, erection, testing & commissioning of 131 km of double circuit line which involved raising 381 towers, supplying ACSR drake conductors, 6600 t of steel structures, 272 km of OPGW along with 130,000 toughened glass insulators and installing other accessories. The project had to be

completed within a stringent timeline of 30 months given the undulated terrain traversing through a national forest reserve and along numerous villages with untitled lands.

With some catching up to do on the project front and the lockdown slowing down process, RFAT was a feasible option and a win-win situation for the client. “With our TLT factory in



**“TLT Kancheepuram factory, successfully completed the proto structural inspection for 7 structures of the 275 kV Medamid to Lawas Transmission line.”**

**Debasish Mukherjee**  
Head, TLT Factory, Kancheepuram

Puducherry as the inspection location, all fronts were covered, and we lined up the sequence and went through the process seamlessly to achieve a saving of 12 days.” Elaborating on the remote platform, Stalin informs, that it is like the connectivity of MS Team and depending on the OEM's preference, the digital communication platform is finalized. A fixed number of cameras with laptops are installed to cover the activity while the approval is recorded from L&T's side, keeping the client representative logged in.

“Taking this initiative further, TLT Kancheepuram factory, successfully completed the proto structural inspection for 7 structures of the 275 kV Medamid to Lawas Transmission line -Malaysia through MS Teams,” shares Debasish Mukherjee, Head, TLT Factory, Kancheepuram.

While the tower testing was in control, the challenge was to clear the OPGW test with a vendor based at China's Jiangsu Province. “The client was apprehensive as to how we could remotely test with the pandemic raging across China,” mentions Stalin. “Getting into specifics was the key and we quickly formed a team to connect with the vendor,

ZTT International, who assured that despite the lockdown, their factory was secure and accessible. A check list on the various tasks was prepared taking on board the OEM and the client before conducting the remote test. Once the sequence was finalized, the whole testing was completed seamlessly with a saving of 3 days!”

## Scaling up the process

Having made the initial breakthrough, Stalin and team were confident of scaling up the process for an elite project: the Matang 275/132/33 kV Substation at Kuching, Sarawak in East Malaysia. The client, Sarawak Energy, had reposed faith in L&T for the good work done in this region by awarding the fourth consecutive substation project within a span of four years since the inception of the ASEAN

BU. L&T’s scope involved design, procurement, installation, testing & commissioning of the AIS substation with 275 kV & 132 kV outdoor air insulated switchgear units with double busbar arrangement, 2X240 MVA auto transformers, 275 kV cabling works, 33 kV cabling works, 33 kV GIS, complete 275 kV, 132 kV & 33 kV protection, control and communication system along with AC & DC system, retrofitting works related with 2X120 MVA power transformer and reactors and other accessories to undertake emerging load capacity in addition to the existing load of the old substation. The advantage here was that the factory was in Selangor, Malaysia and the 33 kV GIS material was tested within a day. However, the 275 kV and 132 kV Circuit Breakers were remote tested at the OEM’s premise in Suzhou, China, ensuring a saving of 5 days.



## Raising the bar

Installing the 500 kV GIS was a critical milestone for the Surat Thani 2 Substation, mentions S. Suresh, Head ASEAN BU Cluster II. “When commissioned, it will be the largest transmission system in Thailand’s southern province and a key power hub in the national electricity grid.



“Remote Supervision of 500 kV GIS installation by the OEM has never been done in L&T and now with the SOP defined, up to 30% of the works can be completed through remote supervision.”

S. Suresh  
Head ASEAN BU Cluster II

It is also the first 500 kV GIS project awarded to L&T outside India.” It is the norm worldwide that the installation of GIS is undertaken only in the physical presence of an OEM supervisor, informs Suresh, “ However, as the Korea-based OEM could not make it due to the travel restrictions, we needed an alternative plan to mitigate the delay. Moreover, since Thailand did not have a lockdown, our construction work proceeded in full swing taking all precautions.” Project Manager, B. Santhanam and his team, led by Anil Tomar, developed an alternative method for the Korean supervisor to inspect the works by formulating a SOP that covered the norms of setting up a virtual room with CCTV cameras, laptops and other

essentials that could broadcast the feed to multiple locations.

“Remote Supervision of 500 kV GIS installation by the OEM has never been done in L&T and now with the SOP defined, up to 30% of the works can be completed through remote supervision while we eagerly await the shipment,” shares S. Suresh. “All through the process, our client, EGAT, has been very supportive.”

## Bridging the time factor

The process worked perfectly since the ASEAN region and China were in close proximity but the team anticipated challenges when operating from considerably different time zones



“Going forward, the client has issued a circular stating that all factory based testing should be through RFAT which is an acknowledgement of the value addition that L&T has created during these challenging times.”

**Haroon Ali Kamal Mustafa**  
Engineering Manager,  
PT&D Middle East

involving larger equipment as was the case with the Middle East team for the remote testing of a 500 MVA Inter Connecting Transformer (ICT) for a 400/132 kV Substation at Dubai for DEWA. Taking us through the process, Haroon Ali Kamal Mustafa, Engineering Manager, explains, “Our Korea-based OEM was 5 hours ahead of Dubai and to sync the testing, we had to login by 4 am. It was a tough proposition but then there were no other options and the client was keen to complete the task. For the next nine days, the process continued with close to 32 schedules taken up according to priority.” From the OEM’s side, a CISCO communication platform facilitated the assessment with provision of 20-member logins and cameras fixed at the respective factory locations connected to the laptops while the off-field process was captured on mobile phones. “As our equipment



was an ICT, there were many threshold tests conducted for various parameters and with the client onboard for the entire testing, this has been a highly successful initiative,” shares Haroon Ali Kamal Mustafa. “Going forward,

the client has issued a circular stating that all factory-based testing should be through RFAT which is an acknowledgement of the value addition that L&T has made during these challenging times”.



“We completed tests at two remote locations in Switzerland and France connecting from HQ Chennai. Perhaps, this could be one of the longest remote factory tests undertaken with stakeholders participating from different regions.”

**S. Sankaravel**  
Chief Engineering Manager,  
(Electrical), EDRC

### Going beyond boundaries

Adding might to the RFAT process are a few more milestones achieved across the African BU for Rehabilitation of Hassi Berkine Basin Project in Algeria. “We completed tests at two remote locations in Switzerland and France connecting from HQ Chennai,” informs S. Sankaravel, Chief Engineering Manager, (Electrical), “Perhaps, this could be one of the longest remote factory tests undertaken with stakeholders participating from different regions. From HQ EDRC, K. Ramachandar and T. Savithri, led one of the initiatives that involved testing of 4 DC batteries and charges over 4 days



**T. MADHAVA DAS**  
Senior Vice President & Head,  
Power Transmission & Distribution IC



Maintaining customer relationships during such a crisis is always a challenge as in-person meetings do not happen. However, since customer centricity is deeply engrained in our culture, we overcame these challenges in our own way. As a digital frontrunner, we have done remote FATs and enabled remote project monitoring for our customers demonstrating that Digitalization is in our DNA and Result Orientation is in our RNA. Especially, since PT&D, is a supply intensive business with key projects, plants, partners, and players spread wide across the globe, these sort of initiatives are of great significance as customer experience truly gets elevated to the next level. They see us differently vis a vis our competitors and we are back to billing in quick time.

while the SCADA equipment testing for Central Control Station at GE’s factory was remotely monitored by A. Shankar over 3 days.”

### In line with the 3Ps approach

“Maintaining customer relationships during such a crisis is always a challenge as in-person meetings do not happen,” shares T. Madhava Das Senior Vice President & Head, PT&D IC. “However, since customer centricity is deeply engrained in our culture, we overcame these challenges in our own way. As a digital frontrunner, we have done remote FATs and enabled remote

project monitoring for our customers demonstrating that Digitalization is in our DNA and Result Orientation is in our RNA. Especially, since PT&D, is a supply intensive business with key projects, plants, partners, and players spread wide across the globe, these sort of initiatives are of great significance as customer experience truly gets elevated to the next level. They see us differently vis a vis our competitors and we are back to billing in quick time. And these are not one-time wonders. We are institutionalizing such practices to reap cost benefits. After all, it reverberates with our solution focus on Positivity, Profitability and Productivity during these testing times.” ■

# WET IC NAVIGATES ON A SAFE MODE ACROSS FRONTS

With several WET IC projects spread across states and districts, the challenges to mitigate the risks as the pandemic spread were unique. While the overarching need for all projects was to reinforce their safety environment, some required diverse safety strategies considering several local factors, as they focused on phase wise resumption of operations and also in continuing the essential services of delivering water to millions of people across the country.





“With 21 locations to cover, movement was an issue due to the lockdown, but thanks to our networking with external stakeholders, timely permissions were obtained, and our core team members took up the task of delivery.”

**S. Kumerasan**  
Project Director,  
ISP Kalisindh Phase 1 Micro Lift  
Irrigation Project

## At the heart of a green channel

Several lift irrigation projects are at significant stages of execution and when completed will become game changers transforming arid zones into agrarian tracts. One such mega project is the ISP Kalisindh Phase 1 Micro Lift Irrigation Project where the onus on Project Director, S. Kumerasan, is to keep 1300 workmen and 84 employees safe and engaged across 5 districts. “Considering the spread of the project, we formed clusters with designated area wise in-charges to align to the SOPs and MHA guidelines ensuring that the requisite number of PPEs, hygiene kits were available across the camps. Teams led by S N Bhar - Head-Accounts & Admin, S G A Rizvi Head - IR, L Murugan Head - EHS along with Departmental /Section Heads have been at the forefront of this critical mission.”



Laying of 3110 mm dia twin pipeline



Thermal scanning of body temperature at workmen camp

One of their immediate concerns was to find a way to move across various zones to reach food and essential materials to the workmen camps. “With 21 locations to cover, movement was an issue due to the lockdown, but thanks to our networking with external

stakeholders, timely permissions were obtained, and our core team members took up the task of delivery.” Kumaresan’s sense of achievement is evident. Apart from the core team, an Emergency Rescue Team served as a back-up unit to take care of the medical and



Fumigation at site office

other requirements of the staff and workmen. “Our success is attributable to the active participation of all our employees,” he highlights.

“As ours is a public infrastructure project, we often reach out to help the surrounding areas as part of our

community initiatives that worked to our advantage during these challenging times,” he remarks. “We provided our vehicles to the SDM of Tehsil for their visits to the villages to make announcements and distribute food to those quarantined. Our team distributed sanitizers, gloves, and masks at the SDM office, police station and other government offices under the project area.” The team’s outreach efforts won the hearts of the local community as some farmers close to the pipe manufacturing facilities at Punjabura and Vikupura villages permitted the workmen to take fresh vegetables from their farms. “It was heartening to hear them acknowledge L&T’s effort towards building a green channel for their benefit,” shares Kumaresan.

The team had a strategy to deploy resources across various zones once the lockdown was eased and with the resumption of site operations, Kumaresan and team are continuing the battle, keeping a comprehensive safety vigil.

## Being on the right track at the right bank

Another significant lift irrigation project is the Kundalia Right Bank Scheme in Madhya Pradesh. “With 764 workmen engaged across fronts, work was proceeding seamlessly but with the lockdown some firm decisions had to be taken quickly and early on,” says Project Manager, Dinesh Kharbanda. “At our first meeting on 20<sup>th</sup> March, an Emergency Response Team was formed and the ERT members went into action from day one as approvals had to be processed for vehicle movement to deliver essential requirements. It was only after 3 days of continuous follow-up that we received the passes but considering the regulations, it was empowerment at the right time for us to move on.”

With all essentials stocked at the camp, a dedicated team looked into the needs of the workmen, another networked with the bureaucracy that included the newly appointed District Collector to obtain various approvals



Pep talk before taking up a critical activity





**“To the workmen, we conveyed a strong message of ‘We Care’ while our networking helped us to assess the situation, take proactive decisions and deal with various situations effectively.”**

**Dinesh Kharbanda**  
Project Manager,  
Kundalia Right Bank Scheme

while yet another team remained in constant touch with the police and village panchayats. “To the workmen, we conveyed a strong message of ‘We Care’ while our networking helped us to assess the situation, take proactive decisions and deal with various situations effectively.” Pep talks, awareness communication, regular medical check-ups kept the workmen healthy and in a positive frame of mind.

Having safely sailed through the crisis, Dinesh and team resumed site operations on 23<sup>rd</sup> April with the District Collector’s approval with 55 staff and 400 workmen across select fronts and are hopeful that their workforce will grow as lockdown norms ease further.

### Charting a safety channel across canal works

In Odisha, Project Director, S. Devanand and team are building a mega lift irrigation scheme across the upper reaches of Indravati Region which includes a distribution network of 4 Ha Chak with a total planned cultivable command area of 26,248 Ha on an EPC basis. The team had been making significant progress, just prior to the lockdown, having commissioned many milestones, targeting completion by July 2020. However, the lockdown forced a shift in their agenda towards ensuring the safety of around 800 workmen across 19 camps. “A COVID



Canal bed concreting

farmers in the coming Kharif season. To motivate the workforce, we also showed videos of the struggle faced by migrant workmen returning to their native places and requested them not to panic.”

With the Ministry of Home Affairs granting permission to resume operations across major irrigation projects, the site commenced works from 20<sup>th</sup> April 2020. “Thanks to our initiatives during the non-working period, we had the requisite manpower and resources to accelerate work across the balance 28 km of the canal, well aware that the monsoon was just a couple of months away. The team is ensuring that execution is as per the SOPs and guidelines laid down by Government. Social distancing is being strictly implemented at all the site locations. In spite of all hurdles, the team has executed 37056 cum of canal excavation, 1781 cum of CC canal lining, 554 cum of concreting in the in lined canal structures and 17 km of distribution pipe laying in the first week after resuming site activities. The good work has enabled us to collect payment for the work executed after resumption.” For Devanand, it is another opportunity to be proud!

### Taking control of a 900 sq.km area

S.S. Mani, Project Manager, at the twin projects, Clusters IX and XII in Sundergarh District, had to make quick inroads as the lockdown began, to ensure access to the 17 camps spread across locations. “We discussed the matter with the District Collector on 25<sup>th</sup> March 2020 for vehicle passes to support delivery of essentials to the workmen which was approved within 12 hours.”

After gaining access, the core team members, Sayyed Ali Ansari, Shashi Kant Singh and Hrudananda Mishra, swung into the action to address



SOPs being briefed to workmen



Response Team (CRT) under the leadership of Project Manager, U Srinivas, was mandated to ensure the wellbeing of the workmen across 3 blocks in the district. In fact, our entire team of 56 volunteered to serve the workmen,” shares a visibly proud Devanand. While one team handled the health, safety and attendance regularisation, the other distributed food, and other essentials.

But as the lockdown progressed, Srinivas started to sense signs of unrest. “Our workmen were from 14 different states and started to voice their concerns: ‘Kaam do nahi toh ghar janne do’. We assured them that we were confident of getting permissions to resume operations since our works were at a critical stage and project completion was going to benefit



**“Thanks to our initiatives during the non-working period, we had the requisite manpower and resources to accelerate work across the balance 28 km of the canal. The good work has enabled us to collect payment for the work executed after resumption.”**

**S. Devanand**  
Project Director,  
Mega Lift Irrigation Scheme,  
Indravati Region



“When work resumed, the site team faced another unique issue as most of the access roads were either blocked or dug up. We therefore took the issue right up to the District Collector level and police authorities and were able to make phased headway.”

**S.S. Mani**  
Project Manager,  
Clusters IX and XII



Fumigation of Plant & Machinery



various workmen issues. “In addition to establishing a safe environment, it was important to work on their mindset to remove apprehensions and to a large extent we succeeded,” says Mani.

Although their internal strategy was working to perfection, an external storm was brewing for Mani and team. “Tension was building up among the villagers, wanting our workmen to be removed as the pandemic was spreading. With a mitigation plan evolved with the IR & Admin personnel, we sought the Tashildar’s Block Development Office and Village Sarpanch support to lead our reconciliation efforts. A series of awareness campaigns on the pandemic, do’s, and don’ts along with precautionary measures taken at the camps assured the villagers of our concentrated efforts and helped defuse the situation.”

When work resumed, the site team faced another unique issue as most of the access roads were either blocked or dug up. Reaching out to the local

authorities did not help much. “We therefore took the issue right up to the District Collector level and police authorities and were able to make phased headway. By April 25<sup>th</sup>, the complete road clearance was secured,” shares a battle-hardened Mani.

### Resuming operations in a hotspot zone

Down south in Karnataka at Bagalkot District, where WET IC is involved in building a vital infrastructure for Karnataka Power Corporation, timely decisions by Project Manager, Ganeshmani, ensured that all 160 odd workmen were grouped and shifted to a common camp. “It was easier and safer for us as we could monitor the base station, provide round the clock security with the back-up of a CCTV system.” Further, a committee with IR Head, Mangala Sreekanth and Accountant, Anup Nemani focused on providing all the essentials and ensuring hygiene at the camp which was appreciated by the Chief Engineer

during one of his visits. A tie up with the local doctor for regular health check-ups ensured the wellbeing of the workmen. “All our initiatives kept the workmen calm and in good health that helped us to resume operations on 21<sup>st</sup> April.”



“State wise leaders were assigned to address workmen for better connect. We were able to secure permission and commence works in a phased manner after gaining the confidence of the workmen.”

**Colin Nonis**  
Project Director,  
Surya Water Supply Project

### Working out an internal and an external plan

At Palghar, Project Director Colin Nonis’s Surya Water Supply Project is strategically placed with the alignment traversing through many villages along NH8 that presented him with a spate of issues during the lockdown. “The tribal villages in Palghar went into a shell, being overly protective, demanding the removal of migrant workmen based in camps near their villages and even trying to prevent the use of our offices. The workmen, understandably so, were all in panic, wanting to return home.”

Communication and networking worked best for Colin. “Thanks to our Accountant, Sajeev, we achieved a breakthrough after discussing with the District Collector. We quickly put in place a SOP with EHS Manager, Ganesh Balu Divekar driving the initiatives along with team member Nalini Krishna. At the camps, we adopted a straightforward approach with Assistant Manager,



“That we have stood by the workman during these times and have done whatever best was possible is paying us back as we are now in position to take up works and accelerate.”

**Mrityunjoy Santra**  
Project Manager,  
The Ranchi Water Supply Project

better connect. After about a month, we were able to secure permission and commence works in a phased manner after gaining the confidence of the workmen.” Colin’s relief is evident.

### Gaining a safe edge with timely decisions

The Ranchi Water Supply Project team led by Project Manager, Mrityunjoy Santra, along with Construction Manager, Vipin P, were quick to implement control measures since 14th March, to keep 158 members safe at site. “That we have stood by them during these times and have done whatever best was possible is paying us back as we are now in position to take up works and accelerate,” shares Mrityunjoy, attributing his success to teamwork. He mentions some of his key members: Md. Gulam Ali Hassan, Accounts & Admin who was instrumental in getting the BOCW benefits for the workmen and ESHO, A. Srinivas for ensuring the provision of essentials at the camps, conducting medical camps and awareness campaigns.



Grocery distribution to workmen



“The pandemic crisis forced us to act fast, ensuring minimum interface while moving our workmen to safer zones.”

**Vipin Kumar Tyagi**  
Project Manager,  
Udaipur Integrated  
Infrastructure Project

## Mitigating an urban challenge

Just before the lockdown there were around 1200 workmen at the Udaipur Integrated Infrastructure Project with most of the works happening across narrow roads and by-lanes. “We always had to strive for a safe access way,”

mentions Vipin Kumar Tyagi, Project Manager, “The pandemic crisis forced us to act fast, ensuring minimum interface while moving our workmen to safer zones.” Precise communication by the EHS team led by Yagana Khan conveyed the right message to the workmen that staying at their camps was safer than taking the risk of travelling to their hometowns.

After the easing of restrictions, the project team recommenced works across all fronts taking up a slew of tasks comprising micro tunnelling, pipe bursting, CIPP activity, open cut pipeline work, cable laying and WTP structure works. The core team involving Vipin Kumar, Ankush Bansal, Vikram Singh, SB Pathak, Pawan Pandey, Surendra Singh, worked out a secure way forward, aligning to the precautionary SOPs with 500+ workmen. “With proper planning and monitoring, we arranged work passes for staff, workmen, and P&M equipment,



Construction of a WTP over a hill at Udaipur Integrated Infrastructure Project

## लॉकडाउन में फंसे 100 मजदूरों का पूरा ख्याल रख रही है एलएनटी कंपनी



**GANDIV REPORTER**

रांची। लॉकडाउन में अन्य समान संघियों और सरकारी इंतजामों के साथ ही एलएनटी कंपनी मजदूरों और कर्मचारियों का पूरा ध्यान रख रही है। लगभग एक सौ श्रमिक अचानक हुए लॉकडाउन में रांची में ही फंस गए हैं। कंपनी ने इन कर्मचारियों को कंपनी ने अपने बंद हो रहे स्थित शिविर में रखा है। उल्लेखनीय है कि रांची पेयजल आपूर्ति परियोजना का काम

एलएनटी द्वारा किया जा रहा है। दोनों टाइम मजदूरों को भोजन उपलब्ध कराया जा रहा है। साथ ही उन्हें सोशल डिस्टेंस को ट्रेनिंग भी दी जा रही है। मजदूरों के लिए एलएनटी कंपनी द्वारा एक एंजुलेंस की सुविधा उपलब्ध कराई गई है। किसी को तबोयत विगड़ने पर तत्काल अस्पताल पहुंचाने की व्यवस्था है। इसके अलावा कंपनी ने मजदूरों के परिवारों से भी संपर्क किया है। उनके तकलीफों को भी दूर करने का प्रयास किया है।



mobilized subcontractor workmen and machinery and got the ‘work resumption’ letter from the local authorities.”

## Holding together in the capital city

In Delhi, WET IC is executing one of the largest STPs in India, the 318 MLD WWTP Coronation Pillar Project at Mukundpur. As soon as the first case of COVID-19 was detected in the first week of March, Project Manager, Vinod Kumar, initiated a site level meeting to implement control measures at site, guest houses and workmen habitations. “To ensure the safety of 700 plus workmen at site, an action team comprising execution personnel, EHS, Admin and IR members, was formed to drive precautionary measures. As restrictions eased, site operations resumed with around 80 workmen taking up works in a phased manner. Presently, concreting works are underway and with situation in Delhi still sensitive, work is progressing with utmost caution.”



Operations & Maintenance at the Industrial Area Sewage Treatment Plant, Qatar



“We focused to keep site activities ticking safely without any disruption by working in two shifts. Formulating a ground zero safe work policy was something that we did even before there were any work resumption videos made and that provided the right direction in these most challenging times.”

**S. Vishal**  
Project Manager,  
Industrial Area Sewage Treatment  
Works - Phase III A, Qatar

## On a safe working mission in Qatar

Unlike India, Qatar, decided against a total lockdown which increased the responsibilities on S. Vishal, Project Manager at the Industrial Area Sewage Treatment Works - Phase III A Project. “We focused to keep site activities ticking safely without any disruption by working in two shifts,” he shares, “although the bigger challenge was to ensure the wellbeing of workmen across various zones starting from their quarters, during commute and at site.”

Effective communication was Vishal’s prime driver. “Monitoring across various fronts was another crucial factor. We broke down the safety process into action points and key members of the team took up specific initiatives. Formulating a ground zero safe work policy was something that we did even before there were any work resumption videos made and that provided the right direction in these most challenging times as we continue to surge forward.” ■

# A CRITICAL SERVICE THAT IS ALWAYS ON

“Today, 68 of our Operations & Maintenance (O&M) stations across 14 States are delivering 3108 MLD of potable water every day,” shares K. Asok Kumar, Executive Vice President & Head Water & Effluent Treatment IC. “Lockdown or no, the O&M functions continue as they are considered ‘essential services,’ the only difference is that during these times it is even more challenging.” WET IC has effectively managed services across the states of Andhra Pradesh, Delhi, Gujarat, Jharkhand, Karnataka, Maharashtra, Madhya Pradesh,

Odisha, Punjab, Rajasthan, Telangana, Tamil Nadu, Uttar Pradesh, and West Bengal.

## Working out specific continuity plans

During the lockdown, the responsibilities for the 165 L&T-ites based across these O&M stations doubled as the ploy involved charting a secure way forward for the 4250 workmen while aligning to the plant SOPs and MHA directives. Some common initiatives evolved across

locations included arranging special passes for the movement of workmen, transporting chemicals required for the treatment process from other states, scheduling operational shifts, enhancing awareness on the do’s and don’ts, ensuring wellbeing of the workmen and the wellness of the plant, all the while maintaining high standards of safety and quality.

At the **Bisalpur-Jaipur Water Supply Station**, one of India’s largest integrated water infrastructure projects, Smit Shah, Plant In-charge, had the task of keeping the O&M functioning with the

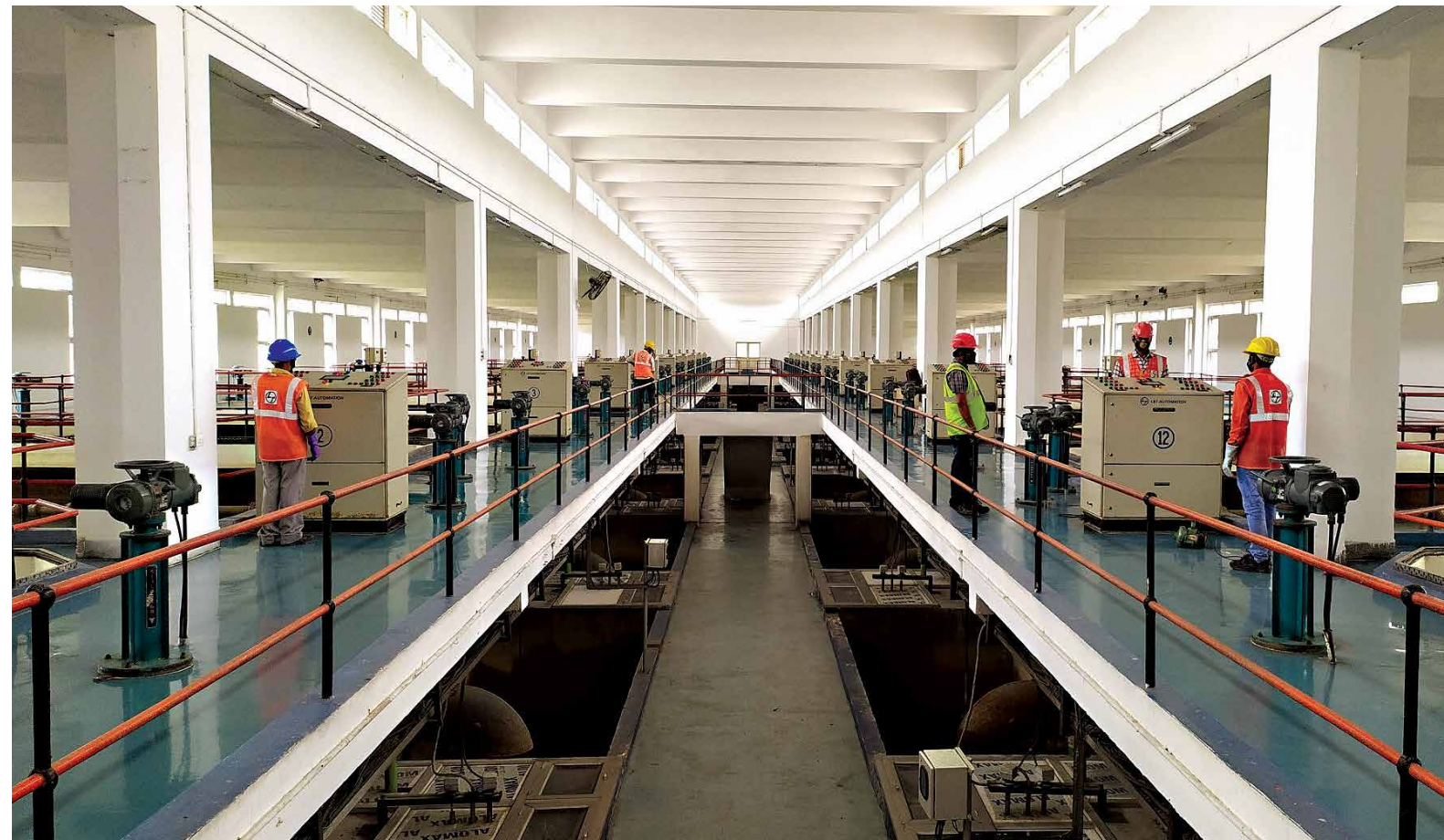


Safety Audit at Bhagirathi WTP by Delhi Jal Board Safety & Disaster Management Cell



“With a span spread out across 96 km, we had to keep the green channel flowing with close to 600 MLD of water delivered to around 1600 villages including meeting the needs of Jaipur city too.”

**Smit Shah**  
Plant In-charge, Bisalpur-Jaipur Water Supply Station



O&M team enabling the operations at the filter house in Bhagirathi WTP, New Delhi



“We worked out an effective work mitigation plan that was put in place on the 20<sup>th</sup> of March, a few days ahead of the lockdown with a three-shift agenda to keep the plant running.”

**Anoop Kumar**  
O&M Manager, Bhagirathi WTP

pandemic spreading across Rajasthan, “We reviewed just before the lockdown and reduced our workmen strength from 156 to around 15 operators. This was important to ensure their safety and wellbeing,” informs Smit Shah. “With a span spread out across 96 km, we had to keep the green channel flowing with close to 600 MLD of water delivered to around 1600 villages including meeting the needs of Jaipur city too. It is commendable to note that despite the on-ground challenges, we did not reduce the shift hours and ensured that the plant functioned seamlessly in 4 shifts.”

In Delhi, a Corona red zone, Anoop Kumar, O&M Manager, was on the guard early on thanks to his networking skills. “With six O&M stations and **Bhagirathi WTP** being a significant base, we worked out an effective work mitigation plan that was put in place on the 20<sup>th</sup> of March, a few days ahead of the lockdown with workmen segregated



“The challenge was to customize delivery exclusively for the pharma companies as the overall SCADA system was designed to provide 40% treated water to all industries across domains.”

**Sourabh Bhargava**  
Plant In-charge, 60 MLD Plant in Pithampur

based on age and health conditions. After a careful assessment, about 10% of the workmen were advised quarantine while the rest were put through a secure process with a three-shift agenda to keep the plant running. As a back-up, critical spares were stocked, and an in-house technician was stationed at the plant to attend to any unlikely repairs,” he says. During the lockdown, there were two key visits, one from the Delhi Disaster Management Team and other from the Police Department to ensure the security of the plant, being in a sensitive zone.

Sourabh Bhargava, Plant In-charge, had a unique responsibility at the **60 MLD Plant in Pithampur** to cater to the water requirements of the pharmaceutical industry where production is on in full swing. “The infrastructure was a mix of old and new structures comprising a 90 MLD intake facility and a 60 MLD treatment plant. There were 3 Water Treatment Plants (WTP) of 9 MLD capacity and one 27 MLD plant, with all the WTPs almost 30 years old,” informs Sourabh. “The challenge was to customize delivery exclusively for the pharma companies as the overall SCADA system



was designed to provide 40% treated water to all industries across various domains.” With only the pharma companies functioning, the task was cut out for the O&M team as the valves had to be physically managed. This process was meticulously carried out and monitored throughout the lockdown.

There was a problem, if it could be so described, of plenty at some of **Odisha’s irrigation projects** due to the lockdown. The surplus water is being used effectively by channelling it to the farmers for the cultivation of the Rabi crops. At the 19 pump houses in **Clusters III, XIV and XV projects**, Shaik Shajahan, O&M Manager, along with his four-member team have



Fumigation of the campus at Bislapur-Jaipur WTP



“During this phase, we have also taken up the maintenance of Lift Irrigation Systems covering a network of more than 25,000 hectares for the upcoming Kharif crop season across 121 villages.”

**Shaik Shajahan**  
O&M Manager, Clusters III, XIV and XV projects



Maintenance of Lift Irrigation Network



delivered water to farmers across 4500 hectares. “Our role in these projects apart from ensuring effective O&M also calls for maintaining a close rapport with the farmers. It is more than just a water supply job as the end-customer, the farmer, directly interfaces with us on several occasions. During this phase, we have also taken up the maintenance of Lift Irrigation Systems covering a network of more than 25,000 hectares for the upcoming Kharif crop season across 121 villages.”

Some of the other significant O&M stations where WET is operating 24/7 includes the 250 MLD Plant at Naguar, 236 MLD Plant at Kulpi, 227 MLD Plant at Garden Reach Water Treatment and Transmission Scheme in Kolkata and 172 MLD Vellore Package 1 for Tamil Nadu Water Supply and Drainage Board.

Across a couple of significant Sewerage Treatment Plant projects in Dubai and Sri Lanka, WET IC has been keeping critical services

functioning. At the **Greater Colombo Wastewater Management Project**, one of the key pumping stations was operated continuously during the lockdown ensuring hygiene for the entire city. “Through our dedicated efforts, we ensure the hygiene of various organizations, government sectors & other essential service sectors including hospitals and close to 838,000 residents in these challenging times,” points out P Hari Prakash, Project Manager. “With limited manpower, we worked out a secure strategy aligning to the SOPs while keeping the plant functioning seamlessly as it was a crucial wastewater pumping facility for the entire city of Colombo,” highlights K Sivaramakrishnan – Cluster Head (WW BU, Sri Lanka).

At UAE’s largest STP, the **375 MLD Phase-2 Jebel Ali Sewage Treatment Plant**, WET IC’s Water International BU has completed the construction works and is about to begin the O&M



“As an operational plant and classified under ‘Vital Sector’ by the Government of Dubai, it is of utmost importance to ensure the hygiene, safety and wellbeing of our 96 workmen, 30 foremen and 22 staff.”

**S.A. Noor**  
Deputy Project Director,  
Jebel Ali STP

services that will treat the daily waste created by 3.35 million inhabitants towards creating a clean, green Dubai. “As an operational plant and classified under ‘Vital Sector’ by the Government of Dubai, it is of utmost importance

to ensure the hygiene, safety and wellbeing of our 96 workmen, 30 foremen and 22 staff,” informs S.A. Noor, Deputy Project Director.

As soon as COVID-19 broke out, the L&T-BESIX JV formed a core team comprising Yves D. Rue, Project Director, Martin Cornellienssens, Plant Manager and Prabal Desai, Maintenance Manager from BESIX and the L&T team led by Noor with able support from Operation Manager, Sabapathy Raja. “With the plant established at an isolated desert region, part of the workforce stayed at the site camp while rest of the crew were mobilised from different parts of the city through daily trips. As a safety measure, the workforce from outside that included subcontractors, were quickly mobilised and advised to stay at the site camps to minimise risks,” shares Sabapathy Raja.



Pump maintenance at the Pithampur Industrial Water Supply Plant



A series of precautionary measures were put in place with the workforce including staff classified under different groups for working in shifts with the accommodation grouped likewise to ensure that groups did not get to meet either at site or at the camps that not only limited the number of workmen and staff but enhanced the availability of resources as well.

### Enhancing operational efficiencies

By adapting a robust system along with building standard preventive maintenance schedules and task lists based on the OEM’s recommendations, WET IC has been able to successfully mitigate major system breakdowns. With a sizeable number of the O&M projects monitored at HQ Chennai through an integrated Computerized



**K. ASOK KUMAR**  
Executive Vice President & Head,  
Water & Effluent Treatment IC

Going forward, the new normal brings us a whole new paradigm. We need to gear up to raise the bar with renewed focus, maximize our potential, consistently engage with our clients and give them the best of technology and project management services while ensuring the highest standards of safety and quality in all our endeavours.

The challenges were many and varied, often entirely new in nature that called for some quick, alert thinking and decision making almost on the fly. I am glad that many of our leaders have lived up to our expectations and have, at the same time, helped others down the line to act decisively and confidently.



Maintenance Management System (CMMS), 98% of equipment availability has been ensured covering around 33,000 assets with 100% contractual compliance across all O&M projects. “CMMS gives us the edge to proactively maintain through automation with enhanced information for processing and taking actionable insights,” shares Rajmohan Head O&M. With 11 state-of-the-art technologies in operation at the various plants, maintaining a 360-degree vigil especially during these challenging times is crucial but with the back-up of technology and experienced teams, WET IC has raised the bar.

### Prepping forward with renewed focus

“Our safe methods have worked well across some 200 of our projects,” shares, K. Asok Kumar. “Every

project team has put their best foot forward, ensured the wellbeing of their workmen, contributed towards community initiatives and have emerged winners. The challenges were many and varied, often entirely new in nature that called for some quick, alert thinking and decision making almost on the fly. I am glad that many of our leaders have lived up to our expectations and have, at the same time, helped others down the line to act decisively and confidently. Going forward, the new normal brings us a whole new paradigm. We need to gear up to raise the bar with renewed focus, maximize our potential, consistently engage with our clients and give them the best of technology and project management services while ensuring the highest standards of safety and quality in all our endeavours.” ■



## GET ... SET ... GEO!

How L&T GeoStructure stayed prepared to resume operations as soon as the lockdown relaxed!

On 20<sup>th</sup> April, with the first relaxation of the lockdown strictures by the government for certain 'green' areas, one of the first projects to take off the blocks and resume operations was L&T GeoStructure's JSW project team involved in the construction of a coal handling terminal at Paradip under the leadership of Project Manager, Tulasi Das Govvada. "We were able to start as soon as we received the required permissions because we had pre-planned for it and were thus prepared," states S Kanappan (SK), Head and Chief Executive – L&T GeoStructure, not overtly surprised by the alacrity of his project team. "This pandemic was new for all of us and we did not know how things would pan out, so we tried to manage all those factors that were within our control and try and be ahead of the virus. As a team, we have succeeded to a large extent!" His smile is eloquent of his sense of achievement.



“We achieved the 1<sup>st</sup> base raft of 330 cum of concrete up to 16 m below ground level, in a single day.”

**Tulasi Das Govvada**  
Project Manager,  
JSW Project



330 Cum of concrete up to 16 m below ground level poured in one day at JSW Paradip site

## Hit the board running ...

Not only did the JSW project resume operations but literally hit the board running! “We achieved the 1<sup>st</sup> base raft of 330 cum of concrete up to 16 m below ground level, in a single day,” says a charged Tulasi Das. “The excavation works (47500 cum total scope) are being carried out using the huge strut system of 1050 MT, more than 60 deep well dewatering systems are being operated round the clock and we are achieving all this implementing all the Government guidelines and SOPs to ensure the safety of all,” he assures.

Close on the heels of the JSW team, the project site at Farakka constructing the Navigational Lock facility for IWAI led by Project Manager, Rajaneesh

Kumar Rai, re-commenced operations too in high gear, well aware of the approaching monsoons that normally break in June. “We executed the excavation for block placing, earthwork for the cofferdam, block erection, guide wall joint work and concreting work for the critical counterfort wall with a pour of 7 m length, second lift for 36 Cum, in just 3 days.” The speed with which Rajaneesh shares the work done is reflective of the scorching pace they have set. Soon, Project Manager, Sarasindu Datta’s project team at Panna, MP who are designing and constructing a Composite Gravity Dam, jumped onto the bandwagon by pouring 720 Cum concrete, rock breaking of foundation in spillway completing 400 Cum / day (1600 Cum) and completing 3000 Cum of filling for the earthwork embankment works.



“Workmen make or break projects, but in this scenario with a complete lockdown and very little activity possible at site, it was even more critical to look after our workmen, keep them engaged and in a sufficiently positive frame of mind to be willing to resume work when the lockdown was relaxed.”

**Bino Mathew Jose**  
Head – Human Resources,  
L&T GeoStructure



## Keeping the workmen engaged was the key

“Workmen make or break projects,” remarks Bino Mathew Jose, Head – Human Resources, L&T GeoStructure, “but in this scenario with a complete lockdown and very little activity possible at site, it was even more critical to look after our workmen, keep them engaged and in a sufficiently positive frame of mind to be willing to resume work when the lockdown was relaxed.” All their workmen-centric efforts and initiatives were therefore focused on these deliverables. “My day, during the lockdown days, started early with a series of video calls and meetings to take daily updates from all our sites and report to the management,” shares Bino. “At the same time, if there were any issues, we had to immediately evolve remedial measures and get our project teams to act at once to resolve them.”

The impact of these focused initiatives is evident at site level as can be gauged from the Uppur project team who are busy constructing vital sea water intake works. Although they had completed a large amount of the construction, the lockdown brought activity to a grinding halt. Thereafter, the team of Operations Head – T Srinivasan, Project Manager – R Ravikumar, Site Accountant - Rajesh Barsakar and Site Admin – Ahilavel have been on a 360-degree vigil. “Rajesh, Ahilavel and team put in place a series of welfare and safety measures to boost the morale of the workmen,” shares Srinivasan. “The ground force team was constantly in touch with the key coordinates - EHS, IR, Operations and HR for detailed day-to-day reports of the activities and control methods. The IR and Administration teams were in touch with the local authorities, government agencies and local panchayats to ensure uninterrupted delivery of essential requirements to our site.”



At the Farakka site, Project Manager, Rajaneesh had two issues to contend with: firstly, the physical isolation of his site lying in a remote, northern part of West Bengal some 300 km from Kolkata and the other was the disorganized nature of his labour force. Both assumed serious criticality against the backdrop of the lockdown. "The moment the lockdown was announced, getting provisions, material, medicines, PPEs, became a huge struggle," he points out. "We also do not have full strength labour camps at site as many of the workmen are from the nearby local villages belonging to mainly two committees (trade union type) who are led by their own rules and systems. So, first convincing them to wear masks, practice social distancing and maintain hygiene were huge challenges." He pauses and then adds, "now, even remobilizing them is a big headache for us." Rajaneesh and his team reached

out to the local administration and authorities for supplies and to the sub-contractors to control and convince the workmen.

## Keeping the employees motivated

What do you do when one of your employees desperately wants to get married and is unable to do so because of the lockdown? In addition to his external challenges, Rajaneesh had to face some internal ones as well. "Apparently, his marriage had been fixed for April 22<sup>nd</sup> before the lockdown and he was stuck with us at the guest house. He was very keen to get back for his marriage but despite our best efforts he was not able to and finally the marriage had to be cancelled. It was a very emotional scene," says Rajaneesh with genuine sadness. "We had another case of one of our people getting extremely worked up as his



“ It is often said that good practices take root during times of crisis. Each department head has taken the initiative to interact daily with their teams before start of work and it has become a practice now. We maintained excellent relationships with the client that has also stood us in good stead. ”

**Rajaneesh Kumar Rai**  
Project Manager,  
Farakka Site



Concreting work for Critical Counterfort wall, with a pour of 7 m length, second lift for 36 Cum at the Farakka site



small family of wife and 12-year-old daughter were alone in a housing society at Kolkata. He was stranded at site and was paranoid as to who would look after them if they were infected by COVID-19." Rajaneesh shakes his head, saying, "Actually we are talking about professionally successful people who are known to normally show emotional balance in their day to day life but reacting emotionally when depressed and frustrated that unfortunately has a dampening effect on other members of the team as well!"

But all was not gloom as he shares. "It is often said that good practices take root during times of crisis. Each department head has taken the

initiative to interact daily with their teams before start of work and it has become a practice now. We maintained excellent relationships with the client that has also stood us in good stead," he finally cracks a smile.

Apart from the challenges of availability of food, provisions, safety of personnel and site progress, Tulasi Das at the JSW site had one more consideration regarding the critical structure in the project – the Track Hopper that entails excavation of up to 18 m below ground level using sheet pile, 1050 MT of struts system and about 60 dewatering pumps running round the clock that could not be stopped suddenly. There was also



Concrete of 720 Cum poured at Runj Dam project in Panna (Madhya Pradesh)



Of course, for a project-based organization like ours, progress at site is of paramount importance but with increased use of digital platforms, greater connect and collaboration, we were able to move the needle across various functions like design, planning, operations, contracts, business development and general management.

**Bino Mathew Jose**

Head – Human Resources, L&T GeoStructure



the need to safeguard a lot of high value project materials and a huge fleet of P&M at site. “We had to continue carrying out emergency works at the Track Hopper area and keep security levels high,” mentions Tulasi Das, “but difficult times often bring out the best in people. We as a team responded to the situation and found ways to overcome these challenges.”

For Track Hopper activities, special permissions were obtained from the local authorities and work

continued with minimum resources and workmen, he mentions and appreciates the special efforts of K V Vinod and K V Sunil Kumar of the track hopper team. “We also completed 330 cum of raft concreting that provided the much-needed stability for the structure,” he says. Sufficient security personnel were deployed at site with special support availed from the CISF Personnel of PPT. He then adds with a broad smile, “to ensure cash flows in these tough times, we got our RA bills of March’20 certified and even collected the payments!”

### Successfully working offsite

With offices shut down, Work From Home was a paradigm shift for employees and Bino points out that the experience has been a good one. “Of course, for a project-



**S KANAPPAN**

Head & Chief Executive,  
L&T Geostructure

We are an ideal organization and during these days of lockdown, our team came up with several innovative ideas to keep our business ticking. We also scored high on parameters like productivity, quality of output, use of digital tools, people availability and stakeholder management. Now, that operations have recommenced, our focus is to make up for lost time and achieve our Lakshya.



Lighting of Diya at EQ Paradip jobsite as instructed by our Prime Minister

based organization like ours, progress at site is of paramount importance but with increased use of digital platforms, greater connect and collaboration, we were able to move the needle across various functions like design, planning, operations, contracts, business development and general management.”

“We are an ideal organization and during these days of lockdown, our team came up with several innovative ideas to keep our business ticking,” chips in SK, “We also scored high on parameters like productivity, quality of output, use of digital tools, people availability and stakeholder management. Now, that operations have recommenced, our focus is to make up for lost time and achieve our Lakshya,” he says with a determined look in his eyes. ■

# MMH SITES FIGHT COVID-19 TO EMERGE STRONGER!

The extent of disruption caused by COVID-19 can be best gauged by what transpired at MMH SBG's 3 MPTA Hot Strip Mill for SAIL at Rourkela. At one point, the entire project team was functioning in high gear: the project had been commissioned on 31<sup>st</sup> January 2020 and with the first coil rolling out, it was all systems go to start hot commissioning to reach the contractual production milestone of 66% of plant capacity by April 2020. For Project Manager, R. Umasathiyan and his team those were hectic but extremely satisfying days. "Even while our efforts were on in full throttle, we started to sense the first signs of trouble," shares Umasathiyan. "Many of our technology providers from China and Europe started to postpone their visits to India due to travel restrictions in their respective countries and our own travel ban from 23<sup>rd</sup> March. Soon, all the foreign experts from countries like Japan, Spain, UK left. On the home front, several of our vendors and technology supporters started to recall their representatives. Effectively, our progress had completely stopped!" One can sense his anguish and disappointment.





MCL-Bhubaneswari Project, Talcher, Odisha



**I have to thank my colleagues for their wonderful and whole-hearted support without which we would not have achieved half of what we did.**

**R. Umasathiyam**  
Project Manager,  
RSP-HSM

### To keep the ball rolling ...

Umasathiyam and his site management team were faced with two issues. The first, to keep certain essential services running round the clock as the plant had been commissioned for which they required dedicated personnel. Secondly, they had to take care of the wellbeing, health, and safety of a 1,300-strong workforce at site. While a roster with clearly defined roles and responsibilities for the selected personnel took care of the first issue, a task force was formed to address the second. "I have to thank my colleagues for their wonderful and whole-hearted support without which we would not have achieved half of what we did," shares a grateful Umasathiyam. He mentions his able



**We are used to dealing with objective problems but dealing with subjective issues is far tougher. The workers were in deep mental distress, because of the sudden lockdown, worried about their families and as the lockdown extended, the situation became even more severe. It required some deft handling, an empathetic approach and constant interaction to manage the situation.**

**C N Padhi**  
Project Manager,  
MCL-Bhubaneswari

lieutenants that included L A Anurag & P K Das, both from IR, Suman Mukherjee, Satish Maredla, Niladri Paul, Tulsi Das, X Francis, and N Jhothiramalingam, all from Execution, M P Suresh & K P Srinivas from F&A, Partha Dutta from ISD and Chandan and Bhupesh, both from Safety.

Something similar was experienced by Project Manager, C N Padhi at the MCL- Bhubaneswari project site. "We were running at peak speed with critical erection and concrete works taking place when the lockdown was declared," he shares. "There was also a large amount of material scattered around the site at various places that were vulnerable to theft. Not an easy task, but not impossible," he remarks with determination. His other critical task was to safeguard his people which was again not easy since the site and camp is situated in an open area in the vicinity of a coal mine. "And, again, not

impossible," he laughs, mentioning the sterling efforts and sacrifices of his IR In-charge, Pradeep Kumar Swain and Accounts In-charge, Khirod Sahukar to keep things under control.

Padhi's third challenge was perhaps the toughest of all. "We are used to dealing with objective problems but dealing with subjective issues is far tougher. The workers were in deep mental distress, because of the sudden lockdown, worried about their families and as the lockdown extended, the situation became even more severe. It required some deft handling, an empathetic approach and constant interaction to manage the situation," he says with a sigh.

The responsibility of disseminating SOPs and putting the precautionary measures in place fell on the shoulders of Head - EHS, K N Sen. "Regular reviews with the EHS teams have helped



**Regular reviews with the EHS teams have helped significantly to control the situation at our sites. We evolved several innovative methods to ensure hygiene at workplaces and habitats. A robust procedure to thoroughly check and escort was introduced to ensure limited exposure apart from thorough sanitization and social distancing. Accommodation in the camps was reorganized to meet with enhanced social distancing requirements.**

**K N Sen**  
Head - EHS

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Tucked away in a remote corner of Madhya Pradesh, Project Manager, Mukesh Kumar had to contend with the remoteness of his Khargone Thermal Power Project site when dealing with the COVID-19 threat, located in a village named Selda that is about 100 km from the nearest city of Indore and 60 km from the district town of Khargone. "You can imagine our difficulties to get provisions for our 950 workmen so far away during the lockdown!" Mukesh's first task was



Pep talks to keep workmen engaged



“Keeping the workmen engaged and stable was a Herculean task and it is the fantastic work of my team that we were able to manage.”

**Mukesh Kumar**  
Project Manager, CHP, Khargone

to arrange an uninterrupted supply chain of necessities and then to procure permissions to move during the days of curfew, that they resolved by speaking to and convincing the government and local authorities. “Keeping the workmen engaged and stable was a Herculean task,” adds Mukesh, “and it is the fantastic work of my team that we were able to manage.” A thoughtful initiative by the team was to request the local MLA, a few journalists, and some administrative bodies to visit the site off and on, to address the workmen, boost their morale and keep them informed of authentic news to prevent them from being swayed by rumours

**दैनिक भास्कर**  
सेल्दा प्लांट के मजदूरों की स्क्रीनिंग की

बैडिया | कोरोना महामारी को लेकर लगातार सतर्कता बरती जा रही है। संक्रमण से बचाव के लिए शासन जागरूकता के साथ सौशल डिस्टेंस का पालन करा रहे हैं। एनटीपीसी सेल्दा में एनएडटी कंपनी ने लेकर कॉलोनी के श्रमिकों की जांच कर कॉलोनी को सैनिटाइज किया। कंपनी के दिनेश पांडे ने बताया एनटीपीसी सेल्दा के गेट नंबर 4 पर लेकर कॉलोनी बनाई गई है। जहां अन्य राज्यों के करीब 1 हजार श्रमिक रहते हैं। डॉक्टरों की टीम ने श्रमिकों की जांच की। रहवासी कॉलोनी को सैनिटाइज किया गया। एनटीपीसी ने श्रेय के आसपास लगे गांवों को भी सैनिटाइज किया जा रहा है। एनटीपीसी के एचआर जेपी सत्यकाम ने बताया शुक्रवार को ग्राम कानापुर को सैनिटाइज किया। पूर्व में सेल्दा, डालचौ, वैडिया, खेड़ी, कातेरा, उमरिया, रोडिया, बडगांव, भोगावां निपानी व अन्य गांवों को सैनिटाइज किया जा चुका है।



Fumigation of all vehicles made mandatory

and fake news. “Our efforts have been well appreciated and even published in Dainik Bhaskar, a local newspaper,” shares Mukesh proudly.

With some 8,000 workmen and 300 employees at site to look after, one can only imagine the tremendous pressure on Project Director, Bhanu Pratap Singh and his team at the JSW Project Site, at Dolvi, in Maharashtra’s Raigad district. “We adopted a proactive and systematic approach to strategically evolve initiatives to keep all of us safe,” says Bhanu, putting up a brave front. “We quickly got our act together and formed Emergency Response Teams (ERTs) with specific roles, responsibilities and accountability comprising various functions to handle any eventuality.” The ERTs were led by Accounts & Administration Head, Debashish Ghosh & Senthilkumar Mani (Assistant Manager- Industrial Relations).



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**Bhanu Pratap Singh**  
Project Director,  
JSW, Dolvi



“We needed to constantly control, inspect and monitor the workmen for health hazards. In the final analysis, creating and maintaining a clean, healthy, and safe work environment is all about checking, re-checking and ensuring that nothing is amiss at our workmen habitats.”

**Debashish Ghosh**  
Accounts & Administration Head,  
JSW, Dolvi

The onus on Debashish Ghosh was multiplied as the huge workforce was accommodated at four different locations - Wadkhal, Kharpalle, Churgundi & Hamarapur. “We needed to constantly control, inspect and monitor them for health hazards. In the final analysis, creating and maintaining a clean, healthy, and safe work environment is all about checking, re-checking and ensuring that nothing is amiss at our workmen habitats,” he sums up. Another interesting ploy adopted by Bhanu and team was to motivate and empower the workmen to stop others from committing unhealthy acts. “This awareness, motivation and empowerment brought about extremely positive results among the workforce,” says a very satisfied, Satish Chandra Yadav, Manager – EHS. “They have started to fearlessly raise a flag if they see any unhealthy act or situation, which is a strong indicator of workmen empowerment from an EHS perspective and, more importantly, an excellent best practice to follow in future!”



The situation was novel and the impact unprecedented, remarks Head – M&M BU, T Kumaresan, appreciating the efforts of the various teams. “We have



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**Satish Chandra Yadav**  
Manager – EHS,  
JSW, Dolvi

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“ We have encountered three phases during this lockdown. First, the ‘Fear Zone’ – How to adapt to the new change and face challenges? Then, the ‘Learning Zone’ – become aware of the situation and think how to act. We are now in the ‘Growth Zone’ - Look for ways to accept the new changes and adopt the new normal! Through all these three zones, we have bounced back with a bang like true L&T-ites and have successfully resumed work across sites with 70 to 80% workmen strength. Our Corona Warriors across sites have displayed the passion, devotion and commitment, to once again prove in L&T that **People are the prime movers!**”

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Head – M&M BU



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### A foreign side to the same problem

While the threat posed by the pandemic is universal, its severity and implications vary across geographies as Project



“ While Riyadh was 536 km away, the other main city of Taif was 274 km away from our site and with more than 600 employees to manage, it was a challenge to obtain basic amenities such as food, medicines, PPEs, and other materials. ”

**Hare Ram**  
Project Director,  
Ma’aden Gold Project, KSA

Director, Hare Ram, found out at his Mansourah Massarah Gold Project (MMGP). “The topographical location of our project was a challenge.” he begins, “While Riyadh was 536 km away, the other main city of Taif was 274 km away from our site and with more than 600 employees to manage, it was a challenge to obtain basic amenities such as food, medicines, PPEs, and other materials.” To make matters worse, the cities of Riyadh and Taif were also under lockdown. Sealing a perimeter that stretched all of 38 km, was another steep task. “In fact, we had to set up a temporary check point about 5 km from site to control entry and exit for both our people and outsiders,” adds Hare Ram.

One of the key weapons to fight such crises is good, clear, and regular communication and that is where the team ran into heavy weather initially as very few of the local personnel and security could understand English. This issue was subsequently resolved with



“ The nearest hospital recommended by the authorities for COVID-19 was at Taif (more than 200 kms away) and therefore we had to consider other options. ”

**A. Swarnkar**  
Head- MENA BU



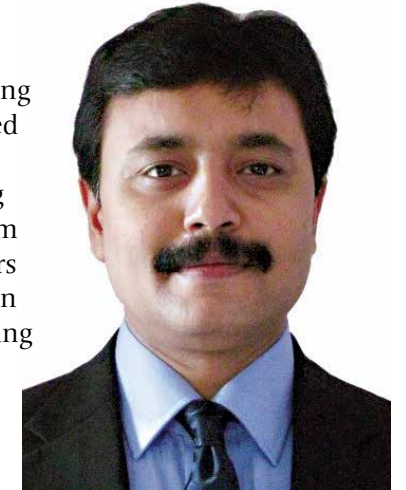
the appointment of English speaking and experienced Saudi nationals as PRO and GRO. “Dealing with the local govt bodies and medical institutions especially in the initial stages was tricky,” informs A. Swarnkar, Head-MENA BU. “In fact, the nearest hospital recommended by the authorities for COVID-19 was at Taif and therefore we had to consider other options.” The site therefore had a medical team and a clinic facility comprising a Doctor, an experienced paramedic, a fully equipped ambulance with a trained driver to attend to any emergency. Another matter that needed to be addressed on a war footing was accommodation. “The initially planning did not take into consideration tackling a pandemic situation,” mentions Construction Director, Praveen Hajare. “Re-thinking, re-planning and re-organizing the accommodation facility was a big challenge.”

“Although the threat was huge, we decided to approach it as just another hurdle to overcome,” says Hare Ram, sounding matter of fact though obviously not feeling so. “And with the right team, limited resources, forecast planning, and a positive spirit, we have taken COVID-19 in our stride,” he smiles quickly admitting that it has been thus far a triumph of teamwork. “I will be failing in my duty if I did not mention my wonderful teammates, Project Manager, Pranav Kumar Vatsa, my three colleagues from EHS - EHS Head, Bikash Parida, Ajay Kumar Poddar and Rahul Mohan, Construction Manager - Anindya Dey, A R Mohanty, who looks after IR & Admin. A special word of appreciation for our site doctor, Dr Taimoor Khan and his support staff of stewards, nurses and doctors for their yeoman service to the workmen.”



**ANUPAM KUMAR**  
Vice President & Head,  
Metallurgical & Material Handling - SBG

Without doubt this has been a most testing and challenging time. Several of our sites were running full throttle and to bring them to a shuddering halt was a huge setback. We have never faced such a situation before so there were no precedents to fall back on. We were learning and course-correcting as we went along. I am extremely grateful to all our Corona Warriors at our various sites for their focus, dedication and passion in the face of some overwhelming odds to stay committed, hold the fort and emerge even stronger now that we have started to gradually restart operations.



## Returning to work

With the relaxation of strictures, Umasathiyam and his team prepared to recommence operations following all the prescribed SOPs. Almost, immediately they met with a setback as seven positive cases surfaced in the vicinity of the camp. Operations were stopped and people from the

containment and buffer zones had to be rescreened. “After a thorough analysis of the workmen data and ensuring that the targeted workmen were not from a containment zone, we were able to resume work from 2<sup>nd</sup> May after taking self-declarations from workmen and agencies as per guidelines and SOP,” he says with obvious relief.

R. Suresh Kumar, Operations Head – M&M BU takes pride that the SOPs and the discipline followed at KBL new fabrication yard received a certificate of appreciation from the Joint Labour Commissioner, Rourkela.

Other MMH sites including the Utkal Alumina Tikiri Project helmed by Project Manager, Prasanta Tikadar and C N Padhi’s MCL- Bhubaneswari project site have resumed operations followed by several others across geographies as things slowly start limping back to normal.



“Without doubt this has been a most testing and challenging time,” is how Anupam Kumar, Vice President & Head – MMH SBG, describes the evolving situation. “Several of our sites were running full throttle and to bring them to a shuddering halt was a huge setback. We have never faced such a situation before so there were no precedents to fall back on. We were learning and course-correcting as we went along. I am extremely grateful to all our Corona Warriors at our various sites for their focus, dedication and passion in the face of some overwhelming odds to stay committed, hold the fort and emerge even stronger now that we have started to gradually restart operations.”

Here is wishing all the MMH project teams the very best as they tackle the COVID-19 menace and keep the L&T flag flying high! ■

“Although the threat was huge, we decided to approach it as just another hurdle to overcome and with the right team, limited resources, forecast planning, and a positive spirit, we have taken COVID-19 in our stride.”

**Hare Ram**  
Project Director

# SW&C PROVIDES A SMART EDGE TO MITIGATE A GLOBAL CRISIS

New-age technology is playing a crucial role in the fight against COVID-19, empowering frontline warriors and essential service providers to monitor and control its spread. A phased battle across India that began with concentrated efforts, has now become more citycentric with L&T's Smart World & Communication (SW&C) Business leading the charge with a range of customized smart solutions to arm city administrators.







**R. SRINIVASAN**  
Executive Vice President & Head,  
Smart World & Communication

In these critical times, we have been leading the fight against the pandemic with our smart solutions and technologies. With the entire nation locked down, it was imperative to maintain connectivity, augment our solution offerings to analyse data - for the central and local administrations to stay connected with the citizens to ensure continuous and relevant communication and to empower them for monitoring and decision making. Even as the situation has been evolving and fresh requirements are being articulated by our clients, we have been constantly adapting ourselves and realigning our personnel and solution offerings to meet these emerging needs. Our ability to seamlessly integrate futuristic technology solutions based on specific client requirements reinforces our credibility as a premium player in the smart world and communication domain delivering to our value proposition of being Master Systems Integrators.

### Reassuring the smart way

"Whenever the country has faced a crisis, L&T has been at the forefront and in these critical times, we have been leading the fight against the pandemic with our smart solutions and technologies," shares R. Srinivasan, Executive Vice President & Head, Smart World & Communication. "With the entire nation locked down, it was imperative to maintain connectivity, augment our solution offerings to analyse data - for the central and local administrations to stay connected with the citizens to ensure continuous & relevant communication and to empower them for monitoring and

decision making. Our engineers and on-field service personnel have been working round the clock to ensure seamless functioning of various solutions and systems across cities. Even as the situation has been evolving and fresh requirements are being articulated by our clients, we have been constantly adapting ourselves and realigning our personnel and solution offerings to meet these emerging needs. Our ability to seamlessly integrate futuristic technology solutions based on specific client requirements reinforces our credibility as a premium player in the smart world and communication domain delivering to our value proposition of being Master Systems Integrators."

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### Transforming CCCs / COCs into War Rooms

Working with speed, hi-tech Command and Control Centres (CCC) and City Operation Centres (COC) constructed by SW&C across 23 cities under the Smart City Mission have been transformed into full-fledged war rooms, that have been the mainstay in this battle over the last 3 months.

Nagpur's Municipal Commissioner visits the COC daily to monitor hotspots and interacts with citizens to address their requirements. "Even most of his media interactions are at the COC," mentions Project Manager, Ajay Kumar Ramteke. "Ours is a 24/7 responsibility and some 70 of our team members are on essential duty round the clock to ensure maximum uptime for all solutions. We also share vital information and statistics such as analytics on lockdown zones, vehicle movement and crowd gathering



Hon'ble Municipal Commissioner has made the COC as a war room and has live interactions with the citizens of Nagpur



Nagpur police team in MSV during surveillance



**"Ours is a 24/7 responsibility and some 70 of our team members are on essential duty round the clock to ensure maximum uptime for all solutions."**

**Ajay Kumar Ramteke**  
Project Manager,  
Nagpur Smart City

to the police department and host emergency mobile applications as and when requested by the municipality reducing crowd gathering by 15% and considerably easing on-field surveillance."

Leading operations at the Nagpur COC is Vironi Khandagle and her team of Priyanka and Momin Subur, working in two 12 hours shifts. Their scope is critical involving central management of all public announcements, monitoring of CCTVs and ensuring cyber security check across all IT systems. "We have specific audio tracks recorded by the Nagpur Municipal Commissioner and the Traffic Police giving instructions and guidance on preventive measures that we relay across 112 Public Address Systems," informs Vironi, "plus 8 key notices or slides and 1 video across the city through 51 VMDs."



“The executive dashboard made by our applications team has hugely helped the administrators in their tracking and zoning initiatives.”

**Atmaram Magar**  
Project Manager,  
Pune Smart City

Shadab Ahmad, always a field man, is the ‘go to’ man these days for all field operations related tasks. With the police using 5 Mobile Surveillance Vehicles (MSV) extensively to monitor important areas, the services of Shadab and team are most sought after. “Managing the MSVs and ensuring that the WI-FI is working is critical as it is virtually impossible for the police to monitor all locations,” mentions Shadab. “The challenge is to manage the 5 vehicles deployed at different zones, but we have worked out a strategy with specific members of our team taking charge and partnering the police during their operations.”

From the time the first COVID-19 positive case was reported, officials of the **Pune Smart City Development Corporation** and the Pune Police have been using the CCC as a war-room. “With hot spots identified across the city, monitoring and containment are governed entirely through hit-tech technology,” shares Atmaram Magar, Project Manager, “The Pune Smart City has developed customized web and mobile based dashboards which include applications like GIS tracking, heat-mapping analytics to keep track of patients, quarantine cases, contact tracing, community surveillance and



Hon'ble Mayor, MC of Pune, Adl.MC & CEO PSCDCL brainstorming.



“We evolved a specific charter in line with the requirements of the Mumbai Police and the Municipal Corporation of Greater Mumbai. The surveillance area was widened and currently, 417 cameras in 254 containment zones are being monitored.”

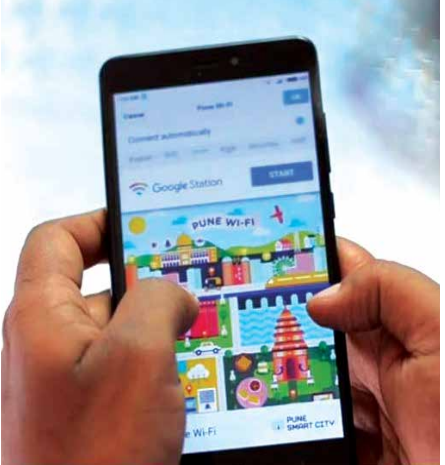
**T.S. Senthil Kumar**  
Project Manager,  
Mumbai City Surveillance

likewise plan resources including quarantine facilities, isolation beds and associated manpower to respond to the current challenges.”

SWC is partnering the municipality to extend technical and service support across various functions with an essential team of 30 members. “The executive dashboard made by our applications team has hugely helped the administrators in their tracking and zoning initiatives,” Atmaram elaborates. “Today, with more than 1350 members from the municipality going all out in their zoning activities making door-to-door assessments, our COC operators are mapping the data on an hourly basis through calls to provide timely updates, accurate analytics and proper direction to the administrators.”

With different information dissemination systems available like PASs and VMD boards, Arvind Shekhawat and team synchronizes timely relays across 161 locations. “The Mayor of Pune, Municipal Commissioner & Pune’s Adl. Municipal Commissioner directly appeal through both audio and visual mediums & audio jingles about COVID-19 which are broadcast ‘live’ every thirty minutes between 7 am and 10 pm daily.” The Pune Police utilize the PA systems for crowd control, incident management and awareness drives too. Other responsibilities for Arvind and team include ensuring smooth functioning of DC equipment, servers, and updating the executive dashboard. In addition, Emergency Call Boxes (ECB) provide emergency support to the citizens through its two-way (audio-visual) communication directly to the COC help desk team. ECBs act as additional surveillance on square junctions for crowd monitoring too.

For those earmarked under quarantine, there is help in the form of WI-FI services in Pune and Nagpur. “Here, it is more than just connectivity,”



informs Farman Ali, Assistant Manager, Field & O&M. “For us, at L&T, it was all about providing high-speed internet service at these locations to give the patients a feel-good experience of being remotely in touch with their loved ones while recovering.”

At the nerve centre in Mumbai, Project Manager, T.S. Senthil Kumar, has a bigger responsibility. “With affected cases spiralling, we evolved a specific charter in line with the requirements of the Mumbai Police and the Municipal Corporation of Greater Mumbai (MCGM),” shares Kumar. “The scope was akin to a project schedule, but the challenge was to implement the customizations without any lead time!” 218 cameras were identified close to 141 containment zones, and within 24 hours,



Divisional Commissioner of Prayagraj monitoring from the CCC

L&T made changes to ensure monitoring. Subsequently, the surveillance area was widened and currently, 417 cameras in 254 containment zones are being monitored. “We commissioned a Situational Monitoring Centre at MCGM DR control room which enables operators to completely visualise the events on a GIS map, create hotspots, monitor and modify workspaces, raise alerts, act on SOPs and much more,” he shares.

With the need for 24/7 service support, Senthil had to split his team depending on the priorities. Core team members, Mahesh and Kavery were based at the CCC working in continuous shifts while more hands were deployed for the maintenance and application works. For instance, through the video analytics in the containment areas, 938 incidents were captured by 500 cameras under three categories: loitering near the containment zone, trespassing into non-permitted areas and crowding. “When footfalls were more than 20% of the camera field of view, alarms were triggered, and SMS alerts were sent to



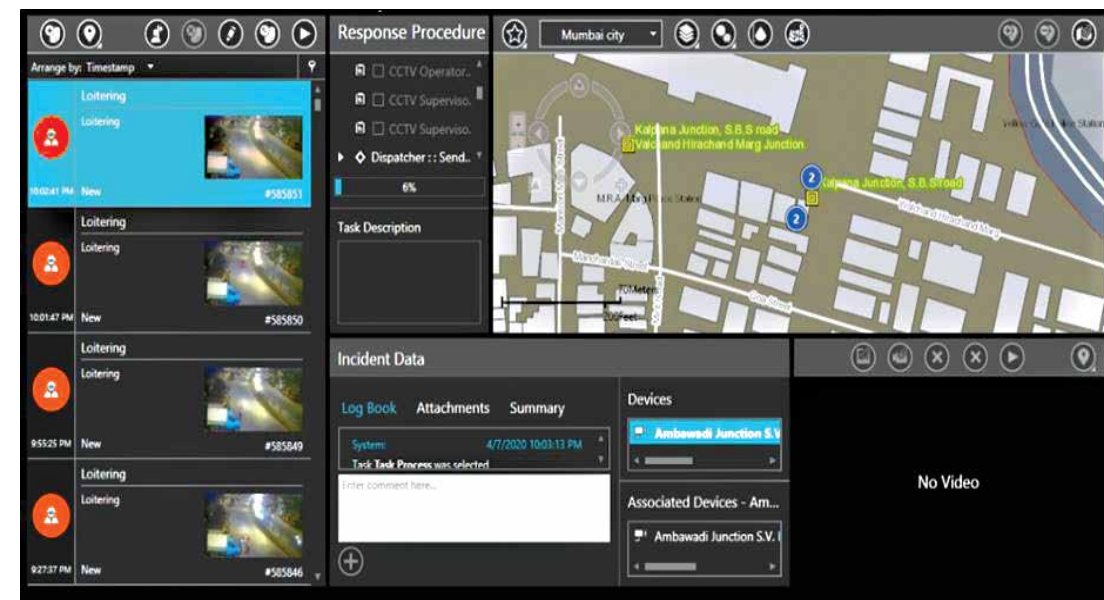
**“We restored functionalities with operators working in 3 shifts, 24x7, to facilitate addressal of various requirements with an average of 2500 calls per day.”**

**Jignesh Dubey**  
Project Manager,  
Prayagraj Smart City

the senior police officers, zone wise,” he highlights.

124 viewing centres were established for MCGM to enable live feed from the respective jurisdictions. For Senthil and team, this was one of their first tasks as the lockdown began. “We have completed the trenching and cable laying for 22 of the 24 wards

and 20 wards have thus far been commissioned. The feeds are ‘live’ in the monitoring station with full functional requirements,” he mentions with satisfaction. At the commissioner’s office, all people entering are thermally screened (non-contact), the instrument has been integrated with Mumbai City’s



Camera monitoring at Containment Zones in Mumbai

surveillance project infrastructure and the ‘live’ feed is monitored at the main CCC.

The cutting-edge smart solutions deployed at **Prayagraj Smart City** are playing a key role to support the city administrators to ensure compliance to the lockdown through real time monitoring of strategic locations using 1000+ CCTV surveillance, provide necessary support to the citizens through a 24x7 operational city helpline (1920) and relay information on relevant developments through timely messages on 32 VMDs. Project Manager, Jignesh Dubey shares with vigour that the city helpline was modified with a revised set of SOPs. “We restored functionalities with operators working in 3 shifts, 24x7, to facilitate addressal of various requirements with an average of 2500 calls per day being addressed at the contact centre.”

The **Hyderabad Safe and Smart City project** is equipping the city administration with smart solutions enabling actionable insights that is giving the edge for proactive decision making and enhanced vigil at the



Variable Message Display

ground level. Omkar Nath, Project Manager, Solutions, along with M. Shanmuganathan, Project Director, have been at the forefront to ensure that the site team keeps the smart elements functioning 24/7.

The O&M team is always connected with the enforcement officials to broadcast customized announcements through 48 PASSES in terms of language, locality etc., whenever crowds are detected. The team ensures the necessary uptime and availability of various cameras of the Hyderabad City Surveillance and Integrated Traffic Management Systems for the Police Department to identify crowd gathering and restrict movement of non-essential vehicles leveraging cutting-edge technologies like AI. The footage from nonconnected junctions are also being provided to departments on a need basis. L&T’s O&M BMS operators are working in two 12 hour shifts for regular O&M maintenance activities at the critical data centre and major issues, if any, are addressed immediately to

L2/L3 level coordinates, who are also connected round the clock.

“We converted the COC into a 24/7 COVID Contact Centre with 20 plus operators tracking details of people returning from abroad,” informs Bharath Reddy, Head O&M at Visakhapatnam, “reaching out to them once in 14 days to check on symptoms and pass on the information to the medical teams on a real time basis.” As many as 50 PASSES installed on smart poles across the city relay official messages on the lockdown, crowd restrictions and precautionary messages, that are backed with 10 VMD boards conveying messages dynamically across strategic locations.

## A bouquet of special applications to fight COVID-19

**m-governance App:** Developed for Vizag Smart City, it empowers health workers to carry out house surveys every 3 hours and record health

parameters of self-isolated people. Around 40,000 people are using this app which is now equipped with a COVID-19 SOS button to notify medical emergencies. It also enables users to make surveys to check on health parameters based on which a scoring mechanism categorizes mild/moderate/critical cases. A SOS is triggered for critical cases, while for non-critical cases, operators can connect with the concerned zonal doctors through telemedicine for further counselling. The app is programmed to alert the contact centre on any unwanted movement of people who are under self-isolation using geo-fencing technology.

**No mask detection:** A machine learning based no mask detection solution was deployed for Telangana police to detect citizens without masks. To achieve this for India-specific conditions, the AI model was trained with over 4000+ images of citizens with and without masks. The solution now detects any type of masks including homemade ones.



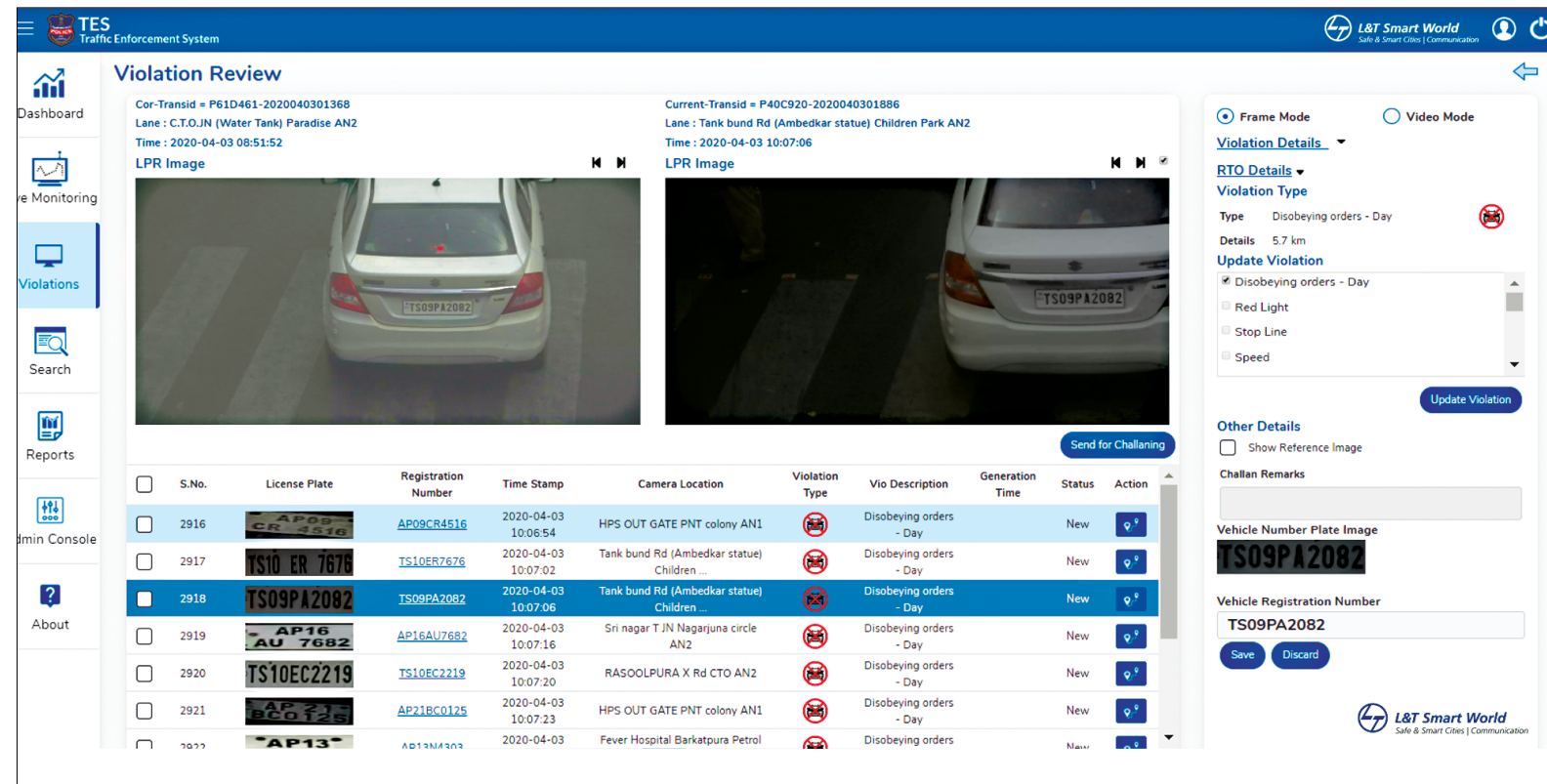
Physical distance monitoring solution deployed at Hyderabad



“We have configured crowd analytics in 500 plus cameras, installed across Hyderabad, Cyberabad and Rachakonda commissionerates, to generate alerts if crowds exceed the configured threshold value that is based on the FOV, location, conditions, etc.”

**Omkar Nath**  
Project Manager, Solutions,  
Hyderabad Safe and Smart City

**Physical distance monitoring:** Within a short duration, SW&C, developed and deployed a deep learning based physical distance monitoring solution which detects citizens violating the mandated 6 ft. distance and raises alerts. This is also visualised geo-spatially for authorities to pinpoint



Dash board of AI based vehicle movement restriction

where the intensity of violations is high to take appropriate measures.

**AI based crowd control:** “We have configured crowd analytics in 500 plus cameras, installed across Hyderabad, Cyberabad and Rachakonda commissionerates,” informs Omkar Nath, “to generate alerts if crowds exceed the configured threshold value that is based on the FOV, location, conditions, etc. The department can identify crowded locations and immediately inform the field team for necessary action.” The Hyderabad police have so far received 60,000+ alerts and have been successful to disperse crowds through their field officers. “Apart from analytics configuration, we constantly update the department about daily alarms and publish various trends, for the department to act.” Omkar Nath adds proudly that K. T. Rama Rao, Minister of IT of Telangana, commended the digital initiatives of



“The ANPR records number plates at all junctions, checks the locations of the vehicles and if the distance exceeds 3 km from one junction to another, violators are tracked and SMSs sent.”

**M. Shanmuganathan**  
Project Director,  
Hyderabad Safe and Smart City

the Hyderabad Safe and Smart City Project in the fight against COVID-19.

**AI based vehicle movement restriction** This AI-based system monitors vehicle movement through cameras installed across 110 junctions. People venturing more

than 3 km from their local zones and at nights were tracked and fined during lockdown. “The ANPR records number plates at all junctions, checks the locations of the vehicles and if the distance exceeds 3 km from one junction to another, violators are tracked and SMSs sent,” informs M. Shanmuganathan, Project Director, Hyderabad Safe and Smart City. “With another of our solutions, police can monitor and track all vehicle movement from 7:00 pm to 6:00 am, mark unwanted ones as violators, auto-generate fine challans and send SMSes to the offenders.”

**Drone surveillance** was deployed at sensitive areas in Mumbai like Worli, Koliwada and Dharavi by integrating them with the COC network through wireless connectivity. Police were able to communicate with the public thanks to in-built microphones and PA systems. It is commendable that the police have been notified of 10,700+

crowd alerts and crowd gathering has reduced by 34%. The number of vehicles entering and leaving the city are also tracked and the data is shared with MCGM for action against violating vehicles.

**‘Sayyam’ App:** tracks and monitors quarantined people in Pune. Movement of people is tracked in real time from the monitoring cell through geo fencing with colour tags – Red, Yellow and Green indicating their movement status and the App has been extremely handy for the municipality staff during their on-field surveys. Quarantine centres in Nagpur, Pune have been provided with Wi-Fi by the local administrations to stay connected while college students across Bihar are enjoying connectivity thanks to the efforts of SW&C.

## Playing the role of a secure host

In Tamil Nadu, SW&C is entrusted with e-governance of 190 critical government applications which also includes the state’s website <https://stopcorona.tn.gov.in>. As a host, the onus is on ensuring security, timely updations for many of the government’s key sites such as the Tamil Nadu Medical Colleges & Hospitals, Aavin Milk, Tamil Nadu Police Department, Tamil Nadu Civil Supply Corporation, all vital stake holders in the fight against the pandemic.

## On a larger smarter mission

“As we enter new normal conditions, technology is proving crucial in all our endeavours,” sums up R. Srinivasan. “For SW&C, at the threshold of innovations, are best paced to provide the edge in integrating futurist technologies to make cities safer and empower administrators with smarter, faster, and efficient solutions.”

# L&T Chosen as the 'Company of the Year' by Business Standard



**L**&T has been chosen as the 'Company of the Year' by noted business daily Business Standard. The accolade comes as part of Business Standard's 'Corporate Excellence Awards 2019' with high-profile business magnets playing the role of the jury.

The jury was chaired by Aditya Birla Group Chairman Kumar Mangalam Birla, and comprised JSW Group Chairman Sajjan Jindal, KKR India CEO Sanjay Nayar, EY India Chairman Rajiv Memani, Omidyar Network India MD Roopa Kudva, McKinsey & Company Senior Partner Noshir Kaka, Cyril Amarchand Mangaldas Managing Partner Cyril Shroff, and Bain Capital Private Equity Chairman Amit Chandra.

To pick the winners, the jury evaluated the shortlisted corporates in terms of corporate governance, contribution to society, scale, sustainability, leadership and innovation, and all-round growth.

There were several firms in consideration but what tilted the scales in favour of L&T was the confidence of the jury in L&T's business models.

"In a year like this, we looked for a company that contributed hugely to the economy, building of the firm and contributed to jobs and export earnings. No company stands out better than L&T," remarked a jurist.