

# REACHING OUT

CSR Newsletter from L&T Construction

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March 2021

## IDEAS TAKE WING AS THE STEM INITIATIVE FINDS STRONGER ROOTS!

Our project tests the air quality through sensors attached to this rocket," explained an excited 9-year-old, Yuvaraj as he proudly showcased his science project at the STEM (Science, Technology, Engineering & Mathematics) Exhibition & Awards presentation event held on February 27th, at the HQ Campus in Chennai, to commemorate the National Science Day. Yuvaraj's was one of the 120 project ideas that students from 20 Government schools in Chennai presented on myriad themes of Technology in the Modern World, Sanitation, Robotics & Solar Energy as part of the STEM Education programme that L&T is partnering with American India Foundation (AIF).

The task of choosing 8 of the best projects was completed by a bunch of enthusiastic and dedicated L&T-eers in two strenuous sessions in coordination with and in the presence of AIF representatives: first to whittle down the 120 projects to 20 and then the even tougher task of choosing the 8 best from those 20.



▶▶ To be continued on **Page 3**

**3 RECOGNIZED  
AS BEST  
AMONG  
THE BEST!**



## FOREWORD

# LET'S KEEP THE CSR FLAME ALIGHT!

As part of background reading for an HR-organized leadership programme recently on 'Organizational Stewardship', I had the pleasure of reading a Harvard Business Review paper by Michael E Porter & Mark R Kramer on an interesting topic of 'Creating Shared Value'. Basically, 'shared value' is about creating value not only for the business but also creating economic value for the society by addressing its needs and challenges. They believe that businesses must reconnect company success with social progress and that 'shared value' is not just social responsibility or philanthropy or even sustainability but a new way to achieve economic success. It should not be peripheral to what companies do but at the very centre that has the potential to unleash the next wave of global growth.

Interestingly, this is not an entirely new way of thinking for us, at L&T, for our CSR initiatives since inception have been carefully chosen, designed, and executed keeping the common good of the society in mind. Of course, the churn and disruption caused by COVID-19 has given us both the mind space and the orientation to embrace such new thinking and increase our focus on creating shared value.

The focus of company welfare worldwide in 2020, as also with us, during the pandemic swung internally to look after the wellbeing of our own employees and workmen and enough has been said and written about how we, as an organization, rose magnificently to the occasion.

Being confined to within the four walls of our homes, reaching out was extremely challenging. Several of our CSR activities were disrupted as even our NGO partners were similarly homebound and hamstrung.

However, as we learn to accept and adapt to the new normal, we have recommenced our various reach out programmes even as the beneficiaries are re-inventing to stay relevant. With schools shut, online classes and interactions became the order of the day even for the autistic & physically challenged children of Vidyasagar who quickly re-oriented themselves to digital interventions. Scores of enthusiastic children from 20 Government schools gave wing to their imagination creating as many as 120 new ideas as part of the 'Engineering Futures', STEM education programme that we are supporting while the community-based study centres re-opened their doors to children. L&T-eeing recommenced virtually initially but soon our L&T-eers have started to go out and make a big difference, including driving our 'green' initiatives.

All this augurs well for tomorrow! As we approach a new financial year with fresh plans, new outreach programmes and renewed vigour, I call out to all across L&T Construction to join our effort to create and enhance value both for ourselves and for our society as well.

**Vinod Jacob Chacko**

Head - Corporate Communications & CSR





*“Each project had its own merit, and it is great that these children are able to think so innovatively at such a young age!”*

**Shakila Banu. M**  
L&T-er, Heavy Civil IC



“Better the ideas and projects, tougher our task,” smiled L&T-er, Ms. Shakila Banu. M from Heavy Civil IC, in the thick of action. “Each project had its own merit, and it is great that these children are able to think so innovatively at such a young age!”

That Saturday morning, sixteen students in pairs, stood along with some serious looking teachers beside their ‘science creations’; some excited, some nervous, some incredibly calm, some putting finishing touches or tinkering to ensure that their models worked flawlessly when presenting to the jury of Mr. APJMJ Sheik Saleem, Co-Founder & Managing Trustee, Abdul Kalam International Foundation, the Guest of Honour, and the Chief Guest, our own S. Srinivasan, Head - EDRC, PT&D IC. Several ‘out-of-the-box’ working models were presented on a variety of aspects: burglar alarms, automatic street lighting, robots, waste water treatment, automatic watering of plants and Piezo electric steps.

### Ideas galore

While Yuvaraj and his partner Mohan explained that their rocket with an inbuilt parachute could gauge all the air quality parameters through an attached app, an earnest looking duo of M Soundharya & D Savitha of Government Girl High School, Ashok Nagar, presented a working robot with a serving tray that could come in useful at research labs, hospitals or even smart homes. After Tejeshwar and his partner from Govt Higher Secondary School, Ramapuram, demonstrated their burglar alarm idea, Loshini and Abinaya from Govt Higher Secondary School, Poonamallee, had a fully working waste water treatment plant while Chandrakala and Logeswari from Govt Girls Higher Secondary School, Kundrathur, presented on the effective use of solar power for irrigation. Automatic traffic lighting was D. Abishek’s and S. Sam Joshwa’s idea from GHS Vadakku Malayampakkam, who are keen to take it to the next level by using solar panels. Once the presentations were done with, a few of the students shared their experience of

visiting the Femto Satellite launch at Rameswaram. “It opened our minds to the fascinating world of space technology,” they gushed excitedly.

### Ushering in an exciting new way of learning

“Today, we are observing National Science Day to celebrate Sir C V Raman’s wonderful invention but what motivated him?” S. Srinivasan asked the 100-strong audience. “It was curiosity for once when he was travelling by ship, he was curious as to why the ocean was blue that led him to discover that when light passes through a transparent object, it scatters. Similarly, all of you must develop curiosity to question things we see around us to come up with new ideas. Dr APJ told children to dream and you should continue to dream to be alive to the vibrancy of possibilities,” he added to enthusiastic applause.

“Students should develop a questioning attitude which will help you to acquire more and new knowledge,” remarked Mr. APJMJ Sheik Saleem, who also spoke at

length on APJ Kalam’s journey to become the Missile Man of India and his role as a schoolteacher, sparking interest in science and technology. “In today’s world, students have many opportunities to showcase their talent and they should use it effectively,” he added with a smile.

“A stem can only stand with deep roots and all of you have to build strong roots to become nation builders,” urged Vinod Jacob Chacko Head - Corporate Communications & Corporate Social Responsibility, drawing a parallel with L&T, as builders of nations. “Today, we saw 8 brilliant ideas and projects, next year we should see 80,” he enthused.

In his concluding remarks, Mr. D Bhaskaran, Zonal Head – South, American India Foundation, informed that the STEM ‘Engineering Futures’ programme was being supported by L&T in 83 schools across Tamil Nadu, Haryana, Gujarat (including 20 in Chennai) touching some 23,000 students in 6th, 7th & 8th standards. “We are extremely grateful for this support and are delighted that we are able to make education more meaningful for so many students.”



*“Students should develop a questioning attitude which will help you to acquire more and new knowledge.”*

**APJMJ. Sheik Saleem**  
Co-Founder & Managing Trustee,  
Abdul Kalam International Foundation



### 120 winners! 3 recognized as best among the best!

The highpoint of the morning was certainly the announcement of the three top winning entries: not surprisingly, Yuvaraj was flying high as his team's 'rocket idea' was recognized as one of the best as were Loshini and Abinaya's waste water treatment idea and Chandrakala and Logeswari's project on the future of irrigation. However, everyone readily agreed that every one of those 120 ideas were winners!



*All of you must develop curiosity to question things we see around us to come up with new ideas.*

**S. Srinivasan**  
Head - EDRC, PT&D IC



*A stem can only stand with deep roots and all of you have to build strong roots to become nation builders.*

**Vinod Jacob Chacko**  
Head - Corporate Communications & Corporate Social Responsibility



# THE WORLD'S LARGEST CRICKET STADIUM AT MOTERA IS ALSO INDIA'S GREENEST!

Apart from being the world's largest cricket stadium, the newly minted and named Narendra Modi Stadium at Motera, has another claim to fame: it has a 'Gold Rating' from the Indian Green Building Council (IGBC) for its several 'green' features. "It is a huge site spread over some 63 acres set right in the middle of the city, so the construction challenges were many," remarks Project Director, Subrata Datta (SD), "but we were determined from the beginning to make it a green site and it is an honour to be recognized as the greenest cricket stadium in the country."

## How green is my stadium?

Water efficient fixtures helped reduce water consumption during the building operation by a whopping 30%, shares SD. "We also saved up to 21% of potable water during construction, 77% of the wastewater was reused, we achieved 21% of energy saving, more than 40% of the construction material was procured locally within 400 km from the site and 22% of it procured with recycled content." SD rattles off these percentages understandably proud of his and his project team's achievement but it is evident that a lot of effort has gone into achieving these flattering numbers.

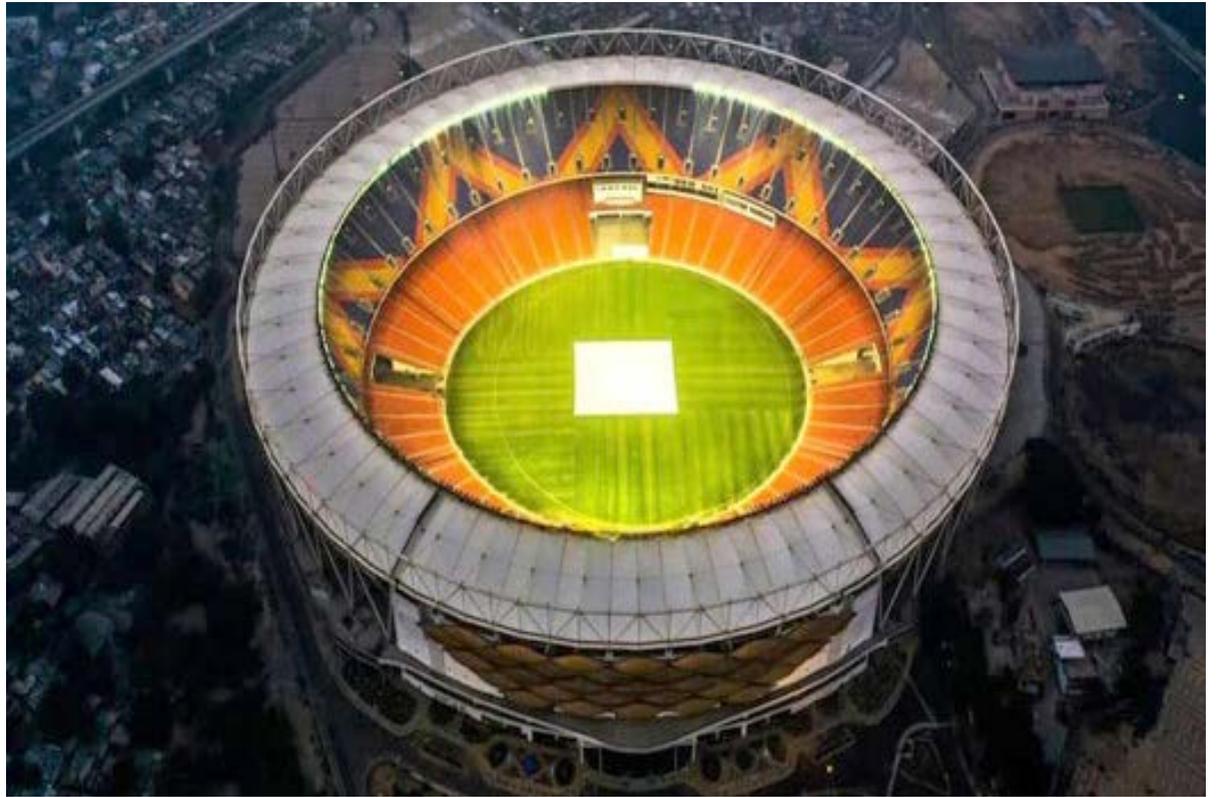
The 'Gold' rating was a result of the findings of IGBC across seven parameters: Sustainable Architecture & Design, Site Selection & Planning, Water Conservation, Energy Efficiency, Building Materials & Resources, Indoor Environmental Quality, and Innovation & Design.

## Sustainable architecture & design:

A major engineering challenge was that a new stadium had to be built on the same footprint as the erstwhile one, only with three times more capacity. "We adopted an integrated design approach involving team members from across disciplines and fields right from the conceptual stage till the completion of the project," shares SD. The site's green cover was maintained by preserving the existing trees and incorporating them into the landscape design and 11 acres of vegetation enhanced its biodiversity.

## Site selection & planning:

Although the site was pre-determined by the client, the Gujarat Cricket Association, the onus on the project team was to smartly plan as it was hemmed in on all sides by residential complexes with even a frequently visited temple within the



Stadium FOP (Field of Play) lighting

site premises. "Erosion and sedimentation control strategies were meticulously followed throughout the period of construction," points out SD. While a rainwater sump and recharge pits collected the roof and non-roof run-offs, the site had 22% open space for vegetation. Special attention was paid to the labour colony located within the site premises that was provided with all safety & sanitation facilities. The site was equipped with DA toilets, DA parking and even Braille & audio-assisted lifts for the differently abled.

## Water conservation of 30%:

No stone was left unturned to seek and adapt methods to conserve water like the use of native species and adaptive plants to eliminate or at least reduce the need for irrigation, the use of a drip sprinkler system to control dust and other curing purposes and no potable water was used for non-drinking purposes like irrigation, flushing, HVAC and the like that was entirely met by wastewater treated in an onsite 1 MLD Sewage Treatment Plant.



Storm water system - Post construction



Cooling tower at the Club House

Use of water was reduced by 30% with aerators & regulators fitted on all taps & faucets, dual flushes at water closets, prismatic arrangements at urinals to reduce the flow of water.

### Energy conservation of 21%:

Energy savings over ASHRAE 9.1 - 2010 Base Case was to the extent of 21% thanks to a slew of measures: LED interior lighting system, water cooled chillers, a double-glazing system, CO2 sensors in the Return Air Path, occupant sensors in toilets, lounges, meeting & conference rooms & office spaces and Building Management Systems to monitor various energy applications like HVAC, lighting, pumping & ventilation systems. Halon-free fire extinguishers were deployed that have zero impact on the ozone layer and the environment while the refrigerants used were free of CFC (Chloro Fluoro Carbons) & HCFC (Hydro Chloro Fluoro Carbons) "We had energy and water meters installed to measure all the major consuming areas and take corrective action, if necessary," adds SD.

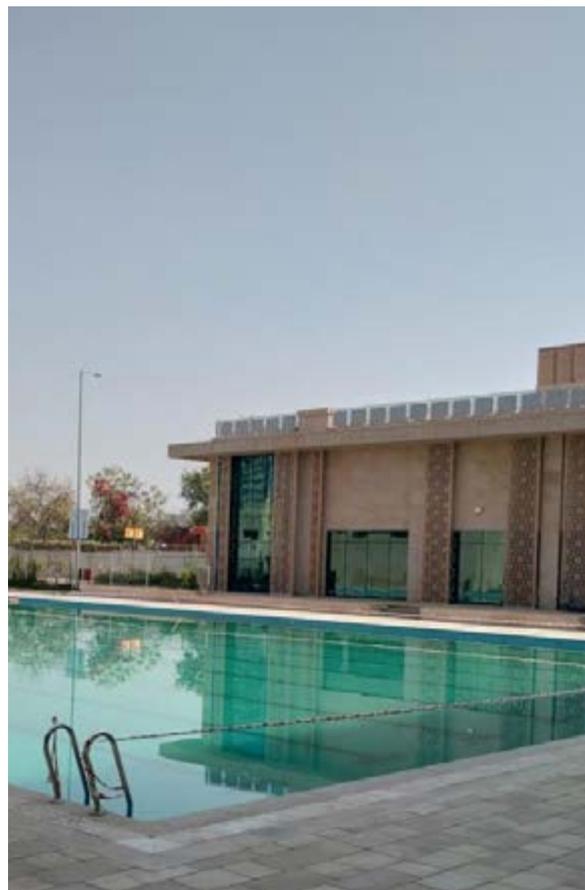
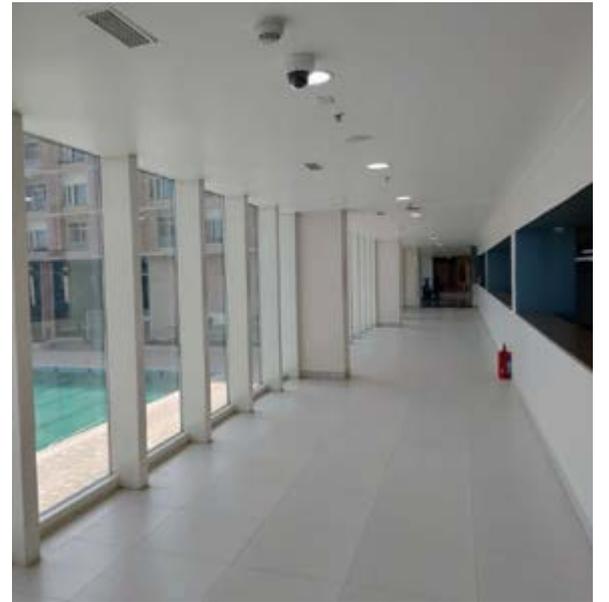
### Building materials & resources:

Overall, some 3,400 tonnes of construction waste were diverted from being sent to landfills. 96% of the construction/demolition/land clearing waste was recycled and reused at site; waste like packing material, tiles, screws & nuts, aluminium scrap, plastic were collected and sent to agents for recycling & reuse. Solid concrete block and AAC block debris were reused for infrastructure refill. "No cement bags were directly emptied into silos

from tankers," points out SD. Floor wise, waste was collected in dustbins and transferred to a central waste yard. More than five passive and active green building material, products & equipment certified by IGBC under GreenPro were used at the site.

### Indoor environmental quality:

While minimum fresh air was provided as per ASHRAE 62.1 - 2010 standards, smoking was prohibited on site. Low VOC emitting material like adhesives, sealants and paints that comply with IGBC standards were carefully chosen and used. Occupant wellbeing was a critical criterion when developing the indoor & outdoor sports facilities.



Occupant well-being facilities



Outdoor view

time against conventional MHL ensuring quick resumption of play in case of a power failure and (iii) The LED light fixtures are provided with DMX enabled drivers that can be used to create various lighting effects within the stadium. Last, but certainly not the least, the reduction in the number of electrical fixtures required for the operation by mounting the fixtures closer to the field of play area vs conventional high mast solutions, has significantly reduced power consumption.



AHU - Air Handling Unit

### India's only Led-lit stadium - a strong green message

Apart from its many 'firsts', the stadium at Motera is also India's only LED-lit stadium in which high wattage LED light fixtures have been used instead of the conventional metal halide lamps. The advantages of using the LED light fixtures are: (i) Lower depreciation of lumen output and hence longer life for the fixture; (ii) Very low start up

### Innovation & design:

The adoption of precast technology specially to erect the huge, iconic 'Y' columns was a defining feature to build this mammoth structure that speeded up construction, eased site management, improved build quality and saved resources.

For SD and his project team, the accolades of having built a green stadium is richly deserved.



# L&T-EERING TO THE FORE DESPITE THE PANDEMIC



“The smallest act of kindness is worth more than the grandest intention.” - Oscar Wilde



**A**t a time when people are distressed, volunteers can play a crucial role to de-stress them and our L&T-eers have been rising to the occasion, exploring, and adopting new methods of reaching out to the needy and underprivileged, refusing to be beaten by the pandemic. Working closely with NGO partners Everest, BHUMI and United Way, L&T-eers continued their efforts ‘virtually’ to create a more inclusive society.

## Knowledge is power: Right To Education Campaign (RTE)

The RTE campaign, in association with BHUMI, is to create awareness in the lower income communities about free education and support children to enroll in schools in their neighbourhoods. Using a helpline, L&T-eers reached out to the beneficiaries, sensitizing them and patiently addressing all their queries to guide them through the school application process. Children eligible for RTE admission are identified with their relevant details captured for further follow ups. L&T-eers are thus helping to pave the way for children to receive the quality education they rightfully deserve.

## Audio book recording for the visually challenged

Through the Audio Book Recording initiative, conducted in association with United Way Chennai (UWC), L&T-eers are bringing alive the world of learning and literature to the visually challenged by ‘Reading, Recording & Posting’. They read out from books shared in pdf form, that is recorded and

shared back to be played out to their audience. All the voice recordings are stored in an ‘online library’ on UWC’s website.

“Such programmes help us to connect with the visually challenged in a whole new way,” enthuses Ms Meenakshi Ramesh, Executive Director, United Way Chennai. “Not only are their long days of solitude filled, but they feel comforted that they are being cared for and, of course, their knowledge improves. The volunteers of L&T are doing a fabulous job by bringing a semblance of light into otherwise dark worlds.”

## Moulding them young: Be-a-mentor programme

64 L&T-eers have been guiding and supporting college students to keep studying and remain motivated through one-to-one phone call sessions

of 45-60 mins a day. By sharing their professional and personal experiences, the L&T-eers build a rapport and trust with these young people to help them share and address their personal, academic and job-related concerns, and encourage them to continue with their higher education to shape their future. The topics covered are Personality Development, Career Development, Lifestyle Management, Success Stories.

## Women power: Virtual connect with college girl students

“Call & Connect” is an overwhelmingly popular initiative in which lady L&T-eers connect with female students. Apart from the specific topics, they share about their families, friends, education, life skills and much more. The intent is to help the young girls to cope with change and the world around, motivate them to adapt to the new normal to thereby lead better adjusted lives.



*The volunteers of L&T are doing a fabulous job by bringing a semblance of light into otherwise dark worlds*

**Meenakshi Ramesh**  
Executive Director, United Way Chennai

At a time when people are distressed, volunteers can play a crucial role to de-stress them



#### Seeing is believing: Video TLMS (Teaching Learning Materials)

In collaboration with BHUMI, L&T-eers have created TLMS (Teaching Learning Materials) in English, Tamil & Hindi for the students of the Community Learning Centres and shelter homes. L&T-eers have spent more than 3 hrs over weekends to make these curriculum based TLMS.

"This exercise has made me more empathetic to the needs of others," shares Sathyanarayan Srinivasan of PT&D IC, echoing every L&T-eer's reaction to their volunteering experience. "I feel that I have provided direction to a child's future and it is very satisfying. I have realised that many families make huge sacrifices for their children's education and supporting them with knowledge is a great honour for me."



*This exercise has made me more empathetic to the needs of others. I feel that I have provided direction to a child's future and it is very satisfying*

**Sathyanarayan Srinivasan**  
L&T-eer, PT&D IC

## PHYSICAL L&T-EERING IN FEBRUARY 2021

145 L&T-eers dedicate 532 hours for the society





The pandemic had put a stop to physical L&T-eering but with the situation improving, we were able to return to our old ways of connecting with the society with 145 L&T-eers dedicating 532 hours to L&T-eering!

### An evening to brighten the lives of rural children

It all re-started with 60 L&T-eers from B&F IC, WET IC, PT&D IC, HC IC and LTHE, mostly attired in the bright yellow L&T-eering T-shirts, bringing 79 gift

boxes alive with myriad designs and cartoons for rural children that will be distributed as giveaways to the Primary and Middle school children of Aarani Village.

### Hands on soil ... for a greener planet

60+ L&T-eers from across ICs took a break from their routine and took to rolling Seed Balls. A seed ball is a clay dumpling; a mixture of mud manure with a seed inside every roll. In a matter of a couple of hours, over 4000 seed balls were rolled that will be

dried for a couple of days and then strewn randomly in rural areas or forests to aid afforestation.

### Face-lifting the classrooms of government schools at Kovur

Paint-A-Thon is a great platform for our L&T-teers to reveal their creative streak to paint murals and graffiti. More than 40 enthusiasts, split into 4 groups, artistically rendered STEM concepts and themes on the classroom walls. Each group was led by a person who is artistically well-versed.



# ENSURING LEARNING IS CONTINUOUS ... EVEN DURING COVID TIMES

As the sun goes down, the slums of Chennai come alive with the buzz of children from Classes 3 to 8 flocking to Community Evening Learning Centres, organized by BHUMI, for their after-school skill development. Managed by trained tutors drawn from within their community that enhances tutor-student connect, these Centres bridge their inequities living in such an environment and address their lack of competence in the fundamentals of academics and, at the same time, build their life skills.

In classrooms of 15-20 children managed by two tutors each, they are inducted with the permission of their parents and assessed to record the baseline status of their skills. Thereafter, their progress is periodically recorded by the coordinators at each skill level. BHUMI, in partnership with L&T Construction, operates 13 such Evening Child Learning Centers in Chennai benefitting nearly 400 children.

## Embracing a new 'online' normal

For Dr K K Prahalathan, Founder of BHUMI and his team, the pandemic-induced lockdown posed entirely new challenges and, like the rest of the world, were forced to realign and reorient themselves to the new normal of online classes. "Surprisingly, the children took to the virtual mode of learning like ducks to water," he smiles, "but it was a steep learning curve for our tutors right from finding beneficiaries for the online classes to engaging the



children virtually, to learning new ways of teaching virtually and other attendant issues like mobile data fluctuations, erratic network, difficulties to handle smartphones from both sides and the like."

Understandably, several families did not own smart phones and the onus was on the tutors to source students and/or families with access to phones and enroll them for online classes. Tutors were trained to use Google Meet and Zoom applications while the children first found activities like unmute, mute, and sharing screens, interesting and amusing. Once the teething issues were overcome both the children and the tutors fell into a routine and online learning took off wonderfully.

“

*Surprisingly, the children took to the virtual mode of learning like ducks to water, but it was a steep learning curve for our tutors.*

Dr K K Prahalathan  
Founder of BHUMI

”



### Tracking potential and progress

To start with, Google Forms were used to test skills in Mathematics and ascertain a student's present level of learning, that is subsequently uploaded, checked and corrected by the tutors. For English, tutors conducted assessments through Google Meet to assess the children's reading and speaking skills. In fact, they were urged to converse with their family members in English to improve their conversational skills.

Apart from English and Maths, they are taught Tamil, Science, Social & Emotional Learning (SEL - for their emotional wellbeing) using PowerPoint presentations to make the learning experience interesting and visually appealing. Teaching Learning Materials (TLMs) through PPTs kept the children engaged through the online learning process.

### Social media emerges as a great learning platform

Apart from being engaged in online classes, children were constantly engaged on WhatsApp to clear doubts, share worksheets and homework. In a recent development, students have started to register for WhatsApp Learning and virtually interact with a chatbot to learn Maths and English using videos and answer questions sent by the bot on new topics every week. With the AhaGuru App, they learn fractions, watch video lessons and take assessments regularly.

### Training the trainers

To equip themselves to the new normal, tutors used the EnglishBolo App to brush up their language skills while numerous digital literacy workshops conducted by experts have helped improve their ability to teach virtually.

Even as the world continues to fight the pandemic and all of us learn ways to contend with it, the efforts of BHUMI are sure to improve the lot of the children they teach and their families.

*The sun is already rising in their lives!*



**BHUMI,**  
in partnership with L&T  
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# STEM - IMPROVING SCIENCE LITERACY & CREATING CRITICAL THINKERS!

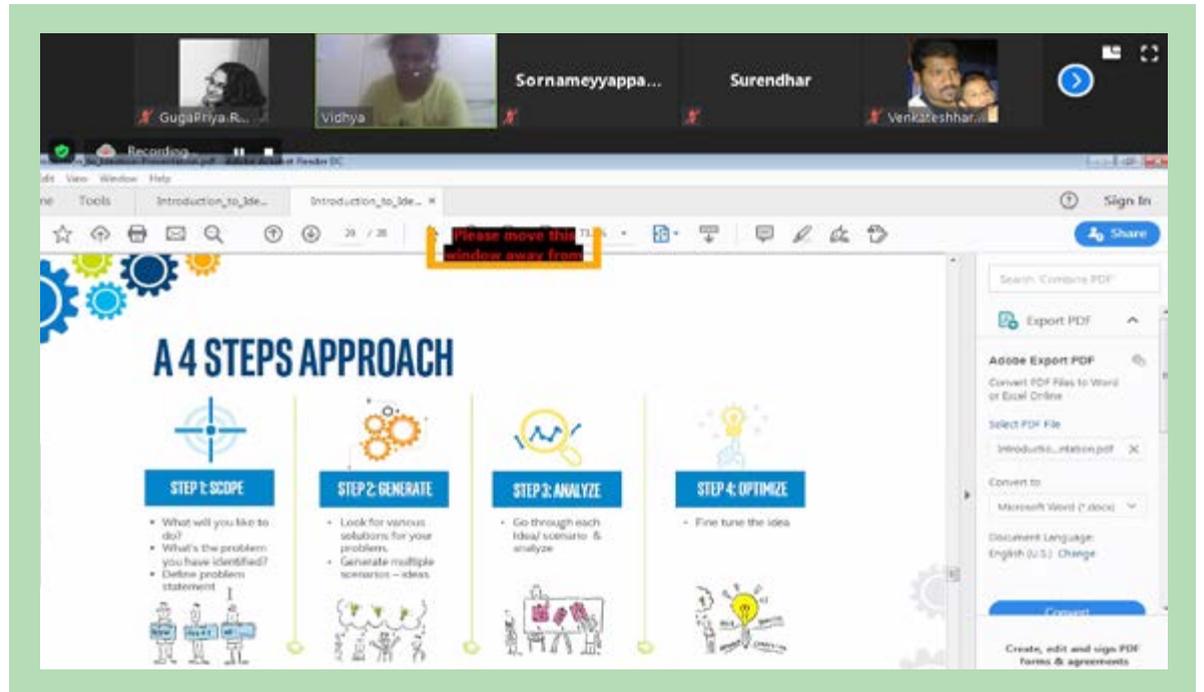
The STEM 'Engineering Futures' programme aims to bridge the educational and digital divide by bringing technology to under-resourced government schools across India (including 20 of them in Chennai) to transform teaching and learning into a collaborative, project-based approach. The beneficiaries are the students of classes VI to VIII and the Mathematics and Science teachers.

Undeterred by the pandemic, the STEM teaching & learning shifted to the virtual mode during and post the lockdown covering 1961 students involving 170 teachers. Apart from the regular academic curriculum, the students were exposed to various allied Science & Technology programmes.

## Online Atal Tinkering (ATL) programme

(ATL - a Central Government of India initiative to create an environment of scientific temperament, innovation, creativity amongst students)

92 selected students received online training through (ATL) conducted by the Lalaji Memorial Omega International School as per the training guidelines of the Atal Innovation Mission (AIM). They participated for an hour through online conferencing platforms during which they were trained and mentored to create projects from empathy (understanding) to product level and trained on computer-based coding programmes for the conceived projects. Thanks to this training, many students proposed various innovative project ideas and created projects using scratch coding programs.



## Digital contest to celebrate children's day 2021:

66 students of the STEM project found Children's Day interesting and engaging by participating in a digital contest. Apart from winning certificates and prizes, the winners had the opportunity to meet and interact with the School Education Director - Govt of Tamil Nadu, Dr. S. Kannappan.

## Preparing teachers for remote teaching

Various workshops prepared teachers to handle the virtual tools for teaching, including e-learning platforms and basic Microsoft Office. Subject matter expert teachers conducted sessions on remote learning strategies too.

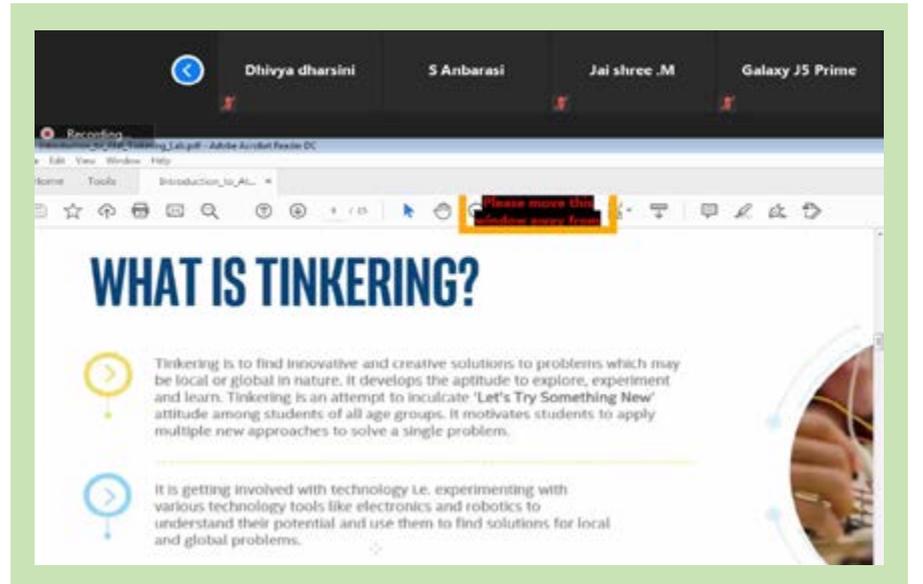
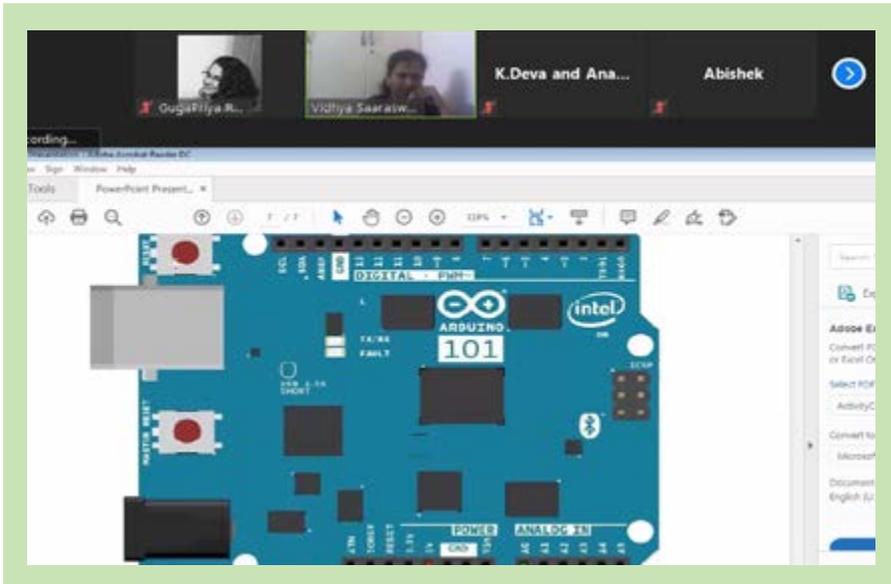
## Dr. A.P.J. Abdul Kalam Space Research Payload Cubes Challenge - 2021

Dr. A.P.J. Abdul Kalam International Foundation, House of Kalam, Rameswaram along with Space Zone India, Chennai conducted the 'Dr. A.P.J. Abdul Kalam Space Research Payload Cubes Challenge - 2021' with the objective of 'Vision Beyond 2020' and to engage young minds with the fascinating world of space technology.

## Automatic Hand Sanitizer Dispenser Model - Inspired by STEM project

Madhuvarshini and Anupriya of class 9 from the Government Girls Higher Secondary School, Ashok Nagar, participated in the Intra and Inter school STEM Exhibition conducted by American India Foundation in February 2020. Inspired by the Obstacle Sensor Vehicle at the exhibition, they created an Automatic Hand Sanitizer Dispenser using a proximity sensor.





The mission was to guide 1000 students from class VII to XII across the nation to work on Science, Technology, Engineering and Mathematics (STEM) projects, to help them use their knowledge and skills to design and develop 100 Femto satellites that were launched through two high altitude scientific balloons on 7<sup>th</sup> February 2021 at 10:30 am at Rameswaram.

With the support, guidance and experience garnered from the STEM project, 18 students from 2 schools - Government Higher Secondary School, West Mambalam (Pudur) and Government Girls Higher Secondary School, Ashok Nagar participated in this challenge.

The selected students had an online training session covering various aspects of satellite launch & functioning like design & development of the Femto Satellites, basics of high altitude scientific balloons, selection of payload & sensors, satellite circuit board design and satellite structure design (software). A one-day hand-on workshop was conducted for them at the Dr. M.G.R. Educational and Research Institute, Chennai on satellite coding and various payload components. Subsequently, the



students with the help of their mentors, assembled the Femto Satellites.

This entire process was a revelation for the Government school students getting the opportunity to interact with renowned scientists who motivated

them to pursue their dreams to make the country proud. As the 100 Femto satellites were launched, 25 students from L&T STEM intervention schools witnessed the launch, visibly excited about the whole world of opportunities that lie before them.



### Launching 100 FEMTO Satellites



A Sivathanu Pillai, Founder of CEO of Brahmos Aerospace and former Chief controller of R&D DRDO launching 100 Femto Satellites designed and made by school students in two high altitude scientific balloons

# THE CHILDREN OF VIDYASAGAR FIND THEIR NEW NORMAL

## Academics



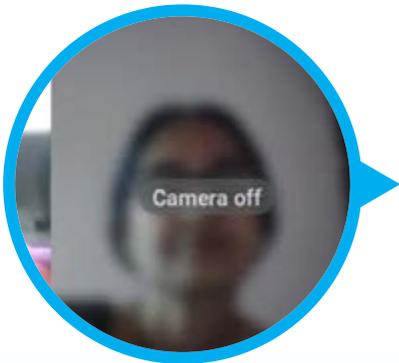
Teacher - Ms. D Sasi  
Students - Harikrupa, Nandu and Ramya

## Communication session



Teacher - Ms. Lakshmi  
Students - Joma, Adhithya, anu, Krsihnamurthy, Jeevesh

## Science Class



Teacher - Ms. Uma  
Students - Joma, Ashwatha, Krishnamoorthy

The pandemic disrupted Nandu's life at Vidya Sagar almost without warning. Suddenly there was no morning rush, no 'aunties' to help him with his wheelchair, no interactions with his teachers or his friends at school for COVID-19 had confined Nandu and all the autistic and physically challenged children of Vidya Sagar to their homes. "It was an entirely new situation and initially, we were not sure how to manage this change," admits Ms. Chitrlekha, a teacher. "But we all adapt and soon we realized that we had to shift the location to the students' homes that took a lot of adjusting from us."

The children were introduced to a new method of digital learning and as Ms. Poonam Natarajan, Founder Vidya Sagar, shares, "the children took to the change much better than we thought they

would. It is incredible how these children adapt to new situations and challenges," she says in awe.

Based on a 'Learning by doing' method, the initial online curriculum allowed parents to teach their children with materials easily available at home. They were given engaging awareness sessions on the pandemic, on regular health and hygiene, nutrition, and diet. The physio and occupational therapists focused on the physical aspects and the day-to-day activities of learning. The school's communication team reached out to the students once a week to enhance their soft skills.

Very quickly, most of the children started to enjoy their interactive live sessions and customized self-learning opportunities through videos created by the teachers who, along with the support staff,

ensured that the learning was balanced and holistic. The first three days of the week were dedicated to academics and the rest to communication and storytelling sessions.

"Each student is different and hence their education has to be tailored and made to suit their capabilities," points out Ms. Natarajan. "There are no hard or fast rules. Our teachers are sometimes friends, sometimes mentors, sometimes cheer leaders supporting the children to achieve their smallest learning milestone, helping them learn at their own pace even when not physically present."

Though Nandu and his friends are enjoying their new normal, they certainly would not mind returning to their old normal. Wouldn't all of us love that too?

# CSTI - PILKHUWA ACHIEVES ISO 9001:2015 CERTIFICATION

Recognised the world over, the Quality Management System ISO:9001 is one of the most applied management tools across the globe.

Mr. M. V Satish (Whole time Director and Sr. Executive Vice President - Buildings) congratulated Mr. Kamaljit S. Mehrok (Principal-CSTI Pilkhuwa) and his team on this achievement to enhance management and operations at their CSTI to highest quality standards.

According to Mr. Mehrok (Principal - CSTI) "The purpose of this international standard is to demonstrate universally, the level of governance held by this institute, in turn displaying our competence & professionalism.

In preparation, we first developed the CSTI Quality manual based on ISO 9001: 2015 requirements without hiring any external consultant agency. We performed several internal audits on both our standards and processes, then gathered as a team to review our findings as well as our suite of policies to ensure that our systems were up to scratch. We have worked rigorously on it for last 8 months."



CSTI-Pilkuwa was established in 2011 and, till date, has trained 14,431 workmen trainees in various trades along with 3537 executive trainees (GETs / DETs / Master Trainers / Front Line Supervisors / Assessors / Managers, etc.)

In addition, CSTI-Pilkuwa team extends great support to projects in the Northern region through Site Based Training activities for the construction workforce.



# NAPS FRUITFUL AT MMH SITES!

Debashish Karmakar, Principal of CSTI, Serampore has every reason to smile as his working model to train the trainees under the National Apprenticeship Promotion Scheme (NAPS) has been a success. "It is an eminently scalable model and I am delighted that MMH SBG has successfully adopted it with excellent results," he shares proudly.

A year after its launch in 2016, NAPS was introduced in L&T in 2017 by CSTD at Divisional Corporate, becoming the first construction company in India to register for it with the Ministry of Skill Development and Entrepreneurship. By engaging a skilled workforce in their system, the employer benefits, besides receiving a decent incentive for engagement and without the obligation of paying either EPF or ESI.

"As a skills training manager, I have been waiting to implement the 'train, retain, retrain' model in the construction industry and NAPS is the perfect platform for this," shares Raguraman Jayaramulu, DGM Skills Training. "It is an excellent initiative



**Our working model to train the trainees under the NAPS is an eminently scalable model and I am delighted that MMH SBG has successfully adopted it with excellent results**



**Debashish Karmakar**  
Principal of CSTI, Serampore

to bring skilling back on the right track and an opportunity for L&T to open its doors to 'On-the-job' training which is by far the best way to build skills," he adds.

In the first year, about 500 CSTI-trained youth were engaged in L&T under NAPS and cumulative deployment reached a peak of 7000 beneficiaries by 2019-20.

The trainees at CSTI, Serampore, after completing trade training, based on their interest, join L&T project sites as apprentices under NAPS. After seeing their interest, the CSTI team developed a systematic working model in collaboration with the MMH project team and identified project sites which required specific skillsets where the CSTI trainees could replace sub-contractor workmen.

The trainees undergo training at CSTI, that is customized to address the identified specific skills with exposure to handling mechanized / advanced tools. They receive all the support they require on the job with a CSTI demonstrator deployed along with them at site to familiarize and handhold. The demonstrators, who act as a bridge between the apprentices and project team, ensure that the trainees quickly establish themselves at sites, settle down smoothly at the workmen camps and even help



to retain them at site. They periodically record and assess the productivity of the deployed apprentices, compared to market standards. The apprentices are compensated based on their productivity and encouraged with productivity-based incentives - a move that has borne fruit across MMH sites.

Prior to this training, NAPS candidates used to be assigned unskilled jobs at site such as material shifting, housekeeping and such like but now they are better prepared to meet the dynamic requirements at sites. "We have noticed 4.5 times increase in productivity when mechanization was used with rebar cutting & bending machines, in comparison to the manual process using sub-contractor workmen," shares G. Srinivas, Head - Corporate Centre, Formwork - CMPC & Resources, with a satisfied smile. 761 CSTI-trained workmen



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**Raguraman Jayaramulu**  
DGM, Skills Training



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**G. Srinivas**  
Head - Corporate Centre, Formwork



were deployed under NAPS across 7 MMH work sites between August 2019 and March 2020, that dropped to 436 in April 2020 due to the pandemic. Retention was also higher compared to that of subcontractor workmen during that period.

At the RSP Rourkela project site, the entire administrative block was constructed solely by CSTI Serampore trained NAPS apprentices, an excellent testimony to the skills they have acquired. The future for trained apprentices looks bright as other businesses, inspired by the NAPS success story of CSTI Serampore, pick and give them opportunities to make a mark at other construction sites across India.



## AN INTEGRATED DIGITAL PLATFORM FOR CSTIs

To improve the process monitoring systems, CSTD, DC, HQ team developed an integrated digital process-monitoring platform that was successfully tested across CSTIs and will be operational effective April 2021. The platform will replace the earlier stand-alone platforms and will capture all the processes from sourcing till tracking of trainees for one year or more. The platform has a user-friendly mobile app for mobilization drives. It facilitates easy follow-ups with trainees through SMS. Each trainee will be given a Unique Identification Number (UIN) that is Aadhar sensitive to avoid duplication. Enabled to track NAPS (National Apprentice Promotion Scheme) candidates, this integrated platform will be linked to WISA (Workforce Induction & Skill Application), for workmen uberization. CSTIs Attibelle and Kanchipuram have enrolled the first batches on the platform.



## DIGITAL LITERACY PROGRAMME INAUGURATED AT CSTI



Realizing the need for the marginalized workforce to be digitally trained, Construction Skills Training Department, DC, HQ and Microsoft Corporation India Limited worked on a joint programme under their CSR initiatives. As part of the project, CSTIs will provide space to establish digital literacy labs while Microsoft Corporation will provide faculty, courseware, computers, tablet devices and projectors. Anudip Foundation that possesses rich experience in digitally training marginalized communities will implement the digital programme

across CSTIs. In a year, it is proposed to train around 10000 CSTI trainees.

The training module comprise topics such as basics of MS office, use of email services, digital payments & securities, use of digi-locker, use of search engines,

accessing relevant Government schemes & benefits and the ethical use of internet.

The programme was inaugurated on 2<sup>nd</sup> March 2021 at both CSTI Kanchipuram and Attibelle with similar launches planned at other CSTIs.



## MOVING AHEAD

There are some stories that T. Venkatesan, Secretary, Wheelchair Federation of India (WFI), is never tired of telling. Almost all of them involve his love for wheelchair fencing and how he has represented India at the paralympics in Seoul and later in London in 2012.

"I enjoy the challenge the game brings," he smiles, as he accepted the donation of 10 Wheelchairs on behalf of WFI from the CSR team of L&T

Construction. "Today I am agile, and I want many people to experience this feeling."

The beneficiaries of the wheelchairs are women from rural Tamil Nadu, with difficulty in mobility, health & independence due to lack of assistive devices like wheelchairs.

*\*Wheelchair fencing is for athletes with disabilities that combines strength, agility and quick thinking and is part of the Paralympics and the Asian Para Games.*



# AUTOCAD TRAINING & CERTIFICATION AT SERAMPORE, WEST BENGAL



Lecturer & TPO, Hooghly Institute of Technology is all praise for L&T. "I am grateful to L&T for introducing this AutoCAD initiative which is helping college students and creating a skilled productive workforce."

The course has instilled immense self-confidence and belief among the successful students, and some of them have secured jobs in various sectors.



Vaskar Ruidas

"I am forever indebted to L&T," shares a thankful Mr. Vaskar Ruidas, working at M/s. Taramaa Survey Enterprise, "after completing my diploma in engineering, I was unemployed and directionless but thanks to the AutoCAD course, I got the confidence and a job that I like." Similar sentiments were echoed by Mr. Kunal Das who secured a job at M/s. Technext Engineering & Telecom Pvt. Ltd.



Kunal Das

As part of their CSR initiatives, MMH SBG had started a free course on AutoCAD in September 2019 at Serampore, West Bengal, to cater to students with engineering diploma and ITI students from the marginalized sections of the society.

AutoCAD is a computer-aided software programme that enables drafters, architects, engineers and other experienced professionals to create two-dimensional and three-dimensional models to design different types of buildings and innovative infrastructure.

Since inception, 608 students have successfully completed the course and by the end of March 2021, 900 students are expected to complete the course. The course evaluation and certification are done by the National Institute of Electronics & Information Technology (NIELIT), an Autonomous Scientific Society of the Ministry of Electronics & IT, Government of India.

Mr. Jayanta Chakraborty, Director - NIELIT, excited to be associated with L&T - CSR, is effusive in his feedback "L&T's IT infrastructure, course curriculum, experienced faculty and teaching methodology are worth benchmarking. A great effort by the team."

AutoCAD, a huge differentiator to be employed, is a largely unexplored subject in many colleges. Not only does this course strengthen the CV of engineering students but gives them a niche skill to make them employable. Mr. Sirsendu Sarbavidya,

Students who want to further enhance their skills and knowledge in AutoCAD have the option to undergo a 3D modelling course with Inventor software that was inaugurated on 28th Jan 2021 by Ranjit Ghosh, Head - EDRC, MMH SBG.



# MOULDING YOUNG MINDS IN ODISHA

When L&T, Kansbahal was established some six decades ago in the remote tribal belt of Sundargarh District in Western Odisha, there were no basic infrastructure facilities for quality education. Over the years, the company has set up schools for the underprivileged to bring the marginalised community into the mainstream society through the power of knowledge.

Instituted under a robust CSR programme, 3 schools have been running at Kansbahal, Odisha since 2014-15, where more than 1400 students receive quality education and an opportunity to change the course of their lives.

Of the three schools, the high school is being run by the DAV Management Society offering a curriculum in English and Odiya. The two primary schools, Utmal English Primary School (English Medium) and Susheela Kashyap Vidyalaya (Odiya Medium), are being run by the Society of St. Theresa.

The schools are equipped with laboratories replete with the latest apparatus and libraries well stocked with books in all categories. Besides regular classes, smart classes & extra computer education are also being provided to the students. Students are encouraged to participate in different co-curricular activities for their overall development. Regular parent-teacher meetings are conducted during which parents are counselled on how to support

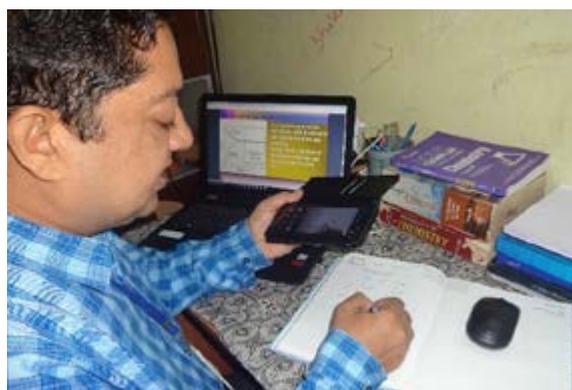


**Maithili Jena**

*National Youth Parliament Festival, Parliament of India, New Delhi, 11-12 January 2021*

their wards at home. During the pandemic, online classes ensured seamless learning.

Over the years, several students have brought laurels to the schools by participating and competing in different forums, pursuing higher studies in illustrious institutions, and achieving higher goals in life. Many are well placed and serving the society in different fields.



## L&T SUPPORTS ENVIRONMENTAL INITIATIVE OF CISF UNIT ASG

Under the aegis of the Ministry of Environment and Ministry of Home affairs, an environmental initiative of planting total 4700 saplings in phases was kick-started on 10th June 2020 at ASG Chennai. The CISF Unit ASG achieved the commendable target with the support of L&T in the form of 3000 saplings of various indigenous species of plants. Ms. Chetna Joshi (Asst. Commandant, CISF Unit, ASG Chennai) profusely thanked the L&T team for their support and dedication towards the initiative.



## L&T-ITES HELP REPLENISH BLOOD BANKS BY DONATING 335 UNITS OF BLOOD!

L&T has, over the years, supported the Indian Red Cross Society by donating blood that was all the more essential during the pandemic, playing havoc and choking healthcare system in many ways. Blood Banks were most affected without regular donors. To support blood collection during these trying times. The CSR arm of L&T Construction in partnership with Indian Red Cross Society, Tamil Nadu chapter, organized a blood donation drive for the 9<sup>th</sup> consecutive year at the HQ campus. The

camp was held in adherence to appropriate COVID protocols, following social distancing, mandatory usage of masks & frequent sanitization.

L&T-ites, through their collaborative effort donated 335 units of blood. The camp was inaugurated by Mr S.Ramkishore, Vice President - Head-HR & CSTD, Divisional Corporate in the presence of employees and IRC officials.



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