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ELEVATOR WORLD India is a quarterly magazine published by Elevator World, Inc., Mobile, Alabama (U.S.) and Virgo Publications, Bangalore (India). Virgo Publications is a sister organization of Virgo Communications, organizers of the Global Lift and Escalator Expo. Elevator World, Inc. is the premier publisher for the international building transportation industry. Since the inception of ELEVATOR WORLD magazine in 1953, the company has expanded core products to include ELEVATOR WORLD India; an extensive network of websites, newsletters (including ELENET®), and magazines; and the Source©, the most inclusive industry directory.

> Publishers - Anitha Raghunath, Ricia Sturgeon-Hendrick, T. Bruce MacKinnon

International Publishing Co. - Elevator World, Inc. Indian Publishing Co. – Virgo Publications

#### **Editorial**

International Managing Editor - Angela C. Baldwin Consulting Editor, India – Vijay Pandya EW Editorial Staff (U.S.) - Lee Freeland, Kaija Wilkinson, Matt Irvin

EW India Correspondent - M.J. Mohamed Iqbal Contributors - Sheetal Shelar Patil, Yash Pandya, Amish Mistry, Devang Trivedi, Anuj Puri, Ar. Pooja S.S. Dawalkar, Rajnikant Lad

**Printing, Distribution and Commercial Operations** Commercial Directors - Anitha Raghunath and G. Raghu (India)

#### Advertising Sales and Marketing

Anitha Raghunath and G. Raghu (India) – T. Bruce MacKinnon, Lesley K. Hicks, Scott O. Brown, Fred Wilkinson (International) Brad O'Guynn (Marketing) Susan Crigler (Education Products)

#### **Production and Internet**

EW Staff (U.S.) - Lillie McWilliams, Khalid Al-Shethry, Claire Nicholls, Diego Torres Vanegas

#### Administration

Anitha Raghunath (India) J. Scott Eastman (U.S.)

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**ELEVATOR WORLD India** is published in the interest of the members of the elevator industry in India, to improve communication within that industry and to further continuing education of members of that industry. ELEVATOR WORLD India publishes articles by contributing authors as a stimulus to thinking and not directives. ELEVATOR WORLD India publishes this material without accepting responsibility for its absolute accuracy, but with hopes that the vast majority of it will have validity for the field. The ideas expressed therein should be tempered by recognized elevator engineering practices, standards, codes and guidelines. Publication of any article or advertisement should not be deemed as an endorsement by ELEVATOR WORLD India, ELEVATOR WORLD, the publishers at Elevator World, Inc. or Virgo Publications. Printed by Sri Sudhindra Offset Process, No.27-28, 8th Cross, Malleshwaram, Bangalore - 560003, Karnataka, India.

ELEVATOR WORLD India will be published quarterly in 2020: February 17, May 18, August 17 and November 16.

Advertising and subscription information is available at

#### elevatorworldindia.com

Send company updates, announcements, press releases, product launches and article contributions to ewieditor@gmail.com.

## **Editor's Overview**



#### Coping With the COVID-19 Crisis

by Vijay Pandya

"When the going gets tough, the tough get going." This adage is particularly applicable to the vertical-transportation (VT) industry in the COVID-19 crisis. The nationwide lockdown being extended further, as of this

writing, means that most of us are in work-from-home mode. So, while the office buildings remain closed, elevators at our residential structures are still playing a critical role whenever a family member goes out to purchase essential items.

This phase has also seen the VT industry coming up with intelligent solutions to prevent the spread of the coronavirus while using elevators. From basic usage tips, where elbows replaced fingers for pressing floor buttons and hand movements were minimized, to incorporating smartphones and innovative software, it was clearly conveyed that "handsfree" operations were, indeed, possible and that elevators could be used, even with the threat of COVID-19 looming over the globe.

This issue focuses on niche VT categories expected to further expand the market going forward. Many of the emerging real estate segments are seen as tomorrow's primary VT demand drivers, with new opportunities in affordable housing, senior citizen living, coliving, coworking, student housing, places of worship, historical and pilgrimage sites, etc. From the convenience factor to safety considerations, several reasons have combined to lead many of these hitherto VT-deprived segments to witness a surge in retrofitting.

Incidentally, even horizontal development projects like villas and bungalows are increasingly incorporating compact elevators at the planning stage itself. Redevelopment is another segment where the new structure has VT as an integral part of the design.

COVID-19 may open still newer avenues for VT. ANAROCK Property Consultants have predicted that multilevel warehouses within city limits may well be Indian real estate's next big thing in a market completely transformed by the coronavirus pandemic. So, as nations across the world continue to make intense efforts to counter the COVID-19 threat, advances in VT are ensuring that there are permanent, long-term solutions to ensure elevators will be a "safe zone" for those who follow the prescribed usage precautions.

The future predictions in some of the articles of this issue were shared before the crisis. We will be providing updated views and analysis across VT and real estate-related industry segments in forthcoming issues.

# CALENDAR 2020-2021

2020

2021

| <b>AUG</b><br>18-21 | World Elevator & Escalato                                     | r Expo 2020<br>www.elevator-expo.com                | WEE  |
|---------------------|---|---|--|
| <b>SEP</b><br>7-9   | The Elevator Show<br>Dubai, U.A.E.                            | www.elevatorshowdubai.com                           | SHOW<br>DUBABB                               |
| 13-16               | Symposium on Lift and E<br>Northampton, U.K.                  | scalator Technologies<br>www.liftsymposium.org      | LIFT 6 ESCHLATOR<br>SYMPOSIUM                |
| 23-24               | United 2020<br>Houston, TX                                    | www.naecconvention.com                              | NA   |
| <b>OCT</b><br>15-17 | Global Lift & Escalator Ex<br>Dhaka, Bangladesh               | xpo Dhaka<br>www.gleexpo.com                        | GLOBAL LIFT<br>& ESCALATOR<br>EXPO DMAKA     |
| 15-17               | INELEX<br>Izmir, Turkey                                       | inelex.com  | INELE  |
| 19-20               | ISO/TC 178 Plenary and Shanghai, China                        | Working Groups Meeting                              | ISO  |
| 19-23               | CTBUH Conference<br>Kuala Lumpur and Singapore                | tbuhconference.com                                  | IGH DENSITY<br>ple, Nature & the Urban Realm |
| 21-24               | Eurasia Asansör<br>Istanbul, Turkey                           | <u>asansorfuari.com</u>                             | ASANSÖR                                      |
| <b>DEC</b><br>7-8   | International Elevator & Escalator Amsterdam, The Netherlands |   | IEES   |
| <b>MAY</b><br>6-8   | International Sourcing Exposition                             | for Elevators and Escalators  priyanka@tak-expo.net |  |
| <b>JUL</b><br>27-29 | Global Lift & Escalator Ex<br>Johannesburg, South Africa      | xpo Africa<br>www.gleexpo.com                       | GLOBAL LIFT<br>& ESCALATOR<br>APEXA          |
| <b>OCT</b><br>19-22 | Interlift 2021<br>Augsburg, Germany                           | www.interlift.de                                    | THE WORLD IS<br>A SQUARE                     |





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## **Events**

Education, housing, accessibility, elevator technologies among talking points.

#### 2M Inaugurates Training Institute, Digital Academy

The 2M Training Institute and Digital Academy were formally inaugurated on March 2 at a ceremony at the Courtyard Marriot Hotel in Cochin. The function was presided over by Dr. Dharmarajan P.K., vice chancellor, Sree Sankaracharya University of Sanskrit. He was joined by Noorul Ameen, general manager, 2M Lifts and Escalators Pvt. Ltd. and chief quest Virat Dhebar, former assistant vice president, TÜV SÜD South Asia Pvt. Ltd. Following the welcome speech and keynote address in Malyalam (the city's regional language), Dhebar introduced the Lift Technology Certification Program and Digital Academy. He shared that TÜV SÜD South Asia and 2M Training Institute collaborated to provide E-learning courses and lift technician certification domestically and internationally. The certification program includes mechanical, electrical and electromechanical aspects of lift technology, as well as components on lift installation. Virat spoke about eligibility criteria, the approach to certification and the E-learning platform. An informative fact sheet that included a message from 2M Training Institute Administrative Manager Dhaneesh Mohan T.M. was on hand for those present.

Members of the vertical-transportation industry present included Monsy George, managing director, Glide Capsule Elevators; P. Abey George, general manager, Tecno Doors Pvt. Ltd.; Mohan; Neema Kshatriya, senior manager, IT Trainings &



(I-r) Noorul Ameen, general manager, 2M Lifts and Escalators Pvt. Ltd.; Virat Dhebar, former assistant vice president, TÜV SÜD South Asia; and Dr. Dharmarajan P.K., vice chancellor, Sree Sankaracharya University of Sanskrit, at the traditional lamp lighting ceremony

Personal Certification Academy, TÜV SÜD South Asia and Rahul Sebastian, business development executive, Management Systems, TÜV SÜD South Asia. Mohan said:

"There is no such thing as a technician who remains qualified forever. Subsequently, our talents and our curiosity remain resolutely towards our candidates. It is with these words in our mind that we are pleased to present our lift technology six-month courses provided by our efficient team. Our longstanding experience from 2005 in elevator and escalator technology and 30-plus years of experience in collaboration with multinational individuals [led to us] designing these courses in a very conducive environment." Reported by Sheetal Shelar Patil



(I-r) Neema Kshatriya, senior manager, IT Trainings & Personal Certification Academy, TÜV SÜD South Asia; Rahul Sebastian, business development executive, Management Systems, TÜV SÜD South Asia; Virat Dhebar, former assistant vice president,  $\ddot{\text{TUV}}$  SÜD South Asia; Noorul Ameen, general manager, 2M Lifts and Escalators Pvt. Ltd.; and Dhaneesh Mohan, 2M Training Institute Pvt. Ltd.

#### **Urbanism Panel Focuses on Inclusion**

The Consulate General of Sweden, Mumbai, in association with Red Dot Foundation (SafeCity), hosted a panel discussion titled Sustainable and Inclusive Urbanism on February 7 in Mumbai. The objective was to highlight challenges in the unequal urban landscape and discuss solutions for making Indian cities sustainable, inclusive and equitable. Panelists included Anna Lekvall, consul general of Sweden in Mumbai; Dr. Sangita Hasnale, assistant commissioner of planning, Municipal Corporation of Greater Mumbai (MCGM); Prathima Manohar, founder and CEO of The Urban Vision; urbanist and architect Nilabh Nagar of Hafeez Contractor; Suhas Karnik, honorary secretary, National Association of the Blind (NAB); and moderator, Elsa Marie DSilva, SafeCity founder and CEO.

According to Karnik, the greatest accessibility challenge is transportation and infrastructure of public buildings. "Although it is mandatory for the civic bodies to make transportation, roads and public places barrier-free, as per the provisions of Rights of Persons with disability Act 2016, not much attention is paid to improve the situation," he observed.

Hasnale said an inclusive city is one where "everyone counts" and can thrive, regardless of age, race, gender, physical ability or sexual orientation.

#### Lekvall said:

"An inclusive city is one that appreciates diversity, enhances the well-being of its citizens and provides accessibility to everyone irrespective of gender, abilities and status. An inclusive city will definitely be sustainable and prosperous, as all citizens get equal opportunities to contribute to its development."



(I-r) Nilabh Nagar, urbanist and architect, Hafeez Contractor; Anna Lekvall, consul general of Sweden in Mumbai; Dr. Sangita Hasnale, assistant commissioner - planning, MCGM; Prathima Manohar, founder and CEO, The Urban Vision; Suhas Karnik, honorary secretary, National Association of the Blind; and Elsa Marie DSilva, founder and CEO Red Dot Foundation

#### **GEA Organizes Seminar**

A seminar was organized by Global Elevator Academy (GEA) on December 27, 2019, at Hotel SK Premium Park, Hari Nagar, New Delhi, to bring together members of the elevator industry and discuss new technologies by creating a platform to share knowledge. The emphasis was on safety, as there were many fatal accidents in 2019. There were 52 participants from locations including Singapore, Malaysia, the Delhi National Capital Region, Ahmedabad, Mumbai, Lucknow and Jaipur. This was the first seminar organized by GEA, and future gatherings are envisaged.

GEA founder Arun Aggarwal of Apex Elevators and GEA cofounder Raj Parki, along with Sunil Tandon from Span Elevators, Vivek Aggarwal from Hitachi Lifts, Omesh Narula from EASA Elevators, Sarvjeet Singh from Alfa Elevators and Hiren Panchal from APSON, were among dignitaries present. Topics included the importance of planning and Indian Standards (IS), GEA and its programs, measurable solutions and results and human safety. Various points were discussed, and doubts were cleared on topics such as industry roots, current reality, standards and codes, user safety, market statistics and Indian elevator and escalator strategy. The key takeaway was that members of the elevator community should follow IS codes in letter and spirit, as Indian codes are quite good, as far as safety is concerned.



(I-r) GEA founder Arun Aggarwal and cofounder Raj Parki during the December 2019 seminar



Seminar participants

#### Author Releases Nano Housing Book

Dr. Suresh Haware, chairman of Haware Properties, recently unveiled his latest book, How a Small House Can Teach the World to Think Big, at an event in Mumbai. Dignitaries at the launch included Nitin Gadkari, minister for Road, Transport and Highways and minister of Micro, Small and Medium Enterprises, Government of India; Vinod Tawde, former education minister, Government of Maharashtra; and Mangal Prabhat Lodha, founder of Lodha Group and president of BJP Mumbai. Haware observed affordable housing for the masses is a key challenge for governments and policymakers. Nano housing, he said, aims to offer "affordable housing for all," as envisioned by Prime Minster Narendra Modi.



(I-r) Amit Haware, CEO and joint managing director, Haware Properties; Mangal Prabhat Lodha, founder of Lodha Group and president of BJP Mumbai; Vinod Tawde, former education minister, government of Maharashtra; Nitin Gadkari, minister for Road, Transport and Highways and ministry of Micro, Small and Medium Enterprises, Government of India; Dr. Suresh Haware, chairman and managing director, Haware Properties; and Amar Haware, executive director and chief financial officer, Haware Properties

## thyssenkrupp

An order and a new facility

#### 83 Units for Bhartiya City

thyssenkrupp Elevator (India) Pvt. Ltd. has been chosen by Bhartiya International Ltd. to equip Bhartiya City's various upcoming projects, such as a hotel and convention center, banquet hall, branded residences by a major hospitality corporation and a retail project with a cineplex. It will provide 48 elevators, 22 commercial escalators, 12 moving walks and one platform lift, said Manish Mehan, CEO, thyssenkrupp Elevator (India), who continued:

"We are delighted to receive this order from Bhartiya International. With our proven capabilities to successfully execute megaprojects, such as Delhi International Airport, T3 (180 units); Amanora Park Town, Pune (144 units); and Mall of India, Noida (100 units). . . we are confident we create added value and enhance customer satisfaction."

#### Country's First Central Spare Parts Warehouse Launched

The company recently launched its first central spare parts warehouse in Pune. The facility promises to further improve services for customers operating in domestic and neighboring markets. The warehouse has a total surface area of 10,000 ft<sup>2</sup>, and can hold more than 5,000 different parts and components for maintenance service. In addition, it has the capacity to handle more than 10,000 orders per year.

#### Mehan said:

"As a single management and storage point, the Indian Technological Warehouse in Chakan, Pune, aims to maintain total availability of all spare parts for their operators, optimizing logistics through analysis and processing of data collected in real time. The warehouse operations will later be integrated with the enterprise resource planning warehouse management model for optimized inventory management and logistics processes. With this new project, thyssenkrupp aims to reduce environmental impact and promote a more sustainable supply chain."



The spare parts warehouse in Pune has the capacity to handle more than 10,000 orders per year; photo courtesy of thyssenkrupp

#### **KONE Opens New Warehouse** in Mumbai

KONE Elevator India has opened a warehouse in Andheri, Mumbai, that will serve more than 2,500 customers and upcoming projects, ConstructionWeekOnline reported in February. The facility will stock more than 2,000 different parts for elevators, escalators and moving walks. During an inauguration ceremony, Amit Gossain, managing director, KONE Elevator India, said:

"The new warehouse aligns with our strategy of [a] true service mindset and ensuring speed of service to customers. Our new warehouse reaffirms our commitment to our customers in India. Efficient supply of spare parts across our existing service network is imperative to complement our plan to increase our sales touch points. India is urbanizing at rates never seen before, and, as the need for housing grows, the need for vertical transportation (VT) and equipment will continue to grow just as rapidly."

A government push to develop smart cities and residential complexes will have a profound effect on the VT market, KONE said, adding that the company is well-positioned to support the coming growth. Gossain added, "We will set up additional spare-parts distribution centers in other locations in India in the coming months."



KONE India Managing Director Amit Gossain receives applause during a

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## Schindler India

COVID-19 initiatives, awards and a memorable visit

#### **Enhanced Safety, Cleaning Implemented**

The company said in early April it was implementing enhanced elevator and escalator safety measures and cleaning considering the coronavirus pandemic, India Education Diary reported. Except for an on-ground emergency team available 24/7 to aid in entrapments and breakdowns, the entire workforce was working from home. Emergency team members were equipped with safety suits, latex gloves, masks, safety glasses, wipes and sanitizers. For cleaning, Schindler India has added manpower to thoroughly clean high-contact surfaces such as elevator floors, buttons and doors. In addition, Schindler took the following steps:

- · Disinfecting elevator cab air
- · Vacuuming and disinfecting elevator floormats daily
- Pasting protective film over elevator buttons after disinfection
- · Shutting equipment down during cleaning
- Mopping escalator steps and spraying disinfectant on handrails and wainscoting

Elevator buttons, escalator handrails and other frequently used areas were disinfected every hour, and protective film was placed over buttons every hour. Elevator walls and floors were cleaned twice a day. For elevators, Schindler India enabled its destination-control PORT technology and stated that the myPORT app enables users to call elevators and open elevator doors from their phones. Ashok Ramachandran, president, Schindler India and South Asia, said PORT is "definitely going to be more user-friendly" and convenient to ensure a high level of precaution.



Employees have been provided with a range of personal protective equipment; photo courtesy of Schindler.



#### Focus on EAP

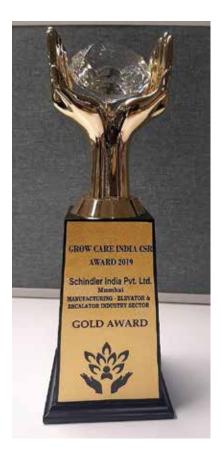
Keeping in mind employees' physical and emotional well-being during the COVID-19 crisis, Schindler India has reinforced access to and use of its Employee Assistance Program (EAP), Schindler Cares, launched in 2016. Employees can reach out to the counseling team for telephonic, face-to-face or

e-counseling sessions. All costs are covered by the company. "Schindler India values the well-being of its employees, and we understand that preventive measures need to be taken to fight this current outbreak of COVID-19," Shubha Arora, chief people officer, Schindler India and South Asia, said. "Our employees and their families, through our EAP, can access well-being services confidentially."

#### Honors for Innovation, CSR

Schindler India recently received awards for product innovation and corporate social responsibility (CSR). At the INEX (interior and exterior) Awards 2020, organized by Realty Plus in Mumbai, the company was honored with the Brand of The Year and Innovative Product of the Year awards. Its digital out-of-home advertising services for elevators and escalators garnered the product award. Its CSR program, Fulfill Futures, took the Gold category at the Grow Care India Safety & CSR Awards 2019. Arora and her team accepted the award at a ceremony in December 2019 at India International Centre in New Delhi. "Schindler India believes that lack of education through social and economic disadvantage is the greatest barrier to equal opportunity," Arora said. "Our CSR program focuses on bringing about positive change through various education initiatives."



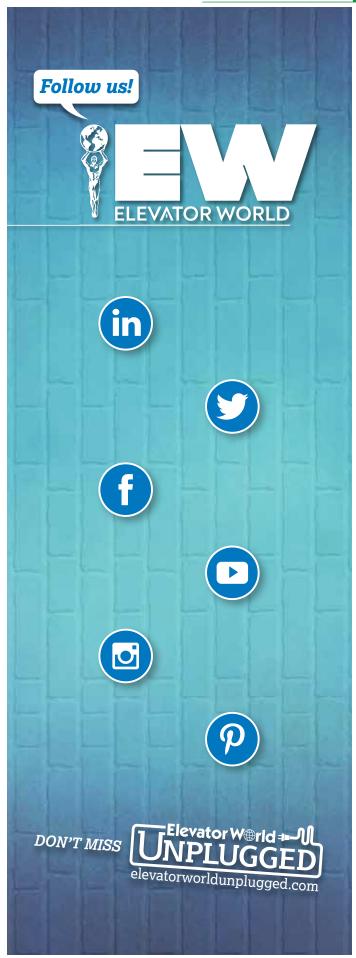


#### Global CEO Visits Mumbai

Schindler Global CEO Thomas Oetterli made a memorable visit to the Bombay Stock Exchange (BSE) in Mumbai on February 4. Oetterli, along with Ashishkumar Chauhan, managing director and CEO of the BSE, rang the opening bell, which, for the first time, was activated by pressing the button of a moving elevator prototype at the BSE convention hall. The event was also attended by Ashok Ramachandran, president, Schindler India and South Asia, along with Vikas Chawla, chief strategy officer, and Vaibhav Pitale, senior vice president, new installation/sales.



(I-r) Manish Advani, general manager, Marketing, Schindler India; Ashish Chauhan, managing director and CEO, BSE; Thomas Oetterli, global CEO, Schindler Group; and Ashok Ramachandran, managing director and CEO, Schindler India and South Asia, participate in the ringing of the opening bell at the Bombay Stock Exchange in Mumbai on February 4.



## **Otis**

#### An order and an award

#### 112-Elevator Order for Bengaluru Metro

Otis India has been awarded a 112-Gen2® elevator contract for the second phase of the Bengaluru Metro (also known as the Namma Metro) project of Bangalore Metro Rail Corp. Ltd. (BMRCL). The units will be manufactured at Otis' Bengaluru facility. Once complete in 2023, the Namma Metro is expected to be India's third-longest metro network. It will cover 27 stations connecting the city's manufacturing and technology hubs of Electronics City and Whitefield. The work is being overseen by BMRCL, a joint entity of the governments of India and Karnataka. Upon announcing the contract, Otis India President Sebi Joseph said:

"We're excited to be. . . part of India's infrastructure growth story. This project reflects our deep commitment to the 'Make in India' initiative. Further, our units will help keep the people of India moving and support the country's efforts to drive local indigenous manufacturing by using our Bengaluru facility."

#### Bengaluru Factory Earns IGBC Gold Rating

Otis announced its Bengaluru factory received a Gold rating from the Indian Green Building Council (IGBC). The program encourages green concepts and techniques in the industrial sector and requires factories to meet certain requirements relating to design, occupational wellness, indoor atmosphere quality and conservation of water, energy and materials. Also recently recognized by Manufacturing Today with the "Excellence in Supply Chain" award, the factory has doubled its manufacturing capacity since opening in 2014, Joseph said.

## Johnson Lifts Looking for Growth **Opportunities**

Johnson Lifts Pvt. Ltd., looking for growth areas, is turning its attention to Tier 3 cities and rural areas for growth, The Hindu Business Line reported in January. Johnson, which competes with several multinationals, still holds a 22% share for first place in the Indian market. The vertical-transportation sector is growing at a 10% rate, but the company is expecting to realize 15% growth this year and is pursuing 20% next year. It produces more than 12,000 units annually, but the addition of two factories last year increased its capacity to about 16,000 units per annum. Recent projects have included 828 escalators and 365 lifts for metro and rail stations in Mumbai, Kolkata and Bengaluru, and, for an upcoming airport project in Chennai, Johnson will provide 50 escalators, 41 lifts and 12 moving walkways, said General Manager P. Chaitanya.



Bengaluru Metro Purple Line; photo courtesy of Otis India



Main entrance at Otis India's Bengaluru factory; photo courtesy of Otis India

#### INSIDE INDIA NEWS

Send to Editorial – India Vijay Pandya I Consulting Editor Virgo Publications Bangalore, India +91 9820053482

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## Metro and Rail

Focus on VT upgrades throughout the systems

#### Deep Station in Kolkata to Include **Four Escalators**

Roughly equivalent to the depth of an eight-story building, Mahakaran East-West Metro station in Kolkata will include four escalators and four openings, the highest numbers of each in all stations, The Times of India reported in February. Covering 300,000 ft2, the station is "quite huge," according to an engineer with contractor Afcons, and is expected to see footfall of approximately 30,000 per hr at peak times. The station, which consists of upper and lower concourses and the platform, began construction in 2017, was structurally complete in February and expected to open soon. Commuters will access the station via an under-construction subway, rather than by crossing busy J.L. Nehru Road.

#### New Maharashtra Rail Stations to Have Lifts, Escalators

The Maharashtra Metro Rail Corp., Ltd. has settled on four designs for 25 metro stations in Pune, Hindustan Times reported in February. The stations, planned for a 33.28-km stretch of the Reach I and II lines, will take on looks of nature (incorporating greenery), the iconic Mavala pagdi (headwear), large-scale industrial structures, or what is being called "band," a style that portrays the overall development of the region. They will be equipped with foot-overbridges (FOBs) and include accessibility features for the disabled and others who need them.

Brijesh Dixit, Metro managing director, said, "The stations will be built as per the standards of the Indian Green Building Council, which ensures that they are sustainable stations." Features will be rainwater harvesting, solar panels, biodigesters and water plants. All stations will be a minimum of two levels and have elevators, escalators and FOBs to provide entry and exit. Designs for five underground stations on the line had not been finalized.

#### WR Hiring Workers to Monitor VT Functioning

Western Railway (WR) is deploying semi-skilled personnel to oversee the functioning of escalators and elevators on its suburban Mumbai railway stations, Hindustan Times reported in March. WR said it made the decision after multiple reports of malfunctioning escalators and elevators came to light. It floated a tender to hire personnel for the management and operation of vertical-transportation (VT) equipment at every railway station beginning at the end of March and lasting 12 months. "Cases of malfunctioning escalators have been on the rise. Though we repair them, we get information about malfunctioning escalators and elevators quite late. Dedicated personnel will ensure that the escalators and elevators are

functioning properly," a senior WR official said. The report noted that WR was in the process of repairing 17 escalators.

In February, a passenger was injured after a faulty escalator started moving in reverse at Andheri station. A witness reported the incident began with a loud noise, but a commuter immediately pressed the emergency stop button.

#### Six More Escalators Planned at Tiruchi Railway Junction

Passenger access at the heavily used railway junction in Tiruchi will be eased with the addition of six more escalators, The Hindu reported in February. The project is part of a plan to improve amenities at the junction, an important station in the Southern Railway zone. Work was already underway on installing two previously announced escalators at one of the station's platforms, including the laying of a foundation and construction of a metal framework adjacent to an FoB. The two escalators were onsite, ready for installation, in a project funded in the amount of INR24.8 million (US\$347,836). The station has seven platforms, all connected to a subway. Plans include adding escalators to the remaining six platforms at an estimated cost of INR51.5 million (US\$722,322). Work on those escalators will commence as funding becomes available. There are also plans to add three elevators at a cost of INR14 million (US\$196,359). The Tiruchi junction handles more than 100 trains and nearly 50,000 passengers every day.

#### **Elevator Manufacturers Urge** National Standards

In light of increased lift accidents as elevators become more prevalent across India, major vertical-transportation (VT) manufacturers are lobbying for national, uniform standards for design, construction and installation of VT equipment, The Economic Times reported in March. Although the National Building Code provides elevator installation guidelines, these are only recommended, observed industry veteran TAK Mathews, who said there were at least 28 elevator-related fatalities in 2019. A handful of states, including Maharashtra and Karnataka, have lift acts, and only 10 issue lift licenses, according to KONE India Managing Director Amit Gossain. thyssenkrupp Elevator India CEO Manish Mehan said further complexities are presented by major companies employing subcontractors that lack training programs, the number of small players in the market and the use of manual doors. Some markets, including Delhi, have mandated safer - but more expensive – automatic doors, he added.



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## **Accidents**

Injuries, fatalities persist.

#### Lift Worker Killed in Mishap in Mumbai

A 40-year-old elevator company worker was killed in a lift mishap in the Mulund East area of Mumbai on February 6, The Times of India (ToI) reported. The man, a resident of Vasai, had been called to an apartment complex to repair its lift, which residents said was not functioning properly. He was on the third floor performing repairs when someone on the 13th floor pressed the call button, and the elevator crushed him. Police said he died on the scene.

#### Escalator Worker Falls to His Death in Bengaluru

A 56-year-old worker carrying out work on an escalator installation at the concourse level at Bengaluru's Pattanagere Metro Station, part of the Phase II metro expansion, fell to his death on February 28, Express News Service reported. A resident of Srikakulam, the man was pronounced dead at a local hospital. An official with Bangalore Metro Rail Corp. told the source it is not possible for contractors to have safety nets in place at all jobsites. The contractor filed an accident report with local police, who were investigating.

#### Sudden Reversal Injures Escalator Riders in Mumbai

Several people were hurt when an escalator on the No. 3 platform at Andheri rail station in Mumbai suddenly reversed, causing riders to lose their balance and fall, ToI reported in February. A commuter who was on the escalator said the unit suddenly reversed and ran in that direction until "someone pressed the emergency button." A Western Railway (WR) spokesperson said, "There was some issue with the motor's coupling system. However, the escalator stopped immediately after a series of other protections triggered in." But, a senior WR official said "the escalator began to reverse due to gravitational force after it stopped its ascendant movement, which should not have happened."

WR has found 17 escalators that have the same problem and said that all would receive replacements for the motors that control their emergency braking systems. News site mid-day. com reported that the incident has prompted inspections of more than 100 escalators serving WR and Central Railway suburban stations.

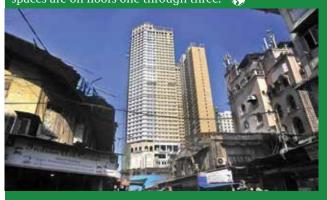
## **CMRL Plans Include 20-Story Building Atop Elevated Station**

Chennai Metro Rail Ltd. (CMRL) is merging real estate and transportation in a plan to build a 20-story building above an elevated station at Wimco Nagar, near the Thiruvottiyur neighborhood, *The Times of India* reported in January. The rail station, currently under construction, includes a fourlevel parking facility below the lines and is expected to be ready by December. The nature of the building, or even its design, has not yet been determined, a rail official said, but it includes a provision for 10 elevators. "It could either be a residential or an office space, depending on the demand after the extension line is opened and the area develops," the official said. "But it's going to be like a satellite city. We don't have a design for the structure yet, but we are laying the foundation for the structure now for future development."

CMRL sees the project as a source of additional revenue and is planning similar structures at other elevated depots. The new Wimco Nagar facility is part of a nine-station, phase 1 Washermenpet to Airport extension, separate from an existing Wimco Nagar elevated station less than 1 km away. It will total 16 lines, including 11 for locomotive parking, and will have three inspection bays and one emergency bay.

#### Two High Rises Open in Mumbai's Bhendi Bazaar

Mumbai's Bhendi Bazaar saw 610 families move into two high rises completed under a "cluster redevelopment," The *Hindu* reported in March. The important business/residential district near Chhatrapati Shivaji Maharaj Terminus is now home to two new 36- and 41-story buildings, which also house 128 businesses. The program is funded by the Saifee Burhani Upliftment Trust and aims to continue construction on 11 more towers at the 16.5-acre site. The project also plans to add greenery, public spaces and shopping options to the 125-year-old market district. The two completed towers include recreational areas with gardens, a playground, prayer rooms, multipurpose halls, activity rooms and separate gymnasium rooms for women and men. The commercial spaces are on floors one through three. 🛭 🚱



Residents have moved into the new towers; photo by Emmanual Yogini.

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## **Business**

Acquisitions, transitions and more from around the globe

#### thyssenkrupp Sells Elevator Division, Which May Expand

thyssenkrupp agreed to sell its elevator division to a consortium of Advent, Cinven and RAG AG (Germany's largest coal-mining corporation, also based in Essen) on February 27, Reuters reported. The final price was EUR17.2 billion (US\$18.7 billion). After KONE withdrew its bid citing "terms and conditions that are in the best interest of its shareholders, employees and customers" amid reports of worldwide litigation from other OEMs, the winning consortium prevailed against a rival consortium comprising Blackstone, Carlyle and the Canada Pension Plan Investment Board.

thyssenkrupp said it would reinvest about EUR1.25 billion (US\$1.37 billion) to take a stake in the unit, which would translate to a 7.3% share that would be used to partially fund its pension liabilities. These plus its debt total EUR16 billion (US\$17.57 billion), which Reuters said is more than twice its current market value. It looks to turn around its 13-year-low share values.

"With the sale, we are paving the way for thyssenkrupp to become successful," thyssenkrupp CEO Martina Merz said. "Not only have we obtained a very good selling price, we will also be able to complete the transaction quickly." Planning "to find the best possible balance for the use of the funds," she added, thyssenkrupp is expected to cut its debt, which will result in a significantly lower annual cash outflow for interest and pension payments. This would compensate for the loss of cashflow from the highly profitable elevator business to support thyssenkrupp's other divisions, including steel, plant building and car parts. Detailed distribution plans are to be announced in May.

thyssenkrupp Elevator will continue to be based in Germany and preserve equal shareholder/labor representation. German metalworkers' union IG Metall, which represents many thyssenkrupp workers, said jobs and sites will be secure until at least March 31, 2027. Reuters noted that the price makes the agreement Europe's biggest buyout since 2007, beat the most optimistic estimates and roughly matches KONE's earlier bid. thyssenkrupp expects the deal to close by the end of the year.

Financial Times added:

"Once the elevator transaction is completed, the Essen-based company plans to sell all or part of its plant-making unit, which develops chemical and mining facilities around the globe. However, that business, which is already being presented to Chinese state-owned enterprises, is unlikely to fetch a significant sum."

The new owners are reportedly poised to pour billions of euros into an expansion of "the world's fourth-largest lift

manufacturer," Reuters reported in March. "There is no shortage of money for a global expansion," Ranjan Sen, managing partner of private equity firm Advent, said in a quote in German business publication *Handelsblatt*. Sen said funding for expansion "could by all means amount to single-digit billions."

#### NBSL Acquires Italian Door-Maker Prisma

NBSL M&E Technology Co., Ltd. of Shanghai announced in March it acquired a majority stake in Prisma Spa. of Mezanni, Italy, a global manufacturer and supplier of automatic doors for elevators. The acquisition was conducted through NBSL's European holding company based in Bergamo, Italy. NBSL noted it has seen consistent revenue growth in both the Chinese and Indian markets. Company President Lu Feng said, "We are excited for the acquisition of Prisma, a company with a long history and formidable knowhow in the automatic door business," adding that the acquisition is "one of the pillars" of the NBSL's global strategy. Luciano Sorio, former major stakeholder, said he will remain president of Prisma's board of directors "to quarantee a smooth and effective transition."



#### Jødahl Named New President, **CEO** of Alimak Group

The Alimak Group has selected Ole Kristian Jødahl to become the company's president and CEO, the board announced in March. He will officially begin his duties with the Sweden-based manufacturer of industrial and construction lifts on June 1. VertiKal.net said Jødahl is coming to

Alimak from Hultafors, a manufacturer of hand tools for which he has served as CEO since 2017. He previously served as an instructor with the Norwegian Army before studying business management at the Norwegian School of Economics. He spent 17 years at bearing-maker SKF before joining Hultafors in 2016. Jødahl will replace Alimak President and CEO Tormod Gunleiksrud, who announced his departure in January. The company said Gunleiksrud will stay on until Jødahl starts in the new position.



#### **Industry Veteran Pagan Joins CEDES Sales Team**

Landquart, Switzerland-based sensor manufacturer CEDES AG has added elevator industry veteran Antonio Pagan to its sales team as key account manager for Europe, the Middle East and Africa, and the rest of the world (EMEA & RoW), the company announced in March. Pagan

studied physics and sales and marketing, and has 18 years' experience with various elevator companies. Andreas Hunziker, managing director, EMEA & RoW, welcomed Pagan, saying, "With his experience and contacts in the industry, we are sure the positive results will soon be achieved." CEDES has subsidiaries in China, Singapore, Japan and the U.S.

#### Ziehl-Abegg: Strong Growth in All Markets

"2019 has been a good year," said Peter Fenkl, CEO of Künzelsau, Germany-based electric motor and fan manufacturer Ziehl-Abegg. Turnover rose 8.6% to EUR633 million (US\$684 million). The company identified "boom regions" as Asia, Europe and the U.S. The year 2020 also got off to a good start, it added, until the effects of the coronavirus pandemic began. The growth in sales was accompanied by an increase in the number of employees: 200 were added worldwide.

In addition to its fans and automotive divisions, the company's elevator division had positive performance in 2019. Calling the elevator drives market "fiercely competitive," it has established its brand in the market. Additionally, its frequency inverters are increasingly used to control and regulate various electrical parts of equipment.

#### Toshiba DCS Wins Gold Award

Toshiba Elevator and Building Systems Corp. (TELC) was awarded gold for its FLOORNAVI product at this year's iF Design Awards in the "Public Sector/Government" category. Among 7,298 submissions, only 75 were awarded gold by the independent expert iF jury, which stated:

"Toshiba has designed an efficient elevator [destination] control system (DCS) in line with universal design to cater to the needs of able and disabled people. Artificial intelligence allows for floor destinations to be bundled effectively, reducing waiting time. The simple and easy interface is readily adaptable to various architectural contexts."

FLOORNAVI allows passengers to specify destination floors before embarking on elevators and guides them to the appropriate cars to reduce the number of floors at which they need to stop. Since passengers do not need to push floor buttons in the car, they can get in and out of the car smoothly, even when it is congested. The product aids accessibility and can reduce elevator travel time during peak usage times.

The award is given by iF International Forum Design, an independent design institution based in Hannover, Germany.



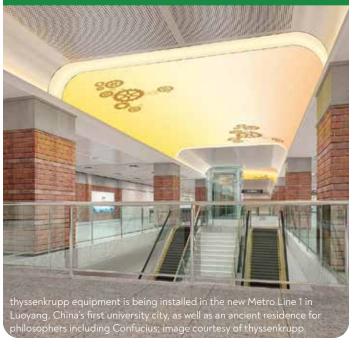
Ring-shaped icons and a chest-high operation panel allow comfortable operations.



Toshiba's FLOORNAVI system sends users to the correct elevator.

## thyssenkrupp Provides 234 Units to New China Metro Line

thyssenkrupp Elevator is providing 234 elevators and escalators to Metro Line 1 in Luoyang, central China, one of four historical capitals where 15 dynasties ruled. The first metro line serving the region, Metro Line 1 has 19 stops along 23 km, covering the main passenger flow in the east-west direction north of the Luohe River. Escalator installation is slated for completion in August, with the metro line set to go into operation in 2021. thyssenkrupp observed the contract underscores its focus on the Chinese market, where it inaugurated a new test tower in Zhongshan in 2019 and opened a multipurpose facility in Shanghai in 2016. Throughout China, thyssenkrupp has four factories and approximately 11,000 employees.



## Middle East

Tall-building contracts and plans from Qatar, Israel and Bahrain

#### South Korean Builder Snags Big Contract in Qatar

South Korean builder Hyundai Engineering and Construction Co. (HECC) announced in January it had won an order worth US\$530 million to build a 70-story office tower in Qatar's Lusail City Financial District, Yonhap News Agency reported. The contract builds on HECC's strong presence in Qatar, where it has won orders for 22 projects totaling more than US\$9 billion since 1979. Its first project in the Persian Gulf state was a hotel. The most recent contract, awarded by Qatar's Lusail Real Estate Development Co., is for an office structure with five underground levels. A rendering shows it could be joined by another, nearly identical tower. Completion is anticipated by October 2022.



Planned project in Lusail City Financial District, Qatar; image courtesy of HECC

#### Tel Aviv

#### 45-Story Mixed-Use Tower Planned

The Lubinsky Group, owner of a factory building in the city, is promoting a plan to demolish part of the structure and replace it with a 45-story mixed-use tower, Globes reported in December 2019. The factory at one time manufactured soda siphons but has housed offices in recent years. The new tower would hold office and commercial space on the first 34 floors, and apartments on the top 11 floors. The source said a hotel might also be included within the structure. The design by architect Yigal Levy would preserve part of the factory building, which would be connected to the tower by a bridge. The site, near the Hashalom railway station, is surrounded by high rises and other towers either under construction or planned. The Lubinsky Group's partners in the project are Aviram Dollinger, Baruch Ophir and Yehezkel Elani. No construction timeline was given.

#### Global Investment Group Wins Land Auction for Tower

Global investment group Africa Israel Investments Ltd. won an auction for a lot zoned for construction of a 40-story residential tower in the Summayl District, GLOBES reported. The Tel Aviv Magistrates Court ruled in January Africa Israel was the winning bidder at the equivalent of roughly US\$121.6 million for the property, where Hagag Group is building another residential tower. The court's ruling paves the way for the second tower from Africa Israel. Together, the towers will contain 174 units. The 11.25-acre Summayl District consists of two subdistricts: the southern part, owned by Africa Israel with private landowners (on which 600 housing units and 10,000 m<sup>2</sup> of commercial space will be built) and the northern part, which will house the residential towers.

#### **Unique Spiral Residential Tower Coming** to Bahrain

A developer is planning a 41-story luxury residential building in Water Garden City in Bahrain's Seef District, Gulf Projects reported in March. Spiral Orchid Residence, as the development is called, has a unique spiral structure that will have 364 condominium units within its 64,000 m<sup>2</sup>. Featured amenities will include a mini golf course; an indoor/outdoor pool; a cinema; a children's playground; squash, volleyball and basketball courts; bowling facilities; gyms; and more. Parking for 395 vehicles will be provided in a seven-level structure. Orchid Developers, the company behind the project, recently



signed a contract for building materials with Bahrain-based Kingdom Group and said construction should take about two-and-a-half vears. It also said 50% of the units had already been sold.

Spiral Orchid Residence will bring a unique wraparound spiral design to the Bahrain skyline; rendering courtesy of Orchid Developers.

### Singapore Amends Regulatory Framework for VT

A newly approved amendment to Singapore's building control law updates the regulatory framework for the country's elevators and escalators, *The Straits Times* reported in March. The change, enacted by the nation's Parliament, requires lift and escalator owners to hire specialist professional engineers to certify design plans, which must then be submitted to the Building and Construction Authority for approval. The submission must show that the elevator or escalator models and their safety components are approved by independent certification bodies. During debate over the rule, several members of Parliament asked if more could be done, such as creating incentives, to increase the number of verticaltransportation (VT) specialists in the country. Zaqy Mohamad, minister of state for National Development, noted the country has recently seen fewer than 30 safety incidents per year involving the country's 70,000 elevators and 7,000 escalators. Acknowledging the sector's aging workforce, he said the law will allow for a progressive wage model to attract and retain Singaporean residents within the industry. The amendment also requires building owners to improve accessibility when renovating or adding onto older buildings.



Planned Office Tower Sparks Optimism in Bangladesh

Within roughly three years, Shanta Holdings hopes to debut what would be Bangladesh's tallest building – the 40-story Pinnacle office tower on Bir Uttam Mir Shawkat Road in Dhaka, Bangladesh, The Daily Star reported in January. Construction started in November 2019, and completion is anticipated by December 2022. Served by seven high-speed passenger and one service/firefighter elevators, the

structure will be clad in special reflective glass and boast large, up-to-14,500-ft<sup>2</sup> floorplates and 11.5-ft-tall ceilings. The developer said Pinnacle will be Bangladesh's first wind-tunnel-tested building, and aims to attract tenants like banks and multinational corporations to a skyscraper the source said will be like those in Singapore, Hong Kong and Malaysia.

## **Events**

Updates on changes wrought by the global pandemic

#### Cancellations, Reschedulings

ELEVATOR WORLD has been the vertical-transportation industry's source for news and information for 67 years, and we aim to continue to be during the coronavirus pandemic affecting readers, advertisers, employees, contributors and associates around the world. Unfortunately, quarantine and social distancing efforts have affected the following industry events:

- ♦ The International Sourcing Exposition for Elevators & Escalators (priyanka@tak-expo.net), which was to take place in Mumbai this year, has been postponed to May 6-8, 2021.
- ♦ The Council on Tall Buildings and Urban Habitat (CTBUH) has rescheduled its 2020 Tall + Urban Innovation Conference to take place during the CTBUH Conference (ctbuhconference.com) on October 19-23. No longer in Chicago, the CTBUH Awards Program will be incorporated into the October event at the Marina Bay Sands Hotel in Singapore. A "Regional City Program" (bit.ly/2QF97Yg) during the CTBUH Conference will take place in Kuala Lumpur. (See details later in this section.)
- Organizers of the World Elevator & Escalator Expo 2020 (www.elevator-expo.com) in Shanghai have postponed the event until August 18-21. The biennial event is to be held at the National Exhibition and Convention Center. (See details later in this section.)
- The May Symposium on Lift and Escalator Technologies (liftsymposium.org) event, which was to be held in Shanghai, has been postponed until an undetermined time. The September 23-24 edition in Northampton, U.K., called the Lift & Escalator Symposium, is to proceed as planned.
- ♦ The International Association of Elevator Engineers (IAEE) has postponed Elevcon 2020 (elevcon.com). It will take place June 15-17, 2021, still in Prague at the Grandior Hotel.
- ♦ Lift Expo Italia 2020 (<u>liftexpoitalia.com</u>) organizer ANICA (Italian elevator components association) has announced a rescheduling of the event to September 30-October 2. It is to be held at MICO - Milan Convention Center, Level 0 North Wing, in Milan, Italy.
- ♦ The European Lift Association (ELA) Annual Conference (ela-aisbl.eu), which had been scheduled for May in Brussels, Belgium, has been postponed until, tentatively, September 17. It will still take place in Brussels.
- ♦ Ascen.tec (<u>ascen-tec.gr/en</u>), the second iteration of the industry expo that had been scheduled for May in Paiania, Greece, has been postponed until an undetermined time.
- ◆ ExpoElevador (<u>www.expoelevador.com</u>), the biennial tradeshow in São Paulo, Brazil, has been rescheduled to March 1-3, 2021.

Visit "Daily News" at <u>www.elevatorworld.com</u> and subscribe to ELENET for updates.

#### Organizers Postpone WEE Expo

A notice by the China Elevator Association (CEA) states that, to ensure the health of participants, in accordance with the overall requirements for prevention and control of coronavirus



during the pandemic, it has postponed World Elevator & Escalator Expo (WEE) 2020 until August 18-21. The expo will cover an exhibition area of 130,000 m<sup>2</sup> and has registered more than 1,100 enterprises.

The event is sponsored by CEA and organized by Langfang Conference & Exhibition Co., Ltd. CEA said it will pay close attention to the development of the

situation and carry out preparatory work in accordance with the new exhibition plan, expand publicity and actively create a safe, healthy, efficient and beneficial exhibition environment for industry colleagues and friends. It thanked all involved for their understanding and support.

Zhang Lexiang, CEA secretary, added:

"There were about 950,000 new equipment sets of elevators and escalators manufactured in 2019, with 8,700 sets exported, a 12.5% growth compared to 2018. More than 90% of the Chinese elevator market is for new equipment, which means the market is decided by real estate, but also lags real estate. Actually, the total market volume will not be affected by the novel coronavirus epidemic. In addition, the epidemic has created a new market for the healthy elevators and escalators.

"Now, confined elevator cabins are the most concerning focal points of infection of novel coronavirus. We have developed a lot of new technology products for human interface to avoid the infection of the virus, such as antibacterial push buttons, contactless elevator calling though voice command, facial recognition, mobile phones, foot activation, etc., as well as a new ventilation system, which has a vertical, downward air current ventilator with built-in ultraviolet disinfection, and an ultraviolet/ozone disinfection system that activates during the absence of cabin passengers. At the request of customers, our association will write a sanitary elevator standard for healthy building products.

"The manufacturing capability in China is far above market demand, so the closure of factories for one or two months will not impact supply. Installation is a great challenge, because of a lack of installation workers. I do not think that this epidemic will have any impact on the Indian elevator market; it will only have a little influence on the elevator business. Otherwise, it will be business as usual."

#### CTBUH

#### Design Competition, Awards Program Set for October

The Council on Tall Buildings and Urban Habitat (CTBUH) has begun accepting submissions for its 9th International Student Tall Building Design Competition. The top-five finalists will present to a jury of judges on October 20-21 at the 2020 CTBUH Conference in Singapore, where winners will be announced. US\$21,000 in prizes will be awarded to exceptional projects. Participants must register their participation by July 13. Submissions are due by July 20 at competition.ctbuh.org, and questions may be directed to competition@ctbuh.org.

The goal of the competition, which is open to all students currently enrolled at the university level, "is to shed new light on the meaning and value of tall buildings in modern society," CTBUH said, adding:

"Participants should engage with the exploration and resolution of the synergistic relationship between a tall building and its urban setting; how that tall building can be inspired by the cultural, physical and environmental aspects of its site; how the program of the building is influenced by the micro and macro site/urban conditions; and how the building responds to global issues. Proposals should show evidence of a clear understanding of how considerations of structure, environment, servicing, etc. are as vital to the success of a tall building as the form, materials, aesthetics, etc."

Additionally, the CTBUH Conference will be including the 2020 Tall + Urban Innovation Conference, the full dates of which are October 19-23. The CTBUH Awards Program is part of the event, which includes presentation and judging of contending projects, as well as the awards ceremony and dinner. A "Regional City Program" during the CTBUH Conference will take place in Kuala Lumpur.



#### Chairman Watts Shares Hopeful Message

CTBUH Chairman Steve Watts, a partner in London-based cost-consulting company alinea, shared a letter, "Forced Apart But Working Together," on April 7 touching on challenges of the coronavirus pandemic, particularly how to strike a balance between saving lives and saving livelihoods, and ways the crisis could result

in rebirth, renewal and better tall-building practices. This, he said, will hinge on cooperation and "new life being breathed into research and innovation."

Watts sent well wishes to friends, colleagues and CTBUH supporters, and talked about how previous pandemics – the post-Great War (World War I) Spanish flu, the H2N2 virus of the late 1950s, and more recent diseases like the swine flu, SARS, MERS and Ebola – draw parallels to the current situation, which has presented "tensions [between] saving lives and protecting economies."

Like many other entities, CTBUH staff members have transitioned to working remotely, with meetings like one for its board of trustees taking place via videoconference. The organization has many other initiatives planned, and Watts said information will be shared when it becomes available. "So, it is business as usual, even if the environment is anything but usual," he said.

The COVID-19 situation will eventually subside, he said, and when it does, it may bring positive changes: more effective ways to work, better work/life balances and improved ways to build. "The proper embrace of technology, from building information modeling to industrial processes, may help support seamless connection and enthusiastic collaboration across disciplines and global lines," he observed. A more "compassionate and thoughtful global community," one focused on creating sustainable buildings, could emerge.

Sustainability is one of the key plenaries for the CTBUH 2020 International Conference, "Humanizing High Density – People, Nature & the Urban Realm," planned in Singapore in October. The session aims to present "an honest debate about the cost of tall buildings, in financial, societal and carbon terms." Watts said CTBUH continues to plan for the conference as it closely monitors the global situation. He said:

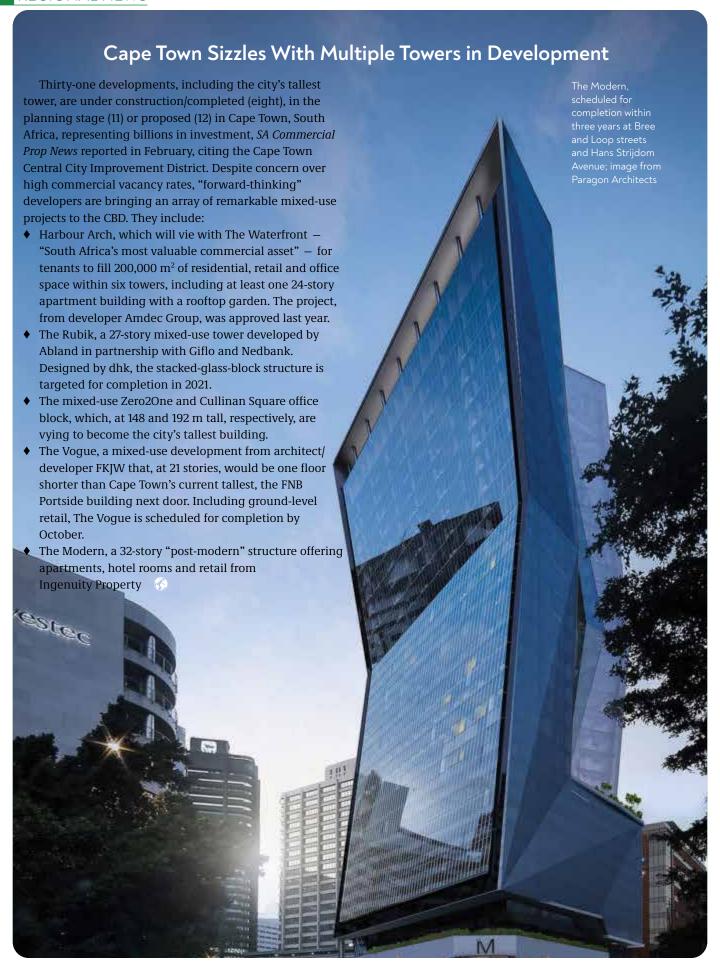
"There are, of course, some commentators predicting doom and gloom, and there will be difficult times ahead, for sure. But I think, as with past periods of extreme turbulence, there will be some longer-term good to come of it. One newspaper suggested recently, 'Who is to say that this pandemic does not provide a turning point in world history?"

#### **Dubai Tower Construction Halts, New Expo Dates Pitched**

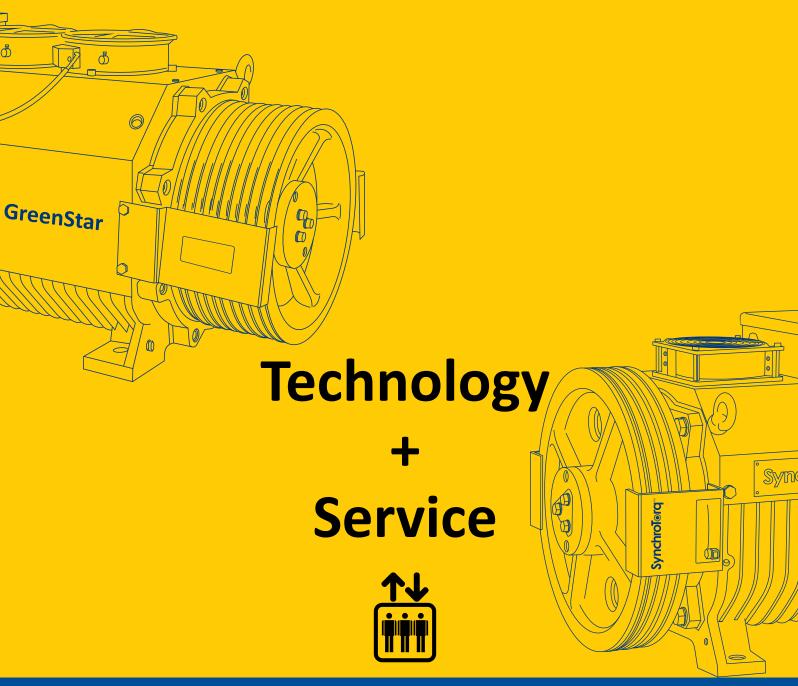
Emaar Properties has stopped construction on the 77-story luxury residential tower Il Primo near the world's tallest building, Burj Khalifa, and the U.A.E. government has filed a formal request with the Bureau International des Expositions (BIE) to postpone Expo 2020 Dubai, Middle East Monitor (MEM) and Gulf News reported, respectively. MEM said the pandemic deepened a real estate slowdown stemming from the global financial crisis and weak oil prices (that have only gotten weaker as the pandemic has expanded) over the past decade. This resulted in oversupply of homes and offices. An Emaar spokesman did not say when construction could resume.

The U.A.E. government proposed October 1, 2021-March 31, 2022, as the new dates for Expo 2020 Dubai, and BIE planned to hold a virtual meeting on April 21 to discuss the proposal. An Expo 2020 Dubai spokesman told Gulf News that a decision will be made on that date based on a two-thirds majority vote of BEI member states.









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# "Rising Above"

CREDAI MahaCON 2020 highlighted new laws and their impact on real estate.

by Yash Pandya

The January 6-7 CREDAI MahaCON 2020 convention was organized and hosted by CREDAI Maharashtra, made up of the Confederation of Real Estate Developers' Associations of India-Builders Association of Navi Mumbai (CREDAI-BANM) at the Hotel Sahara Star in Mumbai. The seventh convention in the series, it had the theme "Rising Above" and witnessed participation by more than 700 developers. The theme reflected that changing and growing is what makes you win, as well as the effort to believe in one's goals and abilities to achieve them. The real estate sector can be significantly affected by the smallest changes in the market, minor disruption in sentiment or even a small change in policies. Thus, it is dependent on resource costs, demand, supply and changing policies.

On the first day, Rachana Bhusari, vice president (VP), National Stock Exchange, elaborated on "Keeping Your Business Funded." Vipul Rathi, managing director, Galactico Corporate Services Ltd., spoke on "Fund Raising Through IPO." Boman Irani, VP, CREDAI, and chairman, Rustomjee Developers, talked on the "Success Realtors Mantra," discussing facing challenges by accepting the occasional bleak truth, making different and niche products and being adaptive to change. Rajiv Parekh,

president, CREDAI Maharashtra, encouraged motivation, building confidence and the need for financing proactively in small cities, which will boost the objective of "Housing for All."

Jaxay Shah, chairman, CREDAI National, complimented CREDAI Maharashtra for its robust presence in more than 57 cities and having almost 3,000 members. He stressed the imperative of family values and quality of living in the properties being developed and budget improvement in Goods and Services Tax norms for buyers.

Satish Magar, president, CREDAI National, stressed the duty developers should perform for the country. Profit, not profiteering, should be the norm, along with clear commitment to customers and stakeholders and effective use of technology for better products. He encouraged CREDAI Maharashtra to be a role model, with aboveboard business practices and day-to-day upgradation. He also spoke on land-pooling in today's business context and the utmost need for transparency and fairness to achieve it. He said its advantages are less risk and the requirement of less capital. His essence was that investing on land, not in land, should be the mantra, as double-digit interest and single-digit growth are not good.





Lighting of the ceremonial lamp to open the convention



Devang Trivedi, past president, CREDAI-BANM, and managing director, Progressive Group, elaborated on "Family Managed Business and its Sustainability," with a focus on effective disaster management in sensitive situations and family-run business-management entrepreneurship. He noted that 5,000 family-run companies are institutionalizing, and family-management statistics show that hardly 10% achieve perpetuity of business beyond the third generation.

Rakesh Jhunjhunwala, a renowned investor, was bullish on the sector. He said the worst seems over, and the next five years will be better than the last. He stressed that, in turnover-based quick volumes (as with metros and better transportation infrastructure), supply is increasing, whereas prices are not. Developers need to be realistic and be ready to provide products.

Shantilal Kataria, VP, CREDAI National, explained the real estate cycle, technology and the need to concentrate on one's own business and not become spread too thin by specialization. One should not be speculative, but rather:

- ♦ Be realistic
- Build a practical organization setup
- Concentrate on all aspects
- Not divert funds
- ♦ Appreciate customers' money and not play on

their personal valuations

One needs to be grounded, Kataria added. Development management contracts are to be encouraged for future business. Customer satisfaction should be the utmost priority, and marketing costs should be reduced.

Rohit Pawar, member, Maharashtra Legislative Assembly, spoke on inventory management, cost control, industry profit margins and the need for education for an effective infrastructure environment and overall development. Ruturaj Patil, member, Maharashtra Legislative Assembly, pitched for construction efficiency and the need to develop byproducts through ecologically friendly means. He spoke about reverse migration through opportunities in tier-2 and -3 cities and in small towns.

Aditya Thackeray, cabinet minister of tourism and environment, Government of Maharashtra, said that, for an economy thrust, environmental clearances should be at state level, and that he looks forward to receiving reports on the status of the industry at the earliest. He invited housing representatives to meet him regularly for reforms.

Continued



Billionaire investor Rakesh Jhunjhunwala, left, gives his prospects for the real estate sector.



Young members of the legislative assembly (I-r) Ruturaj Patil, Aditya Thackeray and Rohit Pawar are interviewed.

On the second day, Gautam Chatterjee, chairman, MahaRERA, shared his views on "Implementation of RERA - A Holistic Approach," followed by a question-and-answer session. He pitched to the developers for transparency, communication, performance and reconciliation, wherein nine out of 10 situations are successfully resolved. He said registration with MahaRERA is not a license; however, it enhances the developer's brand. He encouraged developers to approach the regulator wholeheartedly, increase professionalism and be accountable and responsible to buyers. He spoke on the mismatch between inventory position and reducing supply, and liquidity issues. He told developers to go beyond the Real



The CREDAI team in discussion

Estate (Regulation and Development) Act, 2016 (RERA) and not avoid consumers at any step.



Yash Pandya reflects the changing paradigm of new-age journalism, which is part storytelling, part statistical data and part what the future might hold. Though based in Mumbai, he has traveled abroad extensively and considers himself a "global writer" who is not constrained by geographical boundaries.



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### Analyzing the planned city's infrastructuredriven growth prospects

# **NAVI MUMBAI**

by Devang Trivedi

The Government of Maharashtra's unique, first-of-its-kind initiative of the Navi Mumbai (also known as the Mumbai Pune) Knowledge Corridor is fast emerging as the informationtechnology (IT) hub of the country. It is also known as "Knowledge City" due to the presence of numerous educational institutions. Its features include:

- ♦ The largest new city in the world, fully planned
- Total area: 334 km<sup>2</sup>
- An efficient integrated transport system covering all modes
- ♦ Adequate and regular power supply
- Easy access to Greater Mumbai via a variety of alreadyexisting transportation modes.

Navi Mumbai has a literacy rate of 98%, the average monthly income is INR25,000 (US\$327), and 64% of the households have vehicles. This booming new metropolis has already become the base of reputable Indian and multinational corporations.

A city's liveability index is rightly measured by the infrastructure it provides to its citizens, and its real estate growth is also driven largely by the development of proper roads and transportation systems. Navi Mumbai is one of the few areas in the country where residential prices are moderate and practical, despite the larger challenges of the housing industry.

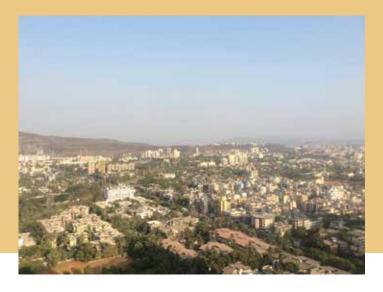
With a mammoth budget of INR169.09 billion (US\$2.21 billion), the Mumbai Metropolitan Region Development Authority (MMRDA) has allocated sizable funds for the development of new metro lines, the Mumbai Trans-Harbour Link (MTHL), Virar-Alibaug Multi-Modal Corridor (VAMC) and extension of arterial roads. This would have a direct impact on the relative growth of Navi Mumbai.

Navi Mumbai is in a different league altogether, supported proficiently by essential social infrastructure in education, healthcare, entertainment and leisure. It stands out as one of

the most sought-after destinations in the MMR due to its various infrastructure developments and connectivity to Mumbai. The city has a well-planned layout, an ample supply of good-quality buildings with large floorplates, comparatively affordable rents and good connectivity.

Navi Mumbai has a relatively moderate air quality with an Air Quality Index that generally hovers around 127-140. The satellite city has rarely faced water scarcity; Navi Mumbai Municipal Corp. (NMMC) draws 420 million 1 per day of water from Morbe Dam for its citizens.

The property prices in Navi Mumbai are at a comfortable level. The demand for affordable housing has made newer areas in Navi Mumbai buyable. Commercial office space development has also witnessed an interest from several premium real estate players. Rents have remained stable due to ample submarket supply. With large parcels of land available and improved connectivity, this submarket is expected to emerge as one of the key Mumbai submarkets for large-scale office spaces, such as IT special economic zones (SEZes), IT parks and campuses, and financial districts.



The INR1-trillion (US\$13.07-billion) mega-infrastructural development initiatives, such as the Navi Mumbai International Airport (NMIA), MTHL, Navi Mumbai Metro, VAMC and upcoming SEZes, will add heft to the real estate market, giving further boost to several areas of the city, including Kharghar, Panvel, Ghansoli, Khopoli, Rasayani and Karjat.

With a fully operational Real Estate (Regulation and Development) Act, 2016 (RERA) ensuring the city sees systematic residential development going forward, a plethora of advantages in terms of government initiatives and infrastructure projects and well-conceived plans, Navi Mumbai's real estate market is poised for a quantum jump.

#### **Educational Hub**

Schools like DAV International, Ryan International, St. Xavier's, St. Mary's, St. Lawrence, Father Agnels Multipurpose School, Delhi Public School, and colleges like NMIMS, SIEL, Pillai's, MGM, ITM, IME and the National Institute of Fashion Technology are in Navi Mumbai. This mushrooming of educational hubs has been supported by modern modes of transportation with 45% greenery.

#### Healthcare

Major hospitals like Fortis, MGM, Tata Memorial and Apollo are in Navi Mumbai

#### CIDCO Exhibition Centre

The CIDCO Exhibition Centre at Vashi is one of the top six exhibition centers in the country. The fully airconditioned complex, spread over 7.41 ha of land, has two large exhibition halls, each sub-divisible for smaller events and functions with ancillary facilities, meeting rooms, cafés, lounges and a food court, among others. The facility also consists of a business center and an ancillary block and is green building certified by the Indian Green Building Council under Leadership in Energy and Environmental Design criteria. It has an underground air-distribution system and daylight harvesting facilities.

#### **NMIA**

Abutting the Ulwe node, the proposed NMIA, a Greenfield international airport, is being built in the Kopra-Panvel area of the MMR. It is to be located on National Highway (NH) 48 near Panvel, about 35 km from the existing Chhatrapati Shivaji International Airport. Proposed to have a capacity to handle 50-55 million passengers annually, the airport will have a total area of 1160 ha. NH 48 will provide the main road access to the airport from the east, whereas Amra Marg will allow access from the west. Now in full swing, the Sewri-Nhava Sheva Trans Harbour Link will connect the airport with the Mumbai mainland, with the purpose of speedy development in and around the airport zone.

Continued





With a fully operational RERA ensuring the city sees systematic residential development going forward, a plethora of advantages in terms of government initiatives and infrastructure projects and well-conceived plans, Navi Mumbai's real estate market is poised for a quantum jump.

The upcoming international airport is said to generate employment and large-scale investment. NMIA is one of the world's largest greenfield airports. Spread over 2,866 acres and established by CIDCO in a public-private partnership, it is expected to employ more than 340,000 and has an attractive investment of INR600 billion (US\$7.84 billion). CIDCO has also decided to promote residential growth via the Navi Mumbai Airport Influence Notified Area (NAINA), which comprises more than 600 acres, including 270 villages and six talukas. With two parallel runways, NMIA would be handling about 80 flights per hour.

#### Navi Mumbai Metro

The work of the ambitious Navi Mumbai metro rail project is going well, and services are expected to begin once all the systems are in place. The metro line's first phase is between Belapur and Pendhar. The metro railway project has been divided into four parts: viaduct, stations, depot and systems.

The first phase of the project is in two parts: one is between Belapur and Kharghar Sector 14, and the second part is between Kharghar Sector 14 and Pendhar. There are 11 stations in this phase. The budget allocated for it is INR30.64 billion (US\$400.45 million), and it is to be completed in 2020.

The second phase of the project is the Nerul-Uran Suburban Railway Line. When work on the proposed Nerul-Seawoods-Uran suburban railway line is completed, a further boost will be provided to the pricing of the area, as railways are the lifeline of a city. The majority of the work in this phase will be on the stretch between Bamandongri and Gavan railway stations.

#### **High-Speed Metro Corridor**

India's first proposed high-speed metro corridor between Mumbai International Airport and NMIA will be the first metro corridor that is operational around the clock. Some of the stations in the corridor's route are Santacruz, Chembur and Vashi, from where it will merge with the proposed CSMT-Panvel elevated corridor. The CBD-Taloja Metro line is to begin operations soon.

#### **Panvel Railway Terminus Project**

With an estimated budget of INR1.54 billion (US\$20.11 million), the first phase of development includes construction of three new platforms, renovation of the existing ones and development of foot overbridges (FOBs) to connect all platforms. The upcoming railway terminus will be a three-story building with amenities such as a VIP lounge, administrative blocks, subways and escalators.

Trains from almost all major cities of India will be available from this terminus.

#### **CSMT-Panyel Fast Line Elevated** Corridor

The elevated fast lane corridor will ensure that the railway lines can easily integrate with the Mumbai and Navi Mumbai metro network. This line will have 11 stations, almost all of them serving as major interchange points with other modes of transit. This is the first time authorities have planned a complete integration of the railways and metro; in theory, rakes running on the CSMT-Panvel line will also be able to run on connecting metro

#### Panvel-Karjat Double Line

The Panvel-Karjat double line is part of the Mumbai Urban Transport Project III to provide an alternate route from Karjat to CSMT via Panvel, which will be 23 km shorter than the existing route via Kalyan. It will reduce CSMT-Karjat travel by 35-40 min. The opening of the Karjat-Panvel section for passenger traffic, as well as doubling of tracks in the section, will also enhance rail connectivity with Pune.

#### **Water Transportation**

A multi-corridor waterway transport network as an alternative to decongest rail and road networks has been proposed. The Thane Navi Mumbai route for a multi-corridor waterway transport network is planned for Saket (Thane)-Vashi-Nerul-Belapur-Taloja. One route from Belapur will join Panvel via Jui Nagar, and another route will join JNPT and Uran through Nerul. The Ferry-Wharf-Nerul water transport project has been planned from Nerul to Alibaug.

The RoRo service approval is making waves. It will connect Mumbai and Raigad via the water route and is assumed to be up and sailing soon. This service will boost the developments of the coastal transport facilities in Mumbai and neighboring towns, as well. Apart from saving time and energy, this initiative will also help reduce the present shipping charges and pollution, and operate year-round. The first vessel, which can carry both vehicles and passengers, will be brought in from Greece after the agreement is signed.

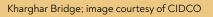
The nodal agency for the project, Maharashtra Maritime Board, is also looking to establish a hovercraft service amidst Mumbai-Thane-Navi Mumbai. These hovercrafts will be imported, which lends to the expectation of high-tech facilities here, too.

Continued













NMIA; concept image courtesy of CIDCO



Metro; concept image courtesy of CIDCO

After the services become fully functional, it'll take 35 min. for passengers to travel from Nerul to Ferry Wharf, while the Ferry Wharf-to-Mandwa route will consume about 20 min. - far less than the original 4 hr of travel time. Proposed water taxi services from Bhaucha Dhakka to Belapur, Nerul and

Mandwa will provide a refreshing travel alternative.

#### VAMC

The proposed 126-km-long VAMC development will connect Surat-Mumbai NH (NH 8), Bhiwandi bypass, Agra-Mumbai NH (NH 3), Old-Mumbai-Pune National Highway (NH 4) and Palaspe-JNPT (NH 4B), Mumbai-Pune Expressway, Mumbai-Goa Highway (NH 17) and more. The Multi-Modal Corridor will be a crucial step toward development, strengthening and creating job opportunities in seven MMR growth centers.

#### Ring Road

There is a plan to connect the Mumbai Highway, Bandra-Worli Sea-Link and Nariman Point via a ring road at a cost of INR900 billion (US\$11.77 billion). The government planning body City and Industrial Development Corporation (CIDCO) is also aiming at connecting NMIA with the Mumbai Trans-Harbour Link Bridge to make the airport directly accessible through a coastal road.

#### **Golf Course**

CIDCO has developed a signature golf course of international standards in Kharghar. Located in sector 22 of the city, the proposed golf course is spread over approximately 103 ha. Conceptualized as an 18-hole golf course, the project will include a clubhouse, five-star hotel, golf academy (for training purposes) and high-class residential developments on the peripheral areas. The chosen site has an idyllic setting with the Pandav waterfalls as a backdrop and an overview of the 80-ha Central Park.

#### Central Park

The first phase of Central Park is already complete and active. Developed rapidly as a high-end recreational space, it is spread over an area of 80 ha and encompasses sectors 23, 24 and 25 of the scenic Kharghar node. The modern park synthesizes the concepts of Hyde Park in London and Central Park in NYC. It hosts many recreational facilities for visitors. Similarly, a "Musical Instrumental Park" has given visitors a glimpse of Indian music through durable sculptures depicting various Indian musical instruments. It will offer a platform for budding local artists, as well as music maestros. A children's play area offers play activities like riding, sliding, swimming, climbing and balancing.

An amphitheater aims at promoting cultural activities and providing impetus to performing arts. Its arena will accommodate 8,000, and its outer wall will include a waterfall, providing a visual treat from the waterpark area. It will also include a musical fountain, a food plaza and an exhibition site.

A yoga park will provide visitors a sneak preview of the Yoga Mudra placed at different locations. Two clubs, including

indoor and outdoor play facilities with swimming pools, have also been proposed. These will also host marriages and other social functions. A virtual herbarium containing a text and photography database of around 35,000 specimens also find a place in the Central Park.

### Morbe Dam

Navi Mumbai primarily sources its water supply from NMMC-owned Morbe Dam, near Khalapur in the Raigad district at Dhavri River, which originates from Patalganga River.

### SEZ

The Navi Mumbai SEZ is to be developed as a futuristic business hub and global gateway for trade, commerce, industry, service activities and tourism.

# Vikhroli Koparkhairane Link Road

The six-lane bridge will start where the Jogeshwari-Vikhroli Link Road (JVLR) meets Eastern Express Highway (EEH) and end near Koparkhairane on Palm Beach Road. From here, it will be a short drive to Thane-Belapur Road, which connects with the Pune or Goa highways. JVLR's daily load of 100,000 vehicles (traveling between the eastern and western suburbs) will be substantially eased once the bridge opens. At present, Pune- or Goa-bound vehicles from Mumbai take either the Airoli or Vashi bridge on the Sion-Panvel Highway, the traffic load of which will come down once the new bridge is ready. In all, a proposed 200,000 vehicles will be diverted from the EEH and Sion-Panvel highway to the bridge.

# Additional Bridge Connecting Mumbai Mainland and Navi Mumbai Via Vashi

The proposed TCB III will improve the connectivity between Navi Mumbai and Mumbai via Vashi and will avoid the bottleneck at the existing three-lane Thane Creek Bridge II. The existing TCB-I and II were built in 1973 and 1997, respectively, and now, considering the rising vehicular movement and upcoming NMIA, this new bridge has been proposed to ensure smooth traffic movement. The proposed TCB-III will provide six more lanes to the existing TCB-II. Larsen & Toubro Ltd. is to undertake the bridge construction work.

### NAINA

The proposed modern township plan to be developed by the planning agency CIDCO, NAINA is going to be

bigger than Mumbai city with all modern facilities of a technological city. CIDCO has taken up the pilot project of 38 km<sup>2</sup> out of NAINA's 600 km<sup>2</sup>. This model requires the participation of people who will get developed spaces, along with compensatory floor space index, in return for their land. It is claimed that NAINA will emerge as a bigger city than Mumbai with all modern facilities. NAINA has 20% more area than Mumbai and facilities including an international airport, railways and a 10-lane highway, which increase the boundaries of Navi Mumbai. Previously only until Panvel, the spread of Navi Mumbai has reached Khopoli and Karjat.

# MIDC Data Centre Park

The 600-acre Maharashtra Industrial Development Corp. (MIDC) Data Centre Park coming up next to Taloja Industrial Estate is to be the first of its kind.

# **Sports Centre**

The INR6-billion (US\$78.34-million) Sports Centre at Ghansoli intends to make the city a serious sporting destination.

# Mumbai Trans-Harbour Link

The 21.8-km Mumbai Trans-Harbour Link is to offer the speediest connectivity between South Mumbai and Navi Mumbai. At least 20% of its groundwork is done.

# JNPT Terminal Expansion

The INR79.15-billion (US\$1.03-billion) JNPT Terminal expansion is to greatly add to the port's capacity and efficiency, while generating 125,000 new jobs.

### BKC-2

Information parks, business complexes and commercial centers have already been established, while the upcoming 120-ha BKC-2 in Kharghar is expected to become the corporate hub of both Mumbai and Navi Mumbai.



Devang Trivedi is past president, Confederation of Real Estate Developers' Associations of India-Builders Association of Navi Mumbai, and managing director, Progressive Group.

# Up Is the Best Way

Your author makes a case for vertical development in major Indian metros.

by Amish Mistry

Cities worldwide are bursting at the seams. Growing population means added load on existing infrastructure. This translates into pressure on all parts of city infrastructure. The most underrated and, perhaps, the most burdened of them all could be transportation systems. Getting people from one point to another within a city is an ever-evolving issue for most urban planners and is heavily pronounced in high-population, high-density metros like Mumbai.

Consider this: a city like Mumbai has a road network length of around 2,000 km. There are roughly 2.2 million officially registered bicycles, which means there are approximately 1,100 bikes per kilometer of road length. Compound this with the fact that there are approximately 150 new cars hitting the road daily. With urbanization happening rapidly, building new roads is a possibility that only exists in the creation of newer suburbs, which, again, calls for a huge infrastructural investment. Another way to build new city roads for vehicular traffic movement is in the form of flyovers. But the irony is that by the time the flyover is built, not only has a whole lot of money and time been expended, the traffic has also exponentially increased. Thus, it is a catch-22 situation.

The other alternative form of transportation in a city like Mumbai is local trains. To counter the increasing load, the only viable option is to increase the number of rakes and lengthen the platforms, but, like mentioned earlier, the growing population keeps beating the numbers. At last count, it is estimated that around 7.5 million people travel daily by Mumbai local trains. To put that in context, that is more than the population of a country like New Zealand (4.8 million). Thus, even the rail network is overloaded. The monorail and metro rails provide only marginal relief. The main issue is horizontal transportation systems. With city conditions in a constant state of flux, despite the best of efforts, they are going to prove inefficient under present conditions.

Experts around the world, including architects and urban planners, are unanimous in their opinion that, to counter the growing population demands, cities are best planned vertically. For example, there are 100 structures built in a row along a road. It takes a valuable amount of time and energy to travel from structure number 1 to structure number 100, which usually will be by way of a vehicle. Thus, besides the time involved in reaching the destination, there will be a considerable amount of carbon emission, not to mention the land area lost due to the buildings having been built horizontally.

If these same 100 structures were stacked vertically, they would not necessarily make a 100-plus-story structure; it could

With urbanization happening rapidly, building new roads is a possibility that only exists in the creation of newer suburbs, which again calls for a huge infrastructural investment.

be a 50 or 25-plus story structure, depending on the horizontal footprint of each floorplate. The first immediate takeaway would be that this would release a lot of precious urban space that could be employed for greener and more social purposes. The second, as suggested earlier, would be the cost of building vertically, which is much less than fulfilling the same parameters horizontally. The third is that though there would be a considerable amount of energy consumption by way of elevators transporting people vertically, it would be substantially less than the energy consumed by people traveling the same distance horizontally. Also, of course, the time requirement would be much less. Traffic jams are unheard of in the realm of vertical transportation (VT).

Another heartening feature is that VT systems are constantly being reassessed and refurbished for their carrying capacities, as well as for user comfort and safety. Over the years, elevators have been designed to reduce energy loads, thereby proving to be - to borrow an automobile term - more fuel-efficient.

One important heartening development is the digital monitoring of elevators. Thus, mishaps related to children and the elderly are easily addressed. These systems are also proving to be deterrents that reduce the number of crimes against women in elevators. Lastly, they have also helped reduce the number of injuries and deaths related to VT systems, which, though negligible, still represent human life. This aspect has also been addressed, to a large extent, by way of making human safety the top priority in VT design.

To conclude, as compared to horizontal transportation systems, VT systems are not only more efficient in terms of their function, they are also very low - next to negligible - in terms of human causalities. That, itself, is a huge plus.



Amish Mistry has been a practicing architect for the past 23 years. He has a keen interest in integrating and promoting sustainable technology. He is an instructor at India's architectural institutes, focusing on the topic of digital design.

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# FOCUSED ON GROWTH

VT industry converges on Mumbai for eighth IEE Expo to discuss the latest developments with an eye toward the future.

THE LEVEL

Honored guests and dignitaries open IEE Expo 2020 with the traditional lamp-lighting ceremony.

by Vijay Pandya

It has been said, "There is nothing to fear but fear itself," and nothing exemplified this adage more than the exhibitors and visitors who gathered in Mumbai, India, for the 2020 edition of the International Elevator and Escalator (IEE) Expo. Taking place February 27-29 — while concerns about the spreading coronavirus were dominating news headlines — Hall 1 of the Bombay Exhibition Center witnessed stakeholders of the vertical-transportation (VT) and real estate industries coming together to conduct business pretty much as they always have.

IEE Expo 2020, organized by Messe Frankfurt Trade Fairs India Pvt. Ltd., was the eighth edition of the event and recorded 7,512 business visitors during its three days. Mandated precautions restricted the presence of certain exhibitors and visitors from overseas, but those gathered were quite positive about the industry's prospects and optimistic about its future. In fact, many of the visitors opined that it felt like stepping into quite a different place altogether, far removed from the fears of infection.

With participation from countries like India, Germany, the Netherlands, Spain and Turkey, the biennial show hosted 135 companies showcasing an array of high-end solutions to help leverage the progressive sector of building technologies.

VT industry members, true to their nature, provided the ambiance of a safe haven where strangers were, as always, welcomed with warm smiles. While showcasing the latest solutions for VT, discussions focused on high rises getting even taller, plus the correlation between them and rapid advances in elevator technology.

# **BOOTHS**







































































































# THE INDUSTRY PULSE by Sheetal Shelar Patil

During the International Elevator and Escalator (IEE) Expo 2020, several vertical-transportation (VT) industry representatives shared their thoughts, plans and insights with your author.

# R. Anil Kumar, Director, Inova Automation



Beyond 2020, I think all the OEMs, be it Tier II or Tier I or multinationals, will move toward safety. They will look at European markets where they want to export their elevators. And, even the Indian customers are now thinking more of safety. So, 2020 will be mostly about safety. We are gearing up, and we have all our approvals today. The second thing is

that we have merged with BST. Today, we are number one with all the multinationals and the local players. We are mainly trying to project more European safety norms and major international certifications so that people are aware about what is happening globally.

We are very keen on India adopting certain global measures. We are gearing up for Europe. In 2020, we are going to invest about INR200 million (US\$2.6 million) in India and build a factory in Bangalore or Chennai that will give employment to around 200 people. Around the end of 2021 or in early 2022, we are planning a 100,000-ft<sup>2</sup> factory on 5 acres of land. We want to make at least two or three products in India. We are trying to localize some products to not be dependent on China, as we got stuck this year. We formed a software team here this year, as few Chinese know English. Thus, we are able to deliver the language in which you want your display here. We want to do more localization.

# Anurag Gupta, Managing Director, Arkel Electronic India Pvt. Ltd.



Arkel, as a company in India, started in April 2018 with about 28 people, and today, we are more than 50 people strong. As an organization, we have grown over these past two years and spread across India, with sales and service branch offices located in the major cities of Delhi, E Mumbai, Bangalore, Pune and Ahmedabad. We have a pan-India sales

and service organization now, putting us close to our customers. We have also established a reseller network with reputed industry leaders across the country, and they are working very closely with us. On the product side, our tradition is to come up with innovations in the elevator control segment, where we are active, and we have continued that by launching our Arcube (ELEVATOR WORLD India, 2nd Quarter 2019). The response from the industry has been tremendous, and for this expo, we released new versions of Arcube, such as for machineroom-less systems and with serial and internet of things (IoT) connections. Earlier, it was a standalone device, but now we see it covering almost 90% of the industry's needs. Arkel is growing in India, and, hopefully, the industry will also grow.

# Anurag Misra, CEO, Raloe India

We are a part of the Savera Group of companies. Savera is basically manufacturing the rail systems and varied types of guide rails, from elevators ranging from small, 0.2-m/s units all the way up to those traveling at 10 m/s, such as those installed in Burj Khalifa and other very tall buildings. Savera's principal work is rails, but we are among its sister firms. I handle both Raloe India, as well as EMESA India. EMESA India makes



sheet-metal components, not only for Raloe, but also for our principal customers — Schindler, Otis and others. Raloe India buys products from EMESA India, as well as Savera. We design the elevators and use materials from the best-known suppliers. The design is by Raloe, but all the post-design work and production is by EMESA. Savera supplies the rails, and Fermator supplies landing and car doors. So, these

are the companies supporting us, and, in one way or the other, they are linked to Europe. In Europe, we have long-term contracts with these companies. Since these companies supply in India, we get a price benefit, and then we are able to provide a product others may not be able to supply at a reasonable cost. If I talk about India, and even globally, the VT industry is growing at a rate of about 20% per year — a fast-growing industry that is a product of progressing times.

# R. Rajaraman, Vice President, Magnet Technology Machines, Bharat Bijlee Ltd.



We are focusing on the domestic market and exports. For the VT industry, there is steady growth of 8-10%. All types of machines are being sold in India. Belt machines are one of the new things, because people expect smaller machines, more energy-efficient machines. Since 2008, we have been participating in this expo. It is growing, but there is too much competition for machines. We were the

first to start with machines, but it is good to keep this focus and be innovative. I would suggest that there should be a star rating, just like there is for an air-conditioner or refrigerator, to indicate energy efficiency. In line with the government policy of "Make in India," we could promote more Indian manufacturers and develop technology for India. Safety and aftersales service should be the main focus. Machines should be made by big companies and not fly-by-night companies.

When we started, the industry was not ready to accept newer technology, but over the past 10 or 11 years, installers have begun to see its advantages. In terms of the safety of the equipment, electrical connections, why a particular feature is important, etc., I feel that it would be good for the industry as a whole if technicians were trained for at least six months in these areas. Regarding coronavirus, I feel that it will not just affect the elevator industry, but all types of industries.

# Rudolf Grob, Zagro AG



Everybody hopes to see the Indian market grow like the Chinese market did 10 years ago. I have been coming here for last 14 years, and there is always some growth I can see, but it is very slow. China has developed rapidly, as they have an organized structure — unlike India, which is developing slowly — but, sometimes it is better to grow slowly. In the beginning,

there were people only from outside who participated in such expos, but now there are Indian manufacturers, as well, and there are joint ventures and even companies from the outside. I think you can have success if you produce in India and give work in India. It is OK to import in the beginning, but then you have too much manpower, so it's better to do something here, for this market, because this market is growing.

# Sachin Dhore, Manager (Marketing), Usha Martin Ltd.



There are definitely Chinese players in this market, and a lot of companies have parts coming in from China. So, what has happened now is they ask why we should be reliant on China, when there should be localization of supply? Early on, the Chinese outbreak of coronavirus had a negative effect on the market, but it was also positive in India in that most domestic customers, seeing the impact on their

businesses, began thinking about domestic options. The demand for Indian components has gone up, and we have to be in line to meet the demand.

# Tirthankar Bera, Senior Manager - Product Management, Industrial Automation Business Group, Delta Electronics (India) Pvt. Ltd.



There is an enormous potential in the Indian subcontinent, but it all depends on how the market behaves. At this time, there is a sluggishness in the market. Even though we had reasonable growth in 2019 as against 2018, 2020 looks difficult. But, I'm sure this is temporary, and things will settle down soon. There is an expected growth, maybe not as much as we expect as an organization or as a country. But,

overall, there will be growth. Maybe not in this quarter, but in the coming two or last quarters. We are pioneers, in terms of the industrial-automation segment. We have everything from switched-mode power-supply sensors to robotics for component manufacturers and suppliers to the OEMs. So, from machine automation, we have graduated to factory automation, and, from that, we have now graduated to process automation.

VT is a key segment for us. So, with standalone variable-frequency drives, we will be looking for overall solutions and control solutions (which we call an "integrated system"), and so on. With elevators, it's highly important to take safety and a smooth riding experience into consideration, as these are matters of human life. So, the drives are a must. I feel this coronavirus is a temporary phase for a manufacturer as big as Delta. Of course, the supply chain is not as smooth as it was in December 2019. But, with the kind of inventories we carry globally as Delta (having global hubs worldwide), it will be temporary. It may impact our supply chain; it may not be 100% as efficient as it was; but overall business will recover. For Delta and Delta users, there is no need to panic.

# SCOPE FOR VT IN INDIA AND THE IEE EXPO

by Sheetal Shelar Patil

Raj Manek (RM), executive director, Messe Frankfurt Hong Kong, Ltd., shares perspectives with your author (SSP).



SSP: What is your assessment of the VT industry in India vis-a-vis the global

VT has a huge potential in the construction market; it is just the matter of when the dynamics in the market change. There is construction, but the developers have no money, and there's no money flowing in. There is no doubt where the industry is going - it's going

up. It's just a matter of when more-dynamic policies are put in place to help the industry and free liquidity. The global market is in the same state of flux. They were already developed, and VT was already in place. It was new technology coming in – the replacement of the existing one. Even in Messe Frankfurt, we did a huge amount of refurbishing, and we put in a huge amount of VT, which was upgraded, but it was already there. From the India perspective, it is getting better and is growing faster. There is a huge amount of urbanization, which drives VT, happening in India. Look at the airports now, and look at the train stations coming up. The latest and newest technology is being brought here. Even refurbished buildings are making provisions for new technology. So, VT is definitely an industry that's going to grow.

SSP: What is the significance of the IEE Expo in the overall portfolio of Messe Frankfurt GmbH and Messe Frankfurt India?

- This was the first VT exhibition we purchased in the group. We now have seminars in Germany, Italy and are looking at something in Turkey – and, of course, we have India. It is an important aspect.
- SSP: How has the transition been since the acquisition? We had a great show two years ago. This year, it was a little difficult, as the market is going through a tough time. Plus, with the coronavirus issue, we had a lot of difficulties with our internationals. This especially involved our Chinese internationals, but also other internationals who are not able, or are too scared, to travel. I think it's going to get a little worse before it gets better. Light + Building 2020 (expo in Frankfurt, Germany) was also postponed. With the spread of the virus, the fear in people is high. It has had an impact globally for us. We still have got a good show (IEE Expo 2020). We've had a 34%

growth in our Indian exhibitors from the last edition.



Sheetal Shelar Patil works with a content solutions agency, overseeing weekend sections, special features, news columns, magazines and theme pages for one of India's leading Englishlanguage daily newspapers, as well as working with several business-to-business publications. A holder of a diploma course in journalism, Patil previously worked in administrative positions with various real estate, hospitality and media enterprises.

IEE Expo 2020 opened with the traditional lamp-lighting ceremony by eminent members from the government and elevator industry, including Dhirajkumar S. Pandirkar, chief engineer, Maharashtra Housing & Area Development Authority (MHADA); S.R. Nalavade, superintendent engineer, energy department, Government of Maharashtra; Sebi Joseph, chairman, elevators & escalators division, Indian Electrical and Electronics Manufacturers Association (IEEMA) and president, Otis (India) Ltd.; Nakul P. Mehta, vice chairman and managing director, Bharat Bijlee, Ltd.; R. Rajaraman, vice president, Bharat Bijlee; Sandeep Shah, assistant vice president and head, commercial contract and procurement, Omkar; T.D. Joseph, business head, Confederation of Real Estate Developers' Associations of India-Maharashtra Chamber of Housing Industry (CREDAI-MCHI); and Raj Manek, executive director and board member, Messe Frankfurt Asia Holdings Ltd.

The dignitaries highlighted the latest elevator market trends from global and domestic perspectives. Topics like geographical product affinity, customer outlook, reasons for market growth and details on the current real estate scenario were shared.

Dhirajkumar S. Pandirkar shared that the industry will get added impetus by government housing schemes like Pradhan Mantri Awaz Yojna (PMAY) for the affordable-housing sector. The target for the scheme is 1.9 million houses, and its support and smooth vertical mobility requires the development of the VT sector. With many infrastructure projects in the line, technologically advanced elevators and escalators have become a necessity in the country. Concluding his speech, he added, "I hope all the participants and visitors gain optimum industry insights and business prospects during the next three days of the show."

S.R. Nalavade stated, "With the amount of infrastructural progress [Mumbai] is witnessing, we are expecting many lift installations."

Key brands at the show included Arkel, Akis Motors, ADCO, Bharat Bijlee, Butkon Asansör, Blain, Canny Elevator, Çelik Ray, EC India, Epic Elevators, Fermator, Genemek India, Inova Automation, Giovenzana, Kinetic, MAS Industries, Marazzi, Montanari, Mahabali Steels, Mayr, Mona Drive, Sigma, Sicor, Raloe India, NBSL, Tectronics and Ziehl-Abegg.

The show floor featured high-quality advancements and solutions by companies including IndiTech Systems, EPIC Elevators, Delta PD Pumps, Spectra Controls, ISTS Inc., Rudraksha Electricals, KY Industries, RITEOHMS (R.B.E. Electronics), Tedra Automotive Solutions and Bestomech



Industries. There were live demonstrations of technologies like solar ELOS (a solar generator for elevators), hydraulic elevators for passengers and goods, pneumatic elevators, smart elevator control panels with cloud connectivity and more.

Tectronics Engineers witnessed a good response to their indigenous gearless traction machine and introduced five products: the 24-pole RTG 24P Series for passenger capacity up to 12; the 32-pole RTG 24P Series for passenger capacity up to 16; the 16-pole RTG 32P Series for capacity up to 1.6 T.; a home lift machine and a six-passenger belt machine. The company has launched an application for Android and iOS users within the Indian elevator market that enables people to know more about their machines, such as through technical details with drawings, and offers product-filter options such as load and speed. It also provides a direct contact for sales and service inquiries.

Day two of the show witnessed a series of seminars and panel discussions throwing light on important topics, like the Indian elevator market, future design and developments of energy-efficient gearless permanent-magnet synchronous machines for elevators, safety updates for the sector and quide rails.

Visitors included OEMs, government officials from the infrastructure department and component suppliers. Decisionmakers from the procurement and technical departments of OEMs Schindler India Pvt. Ltd., KONE India Pvt. Ltd., Otis India Ltd., thyssenkrupp Elevator India Pvt. Ltd., Fujitec India and Toshiba Johnson Elevators (India) Pvt. Ltd.

visited the component manufacturers and suppliers to gain knowledge and source technologies to help assemble the need-of-the-hour elevators.

Ko Tanaka, managing director, Mitsubishi Elevator India Pvt. Ltd., said, "I was very impressed by all the exhibitors participating at the show. I have gained a lot of insights about the new developments in the industry, and our company intends to utilize this opportunity to strengthen our products."

Bharat Bijlee's Mehta said:

"We have seen this show getting bigger and bigger. The profile of companies who visit and exhibit have evolved, and there's a much wider interest and cross-section of people who attend to understand the new developments in this edition. Our main goal was to be able to showcase our products, know what's happening around us and meet companies we can develop business contacts with. I must say, the show has been a fruitful experience."

The strategic partnership with CREDAI-MCHI attracted many from real estate. Mukesh Jaitley, director, The Wadhwa Group, noted:

"As buyers, people just look at the finished product and don't know [which] technicalities go inside creating the product. But this edition has given us in-depth insight about the components used to assemble the elevators. During my visit, I liked a [small motor] by Epic Elevators. . . and we plan to be in touch with them for future developments."

The next IEE Expo is planned for 2022 at a date to be announced. 🚯

# "An Unforgettable Experience"

A bespoke VT system is an integral part of extreme adventure sports facility in Goa.

by Sheetal Shelar Patil

After successfully designing one of India's only extreme adventure sports facilities — the Bungee Jumping, Flying Fox and Giant Swing facility at Rishikesh (ranked a top tourist destination on Tripadvisor®) for Jumpin Heights Adventures Pvt. Ltd. and Goa Tourism Development Corp., Kalayojan Urban Designers Architects & PMC had an

opportunity to design yet another extreme adventure facility for the same client at India's foremost tourist destination, Goa.

As one leaves the bustle of Panjim, the landscape gives way to a sprawling expanse of green hills, lakes and quaint villages leading up to Bicholim, the site overlooking the site selected for the bungee-jumping facility, Mayem Lake. Sanjay Porwal, Kalayojan Kalayojan principal architect, shares:

"The brief we received was to create a 'one-of-a-kind,' cost-effective bungee-jumping facility for Goa that paves the way for extreme adventure sports there. Unlike regular sports, bungee jumping is in the extreme adventure sports category. Awe, fear and an adrenaline rush in a jumper's body are

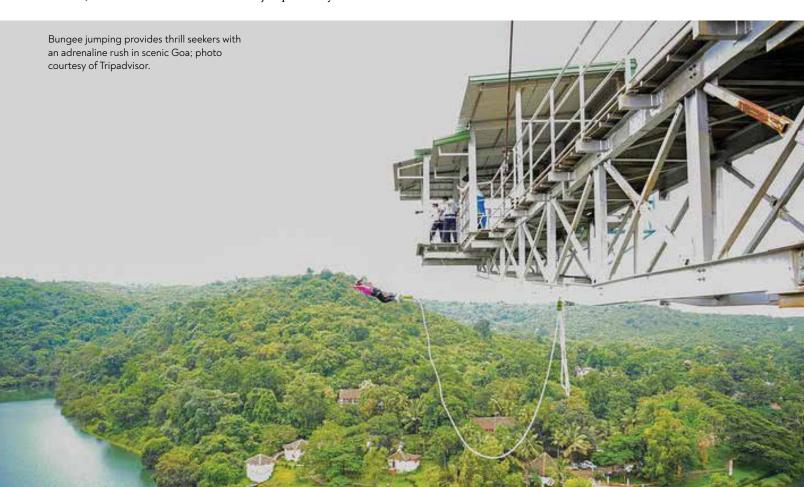
Installing a stable lift to withstand even this oscillation was challenging, and few lift providers came forward.

essential parts of the extreme adventure. The rawness, ruggedness and roughness of the site and facility were very important factors to consider. The design concept went hand-in-hand with the architect's involvement in selecting an appropriate site for the thrilling experience, which starts at registration. Creating a structure that is, at once, an architectural landmark, cost-effective,

eco-sensitive and unquestionably safe was our aim." The project consisted of three parts:

- 1) Main, 58-m-tall tower (roughly equivalent to a 16-story building)
- 2) Ancillary facilities like merchandising, ticketing, café, etc.
- 3) A natural trail/pathway connecting the two

A bespoke vertical-transportation (VT) system was an integral part of it. The tower was constructed to accommodate two 10-passenger lifts, as well as toilets, a fire-escape staircase and a central passage within a tight but efficient plan. The orientation of the transparent lifts allows them to be viewed from afar.





The tower is roughly equivalent to a 16-story building; photo courtesy of Kalayojan Urban Designers Architects & PMC.

# The orientation of the transparent lifts allows them to be viewed from afar.

Due to its height, the tower must withstand strong wind gusts and oscillations. The sway and oscillation of the tower (due to wind pressure) at the top level was minimized to 60 mm. Yet installing a stable lift to withstand even this oscillation was challenging, and few lift providers came forward. One capable of implementing the required technology finally did. The company wishes to remain confidential.

The site for the more-than-50-m-tall tower was only 8 X 8 m (64 m<sup>2</sup>), which Porwal says is probably the smallest site on which his firm has ever worked. Kalayojan focused on designing a facility where a visitor's adventure starts before reaching the tower. Porwal explains:

"This was done by carefully orchestrating the movement of people so that one could see and grasp the magnanimity of the tower from a distance and, probably, see people jumping from it. This fills the visitor with adrenaline and helps provide him or her with an unforgettable experience."

Even as the architects envisioned a 58-m-tall tower, to give it a visually taller effect, its square plan involved a 24-m-long cantilevered platform on a 6-X-6-m structure facing the lake. At a height of 58 m, keeping the maximum possible reverse swing toward the tower in mind, a 20-m-long cantilevered walkway and platform from which to jump were incorporated.

# Sanjay Porwal, Principal Architect, Kalayojan Urban **Designers Architects & PMC**



A graduate of Sir II College of Architecture in Mumbai, Porwal completed a postgraduate program at the Urban Design Research Institute in Mumbai after two years of training with architects Yahya Merchant and Premnath. He has worked under the guidance of leading Indian architects like Charles Correa,

Uttam C. Jain and others. He established his practice, Kalayojan Urban Designers Architects & PMC, within two years of graduation. His office is now involved in projects ranging from single residential/office buildings to master plans for large cities. Having done work across India, his firm has forayed into the global arena. His work has been described as competitive, contemporary and highly inspired by traditional symbolism. He has won several recognitions and honors for his contributions to architecture.

# Pathik Joshi, Executive Director, Kalayojan Urban Designers **Architects & PMC**



Pathik Joshi earned a degree in Urban Design from the University of Texas at Austin, during with he completed an exchange semester with Bern University of Applied Sciences in Switzerland. Prior to that, Joshi earned a degree in Architecture from Kamla Raheja Institute for Architecture and Studies in

Mumbai. After working in the U.S., Joshi returned to India and joined Kalayojan. Sanjay Porwal says Joshi's "versatile international experience in architecture, master planning and research has made him an integral part of Kalayojan." Joshi is currently involved in city master planning, campus design and urban design work in various parts of India and Africa.

To construct a sturdy, tall tower with minimal environmental impact, the structural engineer opted for pile foundations. The tower was constructed using galvanized, structural steel to ensure longevity in humid conditions. Owing to its high strength-to-weight ratio, steel was selected for the base in the rock below.

A vertical module of 3.95 m was adopted to accommodate two flights of the staircase, and this module was repeated upward. The modules were fabricated at an offsite facility in Maharashtra, then shipped to the site and installed piece by piece. After careful study of the structure type and design, all the parts were premanufactured and galvanized in a factory in Mumbai, then assembled onsite with only 2-mm tolerance. Advanced construction technologies and cranes were employed to put the structure in place, bit by bit and segment by segment. Soil and topography conditions made access to the

Ancillary facilities were built to accommodate the administration, accounting and other support functions. Since the land was leased to the client for only 10 years, modular geometry and steel joining in nut and bolts were conceptualized so the structure can be dismantled.

The result is a landmark structure along the banks of Goa's most famous lake. On all four sides, the tower's crown is outfitted with signage for Jumpin Heights. Porwal states:



Modular construction was used to build the tower on an extremely small site; photo courtesy of Kalayojan Urban Designers Architects & PMC.

# **About the Bungee Facility**

**Architecture firm**: Kalayojan Urban Designers

Architects & PMC

Client: Jumpin Heights and Goa Tourism

Development Corp.

Location: Mayem Lake, Goa

Category: Eco tourism and adventure sports Lead architects: Sanjay Porwal and Pathik Joshi

Architecture team: Arpit D., Zeal Modi and Viraj Patil

Tower height: 58 m Project year: 2019

"This is a remarkable achievement from an architectural point of view, paving the way for modern, eco-sensitive infrastructure that puts paramount importance on the environment. Goa Tourism Department envisioned a new identity to boost tourism at this lake, making it an epicenter of adventure, thrills and rejuvenation. A natural, 2-m-wide track helps link the tower and other ancillary facilities. The entire development was done keeping entire existing flora and fauna intact. This elevates the Mayem Lake region as the perfect tourist destination for adventure and nature lovers visiting Goa." 🖚

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# A COMMON **DESTINATION**

Coliving concept seeing success in India and across the Asia-Pacific region.

submitted by Knight Frank India

Given the scarcity of land in many Indian cities, coliving buildings are frequently tall and require efficient verticaltransportation systems.... Editor.

Knight Frank India recently released a report, "Insights on Coliving - An Asia-Pacific Perspective." According to the report, Mumbai ranks fifth in the Coliving Index, which tracks markets' likelihood of success as coliving destinations. The report covers 20 major Asia-Pacific cities that have six qualities likely to contribute to growth in coliving. These cities:

- 1) Are technological and financial hubs
- 2) See numerous venture-capital (VC) deals and growth
- 3) Have affordable housing
- 4) Have university populations
- 5) Have strong general populations and human-development indexes
- 6) Provide high quality of life

These six attributes have been allocated different weights based on their relevance and importance, which, in summation, provide a metric to quantify the magnitude of coliving's likelihood of success in different cities.

Coliving is experiencing rapid traction across markets and has been a disrupter in many ways in markets worldwide. Amid changing lifestyles and stratospheric housing prices across major economic centers, coliving provides an alternate, flexible accommodation option for a temporary and transient workforce. This modern form of urban housing is not a new concept, with other forms of shared spaces already in existence, such as hotels, serviced apartments and hostels. Building on a similar model, coliving provides a curated social environment

that capitalizes on the concept via three distinguishing characteristics: shared spaces, events and community.

With a weighted average score of 65.94, Mumbai (fifth) has emerged as the top potential market for coliving in India due to higher prices, rapid and continuous gentrification and an unchallenged position as India's top economic center. Mumbai offers vast opportunities for coliving growth. As compared to 2010-2012, the VC deal flow in Mumbai spiked by 288% between 2015 and 2017. The rise in deal flow is a key indicator of the quality of job opportunities created in the financial hub and a ready demographic pool to which coliving operators can cater, given the omnipresent shortage of quality rental housing near employment hubs.

New Delhi takes 11th place on the Coliving Index. Despite relatively higher housing affordability than Mumbai, the general population and human development index in New Delhi is much higher than that of Mumbai, making it an apt choice for coliving operators to expand, as this is a key demand driver. Being the national capital of India, New Delhi attracts both the internal and external migration of capital and people. This bodes well for the coliving sector's expansion.

Being a prime technological hub, Bengaluru not only has access to talent, but also a conducive and self-sustaining business environment and a vibrant startup ecosystem that supports a gig economy. Due to these factors, the city features at 19th on the index. Coliving operators in India, having recognized Bengaluru's tendency to attract digital nomads early on, are continually augmenting capacities in their coliving communities and are expanding to suburban and peripheral locations to cater to burgeoning demand.

"With a vast, globalized workforce and lack of affordable housing, coliving has become an ideal choice for many millennials." - Shishir Baijal, chairman and managing director, Knight Frank India

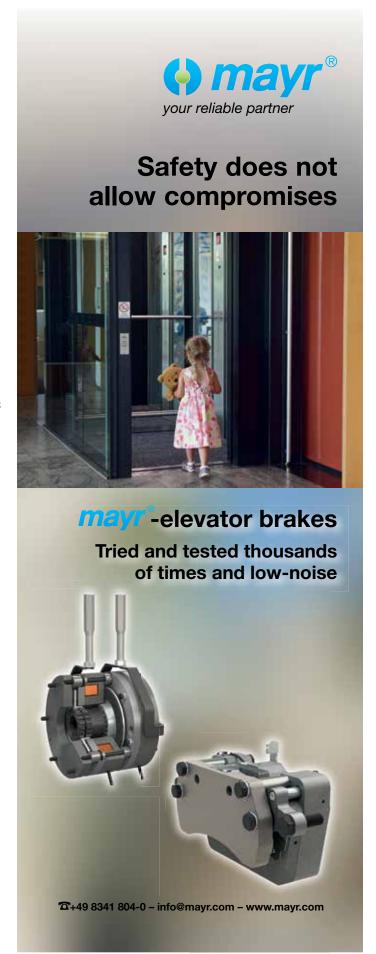
Other key findings include:

- ♦ China's coliving sector is one of the most developed, having started in the early 2010s. Beijing is ranked first in the Coliving Index, followed by Tokyo (second) and Shanghai (third).
- ♦ Job opportunities in the financial sector and low housing affordability are major driving factors for growth opportunity in the coliving sector in Mumbai.
- ♦ A 288% spike in VC deals in Mumbai is a significant factor accounting for creation of quality jobs, resulting in growth opportunities for the coliving sector.
- ♦ Mumbai's large population is another major factor that offers scope for market penetration by domestic coliving operators.
- ♦ New Delhi ranked 11th, with a total score of 53 in the Coliving Index. Properties of major coliving operators in the National Capital Region, such as CoHo (2,500-plus beds) and Stanza Living (2,000-plus beds), are more than 90% occupied, reflecting demand for coliving space.
- New Delhi ranks second, after Tokyo, in the General Population and Human Development Index, which reflects key demand drivers for the coliving sector.
- ♦ Bengaluru (ranked 19th) is the third Indian city after Mumbai and New Delhi that placed among other major Asia-Pacific cities in the Coliving Index.
- ♦ CoLive (8,000-plus beds) and Zolostays (10,000-plus beds) are occupied at more than 85%.

Shishir Baijal, chairman and managing director, Knight Frank India, states:

"In India, the coliving concept is gaining widespread acceptance and has brought to the forefront some new models in the private rental sector. With a vast, globalized workforce and lack of affordable housing, coliving has become an ideal choice for many millennials. The growing interest for coliving spaces in cities has been instrumental, with many investors sitting up and taking notice of this emerging sector to diversify their portfolio and risk. Further, the proposed Model Tenancy Act will provide the right legal framework for the growth of coliving in Indian cities, which already has a strong demand base."

Knight Frank India, headquartered in Mumbai, provides advice on all areas of the property market in key markets.



# **HEIGHTS** OF HIGH **RISES**

The share of high rises stood at an all-time high of 52% and villas at an all-time low of 2% in 2019.

by Anuj Puri

With Indian cities under increasing pressure to grow vertically, the share of high rises (21 floors or more) scaled to unprecedented heights in 2019. ANAROCK data indicates that of a total 1,816 residential projects launched across the top seven cities in 2019, more than 52% were high rises.

Unsurprisingly, the land-scarce Mumbai Metropolitan Region (MMR) tops the list, with more than 75% of the total 734 projects launched in 2019 in the high-rise category. With 21 floors the new normal in the region, Mumbai is closing in on other megacities like NYC, Hong Kong and Tokyo, where buildings at least as tall as 51 floors are the norm.

The National Capital Region (NCR) came next, with nearly 70% of its total launched projects in the high-rise category. Bangalore clocked in with 45% of the total projects launched in 2019 towering above 21 floors, followed by Pune with a 41% share.

In Hyderabad, Kolkata and Chennai, the share of 21-plusfloor buildings is scantier, with their high-rise share at 23%, 21% and 16%, respectively. Notably, Chennai and Hyderabad – two cities that had stuck to more conventional low-rise formats for a long time - are gradually warming up to high-rise housing developments. In both these cities, the well-to-do preferred bungalows and sea-facing villas. It is only in the last decade that these cities have begun to grow vertically, largely to accommodate increased inward migration.

# Villas Losing the Plot

The increasing trend of vertical development has taken the sheen off a once highly preferred property type - villas. Both demand and supply of this format are diminishing, with wealthy homebuyers preferring the latter-day concept of "sky villas." ANAROCK data reveals that of the total new launches of

545,000 units in 2014, nearly 5% were villas. In 2019, this share dropped to 2% of the total of 237,000 units launched during the year.

This downward trend has been evident in the eastern, western and northern regions since 2014. Today, the southern cities of Hyderabad, Bangalore and Chennai also showcase the declining villa trend.

Hyderabad stood out; of the total new launches of nearly 14,530 units in 2014, more than 35% were villas. In 2019, the supply share of villas reduced to 8% of the total launches of nearly 14,840 units. Interestingly, the total supply in both years is almost similar.

# **FIVE TAKEAWAYS**

- 1) Of the total 1,816 project launches in 2019, more than 52% were of 21 floors or more.
- 2) After the Mumbai Metropolitan Region with 76%, the National Capital Region has the next-highest number of project launches, with high-rises comprising 70% of 89.
- 3) Chennai has the least share (16%) in the high-rise category.
- 4) As cities reach for the skies, the total supply share of villas has declined to an all-time low of 2% in 2019 against 5% in 2014.
- 5) Hyderabad saw the maximum decline in villas share — from 35% in 2014 to 8% of total city launches in 2019.



The Lodha Splendora in Thane West, Mumbai, is an example of increasing residential high-rise construction in populous Indian cities. Image for representation purpose

In Chennai, the share of villas in 2014 was second-highest in the country, with more than 16% of total new launches (28,540 units). In 2019, this share dropped to 5% of the total 13,000 units launched.

Bangalore saw its share of villa launches drop from 12% in 2014 to 5% in 2019. The overall launches in the city stood at 85,950 units in 2014 and 50,450 units in 2019.

NCR saw only a marginal drop – from 3% of 173,000 units in 2014 to 2% of 46,920 units in 2019. The MMR saw a mere 1% share of villas from a total 134,000 units launched in 2014; its share in 2019 is now zero. In Pune and Kolkata, too, the share of villa supply has been negligible in the last five years.



Anuj Puri is chairman of ANAROCK Property Consultants.

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# **BULLISH** ON **MALLS**

Strong growth anticipated across the country.

submitted by ANAROCK Property Consultants

New malls will require vertical transportation (VT), and that's good news for both domestic and foreign VT players in India... Editor

Indian cities are set to add 100 new malls by the end of 2022. Despite low consumer spending in recent times, mall developers remain bullish on the growth potential of organized retail. Approximately 100 new malls spanning more than 49 million ft<sup>2</sup> are planned across the country by the end of 2022.

Of the total new mall supply, the top seven cities alone will see 69 new malls spread over 35.5 million ft<sup>2</sup>. The remaining 31, covering 13.5 million ft<sup>2</sup>, will come up in tier-2 and -3 cities, such as Ahmedabad, Lucknow, Indore, Surat and Nagpur. Western and southern Indian cities will see almost equal new supply. Western India will get 36 new malls covering 17.5 million ft<sup>2</sup>, followed closely by southern India, with 35 new malls spanning nearly 17 million ft<sup>2</sup>. The northern region will

> see 22 new malls spanning more than 11 million ft<sup>2</sup>. Eastern India will see a much more modest supply of seven new malls spread over approximately 3.5 million ft2. Anuj Kejriwal, managing director and CEO, ANAROCK Retail, observed:



Shoppers ride escalators at a mall in Mumbai; image from The Hindu.

Consumer spending will rebound as the government's concerted intervention to push consumption bears fruit over the upcoming quarters." — Anuj Kejriwal, managing director and CEO, ANAROCK Retail

"2019 was defined by significantly lower retail leasing, so this generous new upcoming mall supply over the next three years testifies to the confidence of private-equity (PE) investors in Indian retail's pent-up potential. The retail sector drew more than US\$2.8 billion in PE inflow in 2015-2019 – 59% by foreign investors alone. Despite overall weak consumer spending, food and beverage outlets, family entertainment centers, cinemas and beauty/wellness service outlets continue to flourish and demand new retail space. Consumer spending will rebound as the government's concerted intervention to push consumption bears fruit over the upcoming quarters. Besides the tier-1 markets, we are seeing major growth unfolding in tier-2 and -3 cities. Markets such as Ahmedabad, Lucknow, Nagpur and Indore are seeing high demand from retailers."

- By 2022, Tier 1 cities' mall supply will consist of:
- The Mumbai Metropolitan Region, topping out with 18 new malls spanning 7.8 million ft<sup>2</sup>
- National Capital Region, with 13 new malls spread over 7.5 million ft2
- Hyderabad will see the launch of 12 new malls spread over more than 4 million ft2.
- Bangalore and Chennai will see an infusion of 10 and nine malls, respectively, together accounting for 10.8 million ft<sup>2</sup>.
- ♦ Pune and Kolkata will see four and three new malls, respectively.

Among tier-2 and -3 cities, Ahmedabad stands out with as many as six new malls slated to come up in the city by the end of 2022. These new malls will be spread over 3.2 million ft<sup>2</sup>. Both domestic and international brands are gung-ho on Ahmedabad. Besides scoring high on consumerism, the city has a growing population of young entrepreneurs, information-technology professionals and factory employees. Lucknow presents a similar picture and has plans for four new malls by the end of 2022. The western cities of Surat and Nagpur will see two new malls each, spread over 0.7 million ft<sup>2</sup> and 0.85 million ft2, respectively.

ANAROCK Property Consultants is a division of The ANAROCK Group, a specialized real estate services company in India with diversified interests across the real estate value chain.



# COMMITTED TO INDIA

Ashok Ramachandran (AR), president, Schindler India and South Asia, shares perspectives on the issue theme with your author (SSP).

by Sheetal Shelar Patil

SSP: Emerging real estate segments are tomorrow's primary vertical-transportation (VT) demand drivers, with new opportunities in affordable housing, senior living, coliving, coworking, student housing and academic institutions. How do you see VT demand from these segments in India? What are the implications for the overall VT market, the types of elevators that would witness growth, and why?

AR: Elevator and escalator market growth is mainly driven by the residential segment, as well as activity and initiatives in tier-2 and -3 cities. The market is likely to get even stronger

soon, with a focus on initiatives like "Housing for All," development of smart cities and new infrastructure projects. This creates the need for taller buildings with even more efficient and innovative mobility solutions.

The elevator is the lifeline of a building, and breakthroughs in elevator technology have made it possible for buildings to grow taller. The important thing here is to plan for the correct number and specifications of elevators, considering the type of building, tenancy, population, etc. The reason this is so crucial is that, once elevators are installed, it is extremely difficult to

> change or add more without making substantial changes to the building's structure. With advanced traffic analysis based on real-time simulation, the digital Schindler Plan & Design tool can add value on this front by helping customers plan for the optimum elevator configuration. It also allows architects to create elevator layouts and traffic studies, and tender project documents in a customized manner. Moreover, the tool assists in all kinds of facilities planning, based on type and usage, be it residential, commercial, hotel or hospital.

Schindler Plan & Design uses visualization technology and data analytics to give designers comprehensive product specifications and detailed layout drawings. Architects using Schindler Plan & Design have two options:



Ashok Ramachandran in his office

The VT market is likely to get even stronger soon, with a focus on initiatives like "Housing for All," development of smart cities and new infrastructure projects.



Schindler India factory

With high rises and

other multistoried

large numbers,

buildings coming up in

elevators have become

the need of the day.

- 1) Guided planning in which they navigate through the portal and enter building design details
- 2) Fasttrack planning that allows the architect to search the product catalog to find the desired planning data, which includes product recommendations and determining the minimum elevator requirements through a simple traffic study.

SSP: How has the Real Estate (Regulation and Development) Act, 2016 (RERA) impacted the VT sector? Do you see a greater possibility for elevator manufacturers to partner with developers/associations in the RERA era?

AR: RERA went into effect in May 2017. The act aims to bring increased transparency and accountability across the real estate sector. With high rises and other multistory buildings coming up in large numbers, elevators have become the need of the day. But, like all other society assets, elevators have certain rules and regulations to prevent misuse and ensure proper maintenance. At Schindler, we are not just a mobility provider, but also a customer partner on RERA. We understand the industry is going through significant changes, and we are here to help it comply with the new standards.

Elevators form a crucial part of a building when it comes to completion and final handover to the building authority. Through effective synergies with the developers and real estate associations, elevator manufacturers can add great value at every stage. Timely completion of installations and handover for occupancy become key responsibilities for elevator companies. Here's how we believe we add value:

- ♦ Material sourcing management: We have manufacturing facilities at strategic locations to ensure the materials reach the jobsite quickly and there is no delay in project completion.
- ♦ Call-off process: The ability to order materials "just in time."
- ♦ Installation methods: We continuously seek to improve our installation methods to ensure there is maximum efficiency

with minimum hassle. Therefore, we have introduced scaffold-less installation to reduce completion time and improve safety. The conventional scaffolding method has many roadblocks that are reduced with this methodology. SSP: What unique selling proposition defines the Schindler brand?

AR: Schindler is the first:

- ♦ Elevator company to bring machine-room-less technology to the Indian market
- ♦ Multinational corporation (MNC) to set up electrical and electronics (E&E) plants for elevators and escalators in India
- ♦ Company to bring the Internet of Things to elevators and escalators
- ♦ E&E company to bring a digital-out-of-home advertising solution to the industry
- ♦ Elevator company to introduce premium glass touch-control panels to the Indian market

Schindler strives to offer greener products and technologies. With the use of gearless machines, our products consume up to 30% less energy compared to that of conventional systems.

> Technologies such as standby mode when not in use and Suspension Traction Media belts result in significant savings in power consumption and space. Our products are almost 100% recyclable and free of harmful substances, ensuring better safety and user health. We emphasize end-user comfort and safety. Our elevators provide more room, while retaining the same shaft dimensions as conventional elevators, which leads to higher comfort

levels. Our landing doors are 2-hr fire rated - higher than industry standards. In case of power failure, we have an automatic rescue device in place that takes passengers to the nearest floor.

SSP: How would you describe your management style and approach?

AR: I am a people person, and get my energy from interacting with my staff, from field personnel to top



Schindler India factory

management. My leadership style is based on coaching and a visionary approach. I believe in putting people first. Once you have the right, well-trained and well-supported team, good results will be achieved. Every day, I try to be a down-to-earth and humble leader.

SSP: What has been the response to Schindler's Robotic Installation System for Elevators (R.I.S.E) so far?

AR: R.I.S.E provides a new level of worker safety and improves the quality of elevator installation. This breakthrough symbolizes Schindler's commitment to providing digital and urban mobility solutions to shape smart cities of the future. Schindler's R.I.S.E couples artificial intelligence with elevator technology to enable the safe and precise installation of elevators. Robotic systems are becoming increasingly important to automate many of the construction industry's repetitive and physically demanding tasks. The technology was recently used to install several elevators in commercial complexes and tall residential buildings in Europe, and has achieved outstanding installation precision, speed and safety. The technology was recently shortlisted for the Council on Tall Buildings and Urban Habitat 2019 Innovation Award.

R.I.S.E consists of a self-climbing robot that measures the elevator shaft, drills holes with precision and accurately sets anchor bolts to support a safe and fast installation of elevators. This automation sets the stage for mechanical installation on preinstalled anchor bolts. It is repeated at every level, making it ideal for high-rise installations. Increased accuracy, betterquality installations and greater safety in demanding work conditions are some of the key benefits. Digitization extends the capabilities of R.I.S.E by improving its ability to record actions performed by the robotic system and to automatically exchange data with digital models of buildings.

SSP: What is the significance of Schindler India in the overall operations of the Schindler Group? How would you describe your vision for the company?

AR: Schindler India is a 100%-owned subsidiary of Schindler Group. "Leadership through Customer Service" is the

cornerstone of Schindler India's growth strategy. This is evidenced by our service presence across 50 major cities, including branch offices in 13 major cities in the country. Our headquarters are in Mumbai. Over the years, Schindler India has gained the trust of leading builders and developers across the country. Schindler has been a partner in several prestigious infrastructure projects in India, like Terminal 2 at Chhatrapati Shivaji Maharaj International Airport in Mumbai; Chennai International Airport; the Delhi, Delhi Airport Mumbai, Bengaluru and Greater Noida metros; the Mumbai monorail; and Netaji Subhas Chandra Bose International Airport in Kolkata. Schindler has also been a preferred partner for landmark tower projects like World One, Omkar 1973 Worli, Antilia, Wave One, Amazon, Flipkart, World Trade Centre Mumbai, Imperial Towers and The President House in Delhi.

Schindler India is committed to growing its elevator business and has strategically invested to expand its elevator line to produce a capacity of approximately 17,500 units and its escalator line to 1,200 units at our Chakan, Pune facility. Under the government's "Make in India" initiative, Schindler has already invested 430 crore (US\$5.6 million) into setting up a factory. Schindler India's 170-crore (US\$2.2-million) investment is part of the total 600-crore (US\$7.9-million) outlay over six years. We employ more than 1,000 people at any given time in Maharashtra. Schindler has ISO9001:2008-certified training centers in four major locations in India. These centers train engineers on our products using the latest tools and equipment, which improves reliability and quality of installations.

Schindler is responding to opportunities with targeted investments and strategic expansion of our business in India. The escalator factory is the latest addition, making Schindler India the only MNC to house both an elevator and escalator factory on the same campus. All this is a testimony to Schindler Group's commitment to the Indian market, with an endeavor to be closer to our customers and offer them our solutions.





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# HOME SWEET HOME

Vacation rental company looks at travel trends.

submitted by SaffronStays

Travel Trends Report 2020 by SaffronStays analyzed hospitality segment trends and demand drivers. The team spoke to residents of Mumbai and Pune across age groups and shared some intriguing insights. With high-stress lives and much to accomplish, Mumbaikars are looking for "do-nothing" vacations that allow them to escape the city and spend time with family and friends. People prefer shorter "lean-back" holidays over single "lean-in" ones. Shorter, more frequent breaks at locations close to home are the way to go.

# The Demographics

This survey was conducted with select residents of Mumbai and Pune. It received 582 responses. Just over 40% of responders were between the ages of 25-34, while 22.8% were in the 35-44 age group. With 88 respondents, the 18-24 demographic had the third-most responses. The 45-54 age bracket saw 13.2% representation, while 9.6% of respondents were older than 55.

# ACCESSIBILITY IS KEY

A perusal of SaffronStays' websites reveals that accessibility is a feature of many of the company's villas, as they are outfitted with stylish, discrete lifts. Properties including Dulwich Cottage in Ganeshpeth, Belvedere in Goa, Xanadu in Alibaug and Aquila in Khandala all have elevators. "Take the stairs to access the upper level or, if you are feeling lazy, hop into the elevator that will take you up," states the Aquila website. . . . Editor

# Holiday "Snacking"

More than 420 respondents, of which 75.7% had taken a break in the past three months, took a short domestic holiday within six months of the survey. Over time, the travel industry is pivoting to cater to short-term vacationing. From villa rentals to hotels, the industry is understanding the need of the hour: convenience. Consumers are opting for shorter options that allow them to break from their routines and return effectively. It is no wonder that all 320 who took a domestic holiday less than three months ago selected a destination that was no more than 5 hr or one direct flight away from their city of residence.





Dulwich Cottage in Ganeshpeth is served by an elevator; photo courtesy of SaffronStays.

# "Do-Nothing" Vacations

The traditional concept of hosting magicians or ornithologists, or setting up an activity center for kids, is passé. Of the 582 respondents, no more than 33% of individuals, across all age groups, tagged onsite activities as a factor that determined their vacation accommodations. In fact, travelers now look at indulging in "do-nothing" vacations that lack a checklist of items to do or see. Rather, our guests often ask us for things to do around the house.

# Six Factors That Will Determine Holiday Patterns in 2020

- 1) Holidays with shorter getaways makes proximity a key criterion for choosing a holiday. Three factors rule a real estate project: Location, location, location. The hospitality industry mimics the real estate industry, with proximity of accommodation the most important factor determining travel trends. With a 77.66% majority, 452 respondents across all age groups believe this factor was pivotal in choosing their stay. Among respondents, 62% had gone for a quick getaway in the previous three months.
- 2) Amenities and great service are no longer "good to have"; they are a given. The hospitality industry can no longer emphasize great service. Good amenities and service are considered basic needs. One in two respondents tagged service as a necessity, proving that a lapse in customer satisfaction can cost a brand dearly. Western India follows a do-it-yourself trend, where guests are open to the idea of fending for themselves – cooking, cleaning, exploring. However, in the east, Indians prefer a do-it-for-me model of

- vacationing in which they can break away from the routine of taking care of themselves and are, instead, pampered by professionals.
- 3) Privacy is the new luxury. Two in five respondents said privacy was an important consideration for their holiday. Interestingly, this ratio changes to one in two for the 25-34 age bracket. The definition of luxury is not gold-plated crockery and Italian-marble bathrooms. It is privacy. These "little emperors" have grown up with the notion of space and individualism, and do not want to compromise that, especially while on holiday. While the general stereotype that individuals in the 18-24 age bracket prefer "squeezing and squatting," 43.82% of respondents in this age group prefer privacy.
- 4) Affordable luxury is on the rise. Consumers in the 25-34 age group are the most difficult to please. They have a list of must-haves for their holiday accommodations. They are extremely budget-conscious, even as they demand a touch of luxury. One in two respondents selected need for luxury and budget-friendly options as factors. Hospitality players worldwide are now marketing the concept of "affordable luxury" to this section.

Continued

From villa rentals to hotels, the industry is understanding the need of the hour: convenience.

# The definition of luxury is not gold-plated crockery and Italian-marble bathrooms. It is privacy.

- 5) People want water. Regardless of location and lodging, a requirement that stood out was water, with 87.8% resonance among respondents. With a 70.62% majority, 411 of 582 selected a pool as a requirement of their vacation accommodations, with 74.66% between the ages of 18 and 44 voting for this amenity. While the demand for a pool is inversely proportional to respondents' age, demand for a beach is directly proportional to their age. Only 38.66% respondents younger than 24 prefer beaches, but one in two individuals older than 35 prefer a beach vacation. More than 48% of respondents selected a waterfront as a must-have amenity, reiterating that a holiday is incomplete without the presence of water.
- 6) Vegetarian/Jain meals are in high demand. Consumers on holiday are unwilling to compromise on food. An interesting insight of the survey was that respondents, mostly who resided in Mumbai and Pune, said they needed vegetarian and/or Jain meals. One in three said failure to provide such meals would be a dealbreaker. However, data clearly shows the older generation is more conscious of its vegetarian food habits compared with those younger than 35.

# **Disconnecting to Connect**

Disconnecting from the world is a privilege few can afford: 56% of respondents admitted to spending more than 4 hr a day on their phones, while 444 individuals were likely to use their phones while spending time with their families. Surprisingly, three of four individuals also said they wanted to disconnect from their phones and go on holiday without Wi-Fi. While reports claim millennials are suffering from nomophobia fear of being without a mobile device - 250 of the 323 respondents younger than 34 voted for a getaway away from their phones. Thirty-seven percent of respondents said they would choose a vacation because a company offers various options for guests to break away from the world.

### Private Villas a Hit

There is a clear link between travel groups and the type of accommodation they choose. While 285 respondents are more likely to stay in a boutique hotel or hotel chain when they travel with family, 44.33% would choose alternate accommodations. With a 60% majority, private villas, homestays and hostels were a clear winner for groups of friends. In addition, one in five corporate offsite gatherings were held in

The rising demand for private villas is apparent, with Indian hospitality brands launching private villa rental divisions.

alternate accommodations across the country. The rising demand for private villas is apparent, with Indian hospitality brands launching private villa rental divisions.

There are 128,000 rooms in the Indian hotel industry today, with 60,000 rooms in the luxury/premium sector. The premium homestay market consists of no more than 40,000 rooms across India. With a rising demand for private villas, this relatively sparse supply will lead to an imbalance. Hotel chains build "vanilla" inventory in far-flung locations, then set up activity centers and customer engagement programs around them. Demand, however, is for closer, private homes where guests can bond in the comfort of their own living rooms, instead of in a hotel room or lobby.

# How People Decide

While social-media outlets provide information, vacation decisions are highly influenced by family and friends. Word-ofmouth ranked highest in determining a vacation destination. More than 74% of respondents were guided by friends' recommendations, while 26.1% tagged family. Surprisingly, only 61.4% respondents turned to social media for ideas and recommendations, and an even lower 22.1% named influencers as one of their sources.

The rise of Instagram influencers, especially in the travel and lifestyle space, has sent brands' marketing teams into a tizzy. While a large part of brand awareness is driven by social-media influencers, decision and action are driven by the influence of friends and peers. Family members and friends have nothing to gain if they recommend a holiday destination or accommodation. In fact, they put their credibility on the line when they suggest something as personal and consuming as a holiday. Influencers, however, have nothing to lose by sharing a post or story about their vacations.

SaffronStays, headquartered in Mumbai, is the brainchild of Tejas Parulekar, a chartered accountant with several years of experience in the banking industry. With her husband, Devendra Parulekar, senior partner and cybersecurity practice leader at Ernst & Young as its investor and mentor, SaffronStays was launched by the pair to "create a new market by offering families luxury, heritage and culturally rich homes as vacation destinations."





# People Who Walk Together, Talk Together

Forcefully provided and aesthetically and multifunctionally neglected spaces can be designed as the living, breathing arteries and veins of the building.

by Ar. Pooja S.S. Dawalkar

Today, every square centimeter of space has been accounted for and justified, and although lots of money has been used in various cosmetic treatments of buildings, there is a constant struggle on architects' desks to fit the various spatial requirements in the given area. One of the areas that ends up being most compromised and seen mainly through the lenses of mandatory rules and regulations are the lobbies, staircases, lifts and corridors.

As a designer, I wonder, can there be any other way of approaching the design? Often, forcefully provided and aesthetically and multifunctionally neglected spaces can be designed as the living, breathing arteries and veins of the building.

The places of the phone, camera, watch, alarm clock, radio, TV, personal computer, passbook, ATM card and newspaper have been taken over by the smartphone, which does not take extra space and yet performs the work of more than 10 devices.

Can an attempt be made to apply a similar school of design to our vertical and horizontal transportation systems in our office buildings? Let's start by identifying various spaces required in an office building, starting with an entrance porch, security check, entrance lobby, waiting areas, lift lobby, lifts, staircases, corridors leading to various offices, refuge areas, offices and space for utilities and services. Almost all the transportation areas are used as transition areas and are mostly utilized only during peak hours. Research suggests people waste an average of 15 min a day just waiting for lifts during peak hours. At other times, these areas are relatively empty.

A person coming to the office would often need to carry big bags and loads of paperwork, but, thanks to advancement in the IT industry, most employees walk into the office almost emptyhanded. The place of the smartphone has already been taken by the smartwatch. In the future, it is very possible that all the performances of the wallet could be sufficed through a simple unique code.

One of the biggest worries of office people is the lack of physical exercise and ill effects of it on the body; mind; emotions; and, invariably, work performance. The office administrators and human-resources managers are doing their best to team up with designers to create more and more breakout spaces and gymnasiums for their employees. Most employees are struggling to fit time for a brisk walk or jog into busy schedules that revolve around dealing with the rush of peak hours.

As designers, can we consider designing the vertical and horizontal transportation system into an office building, similar to a spine running through the body, acting as a highway to carry nerves that connect the various parts of the body and enable its smooth functioning? Can the design of the building start with design of the horizontal and vertical means of transportation, merged together as a seamless path running throughout the building connecting various spaces and opening in various breakout zones?

The employees who wish to have a good walk or run before or after office hours can arrive at the office before rush hour dressed in their exercise gear and use these pathways for a brisk walk or good run. Most offices today are equipped with showers and locker rooms. Employees can freshen up, have their breakfast in the pantry and be ready to begin their work well before starting time.

Conventional modes of vertical transportation in smaller numbers can be provided to cater to those who want to have a quick way to move around the building. These pathways can be designed as a continuous walking and/or jogging track with ergonomically designed gradients and horizontals with varying levels of difficult terrain based on input from doctors and physical trainers. The easier level can be created by smart and unique use of moving walks and escalators at strategic locations. This can enable those looking for lighter exercise to choose between a harder path or the ease of mechanical transportation in bits and parts. The flooring of these pathways shall have to be divided and designed to accommodate the needs of the runners and those wearing office shoes. If this pathway is well designed, employees might choose to use it for commuting, even during office hours, thereby encouraging the culture of walking for all. Also, when people walk together, they might tend to talk more to each other, instead of moving around in silos. This can bring about a health culture of physical and emotional wellbeing among employees.



Ar. Pooja S.S. Dawalkar is a sustainability and technology management consultant with 15 years' experience and expertise in enhancing business efficiency, optimizing organizational capabilities through training programs and workshops, developing white papers and improving synergy among teams in startup, turnaround and mature environments. She is a core team member for creating the development control rules for the Maharashtra state government's industrial corridor.

# **ELEVATOR WORLD'S 2020**

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For more details, rules and to submit your photos, visit: elevatorworld.com/photocontest

by Vijay Pandya

**ELEVATOR WORLD India and Virgo** Communications held the first in a planned series of webinars on aspects impacting the vertical-transportation (VT) industry on April 28. The theme, "COVID-19 Impact - Challenges Faced by the Elevator Industry and the Way Forward," saw more than 1,000 people tuning in to an impressive panel of industry leaders who shared insights based on their experience and expertise.

With India witnessing an extended nationwide lockdown due to the COVID-19 crisis, the organizers extended support to the elevator industry by creating new, dedicated communication channels through webinars and relevant content. The panel comprised Sebi Joseph, president, Otis India; Amit Gossain, managing director, KONE India; Shakir Ahmed, deputy managing director, Fujitec India Pvt. Ltd.; Yohan K. John, director, Johnson Lifts Pvt. Ltd. and Syed Farhan Javed, vice president, Toshiba Johnson Elevators (India) Pvt Ltd.

With about 1,800 registrations and more than 1,000 attendees from 29 countries including Australia, Bahrain, Bangladesh, Belgium, Canada, China, Colombia, France, Germany, Greece, India, Israel, Italy, Japan, Malaysia, the Netherlands, Nigeria, the Philippines, Qatar, Saudi Arabia, Singapore, South Africa, Spain, Sri Lanka, Trinidad and Tobago, the U.A.E., the U.K. and the U.S., the pioneering initiative had a triumphant debut.

Anitha Raghunath, publisher of EW India and director of Virgo Communications and Exhibitions Pvt. Ltd., hosted and co-moderated the webinar with Krishna Kumar "KK" Ravi, president and CEO, PVN Associates Private Ltd., an Indian elevator consultancy. Raghunath emphasized:

"The objective is to reach out to all stakeholders and encourage the industry to come together, discuss, debate and combine forces to

identify the best, most feasible solutions to restore the growth of this sector. At the same time, we will also strive to keep up the morale of our people and move ahead with a positive mind."

Extending a warm welcome, panel members and attendees from across the globe to the first-ever webinar dedicated exclusively to the elevator and escalator industry of India, Raghunath pointed out that the pandemic has transformed our world over the last few months. Going forward, it is envisaged that this will forever have a huge impact on the way we inhabit and interact with people and spaces. She continued:

"Businesses across sectors are coming to terms with this reality and rapidly adapting to the changing needs to even stay afloat amidst financial and operational challenges. The elevator industry is no different and has its own share of difficulties and uncertainties. Though the concept of social distancing is here to stay, it is difficult for this industry and its products to really observe the norms of social distancing to a large extent. And, some of the key challenges faced by this sector, such as inventory in hand, lack of manpower availability at construction sites post-lockdown, anticipated drop in maintenance revenues and uncertainty regarding

# Webinar for the Elevator & Escalator Industry, India

The all-important theme of "COVID-19 Impact Challenges Faced by the Elevator Industry and the Way Forward" drew more than 1,000 attendees.

It's affected every industry: with this lockdown, things have effectively been closed for 10% of the year.

- Yohan K. John, director, Johnson Lifts Pvt. Ltd.



future business, need to be acknowledged and addressed at a macro level with the VT industry displaying a united front."

Ravi got the proceedings started by posing the muchawaited question, "How has COVID-19 impacted the elevator industry in India?" Joseph said:

"We are in a very challenging time facing an unprecedented crisis. Construction sites are closed; our technicians are attending to emergency breakdown calls. Working from home has been a positive aspect. I found myself speaking to more people in the field and within the organization during the lockdown than before. There is a greater focus on the safety aspect. Maybe in coming days, the COVID-19 situation will hasten digitalization. With what the nation is trying to do in terms of following social-distancing norms while staying at home, it will enable togetherness."

"It's affected every industry: with this lockdown, things have effectively been closed for 10% of the year. The elevator industry has so many people working; there are high salaries to be paid, branch offices to be maintained, so [there are] high fixed costs. We are managing customer requests for breakdown situations. Safety has become a priority. We've been thrown a googly that none of us saw coming. Working from home does speed up the process, as one is available online."

Commenting on the demands faced from customers, Gossain emphasized:

Iohn concurred:

"Customers are priority. It is very important that they keep going. At KONE, we say our technicians are our superheroes. Elevators and escalators fall under the 'emergency' category, not 'essentials.' Due to the lockdown, it was necessary for us to get passes for them. Technicians are aware of safety aspects, ensuring safety of the customer and themselves. They have to ensure hospitals and high-rise buildings are taken care of. Customers understand that technicians also need passes. We have ensured personal protective equipment (PPE) [is] there, [and] passes are there [as we have been] working closely with [the] government."

Describing the process of managing breakdowns during the crisis, Ahmed shared:

"We get daily reports from our trained teams. We talk to customers, and they also understand the situation. If it is an urgent need, our teams are also working for these customers. Hygiene norms are followed while handling the work; high-rise buildings are in dire requirement of lifts. Permissions [are] being sought from the government. We manage to get these things worked out. Service people have done a commendable job. We have avoided major repairs [and are] only [making] priority calls and call-backs."

In a similar vein, Javed confirmed:

"Like everybody else, we also have an emergency response team in place. The suit that the service team is using – I would want to ask the industry leaders how we can dispose of these plastic suits. Everyone wants to go touchless where elevators are concerned; we are examining options. Basic sanitization is being done, as well. I also thank Joseph for getting elevators included in emergency services."

Gossain drew attention to the fact that:

The next challenge is to keep migrant labor engaged. Sooner or later, they will come back, because they also need employment. The question is how we can give them comfort and confidence.

# - Sebi Joseph, president, Otis India

"We had safety gear for construction sites but not for COVID-19. We trained our technical teams virtually. Initially, they were worried, but they realized that maintaining safety is important. They wore the PPE. If they are safe, then customers are safe. Virtual training sessions were conducted, [and] guidelines were sent to them and their families. We followed very stringent guidelines. Every day management gets a report on how they are doing. Due to the lockdown. Seventy percent of our staff [is] working from home. We explained everything to them, providing e-learning through the internet. Now, they have become used to it. Meetings have increased. They save time, as there is no need to come to the office; they are able to utilize time effectively at work and with their families. We ensured that they take care of customers, as [that] takes care of society."

Regarding the support expected from the government and real estate bodies, Joseph said:

"VT has to be made an essential service. It is a state subject. We got some relaxation based on [the] 'emergency services' category. [The] government should support with... adjustments. The construction industry provides 8% of India's gross domestic product (GDP) and provides substantial employment, as well, so I am confident that the government will provide some stimulus for developers."

Gossain concurred:

"The government should make elevators and escalators essential services. There is an air of uncertainty; there may be a

Continued



(I-r, top row) Raghunath, Krishna Kumar, Yohan K. John, (I-r, middle row) Amit Gossain, Farhan Javed, Sebi Joseph and (bottom) Shakir Ahmed



partial lockdown in certain areas. The government is doing a lot for financing of real estate; it needs to do the same for the elevator industry. Norms should be very clear for social distancing at construction sites, not just offices. [The] government can play a role in funding and financing developers. Ultimately, people want to buy homes, so it needs to ensure liquidity and funding to make that happen."

Elaborating on the challenges faced with a work-from-home situation becoming the norm going forward and the possibility of reducing infrastructure, John said:

"In the commercial segment, there will be smaller requirements. At the same time, companies will be required to keep greater space distances between people. So, the space requirements could still be high per the rules that the government has come out with. Rents are going to be affected. Real estate is a huge percentage of the GDP of India. Even though [the] elevator [industry] is a small segment, it is part of that."

### Ahmed opined:

"The economic damage caused by COVID-19 is more than that caused by the 2008 crisis. None of the economic crises before this had such an impact. Everybody is coming up with their own ideas [about] how markets will pan out after the situation is [under] control. TATA Consultancy Services Ltd. has announced [that,] over the next five years, 75% of [its] employees will be working from home. Such statements are really going to bring down office demand. This is going to be the new normal; we need to get ready to accept more challenges ahead, like reduction in demand in office buildings. People may want to stay in independent houses, instead of apartments. A lot of changes can be expected. Though we had certain segments working from home earlier, now, there are ways we can use 'work from home' for the elevator industry, also. There is going to be a lot of change in demand. The question is how the government will support the real estate sector."

Javed felt, "Space requirements for commercial spaces will be affected by social distancing and work from home; this will have to be managed by designing them differently."

Responding to Raghunath's question of whether India would have an advantage for becoming an alternative manufacturing hub, not just for domestic consumption, but also for exports, Joseph said that it is an opportunity for India to grow as a

It's not a choice; you will have to adopt technology. Health is going to be given priority, which was not the case earlier. People will have to be forthcoming, not because it's a luxury, but [because] it's a utility — the need of the hour.

# Syed Farhan Javed, vice president, Toshiba Johnson Elevators (India) Pvt Ltd.

manufacturing hub. The "Make in India" concept will get initial thrust and momentum. According to John:

"Right now, China is the manufacturing hub; everyone is trying to be self-sufficient, and India has the capacity for it. The supply chain is where India needs to make efforts; then, there will be scope. We will be pushing our suppliers to 'Make in India'; we have been doing this even before the COVID-19 situation."

### Ahmed opined:

"With all this gloom around, it is a great opportunity for India. Many companies [could] be looking for strategic alternate bases and becoming self-sufficient at the same time. This definitely could bring in new business to India."

Javed underlined:

"India has enough potential to become a worldwide manufacturing hub. I don't see any reason why India should not. At the same time, we need the government to provide more incentives. This should be taken as an opportunity to accelerate the 'Make in India' plans. Those already manufacturing in India should try to increase it."

Affirming that things are going to change as we go forward, Ravi asked about the proactive measures being envisaged. Joseph responded:

"There will be a ripple, but I am optimistic. Construction will be supported by the government by stimulus; hygiene and social distancing are dominant [for customers] who want hands-free operation. How do we reduce physical contact in an elevator? It's the most crowded place! How do we manage the social distancing challenge? We may have to effectively come [up] with solutions. Digitization is going to be the way forward. These are the things that will happen and [what] elevator companies will be doing for customers."

Commenting on a possible shift in elevator capacities, John said:

"I have three developers asking if they should have separate lobbies to reduce crowds; my answer was to increase the number of lifts. Work with us on the design front. There is a new lift etiquette; people will find ways to avoid touching. There shouldn't be crowding. Entry times of people can be spread across. People are brainstorming. Over the long term, different things are going to evolve."

[aved pointed out:

"The repercussions of social distancing in elevators will be extra waiting time. Every builder is going to be trying to save an extra buck; will they want to add elevators? Then, their maintenance also comes into the picture."

Ahmed brought up the problems of migrant labor during the lockdown:

"Once the lockdown [eases], these people [will] rush back to their families and spend time with them. Lockdown [will] have caused a lot of psychological issues. Workforce is definitely going to be affected. It's going to be a major challenge for all of us. Post COVID-19, there are a lot of guidelines for opening industries. We need to think of 'work from home.' Those who can manage this change fast will grow faster."

Joseph concurred:

"There are many challenges, and finding solutions is not easy. We are doing continuous interaction with customers, working in construction sites. We have been constantly engaging with Otis technicians. We started an employee welfare program, providing psychological guidance. The next challenge is to keep migrant labor engaged. Sooner or later, they will come back, because they also need employment. The question is how we can give them comfort and confidence."

John shared:

"As far as our factories are concerned, we found most of the labor is within the same area. Subcontractors may face problems as the labor returns home at this time of the year. We won't have problems at the manufacturing level, maybe for positions like truck drivers and so on. We are waiting to see what happens, to see how we are going to handle this."

On strategies for handling sites and communication with the workforce, Javed explained:

"What we are trying to do is have as minimum travel as possible for our people. If someone is close to Bangalore but [had been] working from Mumbai, now we make him work at Bangalore. Manpower is going to be a challenge. We are still assessing the degree of damage this virus has caused. We keep learning and identifying; it's a process."

Ravi then asked that, while technology is going to play a major role, will it be adopted by clients? Javed said:

"It's not a choice; you will have to adopt technology. Health is going to be given priority, which was not the case earlier.

People will have to be forthcoming, not because it's a luxury, but [because] it's a utility – the need of the hour."

Ahmed opined:

"We have got to find ways to live; there is lots of panic.

Definitely, customers will follow strict norms and guidelines.

Meanwhile, the real estate industry should evolve. In elevators, a person is hardly provided or allocated 1 ft². We need specialized systems and mechanisms. With respect to working from home and social distancing, people will start preparing for it. We need to add these guidelines in the company handbooks. Technology will definitely be used."

Given that the elevator industry is slow to adopt new technology, what is likely to happen in this scenario? Responding to this question, Joseph emphasized:

"We will be forced to. This will accelerate the momentum. Technology will play a pivotal role. We will all adapt. It will be



Anitha Raghunath and G. Raghu of Virgo Communications

a challenge, but we will adapt. We may have to come up with smart innovations. We will evolve. This time, perhaps we will hasten it."

### John shared:

"As far as dealing with customers and within an organization, we are meeting more often. Customers like real estate developers will be able to shift to digitization. A lot of handholding will be required for those who want just one elevator for their house. The product is more or less standardized."

On being asked when the industry is going to bounce back, Ahmed said:

"My personal opinion is that India has its own demand, so it will kick in far sooner than other global economies. Maybe next year by the first or second quarter. It could happen sooner than that, also. Certain things have to change and to normalize. If a vaccine comes up by [the beginning of] next year, we should be running."

Joseph shared, "My optimism comes from the construction industry as a sector. The government will do something to provide a stimulus. It needs to invest in infrastructure, so the show will go on."

### Iaved opined:

"The vaccine is the key. Once the cure is in place, people will move. If India is the first to develop a vaccine, it will be a huge economic boom. We will be able to export it, also; [it] will change the game. For everyone to come back to normal with social distancing [and] sanitization, it will take at least a year. We have to be positive; Indians are born crisis managers; we will bounce back strongly."

### John concurred:

"The vaccine is when normalcy will resume. People will continue to follow social distancing. You can't keep waiting for a magical cure. People need to go back to work; in three months, there's going to be a new normal."

Joseph emphasized that "this too shall pass. We should calm ourselves, instead of calming the storm."

The webinar concluded with Raghunath announcing that more such sessions have been envisaged on themes including maintenance, sales and marketing based on industry feedback. "We should come back again with better solutions," she emphasized, signing off.

# Villa Life

Multilevel with an elevator is the trendy new way to go.

by Sheetal Shelar Patil

The New Dawn Sunlit Row Villas at Gattahalli Road in Hobli Sarjapur, Bangalore, comprises 84 exclusive four-bedroom villas, each configured with a ground floor, two upper floors and a terrace, all within 45 acres with tree-lined, landscaped driveways. The project offers a new concept of home beyond four walls with an open plan that gives occupants their space, while leaving the door open to enhanced community living. Kiran V, managing partner of project developer Bricks & Milestones, says New Dawn Sunlit Row Villas was designed as a place where kids have the freedom to explore without leaving and where minimal design meets maximum comfort: a flexible, modern living space for the joys of living in nature, away from the bustle of the city but still close to everything a family needs.

# Lifestyle Amenities

A streetscape enhanced with evergreen foliage and comfortable seating areas complement a park that functions as a social grove made for large gatherings or a contemplative stroll through nature. The climate-responsive landscape adapts to the seasons and is incorporated with plants known to purify the air and improve oxygenation. This low-water landscape attracts beneficial and beautiful insects and birds. A play area for kids is complete with slides and roundabouts. Other facilities include a convenience store, a clubhouse, private

elevators, 24-hour security, a swimming pool, indoor games and gardens.

# **Vertical Transportation**

There are private, hydraulic elevators with four-passenger capacity inside each villa. The elevator aspects were considered while designing the project by New Dawn Villa's pomoters. Through Ascent Elevators and Escalators Pvt. Ltd., they selected Moris Italia components to fulfill their vision of an uncomplicated design.

The order was for Ascent Elevators and Escalators Pvt Ltd, Bangalore to supply, install and maintain the elevators for 80 villas and the clubhouse. The indirect-acting hydraulic elevators' pistons, power packs, rupture valves, hosepipes, car frames and buffers are from Moris Italia SpA. and guide rails are from Monteferro.

Ascent of southern India installs and maintains more than 5,000 elevators, including about 400 luxury villa elevators with components from Moris Italia and Monteferro. The company has built an elevator for individual bungalows up to India's first living-room elevator and has a solid service base and installation team. It found a consistent supplier for safe and reliable products for its home-elevator segment in 2010 when it had an opportunity to try products from Moris Italia and Monteferro in a high-profile customer's project. Based on their

> experience with product performance, ease of operation and service support, Ascent highlighted them as its global technology partners.

The demand in the luxury homes segment has surpassed the expectations of many, and much of this can be attributed to the fact that people's expectations have evolved. People are ready to buy a luxurious property, so long as they get all the amenities they desire. This list of amenities has grown exponentially over the years, mainly due to what people see on social media. Also, more people have now been to foreign



The New Dawn Sunlit Row Villas in Bangalore bring a new sense of style to multilevel living, a trend epitomized by the rising popularity of elevators in low-rise developments.



The demand for luxury has surpassed expectations of many, and these new demands are being met by developers of multifloor villas like New Dawn Sunlit Row. Those demands, more and more, include home elevators.



Lifts are featured in all the villas.

countries and are aware of the amenities they can have in their homes. Private elevators are becoming an integral part of villas. That they have a minimal, uncomplicated design that simplifies maintenance is the order of the day.

### **Technology Benefits**

The advantages of hydraulic lifts are that they occupy almost 10% less area for their lift shafts. They are also highly effective with heavy loads, and there is no need for an overhead machine room. The overhead structural requirements are not needed, as the load of the elevator is distributed to one shaft wall and the shaft bottom. They offer low noise levels, and the machine room can be located within 6 m of the elevator shaft.

The hydraulic elevator can also be provided without a machine room, with the drive situated in the elevator pit. It has a minimal number of parts, which improves durability. There are savings in the cost of power cables for the equipment, and these systems offer customized solutions for installation in smaller shafts that cannot accommodate traction systems.

Types of hydraulic lifts are direct acting, indirect acting and lateral acting. Depending on the project, a typical product is recommended. The elevators are customized with car interiors provided with designer cabins — complete glass cabins that blend with the project interiors. Similarly, the elevators' doors are also customized, with complete glass doors without frames, glass doors with frames and customized designer doors for special projects based on the architect's recommendations.

### Segment Scope

There is a constant rise in demand for home lifts in private villas, holiday homes and resorts. The home lift is no longer simply for senior citizens and the rich and famous, but for the whole community. Ascent has analyzed home-elevator requirements and technical specifications. Its study brought out the important point that, with growing awareness of the home-elevator segment, people are increasingly seeing it as a practical addition to their homes. Lifestyle changes have resulted in many homeowners turning to home lifts for the increased convenience. Home elevators are user-friendly accessibility equipment for physically challenged individuals and aged parents. The elevators can also used to carry home essentials without fretting about climbing the stairs.

A home elevator will increase the value of the property. Prospective homebuyers are attracted to a property provided with an elevator, because it enhances security; safety; sophistication; and, above all, customization. It reflects the taste of every homeowner and brings a new dimension to the home interior. While they used to be a symbol of luxury, with innovative technology and optimized pricing, combined with ease of use and space-saving design (elevators can be installed in space that is unused, like the area between staircases), demand has also increased for retrofits during home upgrades.



# Fermator Expands in India

P. Abey George (PAG), general manager, Tecno Doors Pvt. Ltd., Fermator, converses with your author (SSP) on recent developments and their implications at the IEE Expo.

The problem is that

elevator — neither the

purchaser, nor the user.

nobody owns the

by Sheetal Shelar Patil

SSP: What are the recent India-specific developments at Fermator?



**PAG:** In terms of new things, we have a new plant coming up in Ahmedabad, and we want to be focused regionally. By only running our plant in Chennai, we might run out of capacity in one year. Productwise, we have many variants that are new to the Indian market, like underdriven operators and different finishes we are now able to give. The product strategy has been changed in the sense that now it is

more local, for Indian needs, as both product design and development are now done in India with, of course, corporation support. With this exhibition (International Elevator and Escalator [IEE] Expo, p. 38), we are expecting that more people will come to the factory. And, once we have them in the factory, we are sure that they will be impressed, and we can convert them into customers.

We are here for the long term, because we are now going to have another factory and, maybe five years down the line, another one. And, we expect the market to grow. We have grown a lot, and we have grown more than what the elevator market is growing; we are getting customers and volumes.

**SSP:** What are the expectations for the new plant?

PAG: At the current plant, we will run out of capacity in the next one to one-and-a-half years. As a policy, we do not load the plant above 80%, and on-time delivery is important. So, the new

plant will have to pitch in when we are in the next phase of growth. We are growing at 20-23%. Given the competitive nature of the industry, we must be locally present. Ten years back, that meant India; now, it means parts of India. So, this plant is there for north and west India.

SSP: How has the market for elevators in India been changing?

**PAG:** One of the things we think the market is doing is that now people sell elevators on a cost basis. So, it's only a price market, and everyone wants a cheaper product. But, there will be a time when the strategy will change. If there is a drop in prices and rising volumes, anyone will do that. But, there will come a time when it's rock bottom. From there, we will look at quality and safety. There are many manufacturers who are not concerned about safety. As an industry, this has to change.

With lots of policy changes coming and elevator accidents becoming frontpage news and customers becoming demanding, there is a limit to which features we can offer free of cost. Now, when a customer wants a new feature, we allow it to go free of cost because of competition. But that has to stop. And, as the industry matures, that will stop, for sure. And, at that time, the multinationals will have an advantage.

**SSP:** How is Fermator positioned to deal with the new norms in the Real Estate (Regulation and Development) Act, 2016 (RERA) era?

**PAG:** The strategy we used when we came in was not to offer what is required in the market, but to always keep it higher than that. Some of the features are there by default. For example, fire rating was there for almost all our doors, except some glass doors. As a policy, these features are normal. And, for us to make that feature is not so expensive, because it's a habit. Any door made here is fire rated. Even if the customer says they don't want fire rating, we still give it. If you don't want it, we just don't give the certificate, but the door is still fire rated. So, these things have become more and more important.

Plus, high rises have started to come up. In a city like Mumbai, there is no other direction to go. Because of that, our product, which is for the high rise as well, will have a good scope. We stand a better chance, because it is certified, we don't have to do anything different and we have experience in handling these kinds of projects. So, these are the things that will hold us in good stead in the long run. We are also prepared

> for the new norms coming in. We are not panicking, as we knew they were coming, and we were already prepared five years back.

SSP: Why and how should safety aspects be made a priority among elevator buyers and users?

PAG: Elevators are dangerous. If you don't handle them well, they will fail. The problem is that nobody owns the elevator – neither the purchaser, nor the user. It is not like a car or a bike - nobody says they own it. So, that is the problem. The builders also buy the cheapest, hand it over and walk away. Any elevator will run for one year. After that, it starts creating problems. Then, it is handled by the societies that have no knowledge or clue about how it works.

Another way the industry must mature is from being only price conscious to focusing on safety and other features. For example, in the car industry, there was a time when air-

### If the elevator has an accident, a designer finish won't save you.

conditioning was an option, but now, it's a comfort feature, and even airbags are compulsory. Such things will also happen to the elevator industry. At least, on safety, it should happen.

SSP: How do you see the elevator industry in India shaping up going forward?

PAG: In our opinion, the industry will grow at about 7-8%, and the big four or five will continue. There will be a shakeout due to the new norms and rules. Those who are good and those who are conversant with the safety norms will survive. Safety is not a fancy feature, so we must get to that first before we get to the mirrors, glasses and designer finishes. If the elevator has an accident, a designer finish won't save you.

# RERA and the Goods & Services Tax are a step in the right direction. These are the initial pangs: we are not used to it, so we get confused.

So, basic-level stuff that many manufacturers are doing is required, but I hear that nobody is willing to pay. There will be a time when it must be paid. Safety doesn't come free; nothing comes free. So, taking care of safety is a step in the right direction. Smaller companies use aesthetics to sell, but you can only sell one or two elevators on aesthetics.

SSP: What are the future plans and prospects for Fermator in India?

**PAG:** We expect to grow in India comparatively more than the market. We will focus more on markets of tier-2 and -3 cities. Of course, the big cities are also growing. Even the public-transportation industry is growing, and this is needed. We should also look at the South Asian Association for Regional Cooperation countries. As a brand, we have been here for 40 years. We have also been acquiring companies, but not under the Fermator brand.

RERA and the Goods & Services Tax are a step in the right direction. These are the initial pangs: we are not used to it, so we get confused. But, these don't make a difference to us. We don't believe in circumventing taxes.

The coronavirus outbreak is, in fact, an advantage to the Indian market. But, then, our supply chain will get affected in about two months. So that gives us a push to start localizing. We are much better than China in some products, but culturally, we cannot work like the Chinese. We cannot build a road through somebody's house. Some may say it's a weakness of the country, but I say it is good for human rights. We cannot destroy someone's house just because we want to produce more elevators.

Fermator India is independent in its operations. In terms of volume, we are the second-largest. So, the challenges are that we are running out of capacity. We are taking care of it, but we still have a long way to go.



# **Looking Up**

Murtuza Lakdawala (ML), head of construction & design, Goodwill Developers, speaks with your author (SSP) about the significance of VT in his projects.

by Sheetal Shelar Patil

SSP: What is the significance of elevators in your company's projects? Are they considered a lifestyle amenity?

ML: Today, elevators are considered a lifestyle amenity. This is seen in most of our recent projects. In our earlier projects, we built four- to seven-story buildings in which elevators were considered a luxury. Recent ones, like Goodwill Unity and Goodwill Pride, have 20 and 13 floors, respectively. These taller buildings have made elevators a requisite amenity. They are no longer a luxury, but a necessity.

SSP: Do you see buildings getting even taller in the near future? How would this impact decisions about elevator selection?

ML: Since land is scarce, most developers are increasingly going vertical, and efficient vertical mobility is a critical component of tall-building development and construction. Keeping that in mind, better elevators with innovative technology and design are being manufactured in India and abroad. All our projects have high-end products - including elevators - with advanced features.

SSP: With Real Estate (Regulation and Development) Act, 2016 (RERA) implementation, what do developers now have to keep in mind about elevators in their projects?

ML: With RERA coming into the picture, most developers are making maximum use of elevators, especially in terms of electricity consumption. Electricity is no longer a major factor in installing lifts.

SSP: As Navi Mumbai easily connects to Mumbai and its peripheral areas, what are the prospects for this location in terms of high rises and the need for elevators?

ML: Navi Mumbai boasts an impressive connectivity to Mumbai and Pune and is equipped with an efficient publictransportation system in the form of trains, Navi Mumbai Municipal Transport and Brihanmumbai Electric Supply and Transport buses, cabs and app-based rides. The planned construction of another six-lane bridge, parallel to the existing bridge connecting Mankhurd and Vashi, is also expected to facilitate better transportation and connectivity. The city's well-planned structure guarantees the region doesn't face flooding, sanitation or waste-disposal issues, as every node in Navi Mumbai has its own sewage treatment plant. Another big boost is the upcoming international airport. All these factors make Navi Mumbai a very lucrative investment destination. Because of this, there are numerous high-rise residential and commercial projects in the pipeline in this area. Naturally, there will also be a rise in the demand for elevators, especially as part

of the aftersales service of these projects.

SSP: As most swanky skyscrapers in Navi Mumbai are equipped with ultra-modern amenities like swimming pools, terraces, lounges and cafés, how do you feel about high-speed elevators in this scenario?

ML: Given the rapid growth of high-rise buildings, developers are already quite aware of the need for high-speed elevators. They realize that a technologically up-to-date elevator is as significant as any other modern amenity, be it a terrace pool, lounge, café or Jacuzzi. In our upcoming project, Goodwill Unity, we incorporated high-speed elevators offering swift services. Infrastructure projects like the upcoming Navi Mumbai International Airport and metro and the Mumbai Trans Harbour Link will further increase the scope of elevators and escalators.



Goodwill Unity at night



Lobby at Goodwill Unity

Living room

Poolside at Goodwill Unity

## Goodwill Developers and Leaders



Murtuza A. Lakdawala, head, construction & design, Goodwill Developers, cofounded the company in 1997 with his brothers, who collectively oversee its various operations. While he heads the construction & design department, his brother, Hakim Lakdawala, leads the company as group promoter.

Shabbir Lakdawala heads the marketing & sales department.

The sister concern of the company is Goodwill Enterprises, a logistics firm focused on distribution for Hindustan Unilever. It is led by Hatim A. Lakdawala. With a stable credit rating, Goodwill Developers has completed 18 commercial and residential projects totaling 2 million ft<sup>2</sup> across Vashi, Kharghar, Airoli, Kopar Khairne, Nerul and Panvel in Navi Mumbai. Its most notable projects are Goodwill Excellency, Goodwill Paradise and Goodwill Harmony. Its two ongoing projects are Goodwill Unity and Goodwill Abode in Sanpada and Lonavala, respectively. While the Unity project offers a completely digital residential society comprising two-BHK homes with sundecks and exclusive amenities, the Abode project is a bungalow scheme offering three-, four- and five-BHK bungalows. Each is amidst nature and complete with a fully equipped clubhouse. The company has steadily grown in the Navi Mumbai real estate market and seeks expansion opportunities.

**SSP:** Which aspects set the Goodwill Unity project apart? ML: Goodwill Unity at Sanpada, Navi Mumbai, comprises two residential towers with 136 units and 20 floors. What makes this project stand out is that it is the first digital complex in Navi Mumbai. This grants the residents Wi-Fi in all common areas, including pools, gyms, an amphitheater and more. Surveillance is a high priority, as the complex is outfitted with a security system that grants parents a digital avenue to keep track of their children's presence in the complex. This also helps residents keep track of people visiting their homes from the comfort of their phones, anywhere, anytime. The project offers two-bedroom, hall and kitchen (BHK) homes with sundecks, along with connectivity to the holiday destination Lonavala and the rest of Mumbai. It offers a wide range of amenities, including a fitness center, a semi-Olympic-sized swimming pool, a hot tub, yoga and meditation decks, an amphitheater, a reflexology path and a banquet hall with a party lawn.

SSP: What is the emphasis on vertical transportation (VT) at this project?

ML: Goodwill Unity is served by four elevators. All travel at up to 1.75 m/s. Two have a 13-passenger capacity, and two are stretcher lifts. Additionally, the elevators are positioned so that both wings of the complex are connected to all four. There is a

### INDUSTRY DIALOGUE



The rooftop of Goodwill Unity boasts an array of amenities.

passage linking them. This ensures that at least three elevators can be used at all times, even in an emergency. Elevator buttons and handles are at an accessible height, ensuring the units are convenient for children and senior citizens. Designated supervisors are present in the lift lobby to guide visitors to their desired floors. For extra security, closed-circuit TV footage can be monitored from within one's home.



Day view of Goodwill Unity





# EN-81 & Lift Maintenance Online Training Courses

Elevator World has partnered with Liftinstituut Solutions to bring the industry quality online training courses geared toward the EN-81 standard and lift maintenance. All courses are conducted by Liftinstituut Solutions, one of Europe's leading vertical transportation consultancy organizations. The training sessions take place through the WebEx platform and supplemental visuals such as photos and videos are used by the instructor to help validate understanding of the subject. Participants are always welcomed to ask questions and provide feedback during the sessions.

# **Online Training Courses**

EN 115-1: 2017: This course focuses on new items in the 2017 standard in addition to working principles and requirements for installation, design and safety of escalators and moving walks.

EN 81-20: This course covers main installation and safety requirements used for hydraulic and electric elevators among other important features.

EN 81-70s (70, 71, 72, 73): This course features all of the mentioned standards in detail along with the most updated requirements.

**Lift Maintenance:** This training module provides information on how to perform maintenance on electric, hydraulic and machine room-less lifts.

For more information visit:



# At Home in Noida

The Grand Arista offers luxury, amenities and high-speed lifts.



The Grand Arista in Noida is a luxury residential development comprising 10 towers; rendering courtesy of The Grand Arista.

by Yash Pandya

Vijay Verma, CEO, Sunworld Group, shares insights on The Grand Arista project in Noida and the verticaltransportation-related aspects with your author. . . . Editor

The Grand Arista at Sector 168 in Noida offers 972 flats in 10 towers on a 10-acre corner plot. The floorplan range available to choose from includes studios, three bedroom/hall/kitchen (BHK) plus servant quarters, four BHK plus servant quarters, five BHK plus servant quarters, penthouse, duplex and shops.

Phase 1 comprises towers 1, 2, 3, 4, 6 and 10, while Phase 2 encompasses towers 5, 7, 8 and 9. Partial construction is done and is set to restart this year. The offer of possession of Towers 2, 3, 4 and 10 has started with completion certificates and occupation certificates received. Offer of possession of Towers 1 and 6 were expected to have recently begun.

The studios are 685 ft<sup>2</sup>, with Tower 10 having eight units per floor and six lifts. The three-BHK units are available in 1,955-, 2,185-, 2,230- and 2,275-ft<sup>2</sup> options, with towers 1, 4, 6 and 9 having six units per floor. Tower 9 has four lifts, and 1, 4 and 6 have three each. Four-BHK units are available in 2,740- and 3,590-ft<sup>2</sup> sizes in Towers 2, 3, 7 and 8, with two units per floor and three lifts per building.

The five-BHK units span 4,810 ft<sup>2</sup> each, with two per floor in Tower 5, which has three lifts. Penthouses of 6,230 and 7,530 ft<sup>2</sup> are on the 17th and 18th floors in towers 2 and 3. Duplexes of 4,555, 4,940 and 7,270 ft<sup>2</sup> are on the ground and first floors of Towers 1-9, in nose units only, except tower 5.

The project follows a British Classical Architecture theme designed by Architect Hafeez Contractor and is a luxury



The development uses Toshiba high-speed elevators.

### **CEO Profile**

Vijay Verma, CEO of the Sunworld Group, is an Indian Institute of Management Ahmedabad alumnus with more than 20 years' experience in providing strategic and functional project management services to the private sector, government organizations and leading nonprofit organizations. His specific areas of interest are corporate strategy, leadership, team development, change management, talent acquisition and management, operational research and management, fraud and risk management, project management, revenue management, decision analysis and business systems development. He has carried out numerous consulting assignments in the private sector on cost-saving and resource-use optimization for many companies and drawn turnaround blueprints for their long-term growth.



Vijay Verma is CEO of Sunworld Group, the developer of Grand Arista.

development conceptualized for the high gentry. The Grand Arista is a low-density project with ample open area, a reverseosmosis water treatment plant and membrane bioreactor-based sewage treatment plant.

Lifestyle amenities include a club with a squash court; a gym; a swimming pool; a sauna; a banquet hall; a library; table tennis; billiards; and outdoor game courts for lawn tennis, badminton and basketball. There is also a cricket practice pitch and children's play area.

High-speed Toshiba elevators have been installed in the towers of The Grand Arista, with Towers 1-9 each including a service elevator. Tower 10 has a total of six elevators, with two of these service lifts. The capacity of passenger elevators is 952 kg (14 persons) with a speed of 2.5 m/s. Each service elevator has a capacity of 884 kg. All elevators are fitted with an emergency rescue device system, an alarm button and a fireman switch. The door height is 2.4 m.

# **Great Move Toward Safety**

Consultant lauds The Lift Act 2017 for both its improvements toward public welfare and its boost for business.

The housing societies are run by

the contribution of society

members, who, in most cases

and most of the time, have very

Meeting any unexpected major

repair/replacement expenses for

lifts becomes a great challenge.

limited funds at their disposal.

by Rajnikant Lad

The Maharastra Government's Lift, Escalator and Moving Walk Act 2017 includes two main changes that are very important for users in general and the elevator industry in particular. The first is "the need for third-party insurance requirement," and the second is "specifying the life span of lifts, escalators and moving walks."

At the outset, I welcomed the changes and appreciated the steps taken toward increased safety of users. At the same time, it offers a good opportunity for the elevator industry regarding the spares and components business. It is now for the industry and owners of lifts to ensure these are implemented to meet the desired goal.

Let us understand the reasons why, in my view, the government was led to pursue these two major changes. First, the housing societies are run by the contribution of society members, who, in most cases and most of the time, have very limited funds at their disposal. Meeting any unexpected major repair/replacement expenses for lifts becomes a great challenge. This can be a tough task for even individual owners. The second

reason stems from frequent lift accidents and increased operational problems arising from poor maintenance and failure to replace important parts. In this regard, the act is a great move by the government. Both these reasons can be taken as the driving forces for the government to have incorporated these two important changes.

Chapter IV, sections 23 and 27 of the act bring important changes. First:

"The owner shall, after the completion of the erection of such lift or escalator or moving walk, ensure third-party insurance so as to cover the risk of passengers using such lifts or escalators or moving walks."

Second:

"A lift or escalator or moving walk installed in the premises may be replaced by the owner of the lift or escalator or moving walk after the period of twenty years of its installation or as directed by the Electrical Inspector (Lifts) under section 8."

If you have third-party insurance of your lift, like in the motor vehicle act, then in case of a lift accident, any financial burden that comes to the owner/society can be taken care of by the insurance company. This is a very good move toward financial protection for the lift owner/society.

The first change (regarding setting the life of the equipment at 20 years) is also a good move toward the safety of users. The housing societies, because of financial constraint, often do not take proper care of lift equipment. This may be because of their priorities or careless attitudes. The parts that need to be replaced are not replaced in a timely fashion for the above reason. This leads to reduced reliability of operations and increases safety hazards for users.

With these changes in the law, the owner must have the lift audited thoroughly after 20 years and get it repaired or replaced, based upon the audit report, and have a new license

issued after proper replacement or

Let us study the effect of the same on the Indian elevator industry. At present, per Maharashtra Public Works Department records, the number of lifts older than 20 years, or elevators installed before 2000, is around 14,000. This figure is only for Maharashtra and is according to the Maharashtra Lift Inspectorate site. All 14,000 units are due to be replaced or undergo major repair,

per the new lift rules. Considering the cost of major repairs/ replacements is approximately INR1 million (US\$13,110) per unit, replacement for 14,000 units will work out to be INR14 billion (US\$183 million).

This will be the immediate effect of the new law on the elevator business. It is quite possible that these might result in some redevelopment, demolition or upgrading. The exact figures are not available for study, but even so, there will be a considerable number of lifts available for major repairs or replacement, and that can provide a good boost to the business.

From the records, we can see that the number of elevator installations is increasing year by year. At present, more than 15,000 units are added every year in Maharashtra alone.

With these changes in the law, the owner must have the lift audited thoroughly after 20 years and get it repaired or replaced, based upon the audit report, and have a new license issued after proper replacement or repair.

The same count is expected to increase by around 15% per year. From the available lift population and yearly incremental effect, one can easily work out the expected replacement/major repair business.

The demand for new elevators and major modifications will have a continuous positive effect on the Indian elevator industry. This demand will be in addition to the regular requirement of new projects. Because of funding constraints, most users will prefer major upgrading over complete replacement. Funding will always remain the deciding factor in most cases. The places where the building itself is going for change – such as type of occupancy, increased number of floors or redevelopment – will opt for complete replacement.

To minimize expenses of major repair/replacement, it is advisable to have a lift audit done every year. This will provide a proper assessment of the condition of the lift's major parts and its life expectancy, which will help in working out priorities based on the condition of the parts and availability of funds. Timely parts replacement will save one from the sudden demand of major expenses brought by the need for complete replacement or major repair.

The best way to implement both rules is as follows. First, the elevator company must get insurance coverage, along with the service contract, for the lifts and make sure these are always renewed. It will be better if the insurance company comes forward and ties up with the elevator companies when getting the lifts insured. This will provide them good business with less effort.

For major repair/replacement of lifts after 20 years, it is advisable for the building society to have a provision in its monthly collection under the heading "lift repair." The same amount can be kept separate, like the sinking fund, and can be used only when needed for lift work. Alternatively, the society can make changes in their bylaws, considering this new lift rule requirement. This will allow them to use the sinking fund for such lift work. This will make the society's job easy, and it will have required funds whenever required. The ultimate result will be increased safety and reliability for users, which is the ultimate aim of these changes.

This presents a great opportunity for the elevator industry. Industry people need to come out with an intensive awareness campaign that focuses on saving users' lives. This powerful message will both improve safety and generate business for the industry.



Rajnikant Lad is a Thane-based elevator consultant. He graduated from Jabalpur College of Engineering Madhya Pradesh in 1982. For the past 35 years, he has been on a mission to foster a "No-Elevator-Accident India." He was a participant, in collaboration with ValueNote Database Ltd., in a research study on elevator maintenance trends in the Indian elevator market.





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# Taking Action Against Disease

Vertical-transportation consulting firm offers advice for reducing threat of the coronavirus.

submitted by PVN Associates, Pvt. Ltd.

COVID-19, the disease caused by the coronavirus, is posing a serious challenge to the world. Governments and their publichealth authorities, along with the World Health Organization, are taking action to contain the COVID-19 outbreak. However, long-term success cannot be taken for granted. All segments of our society must play a role if we are to stop the spread of this disease.

In an attempt to control the further spread of the disease and stop community infection, governments all over the world have imposed lockdowns and curfews. This step was necessary to ensure social distancing and isolation, which can act as a barrier in stopping the spread.

We should investigate the threats the elevator poses as a potential breeding ground for microbes and in the spread of any communicable disease, not just COVID-19.

Quarantine, isolation, social distancing, working from home, etc. are becoming common. Masks, handwashing and the use of hand sanitizers are not just for the elite. People have started taking personal and public hygiene seriously. There are many articles posted on social media on how to ensure hygiene and protect oneself from infection, but many of these do not completely address one potential threat: the elevator. There are videos making rounds on social media demonstrating how one can use a toothpick or skewer to register elevator calls but fail to identify many other serious aspects. We should investigate the threats the elevator poses as a potential breeding ground for microbes and in the spread of any communicable disease, not just COVID-19.

People can be exposed to the coronavirus by touching contaminated surfaces or objects, then touching their eyes, nose or mouth. If they are standing within 1 m of a person with COVID-19, they can catch it by breathing in droplets coughed out or exhaled by the infected person. In other words, COVID-19 spreads in ways similar to the flu. The elevator is an enclosed and constrained space, which gives it one of the highest possibilities for being a source of infection. Crowding the elevator lobby or the elevator poses a serious risk. The surfaces of the elevator car, buttons, doors, handrail and flooring are all potentially contaminated.

By imposing work-from-home mandates, the risk in office buildings has been addressed to a large extent, but has increased the risk in residential buildings. With more people

### People have started taking personal and public hygiene seriously.

staying home, elevator usage in residential buildings has increased, putting tenants - particularly senior citizens - at greater possibility of exposure. The risk of serious illness rises with age: people over 60 appear to be more vulnerable than those under 60. People with weakened immune systems and people with such conditions as diabetes, heart and lung disease are also more vulnerable to serious illness.

The following are few of the suggestions that may work in reduction of contamination:

- 1) In buildings with multiple elevators, restrict the number of elevators in use to just one. This will act as a deterrent. The idea of longer wait times will restrict people from using the elevators unnecessarily.
- 2) In low-rise buildings up to five floors, the elevators should be switched off unless in the event of emergency. The residents should be encouraged to use stairs.
- 3) Change the overload settings to accommodate only 20% of the carrying capacity. This will ensure maintaining adequate distance between passengers.
- 4) Use alcohol-based disinfectants to sanitize all exposed surfaces, such as wall panels, buttons, flooring and handrails. The cleaning should be done three to four times daily.
- 5) Elevator shafts should be cleaned and disinfected.
- 6) Elevator usage can be allowed only at certain times; e.g., allowing them to be functional for only a couple of hours in the morning and evening. The rest of the time, they can be switched off.

The above measures are for the short term and may prove troublesome in the long run. In any case, the intent is to restrict users and stop people from moving around. As a long-term measure, it is important to have scientific planning and execution. A few parameters that can be considered are:

- 1) Providing larger-capacity, more-spacious elevators
- 2) Applying antimicrobial coating on all contact surfaces
- 3) Installing contactless call registration and entry through use of QR codes, access cards or facial recognition
- 4) Using ionizers inside the cabin and lift lobby

Now is the time to act against COVID-19. Simple precautions and planning can make a big difference. Your action now will help protect everyone around you. 🔇

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# Initiative to Inspire

Amit Gossain (AG), managing director, KONE India, converses with your author (SSP) about the diploma course in Mechanical Engineering with Specialization in VT being offered by the company with Chitkara University in Punjab.

by Sheetal Shelar Patil



Amit Gossain, managing director, KONE India

SSP: What was the thought process behind the tie-up and conducting the courses? How and when was it conceptualized and taken forward?

AG: The vertical-transportation (VT) system is a crucial element in both the commercial and residential real estate sectors. This ensures the efficient operation of a building and the comfort of the customers. Urbanization has fueled the need for smart and efficient technologies to support growth, and the VT industry is constantly innovating, in terms of design and technology, to provide customers with safer, more intelligent, reliable and efficient elevators and escalators.

As the industry is growing, there's a lot of demand for VT professionals, and we are committed to imparting knowledge and training to young professionals who want to enter the industry. This unique program is the first of its kind offered by an elevator company. Its purpose is to have the flow of knowledge, experiences, resources and connections for the development of a capable, qualified workforce and domain

Urbanization has fueled the need for smart and efficient technologies to support growth, and the VT industry is constantly innovating, in terms of design and technology, to provide customers with safer, more intelligent, reliable, and efficient elevators and escalators.

There is a constant need for high-caliber manpower in the industry, and the collaboration can ensure that the training programs include curricula that meet the needs of the industry.

knowledge for the elevator and escalator sector. This sets a path for successful candidates to look for lucrative assignments in the ever-growing VT industry in India and abroad.

The initiative, conceptualized to fulfill the requirement for a skilled workforce in

our industry, was launched in August 2018. KONE is committed to transforming the lives of young people and inspiring the next generation of innovators and skilled professionals through industry/academia partnerships. Chitkara College of Applied Engineering, a constituent institution of Chitkara University, known for its unique approach in imparting knowledge - and skill-based academic programs to its students across multiple disciplines, became the launchpad and successfully launched the Diploma in Mechanical Engineering with Specialization in VT with a maiden batch of 25 young students.

SSP: What are the facilities created and the factors taken into consideration while planning and implementing the overall project?

AG: The fundamental objective behind the course was to set up the framework for a long-term company academic partnership, which will ensure that students who pass have sound knowledge and associated skills of the subject and its application.

The following factors were taken into consideration in planning and implementing the overall project:

- ♦ Build competency, capability and capacity for program delivery: directly influence the planning and execution of education and training across India
- ♦ Help in developing program curriculum and assessment criteria; identify institutes/delivery partners, which would be engaged for the delivery of training, and train the trainers' sessions
- ♦ Develop the Centre of Excellence that serves as a technology demonstrator for training, skills development and a benchmark at the Chitkara University Campus

# The fundamental objective behind the course was to set up the framework for a long-term company academic partnership.

- ♦ Set up a simulator lab in the campus for real-time practical learning and full-time deployment of experienced lab employees in charge at Chitkara University
- ♦ Train the trainer of Faculties, Engineers and Technicians wherever possible/applicable through chapters/member organizations (where possible).

**SSP:** Which opportunities do the courses open for those who participate? What are the aspects covered in the program? How was it designed?

AG: The students have a choice to become trainees after an internship at KONE India at the end of the course, then go into a technical line of work like as installation engineers, safety and quality managers and technical line managers. They can fast-track growth in their chosen field.

The program is a three-year, full-time Diploma in Mechanical Engineering with Specialization in VT. The program covers the basics in the first two semesters, and, in the second year, the students study and work on core VT courses alongside core Mechanical Engineering subjects. Presently, the program comprises eight courses, which include a combined approach of classrooms, labs and assignments. During the final year of the program, students are entitled to an internship for six months with KONE India. The internship ensures practical immersion by allowing students to learn manufacturing, installation, commissioning and maintenance.

SSP: What are the advantages of industry-academia partnerships/ education initiatives like this one? To what extent do you see the tie-up and courses benefitting the VT industry and in which manner?

**AG:** An industry/academia partnership is a mutual approach: the companies offer business insights, and the students contribute proven methodology and expertise. There is a constant need for high-caliber manpower in the industry, and the collaboration can ensure that the training programs include curricula that meet the needs of the industry. This purely acts as a medium to enhance innovation through knowledge exchange. The collaboration sets the path for growing demand in the VT industry to come with the right qualification, skill and knowledge. These tie-ups with institutes help in providing the basic training required to enter the VT sector.

SSP: Given the present Real Estate (Regulation and Development) Act, 2016 (RERA) era, do you feel this was a much-needed step and extremely significant?

AG: The VT industry will not be impacted by RERA coming in, because the natural demand for new homebuyers and for commercial properties will always remain high, as the inventory of homes has come down substantially in the last few years. 🚳



# An Ideal Marriage

Index shares the story of taking its relationship with Fermator to its logical conclusion.

by Sheetal Shelar Patil

Index System India Pvt. Ltd. was founded in 2008 by Zubin Mody, who serves as its managing director. After being on the manufacturing line for two years at an elevator-component manufacturing business owned by his father, Mody (who also possessed marketing abilities) envisioned building the largest

distribution-channel partner for a manufacturer of technological elevator components. Being a resident of Mumbai, he realized that the infrastructure of the city can only grow vertically, not horizontally, and knew it would require more automatic doors than manual ones.



The Mody family with Fermator Group executives



Many industry members were present at the event announcing Fermator's purchase of Index shares.



Index founder Zubin Mody



### Gamechanger

Index had a meeting with Spain-based manufacturer of automatic lift doors Fermator in 2010 during an exhibition in Mumbai. Zubin and his father personally invited Fermator owner Eduard Gomis for dinner at their residence, and he accepted the invitation. The meeting went well, and they signed a yearly contract of 3,600 landing doors and 500 car doors. Fermator believed in Index and made the company one of its distribution partners. This gave a start to their dream.

Later, Zubin started attending more exhibitions across the world, including in China, Germany and Turkey, looking for technology companies and getting connected to them for distributing their products on a pan-India basis. Then, Index started developing the market on a national basis, appointing more channel partners to sell the products. Index started adding more products to its range from different parts of the world:

- 1) Shanghai BST for car and landing operating panels (China)
- 2) Zowee for semiautomatic doors (China)
- 3) BLT for complete elevator and escalator kits (China)
- 4) CAN LIFT Hydraulic retiring cams (Turkey)
- 5) SICOR geared and gearless machines (Italy)
- 6) Dinacell overload sensing devices (Spain)
- 7) Terry Lifts luxury home elevator kits (U.K.)

As the market for automatic doors in India increased, Index started concentrating more on this product.

| Year      | Cab Doors | Landing<br>Doors | Growth |
|-----------|-----------|------------------|--------|
| 2011-2012 | 735       | 5,655            |        |
| 2012-2013 | 1,575     | 11,247           | 101%   |
| 2013-2014 | 2,917     | 17,043           | 56%    |
| 2014-2015 | 2,563     | 16,471           | -5%    |
| 2015-2016 | 3,068     | 19,362           | 18%    |
| 2016-2017 | 3,744     | 23,389           | 21%    |
| 2017-2018 | 4,276     | 29,442           | 24%    |
| 2018-2019 | 5,959     | 44,139           | 49%    |
| 2019-2020 | 6,715     | 54,739           | 23%    |

Table 1: Index's sales figures for automatic doors

(I-r) Fermator owner Eduard Gomis and Manu Bhai Mody, an Index System partner and Zubin Mody's father, who got Zubin Mody into the industry



Jyoti M. Mody and Fermator Group Sales Head Eduard Amigó



(I-r) Manu Bhai Mody, Gomis, Amigo and Zubin Mody celebrating in grand fashion

The contraction in 2014-2015 came as competitors from other countries started their manufacturing units in India, but Mody had great trust in the Fermator technology and team. Fermator opened a new manufacturing plant in Chennai in 2010, and after meeting the Fermator team at its headquarters in Spain, they came up with new products and technology and started getting more aggressive in the market. This was only possible due to the trust and confidence Fermator has in Index.

In August 2018, Fermator decided to purchase Index shares and have a lifelong commitment to it. Now, with international knowledge of supplying the Indian market from Fermator and the marketing team from Index, they have a promising future together. After their live-in relationship, they are finally getting married. We wish them all the best.

# World-Class Surroundings

Vidyalankar campus designed to appeal to today's technical students.

by Yash Pandya



Vishwas Deshpande, managing trustee, Vidyalankar Dnyanpeeth Trust, shares insights on its Mumbai campus and how it reflects an approach toward educating and shaping the citizens of tomorrow. . . . Editor

For many years, students in Mumbai used to gaze wistfully at international campuses shown on television and in brochures at education fairs. Imagine their

pleasant surprise upon seeing their dreams successfully transformed into reality – to walk onto a campus comparable to any seen abroad. The Vidyalankar Group has created a modern marvel in a sprawling campus of 11 acres in Mumbai, which provides a truly world-class ambiance to its students.

Marked by international styling, vibrant colors, ecologically friendly elements and contemporary infrastructure, this "open-style" campus has won the Honor Award from Designshare in NYC for its design, which is among the campus' main attractions. The campus houses four institutions: Vidyalankar Institute of Technology, Vidyalankar School of Information Technology, Vidyalankar Institute for International Education and Vidyalankar Polytechnic.

The land purchased for the campus had not been in use for 20-30 years and was in shambles when we initially saw it. In fact, the first time we came here, the car had to be parked 500

m away, and we had to walk the rest of the way to access the site. While getting the old building demolished, we started ideating about the theme of the new building.

### **Designer Selection**

We called for designs from many architecture firms, including big brands, but one young, freshly graduated couple understood what kind of college we wanted - the kind of concept that would appeal to students and be a place where they would like to spend time.

### **Key Elements**

Being an engineering college, we wanted to show usage of different materials, textures, shapes, etc. We wanted natural light and ventilation. As a lot of learning happens outside the classroom, we created social zones like the canteen, an art gallery and more where students could interact and explore. Posters of motivational quotes and values are on display.

### **Building Blocks**

The first structure was envisaged as being more horizontal to enable students to move seamlessly across levels and facilities. Subsequently, our other building was planned to be vertical. We had conceptualized a 14-story structure with a swimming pool on the terrace, among other amenities, like a vertical plaza. However, when we were about to start construction, the norms for development changed, and,



The Vidyalankar campus was designed with students in mind, using styles and materials that would be appealing to younger people to make them want to be there.



Modern touches abound, such as this glass-walled office cantilevered into the atrium space of the multilevel academic building.

eventually, the structure changed to seven stories. We opted for five KONE elevators, with adequate capacity per the usage pattern. With space being a constraint in major metros, academic institutions must go vertical. So, including elevators and escalators while designing buildings is now becoming necessary, which wasn't the case earlier.

### **Innovative Step**

The norms of statutory body All India Council for Technical Education (AICTE) state that colleges should have a ramp to facilitate access for the disabled. At the Vidyalankar campus, we went a step beyond that and invested in a chairlift. It is our vision to provide access to every part of the college campus,

even for those temporarily unable to climb stairs. AICTE hailed this step Vidyalankar took, appreciating the fact that we went beyond just compliance and kept the actual needs of students in mind.

### **Education Segment**

Academia is a different market from the typical segments of the service industry. In the Indian public education system, costs have been held low, so quality has never been emphasized. Education is subsidized, so the service provider (the college) and receiver (the student) both know that, for this amount, they cannot achieve quality, so both have come to accept this aspect.

Ironically, the customers (those who pay the fees) are clueless about it. Now, with privatization, colleges can charge nonsubsidized fees though, of course, not for profit.

### Transparency Counts

We have been transparent from day one and emphasized that we want to ensure quality. Every classroom at the Vidyalankar campus has a feedback system. We encourage students to demand quality. We arrange a graduation ceremony at the campus and call parents to see the transformation of their children, our students. They, too, realize that this is what a college and campus can and should be like.

Continued



Stylized geometric patterns greet visitors at one of the building's elevator lobbies.

### PROJECT SPOTLIGHT



Two other lifts are available.

### **Overall Impact**

The academic years are critical for the development of students. Good and bad habits and more have their genesis here. We have created gaming zones for students, investing in high-end equipment. We convey that these facilities are for their recreation, and Vidyalankar students have vindicated our trust in them by respecting and taking care of whatever has been provided.

### **Basic Philosophy**

The philosophy of having a good building is: if the building is bad, the building gets noticed; if the building is good, the faculty gets noticed. Our faculty is one of our biggest strengths. Hence, we thought it necessary to build an attractive space. The students get overwhelmed when they see it.

### Holistic Approach

Within its gates, the Vidyalankar ensures both academic and extracurricular activities that will encourage and inspire students to achieve or even surpass their potential. Faculty is key, so selection of all teachers is done through a stringent screening procedure. Advanced and changing trends in technology have revolutionized their teaching methods. Lectures, tutorials and seminars form the main methods of course delivery. Students are given practical training through individual and group project work, laboratory assignments and workshop jobs. Industry visits and case studies also form an



The multilevel building's numerous staircases show off the structure's modern flair. In addition to its elevators, the campus has a chairlift to provide accessibility.

important part of the learning process. Regular aptitude tests measure the growth of the student every semester.

### Leveraging Space

There is a computer center with more than 1,200 computers, including Apple workstations. The library contains an extensive collection of technical books, national and international academic journals, and newspapers. Students can also access information through specially set-up internet terminals. V Refer, the digital library, enables access to video lectures, presentations, documents, etc.

Laboratories are equipped with modern equipment that allows students to practice theory they learn in the classroom. There are cafeterias, a sports center and two huge playgrounds, as well. Cocurricular and extracurricular events like Verve, a five-day cultural extravaganza; the Friday Patshalla/Shanivar Manch, conceptualized to provide a stress-relieving, nonacademic interaction for students; and Sportsmania, an intracollegiate festival, motivate Vidyalankar students to raise their level in every sphere of life.

### International Standards

To ensure global exposure and high standards for achieving academic excellence, Vidyalankar has provided international associations and exchanges for the students. Prestigious tie-ups with educational institutions in the U.S. and Canada, such as Penn State University, California State University and the University of Toledo, give global exposure to Vidyalankar students, many of whom also relocate to these universities during the latter part of the "1+1" or "2+2" transfer programs. The Vidyalankar Mumbai campus has been envisioned to be on par with such campuses of academic institutions across the globe and strives to ensure that its students feel comfortable when in new surroundings overseas.

# **About The Elevator Show**

With a combined industry history of more than 130 years, Elevator World and AFAG are pleased to present The Elevator Show, a new industry exhibition held every two years at the Dubai World Trade Centre. The organizers have accumulated a robust network of over 100,000 contacts worldwide and project more than 10,000 visitors during the three-day event. Attendees can expect to see the latest technology, designs and services from more than 100 exhibitors made up of small and medium-sized elevator component companies and major manufacturers.

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afag.de

# Touch-Free in the Spotlight

Pandemic creates solutions, and a home elevator debuts.

### **Touchless Elevator Call System**

ARKEL, based in Turkey with a joint venture in India, is introducing its Touchless Elevator Call system to the country. It cites "huge demand from our customers to develop a new function that can help to operate [an] elevator without touching buttons" in the times of the coronavirus pandemic. Promising to help "break the chain of transmission by physical contact," the system can be launched via scanning a QR code. Next, the user can click the "arkel.com.tr" link and select the floor they want to reach. Once the door opens, users can enter and wait to be taken to their floor.

arkel.co.in







## **Touch-free Elevator App for Users**

Gujarat-based Omega Elevators has announced an app with a QR-code-based, touch-free feature that uses the Internet of Things to help elevator users not contract coronavirus. Eighty percent of the population of modern cities lives in multistory apartments and must travel in lifts, and lift buttons were found to be 40 times more contaminated with harmful bacteria than public toilet seats. Thus, elevator buttons become a major potential source for cross-contamination.

Designed to make lifts touch-free, use of the Omega Client app involves scanning a QR code pasted on the landing operating panel. The user then selects the floor on which they are and their destination floor. The call will be registered, and the elevator will come to the current floor. The app is available for all registered user members of Omega lifts with the "Smart Elevator" feature and is available on the Apple App Store and Google Play.

The company added that older Omega lifts with automatic doors can also be quickly fitted with the feature. In April, Sameep Desai, CEO, explained the company intends "to install it at as many places as possible so that, socially, the spread of the coronavirus can be stopped."

omega-elevators.com

Continued



International Convention City, Bashundhara, Dhaka, Bangladesh Hall No.1 (GULNAKSHA) & Hall No.2 (PUSHPOGUSSO).

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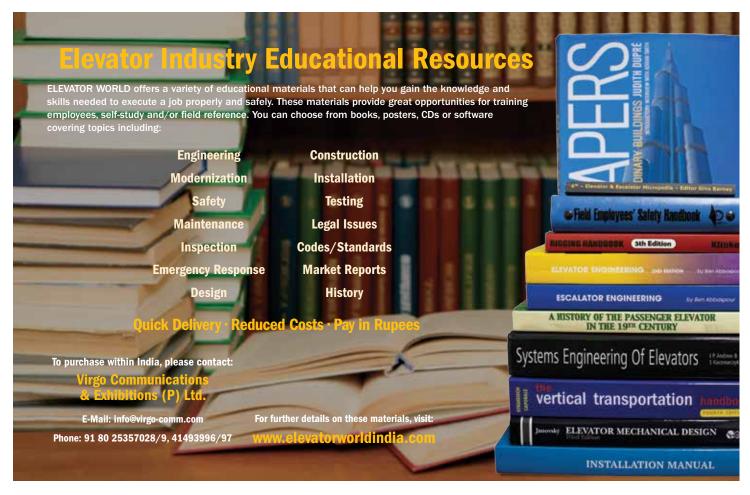
### New Hydraulic Home Elevator

thyssenkrupp has introduced the Altura-H200, also called the Altura Platinum. Using hydraulic technology perfected from the company's existing home lifts, the residential units are being sold in association with Malaysia's Elite Elevators in India. The product is SIL-3 certified and can be configured with various platform sizes and hoistway lengths. All four sides are clad by the shaft panels in steel or glass and include a gasket for water management, which is especially important for outdoor installation. Other options include the hoistway being made of metal; the choice of stone, carpet or vinyl flooring; various mirrors; and stainless-steel or gold-colored handrails.

Elite Elevators has "experience centres" in Chennai and Bangalore with displays including the Altura H300 model (launched in 2017). The company has been preparing to launch similar centers for the Altura H200 in Hyderabad and Mumbai.

eliteelevators.com/global (§)





# Marketplace

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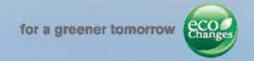


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