

KBytes

leading edge news

NEW PROJECT - MUMBAI'S CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT T2

{HYPERLINK <http://www.formglas.com/projects/features/t2mumbai>}

OVERVIEW

The recently opened Terminal 2 building at the Chhatrapati Shivaji International Airport, designed by the New York office of globally leading architectural firm Skidmore, Owings & Merrill LLP (SOM) and built by India-based conglomerate GVK Power & Infrastructure Ltd. (GVK), features a dramatic, technically complex and aesthetically breathtaking molded coffer ceiling inside the terminal, with integrated columns, as well as a striking retail corridor featuring perforated ceiling petals and skylights, manufactured by Formglas.

The ceiling structure includes more



than 4000 coffers each nearly 100 square feet in size, and complex columns over 100 feet high. Formglas leveraged sophisticated 3D and CAD/CAM technology to model and fabricate molds, and glass fiber reinforced gypsum (GFRG) material was used to create the modular ceiling and column components installed on site.

PROJECT EXECUTION

To support an expedited schedule, preliminary approvals for the design of the main Terminal 2 ceiling, column and capital components were facilitated by presentation, evaluation and

approval of the complex 3D model that was revised and refined by Formglas.

Job site meetings between SOM and the representatives of GVK, Larsen & Toubro, installation contractor Shamel, and Formglas took place. Aided by a high-powered portable graphics workstation and the complex 3D model, interactive discussions and analysis took place resulting in efficient approvals for manufacturing. This allowed Formglas to begin fabrication of the some 4000 coffers required to be made and delivered within a 9 month contract period.

FABRICATION HIGHLIGHTS

Fabrication of master patterns and molds occurred at Formglas' two manufacturing facilities in Toronto, Canada and Mexicali, Mexico. Given the size and scope of the project, and the logistics involved in delivering over two hundred 40' shipping containers of material to India, Formglas temporarily leased an additional 30,000 sq.ft. building that was fitted out with custom racking specific to the shape and size of parts to be fabricated. A similar set-up was mirrored in Mumbai, India where parts were received, prepared and held for shipment at a warehouse in close proximity to the airport terminal job site.

Accurate tooling and mold making was ensured by use of Formglas' in-house 5-axis CNC machines. Running 7/24 for months on end, close to 500 molds were fabricated. The 3D modelling, 5-axis machine programming and 5-axis machining effort exceeded 16,000 person hours over the term of the contract.

INSTALLATION HIGHLIGHTS

Because of the unique structure of the building, where the entire roof of approximately 50,000m² is one contiguous structure that moves as a single entity, there are no expansion



joints for building movement. Furthermore, due to the anticipated temperature differences between the Departure Hall and the plenum space above the ceiling, allowances were needed for ceiling expansion. With the pattern of coffers blending into the column capital, and 10 mm joints between all ceiling units, there was very little tolerance. These joints, in some locations, served as expansion joints.

In the column capital areas, there are dichroic light lenses secured to the top of the coffers and illuminated by large skylights in the roof above by day, and intense lighting in the sealed space above for night time illumination. It was therefore necessary to design and lay out the framing above the exceedingly complex geometry in a manner such that framing was neither visible through the lenses from below, nor would it cast shadows from the lighting above on these same lenses. Formglas provided the basic geometry for the framing to the installing contractor. This project is believed to be the largest GFRG installation in the world.

How telemedicine is transforming healthcare

{HYPERLINK <http://www.healthcare-informatics.com/article/technology-driven-healthcare-part-1-telemedicine>}

Healthcare IT and healthcare reform are inextricably entwined as healthcare delivery transforms itself from a model based on volume to one based on value. Telemedicine is a disruptive technology that is ripe for driving this change from a provider-centric care model to a patient-centric model. That's the view of Dennis Schmuland, M.D., chief health strategy officer of Redmond, Wash.-based Microsoft Corp., who believes that the purpose of health information technology has changed significantly as the practice of medicine has changed over the last decade.

Against the backdrop of patient-centered, team-based care, some providers are viewing telemedicine with a new lens, Schmuland says. Traditionally, telemedicine was seen as a way to connect doctors to more patients, and expand their practices, he says. Increasingly, as healthcare moves to a continuum-based payment model, more providers are viewing telemedicine as a more efficient patient-centric vehicle, which can connect patients with the resources and teams they need to improve their care experience, he says.

He calls this care delivery without walls, and he predicts that virtual visits will increase significantly in the next five years. "There are about 900 million doctor visits each year, and about half of those visits are candidates for virtual visits," he says. He adds that many of those visits are visual or conversational in nature; in addition, do-it-yourself tests that can be done by patients in their homes will obviate the needs for many in-person visits.

Yet it is "conversational" telemedicine

that is really ripe for take-off, he says. These are like any face-to-face interactions between doctors and patients, and don't require complex device integration. Just a few examples are tele-dermatology, tele-psychiatry or tele-pharmacy, as well



as health coaching, 24-hour nurse care triage and even personal training and employee assistance programs—interactions that can be successful with the use of voice and photos.

Schmuland also notes that another factor behind the demand for care delivery without walls is the shortage of primary care physicians and nurses, at a time when 120 million uninsured are entering the healthcare system in the U.S. "Care delivery without walls is a way of addressing those supply-and-demand imbalances, because expertise isn't always available where the need exists in the U.S.," he says.

Technology is cheaper and much easier to use and is continuing to push the envelope in terms of the

options available to all patients, not just those who struggle to get to their medical facilities or hospitals. Video conferencing through webcams on laptops and mobile devices mean that patients can connect with their medical staff over the Internet with ease.

Receiving 'virtual' care will continue to increase through 2014 and beyond. Self-monitoring devices also make it easier for patients to monitor their own vital signs and report their information without having to make an appointment to see a medical care provider. Post hospitalization, patients can check in and upload their data, and the medical staff can videoconference with the patient or with other members of their team to monitor and consult through an interface that assists with HIPAA compliance. Lack of reimbursement for treatment through telecommunications has been a barrier in the past; however, progress is being made from both political parties to change the requirements.

Also using telemedicine to lower readmissions to hospital can help with Medicare reimbursement.

Thought Byte

The problem with quotes on the internet is you can never be certain they're authentic.

- Abraham Lincoln

The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.

- Bill Gates

New Construction Technology

Quake-Proof Buildings

{Hyperlink <http://www.foxnews.com/scitech/2009/09/08/new-construction-technology-quake-proofs-buildings>}

A new method of construction that uses steel tendons and replaceable “fuses” to help a building survive strong earthquakes was successfully tested recently.

The massive force of earthquakes often leave behind damaged buildings that are either beyond repair or very costly to fix.

“Most buildings that we design today for large earthquakes are designed

such that when there is a large earthquake, the building, in a sense, sacrifices itself to save the occupants,” said **Greg Deierlein, a professor of civil and environmental engineering at Stanford University who led the research team.**

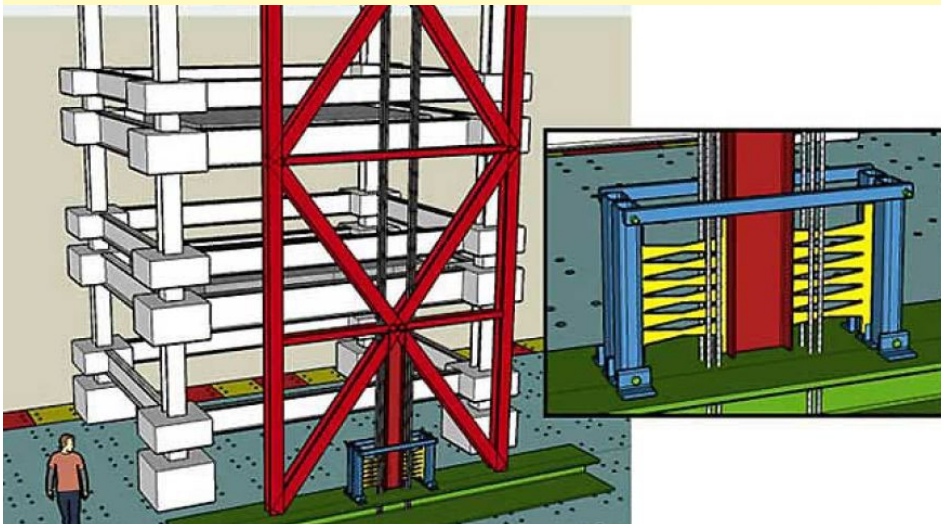
To reduce structural damage, the new system relies on steel braced-frames, built into a building’s exterior walls, which are designed to rock up

and down whenever an earthquake strikes. Running down the middle of the frames are steel tendons that are elastic enough to control the rocking. The tendons also help lift the building back to its proper alignment once the shaking stops.

Steel “fuses” that sit at the bottom of the frame also keep the rest of the building from sustaining damage. The fuses are built to flex and dissipate the seismic energy, which confine the damage to certain areas. Like electrical fuses, the steel fuses are easily replaced when they “blow out.” “The idea of this structural system is that we concentrate the damage in replaceable fuses,” Deierlein said.

While various researchers have been working for 10 or 15 years on some of the ideas and techniques incorporated in the new system, this is the first time anyone has put them all together and demonstrated their performance, Deierlein said.

The system can be installed as part of a building’s initial design or retrofitted into an existing building. It is also economically feasible to implement since it can be built from materials commonly used in construction, researchers say.



Tech trivia

- HP, Google, Microsoft, and Apple have one thing in common – apart from the obvious that they are IT companies, they were all started in garages.
- The French Culture Ministry has banned the word ‘e-mail’ in all government ministries, documents, publications and Web sites, because ‘e-mail’ is an English word. They prefer to use the term ‘courriel’.
- By adding the number ‘4’ behind the Facebook URL takes you to the wall of founder and CEO Mark Zuckerberg. This www.facebook.com/4 trick works irrespective of whether you are logged into your account or not. If you are making a comment or a post, you can type @[4:0] and Zuckerberg’s name appears.
- The average computer user blinks 7 times a minute, less than half the normal rate of 20. So please blink more when you are using the computer.
- The name ‘Google’ was an accident. The original founders were going for ‘Googol’, but ended up with ‘Google’ due to a spelling mistake on a check that investors wrote to the founders.

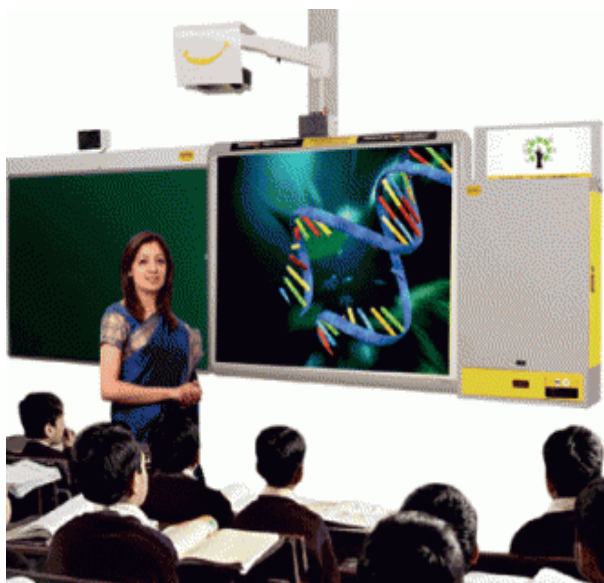


FUTURE TRENDS OF DIGITAL EDUCATION IN INDIA

{HYPERLINK <http://inc42.com/resources/future-trends-digital-education-india\ixzz36wa9y7Th>}

GROWING TREND OF DIGITAL CLASSROOM/FLIPPED CLASS ROOMS

Technology is leading to a revolution in the way we learn. It is helping us solve the problems of scale, quality of education, and learnability of the student. Teachers can now reach the full classroom through digital screens, enabling each child to get the same base content. Student engagement is higher as it combines various instructional styles. And each student gets exposure to world-class education, something that was just not available in a chalk and talk approach.



LEARNING ON THE GO – FACILITATING STUDENTS TO STUDY AT THEIR OWN CONVENIENCE ANYWHERE ANYTIME

On the self-learning front, we believe that it is still in a nascent stage due to a lot more school involvement of the child (typical student reaches home only at 2:30pm) and over reliance on neighborhood tuition center. However, the trend here we are observing is a desire to have proper evaluation of the child by parents to help him in specific areas. Therefore, I believe that new trend here will be personalized learning based on rocket science level evaluation state machine.

LEARNING AT THE SPEED OF NEED – ACCESS TO ONLINE LEARNING MATERIAL & DIGITAL CONTENT THROUGH VARIOUS DEVICES

Today, due to hi-tech network and multimedia, the education sector has emerged as a fast developing field. Another prominent result of the use of technology in education is that there is an extensive change in the teaching and learning methods, styles, and content across many schools in India. Today, students use a unique form of technology called cloud technology wherein they can easily submit and review their assignment regularly.

When a school includes such facilities in a digital learning environment, the classroom becomes much more comfortable and welcoming to students.

With computers and digital elements in classrooms, students find studying more enjoyable. The aim of a teacher however should be to create such an atmosphere which makes every student want to study. Moreover, considering that the young students today are usually

surrounded by computers, iPads and mobiles, bringing the same technology into the classrooms puts them at ease and makes them feel acquainted.

VIDEO BASED LEARNING PICKING UP PACE IN INDIA

Video-based learning makes education engaging, entertaining and exploring. The interactive preface of this segment ignites learning with a pedigree of learning out of leisure with creativity, fun and entertainment on cards via the wonderful Apps, podcasts, videos, interactive software, ebooks and online interactive electronic boards. Children are excited and operative with interest to manage the showcase via

their intelligence, exploring the weak techno skills of teachers and assist them in public with pride and honour and recognition. Now the classes are student-friendly, student-operated and info-packed.

POPULARITY OF ONLINE COURSES – MOOCS & OTHER DISTANT LEARNING PROGRAMS

Talking about the popularity of MOOCs in India, India is the second biggest market for MOOCs in the world, after the USA. It is however expected that India in the coming years will supersede the USA. Our country has the second largest population in the world after China and is the third in terms of university enrollment worldwide. Respectively, the USA and China are first and second for university enrollment at the moment but this may soon change.

MOOCs have opened the gateways for a lot of Indians in terms of being part of an educational revolution. It gives a great opportunity to avail high quality learning with the help of internet connectivity. Two foremost reasons as to why MOOCs is a good idea in India is millions of Indians live in poverty and are unable to afford or gain access to a higher education and secondly there are more applicants than seats in the Indian Universities.

GAME BASED LEARNING IS CREATING A BUZZ IN THE K12 SECTOR

Game based learning creates an environment where the learners easily relate themselves to and get involved. The world we have today is cultivating children who are more than just well aware of both the developments in their surroundings and their skills and abilities.

Transforming the K-12 sector, game based learning undoubtedly will revolutionize the education world products and give us a better self-trained GenNext.

Gizmo Talk

myType™ Bluetooth Keyboard

It seems as though our lives become busier and busier each day. We're increasingly on the go, yet because of smart phones and tablets we're also always connected. We are now expected to substantively respond to email and revise documents as if we're in front of our laptop or desktop even when we aren't. So how are we supposed to fulfill our work and school obligations and write productive emails/papers on a tiny phone while we have five minutes waiting for our kids at practice, ten minutes at the coffee shop before work, an hour to kill on campus, or even a couple of hours on a flight or train ride? While our devices are getting smaller, our hands certainly aren't.

The myType™ Wireless Bluetooth Keyboard is designed to be the most comfortable and convenient keyboard to take with you on the go while also providing the efficiency of a full-size keyboard when you need it. When folded, it fits comfortably in a pocket. It is lightweight, ultra-slim and compact allowing you to easily take it with you just like you take your smart phone or tablet. When it's open, it provides a laptop/desktop feel and efficiency. And it is perfect for any normal work environment, school or travel, offering completely wireless Bluetooth technology and a long battery life that connects quickly and easily to smart phones and tablets. With the myType Wireless Bluetooth Keyboard, you can increasingly use your smart phone or tablet as a replacement for your laptop.

The flat split design offers an ease in typing which reduces negative-angle stress to your wrists and gives a more natural shoulder width position for your arms.

Features & Specifications:

- Keys are designed and spaced for touch typing, unlike most portable keyboards the myType keyboard is functionally similar to most desktop and laptop keyboards
- Pocket-sized when closed
- Light, thin & flexible design comfortably disappears into your pocket or purse
- Battery life: Standby weeks of normal use ~8 Hours of Typing
- Tested at 75 Words per Minute
- BlueTooth 2.1
- Rechargeable Lithium Ion Battery
- Micro USB Charging
- Completely wireless with Bluetooth 3.0 technology
- Max Wireless Range: 33 Feet
- Durable: can be dropped with a low chance of being damaged
- Splash Resistant
- Nearly silent to type on; perfect for meetings
- Available in five colors: green, black, white, blue and pink
- Works with Bluetooth® HID. Either by our own tests, or the respective manufacturer's web site, HID is supported by the following devices (with the latest iOS available version for Apple products); iPhone 3GS and later, iPad incl. iPad Mini, iPod Touch 2nd and later, Android (with HID support; tested with several Samsung phones and tablets) and Windows 8 Tablets.
- Dimensions When Open: 12.5" x 3.6" x .3"
- Dimensions When Closed: 6.8" x 3.6" x .35"
- Weight: Approximately 122 grams/4.3



Intelity Releases Mobile Hotel Platform for 21st-Century Travelers

{HYPERLINK <http://uk.reuters.com/article/2014/04/30/intelity-mobile-hotel-idUKnPN40Ww8q+88+PRN20140430>}

Intelity, the first company to make hotel guest services available on guestroom tablets and on guests' personal connected devices, has released a new introductory mobile platform that allows to increase appeal to travelers as mobile technology soars in popularity. The company's ICE (Interactive Customer Experience™)

Mobile is a customizable template that provides hotel guests with a mobile app experience that connects them directly to the property.

The app includes a customized menu built from over 40 different hotel services that enables guests to interact with in a variety of ways through their personal mobile devices, including checking in or out, ordering room service, making housekeeping requests, leaving digital comment cards, and even communicating preferences and requests to the concierge before arrival.

Additional features include an app reminder that encourages guests to



use the app during their stay and push notifications that use geo-location technology to message targeted guests near or on hotel premises. Geofencing makes the hotel operator aware of when and where their guests are en route to the hotel.

"It's normal for travelers to bring multiple devices with them and expect

to incorporate them into every aspect of their experience, from planning a trip to checking in for a flight. These expectations don't stop at the front door of their hotel," said David Adelson, Intelity President and CEO.

The release helps hotels take advantage of travelers' increasing use of mobile technology as large companies and brands aggressively seek to do the same. Google

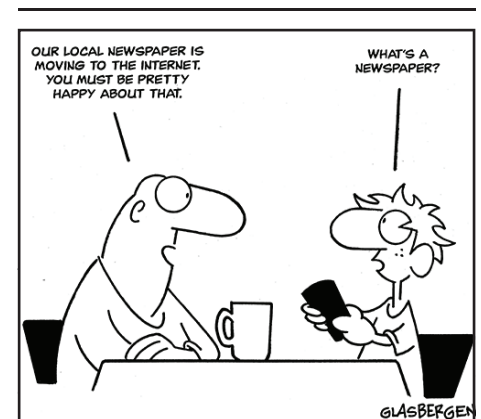
recently unveiled a new hotel search capability for its app that allows travelers to use filters to find lodging.

Adelson said, "We're seeing headlines about investments by companies and many major hotel brands into

fulfilling the mobile needs of the travel industry, and a hotel without a mobile app is at a disadvantage. We want to empower hotels to leverage mobile technology without significant financial investment."

About Intelity

Intelity, with offices in Chicago, London, New York City and Orlando, is the creator of the world's first and most widely used integrated guest services platform, ICE (Interactive Customer Experience™). Since beginning operations in 2007, Intelity has gained a reputation as a leader in hospitality technology with the installation of ICE across six continents in nearly 1,000 hotels.



Byte Back

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Kwiz

Q1. 'Leopard', 'Snow Leopard' and 'Mountain Lion' are the versions of which famous OS?

1. Linux
2. Ubuntu
3. Windows
4. Mac OSX

Q2. Which website is the most popular reference website?

1. Answers
2. Wikipedia
3. eHow
4. About

Q3. What generation is the so-

called EDGE technology?

1. 2G
2. 2.75G
3. 3G
4. 2.5G

Q4. Which country is the company Lenovo from?

1. South Korea
2. Japan
3. Taiwan
4. China

Q5. Which of the following photo sharing website born in 2004 is owned by Yahoo?

1. Instagram
2. Blogger
3. Picasa
4. Flickr

Answers of June issue

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|------------------------|-----------------------|
| Q 1. Unix | Q 2. Microsoft |
| Q 3. Yahoo Axis | Q 4. LinkedIn |
| Q 5. Shazam | Q 6. Wiki |