

**UDBHAVA**

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**CHRIST**  
UNIVERSITY

BENGALURU, INDIA

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**LEAN OPERATIONS & SYSTEMS**

# SMART CITY



**KENOSYS—The Lean Operations & Systems Club**  
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UDBHAVA



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# MINISTRY OF URBAN DEVELOPMENT

## Government of India



Smart Cities Mission, A bold new initiative of Government of INDIA. The objective is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions. The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will act like a light house to other aspiring cities.



The purpose of the Smart Cities Mission is to drive economic growth and improve the quality of life of people by enabling local area development and harnessing technology, especially technology that leads to Smart outcomes. Area based development will transform existing areas (retrofit and redevelop), including slums, into better planned ones, thereby improving liveability of the whole City.

First 20 cities selected for smart city mission:

Bhubaneswar   Pune   Jaipur   Kochi   Jabalpur   Solapur   Indore   Coimbatore   Bela-  
gavi   Guwahati   Surat   Ahmedabad   Visakhapatnam   Davanagere   NDMC   Ka-  
kinada   Udaipur   Chennai

Mr. Narendra Modi had started this initiative to improve the quality of life in India. To know more about the government policies for Smart Cities follow the link below.

Source: <http://www.smartcitieschallenge.in/what-is-a-smart-city>

# Smart Cities with Smart Mobility as a Primary Concern

Shweta Shivani  
I MBA C

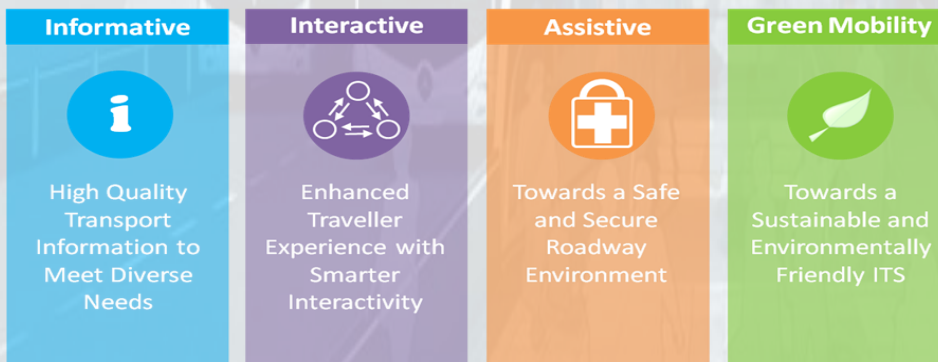


To achieve any particular milestone, one needs to have an aspiration to work for that particular arena. Established dictated facts never drive a person to work towards it.

It is quite a general tendency of human beings to drift away from whatever that seems to be the set way or set norms to be practised. So, the real need is to make them motivated and enthusiastic about something that can set the tone for their work. This can exactly be done by the proposal of smart cities mission introduced by the BJP Government.



The smart cities mission works for the vision of Prime Minister Narendra Modi to develop 100 smart cities as the look up model for the other cities of the state and improvising the existing mid- cities region. The whole and sole decision making power will be with the apex committee of the Ministry of Urban Development. The set up has been built in a year by year competition modules wherein, 20 cities are to be chosen in 2015, 40 in 2016 and rest 40 in 2017. Each cities nominated will have to submit a detailed Smart City Plan with better feasibility and visionary ideas will get the scope of development with the financing of 1 billion \$ issued by the Government for the term of 5 years. Moreover, the further funding will be accumulated with the contributions of states, urban bodies and the consortium. There are various selection criteria at different stages in terms of



various core infrastructure elements for a particular city to reach the top positions for selection.

So, if we look at the whole structured model of the Smart Cities mission, it is pretty clear that the whole procedure is based upon a competitive Spirit with the emerg-

ing ideas of their own representatives at the state level. This is rooted in the basic aspect of the human nature where in, until and unless, there is no urge for acquiring the chances to enjoy the lucrative outcomes, the dearth for betterment is practically invisible.

Apart from these, this mission would instigate people to always look for quality which will further, improvise the skill sets all across the cities of the country. The more you strive for excellence, the more you prosper in raising your life standards.

As we know, it's not only the vision that makes an aim achievable, but, the realisation and implementation of



the constituents for this objective are of major concern. One of the main constituent, what I feel is “Smart Mobility”.

With the question of development, the question of potentialities comes along. But, the potential can only be increased, if the increasing pressure of mobility can be properly attended. There is a dire need for intelligent transport systems, so that, in times of urgency, proper amenities can be delivered to the required personnel. Along with this, suitable logistics and planning systems with embedded systems is really the key factor in a long term developmental perspective. Moreover, automatic transportation systems can also serve as the cure for the loss of life and property due to fatal accidents caused by ignorance, incidents and insensitivities.

When all these factors come into play, smart mobility is prioritised to become a thing of the present.

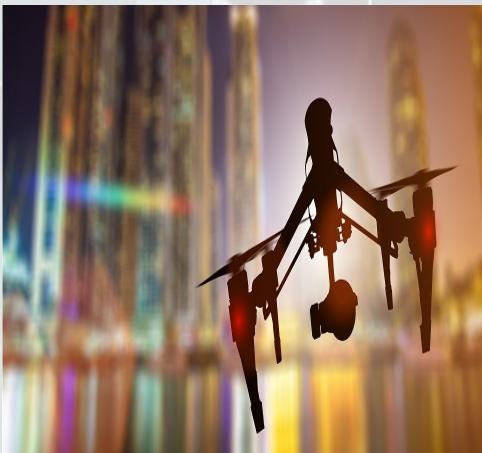
Therefore, smart mobility has the power to make the concept of smart city, a picture perfect one, when utilized to serve all the people with the best of interests.

As a whole, whatever picture you draw of yourself, the strive for excellence is the greatest.

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## ***CUTTING EDGE INNOVATIONS AND TRENDS IN LOGISTICS***

**Nanda Satyam**  
**II MBA LOS**



Historically, logistics has had a lot of relevance. As quoted by Napoleon Bonaparte, “Amateurs discuss tactics, the professionals discuss logistics”.

Logistics management is one of the secret elements to propel any manufacturing company to extraordinary success. When it comes to the policy of logistics department of an organization, it focuses on achieving excellence in customer satisfaction by providing on-time delivery for all the orders and also by giving timely and accurate information to them. Being service oriented and having a great rapport with the customers due to consistent communication are two critical factors.

Integrated logistics management reduces total logistics cost which contributes to a rise in company's profitability, especially in a competitive environment characterized by small profit margins. We know that a product reaches the end customer after passing through different channels. So its cost is determined by various factors and about 10% of it is incurred in physically reaching the customer. Transportation cost is the most significant component that contributes to high logistics cost. Today, e-commerce is growing exponentially and by using IoT technology logistics can be made more efficient. “A good logistics company is a technology company, that

also moves freight”, says Sanchit Jain, CEO of DreamOrbit.

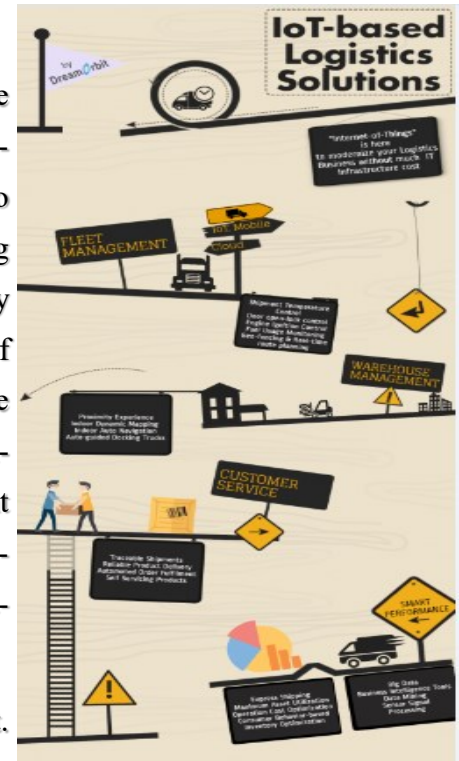
IoT is a tech trend that companies across different verticals, of all sizes, are talking about for different applications. Most of the companies try to innovate using technology and then end up with more manpower which leads to more chaos. The reduction in the cost of sensors and RFID devices; growing use of smartphones and cloud services; full-time connectivity- “from any time, and any place, now it is between anything” etc. will boost the use of IoT in logistics. By using IoT, it will enhance the speed of delivery, reduce the cost and increases in-transit visibility. The data generated from RF sensors or GPS trackers will enable to get a detailed visibility of a product right from the manufacturer to the retailer. Also, it helps the supply chain professionals to predict the delivery time, monitor certain parameters like temperature that leads to in-transit damage.

Big data and predictive analysis optimize the operations to a great extent. Petabytes of data are generated daily which should be stored properly so that it can be used to make proper business decisions. Thus the players in smart technology field come up with products that cater to all the sections of logistics. For example, the delivery schedule helps to schedule the deliveries according to the availability, capacity and time slots in the best possible manner. When it is integrated with the warehouse management system, loading/unloading happens on the basis of schedule.

So on demand and same day delivery will be the future market and the companies will face this as the major challenge. Those with technology advancements will have an edge over others and those who lack it will tie up with SaaS companies to leverage the power of technology. Thus complete automation will reduce the operational cost to a huge extent.

Mapping tier 2 and tier 3 cities is another real challenge faced. The addresses are not at all structured in India as in Western countries. In such case, maps would not be able to locate properly. Geocoding is the solution for this. It is nothing but converting the addresses into coordinates on the map. So when the customer enters the address, the system automatically segments into blocks and locate the coordinates on the map. Reverse geocoding is another solution, wherein one is able to connect with the customer in real time, access his GPS signal and get the coordinates on the map when he places an order.

More companies are now moving to technological innovations in logistics in order to gain competitive advantage. Some outsource to third party logistics providers (3PL's) for help. Drone delivery is the next level of customer retail technology. There is no need of drivers and it won't get caught in traffic which makes it the best to use for disaster relief. Regulatory issues, safety issues, the cost of creating the network, reliability issues etc. are few bottlenecks to this new technology. Driverless vehicles, which are capable of navigating without human input can enormously reduce the logistics cost. Thus the future of logistics is paved with innovation and technology.



# THE ART OF BEING SMART

## -How smart are our smart cities?

Suraj Verma S  
II MBA LOS



Prime Minister Narendra Modi, with his flagship program- “Smart Cities Mission” has made commitment to make smarter sustainable and progressive cities by 2030. Smart Cities are cities that provide better quality of living to citizens incorporating social and cultural dimensions. This concept of smart cities took shape in higher income countries of Europe and South East Asia with well-established physical infrastructure supplemented digitally mixing urbanization with innovation. Seoul, Barcelona, Singapore are some noteworthy examples. Eradicating poverty, easy access to affordable healthcare and education, basic housing services, employment and industrialization within the ecological limits, reducing inequality and supporting gender equality are the wider area that sustainable development goals (SDG) aims to fulfill. It should be citizen centric – focusing on the quality of life of average urban citizens. The Smart Cities projects include both brownfield (old - undergoing retrofitting and redevelopment) and greenfield (new) projects. The major focus area includes basic necessities like clean water supply, power supply, sanitation, waste management, public transport, affordable housing, network connectivity, governance, health, education, safety, security of citizens.

### **The present scenario**

The uncontrolled migration of people from rural to urban has resulted in cities getting degenerated. As the city sizes are constant, the more the migrants the more will be the growth of slums. Water, Power supply, public distribution system, education and healthy environment takes a toll. Museums, playgrounds, walking spaces, parks get converged. There will be upsurge in crime rates. Shrinking living spaces, deteriorating air and water quality, poor sanitation and traffic deadlocks will be the end results. Thus there is a demand for smart cities concept.

### **The dream Utopian city**

The Smart City concept should be smart enough to incorporate some key considerations into account:

#### **Dealing with transparency**

The full ownership of the city should be under the Government. The Government can provide leasing sanctions to the people with no-buy clause. After the agreement tenure, the owner or his family can choose to extend the contract by paying a renewal fee. The use of Adhaar for financial inclusion and transition to digital cash which in turn will lower the transaction cost and check corrupt practices- governance using digital platforms to create transparency and speed up the public services.

#### **Dealing with water, air, power demand and waste management**

Rain water harvesting should be promoted to meet the rising demand for water. The use of advanced agricul-



tural techniques such as drip irrigation and vertical integration farming should be encouraged for optimum usage of water. Such conservative and judicious methods should be used for creating water abundance.

Congestion tax on polluting cars restricting its entry, providing limited vehicle registration, incentivizing bicycle riders, creating walkable localities are some measures to check air quality

The usage of renewable sources of energy such as solar energy, biofuels to meet the surging power demand. Waste treatment plants which convert waste (chemical energy) to electrical energy can be used to generate electricity and eliminate waste.

#### Income generation

Creation of Municipal Finance List incorporating all goods and services eligible for local government taxation, providing a percentage share of revenue generated through GST to be handed over to local Governments and promotion of eco-tourism based on cuisine, culture and arts are some revenue generation means.

#### Other area

To create employment opportunities to the large migrant forces, they should be trained to acquire necessary skills for their job. Appropriate legal framework should be in place to address issues relating to smart city ecosystem. Employees should be allowed to go home after 6 pm to spend time with their families adds a social dimension to it

### **The road ahead**

“Citizen First” should be the motto behind the Smart Cities Mission. It’s all about uplifting the standards and quality of one’s living. How smart are our smart cities? Let’s wait and see....

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## **Do you know?**

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- ◆ The Tesla Gigafactory setup for mass-production of Lithium ion batteries will surpass 2013’s global production of batteries by the year 2020!
- ◆ Google’s self-driving cars are so ridiculously safe that the first road accident that it caused was on Feb 14 2016 after clocking more than 4 million miles on road!
- ◆ India's "Go Air" airline only hires female flight attendants because they are lighter, so they save up to US\$500,000 per year in fuel.
- ◆ Indian housewives hold 11% of the World's Gold. That is more than the reserves of the U.S., IMF, Switzerland and Germany put together.
- ◆ India’s first rocket was brought on cycle and the satellite on bullock cart.
- ◆ The village of Shani Shingnapur, India, had no doors, locks or crime for over 400 years until 2010.
- ◆ Breathing the air in Mumbai, India, for just one day is equivalent to smoking 100 cigarettes.



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# Alumni Interview

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**Alumni Name:**

Ananth Vasishta

Associate Project Manager, SAP Practice, Robert Bosch

BATCH (2009-2011)

**How your experience has been in Bosch - What do you like the most about it? What is your least favourite thing?**

It has been over 6 years in Bosch and it is a pleasant experience to be part of the Management Consulting Team at Bosch. It provides excellent international work exposure and a healthy challenge to work with. The thing which impresses me about a German company is its discipline, punctuality and process driven approach. On a lighter note, you should try our Bosch canteen. Very tasty and healthy food!

There is nothing negative to highlight about my company. Things sometimes move a tad bit slower since it is a process driven company. It is a good and a bad.

**What made you choose this company?**

My internships were related to ERP and so was my final year dissertation. This was a perfect blend of what I wanted to do and what I luckily got through my placements. I consider myself fortunate to be placed here, at Bosch. Being an engineer with operations background, I couldn't have asked for a more logical career path.

**What is your opinion regarding any of the biggest improvement this company has made you to go through ever since you graduated?**

Professional life brings a lot of maturity and discipline. A company driven by these values gives lot of options and avenues to improve. Every day is a new learning and we are still learning.

**What challenges do you think we (juniors) would encounter at companies such as Bosch?**

I always stress on "soft skills" as a big gap between our college and the professional life. Soft skills, interpersonal skills and punctuality comes by imbibing them in our day to day activities - whether it is at home, college or office.

**How much of the MBA concepts did you apply in the industry you are in?**

What I learnt in my college really geared me up for a very professional life. Concepts learnt in the MBA classes can be seen in practice on a daily basis every single day. It may not be in the exact form as in text books, but definitely you will be able to relate it with what you do.

**What are your suggestions for the future graduates joining your company?**

Learn to Work Smart! It always guarantees you success.

## SIP EXPERIENCE– SHIPPR



**Pravin Shinde**

**II MBA LOS**

In many Universities, students feel that after submitting assignments, completing projects and studying till late night for stressful examinations, summer is the season of relaxation. But in Christ University, the students are given an overwhelming opportunity for spending their summer to be employed as interns in organizations.

My internship experience at Shippr Technologies taught me more than I could have imagined. It's tough for me to recall everything that I have learned through past months, but I would like to share some of the most beneficial lessons that I have learned.

I started my internship at Shippr on 4<sup>th</sup> April, 2016. My company is a startup which was founded in September 2014. The services provided by Shippr cater to the field of Logistics Industry. The CEO of company is Mr. Rohit Fernandes who is an engineer with a Masters in Supply Chain Management and Logistics. He previously worked for a UK based Food Supply Chain company managing an inventory budget of about £20 million per annum. He comes from a family of 'logisticians'. He feels that Logistics sector is highly unorganized and he has observed the day to day problems faced by fleet owners, drivers and customers.

Working in an environment of a startup was very different from the traditional reputed companies working environment. You don't have special cabin or such, even the CEO of the company resides with the other prospective employees. The responsibilities performed by employees are highly integrated like HR employees working on customer relationship management, Financial Track records then Operations employee doing the tasks of finance, marketing etc. Actually this will give you an edge over understanding of all the departments and how they function at detail level. The biggest advantage working as intern in startup is that you don't report to any specific employee, you have to work with IT, Finance, Marketing, Operations team to solve the business problems that company is facing. The projects are very challenging and competitive in nature.

The next project I worked was in co-operation with Snapdeal's sister company Vulcan Xpress which took care of end to end logistics. Here the most important thing I learnt from senior management is that Logistics, Supply Chain Management etc. is nothing but just TRANSPORTATION which mainly deals with the problems of drivers and their vehicles. Most of these people are not graduate and some are even illiterate, which is why they have a mentality of skipping work which, in turn, reduces the capacity utilization for the organization. Hence when you are working at ground level with these type of people, you have to be very calm and take decisions accordingly i.e. you need to have the best, people managing skills.

In this way, I have learnt many practical things and solved the problems in a unique manner which I could have hardly learnt in college environment. It was memorable experience working with Shippr.



# SIP EXPERIENCE- BEING AN INTERN AT UBER

**TRISHA TIWARI**

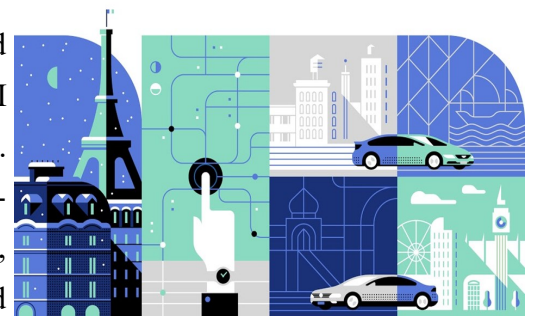
**II MBA LOS**



After a long series of mails and calls saying “No” from many HR’s, at last on 2<sup>nd</sup> April, I got a “Yes” call from Uber India Systems Pvt. Ltd., Indore that I would be given an opportunity to work with them as an intern. Uber is an American multinational online transportation network company headquartered in San Francisco, California.

I joined Uber on 4<sup>th</sup> April’16 and after 10 minutes of casual talk with the City Co-ordinator and also my corporate mentor, Mr. Priyanshu Tapariya, I was assigned with lot of their routine work. Uber’s office culture was way opposite to my imagination. They didn’t have a classical huge office building with several departments. It was a very young workforce of 15 people with three permanent employees (Operations, Marketing and HR) of Uber because of its “3 Employees Policy” and the work culture was also very casual and flexible. I didn’t have the leverage of proper briefings and observation periods in the beginning. They continued giving me task as per their intern’s schedule and after making several mistakes, I somehow managed to understand their operations and work style and fitted myself into it.

After 3-4 days, I started attending the issues of partners/drivers and started conducting partner’s education sessions while on-boarding. I also started joining the quality and demand-supply analysis meetings. It took around 10 days to get along with the work flow and getting familiar with the way of dealing local partners which was, by the way, the toughest and most important part. During that period, I realised



huge driver churn was one of the critical issue company was facing which was directly affecting their supply in the market. Hence, I decided to work on this problem as my project along with the regular assigned work. I focused on improving the quality metrics of Uber, including driver quality, improved trainings etc. to reduce driver churns. Other than this, I was also assigned the standardization of the on-boarding process and increasing supply in market. The team was very open for all experiments based on my suggestions. I implemented all of them, a few failed but many of them worked yielding significant improvements.

As the end approached, the team started trusting and depending on me for the whole on-boarding process and quality issues which gave me a great sense of pride. Though I worked with no weekends off and even overnight during high times, but it was completely worth it. All of this ended with an emotional appreciation party and me being a part of the “Uber Family”. With no work-ex, those were the most productive 2 months of my life which is definitely going to act as foundation to shape my career ahead.

# Corporate Interview

**Mr. Prashant Bopardikar,**  
**Supply Chain Head, Bestseller,**  
**Mumbai.**



**INTERVIEWER:**

**Shraddha Ranga Rao**

**II MBA LOS**

BESTSELLER is an international, family owned fashion company with a range of 20 individual fashion brands such as Jack & Jones, ONLY, VERO MODA, SELECTED etc. It operates across 15000 multi-brand and department stores present in Europe, Middle East, North and South America, Canada and India. Mr. Prashant Bopardikar heads the supply chain management for the India operations. He has experience in retail management and has previously worked for companies such as Future Group and McDonald's. The following telephonic interview was conducted by Shraddha Rao, who is a final year student of LOS.

**Greetings from Institute of Management, Christ University. I'm really glad to interact with you about the Supply Chain Management and hope to benefit from your insights.**

**What type supply chain model is used in apparel retailing?**

We use a combination of pull and push model. When we launch any new product, we need to test the product first hand based on the fashion trends, so the product is pushed into our stores for the customers to choose from. The replenishment of the fast moving stock is when the pull system comes into picture.

**What kind of challenges do you face while adopting hybrid model?**

Challenges in this model are that if the product is not doing well, we have to pull it back from the stores to create place for new merchandise. This puts a lot of pressure on having an accurate prediction for the future sales. The forecast for a particular product is made and accordingly sent to the stores, but if there is any delay at any stage, the impact on sales is drastic. Fashion industry is really sensitive in this regard.

**So, the time-to-market becomes an essential parameter to gauge the performance of the supply chain management in this context?**

Absolutely, it is the most essential parameter for our performance. The lesser the time, the more is the scope for sales. The risk of a fashion trend failing reduces drastically, if the product is at the store when it is in vogue. If the product does not reach the stores on time, the whole lot may get rejected leading to a huge loss to the company.



### **Coming to the forecasting of demand, what is the process like?**

Forecasting happens at store level. A store in one city might do well in some products, but may not require certain other products in the same quantity. So we follow a bottom-up approach as opposed to creating centralized forecast and distributing to the stores. The store level forecasts are accumulated and compiled in a central system and then orders are placed accordingly.

### **How automation has changed the operations of the company?**

Automation occurs at different levels. The store-level operations which is the front end, collects the information about sales and customers. This shows the products which sell in a particular store and which don't. This also helps in planning for discounts and other promotional offers. We use technology to collect vital data for the forecasts. Automation in the warehouse is equally important. To fulfill the orders that are placed, the warehouse must be able to respond quickly.

### **Operations efficiency is highly boosted by automation, but that requires huge capital investments. How do you achieve a tradeoff between the cost and the level of automation?**

We prefer man-machine model. Certain activities need accuracy and precision for which we need machines. For other processes, we prefer human labor. In the US and Europe, the cost of human labor is very high and the availability is low. Using machines in these countries is very beneficial and the return on investments for this automation is quickly realized. In case of developing nations like India, labor is cheap and the cost of automation is high. Thus, where we can use one machine, we use two persons and it still costs us less in the long run. Following a combination of automation and human labor is the best way to go about it.

### **India has experienced a sudden boom in the e-commerce platform and more and more customers prefer to buy online rather than the brick and mortar stores. How has this changed the supply chain?**

Online shopping has actually helped our sales. People these days don't even have time to shop for themselves. Brands like Nike, Puma, Adidas etc. do not need to test tier products through stores because their products are more or less standardized. A customer buying a shoe of size 9 today will probably change the model next time. So their forecasting is much simpler than it is for apparel. We have expanded the pie. Every sale through an online platform is additional revenue for us. It is better to have a presence online in such growing markets. We invest time and energy in perfecting our forecast and the rest falls into the picture.

### **But with the increase in online sales, the number of returns and rejects has also increased compared to brick and mortar model. Has reverse logistics been an issue?**

The issues that commonly occur are in terms of the fit or the misunderstanding of the product specification. With standard products such as denim jeans and T-shirts, we do not face much of an issue. But in new products and new fashion line, it is a little tedious process however, it is a part and parcel of the operations because

whatever products unsold at the stores have to be picked up and returned to the warehouse.

### **What kind of job roles/profile can new recruits expect?**

In supply chain management for apparel retailing and merchandising, new recruits usually begin as supply chain analysts. Then their growth in the form could be as the facility manager, business analyst, supply chain consultant and so on depending on the size of the company and the supply chain structure.

### **Would you like to give any tips/suggestions for the LOS students?**

I would say focus on analytics and demand forecasting. Work on the fundamentals, the rest will be taken care of. All the best for your future!

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## **Experience at Lavasa**

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**Shraddha Ranga Rao**

**II MBA LOS**



The Institute of Management, Christ University has taken the initiative to equip the First Year MBA students of General Management and Lean Operations and Systems Specialization with a certification in Six-Sigma (Green Belt) offered by KPMG India Ltd. from 2014 batch onwards. While the 2014 batch had the training sessions in respective Bangalore Campuses, the 2015 batch was taken to Lavasa for the same for a period of 4 days.

Lavasa is a private, planned city being built near Pune. It is stylistically based on the Italian town Portofino, with some streets and several buildings bearing the name of that town. The journey to Lavasa from Bangalore was in two parts – an overnight bus ride to Pune where we were welcomed by the Lavasa Campus student co-ordinators near the Pune railway station, followed by a 2-hour uphill ride to the quaint city of Lavasa. The scenic landscapes of the hills with a stop near the Temghar dam provided many click-worthy photographs. Being at 640m elevation from sea level and surrounded by mountains on all four sides, the city had a very pleasant atmosphere. The accommodation for us was given at the Christ Hostels on a triple sharing basis. The hostels were not just spacious, but had air conditioning, common kitchen areas and a curfew of 10pm which came as a big surprise for Bangalore Campus students!

An itinerary was handed out to us which included various outdoor activities and free time to explore the city on our own after the completing the training sessions. Breakfast and lunch on all days were taken care of by the college and one dinner, as a part of the barbecue night, was included. The Lavasa Campus of Christ University is tastefully designed with ample open spaces. The architecture is modern and the colors match the city and blend effortlessly with the bountiful nature.



A briefing session was conducted on the first day where the college authorities and the students welcomed us and highlighted the various places of interest in Lavasa for us. The sessions began on time everyday and our trainers were highly knowledgeable. They provided us with course books beforehand. The training sessions covered all the 5 areas of DMAIC and the various tools in detail. It was a very interactive session and required a sound understanding of statistical tools. We worked primarily on MiniTab (Windows OS) and MiniTab Express (MAC OS). This is a free software and can be downloaded along with a dataset that has small exercises to test each of the tools. Hands-on practice made the learning experience immersive and added value to the certification. Breaks were given periodically and the vending machine on the campus provided relief to the hunger pangs.

Each evening came with a new activity starting with boating and kayaking at the lake on the first evening. Small eateries on the lakeside provided us with a nice seating option and a brilliant view. The city is very small so it was very easy to walk from the lake to the hostel after having dinner at the long line of restaurants opened up on the streets near the lake.

The second day started with a simple breakfast at the college and two sessions of various tools and phases of a Six Sigma project. We were segregated as teams of 5 and asked to formulate project charters and roles for managing the Six-Sigma project. The day ended with a Segway ride and plenty of time to explore the city. The city is a little expensive considering the limited variety it offers, but there surely something for anyone who reconnoiters.

Third day began with a nature trek early in the morning. It provided a fresh start for the day. The sessions winded up at 5 pm and we were taken to a land clearing near a stream for a bonfire and barbeque night. The spirit of Christites was kept high with dance performances, singing and music. After the barbeque night, we were dropped back near the lake where we had time for desserts and clicking plenty of memorable moments.

The fourth day had one session in the morning and a test in the afternoon. The test was of 1 hour with 60 questions. The activities in the class and the reading material were sufficient to score good marks. A bus was arranged from Lavasa to Pune for students leaving for Bangalore on the same day, and another bus for the next morning as we had made our own travel arrangements. The trip was a very fulfilling one with three benefits - the certification course, the beautiful city of Lavasa and a fun time with friends!

# ARE YOU READY FOR THE FEST??

**Beauty Singh**  
**II MBA LOS**



Fests play a vital role in your college life. They give you a much needed break from the regular classes at the same time, help you gain skills that mere books cannot teach. A platform where Students from across country come to showcase their talents. It forces you to socialize and discover your hidden talents. Some of the important management skills that are tested through various management fest activities are strategic thinking, communications, problem solving, presentation and Emotional Intelligence. Participating and winning various fest activities is an excellent way to build your resume and show recruiters that you possess unique talent.

Rounds which could be common across all events are: **Business Quiz**, where the participants will be asked business related questions, it might consist of levels like multiple choice questions, Logo Identification, Business Personality Identification, Quotes from Corporates and Rapid Fire round. Hence, keeping yourself updated with these details, will help you cross this hurdle easily. **Treasure Hunt** is also one of the rounds which is conducted for almost all the events. In this round, participant's problem solving skills and basic knowledge of surveying is tested. Each team or participant is provided with a set of clues and on the basis of those clues they have to find the hidden treasure within a given period of time. The team which is fastest, wins the round. **Stress Interview** could also be a part of your fest activities, this is conducted to throw the worst at you in order to get the best out of you. The participants in this round, need to show their ability to handle stress. Also, you might face a round called **Start with Rs 50**, this activity was developed by the Stanford University to introduce entrepreneurship skills among students. In this round, each team gets Rs 50 as an initial investment. They are required to start a virtual company and come up with a product or service to create maximum money in one whole day. The team that makes the most money, wins.

Rounds specific to Operations could be: **Operations Management Simulation**, where you get an opportunity to enter the unpredictable, exciting and happening world of operations. Understand the importance of time and effective management through a simulated environment. All you need to do is, put your thinking caps on. You will be asked to take over the operations of some existing supply chain, manage their cash, production and inventory, keeping various constraints in your mind. Another round which you can expect if you are planning to go for an Operations event is **Paper Modelling**, Where participants could be asked to make Models like simple Catapult powered by plastic band using nothing more than paper, glue, an elastic band and a bottle cap. The team whose Catapult fires to the maximum distance, wins.

Hence, Key to win these Management fest events could be staying updated on the latest business news, gain a good domain knowledge and also grab every opportunity you get to develop skills like problem solving and communication.



# What's new?

**Sakshi Mishra**  
**II MBA LOS**

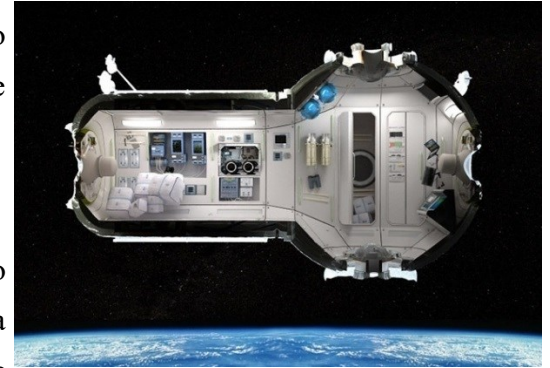


## **A robot to schedule your meetings**

Artificial Intelligence can be your personal assistant. New app x.ai lets you email "Amy" (robot) about a meeting you want to set up, and she checks with you and the other person to find a time that works.

## **A hotel in space**

Russian company Orbital Technologies will be sending tourists into space. Guests would zoom up to the Commercial Space Station on a



rocket, and spend their time in one of the station's four cabins enjoying zero gravity and watching earth through the ship's giant portholes.

## **End to language barriers**

Messaging and voice call service Skype recently released a live translation tool, Japan is trialling a live translation megaphone to use during the 2020 Olympics, and Google's Translate app translates street signs and real-time conversations. It looks like technology may finally be breaking down the final barrier in worldwide communication.

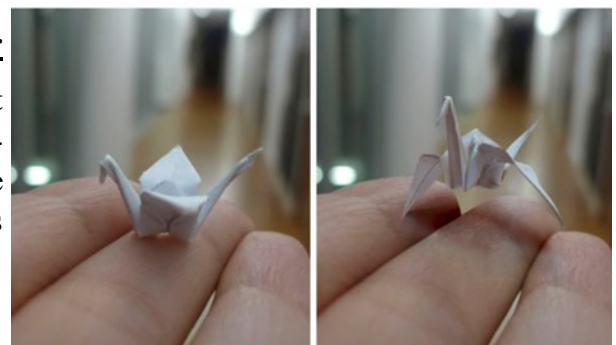


## **Adapx Capturx Forms for Excel**

Adapx Capturx Forms for Excel includes an Anoto digital pen and software to focus just on forms. You can fill out a form with the pen, and only the data for that form is captured such as name, checkboxes for medical conditions, or a social security number. That more limited approach may be the innovation required to make digital pen technology work for more businesses.

## **3-D Manipulation- An Augmented Reality Photo Editor**

University of California at Berkeley have developed the first application that lets users scale, rotate, and move onscreen objects in the 3-D space. Normally, such tasks would require hours of work and professional skills, but the software does them in minutes, and with very little processing power.



Original Photograph

3D Manipulation of Object in Photograph

# UDBHAVA QUIZ

1) Where did Honda Motorcycle open the world's largest manufacturing plant?

A) Maharashtra B) Karnataka C) Gujarat D) West Bengal

2) Which technology do self-driven cars need to be safe at high speeds.

It is a surveying technology that measures distance by illuminating a target with a laser light

3) LG Electronics is set to partner with which automobile company to develop connected cars?

A) Honda B) Volkswagen C) BMW D) Toyota

4) Which country is quickly moving to mirror-less cars?

A) China B) USA C) Japan D) UK

5) What is the name of the fastest electric car developed by IIT Bombay students

It could touch 0-100 km/hour in 3.47 seconds

6) Which company recently launched a truck with telematics?

A) Eicher B) Tata Motors C) Volvo 4) Isuzu

7) Why was Chinese robot "Geta" recently in the news for?

8) How many new cities were added to the existing list of 100 smart cities ?

A) 10 b) 9 C) 12 D) 7

9) What are the 2 cities in Karnataka that made it to the top 20 list of smart cities?

10) Which state was the first to enter into an MoU with EESL for replacement of all existing street lighting with energy efficient LEDs.

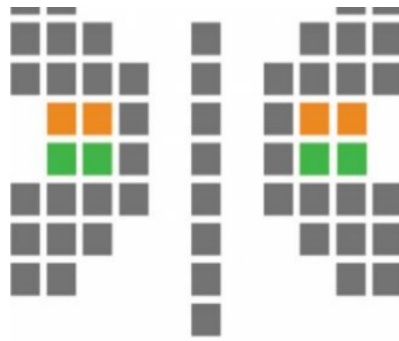
11) Which city bagged the National Earth Hour capital?

12) Why was a Special Purpose Vehicle approved for Dharamshala?

13) Which city introduced predicting water supply through mobile technology?

14) Recently France Signed a MOU with three different states/union territories in India to develop smart cities. What are those three different cities?

15) Connect the below two images



ANSWERS:

- 1) Gujarat
- 2) Lidar technology
- 3) Volkswagen
- 4) Japan
- 5) Orca
- 6) Eicher
- 7) It is a laser guided robot that could lift a car and park it without manual intervention
- 8) 9
- 9) Belagavi & Davangere
- 10) Rajasthan
- 11) Rajkot ( for their substantial long-term commitment to combat climate change)
- 12) To approve and sanction the projects and execute the Smart City proposals and mobilize the sources
- 13) Hubli
- 14) Nagpur, Pondicherry, Chandigarh
- 15) Smart City





# Pandora's Box Unleashed

Internet of Things is the "6th Sense" humans long for. In a brief, it is wherein any object is given an unique identification (IP), find a way for it to communicate to internet, mount a sensor either to see/hear/smell/taste/touch and find a use for it! Communication is no longer between "people to people" or "people to things" anymore; it is now between "things to things". It is about time IoT is unleashed!

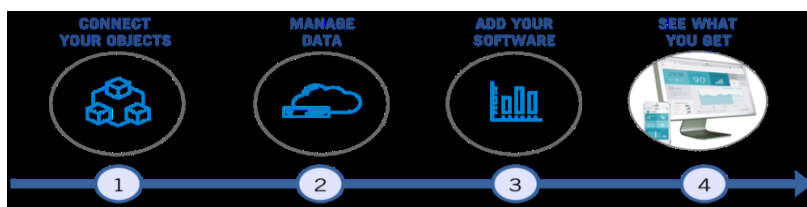


The advent of SMART Cities gives us immense opportunities to unleash the PANDORA's box, which in this case is "IoT". Increasing population, increasing internet and mobile users and the data being collected on Cloud also suggests, this is the right time for us to tap the real potential of "IoT".



Ever wondered on the applications of IoT? What if you wake up to an alarm set automatically by your clock synched with your calendar. As soon as you wake up your coffee is ready for you as per your taste. You get a message on the phone regarding what you need to eat today for your breakfast. The car is out of the parking lot waiting for you in the front of the gate with a route already ready to get you to your meeting quickly. Your car also sending an email/

message to your boss or colleagues that you are on your way. If this makes you think that it is an intrusion to your privacy, you are certainly "Human". Yes, this is the reason I use the word "Pandora's Box" in this article. IoT can monitor or even control the things around you without even your slightest consent. Sometimes it may sound scary, but the applications are enormous. Through the concept of SMART Cities, we are trying to control all that is surroundings us, living and non-living.



Ever wondered what the word "Things" in IoT means? Goods, Objects Machines, Appliances, Buildings, Vehicles, Animals, People, Plants, Soil; all these are known as "Things".

SMART cities intend to connect all these "Things" onto the Internet. Right from the street light switching ON when it senses darkness, to the ambulance being outside your house as the doctor knows you will be having a cardiac arrest beforehand. It is both mind-blowing and mind-boggling at the same time. Whatever you feel it is, it sure is a reality.

IoT is a tool, in right hands, boon to mankind; to leave a legacy behind us. We just hope we can contain what comes out of the Pandora's box for now!

# Smart Waste Management for a Smarter Environment



**Ruchi Punna**  
I MBA B

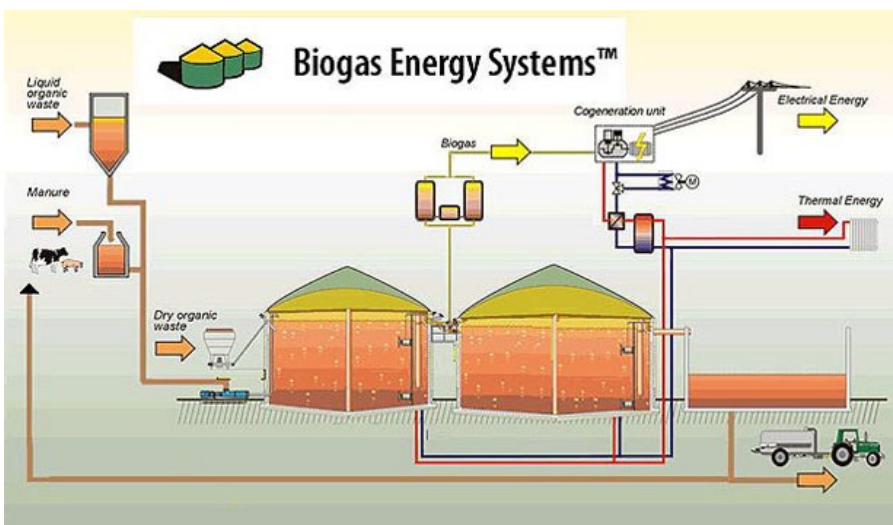
**Prarthana S Reddy**  
I MBA B



With the growing population there has been a huge rise in the amount of waste generated causing a nightmare to the municipal authorities. Every house hold on an average generates about 700grms of waste which adds up to about 250kgs per year. All this waste generally ends up in landfills causing environmental pollution and hazards. As we know now a days the main goal of Govt. is to develop smart cities across the country. This can be only achieved if waste management is done hand in hand with the development of technology.

As we know that people are shifting towards the consumption of organic food. So to make the environment smart there is a need for each and every citizen to put in their contributions. This can be achieved on a community level by collecting the wet waste of the community and dumping it in a common community land fill. This would be the best implementation of the 3R strategy (viz. Reduce, Reuse and Recycle). The wet waste that is collected here can be treated and converted into manure. This manure which is made from absolutely low cost and organic in nature can be distributed to the nearby farms (adopted by the community) where it can be put to use. Hence, organic food can be produced at lower prices and is much healthier then the food produced using artificial fertilizers.

The Govt. can contribute in the same programme by trying to generate by products like biogas at each of the land fill location. As the globe is shifting towards the use of renewable energy resources this would be the right opportunity for the Govt. to produce more renewable energy at a cheaper cost. The biogas the produced can be used for various purposes. The Govt. can also provide subsidies to communities taking part in these



activities so it will be like an encouraging factor for more communities to get involved. The biogas energy system is shown below:

We have only one planet called earth and it's our responsibility to take care of it so that we can preserve the best for our future generation. Only small steps can make a large difference in the long run.

# Pokémon Go: A Revolution in Mobile Gaming

Harsha Kriti

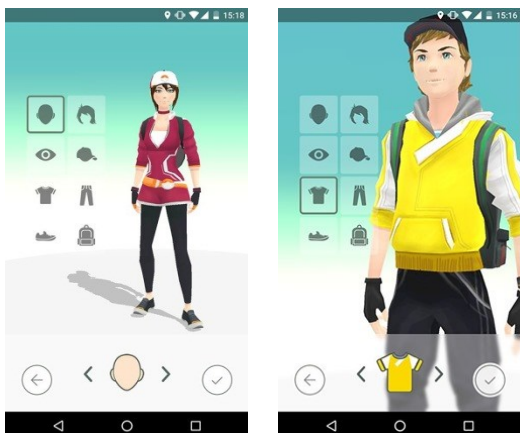
II MBA LOS



Ever wondered your childhood fantasy, Pokémon would come to life in real world? Niantic Labs in partnership with Nintendo and Pokémon Company made it possible by releasing an app, “Pokémon Go”. The app is an augmented reality (AR) - based game that makes use of your iPhone or Android phone’s camera, GPS and position sensors to create a virtual Pokémon world in which cute, little “pocket monsters” appear in your living room or on a street you are passing by. In simple terms, it is a virtual world which is layered over real world. The game lets you catch the creatures that are spread across various places and landmarks using Pokéballs that appear in front of your phone camera. Right from its launch in U.S., Australia and New Zealand on July 6, 2016, the app’s popularity has skyrocketed breaking all records and stood as U.S.’s biggest mobile game ever with 26 million daily active users. The man behind the success of the app is John Hanke, CEO and founder of Niantic Labs.

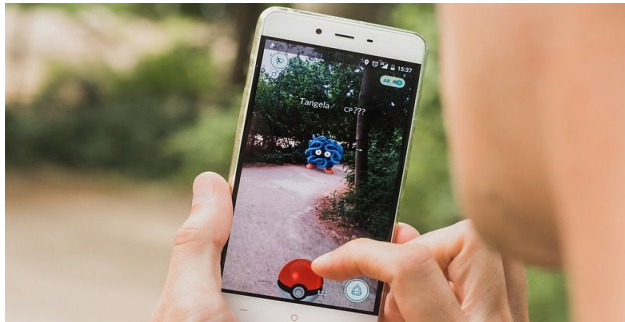
**Gameplay:** The game, so far, involves tapping on the Pokémon appearing on the screen as you walk around places and catch them using a virtual Pokéball. Spawning of a type of Pokémon depends on different terrains across the land. For example, there is more likely of water type Pokémon appearing near lakes, beaches and rivers. XP points are gained as and when a player catches a Pokémon. Some of the features in the game include:

**Character:** Right after the app is installed and opened, player is prompted to choose a style of character that represents him/her in the virtual world of Pokémon. Couple of customizations like skin tone, color of attire and hair color can be done.





**Capture Pokémon:** The game contains a total of 142 unique Pokémon that can be caught by players each having different abilities. There is an option for evolving Pokémon into next form if sufficient virtual candies of that creature are available.



**Pokestops and Gyms:** A Pokestop in the game is a virtual location where players can collect various items like Eggs, Pokéballs, Potions, Revives and Razz berries by reach that location in real world. Each of these items have utilities for different purposes and situations. All the items can be accessed from virtual bag provided in the game. Gyms are another special locations where players battle each other with the help of Pokemon they caught. Player can choose from three teams (Red, Blue and Yellow) after reaching Level 5 which they represent during Gym battles. The aim of Gym battles is to acquire as many gyms as possible by increasing team prestige.



Overall, the game has a social element as it lets players explore places, team up with other players and encourage a sense of loyalty and bond between them. The specialty of this game is that it takes place in the real world by interacting with digital world elements.

### **Technical Requirements:**

#### **Android Phones:**

**OS:** Android 4.4 to Android 6.0.1

**GPS and location services**

**CPU:** No support for Intel Processors

**Internet:** 4G or 3G, Wi-Fi

**Camera:** preferred resolution is 720x1280 pixels

**iPhones:**

**Device:** iPhone 5 and above (No support for jail broken devices)

**OS:** iOS 8 and above

**GPS and location services**

**Internet:** 4G or 3G, Wi-Fi

**Camera:** preferred resolution is 720x1280 pixels

**The Good and the Bad:**

**The Good:**

Distinctive location based gameplay.

Seamless integrity between GPS, camera and the app which allows smooth gameplay. Unlike the other mobile games, this encourages physical activity and exercise by making player walk couple of kilometers in order to progress further in the game. Huge potential for business opportunities exists as players discover new restaurants, retail shops and more.

**The Bad:**

Frequent server crashes

Pokeball freezes sometimes after catching a Pokemon

Catching a Pokemon nearby is difficult as the exact distance of that creature from the current location is unknown.

Few inappropriate locations for Pokestops and Gyms.

Game's location based features could be exploited by robbers to steal from players thereby increasing crime rate.

**Verdict:**

Pokémon Go is not the first augmented game, but the potential of this genre has come to light with its launch.

Although the game has taken over markets by storms, it does not get rid of some bugs. At this stage the game is not perfect and has lot of scope for improvement. Certainly, Niantic Labs might address these issues in further updates of the game. But the success rate of this app in the long run depends on the addition of new features like player to player battles, trading and social chat. Finally, keeping aside the cons of the game, on the positive note, the game is a “dream come true” for all the fans of 20-year old franchise, Pokémon and a different experience for non-fans in the genre of mobile gaming.

Overall rating of the game: 4/5

# UDBHAVA TEAM



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**Prashant Mali**

**T Karthik Kumar**



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**Pranati Misra**



**Gali Raghunadha Reddy**

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**Rupinder Dhamija**

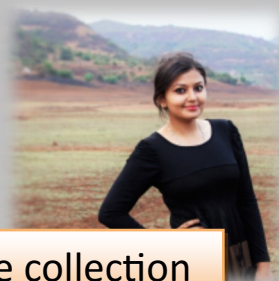


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**Sakshi Mishra**

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