



# TCE**xpression**

**TATA** CONSULTING ENGINEERS LIMITED

Volume 50, Issue 4 - December 2013

powered by  
**people**



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Amrish Chilimbi	Ashish Kumar Verma	Kanchan Ghuge	Priya V
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Arivalagan Arumugam	Dhiraj Verma	Kavita Mudgal	
Arpita Dey	Gunthey P	Nikeeta Ray	

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#### Design Agency

Basil Leaf Creative

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#### A note from the Editor

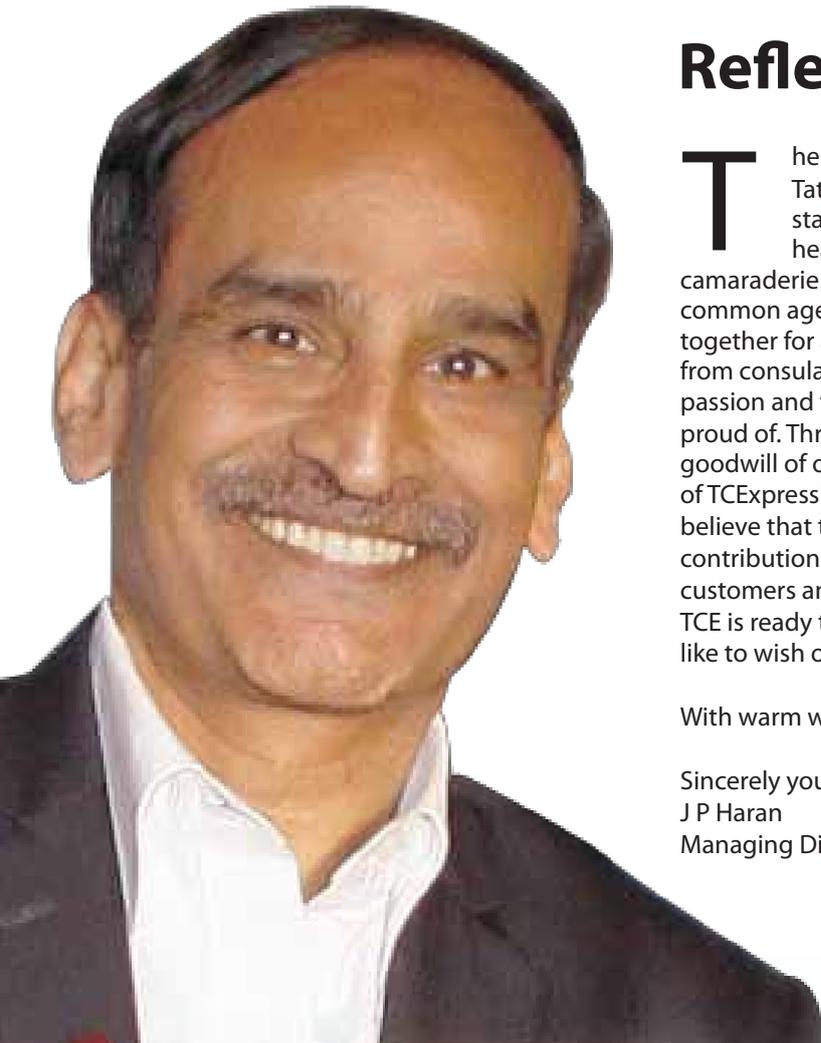
This issue of TCEXpression has a celebratory mood to it and rightfully so. The last quarter of the calendar year at Tata Consulting Engineers is characterized by celebratory events. Employees came together to celebrate festivities, there were contests and activities, and a lot of colour around. TCE Day, where employees put up a grand show of talent, was celebrated across locations. While the talents were showcased, people teamed up for activities and bonded. TCEXpression is an expression of energy, of passion and youth. Indeed, TCE is fifty-odd years young in 2014. The New Year is a toast to a young TCE - Happy New Year !

Do speak out at - [TCEXpression@tce.co.in](mailto:TCEXpression@tce.co.in)

**Mallika Sriraman**

# TCEXpression

Volume 50, Issue 4 - December 2013



## Reflections

The year 2013 ended on a high note for all of us at Tata Consulting Engineers. We engaged with our key stakeholders – our customers and our people. It was heartening to witness first hand, the team spirit and camaraderie within the organization as they came together with a common agenda. 3000-odd employees, put their heads and hearts together for a landmark customer night with customers, bureaucrats from consular offices and our partners. The creativity, the talent, the passion and the energy of our people is something I am truly proud of. Through the years of TCE's existence, people power and the goodwill of our customers have contributed to our success. This issue of TCEExpression is dedicated to our people and our customers. I truly believe that the decades ahead will continue to be shaped by the contribution of our employees. With the patronage of our esteemed customers and the strong knowledge base that we have nurtured, TCE is ready to scale up to new levels. With this positive note, I would like to wish our readers, a very successful year ahead!

With warm wishes,

Sincerely yours,  
J P Haran  
Managing Director

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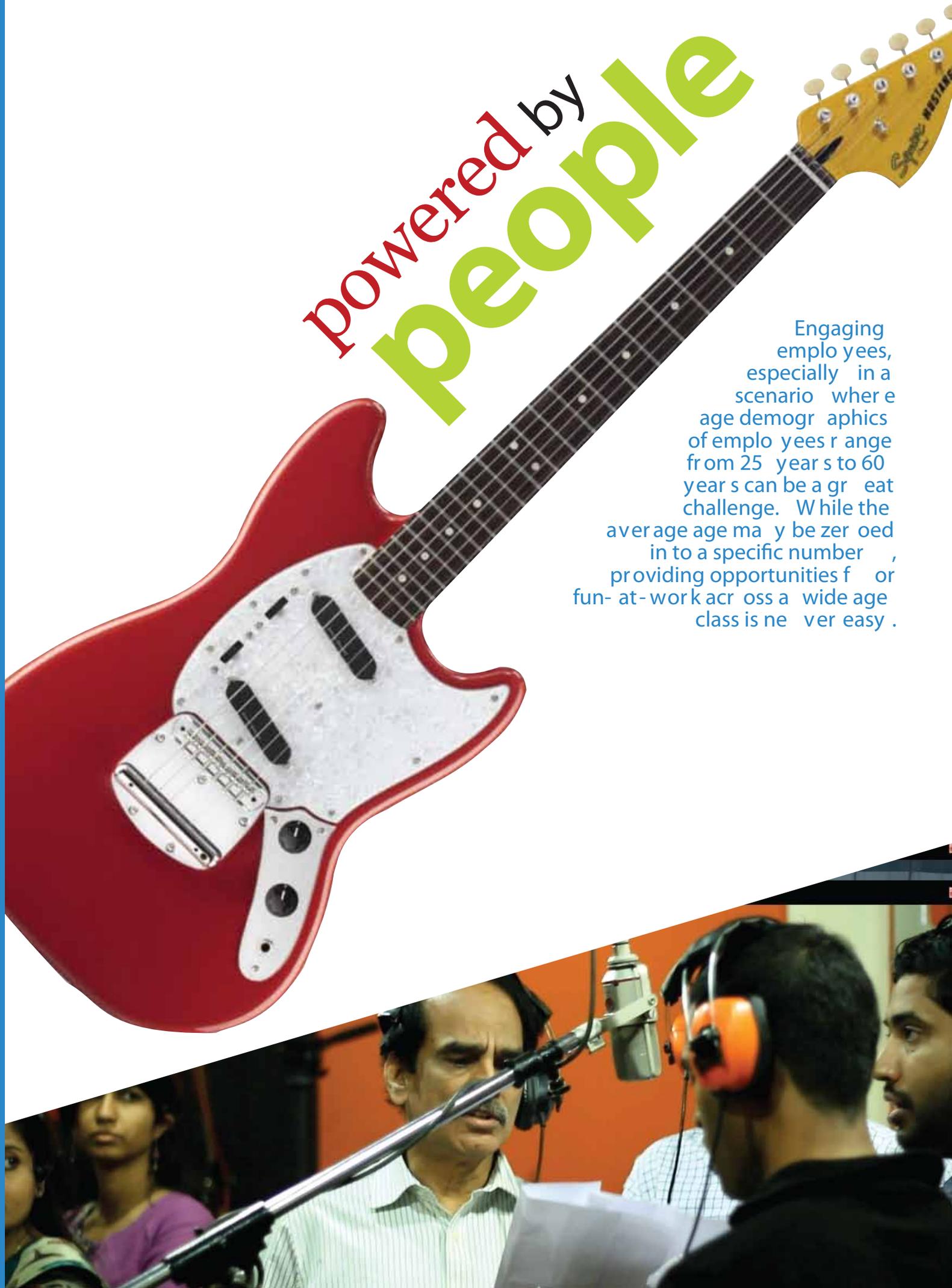
TCE Endeavour



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# powered by people

Engaging employees, especially in a scenario where age demographics of employees range from 25 years to 60 years can be a great challenge. While the average age may be zeroed in to a specific number, providing opportunities for fun-at-work across a wide age class is never easy.



**O**rganisations have gotten into the box to think out of it and create a new experience for their employees.

Campaigns, employee-managed radio stations, flash cards and spot recognitions, impromptu celebrations, volunteering to CSR activities, etc have infused a sense of belonging among employees.

In a globalised environment, work place boundaries have blurred. Today's workplace is a melting pot of cultures, age, attitudes and skills. So what is the quintessential fun-at-work initiative that can cut across cubicles and make people excited? The sheer diversity of employees adds colour and substance, making for a unique organization. Tata Consulting Engineers now looks towards new horizons and new beginnings as it completes 51 years of existence. What could be the one thing that will bring all employees young and old, new employees, lateral hires and senior members who have been with the organization over several decades?

## Making of the Music Video - Nothing can Stop us Now

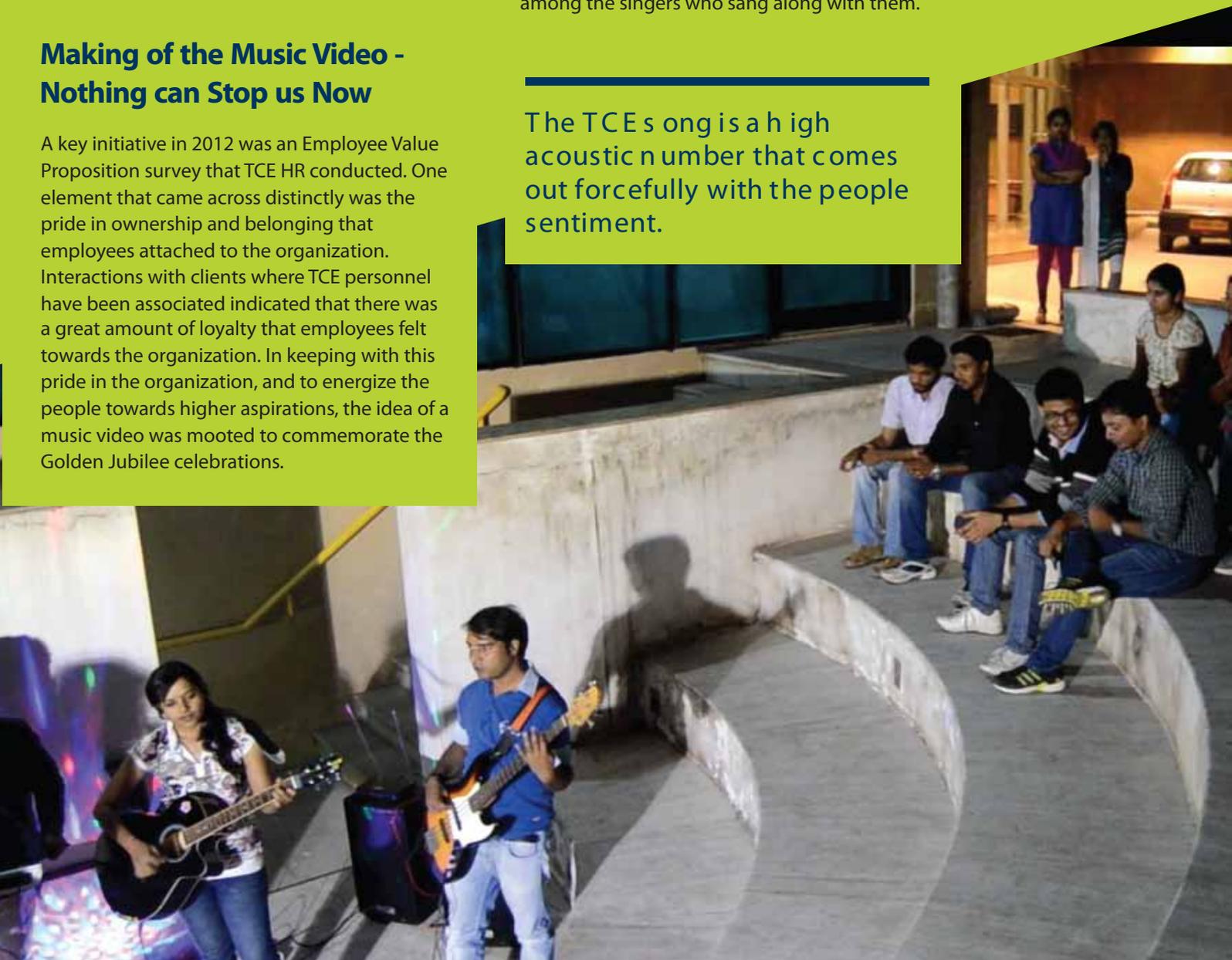
A key initiative in 2012 was an Employee Value Proposition survey that TCE HR conducted. One element that came across distinctly was the pride in ownership and belonging that employees attached to the organization. Interactions with clients where TCE personnel have been associated indicated that there was a great amount of loyalty that employees felt towards the organization. In keeping with this pride in the organization, and to energize the people towards higher aspirations, the idea of a music video was mooted to commemorate the Golden Jubilee celebrations.

## Bringing teams together

The TCE song is a high acoustic number that comes out forcefully with the people sentiment. The refrain - We are the tigers, Unleashed to conquer, We'll make a difference, Nothing can stop us now - pulled at the heartstrings and infused energy and hope across the organisation.

The song was written in-house and the background music was recorded. A preliminary recording of the song was done to facilitate filming. Next in the agenda was the talent hunt across seven locations. Volunteers signed up for the audition. Singers were selected through video conferencing from Mumbai. Every location was represented by singers who were flown down to Mumbai for the final recording. The singers, who were mostly amateurs, had an experience that they could never forget. The icing on the cake for the singers was that Mr Haran, MD, TCE, was also among the singers who sang along with them.

The TCE song is a high acoustic number that comes out forcefully with the people sentiment.






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## **We are the Champions, we'll make it happen – Taking the message across**

The song was recorded, the orchestra synched and digitally mastered. The next challenge was to ensure a uniform recording of video footage across the locations. This task loomed so large, primarily from the cost angle. A 3 - minute video has to be cost efficient. It was decided to tap in-house talent and creativity. But how where we to coordinate, shoot and collate footage in a cohesive manner? The key person coordinating with the locations was Bharathi Vishwanathan, Cultural Officer at TCE. The recorded song and a suggested list of shot requirements were sent across to the locations. The camera output requirements were specified. The camera crew at each location came on a conference call with the film director in Mumbai. Again time was of the essence. The locations had a window of one week to shoot and send in the footage to the corporate office. This exercise was a first of its kind. No one had ever shot for a music video nor posed or acted in one. There always is a first time for everything! Thus the buzz began to happen. The management at the locations pitched in. The young engineers donned the cameraman's hat and barged into



meeting rooms for raw footage, got people to loosen up and got the fun meter going. The song blared out of laptops, phones and speakers. People sang along, danced and clapped, thumped on the desks, trooped around in the corridors. This was a song and dance sequence that got about 3000 employees singing to a common tune, beating to a single rhythm. The Bangalore team said, "We haven't laughed like this in the last five years!"

The fun and camaraderie that resulted from the exercise will last forever. The music video was premiered at the Golden Jubilee event hosted for TCE customers. The energy of the people at TCE came across very strongly and this was showcased as never before. The memories, the camaraderie, the fun and the video itself will go down in the history of Tata Consulting Engineers as a first of its kind. As one client put it, "TCE is known for setting benchmarks; this evening is one such benchmark."

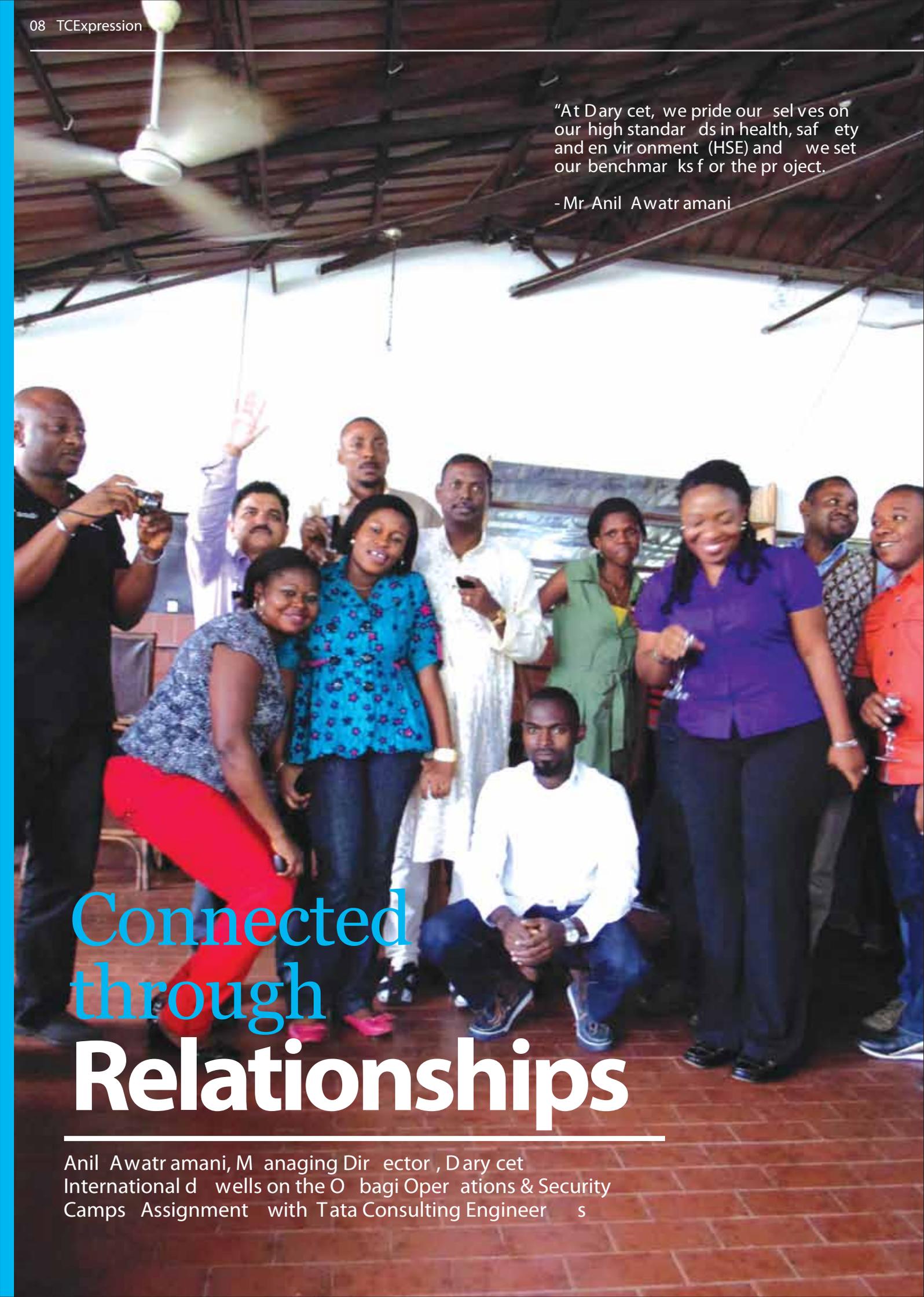



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We are the champions  
 We'll make it happen  
 We'll make a difference  
 Nothing can stop us now

"At Dary cet, we pride our selves on our high standar ds in health, saf ety and en vir onment (HSE) and we set our benchmar ks f or the pr oject.

- Mr Anil Awatr amani



# Connected through Relationships

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Anil Awatr amani, M anaging Dir ector , Dary cet  
International d evelps on the O bagi Oper ations & Security  
Camps Assignm ent with Tata Consulting Engineer s

**W**hen Tata Consulting Engineers Limited undertook the Obagi Operations & Security Camps (OSC) project, it was business as usual for TCE. The scope of work comprised Detail Engineering Services for development of Obagi Operations & Security Camps (OSC) including Architectural, Civil and Structural, Mechanical, Plumbing, HVAC, Electrical and Telecom.

The project location was at Port Harcourt, South Nigeria and the parties involved were Darycet International, the EPC contractor, who appointed TCE and project owner, Total E&P Nigeria Limited (A joint venture company between Total, France and the Nigerian Govt.) Design engineering for the project was completed successfully in the second quarter of 2013. The team that worked on the project and Darycet International, the EPC contractor, had a lot of experiences to share.

The project site was Port Harcourt, Nigeria. The back office design support came from both Mumbai & Delhi NCR region offices of TCE. In all, it was a coming together of the EPC company, the project owner company, the TCE back offices, TCE personnel at Nigeria and partners & local employees of Darycet. That indeed was quite a group to balance and the fact that the group was diverse in terms of nationality, made the project more interesting and challenging.

Mr Anil Awatramani, Managing Director, Darycet International in an interview with TCE Expression pointed out, "It was quite a Pandora's box initially. Once the dust settled, the TCE team, the local partners, people from my organization put their heads together. The group began interacting at a cultural level which turned out to be a big boost that kick started the team effort." It was evident that for team work to happen in a focused and sustained manner, a cultural integration and synchronization is important.

Paving the way for cultural integration amongst a very diverse team requires a great deal of effort and initiative. The first step however was to remove mental blocks, mindsets and stereotyping. The team members owing to their diversity had their own perceptions.

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*Mr. Anil Awatramani,  
Managing Director,  
Darycet International*

"People were skeptical about Nigeria, unsure how the environment in Nigeria would be. There were concerns about the security situation. Well, there are people from all over the world working in Nigeria. Several American & European companies have entered the Nigerian market. Chinese & Koreans also have a presence here. Every country has unique problems and there are unique ways to deal with them. People soon came to terms with it and realized things were not as bad as they are projected to be," opines Mr Awatramani, who has made Nigeria his second home. "I feel people in Nigeria are more cooperative and social. Your own team from TCE experienced this first hand."

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"We want to be loyal to TCE. Any future projects in a similar vein, our first and last preference will be TCE because I don't think I will find this kind of a relationship and this kind of a talent anywhere else. Maybe there are others, but considering the kind of rapport I have been able to establish, I will always opt for TCE."



Mr Gharat, the project manager and Mr Rupam Bandopadhyaya, the engineering manager, worked with the teams from TCE and Darycet, opening up free channels of communications. They were the sounding board, the problem solvers and the go-to-persons to solve issues as they came up - both at the technical and cultural levels. This helped total cultural integration of a large, culturally diverse team. The team was off to a good start.

Life in Port Hartcourt, came with its own bag of challenges. Logistics and infrastructure related challenges did prevail. At this point, the backend team at TCE's Mumbai and Delhi NCR region offices pitched in. From the front-end Darycet left no stone unturned to ensure safety and security of the teams and were there all through to solve logistics nightmares. This seamless working across the geographies of Nigeria and India proved to be critical through the course of the project.

With Darycet International, Total E&P Nigeria Limited and Tata Consulting Engineers coming together, knowledge sharing was inevitable.

"The knowledge that our people gained from TCE was enormous. The way they work, their approach and their solutions were admirable. Working with TCE, the mindset of our people has changed now - in terms of dedication and discipline. The learning that our team got from the TCE team is indeed very valuable. I am thankful for that. All team members contributed and motivated the team," says Mr Awatramani.

Post the completion of the project, looking back and reminiscing, everything seems rosy. However, at ground zero, there were several challenges that had to be overcome for both Darycet and TCE. Matching up to client specifications and meeting the stringent technical expectations was something to contend with. The challenge was in balancing the client's general specifications amidst the prevailing Nigerian ecosystem. This is an area where the role of an engineering consultant such as TCE can bring in value. "This was certainly a learning experience for both TCE & Darycet," observed Mr Awatramani. Such challenges highlighted the need for a more empowered onsite team that can ensure critical



decision making. This will ensure greater agility in project delivery.

Value creation for the three parties, for the Nigerian country and its people turned out to be substantial. "In terms of local sourcing we did explore the Nigerian markets in a big way. While we had stringent specifications from the client, we managed to develop and source local products as per specifications. We tapped into almost 70% from the local market out of which 20% was remodeled to suit the client's requirement. TCE helped in adapting the local product to suit the clients' standards. This was a difficult task and TCE contributed a great deal to enable this," pointed out Mr Awatramani.

Darycet International works with its own set of value systems and benchmarks.

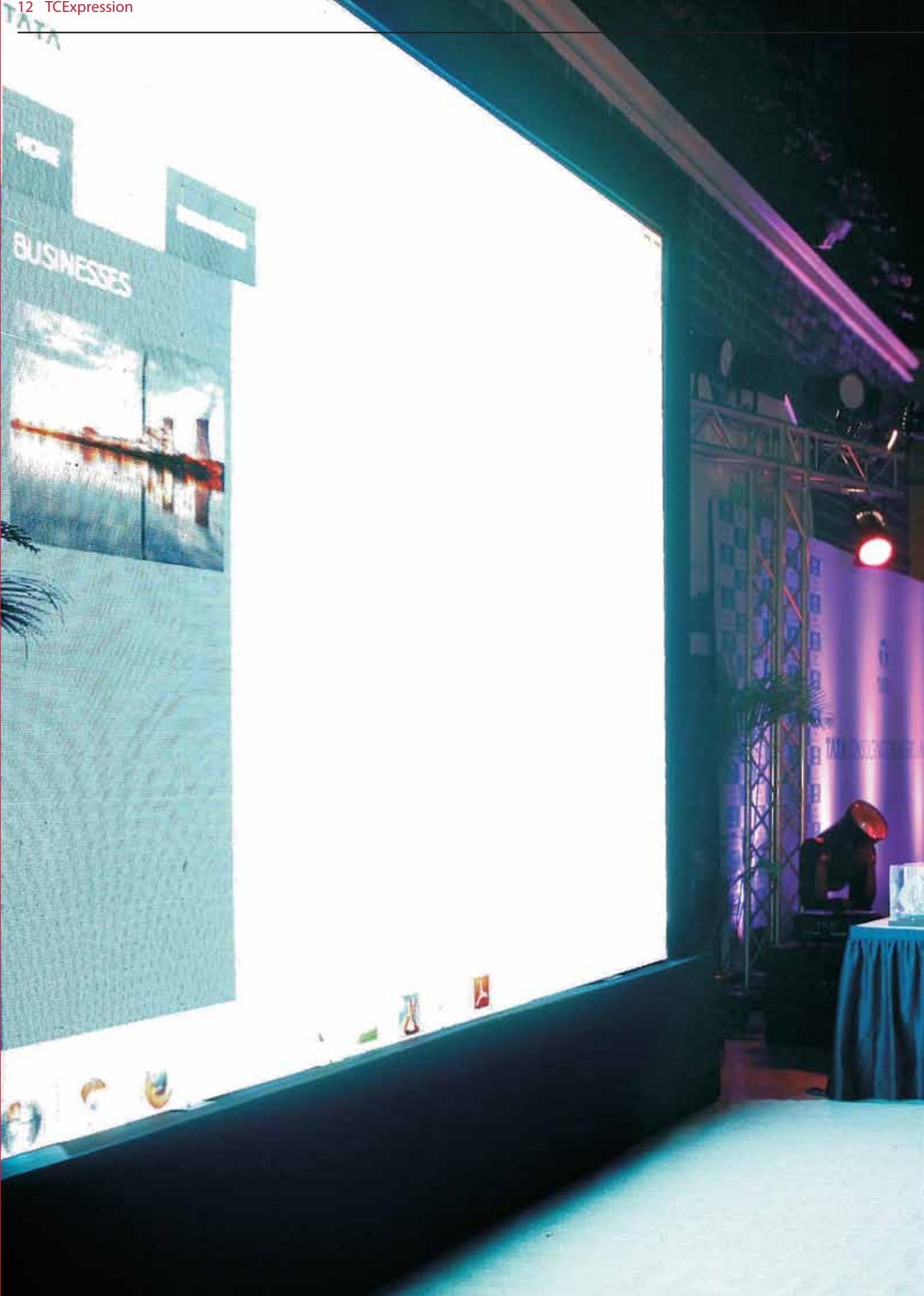


*Mr Paul Domit, Mr Awatramani (Darycet) & Mr Dave (TCE) signing the agreement.*

For instance, Darycet considers HSE as the foremost in its activities and observes very stringent norms when it comes to HSE. Qualification for submitting proposals for projects start with HSE. TCE matched up to all these requirements while contending with the local challenges and hurdles. Summarizing the TCE-Darycet relationship, Mr Awatramani said, "First of all I would like to appreciate the entire TCE staff who were positioned in Nigeria and the support staff backing up with solutions in India for delivering the project successfully. TCE is very lucky to have such a loyal staff. Our local talent benefitted from all the learning. I give full credit to TCE for developing a high level of confidence in the Nigerian team. Now they are better engineers and more disciplined. This has given a great boost to the confidence level in my staff in Nigeria. We would like to take this relationship without any limits and hope to be associated with each other as much as possible."

The Obagi Security Campus project has moved to the next phase. The story of team work, cultural integration of diverse teams, has indeed enriched everyone attached to the project. Relationships are built as a result of passion and a common purpose. Establishing such working relationships blurs geographical boundaries.





# An evening with customers

- A Grand Finale marked the Golden Jubilee Year for  
Tata Consulting Engineers

**T**ata Consulting Engineers' Golden Jubilee Celebrations with its customers and partners was held at the Taj Chambers on the 18<sup>th</sup> December 2013. The gala function was made memorable by the Chief Guest, Mr Cyrus Mistry, Chairman, Tata Sons Ltd. The keynote speaker at the event was Dr Anil Kakodkar, Former Chairman, Atomic Energy Commission and Secretary to the Government of India, Department of Atomic Energy & Homi Bhabha Chair, Bhabha Atomic Research Centre. The event was attended by leaders in the field of engineering and technology who have engaged with Tata Consulting Engineers as clients and partners. The audience also comprised of dignitaries from the Embassies and Consular offices of some countries that TCE has interests in.

The event marked the launch of Tata Consulting Engineers' brand new website. Mr .Cyrus Mistry , Chairman, Tata Sons, clicked a remote and the site [www.tce.co.in](http://www.tce.co.in) went live.





Time Capsule video and 3D- kiosk

## A Digital Experience

The event opened with a totally digital experience of TCE's fifty-year story and the new forays company's. A 20' wide LED wall showcased the company's achievement over the decades through a video "The Time Capsule". A 3D-kiosk highlighted 3D printing techniques and simulation of engineering solutions. A business lounge space was created for customers to interact with the various business heads relevant to their industry segment. A customer studio area encouraged guests to voice their thoughts and wishes.

## Powered by People – TCE Music Video

The evening's program began with a music video titled 'Powered by People', a high-energy and youthful music video that employees helped put together. The song 'Nothing can Stop us Now' was sung by the in-house talent selected from across TCE's offices.

Employees across ranks came together and belted out the 'anthem'. There was laughter, there was pride and most of all, there was camaraderie. TCE at the end of 50-years, is born again with freshness and youth to hit a century!

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A 20' wide LED wall showcased the company's achievements over the decades through a video "The Time Capsule". A 3D-kiosk highlighted 3D printing techniques and simulation of engineering solutions.



### TCE Memoir inaugurated by TCE Chairman, Mr Prasad Menon

A special book, 'The TCE Memoir' that chronicles the achievements of the company in the last fifty years was released by Mr Prasad Menon, Chairman, TCE.



Mr. Menon signs the first copy while Mr Mull, Director TCE, who put together the memoir looks on.



### The Memento

Mementos were distributed to the speakers and the guests. This being a commemorative occasion, the memento had to be special as well. Mathematical algorithms are often used for creative, diagrammatic representations. A Voronoi diagram is a way of dividing space into a number of regions. They find widespread applications in areas such as computer graphics, epidemiology, geophysics, and meteorology. The memento was designed to show how mathematical equations and computations, scripting /programming and digital tools can be used creatively. The memento reminds us that technology opens up whole new horizons and we can harness this for out-of-the-box solutions.



*The memento design is the winning entry by Mr. Anbusivam, Ecofirst, selected through an in house contest.*



The program concluded with cocktails and dinner. The ambience of the Taj Chambers was pleasant and Tata Consulting Engineers on that evening created yet another page to be chronicled into a time capsule. It was indeed a great evening for customers towards which every employee at Tata Consulting Engineers had contributed in some way to make it memorable.





## Messages & Speeches

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"We have expanded our design capabilities and now we are moving to 4D and 5D capabilities. Tata Consulting Engineers has moved out of its comfort zone in India and now have projects in over 50 countries. At the heart of the success lie our 3000 passionate employees. Our blue chip customers, public and private and our customers from within the Tata Group are our greatest support who helped us constantly improve. I would like to say a big 'thank you' to our wonderful customers and employees."

**Mr Prasad Menon, Chairman,  
Tata Consulting Engineers Limited.**



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"Anybody who has grown up in the engineering industry in India knows, admires and respects Tata Consulting Engineers for their achievements.

I think this is truly a knowledge-based company and the potential in the future is substantial. I would urge you all to continue to invest in learning, innovation, and applying that to new technologies which all your customers and the whole Group would require in the future."

**Mr Cyrus Mistry, Chairman, Tata Sons Limited.**



"As we enter the knowledge era, organisations like TCE have to necessarily play a bigger role in shaping the new India or for that matter, in shaping the new world. The TCE motto, 'Engineering a better tomorrow' has a much larger connotation. Engineers must engineer a tomorrow that is consistent; growth must be sustainable and must also address larger community issues that are rampant."

**Dr Anil Kakodkar,  
Former Chairman, Atomic Energy  
Commission and Secretary to the  
Government of India,  
Department of Atomic Energy &  
Homi Bhabha Chair, Bhabha  
Atomic Research Centre.**



"Today, I look back with the thought that TCE with the support of its customers and people has provided a platform for ingenuity in engineering to flourish through the years. This has resulted in a good number of landmark achievements, many of them a first in the country. Today we understand the need to constantly learn and re-align ourselves by closely mapping the ever-changing needs of customers in our offerings. This we hope we can target substantial growth in all our businesses globally."

**J P Haran, Managing Director,  
Tata Consulting Engineers  
Limited**



"We will show that we are the shining beacons for the engineering industry and going with the responsibility we will return to society a sustainable future. As we build capabilities from 3D to 5D, we look forward to your support. I wish prosperity and growth to all of you. With your growth, we will engineer a better tomorrow together."

**Mr Amit Sharma, ED & COO,  
Tata Consulting Engineers  
Limited**



Thank you very much for the support you have been giving to South Africa. TCE is performing a very important function in South Africa. In the future, as the company grows from stage to stage, not only the Indian people, but also South Africa and ultimately Africa as a whole will benefit.

**David Wild,  
Dy. CG, South Africa**

It is a great pleasure to be with the whole team of TCE. We have been working together on some of the projects...  
TCE doesn't see problems as a job but something as an engineering solution. TCE has a culture of bringing something new that nobody would demand. Hope to associate more with this company so they can bring value to us in future projects.

**M Siddiqui, Group Director ,  
Vedanata**

Put in one word – Awesome experience working with TCE. We are putting up a life sciences project in Chandigarh. While we have worked with other consultants, we had a very good experience working with TCE. Not stopping here, we have some overseas assignments coming up. Looking to TCE as partners beyond the boundaries of India & Africa.

**Rajesh Salwan,  
Director Operations, DSM Pharma**

We have a lot of regard and respect for Tata Consulting Engineers. We are proud to say they are our technical advisors for our projects for the first 1200 MW coal fired plant in Nigeria and 400 MW gas fired power plant. We are very happy because of their professionalism, diligence, understanding and support – especially with respect to our company, our project and our temperament as Africans. So very delighted to be here !

**Anthony Madugua – Group Director (T),  
ETA-Zuma Nigeria**

I am a proud alumni of Tata Consulting Engineers. I am happy to see the growth in TCE and happy to be here and be part of the TCE story.

**S R Rao, President GPCL**

TCE completing 50 years means they have been associated with the development of India, and played a role in every industry for clients... I am associated with TCE since Sterlite Tuticorin where TCE played a major role in the expansion projects. They supported me by giving inputs in cost saving and time. Looking for TCE support for projects abroad like cement and power.

**P Thyagarajan.  
COO Shriram EPC**

Undoubtly, this is one of the most respected and revered engineering organisation compared to any other design organisation. Our interaction with TCE was the best because they understand the subject. TPL and TCE association will go a long way in supporting each other.

**Arvinda Guha,  
COO Tata Projects Limited**

We have a great experience working with TCE - proof of how Siemens and TCE have got together in the past. We are pretty much looking at collaborating with TCE and taking this relationship to the next level.

**Stefan Domdey, Head of CIS India,  
Siemens India**

We are associated with TCE since 1999 and it has been a wonderful experience. Work gets done, but relationship is life long. We are fortunate, as our expansion was done by TCE. We are a Indo-Japanese venture and our partners are also satisfied.

**S V Gogate,  
Keihin Fie Pvt.Ltd.**

My experience with TCE is excellent. Team is energetic.

**Mr Nitin Vaidya, General Manager,  
Mahindra Vehicle Manufacturing  
Limited**

I want to take this opportunity to congratulate the company that has grown in 50 years into an international player. TCE brings value to clients particularly to Eskom...Thank you for your input ... Wish you a happy 50<sup>th</sup> anniversary and success as you move forward.

**Edwin Mabela, Sr Gen Mgr,  
Eskom South Africa**

You are one of those jewels that has been covered in its own moss. You are probably the single largest concentration of real engineers we have in the Tata's. I hope and pray that you have more growth in the next ten years than you had in the last 50 years.

**R Gopalakrishnan, Director,  
Tata Sons**

... Truly a professional organisation. Knowledge and engineering is excellent.....Definitely TCE is among the leading engineering firms in India.

**Mr Maneck Engineer, Exec. VP,  
Godrej & Boyce**

Our company has been working with TCE for the last 10 years. As working partners we expect to continue to grow with TCE.

**Kubo San, MD,  
MHI India**

Experience with TCE has been fantastic.....GHD attaches lot of importance to partnership with TCE. Compliment TCE on their 50<sup>th</sup> anniversary...Wish you all the best.

**M P Kulkarni, Principal Consultant,  
GHD**

For Toshiba, Tata Group is a very important player, especially TCE. We will try to explore every opportunity to work together. TCE provides good service and there is excellent team support.

**Tomohika Okada,  
Toshiba**

## Customer Speak

The Customer Studio was a space demarcated to capture visitors' and customers' thoughts and feedback.

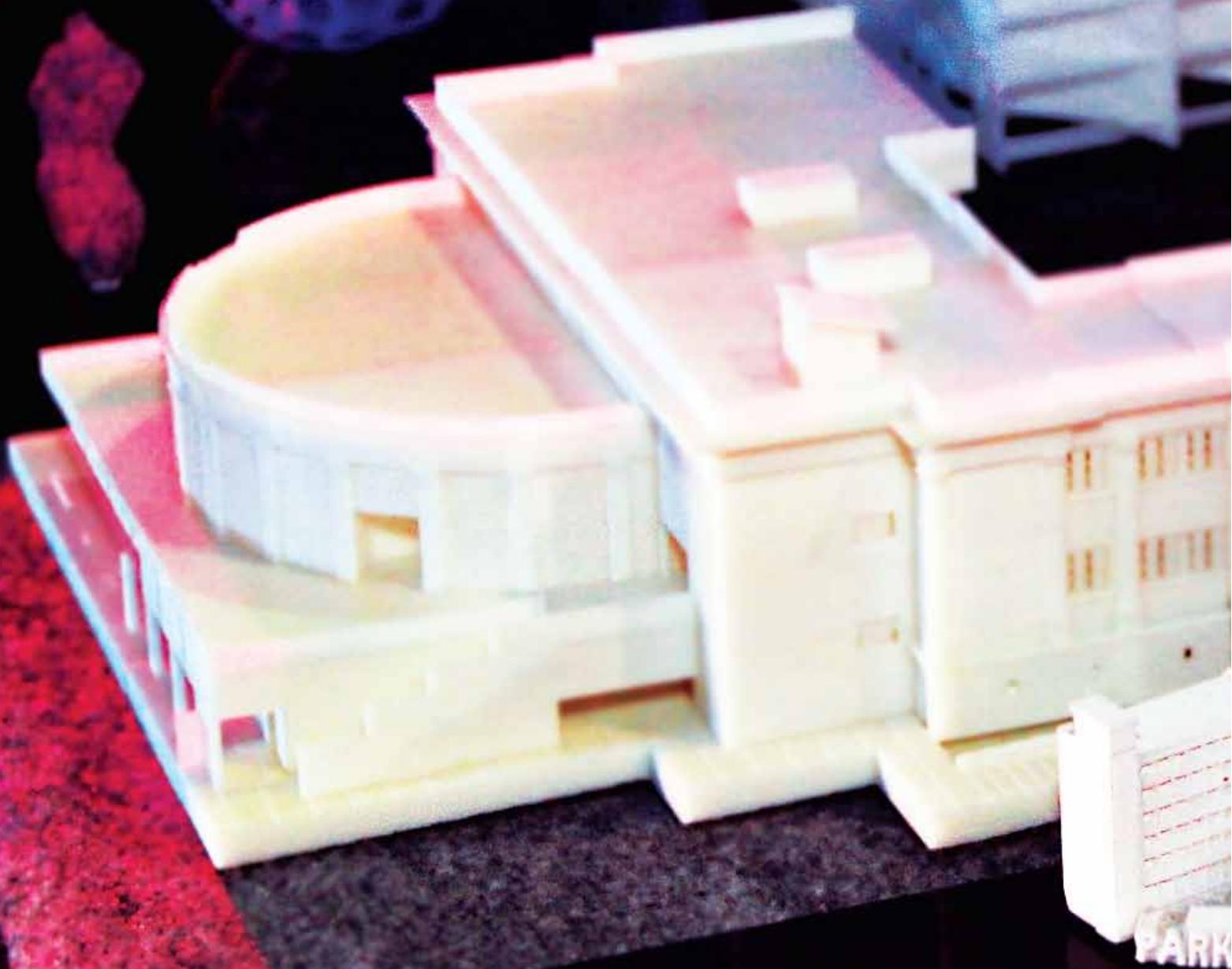
"The work that has been done by TCE is something that we at Tatas and as a nation should be extremely proud of. All the best for the next 50 & 100 years."

**Mr Cyrus Mistry  
Group Chairman**



# Technology Offerings - A New Perspective

Spreading wings to operate in a globalised environment, Tata Consulting Engineers enhances its technology-enabled offerings to customers.



PARK

**T**ata Consulting Engineers has put in place, action plans to add value to its customers by enhancing its service offerings.

In the past, the company increased its sector offerings to become a prominent player providing services in almost all key industry segments. With a growing international presence and diversified portfolio comes the need to integrate cutting edge IT-enablement in the services offered. TCE's approach to providing engineering services is two pronged –

- A. Engineering services offered on technology-enabled platforms
- B. Technology excellence and development in industry segments

### A. Advanced Technologies

TCE has introduced a new stream of services - 'Advanced Technologies'. The Advanced Technologies service portfolio combines complex engineering IT tools with engineering domain expertise. The target verticals include several key sectors in the Energy, Process and Infrastructure domains. The service will be available to TCE's valued customers across the globe.

#### Gamut of solutions offered

The scope and extent of solutions in Advanced Technologies service stream include:

- 3PLM services - Project, Plant & Product Lifecycle Management Services
- Engineering Outsourcing - Product Engineering, Plant Engineering
- Manufacturing Engineering - Plant Automation & Manufacturing Process Design
- Digital 3D/4D/5D Design & engineering services
- BIM, Constructability Analysis and Site Optimisation
- Asset Lifecycle Management Solution
- Engineering Simulation and Validation Services

#### 3PLM services

3PLM services include realization of 3PLM architecture, implementation of packages specific to Project/Plant/Product Lifecycle Management, project management assistance, deployment & production support, training, roll-out and change management.

#### Packages Supported

**Project Lifecycle Management** - Wrench, Oracle Primavera, SAP PPM, Bentley and Autodesk.

**Plant Lifecycle Management** - Bentley, Aveva, Intergraph, Autodesk and Siemens.

**Product Lifecycle Management** - Siemens, Dassault, PTC, SAP, Oracle, Aras etc.



A new facility at an SEZ has been earmarked for the Advanced Technologies service stream.

## Engineering outsourcing services (In a Dedicated Offshore Center mode)

**Product Engineering:** Product Design and Development Services (Preliminary Design, Detailed Design, Analysis & Optimization) and Product Design Support Services (Modeling/Detailing, Data Migration, Models for Web, CAE Simulation, Design Automation)

**Plant Engineering:** Feasibility Analysis, Tender Engineering, Basic Engineering, FEED Engineering, Detailed Engineering, Erection & Commissioning assistance, Performance and Asset Lifecycle Management.

**Manufacturing Engineering:** Plant Automation & Controls, Feasibility Analysis, Manufacturing Process Design, Facility Planning, Equipment/Tool Design.

## How TCE can make a difference

TCE has worked directly with Owners, EPCMs and EPCs. It has acquired domain expertise in

Energy, Process, Infrastructure and Steel Metals & Mining.

TCE's vast experience in complex projects delivered across the globe helps in a focused approach towards industry specific compliance and regulatory requirements.

TCE is the only partner that has end to end 3PLM expertise.

TCE's collaborative approach to business has resulted in alliances and working agreements with major players in the field.

TCE has focussed on building expertise in 3D-enabled engineering solutions delivery.

Working on an on-site, off-shore model, TCE has developed people in project management and created seamless working environments. This provides a great deal of value to its clients across the globe.

## B. Developing a technology organisation

Tata Consulting Engineers is truly a knowledge organisation and the passion for technology and engineering concepts is very strong among the engineers at TCE. This calls for the development, management and structuring of the knowledge to ensure TCE continues to retain its position as a technology leader. Mr. Mahesh Marve, CTO shares his thoughts on developing TCE into a cutting-edge technology organisation.

What are the focus areas that you are considering to shape TCE into a cutting edge technology organisation ranked among the top consultants in the world?

Tata Consulting Engineers has identified key areas that will help the company be at the technology forefront and stay competitive as an internationally-renowned technology organisation. These areas include -

- Technology excellence and development
- Rigour and excellence in delivery
- Operational support
- Technology organization development

### Technology Excellence and Development

include identification of technological trends for cutting edge development in current verticals and develop opportunities in new sectors. For instance, there are several areas that need focus such as energy conservation, high-end services for refinery, biotechnologies, coal & CO<sup>2</sup> based conversion processes etc.

### Rigour and excellence in delivery

TCE has continuously invested in processes, systems and automation. We are planning for review and optimisation of these systems for greater efficiency in the delivery organization. We have tremendous amount of talent and knowledge within the organisations. Skill pool balancing and bridging the gaps will ensure channelling the in house talent for delivery excellence.

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“We believe that the engagement of knowledgeable experts at early stages of bidding/project commencement will add significant value and improve efficiencies”

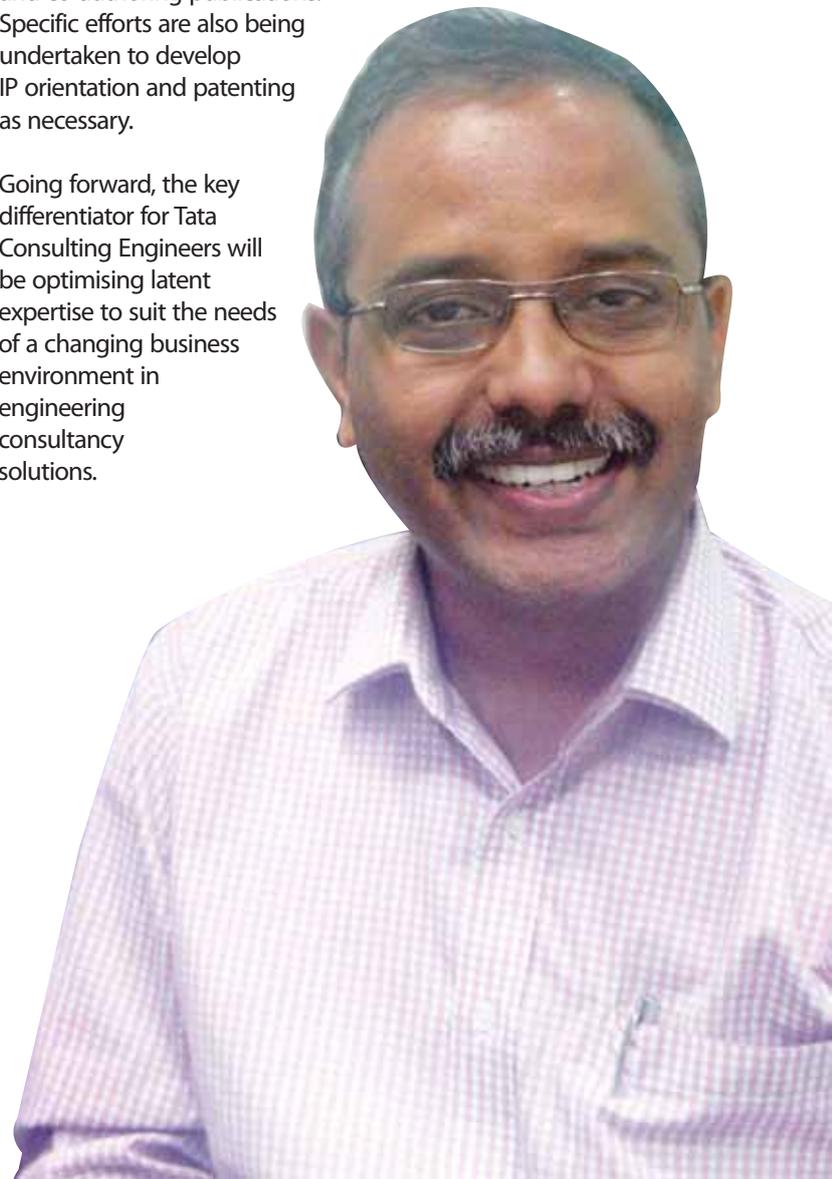
- Mahesh Marve,  
Chief Technology Officer, TCE.

**Operational support** will help us to sharpen and expand the current portfolios by effective management of knowledge. Here the emphasis will be on incremental and synergistic technology growth for our current portfolios. For instance, specific to the Power Business Unit, we can build on our existing capabilities and in-house talent to provide newer services to clients such as Ultra super critical (USC) plant, Flue Gas Desulfurization (other than sea water based), Smart Grid and Smart Meter Integration. There can also be development in new areas such as EHV Transmission, Supercritical CFBC, and Air cooled & hybrid cooling systems to name a few.

### Development of a Technology Organization

Technology expertise has been and will remain a key differentiator for engineering organizations like TCE. We are in the process of creating a full-fledged technology vertical. This additional dimension in the career framework will ensure opportunities for career development across verticals and a defined growth path for our engineering experts. Developing and strengthening relations with internal and external expertise are planned through liaison with academic institutes, professional bodies, R & D centres, encouraging and co-authoring publications. Specific efforts are also being undertaken to develop IP orientation and patenting as necessary.

Going forward, the key differentiator for Tata Consulting Engineers will be optimising latent expertise to suit the needs of a changing business environment in engineering consultancy solutions.



# TCE Buzz

## TCE Day

Mumbai



TCEExpression

Kolkata



Kolkata



Delhi NCR Region





Chennai



Bangalore



Pune



JSR



Delhi NCR Region



Bangalore

# TATA CONSULTING ENGINEERS LIMITED



CAREERS | TCE WORLDWIDE | CONTACT | CUSTOMER CONNECT



PEOPLE

SUSTAINABILITY

NEWS ROOM



# Business Brief

## Launch of new website [www.tce.co.in](http://www.tce.co.in)

**A** grand finale marked the Golden Jubilee Year for Tata Consulting Engineers with the inauguration of a new website. In keeping with the mood of change and new beginnings, the site is a responsive one designed to perform across hand-held devices. Mr Cyrus Mistry, Chairman, Tata Sons Ltd launched the site [www.tce.co.in](http://www.tce.co.in) at the event held at the Taj Chambers on the 18<sup>th</sup> December 2013. The official social media platform and blog are expected to be launched soon.



*Customer Connect the global link encourages clients to provide feedback.*

## Ecofirst Services signs MOU with Amsterdam ArenaA for sports infrastructure development



*Henk Markerink, CEO of Amsterdam Arena & Chitranjan Kaushik, Ecofirst Services shake hands after the signing of the MOU. From left is Mr Sanjay Singh, Tata Services, Foreign Minister of Holland, HE the Ambassador to the Kingdom of the Netherlands to India Mr. Alphonsus Stoelinga, the Amsterdam Arena Team and Mr Amit Sharma, ED, TCE & Director, Ecofirst and Rakesh Bhatia, Ecofirst Services.*

India and the Netherlands signed a bilateral agreement on cooperation in the field of sports and sports infrastructure. This bilateral MoU provides for exchange of knowledge and experience in the fields of sports infrastructure development and management, spatial area development, management training, safety and security, coaching and top-sport development through youth academies.

Further to the bilateral agreement, Ecofirst Services Limited, a 100% subsidiary of Tata Consulting Enterprise signed an MOU with Amsterdam ArenaA International, a subsidiary company of the Amsterdam ArenaA. The MOU was signed in the presence of the Dutch Minister and HE the Ambassador to the Kingdom of the Netherlands to India Mr. Alphonsus Stoelinga, Amsterdam ArenaA and its strategic partner companies in India, Tenon Property Services and Ecofirst Services Limited. Through the collaboration, Ecofirst will provide feasibility studies, detailed project reports and design works for sports infrastructure.

The Chief Operating Officer of Ecofirst, Chitranjan Kaushik said, "We expect that this partnership with the Ecofirst-Tata Consulting Engineers sustainable engineering combine will change the way sports infrastructure is being developed and operated in India. We hope to develop sports infrastructure of global standards and built around sound sustainability principles.

Henk Markerink, CEO of Amsterdam ArenaA is proud of the achievements: "We are honoured to have signed with Tenon and Ecofirst Services. In our international business it is vital to build strong relationships, optimize our working methods to the local reality and create presence in the Indian market. These partnerships are vital for us and I look forward with great confidence to what the future will bring us."

Amsterdam ArenaA International, a subsidiary of the Amsterdam ArenaA, is a specialist in planning, development, operation and management of Indoor Arenas and Multipurpose Stadiums. The company has served clients in over 20 countries. The clientele include Donbass Arena and Olympic Stadium Kiev in Ukraine, Spartak Moscow in Russia and Olympic Stadium Berlin in Germany. Amsterdam ArenaA is also involved in the management of two 2014 FIFA World Cup stadiums in Salvador and Natal in Brazil and Arena Porto Alegre, home of football club Grêmio in Porto Alegre, also in Brazil. In 2013 Amsterdam ArenaA International was appointed Stadium Operations Consultant to the Supreme Committee in Qatar, responsible for the preparation and execution of the 2022 FIFA World Cup.

# Project Patchwork

## Bihar Urban Development Investment Program (BUDIP)



Bihar Urban Infrastructure Development Corporation Ltd (BUIDCo) have entrusted TCE (alongwith DHV) the responsibility of Project Management Consultants for the Bihar Urban Development Investment Program (BUDIP) funded by Asian Development Bank (ADB). The program aims to foster economic growth in the state of Bihar through expansion of basic urban infrastructure for 25 million people in four major towns namely Bhagalpur, Gaya, Darbhanga and Muzaffarpur. The project that commenced in August 2013, is being executed



from the project office at Patna with necessary support from the delivery centre at Delhi-NCR. The scope of the project includes physical infrastructure development through water supply and sewerage projects, capacity building of ULBs, institutional development, governance and investment program support. Overall planning, monitoring, financial administration and quality control of the entire program is also part of the PMC scope.

## Review Engineering services for expansion Of Clinkerisation line of 3 MTPA and New Cement Grinding unit of 1 MTPA at Jamul

ACC LIMITED (ACC) entrusted TCE with a job of Review Engineering along with Construction supervision services to set up a 3 MTPA and a new cement grinding unit of 1 MTPA at Jamul, Chhattisgarh. Engineering review is progressing and construction work has already commenced. The project is expected to be completed in June 2015.



Pre-heater slab at +11.2 m elevation completed



Blending silo re-arrangement of slip from under progress

## EPCM Services for Corn Starch Derivative Project

Roquette Riddhi Siddhi Pvt Ltd. (RRSPL) is the largest starch and starch derivative company in India, having three manufacturing factories at Gokak, Pantnagar & Viramgam.

TATA Consulting Engineers Ltd. (TCE) has been selected by RRSPL to provide engineering services for OSBL scope for Greenfield corn starch derivative production facility in Dahej, Gujarat.

## Coke Oven Project, Kalinganagar

At TATA Steel Limited, Kalinganagar, Coke Oven Project is being set up in two phases; Phase-I of capacity 1.5 MTPA gross coke by setting up of two (2) nos. 5 m tall stamp charged batteries (consisting of 4 blocks, each block of 44 ovens) to be designated as Battery Nos.1 and 2 with associated facilities. In Phase-II, the other two similar batteries, Battery Nos. 3 and 4 will be set up with coke production capacity 1.5 MTPA, with associated facilities totaling 3.0 MTPA.



### MW Rateychu- Bakchachu Hydroelectric project in North district of Sikkim

Tata Consulting Engineers (TCE) was awarded the task of providing consultancy services for 40 MW Rateychu-Bakchachu Hydroelectric project in North district of Sikkim by Samvijay Power and Allied Industries Limited (SPAIL). TCE's scope of services broadly includes preparation of Detailed Project Report, Tender Documents for execution of works and Detailed Engineering. The project envisages construction of two weirs each at Bakchachu and Rateychu rivers and two HRTs each of about 3.5 km from two different streams merging into a common forebay, thereafter a penstock would take the water to a single power house located adjacent to Gangtok for generating power.

### Ecofirst Services Limited project update

#### Affordable Housing Township by Mahindra Lifespace Developers at Chennai

Ecofirst is providing Integrated Design Services to create a sustainable design template that will serve as the base for all future projects in this space



#### Upcoming campus of TATA Institute of Social Sciences at Hyderabad

Ecofirst is providing Integrated Design Services towards making this campus completely energy and water self sufficient through the use of passive architectural solutions, renewable energy systems, innovative HVAC solutions and an integrated water management strategy.



#### Affordable Housing Township by Mayuresh Developers

Ecofirst is providing Total Sustainability Services to this affordable housing project at Boisar, Mumbai that has been Pre-certified Platinum under the IGBC Green Homes Scheme.

### Brownfield cement project expansion at Sindri, Jharkhand

ACC (Holcim) Limited is setting up expansion project at Sindri, in Jharkhand state. TCE will provide consulting services that include -

Review of Detail Design Engineering & Drawing preparation services for Civil & Structural steel work, Mechanical, Process, Electrical and Instrumentation at Sindri, Jharkhand.  
Preparation of basic conceptual scheme & detailed engineering of

Balance of Plant's utility services and interfacing between main plant building utilities.

Concurrence on Civil construction drawing taking care of interfacing with Mechanical and Electrical designs drawings.

Review, collating & finalization of revised comments.

## Dam safety project for Obajana Dam in Nigeria for Dangote Cement PLC

Tata Consulting Engineers (TCE) has been appointed to provide engineering consultancy services for Obajana dam design safety review and detailed design and engineering of energy dissipation arrangement of the spillway by Dangote Cement PLC (DCP). DCP constructed a diversion dam (earthen dam) across the Oinyi River during 2005 to create a reservoir, for supplying water to Obajana Cement Plant (OCP) constructed in Obajana village, near Abuja, Nigeria. OCP is the single largest cement plant in the world with a combined capacity of 10.25 Million Metric Ton per annum (MMTPA). The diversion dam is of earth fill embankment type composed of

homogeneous section, and is associated with a broad crested weir with spillway channel constructed on the left bank of the Oinyi River for flood water outflow.

The scope of consultancy services of TCE would broadly cover checking the stability of downstream (d/s) slope, upstream (u/s) slope to review Obajana dam design safety with particular attention to energy dissipation arrangement of the spillway of the embankment under critical conditions, checking the safety of embankment against piping failure, checking the adequacy of water tightness of embankment and checking the stability of concrete spillway.



*View of existing chute spillway channel with hydraulic fall for energy dissipation*



*View of Obajana dam and broad crested weir at plant site*



## Definitive Feasibility Study for Black Mountain Mining

HCL is setting up the Phase III of a Greenfield IT facility in SEZ campus located at Noida, Uttar Pradesh. The project is being developed to accommodate 13,000 seats, with total built up area of 22.44 lakh sq.ft. complete with auditorium to accommodate 1400 seats, one café to accommodate 4000 engineers in one sitting and kitchen catering to 2,2000 persons. The main facility is spread over a total area of approximately 14.86 acres. The rest of the area will accommodate greenbelt zones, power augmentation, chiller and

cooling tower, rain water harvesting, road and other infrastructure. TCE is the project management consultant. The scope of work also includes proof checking of structural drawings, detailed infrastructure engineering, review of tender documents and Good for Construction (GFC) Package in addition to erection of 132 KV substation along with necessary accessories to step down to 33 KV/ 11 KV and then get distributed through the existing main system.

## Milestones

### Inauguration of demountable flare system at Bharat Petroleum, Mahul refinery, Mumbai

A first time in a Public Sector Undertaking, BPCL inaugurated demountable flare system on 30 Sep 2013. TCE provided construction management services. The old flare foundation (15m x 13m x 1.5m) was dismantled by diamond cutting and the new flare foundation of 44m x 34m x 2m was constructed, without any downtime in operations. The new flare required 1780 cum. of concrete to be cast. It is the largest foundation ever cast in the refinery premises and required continuous pouring for 36 hours. It bears the load of around 108 other foundations which were cast over it.

*Rising to the challenge of erecting 116 m flares*



### John Deere Tractor Manufacturing Plant at Dewas Inaugurated

John Deere Tractor Plant at Dewas near Indore was inaugurated on 22<sup>nd</sup> October by Mr. Samuel R. Allen Chairman and CEO, Deere and Company and Mark von Penz, President Agriculture and Turf Division Europe, Asia & Africa.

This project is a true example of integrated seamless working between Infrastructure and Construction Management teams. The teams ensured open channels of communication and provided design support whenever required, and additional support in real time at the project site. This collaborative working greatly helped in achieving critical project milestones.

Congratulations to Project Manager Mr. Abhijeet Vaidya, Construction Manager Mr. Raja Purandare and the entire design and construction teams for their contribution to achieve successful completion of project as per given standards.



### Tata Lockheed Martin Aerostructures Ltd (TLMAL) empennage delivery ceremony

Tata Lockheed Martin Aerostructures Ltd (TLMAL) is a joint venture between TATA Advanced Systems Ltd., and Lockheed Martin Aerostructure Corporation of United States.

The company's facility at Hyderabad was set up for aircraft parts assembly for C-130J AIRCRAFT (central wing box and empennage). The facility planning started in the month of October 2010.



*TLMAL Team with product in the background*

# TCETriumphs



## Tata Consulting Engineers wins Star Performer Award -third time in a row at the 45<sup>th</sup> EEPC National Award for Export Excellence

Tata Consulting Engineers Limited has been honoured with the Star Performer Award for export excellence at the 45<sup>th</sup> EEPC Award. The award was presented on the occasion of the 45<sup>th</sup> EEPC INDIA National Awards for Export Excellence in 2012-13 in a function held in Mumbai.

## Tata Consulting Engineers honoured with Best Consultant/ Consultancy Award at the 6<sup>th</sup> India Power Awards 2013 instituted by the Council of Power Utilities

Tata Consulting Engineers was honoured with "Best Consultant/Consultancy" Award instituted by the Council of Power Utilities at the 6<sup>th</sup> India Power Awards 2013 ceremony held at Taj Krishna, Hyderabad on Friday, November 22, 2013. Chief Minister of Andhra Pradesh, Mr Kiran Kumar Reddy, was the Chief Guest. On behalf of Tata Consulting Engineers, the award was received by Dr Rajashekhar Malur, Sector Head - Oil & Gas based Power and Delivery Center Head - TCE Delhi NCR and Mr Subhasis Ghosh, Sector Head - Opex Projects and Delivery Center Head - TCE Kolkata.





### Executive MBA Programme

**S**arjeevan Sainibi, Chemical Business Unit successfully completed full time Executive MBA Programme (focused on Oil & Gas sector), from School of Petroleum Management, Pandit Deendayal Petroleum University, Gandhinagar. Sarjeevan stood First in the Programme and was awarded the Gold Medal .

He received the certificate from the Chief Guest Mr. Narendra Modi, Chief Minister - Gujarat Government, at the PDU convocation held on 19<sup>th</sup> Oct. 2013. Dr. Mukesh Ambani, Chairman & MD, Reliance Industries Ltd., Mr. Bod Dudley, Group Executive & Director, British Petroleum were the other dignitaries present at the function.



*The memento design is the winning entry by Mr. Anbusivam, Ecofirst, selected through an in house contest.*



*The inauguration of the model house at Purkal Village*



*Inspection of level by Mr Yogesh Shukla (TCE) along with Mr. Alok Kumar of TRC at Ring beam level*



*Geologist Mr. K.S. Krishnamurthy from TCE, visits the GIC Chandrapuri site*

## TCE employees provide for blankets to the villagers ahead of the winter

In time for the winter, some TCE employees pooled in their own resources to supply blankets to the afflicted people in Rudraprayag. The team in the Kolkatta office were the highest contributors for this cause. Mr Date, from the TCE office at Delhi NCR region is seen giving away the blankets.





## College of Engineering Pune (CoEP) EAGLE Program

**T**he EAGLE programme at COEP is a certified 'Enhancement Training' programme especially designed for the students of COEP.

The program aims to equip the students with the right skill sets and guide their career paths so as to:

- Bring about accelerated growth in their careers
- Enhance excellence in all that they undertake
- Develop their contributory abilities
- Enable organizations they serve to derive optimum output

The program is designed as a three-part program and scheduled for 10 months across an academic year for the 3<sup>rd</sup> year engineering students from the rural, marginalized communities. The first part of four-months duration is the "Nurturing Stage". The second stage is the "Learn to Fly Stage". The final stage is the "Soaring Stage" which shall run over 2 months.

The training methodology includes a mix of interactive sessions, visits to corporate houses, interaction with Guest Faculty drawn from industry and Vocational Guidance support. Industry Experts are invited to speak on various topics.

On 6<sup>th</sup> December 2013 Mr. Vikram Bapat represented TCE to speak about Career in the engineering consulting business. Nearly 700 students and faculty members from COEP were present. Mr. Sandip Badve from TCE, Pune, supported Mr. Bapat during the Q & A. On 30<sup>th</sup> December 2013 an 'Ethics Morning' was conducted by Ms. Nayan Kalyankar and Mr Deepak Gokhale to give an insight to the students on Business Ethics and understand the Ethics framework of sponsoring organisations.



Mr Vikram Bapat, who heads the Infrastructure Business Unit, addressed the students, giving them a glimpse into the world of engineering consulting.



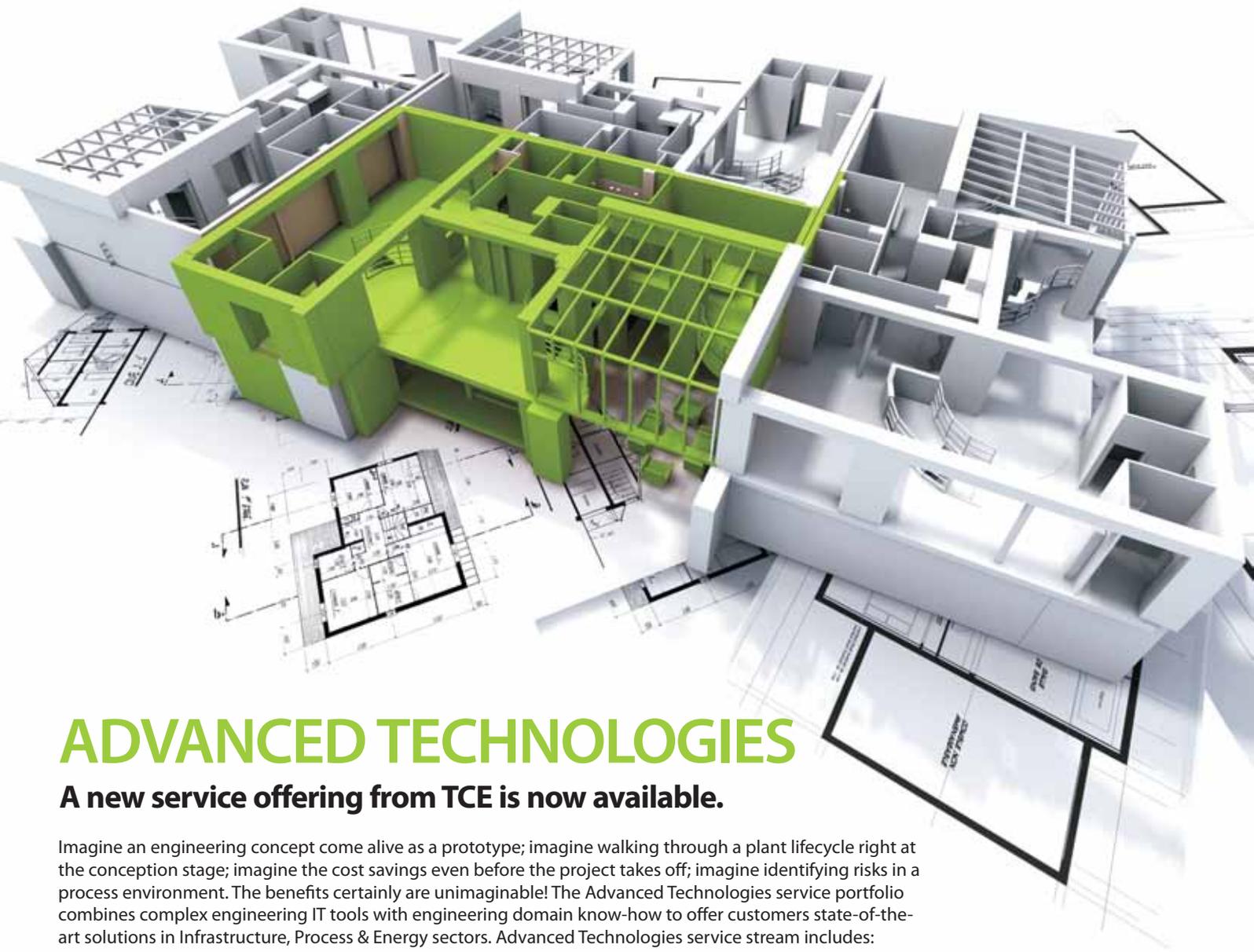
A student at COEP poses a question to the presenter.

## Affirmative Action – Training in Autocad for students from ITI

**T**he first batch of students receive their certificates at the end of the fast-track program IT-enabled drafting application in Bangalore. TCE engineers conducted the course as part of the TCEndeavour Volunteering Program.



# What happens when core engineering expertise meets complex engineering IT tools?



## ADVANCED TECHNOLOGIES

**A new service offering from TCE is now available.**

Imagine an engineering concept come alive as a prototype; imagine walking through a plant lifecycle right at the conception stage; imagine the cost savings even before the project takes off; imagine identifying risks in a process environment. The benefits certainly are unimaginable! The Advanced Technologies service portfolio combines complex engineering IT tools with engineering domain know-how to offer customers state-of-the-art solutions in Infrastructure, Process & Energy sectors. Advanced Technologies service stream includes:

- 3PLM services - Project, Plant & Product Lifecycle Management Services
- Engineering Outsourcing - Product Engineering, Plant Engineering
- Manufacturing Engineering - Plant Automation & Manufacturing Process Design
- Digital 3D/4D/5D Design & engineering services
- BIM, Constructability Analysis and Site Optimisation
- Asset Lifecycle Management Solution
- Engineering Simulation and Validation Services

**Contact:**

Email: [ramans@tce.co.in](mailto:ramans@tce.co.in) | Tel: 91 22 67572740

**TATA CONSULTING ENGINEERS LIMITED**

[www.tce.co.in](http://www.tce.co.in)

**Advertorial**



**TATA CONSULTING ENGINEERS LIMITED**

**Registered office:** Matulya Centre A, 249 Senapati Bapat Marg,  
Lower Parel (West), Mumbai - 400 013

**Corporate Office:** 247 Park Tower 'A', LBS Marg, Vikhroli (West), Mumbai - 400 083

**email** [mail@tce.co.in](mailto:mail@tce.co.in) | **website** [www.tce.co.in](http://www.tce.co.in)

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