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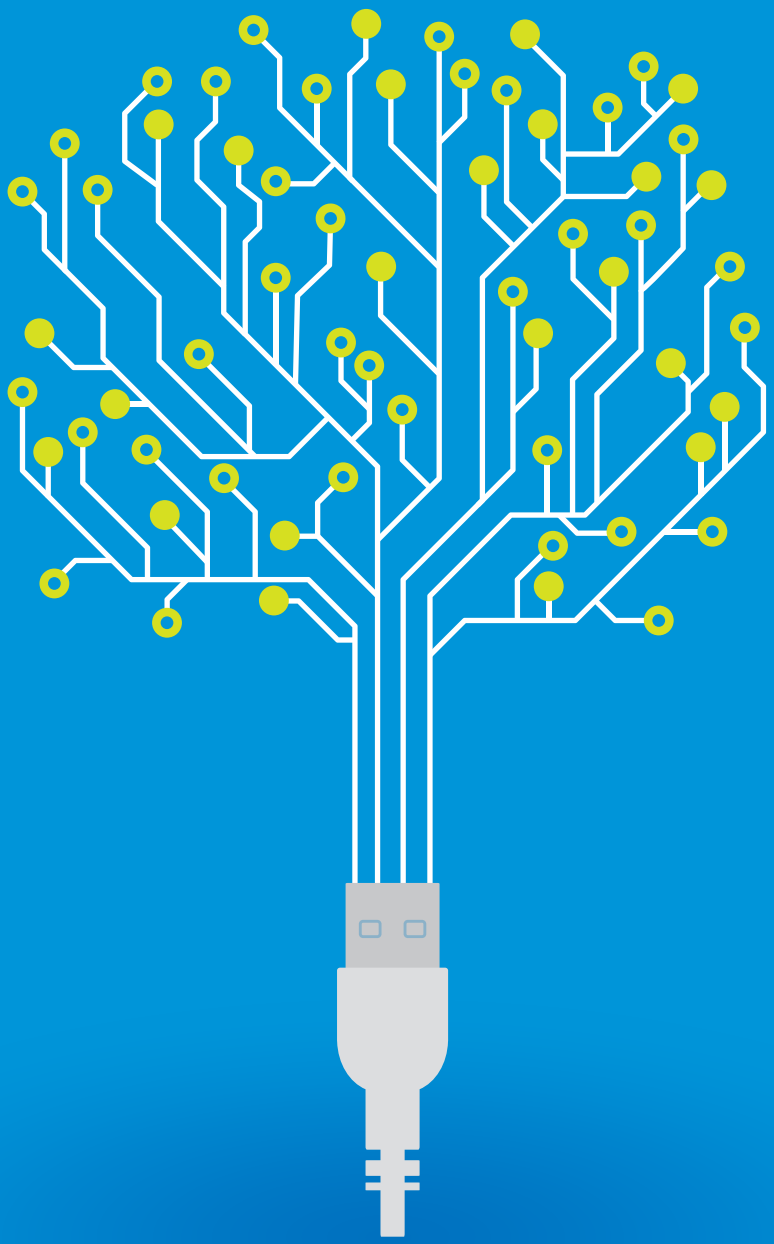


Sustainable Initiatives to create a Better World

Annual Corporate Sustainability Report | 2017-18

From the Chairman's Desk

Ravi Pandit

Dear Stakeholders,

It gives me great pleasure to share with you the eighth edition of the **Annual Sustainability Report.** This report, for the year 2017-18, covers all major initiatives undertaken over the past fiscal year and their results.

This year many positive developments have happened, which have, directly or indirectly, contributed to the sustainability aspect of KPIT. Sustainability is deeply rooted in our work culture and we take a holistic view of it by focusing on areas that provide long term value for all relevant stakeholders – investors, partners, customers, employees, and the society.

Last year, I spoke about **three key directions** in which we focus our efforts for **sustainable development**, namely –

1. **Developing smart, safe and sustainable products, solutions and services**
2. **Enabling a sustainable environment for business operations**
3. **Engaging in community initiatives for sustainable development of the society**

I would like to highlight the major milestones that we have achieved in each of these directions, which reaffirm our commitment towards corporate sustainability.

Developing smart, safe and sustainable products, solutions and services

Our focus on developing smart, safe and sustainable products, solutions and services grows deeper each year with our increased ability to successfully enable our clients to meet their business objectives. This has been supported by –

- Advent of newer technologies available in the market – which help us to optimize our products, solutions and services in innovative ways
- Forming strategic partnerships with industry consortiums and technology providers - which helps us to expand our global ecosystem, and identify upcoming trends and adopt them
- Making significant investments in innovation, building knowledge, and reskilling employees – which helps us to stay relevant to our clients and serve them as trusted partners.

In this ongoing journey, we have been recognized by various industry and technology forums for our excellence in certain areas, which serves as a testimony to our commitment to customer-first approach.

This year, we have made significant investments in new areas and have also started to reap benefits of investments made in the past. For example, we recently partnered with a leading Commercial Vehicle OEM for Smart Electric Bus which will be powered by Revolo (KPIT's indigenously developed Electrification Technology for Buses). These buses will become operational for public use in select cities in India in the coming year (2018-19). On the engineering side, we have also expanded our mobility solution portfolio by introducing solution such as AIS-140 compliant vehicle telematics solution. Other solutions and products under our mobility solution portfolio include Journey Risk Management (JRM) and Intelligent Transport System (ITS), among others. We have upgraded our Vehicle Diagnostics and Connectivity Portfolio, enabling our clients to further reduce downtime and improve profitability. On the IT side, we are working with clients in the upcoming technology areas, such as Robotics Process Automation (RPA), other Cognitive technologies, IoT, Cloud, etc. These technologies have benefitted our clients in many ways - enabling more efficient and cost-effective business processes, addressing concerns related to employee safety, delivering excellent experience to their customers and employees, among others.

Rewards and Recognitions:

On the engineering side, our flagship product - Intelligent Transport System won the Smart Cities India Award 2017 under the category "Smart Urban Mobility" at the 3rd Smart Cities India 2017 Expo in Delhi. Our bouquet of transportation solutions titled – 'Helping India double its public transport usage with smart and green technologies' was recognized at the UITP Global Public Transport Summit 2017. On the IT side, we won awards in different areas such as ERP Cloud partner of the year for service excellence in India, and multiple accolades by Dassault Systèmes for work done in Smart Manufacturing. We have been featured in leading positions by analysts, such as Gartner, ISG, etc., in various global and region-specific reports on which our customers rely on.

People Investments:
Digital has significantly impacted the way businesses operate today and companies are embracing digital technologies to transform themselves to be ready for future opportunities.
To make ourselves ready for this digital wave and to stay relevant to our customers we introduced KPIT ThinkDigital initiative. This initiative focuses on – Reimagining the new order, reskilling employees (globally), and redefining the future for our customers, partners and our ecosystem. As part of this initiative, we invested in digital trainings for employees and setting up digital labs and digital platforms. The first level of training on digital trends, technologies and business impact was completed by 10,000+ global employees in a record time of 100 days. To make our employees digitally trained, we have carefully curated more focused training courses, certifications and focused workshops, and provided them with opportunities to work on crowdsourcing-based digital projects.

In addition to this, our Employee Competency and Development (ECoDE) team organizes various programs for employees, freshers and talent from partner colleges who are yet to join KPIT, to help them easily navigate through their growth path. These programs focus on various aspects of growth, such as building technical, interpersonal, managerial, project management and leadership skills, which equip employees to succeed in their professional journey. In addition, this year we have started a Higher Education Initiative under which we have collaborated with Coventry University (UK) to enable our employees to pursue higher education, while continuing their jobs. Currently, we have introduced two programs under this collaboration - MBA in Strategic Engineering Management and M.Tech. in Automotive Electronics.

Enabling a sustainable environment for business operations

We believe in operating our business in a sustainable way, and our offices and workplaces are built such that they have minimum impact on the environment and the ecosystem. We have implemented measures to achieve **energy efficiency, restore the nature (our green zone), and ensure the wellbeing of employees.**

This year, phase 1 (two lakh sq. ft./2000 seats) of our new, state-of-the-art facility in, Hinjawadi (Phase 3), Pune has become operational. This facility, spread across ten lakh sq. ft. of land area is built on the objectives of being – **Innovative and Purposeful, Green and Sustainable, and Digitally Enabled.** The new facility uses sustainable measures and techniques to ensure that the natural ecosystem stays intact. It has been constructed with minimal earth levelling and disturbance to the soil. The building material that is used is in pure form, such as exposed concrete, etc.

Our Pune campuses (both, existing and new) provide maximum exposure to natural light inside the buildings. This has been done by implementing skylights in the existing facility and setting the orientation of the buildings in the new facility using Sun path analysis. We leverage solar energy wherever viable (at least for 15-20 percent of requirement is fulfilled by solar energy in the new facility). We use LEDs for lighting, energy efficient VRF technology for air conditioning, and VDI infrastructure to reduce power consumption of computers.
We have implemented initiatives to reduce consumption of fresh water for flushing and gardening. In the existing facility, 70 percent of the water is treated via an in-house Sewage Treatment Plant (STP) and is recycled to be used for these purposes. In our new facility, we have made a provision to channelize the rainwater to a central water storage (of the capacity of Three Million Litres) and have implemented rainwater harvesting solution.

In terms of employee safety and wellbeing, we have grown plants inside the buildings, we have in place - strong EOHS policies and strong waste management processes to monitor, control and dispose all types of wastes. Our smart campuses (Office of the Future) are equipped with centrally monitored and managed Digital Systems Infrastructure including - systems for safety and security, digitally-connected energy and utilities systems, employee and guest experience systems, and state-of-the-art IT infrastructure. We have smart apps for cafeteria, social collaboration, travel, flexi seating, etc., that help in elevating the workplace experience for our employees.

Engaging in community initiatives for sustainable development of the society

KPIT believes in the betterment of the communities in which it operates. We contribute towards sustainable development of the communities and the society by extending finances and our personal time. We focus on technology-and-innovation-driven CSR activities and take up initiatives in the areas of **Environment, Education, Energy and Employee Engagement (volunteering).**

On one hand, we continue work on our yearly initiatives and take them to the next level. Some of these yearly initiatives include - Chhote Scientists, KPIT Sparkle, Zero Garbage Drive, Water Resource and Solid Waste Management, and School Kit Drive.
On the other hand, this year saw some new and unique initiatives being undertaken by KPIT, which I am proud to share with you. Some of these initiatives are independently run and some are in partnership with Government, NGOs and other organizations.

- **Smart India Hackathon (SIH) 2018, A Government of India (GoI) initiative:** We partnered with the Government of India for the second consecutive year to support the Smart India Hackathon. As partners, we were involved in initial screening of the entries received for the competition and ensured smooth execution of the final event of the Software Edition of the event. This year, we have partnered with the Government of India to also support the first Smart India Hackathon 2018 - Hardware Edition, where we will be steering the evaluation committee of the automotive and smart vehicle segment of the hackathon. To read more, visit - SIH 2018 – Hardware Edition | SIH 2018 – Software Edition

- **Atal Tinkering Labs (ATL):** We signed a two-year Statement of Intent (SOI) with NITI Aayog (National Institution for Transforming India) to promote innovation among school children. As part of this SOI we will support and mentor

select ATL for Secondary level school children across the country, under the Central Government's flagship program, Atal Innovation Mission (AIM). The mission of AIM program is to promote innovation and entrepreneurship in Indian schools, universities and industries. To read more, visit – KPIT and Atal Tinkering Labs partnership

- **KPIT BetterWorld:** We launched the KPIT BetterWorld initiative - a crowdsourcing-based contest focused on developing technologies to counter environmental challenges and make the planet sustainable. This initiative supports our commitment to creating a cleaner, greener, and intelligent world through technology and recognizing the innovators of the next generation. Through this contest will put forward challenges across different themes, such as water, air, energy, etc. To read more, visit - Launch of KPIT BetterWorld

- **Launch of Computer Training Centre in Baramullah district:** In partnership with Aseem Foundation and with support from Indian Army we launched a computer training centre in Kamalkot, a village close to the Line of Control (LoC), in Baramullah district, J&K, India. This computer center will be used to impart computer skills and training to students from nearby villages. It will be run by Aseem Foundation and supported by KPIT. To read more, visit – Computer Training Center in Baramullah district

We have received multiple awards and accolades for our community programs this year. For example, for our 'Water Conservation through Mass Volunteering' initiative, 'Youth for Seva CSR Conclave 2018' recognized us as the 'Corporate Engagement Champion', and at 'The CSR Journal Excellence Awards 2017', we were unanimously selected as the First Runners-Up in the Environment category. At the 'Youth for Seva CSR Conclave 2018', we were also recognized as the 'Corporate Engagement Champion' for our Chhote Scientists initiative.

Lastly, I would like to say that our investments are well aligned to growth areas that will provide real value and better experience to all our stakeholders. We will continue to focus our efforts on sustainable ways to operate and engage at all levels. We are committed to push the bar higher to enable better outcomes for our clients so that they can make their businesses more sustainable and provide higher level of service to their customers. We believe that science and technology has the power to positively impact societies and transform them. In this direction, we will continue to leverage our engineering and technology skills to contribute towards sustainable development of the communities in which we live.

Thank you!

S.B. (Ravi) Pandit
Co-founder, Chairman and Group CEO,
KPIT Technologies Limited

Index

01

Introduction

Introduction

1.1 About the Company

We are a global technology company specializing in providing IT consulting and product engineering solutions and services to Automotive & Transportation, Consumer & Industrial Goods, Energy & Resources, High Tech, Life Sciences and Utilities verticals. We currently partner with 200+ global corporations, helping them to run their businesses more efficiently and smartly. Our business can be broadly divided into four buckets – Engineering (38% of revenue), Traditional Business IT (39% of revenue), Digital (20% of revenue) and Products & Platforms (3% of revenue).

With strong focus on innovation we have filed more than 60 patents in various domains such as Advanced Driver Assistance Systems, Electric Powertrain, Hybrid Powertrain, Very Large Scale Integration (VLSI), High Performance Computing, Manufacturing, Energy, Model Based Design (MBD), among others. Our strong team of 12,500+ people works at the forefront of technologies and processes to help our customers become smarter, integrated and innovative enterprises.

We have a wide geographic reach with 28 offices across 17 countries and development centers in US, Germany, India, China and Brazil.

Development centers in US, Germany, India, China, and Brazil
Global offices

1.2 Business Update

During this year, we announced a transaction of merger and demerger involving KPIT and Birlasoft. Birlasoft is a part of the $ 1.6 Billion diversified CK Birla Group.

The merger of KPIT and Birlasoft will create a $ 700+ Million entity which will immediately demerge into two separate companies:

- KPIT Technologies ($ 220+ Million revenue company, post-merger), a global leader in Automotive Engineering and Mobility Solutions, which will evolve from the existing Engineering business of KPIT.
- Birlasoft (a $ 500+ Million revenue company, post-merger), a new Digital Business IT Services company, focusing on the mid-tier IT space formed by combining Birlasoft with KPIT's IT business.

We are progressing well on the regulatory front as per the anticipated timelines. We received the approval from the Competition Commission of India (CCI) and filed the scheme with the National Company Law Tribunal (NCLT), Mumbai Bench, for their approval. The NCLT, by virtue of an order dated July 12, 2018, has directed a meeting to be held of the equity shareholders of KPIT for considering and if found fit, approving the proposed scheme of merger and demerger.

1.3 Geography Performance

In FY18 Europe was the highest growing geography for us with 31% Y-o-Y growth as its revenue share increased from 16.4% in FY17 to 19.5% during the year. It was closely followed by APAC which grew by 23.6% on a Y-o-Y basis as its revenue share increased to 17.3% from 15.4% in FY17. The revenue share of US changed from 68.1% in FY17 to 63.2% during this year while it registered a Y-o-Y growth of 2.3%. Europe geography's growth was largely driven by the momentum in automotive and engineering services while APAC geography's growth was contributed by products & platforms business, digital and engineering services. In US, we witnessed traction for Business IT, digital and engineering business.

1.4 Financial Performance

FY18 was a significant year in terms of strong overall growth across geographies, SBUs and industry verticals. Our $ revenue for the year stood at $567.6 Million, a Y-o-Y growth of 14.8%. In ₹ terms, revenue grew by 10.3% Y-o-Y to ₹ 36,655.8 Million in FY18.

Amongst industry verticals, Energy & Utilities vertical grew by 34% Y-o-Y as its revenue share increased from 14.6% in FY17 to 17.8% during the year. There was a 18.2% Y-o-Y growth in Automotive & Transportation vertical with revenue share at 43.3% against 40.5% in FY17. The revenue share of Manufacturing vertical changed from 35.5% in FY17 to 30.3% in FY18 with Y-o-Y decline of 5.7%.

Looking at the SBUs, Products & Platforms (P&P) was the highest growing SBU for the year with 47.7% Y-o-Y growth and revenue share at 4.7% which increased from 3.5% in FY17. It was followed by 27% Y-o-Y growth in Product Engineering Services (PES) SBU with revenue share of 34.1% against 29.6% in FY17. We also witnessed good growth in Digital Transformation (DT) SBU as it registered Y-o-Y growth of 10.8% with not much change in the revenue share which stood at 10.3% against 10.2% in FY17. The IES SBU grew by 1.7% during the year while its revenue share came down to 30.8% against 33.4% in FY17. However, there was an annual decline of 4.7% in SAP SBU with revenue share of 20.1% as compared to 23.2% in FY17.

Over the years, we have been investing in account management and building up strategic customer accounts which necessarily might not be the top accounts in terms of existing revenues but have good potential to drive growth for the company. We are thus focusing on these top strategic accounts which presents a more sustainable growth scenario in terms of customers. Our top customer grew by 5.7% in FY18 with revenue share at 12.2% against 12.7% in FY17. The top 20 strategic customers grew by 27.5% on a Y-o-Y basis with revenue share of 50.9% against 44% in FY17. The top 40 strategic customers' revenue share increased from 56.3% in FY17 to 61.2% in FY18 with Y-o-Y growth of 20%.

In terms of profitability, the reported EBITDA margin for the year was 10%. We incurred around ₹ 169 Million as expenses towards the merger-demerger transaction during the year. Thus, adjusting for this expense, the operational EBITDA margin for the year was 11%. Our PAT for the year grew by 6% to ₹ 2,528.5 Million. We continued to focus on cash generation during the year and ended the year with a gross cash balance of ₹ 6.3 Billion as compared to ₹ 4.6 Billion as of FY17 end.

1.5 Information about the Subsidiaries

KPIT has set up wholly owned subsidiaries in Brazil, Canada, China, France, Germany, India, Japan, the Netherlands, United Arab Emirates, United Kingdom and United States of America. It has branches in South Africa, Japan and Singapore. Further, the subsidiaries of KPIT have branches in Australia, South Korea, Brazil, Sweden and Italy; in order to give it a local presence in the countries where its customers operate, and also to service its customers more efficiently. Local presence has also helped the Company in building a diverse workforce.

1.6 Enterprises Risk Management (ERM) Framework

ERM is an iterative process of continually identifying the risks that are threatening to the Company's profitability and sustainability. The Company has a well-defined ERM framework which plays a pivotal role in supporting the business to derive competitive advantage and future growth. The Company maintains a Risk Register and implements suitable risk mitigating plans for each risks identified therein.

ERM at the Company involves risk identification, assessment, reporting, mitigation planning for strategic, operational, finance, compliance and reputation related risks across all business units, functions and geographies.

The key risks monitored by the ERM Framework are –

- Inability to grow within defined target accounts
- Low gross margins
- Top talent management
- Rupee appreciation
- Geo-political risks

- Growth in Products and Platforms business (P&P)
- Operational liability risk
- Management of large deal delivery
- Reputation risk
- Liquidity risk – cash flow

Please refer to separate section on Enterprise Risk Management in the Annual Report 2017-18 which is available on www.kpit.com.

1.7 Industry Recognition, Awards & Leadership

- KPIT wins multiple accolades at Dassault Systèmes'® 2018 Value Solutions Sales Convention
- KPIT recognized with the Most Influential Marketing Leaders Award for the third consecutive year
- KPIT recognized at The CSR Journal Excellence Awards 2017
- KPIT wins Best Event-led Communication Campaign Award at the Indian Communications Summit 2017
- KPIT Woman Leader acknowledged as Science and Technology Leader of the Year 2017
- KPIT Receives Special Recognition by Union Internationale des Transporta Publics (UITP) India
- KPIT wins Smart Cities India Award 2017
- KPIT wins ERP Cloud Partner of the Year Award for service excellence in India
- KPIT awarded 'Outstanding Green Vehicle Integrated Solution Provider of the Year' at 8th Green Vehicle Convention event, Beijing, China.

02

Corporate Governance and Management Practices

Corporate Governance and Management Practices

For KPIT, Corporate Governance essentially involves balancing the interest of the Company's multiple stakeholders; such as shareholders, management, customers, suppliers, bankers and financial institutions, government and the community. Corporate Governance is an approach of managing our operations efficiently and prudently to make the business stable, secure, growth-oriented and maximally profitable to our shareholders and be highly reputed and reliable among all customers and clients concerned. The responsibility of such Corporate Governance lies directly with the board and the top management and hence it is of utmost importance that the top management has flawless and effective control over all the affairs of the organization. The Company must ensure that it is regularly monitoring all business activities and transactions, in order to be accountable and responsible to the shareholders, and that there is strict compliance to regulatory and governmental regulations.

The Company is directed and controlled in a way such that, we achieve the goals and objectives to add value to the Company and benefit the stakeholders in the long term. The importance of such corporate governance has now become more intensified, owing to ever-growing competition and rivalry in the businesses of almost all economic sectors, both at the national and international levels. Therefore, the new Companies Act, 2013, has introduced some new and innovative means to make corporate governance in India optimally progressive, transparent and beneficial to all the stakeholders.

We, at KPIT have been practicing corporate governance to ensure transparency in our corporate affairs. The Company is committed to continuously scaling up its corporate governance standards.

KPIT's Corporate Governance framework has been built on the value system evolved by the Company over a period of time. This value system has been abbreviated as **CRICKET**, which illustrates the Company's attributes as follows:

- Customer Focus
- Respect for Individual
- Integrity
- Community Initiative
- Knowledge Worship
- Entrepreneurship and Innovation
- Teamwork and Boundarylessness

2.1 Board composition

The composition of the Board is decided considering the following criteria:

1. Compliance with statutory and regulatory norms
2. Appropriate mix of independent and non-independent directors
3. Entrepreneurship
4. Diversity
5. Industry Experience
6. Specialized knowledge in:

a. Business Strategy
b. Global Markets
c. Technology and Innovation
d. Financial Management
e. Accounting
f. Customer Relationship Management
g. Investment Banking
h. Human Resource Management
i. Operational Excellence
j. Industries which are the focus areas for the Company

The Company has a judicious mix of Executive, Non-Executive and Independent Directors. Out of the total strength of ten directors as on March 31, 2018, Seven are Independent/ Non-executive directors and three are Executive directors. The Company has also laid down certain benchmarks for the qualification of the Board members. There is a constant endeavor to align the qualifications of the Directors with the ongoing trends in this arena. Before inducting any new member, the Board ensures that the new member conforms to the qualification criteria laid down by the Company. The qualifications prescribed by the Company are as follows:

- Thought leadership
- Specialized skills
- Knowledge of the business
- Knowledge of the industry in which the company operates or in which the company has significant interests
- Independence attributes for Independent Directors
- Ability to devote necessary time
- Not holding membership in the board of our competitors

The Independent Directors of the Company are chosen keeping in mind the definition of 'Independent Director' as provided in the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and the Companies Act, 2013. Apart from this, the Company has well defined touchstones for selecting the Independent Directors. The Independent Directors are prominent and distinguished figures from the industry and have an astute knowledge of the industry and business. At KPIT, we have renowned personalities as Directors, who are leaders of their field and are truly independent. They include:

Ms. Lila Poonawalla was awarded the Padmashree in 1989 and recognized for her exemplary contribution to the world of Engineering and Industry. Ms. Poonawalla was the Chairperson and Managing Director of Alfa Laval-Tetra Pak India, and was the first woman to reach the post of Managing Director in the Alfa Laval group. She is currently a Director on the Board of Bajaj Allianz General Insurance Company Limited, Bajaj Allianz Life Insurance Company Limited, VE Commercial Vehicles Limited, Blossom Industries Limited, Pragati Leadership Institute Private Limited, Impact Automotive Solutions Limited, Nihilent Technologies Limited and Bajaj Housing Finance Limited. Ms. Poonawalla has been on the governing body of organizations such as the Confederation of Indian Industries (CII) and

Technology Information Forecasting and Assessment Council (TIFAC), formed by the Government of India. She was a member of the Scientific Advisory board of the Central Cabinet (SAC-C) and Chairperson of the Herbal and Floriculture Taskforce of SAC-C. Actively involved in social initiatives, she is on the board of trustees of two Pune-based Non-Governmental Organizations (NGOs). In 1994, she started the Lila Poonawalla Foundation to promote education among women. Ms. Poonawalla is presently a member of Executive Council of Maratha Chamber of Commerce Industries (MCCI), National Institute of Agricultural Extension Management and Top Management Consortium. She is also the Vice Chairperson of the Poona Blind Men's Association.

Mr. Adi Engineer is a Chartered Engineer by profession with a degree in Civil Engineering from the Pune University. He was associated with Tata Group of companies for nearly three decades prior to joining KPIT board, which includes a stint as Managing Director of Tata Power Limited. In that role, he transformed the company by successfully launching various new initiatives that substantially led to improved profitability. His company also secured the "Good Corporate Citizen" award during his charge. Prior to joining the Tata Group, Mr. Engineer had a successful 20 years stint with the ICI group where he held senior positions in the management team including setting up large chemical plant projects and later into operations and general management. Mr. Engineer has served as the Director on the board of several companies in the field of energy, infrastructure and engineering. The Confederation of Indian Industry (CII) had also appointed him as the Chairman of the Committee on Power for the year 2006. He has been a preferred and insightful spokesperson for the power sector at many media interactions. Having served the industry on numerous fronts, Mr. Engineer brings with him wide experience from more than a dozen boards of major companies.

Prof. Alberto Sangiovanni Vincentelli was a co-founder of Cadence and Synopsys, two leading companies in the area of Electronic Design Automation. He is the Chief Technology Adviser of Cadence and a member of its Board of Directors. He was a member of the HP Strategic Technology Advisory Board. He is currently a member of the Science and Technology Advisory Board of General Motors, as well as a member of the Technology Advisory Council of United Technologies Corporation. He is also a Professor with University of California, Berkeley and Department of Electrical Engineering & Computer Sciences.

Mr. Anant Talaulicar holds a B.E. (Mechanical) degree from Mysore University, M.S. degree from the University of Michigan in Ann Arbor and a MBA from Tulane University, USA. Mr. Anant Talaulicar was a member of the Cummins Inc. global leadership team from August 2009 till October 2017, the Chairman and Managing Director of the Cummins Group in India from March 2004 through October 2017 and the President of the Cummins Inc. Components Group from 2010 through 2014. He has also served as the Managing Director of Tata Cummins Private Limited, a 50:50 joint venture between Cummins Inc. and Tata Motors Limited. He has chaired the boards of four other Cummins legal entities in India as well. He worked as a financial analyst, manufacturing engineer, project manager, product manager, strategy manager before taking various general management positions. Since 2004, Mr. Talaulicar has also led the Cummins India Foundation which has implemented sustainable community initiatives such as model villages and higher education. He has served as a member of the Confederation of Indian Industries, Society of Indian Automobile Manufacturers and Automobile Components Manufacturers Association in the past.

Mr. B V R Subbu is an automotive industry expert and a thought leader. Mr. B V R Subbu holds a post graduate degree in Economics from Jawaharlal Nehru University and a post graduate diploma from the Indian Institute of Foreign Trade. He was the President of Hyundai India earlier. He was also extensively involved with the Tata Group, holding various responsibilities, including responsibilities in Tata Motors' Light Commercial Vehicles and Multi Utility Vehicles business.

Dr. Klaus Hermann Blickle has extensive experience in Aviation, Marine and Engineering Technology, as well as Consumer Electronics with over 20 years of Automotive (OEM and Tier1) experience. He has held various senior executive positions in Germany, China, UK, USA and Canada. From 1985 to 1987, he was the Head of Engineering for Sell Aviation of Buderus AG and from 1988, he was a Managing Director within the Blohm & Voss Group. In 1992, he joined the Audi/Volkswagen Group. Within the Group, he held various Vice President (VP), Executive VP and CEO Positions until 2001. He then joined the Tier1s - ASC/Prechter Holding (CTO & President), Tesma/Magna (CEO & President), EDAG (CEO & President) and has also served as the CEO & President of the Worldwide Automotive divisions of Harman International. His style of management is straight forward, down to earth and future oriented. Since 2012, he has been managing his own business (KB GmbH) and was a founding member/investor of two small companies (startups). He is a non-resident Board Member of the College of Engineering, University of Michigan. As interim CEO, Dr. Klaus managed and restructured Telefunken SE in 2013/2014. Dr. Klaus was raised and educated in India and the United Kingdom. He has served in the Armed Forces of the German Army for 18 months as national service and later studied Applied Physics (M.Sc./Diploma). He received his Doctorate in 1984.

Mr. Nickhil Jakatdar is currently the CEO and Co-founder of Vuclip, a global leader in the Video-on-Demand space, funded by Temasek, Foxconn and Pacific Century Cyber Works (PCCW). Prior to Vuclip, Mr. Nickhil founded and ran various start-ups, such as Timbre Technologies (acquired by Tokyo Electron), Command CAD (acquired by Cadence Design Systems) and Praesagus (acquired by Cadence Design Systems). He is also the founding member of the Bhau Institute of Innovation, Entrepreneurship and Leadership in Pune and is an investor and advisor to Campfire Labs (acquired by Groupon), flutter.io (acquired by Google), Bash Gaming (acquired by GSN), Shoptimize, Pay Activ, Viewics (acquired by Roche), Jombay, Mezi (acquired by American Express) and Blend, among others. He has been the recipient of many awards from various organizations, including the Lifetime Achievement Award from College of Engineering, Pune, the Institute of Electrical and Electronics Engineers (IEEE), Best Paper Award in Transactions on Semiconductor Manufacturing and the Berkeley Distinguished Pioneer Award. He has to his credit more than 20 conference papers and more than 60 issued patents. Mr. Nickhil completed his Bachelors of Engineering (B.E.) in Electrical Engineering in 1995 from the College of Engineering, Pune and his MS and Ph.D in Electrical Engineering and Computer Science from the University of California - Berkeley in 2000.

Mr. Anjan Lahiri holds Masters in Business Administration, University of Florida, USA and is a Bachelor of Technology from Birla Institute of Technology, India. Mr. Lahiri has rich and varied experience of around 28 years in Information Technology sector. Currently, he is a Managing Director and Chief Executive Officer at Birlasoft (India) Limited. Prior to this, Mr. Lahiri was Whole Time Director and Chief Executive Officer at Sasken Communication Technologies Limited. His previous roles with Mindtree Limited, Cambridge Technology Partners and Wipro Infotech complement his experience. Mr. Lahiri received the Michael Tokarz award given to the topmost graduating student in the MBA Program of the Warrington College of Business at the University of Florida in Gainesville and Valedictorian speaker at the MBA graduation ceremony.

Ms. Alka Bharucha holds B. A. (Hons.) and LL.B, University of Bombay, LL.M, University of London, Solicitor, High Court Mumbai and Supreme Court of England and Wales. She is a Member of Bar Council of Maharashtra and Goa, Bombay Incorporated Law Society. She is also an Advocate on Record, Supreme Court of India. Ms. Bharucha began her career with Mulla & Mulla & Craigie Blunt & Caroe, and joined Amarchand & Mangaldas as partner in 1992. In 2008, she co-founded Bharucha & Partners which since inception has been ranked by RSG Consulting, London among the top fifteen firms in India. For years, she has been ranked by Chambers Global, Legal 500 and Who's Who Legal, etc. amongst India's leading lawyers. Ms. Bharucha chairs the transactions practice at Bharucha & Partners. Her core areas of expertise are mergers and acquisitions, joint ventures, private equity, banking and finance. Her general corporate work includes the establishment of mutual funds and providing regulatory advice to foreign institutional investors, foreign venture capital investors, merchant bankers and other financial intermediaries. She has particular experience acting for financial services clients as well as those in the telecommunications, power and logistics sector and is also actively engaged in representing trans-national corporations for investments in retail, defense and manufacturing space.

We also have following **Executive Directors:**

Ravi Pandit, Co-Founder, Chairman & Group CEO

Mr. S. B. (Ravi) Pandit is the Co-founder, Chairman and Group CEO of KPIT Technologies Limited. His vision as the founder of KPIT has steered the Company towards achieving leadership position as product engineering and technology solutions and services provider. He possesses extensive experience in the fields of IT, Corporate Strategy Formulation and Management Consulting. He has been instrumental in shaping KPIT's strategy based on the tenets of innovation and sustainable development.Widely respected for integrity, innovation and dynamism, Mr. Pandit has successfully established and grown partnerships with customers, partners and industry bodies, setting benchmarks in corporate governance, regional cooperation and co-innovation. For his commitment to conducting business in an ethical manner and for the value KPIT partnership has brought to Cummins, Mr. Pandit has been honored with the J Irwin Miller Award of Excellence by Cummins. He has been awarded the Rotary Excellence Award for exemplary leadership and outstanding performance and honored with the Maharashtra Corporate Excellence (MAXELL) Awards for Excellence in Entrepreneurship and for his contribution to the economic and industrial development of Pune City. He was the President of the Mahratta Chamber of Commerce, Industries and Agriculture during 2004-2006. He holds a MS (Management) degree from Sloan School of Management, MIT, Cambridge, USA. He is a gold medallist and fellow member of the Institute of Chartered Accountants of India and an associate member of the Institute of Cost Accountants of India.

Kishor Patil, Co-Founder, CEO & Managing Director

Mr. Kishor Patil is Co-founder, CEO and MD of KPIT. He guides the overall management of the Company and is responsible for customer delivery units and support functions and ensuring efficient and effective functioning of the organization as a whole. He has a particular focus and vision for growing products and platforms. Under his leadership, KPIT has filed close to 60 patents, has developed over 100 IPs in cutting-edge technologies in its focus areas and has won several national and international awards including the Wall Street Journal Technology Innovation Award, and Knowledge@Wharton Technovation Award.
Mr. Patil is a member of the Institute of Chartered Accountants of India and an associate member of the Institute of Cost Accountants of India. In 2014, Mr. Patil was honored with the CA Business Leader Award - Corporate award, by the Institute of Chartered Accountants of India (ICAI). For his excellence in entrepreneurship, he was honored with the Maharashtra Corporate Excellence (MAXELL) Awards 2014. In 2013, Mr. Patil was named among the top 16 entrepreneurs in India by Ernst and Young in its Entrepreneur of the Year award program, recognized among the Top 50 CEOs of 2013 by The Entrepreneur Magazine, and awarded the 2013 Rotary Excellence Award. He is a prolific speaker and has presented at various national and international forums including the World Economic Forum (WEF), on topics such as entrepreneurship, innovation, building high performance organizations, and business transformation.

Sachin Tikekar, President and Board Member

Mr. Sachin Tikekar is a Co-founder of KPIT and serves as a Board Member and President. Currently, he is focusing on the growth of Asia-Pacific sales, overall strategy, operating systems, creation of new solutions and executive sponsorship of key Global Accounts and Partnerships along with Succession Planning and Development of senior people in the organization.
Mr. Tikekar formerly served as the Chief People Officer and the Chief Operating Officer of the US operations of KPIT.
He is intrinsically involved in building and growing strategic relationships and developing transformational solutions for key customers and partners. He holds a Masters' degree in Strategic Management and International Finance from Temple University's Fox School of Business and Management, Pennsylvania.

2.2 Board Committees

The Company takes various initiatives to ensure the active participation of the Directors, particularly, the Non-Executive Directors, in the decision-making and review process some of which are given below:

1. Majority of the committees of the Board are chaired by Non-Executive/Independent Directors. During the year, Board Committees of the Company were reconstituted. The Company has the following Committees:
    A. Audit Committee
    B. Nomination and Remuneration (HR) Committee
    C. Stakeholders Relationship Committee
    D. Corporate Social Responsibility Committee

2. The Board of Directors have an Annual Strategy Meet to deliberate on the Annual Operating Plans (AOPs), review the status of the plan and set the direction for long range plans.

A. The Audit Committee was reconstituted with effect from October 31, 2017 consisting of three Independent Directors, Ms. Lila Poonawalla is the Chairperson of this Committee, Mr. Adi Engineer and Mr. Anant Talaulicar are the other members. The committee plays a major role in reviewing and improving internal controls, internal audit function, financial reporting, reviewing the performance of statutory and internal auditors and code of conduct. The role and objectives of the committee include:

i. oversight of the financial reporting process and the disclosure of its financial information to ensure that the financial statements are correct, sufficient and credible;
ii. recommendation for appointment, remuneration and terms of appointment of auditors of the Company;
iii. approval of payment to statutory auditors for any other services rendered by the statutory auditors;
iv. reviewing, with the management, the annual financial statements and auditor's report thereon before submission to the Board for approval, with particular reference to:
   a. matters required to be included in the director's responsibility statement to be included in the Board's report in terms of clause (c) of sub-section (3) of Section 134 of the Companies Act, 2013;
   b. changes, if any, in accounting policies and practices and reasons for the same;
   c. major accounting entries involving estimates based on the exercise of judgment by management;
   d. significant adjustments made in the financial statements arising out of audit findings;
   e. compliance with listing and other legal requirements relating to financial statements;
   f. disclosure of any related party transactions;
   g. modified opinion(s) in the draft audit report;
v. reviewing, with the management, the quarterly financial statements before submission to the Board for approval;
vi. reviewing, with the management, the statement of uses/application of funds raised through an issue (public issue, rights issue, preferential issue, etc.), the statement of funds utilized for purposes other than those stated in the offer document/prospectus/ notice and the report submitted by the monitoring agency, monitoring the utilisation of proceeds of a public or rights issue, and making appropriate recommendations to the Board to take up steps in this matter;
vii. reviewing and monitoring the auditor's independence and performance, and effectiveness of audit process;
viii. approval or any subsequent modification of transactions of the Company with related parties;
ix. scrutiny of inter-corporate loans and investments;
x. valuation of undertakings or assets of the Company, wherever it is necessary;
xi. evaluation of internal financial controls and risk management systems;
xii. reviewing, with the management, performance of statutory and internal auditors, adequacy of the internal control systems;
xiii. reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit;
xiv. discussion with internal auditors of any significant findings and follow up there on;
xv. reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the Board;
xvi. discussion with statutory auditors before the audit commences, about the nature and scope of audit as well as post-audit discussion to ascertain any area of concern;
xvii. to look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non-payment of declared dividends) and creditors;
xviii. to review the functioning of the whistle blower mechanism;
xix. approval of appointment of chief financial officer after assessing the qualifications, experience and background, etc. of the candidate;
xx. carrying out any other function as is mentioned in the role and objectives of the audit committee;
xxi. management discussion and analysis of financial condition and results of operations;
xxii. statement of significant related party transactions (as defined by the audit committee), submitted by management;
xxiii. management letters/letters of internal control weaknesses issued by the statutory auditors;
xxiv. internal audit reports relating to internal control weaknesses;
xxv. the appointment, removal and terms of remuneration of the chief internal auditor shall be subject to review by the audit committee;
xxvi. statement of deviations:
   a) quarterly statement of deviation(s) including report of monitoring agency, if applicable, submitted to stock exchange(s) in terms of Regulation 32(1);
   b) annual statement of funds utilized for purposes other than those stated in the offer document/prospectus/ notice in terms of Regulation 32(7).

B. During the year under review, the Quality Council was merged as a part of Board meeting with effect from October 31, 2017.

C. During the year under review, the Innovation Council has been delinked from the Board committees and is being run as an independent council with effect from October 31, 2017.

D. The Company has a Nomination and Remuneration (HR) Committee. During the year, Mr. Sanjay Kukreja resigned from the directorship of the Company and hence, he ceased to be a member of the Committee. Mr. B V R Subbu was co-opted as the member of the Committee in place of Mr. Sanjay Kukreja. The Committee now consists of two Independent Directors, one Non-Executive and one Executive Director. Mr. Adi Engineer, chairs this Committee, Ms. Lila Poonawalla, Mr. S. B. (Ravi) Pandit and Mr. B V R Subbu are the other members. Its role and objectives include:

- **All people-related matters including:**
  i. formulation of the criteria for determining qualifications, positive attributes and independence of a director and recommend to the Board of Directors a policy relating to, the remuneration of the directors, key managerial personnel and other employees;
  ii. formulation of criteria for evaluation of performance of independent directors and the Board of Directors;
  iii. devising a policy on diversity of Board of Directors;
  iv. identifying persons who are qualified to become Directors and who may be appointed in senior management in accordance with the criteria laid down, and recommend to the Board of Directors their appointment and removal;
  v. decide whether to extend or continue the term of appointment of the independent director, on the basis of the report of performance evaluation of independent directors.

E. The Company has a Stakeholders Relationship Committee. During the year, the Committee was reconstituted and Ms. Lila Poonawalla was appointed as the Chairperson of the Committee in place of Dr. R. A. Mashelkar. Mr. S. B. (Ravi) Pandit and Mr. Kishor Patil are the other members of the Committee. The role and objectives of the Committee is to consider and resolve the grievances of the security holders of the Company including complaints related to transfer of shares, non-receipt of annual report, non-receipt of declared dividends and approval of matters relating share transfers except those which have been delegated to the Registrar & Share Transfer Agent.

F. During the year, the Risk Management Committee was merged with the Audit Committee with effect from October 31, 2017 and the power of the said Committee to monitor and review the risk management plan of the Company was delegated to the Audit Committee.

G. The Company has a Corporate Social Responsibility (CSR) Committee to oversee the discharge of Corporate Social Responsibility obligations, as required under Section 135 of the Companies Act, 2013. The Committee consists of Mr. S. B. (Ravi) Pandit, who is the Chairman, Mr. Adi Engineer and Mr. Sachin Tikekar are the other members of the Committee. The role and objectives of the Committee are:
  i. formulation and recommendation of CSR policy to the Board;
  ii. identification of activities to be undertaken by the Company;
  iii. recommendation of amount of expenditure on CSR activities;
  iv. monitor the CSR policy from time to time.

2.3 Board and Senior Management Compensation

The compensation of the Board is determined in accordance with the following parameters:

- **Legal considerations:**
  This takes into account the maximum limit set out by the Companies Act, 2013 and the rules made thereunder for remunerating Executive and Non-Executive Directors and is primarily based on the profits of the Company for the financial year.
- **Best Practices:**
  - Remuneration to Executive Directors consists of a fixed component and a performance based incentive. These are based on the individual performance of the director and the overall performance of the Company.
  - Remuneration to Non-Executive Directors is based on the director's chairmanship/membership of the Board Committees, contribution of the Director to the Company's business outside the Board/Committee Meetings and the duration of directorship during the year.

Compensation of Independent Directors is decided based on the following factors:

- Attendance at Board meetings
- Attendance at Board Committee meetings
- Chairmanship of the Board Committees
- Contribution at the Board and Committee meetings
- Guidance and support provided to senior management of the Company outside the Board meetings
- Industry practices
- Performance evaluation and
- Performance of the Company

Similarly, compensation of the Senior Management consists of a fixed salary component and variable pay. The variable pay is dependent on the performance of the individual and that of the Company.

2.4 Whistle Blower Policy

In an effort to demonstrate the highest standards of transparency, the Company has adopted the 'Whistle Blower Policy', which has established a mechanism for employees to express and report their concerns to the management in a fearless manner about unethical behavior, fraud, violation of the code of conduct or ethics. This mechanism also provides for adequate safeguards against victimization of employees who avail this mechanism and provides direct access to the Chairman and members of the Audit Committee in exceptional cases. This policy has been uploaded on the website of the Company for effective circulation and implementation. The purpose of this policy is to establish procedures for the:

- Receipt, retention and treatment of complaints received by the Company regarding improper activities, financial or otherwise, in the Company and
- Submission by Whistle Blower on a confidential and/or anonymous basis, of concerns regarding improper activities

The purpose of this policy is also to state clearly and unequivocally that the Company prohibits discrimination, harassment and/or retaliation against any Whistle Blower who:

- Raises concerns against improper activities; or
- Provides information or otherwise assists in an investigation or proceeding regarding improper activities.

The policy also aims to protect any Whistle Blower who legitimately and in good faith raises concerns or provides information against improper activities.

Everyone in the Company is responsible for ensuring that the workplace is free from all forms of discrimination, harassment and retaliation prohibited by this policy. No employee or director of the Company has the authority to engage in any conduct prohibited by this Policy.

03

Innovation at KPIT

Innovation at KPIT

3.1 Domain wise breakup of all patents filed

15

Automotive (ADAS)

13

Automotive (Hybrid)

4

Automotive (MEDS)

4

Energy

22

Others (VLSI, embedded, high performance computing, signal processing, etc.)

Total patents filed in this FY2017-18 - 9 patents (2 complete specifications and 7 provisional)
Total no. of patents granted in this FY2017-18 – 10 patents

We have filed our first design patent this year. The patent is for the unique design of the display module developed by the team.

3.2 Details of Patents

Patent Description (Filed):

Patent Description (Filed):

Patent title	Application Type	Description
Adaptive Throttle System	Complete specification	The idea is a control apparatus to control the engine throttle valve. The system, basically consists of a throttle motor and a planetary gear train that receives input from the motor which is coupled to sun gear of the gear train for motorized actuation of the throttle valve. Output to throttle valve is provided from planetary carrier of the gear train through a flexible cable. ECU of the engine controls throttle motor for actuation of the throttle valve during motorized mode of operation based on inputs from various sensors. The gear train gets inputs from accelerator pedal as well, which is connected to ring gear of the gear train through another flexible cable for manual mode of operation which gets overriding priority over motorized mode. A screw-nut type locking mechanism is also provided to have flexibility to switch between manual and motorized control of throttle valve.
System and method for lane detection	Complete specification	This is a system and method for lane detection capable of providing a warning to a driver of a vehicle in case the vehicle deviates from the detected lane. The method consists of receiving a plurality of images captured by an image capturing device, pre-processing the received plurality of images to obtain a Region of Interest (RoI) in the plurality of images, and obtaining one or more edge features over the RoI, extracting one or more ridge features based on processing of the RoI, detecting an indication of a footpoint of one or more probable lane lines based on the extracted ridge features, detecting a potential lane based on the footpoint of one or more probable lane lines, applying a mask on the one or more edge features to obtain relevant edges and detecting a final lane based on the extracted relevant edges and based on the footpoint of one or more probable lane lines.

SOC Based Gateway Module	Provisional application	The idea is a unique configurable SOC gateway module that consists of a software component and a hardware component. The gateway module is configured to provide for multiprotocol translation and switching, flagging wrong source in real time using AUTOSAR and network management. This will provide advantages in performance improvement and flexibility needed during development as well as the product life cycle.
Adaptive Braking System	Provisional application	An adaptive braking system with various sensors is proposed. The braking system consists of an electro mechanical unit that includes a twin pushrod along with a bush for transferring the linear motion from the screw shaft to the push rod and, in turn, to a brake booster. The system consists of a screw mechanism after a bush that translates turning motion of a gear nut to linear motion of a screw shaft. An ECU effectuates the EMU, wherein the ECU is configured with one or more sensors to measure the required vehicle parameter(s) and provide feedback thereto.
System and Method for Pedestrian Detection	Provisional application	The solution is a system and method for pedestrian detection during day time and collision warning. The system utilizes vision based technique for pedestrian detection. The images are captured by a forward-looking camera placed in the rear-view mirror enclosure assembly of the vehicle. The captured images are further processed to detect the pedestrian. In an embodiment, the system uses scanning window selection by taking different resolutions for far, middle and near region images. Further, the system uses three-level classifier for improved accuracy of pedestrian detection. According to an embodiment, scan toggle implementation is used to increase the rate of frames/second (FPS). This solution improves the range of detection and quality of detection.
A Metal Bipolar Plate Design	Provisional application	This is a unique method of construction of a bipolar plate for a fuel cell stack. The bipolar plate is formed by using a unique method of stamping or machining operation. The bipolar plate is fabricated with different flow fields on either side of the plate. One is an anode side having serpentine flow over which hydrogen gas (H2) flows and the other is a cathode side having parallel flow over which air (O2) flows. As a single bipolar plate is designed to include both anode and cathode on either side, it eliminates the need to weld two separate plates.
Clamping arrangement for fuel cell stack	Provisional application	This is a unique clamping arrangement for securing a fuel cell stack which provides for applying and maintaining adequate and uniform pressure across the fuel cell stack. Through the clamping arrangement, the fuel cell stack is pressed between two end plates and then secured in a way, such that adequate and uniform pressure is maintained across the fuel cell stack. In various embodiments, the assembly for a clamping arrangement consist of either a single point clamping with disc springs, or an array of tube springs, or a honeycomb structured silicone rubber or a foam layer. This arrangement is designed such that it can also adapt to irregularities in components owing to thermal expansion or manufacturing constraints and continue to maintain a uniform and adequate pressure across the fuel cell stack.
Cooling arrangement for fuel cell stack	Provisional application	The idea relates to a cooling arrangement for a fuel cell stack that consists of a radiator block integrated into the fuel cell stack assembly. The cooling system for the fuel cell stack consists a conducting plate disposed between fuel cells that has provisions to allow flow of a coolant across it. Reaction gases come in contact with the coolant path, while remaining insulated from the coolant, and heat exchange occurs. The heated coolant then flows through the radiator block where it is cooled and then pumped back into the fuel cell stack for recirculation. The radiator block is designed to be part of the fuel cell stack assembly. This design minimizes any additional space required for the radiator block and also reduces the energy required to pump the coolant due to reduction in physical distance. The radiator block also provides structural support in the fuel cell stack assembly and serves as mounting pillars for end plates mounted on the radiator block.

Autonomous variable compression ratio engine with Continuous variable transmission	Provisional application	An autonomous variable compression ratio engine with continuous variable transmission is disclosed. The system of the present invention is provided with a modified crank with: a pair of counterweight, a pair of leaf spring on one side of the counterweight and a linking mechanism for CVT connecting rod on other side of the counterweight in order to connect the modified crank to the power shaft. The crankshaft is connected to the counterweight via a pair of leaf spring. In ideal running condition, the crank rotates as per the conventional engine, as the stress applied is less than the stresses in the pair of leaf springs. As the load applied increases above set threshold, the counterweight moves away from central axis X, the piston moves downward and the leaf springs are deformed. This results in smoother transformation of engine from no load condition to high load condition. As the counterweight moves away from central axis X, power shaft shifts towards the Y axis. This shift also moves the hollow sheave to get maximum RPM at the clutch variator. The centrifugal force at modified crank causes the engine to achieve the benefits of variable compression ratio as well as helps in achieving the continuous variable transmission.
D 302623	Display Module	This is a design patent for the unique display module of one of our products.

Patent Description (Granted):

Patent No.	Country of Grant	Patent Title	Description
JP6141365(B2)	Japan	Method and System for Parallelization of Sequential Computer Program Codes	This is a method and system for parallelization of sequential computer program code. An automatic parallelization system includes a syntactic analyzer to analyze the structure of the sequential computer program code to identify the positions to insert SPI to the sequential computer code; a profiler for profiling the sequential computer program code by preparing call graph to determine dependency of each line of the sequential computer program code and the time required for the execution of each function of the sequential computer program code; an analyzer to determine parallelizability of the sequential computer program code from the information obtained by analyzing and profiling of the sequential computer program code; and a code generator to insert SPI to the sequential computer program code upon determination of parallelizability to obtain parallel computer program code, which is further outputted to a parallel computing environment for execution and the method thereof.
MX348341 (B)	Mexico	Motor Assistance for a Hybrid Vehicle Based on Predicted Driving Range	This idea is for providing assistance to an internal combustion engine for a vehicle using an electric motor coupled to the engine. A driving range is predicted based on the historical driving range data. The historical driving range data includes one or more distances that the vehicle was driven during one or more previous driving cycles. The motor is selectively operated to provide assistance to the engine at predetermined operating conditions of the engine. The assistance provided to the engine at the predetermined operating conditions is determined based on the predicted driving range.
US9734560(B2)	U.S.	Method and System for Selectively Enhancing an image	This solution provides for selectively enhancing regions in an image. A digital image is read from an image source and is converted into a desired image model. One or more regions in the image having intensity values of pixels falling outside a pre-determined optimal intensity range are determined. The one or more regions in the image are then enhanced using a modeled light source of an optimal intensity such that the intensity value of pixels corresponding to the one or more regions in the image fall within the pre-determined optimal intensity range.
JP6153528 (B2)	Japan	System and Method for Battery Monitoring	A method and system for estimating the State-Of-Charge (SOC) and State-Of-Health (SOH) of a battery is disclosed. The method accurately determines the battery SOC by estimating the values of the recurring constants determined by the battery parameters based on the current and SOC values obtained during the charging and discharging cycle of the battery.

AU2016203887 (B2)	Australia	A power assisting system	A modular power assisting system that is adaptable to a vehicle/engine driven system so as to be operated/powered by electric system and/or its original power system has been disclosed. The synergistic combination of the motor system, motor control system and energy storage device coupled to the regenerative braking system enables the power assisting system of the present invention to adapt to the vehicle/engine without involving substantial modifications in engine, power train, drive train and vehicle. The engine and electric motor exploits advantages of each of the power source based on the operating conditions of the vehicle/engine driven system by selectively responding to the engine's power demands so as to enhance fuel efficiency, reduce undesirable emissions and provide better drivability.
JP6240369(B2)	Japan	A System and Method for Determining State of Charge of a Battery	A method for Battery (SOC) is disclosed which uses both the direct method and the indirect method (not used at the same time), alternately as indicated by battery current status. This method compensates for the exiting modeling errors and parameter estimation errors to provide an accurate SOC estimation. The method computes the DC offset and the battery capacitance to compensate for the exiting modeling errors and parameter estimation errors.
US9858165 (B2)	U.S.	Method and apparatus for designing vision based software applications	This is an apparatus and method for designing vision based software applications. The system consists a media file generation module to automatically generate a plurality of media objects from input media content by applying different values of a set of parameters to the input media content. The plurality of media content contains information representing distinct real life scenarios and distinct environmental conditions. A performance evaluation module processes each of the plurality of media objects using a vision based software application and evaluates performance of the vision based software application for each of the plurality of media objects based on the processing of the plurality of media objects. An application re-designing module re-designs the module of the vision based software application based on the evaluated performance in distinct real life scenarios and environmental conditions.
US 14/915,142	U.S.	Retrofit System for Converting a Vehicle into One of a Hybrid Electric Vehicle (HEV) and Electric Vehicle (EV)	A retrofit system for configuring a vehicle into a hybrid electric vehicle or electric vehicle is provided. The system consists an electric power source (EPS) having one or more motors to provide fail safe torque to the vehicle and harness braking energy for charging one or more batteries, one or more attachable electric power gear assemblies (EPGA) configured to couple the one or more motors to a propeller shaft for providing the torque to the vehicle, and an electronic control unit coupled to the Electric Power Source (EPS) for dynamically controlling functioning of the one or more motors based on the running conditions to drive the vehicle. The motor controller actuates one or more motors based on the torque and power required to drive the vehicle.
EP 2477835	Europe	Motor Assistance for a Hybrid Vehicle Based on User Input	A method of providing assistance for an internal combustion engine in providing driving power for a vehicle using an electric motor coupled to the engine is provided. The motor is selectively operated to provide assistance to the engine at predetermined operating conditions of the engine. The assistance provided to the engine at one or more of the predetermined operating conditions is determined based on one of a plurality of motor assistance profiles. The motor assistance profile upon which the assistance is determined is selected from among the plurality of motor assistance profiles based on an expected driving range provided by a user of the vehicle.
IN292492	India	A System For Detecting, Locating And Tracking A Vehicle	This solution provides for locating, tracking and detecting a vehicle at night time. The method includes steps of segmentation, validation, clustering, tracking and physical parameter estimation for detection of vehicles. The system utilizes entropy based image segmentation for raw image obtained from multichannel camera.

3.3 Technical Publications

Sr. No.	Paper Title	Conference	Domain
1	Numerical Simulation and Flow Analysis of Rear Transfer Ducts Using AcuSolve	Altair Technology Conference - 2017	Computational Fluid Dynamics (CFD)
2	Trajectory planning and fuzzy control for perpendicular parking	2017 IEEE International Conference on Multi sensor Fusion and Integration for Intelligent Systems	Autonomous Driving
3	Actuator domain architecture: strategy for optimizing weight reduction and CO2 emission	SAE World Congress 2018	Design optimization-Methods and application
4	Suspension health monitoring and failure prognosis through onboard SoC and cloud based reporting	SAE World Congress 2018	System diagnostics and prognostics
5	Design and implementation of Adaptive Range LIDAR System (ARLS) for autonomous braking assistance at high speeds in automobiles	SAE World Congress 2018	Autonomous systems
6	Simulation test bench of EV power system towards fault analysis	2018 Biennial International Conference on Power and Energy Systems: Towards Sustainable Energy (PESTSE) - IEEE	Electric power system, fault simulation, EV fault analysis
7	Practical approaches for detecting DoS Attacks on CAN network	WCX World Congress Experience	Automotive Cybersecurity

3.4 KPIT Sparkle 2018

This was the fourth year of KPIT Sparkle, a National Design and Development Innovation Contest for Science and Engineering students. The theme of the competition in this edition was Next Generation Energy and Transportation Solutions. This year, we received over 12,000 registrations from more than 600 Engineering and Science colleges. Highlights for this year was the increased participation from premier institutes (IITs, NITs) from 9 to 28. We also saw an increase in participation of 63 of top 100 institutes across India, the list as published by the Ministry of Human Resource Development (MHRD), National Institute of Ranking [NIRF] rankings.

The 30 finalists of KPIT Sparkle 2018 showcased their projects at a public exhibition, held at the premises of the event's academic partner, Pimpri Chinchwad College of Engineering (PCCOE), Pune.

The finalists were evaluated based on the novelty, technical prowess, affordability, social impact and commercial viability of the proposed ideas. The winners of the contest were evaluated by a panel of eminent jurors and announced at an award ceremony on February 18, 2018, where cash prizes of over ₹20 Lakhs were awarded to them.

This year the projects which came to finale were implemented on actual vehicles. There were Green Technology projects like energy production using Fuel Cell and Hydrogen being used as fuel for automotive applications & compressed air engines. Interesting projects like climate control without using refrigerants, recycling of plastic to form building material. Projects which were aimed at end user Convenience like a dynamic time table for buses depending on ridership, predictive path for ambulances, overtake assistance systems etc. Projects which dealt with Safety like Vehicle flow optimization, collisions avoidance systems, Smart Helmets etc.

At the grand finale of KPIT Sparkle 2018, the winners were felicitated with cash prizes and medals. Students were awarded in the presence of Padma Bhushan Dr. K Radhakrishnan, former Chairman, Indian Space Research Organization (ISRO) and Mr. Harkesh Mittal, Adviser, Member Secretary, National Science & Technology Entrepreneurship Development Board (NSTEDB). The august gathering also included Mr. S. B. (Ravi) Pandit, Chairman and Group CEO, KPIT Technologies, Padma Vibhushan Dr. R.A. Mashelkar, Chairman, KPIT Innovation Council and Dr. A.M. Fulambarkar, Principal, PCCOE, in addition to the jurors. Team Electrodes, a single-member team represented by Ramya Veerubhotla from the Indian Institute of Technology, Kharagpur, won the top Platinum Award of KPIT Sparkle 2018. Ramya showcased a prototype of a flexible and disposable battery, powered by bacteria from sewage water, using eyeliner-coated paper electrodes. The winner received a cash prize of ₹10 lakh.

Team name	College name	Description	Award
Team Electrodes	INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR	Bacteria Powered Battery	Platinum
Team Smart Gears	SAHYADRI COLLEGE OF ENGINEERING & MANAGEMENT	Smart Helmet	Gold
Team Nanoknocks	PUNE VIDYARTHI GRIHA'S COLLEGE OF ENGINEERING	Organic Nano Material for cleaning Oil Spills	Silver 1
Team Thermo	PAD. DR. D. Y. PATIL INSTITUTE OF ENGINEERING, MANAGEMENT & RESEARCH, PIMPRI CHINCHWAD COLLEGE OF ENGINEERING	Converting Waste Heat into electricity	Silver 2
Team PathPredictor	NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR	Predictive Path Analyzer for Priority vehicles	Most popular

3.5 Awards List

KPIT recognized at The CSR Journal Excellence Awards 2017

KPIT has consistently involved itself with Corporate Sustainability - one of the core pillars of growth for the organization, leading it to be recognized by various national and international forums. In November 2017, KPIT was honored by The CSR Journal Excellence Awards 2017 at a ceremony in Mumbai. The Chief Guest, Shri. Devendra Fadnavis (Honorable Chief Minister of Maharashtra) graced the event, along with other special guests Shri. Sudhir Mungantiwar (Minister of Finance & Planning and Forests – Maharashtra), Shri. Kripashakar Singh (Ex-Minister, State of Maharashtra).

KPIT's sustainability project - 'Water Conservation through Mass Volunteering' was unanimously selected as the First Runner-Up in the Environment category. This project is a brainchild of Mr. S. B. (Ravi) Pandit (Chairman and Group CEO, KPIT), implemented with the guidance of Mr. Tushar Juvekar (Head - CSR Initiatives, KPIT) and various employees of KPIT.

This community driven project, helped support drought-stricken villages of Maharashtra & Karnataka, by increasing water resources for farming and domestic purposes.

KPIT Receives Special Recognition by UITP India

KPIT has always been at the forefront of innovation, especially in promoting safe, sustainable and smart solutions for Automotive and Transportation. KPIT's transportation solutions titled – 'Helping India double its public transport usage with smart and green technologies' was recognized at the UITP Global Public Transport Summit 2017, held in Montreal, Canada between May 15 to 17, 2017. KPIT's solution was selected by UITP India to acknowledge the bouquet of transportation solutions that KPIT provides. UITP is a century old international association for public transportation.

Exclusively from India, a total of 25 technology based entries were received from 13 leading government and private organizations, for their achievements made in the public transport sector over the past two years.

KPIT's transportation solutions focus on transforming public transportation in India. KPIT is combining its portfolio of various products and platforms developed to achieve this such as: Electrification Technology (REVOLO), Accurate Traffic Pattern Mapping of an entire city and Intelligent Transportation System (ITS) to ensure timely availability of smart and green public transportation when needed.

The jury members reserved special praise for the thought, intent and technology implementation done by KPIT over the years that has propelled technology adoption in public transportation sector in India. This recognition represents a positive reinforcement for KPIT's vision of creating smart and green technologies for transportation.

KPIT wins Smart Cities India Award 2017

KPIT's flagship product - Intelligent Transport System (ITS), won the Smart Cities India Award 2017 under the category "Smart Urban Mobility" at 3rd Smart Cities India 2017 Expo on May 12, 2017 at New Delhi. KPIT's ITS focuses on improving public transportation and explores in-depth three specific areas of urban mobility: Operational Efficiency, Passenger Convenience and Vehicle and Commuter Safety. Smart Cities India Awards is an annual event held since 2015, designed to recognize pioneering projects that aim to make cities more livable, sustainable and economically viable by honoring best practices and models in the smart cities concept. The award was conferred on KPIT by Shri D.N. Modi, Commissioner, Gandhinagar Municipal Corporation. Sangram Kadam (AVP, Head of Sales) and Vishwajit Joshi (Lead, Smart Cities Marketing) received the award on behalf of KPIT.

KPIT awarded 'Outstanding Green Vehicle Integrated Solution Provider of the Year' at 8th Green Vehicle Convention event, Beijing, China

Green Vehicle Convention (GVC) organized by China Automotive Engineering Research Institute (CAERI and China Association of Automobile Manufacturers (CAAM) is one of the key events in China that focuses on electric and hybrid vehicle technologies. Since its inception in 2010, GVC has seen a lot of participation from the OEMs and Tier1s of automotive ecosystem.

Each year GVC announces "Outstanding Provider" awards in different categories such as OEMs, Battery suppliers, Charging System suppliers, Core Components Suppliers, BMS suppliers, Semiconductor Suppliers and Integrated Solution Providers. KPIT has been recognized as the "Outstanding Green Vehicle Integrated Solution Provider of the Year" in the Integration Solutions.

04

Community Initiatives at KPIT

Community Initiatives at KPIT

Transforming communities through employee engagement

KPITes join villagers at Kusgaon for well excavation

Community Initiatives at KPIT has been a long-standing tradition, since its formative days. Leveraging on our strengths of people and technology, KPIT has been maneuvering itself through the social and environmental scape, trying to better the world, through select focus areas. KPIT works with the belief that responsible volunteering has the ability of imparting a long-lasting impact, with constant emphasis on quality of the impact than quantity. At KPIT, we aim to create a more equitable and inclusive society by supporting communities that lead to sustainable transformation and social integration.

Community Contribution is one of the seven core values at KPIT. It has a significant mention in our Mission and Vision statement and reflects our commitment towards it. Considering our capabilities and the needs of the communities that we serve, we have continued working within the following focus areas:

Environment: Making this planet a better place to live in
Education: Transforming lives through science and technology education
Energy: Developing innovate solutions for efficient energy consumption and renewable supply
Employee Engagement: Maximizing impact through responsible volunteering

4.1 Environment

KPIT is committed towards giving our future generations a sustainable world through efficiency in our business operations and conservation of natural resources. Here are few project categories and projects that we undertook this year:

Water Conservation:
Conserving water through mass volunteering

1

Afforestatoin
Creating oxygen hubs to reduce atmospheric pollutants

2

Private Forest Conservation
An attempt to save & restore our natural heritage - forest

3

Zero Garbage
A clean Pune movement

4

Key projects under Environment focus area

Water Conservation through Mass Volunteering


KPITes working on Vanrai Dam

Five years of water conservation: In the last few years, the water situation in Maharashtra has gotten worse resulting in severe droughts, leading to drinking water scarcity and agricultural crisis. The electrification of the villages has indirectly intensified the problem through deep borewell technologies, leading to increased extraction of ground water from wells and surface storages. To mitigate the severity of the problem and append the existing support structure, KPIT took up two villages of Kusgaon and Metpilawar in Pune district this year. As a result, three farm ponds of 1.3 lakh litres each were achieved, with villagers playing a partner's role in executing these ponds. These ponds have been made accessible to 400 villagers and livestock, hoping to support them through the dry spells of the year. 154 KPITes took charge of their social responsibility in ensuring that this project was realized.


KPITes shedding sweat at Metpilawar village

Well excavation and construction at Guhini village, Pune District

KPIT, under its Water Conservation through Mass Volunteering Initiative, constructed a second fresh drinking water well in Guhini village, Pune district, Maharashtra. This project intended to address the potable water scarcity for the months when the nearby natural spring dries out. It was a collaboration between KPIT, Jnana Prabodhini and the villagers of Guhini.

A unique three-way partnership, KPIT and the villagers contributed with funds and sweat hours in realizing this structure. As a result, the village of Guhini, with a population of 800, will now be tanker-free even in the arid months of the year.

This initiative was made possible with the guidance of Jnana Prabodhini, KPIT's NGO partner. The well has been constructed on the land of a generous donor, Shri Shripati Jadhav, measuring 40ft deep and 40ft in diameter, with a water holding capacity of 1.1 million litres.

Well Excavation and construction at Guhini village, Pune

Drinking water distribution system in Kamre Budruk village, Pune District

Replicating the efforts from the successful drinking water distribution system project from Kashedi in 2015-16, KPIT engaged with its partner NGO, Jnana Prabodhini at Kamre Budruk village. This project being in tandem with our CSR objective of water conservation, KPIT volunteers conducted a survey of drought conditions in villages near Pune. It was observed that although Kamre Budruk village (15 km away from Bhatghar dam near Pune) falls in water catchment area of Bhatghar dam, it is still facing acute drought issue. The only source of drinking water in this village is a natural reservoir that is drying out, thus creating a dependency on the government aided water tankers.

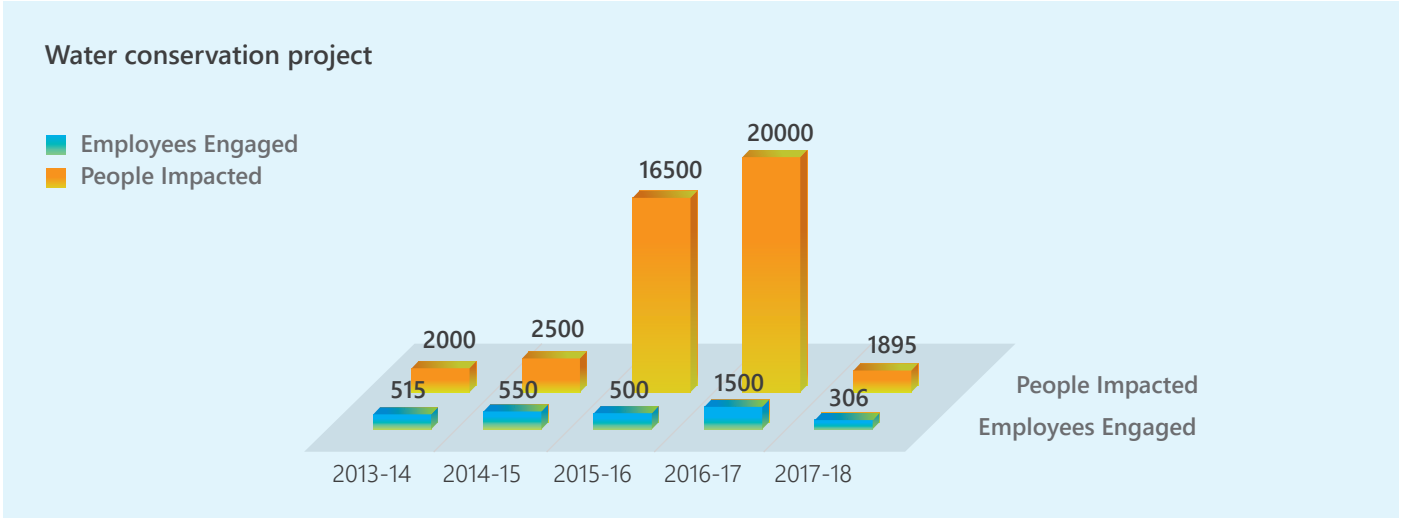
Being a small village with scarce population, there are limitations in the way Government can fund to resolve drinking water issue of the village. After consultation with local government authorities and Jnana Prabodhini's irrigation experts, KPIT decided to pump water into that natural reservoir from the backwaters of Bhatghar dam.

The project involves pumping water to a height of 150 meters by installing a pipeline (2" diameter) of 1,500 meters. This water will be pulled by a submersible pump of 10Hp. These efforts will result in a huge relief to the drought conditions faced by the villagers.

The uniqueness of the project lies in the synergism, wherein, the Government tackles the drought condition, corporates commit to social responsibility and voluntary organizations execute these efforts. After observing this commitment, villagers have started digging a channel for installing the pipe line. The villagers are now getting ample amount of drinking water.

Through its water conservation initiatives, KPIT has managed to support below numbered beneficiaries.

- Number of villages covered: 8
- Total number of beneficiaries: 1895
- Water Conserved (Litres): 1.4 million
- Total number of employees engaged: 306



Afforestation: Seed Bombing/Aerial Reforestation

Masanobu Fukuoka's (a Japanese Farmer) revolutionizing idea to planting, also, sometimes known as Aerial Reforestation, is a technique of introducing vegetation to land by throwing or dropping seed balls in mostly rugged and inaccessible terrains. Although, through its propagation across geographical boundaries, the process has seen alteration and medication being inculcated, the intent of seed dormancy within the ball until suitable conditions are met for germination remains at the heart of it.

The process involves kneading locally available clay, soil, indigenous cow dung and urine into a dough like consistency. This is then followed by inserting seeds of indigenous tree species and sun drying them to increase the shelf life. KPIT employees in Bengaluru took part in three seed ball making gatherings, hosted by local NGOs and nature groups, in amassing close to 15,000 seed balls. Over the course of the monsoon season, we frequently visited a chosen hilly site of Muddenahalli near Nandi Hills, on the outskirts of Bengaluru, to bomb these seed balls.

150+ volunteers from KPIT Bengaluru took part in this process of reforestation this year, with subsequent visits showing promise of seeds germinating into plantings. Seed bombing, based on variability of conditions, has a success rate of anywhere from 10% - 30%.

Seed ball dispersal with Team PEG at Muddenahalli

Afforestation: Sapling Planting and Plantation Care

The primary forest cover of our country stands at barely 3%. The rate at which these forests are being plundered, leaves our future generations with an insurmountable challenge for survival. Encroaching in the name of development and adequacy has been furthering the availability of the green gold our country once hugely possessed.

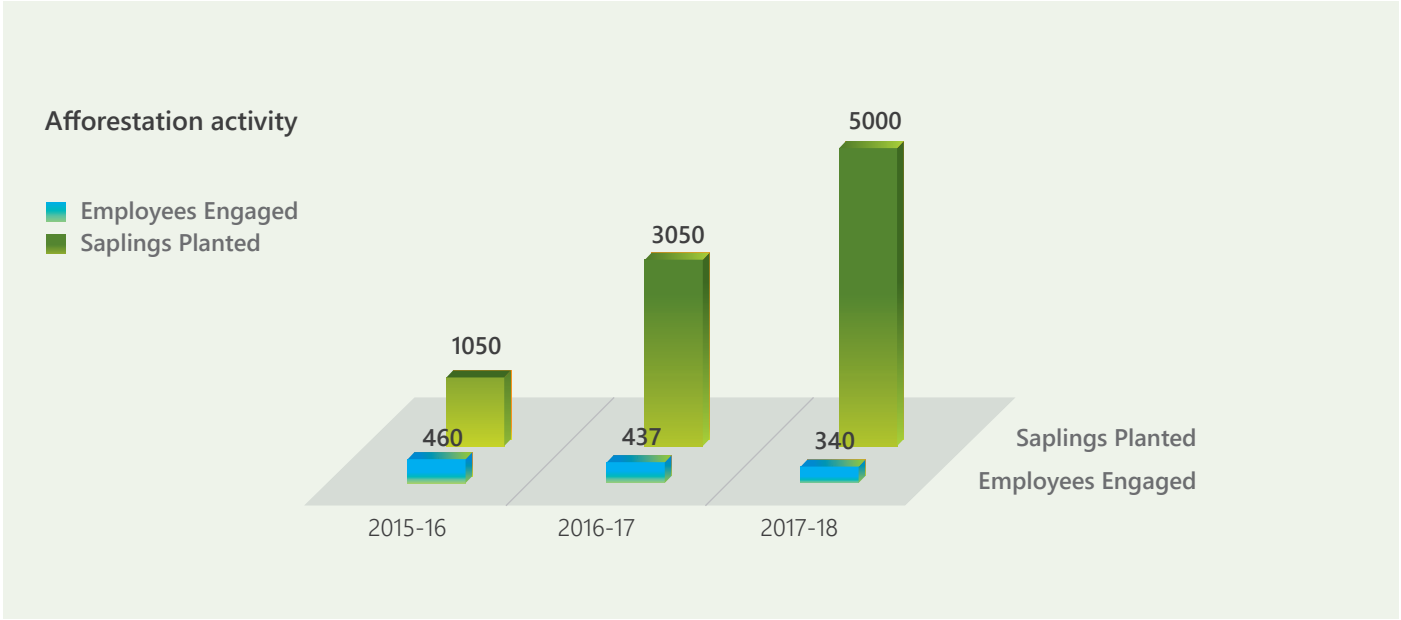
Clearly, the need of the hour is to pull up the socks and be responsible for our future generations. KPIT, as a socially responsible organization, has taken up to the task of restoring forests, to bring back some semblance in the forested environment. In Maharashtra, the Koyna - Chandoli corridor has been a recipient of KPIT's afforestation efforts. Following up with previous year's efforts, KPIT aligned its afforestation efforts with the monsoon, ensuring 5,000 more saplings were planted, aggregating with the previously planted ones, with an overall survival rate of 90%. Beyond planting, KPITes also laboured in watering the saplings and mulching them to ensure care and see to that they grow to live. The efforts of two KPIT offices of Pune and Mahape over multiple visits, including 340 volunteers, have ensured a tiny parcel of green promise.

Consequentially, the following alterations in the micro climate could be witnessed:

- Creation of oxygen hubs and increase in carbon sequestration
- Reduction in atmospheric temperature
- Rise of mini ecosystems
- Increase in bird migration and flourishing flora

Planting Activity by KPITes at Koyna

Mulching Activity by KPITes at Koyna



KPIT Afforestation activity graph for past three years

Environment Week at KPIT

Since 2010, KPIT has been celebrating the Environment Week on "World Environment Day". In the year 2017-18, Environment Week was celebrated from 5th to 9th June at all our India locations with great enthusiasm and vigor. Various events were organized to create an awareness about environment-related issues and to demonstrate how KPIT cares for the nature.

Environment Day Fair

KPIT Bengaluru organized a fair at its EcoWorld Campus, inviting Eco-preneurs, Promoters and International NGOs to promote the eco-friendliness of our lifestyles and consumptive habits. The stalls marketed recycled artefacts, stationaries, fashion apparels, musings, kitchen garden plants and articles, and value added organic food products.

A free counter was also set up to hand over plant saplings of various kinds, in a bid to encourage pro-nature sensitivities among corporates in a small capacity. NGOs like Green Peace India, Saahas and recyclers like 4R Recycling Pvt. Ltd. spread the message of climate change and environmental action, from mitigative habits of consumption to scientific handling of e-waste among others.

Celebrating World Environment Day at KPIT Bengaluru office

Shoot-A-Short Film Contest

'Connecting with Nature', as a theme, continued into a short film making contest too. The challenge was open to employees all over India. The films with a duration of no more than eight minutes, saw 14 registrations. While the runner up film carried a crisp message of a looming water crisis, the winning entry had a more platonic message respecting nature in verity.

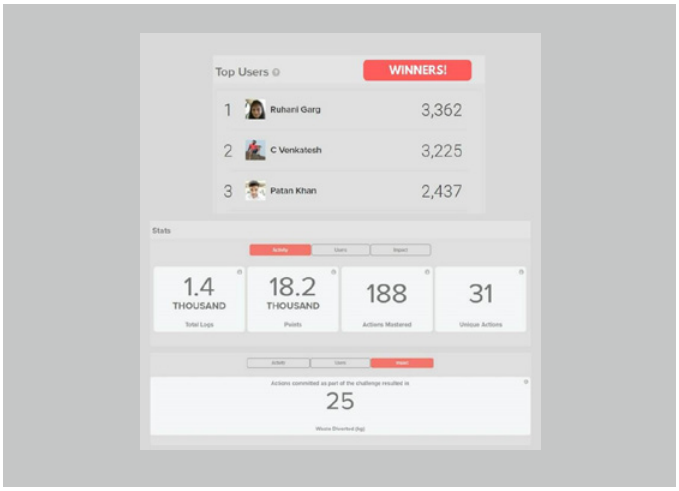
A screen grab of the winning short film

Design-A-Poster Challenge

The other competition that was organized for the employees during the environment week was the poster designing competition. The categories of digital posters, paper posters and photo posters had to be based on theme of 'Connecting People with Nature'. The entries saw participants taking to their creativity and creating extensive posters in line with the given theme. With a max team size of four, the competition had ten teams contesting.

4R Challenge

To promote environmental consciousness among the employees and their family about the waste management practices, KPIT, through its BetterWorld platform, launched a competition called the 'KPIT 4R Challenge'. The 4Rs – Refuse, Reduce, Reuse and Recycle were the target practices and employees scored points based on acts committed during the competition and logging the same on the app. As a result of the contest, 25 kilos of waste was diverted through 31 unique actions committed, totaling 1.4 thousand logs. The contest showcased how small acts of environmental stewardship in a community can lead to better changes in lifestyles.The contest was open to employees across KPIT offices around the world.



KPIT Better World's 4R Challenge final statistics

Poster design competitors and their posters during KPIT Environment Week 2017

Paper Bag Workshop

An in-house employee engagement activity related to making paperbags began during the past year's environment week. Seva-In-Action partnered with KPIT to provide guidance to employees about making a bag using newspapers, and explaining to them the nuances of the art. Ever since, KPIT Bengaluru has engaged more than 250 volunteers in making paper bags for internal use, such as gifting occasions during CSR Events.

Paper bag workshop during KPIT Environment Week 2017

e-Waste Collection Drive

India, with 18 lakh metric tons of e-waste, is the fifth largest electronic waste contributor. Without slightest of regard, we have been discarding electronic gadgets and appliances that is growing at a 30% rate year-on-year. With only 1.5% of them getting recycled, the need for recycling this waste is now more than ever.

In this regard, KPIT partnered with 4R Recycling Pvt. Ltd. (A Karnataka State Pollution Control Board approved recycler), to bring in discarded electronics from homes of employees for scientific disposal. In the first ever drive of this kind inside KPIT, a quintal worth of waste was collected for disposal in Bengaluru, while in Pune, 250kgs of e-waste was handed over to Poornam Eco-Vision for scientific disposal.

Skit on Saving Water

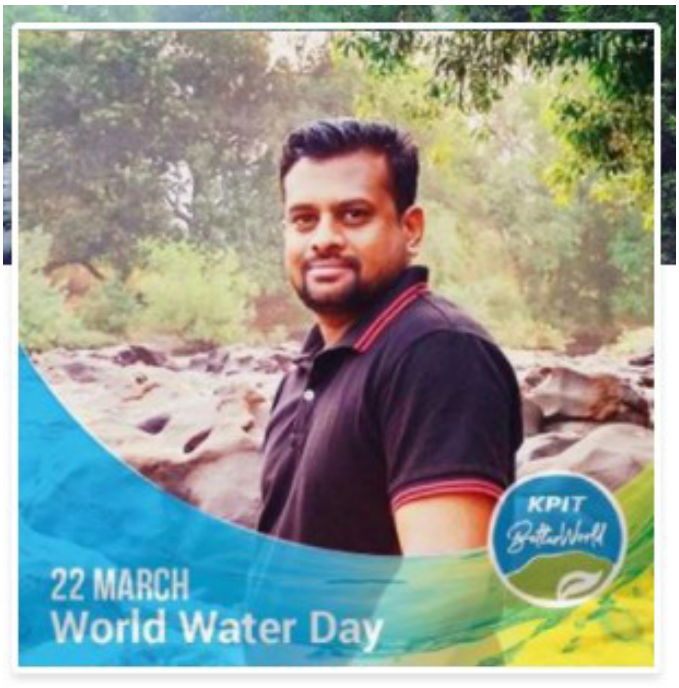
KPIT's Environment week volunteers performed a 'Save Water' skit at Pune and Mahape offices.

Kids Day

We kick-started the environment week with Kids Day at KPIT Mahape office. Here we invited kids of employees to spend a day in the office premises. More than 50 employees brought their kids of various age groups to celebrate the environment week with us. They were a part of many activities and events such as nature-themed tattoos for all kids, craft workshop, office tour guided by parents and volunteers, kids movie, etc.

Wear the E-Badge with Pride

Environment week initiated with "Wear the E-Badge with Pride" Facebook campaign. As a part of our online festivities, we have launched a Facebook badge that overlay on Facebook profile picture to show our support and solidarity towards preserving the environment. More than 300 KPIT employees applied this badge on their profile picture.



Ideas on eco-friendly office practices

Quizzes and Games | Idea on board

KPIT employees contributed with their thoughtful ideas on eco-friendly office practices. We had received more than 40 unique ideas during this activity. It was nice to see that employees care for the nature and proactively contributed by sharing their ideas.

Ideas on eco-friendly office practices

Big Nature Canvas

In this activity, we invited KPIT employees to create paintings related to nature's elements. The purpose was to help establish a connection between people and the nature. This activity was open to all employees whoever wished to paint with the help of CSR volunteers. This was a group activity and many employees together finished the paintings in the given time frame. The experience of them mixing colors and painting, visualizing the beauty of nature more closely, and making them more likely to appreciate the same was amazing. The completed paintings were displayed in the cafeteria along with a write up about the same.

Paintings from the 'Big Nature Canvas' activity, displayed in cafeteria

KPIT Better World

A global, crowdsourcing contest, KPIT BetterWorld focuses on leveraging niche technologies to address issues in the areas that are essential for our existence and to make the world a better place to live. The invitation was extended to tech students, start-ups, tech-boutiques, and scientific associations from across the globe to present affordable technology-led solutions to create a positive and far-reaching impact on the environment. Contest to feature challenges on diverse themes, starting with the first competition addressing issues of water scarcity. The theme of the first edition is 'water', which will focus on finding solutions around extracting water from thin air and measuring groundwater stock and surface water flow.

Why the spotlight on water extraction from thin air and groundwater conservation?

- Limited access to fresh and clean drinking water
- Shrinking groundwater resource

The contest so far has received 182 nominations with 25 unique ideas.

Zero Garbage Project

In 2013, the Zero Garbage Project was initiated for improving the livability of people within the city of Pune. The project over the years has been encouraging segregation of dry and wet waste at the source.

Since inception of this project, our Chairman and Group CEO, Mr. S. B. (Ravi) Pandit, has been a deeply engaged mentor in execution of the Zero Garbage Project. With KPIT's support and coordination, Janwani, a Pune-based voluntary organization, has been successful in showing positive results in all municipal wards. In the process, a total of 5.5Lac(approx.) properties have been reached covering 20 prabhags. Since April 2017, 567 chronic spots have been eliminated in the 20 prabhags, with 171 spots given an alternate use such as water points, society park, parking spaces etc., to make the wards zero-garbage wards.

Within the project, Janwani has also been collecting e-waste for scientific disposal. As accounted, close to 10 tons of e-waste has been collected this past year from societies and bungalows, commercial establishments and educational institutes.

Use of Space after Removal of Chronic Spots

4.2 Education

We aim to transform lives of people in our community through science and technology education. The focus on science and technology is because of our belief that technology can change lives and that science brings in rational thinking. Starting as early as high school, KPIT identifies itself with the progressive steps that lead people towards the adoption of STEM (Science, Technology, Engineering and Math) as a career choice and develops the acumen of an individual towards constant learning.

Chhote Scientists
Igniting the basics of science among government school children

1

Smart Indian Hackathon
Partnering with World's Biggest Digital Movement

2

KPIT Sparkle
All India social innovation contest for science and engineering students

3

Pace Programm
Initiative to bridge the gap between academic and industry

4

Key projects under Education focus area

Chhote Scientists

Chhote Scientists has been at the forefront of KPIT's Educational initiatives under the CSR umbrella. An effort to bridge the learning gap in classroom and real-life application of science, the influence is mushrooming into a larger picture.

Chhote Scientists in session at Pune

What began as an effort of impacting 800 children in around 20 schools in Pune in the first year, is now seen reaching out to 177 schools in the current calendar year with 15,000 students being exposed to it, across 15 cities of India.

In 2017-18, Chhote Scientists has expanded to new venues of Mysuru, Dharwad and Hubballi, catering the program to 3,500 children in 60 schools. KPIT has partnered with Talent Quest for India (TQI) and Youth for Seva (YFS) in Mysuru, under the NGO partnership model. The uniqueness of this partnership is such that it now has 20 medical and pharmacy students (not just undergraduate engineers) coming together in delivering the program. With as many volunteers, KPIT could reach out to 240 students at seven government schools.

Chhote Scientists in session at Mysuru

Following up on the tracks of last year's college partnership with Jalna College in Pune, KPIT this year partnered with NMKRV Girls College and NMIMS from Bengaluru, and brought out the program to ten more schools in Bengaluru. 60 volunteers, through as many sessions, engaged 820 students for an exciting and hands-on Chhote Scientists program. Such kind of partnerships have not only helped in reaching larger number of schools, but also have brought about evident changes in the young college going aspirants, bringing their leadership and people management qualities to the fore.

Chhote Scientists Workshop in session at NMKRV College, Bengaluru

Chhote Scientists, made strides in expanding its circle of knowledge-sharing to Hubballi, under the Project titled 'Lab on Bike', reaching out to ten schools with not just Chhote Scientists, but with practical science curriculum using demo models. Through this program 980 students were benefited. Likewise, in Dharwad with Vidya Poshak, a voluntary organization, playing the host, 2,500 children across 43 schools were benefitted from KPIT Chhote Scientists program. While 'Lab on Bike' had a dedicated teacher delivering the sessions to schools in Hubballi, Dharwad saw 80 of Vidya Poshak scholars and non-scholars partake in running the sessions.

Chhote Scientists in session at Hubballi

Chhote Scientists in session at Bengaluru

In terms of direct engagement, KPIT's volunteers have taken up 25 schools across three locations of Pune, Mahape and Bengaluru, putting a minimum of four office hours to justified use at government schools, promoting active science-based learning. Cumulatively, 550 volunteers with 1,100 hours have made Chhote Scientists a valuable prospect for volunteering.

vSolve 2018

A Problem solving competition that vSolve is, the event across locations turned out to be a stellar one. Pune's vSolve competition this year saw 220 students from 41 schools compete in solving the problem statement of Electricity Generator and Wind Weight Lifting. What was unique this year was the newly anointed 10 schools with Atal Tinkering Labs (ATL) joining the competition with a separate challenge to tackle. They had to solve the mystery of Smart Room, wherein the participating children had to make use of Internet of Things (IoT).

vSolve 2018 contestants at KPIT Pune with their working models and ATL students with their working on Smart Room

Bengaluru this year saw two separate editions of vSolve being organized. KPIT volunteered schools were invited to our Bengaluru office for the vSolve competition. The 20 participating teams not only competed in solving a science gaming circuit of building an electric car and solving an optical maze among other steering competitions, but also were indulged in floor walks to DENSO's Offshore Development Centre (ODC). Four teams hosted all the children, interacting with them over their interest in science, showing them demos of the clusters and engaging them in a frolicking time. Earlier, the children were shortlisted for the competition through a round of selection process involving Multiple Choice Questions (MCQ) test.

vSolve 2018 contestants at KPIT Bengaluru building electric car and learning about clusters in the ODCs

Ten other schools from across Bengaluru, engaged through college students, saw ten teams of four participants each in the vSolve competition. The engagement apart from the main competition included a film-screening-based interaction. The main competition hosted the similar science gaming circuit that was keenly contested. The top prize, although a formality, was taken by MES School, while Kathriguppe and Subramanyapura Schools bagged the other prizes. One of the schools, run by the Ragigudda Trust, hosted this edition of vSolve competition.

Mysuru, debuting with the program, hosted 42 finalists from seven schools in a day long engagement apart from the main stage competition. Competition involved a treasure hunt to be solved, to gain the materials for building their respective demos.

The twin cities of Hubballi and Dharwad had lion's share of participants for vSolve this year in Karnataka. Hubballi with its ten schools had 34 finalists take part in the finals, while Dharwad witnessed 52 finalists partake with their science demos, built at the competition venue. The demos being consistent with Chhote Scientists' themes, saw some awe-inspiring construction of scientific understanding by the children. Hydraulic Pressure Bridges - an extension of pressure and buoyancy, Rockets and Water Rockets - based on Newton's Laws of Motion, Saline Alarm - working on gravity and simple electrical circuitry were some of the examples from the exhibition. Other noteworthy demos included candy vending machine, principle behind washing machine, sustainable village model based on renewable energy sources and constellation of stars.

vSolve 2018 contestants at Mysuru, Hubballi & Dharwad

At Harali, Pune District, 11 schools came together for their edition of vSolve competition this year. In all, 63 students partook in the competition, with class 8 students given a problem statement resulting in making a Parachute, while class 9 students were competing to construct a Wind Mill.The contestants made use of the available resources and showed the presence of mind to innovate with tricks and fixes to get the models working. The event was organized and managed by Jnana Prabodhini.

Participants at vSolve competition Harali, Kolhapur district

Coinciding with National Science Day/Week were the vSolve competitions, with occasions being graced by eminent scientists and educationalists such as Dr. Unnat Pandit – Operations Head, Atal Tinkering Labs and Shri. Shridhar Udagatti – Retd. Scientist, Baba Atomic Research Center, Govt. of India.

Dr. Unnat Pandit from NITI Aayog at vSolve 2018, Pune and Dr. Shridhar Udagatti from BARC at Chhote Scientists 2018, Dharwad

Across all the Chhote Scientists centers in Karnataka, the participating children, in the vSolve competition, were handed a special custom-made package oftwo pens, two pencils and a seed pencil. Through these stationaries children were enticed to care more for the environment through a conscious behavior. The seed pencil, that had a capsule filled with seeds at the head, was for children and teachers to take it back home and plant them after the pencil had initially served its purpose at school. Jeev, KPIT's gifting partner; hand crafted these packages especially for the children of Chhote Scientists.

Special custom-made gift for participating children

CSR Interns at Chhote Scientists, Bengaluru

Three CSR MBA Interns from a Mysuru college - Pooja Bhagavat Memorial Mahajana PG Centre carried Chhote Scientists to ten schools in Bengaluru, apart from organizing vSolve competition as a culmination event. They also in the process gathered data for further analysis, and impact measurement of Chhote Scientists in schools, while drawing a projection into the future. This was first of its kind engagement out of KPIT Bengaluru, with a possibility of exploring deeper in the coming years.

Chhote Scientists in USA

As part of the CSR activities in Columbus, USA, this third session of Science Learning Event for Kids (as an extension of our 'Chhote Scientist' initiative in India) was hosted by KPIT at the Columbus city library. There were 15 children between the age group of 10-12 years who participated in the program and created small toys to understand the concepts of light. Based on the local requirements, Chhote Scientists is being shaped into an engaging hands-on initiative in USA.

Atal Innovation Mission's ATL Labs

In February 2018, KPIT signed a two-year Statement of Intent (SOI) with NITI Aayog (National Institution for Transforming India), Govt. of India, to support and mentor select Atal Tinkering Labs (ATL) for secondary level school children across the country. ATLs are open-ended workspaces where students can give shape to ideas through hands-on 'do-it-yourself' learning modules and acquire critical skills to innovate with technology.

In association with Atal Innovation Mission (AIM), KPIT will select ten ATLs across Jammu & Kashmir, Chhattisgarh and the North-Eastern states to help augment learning by deputing an Innovation Guardian, to nurture talent and develop an innovative mindset among students. Through this partnership, KPIT's Chhote Scientists program will be circulated among ATL schools as a foundation program. To augment learning, KPIT will organize workshops, boot camps, innovation contests and science exhibitions during the course.

Apart from this major development, this year's vSolve Competition saw ten ATL schools from Pune and adjoining places, join the problem-solving race, indicating a deeper working connection with higher aspirations in years to come.

On National Science Day, for NITI Ayog, a workshop imparting hands-on experience in making Dual LED circuit board, was organized for all ten ATL Labs in Pune. Students were introduced to handling soldering and discreet components of electronics.

KPIT signing the Statement of Intent with NITI Aayog to mentor ATL children

ATL Workshop by KPIT & Jnana Prabodhini in Pune

Sparkle 2018

KPIT has always believed in fostering innovation and trusts that technologies can better the world. As a part of this initiative, we run KPIT Sparkle every year. In its fourth year now, the theme for KPIT Sparkle 2018 was Next Generation Energy and Transportation Solutions. The grand finale of KPIT Sparkle 2018 was attended in huge numbers by innovators, technologists and public. It was a spectacle worth watching, as young innovators were crowned for their innovative projects. The event was held on February 17 & 18, 2018 at the Pimpri Chinchwad College of Engineering (PCCOE), Akurdi, Pune.

This year the contest attracted participation from 600+ colleges in 25 Indian states, representing an astonishing 12,000+ students through 1,500+ projects. Highlights for this year was the increased participation from premier institutes (IITs, NITs) from 9 to 28. Department of Science and Technology (DST) on boarded as Knowledge Partner for KPIT Sparkle 2018. KPIT plans to take winning and promising Sparkle ideas to the next level for actual application using DST incubation centers, through various DST schemes.

The top 30 shortlisted ideas showcased their prototypes during the finale and won total cash prizes worth ₹21 Lakhs. This two-day grand finale began on 17 February, 2018 with various technical sessions by experts from technology leaders such as Google, Math Works, NVIDIA and KPIT. The finale concluded on February 18, 2018 with thorough evaluation of finalists' projects by distinguished jury panel headed by Padma Vibhushan Dr. R. A. Mashelkar. The award ceremony was graced by the presence of Padma Bhushan Dr. K. Radhakrishnan (Ex-Chairman, ISRO) and Shri Harkesh Mittal (Advisor, Ministry of Science and Technology, Head – NSTEDB).

Day1: Eminent speakers endorsing KPIT Sparkle

Day 2: Actual Sparkle 2018 contest

Smart India Hackathon 2018: World's Biggest Digital Movement

KPIT partnered with the Ministry of Human Resources and Development (MHRD) in organizing the Smart India Hackathon (SIH) 2018, pitted as world's largest digital nation-building initiative. The Hackathon aims at harnessing the creativity and technical expertise of students from various technology institutes across the country.

As part of the partnership, KPIT was responsible to ensure smooth execution of the final event of the Software edition at the nodal center in Noida. Volunteers from KPIT were also involved in the initial screening of the entries received for the competition. Furthermore, KPIT also conferred the KPIT Inspiration Award to the teams ranking sixth at each of the 28 centers, nationally, hosting the finale.
KPIT, which brings profound expertise in developing clean and intelligent technologies for the automotive industry, will be steering the automotive and smart vehicle segment of the Hardware edition. Mr. B V R Subbu, Automotive industry veteran and a Board Member at KPIT will be chairing the evaluation committee of the segment. This edition of SIH will be conducted in the month of June 2018.

The Smart India Hackathon witnessed participation from 27 Central ministries/departments and 17 State Governments, which have sent around 340 problem statements. In the finale, 1,296 teams participated, comprising of students from Engineering, Management, and MCA (Masters in Computer Applications) background.

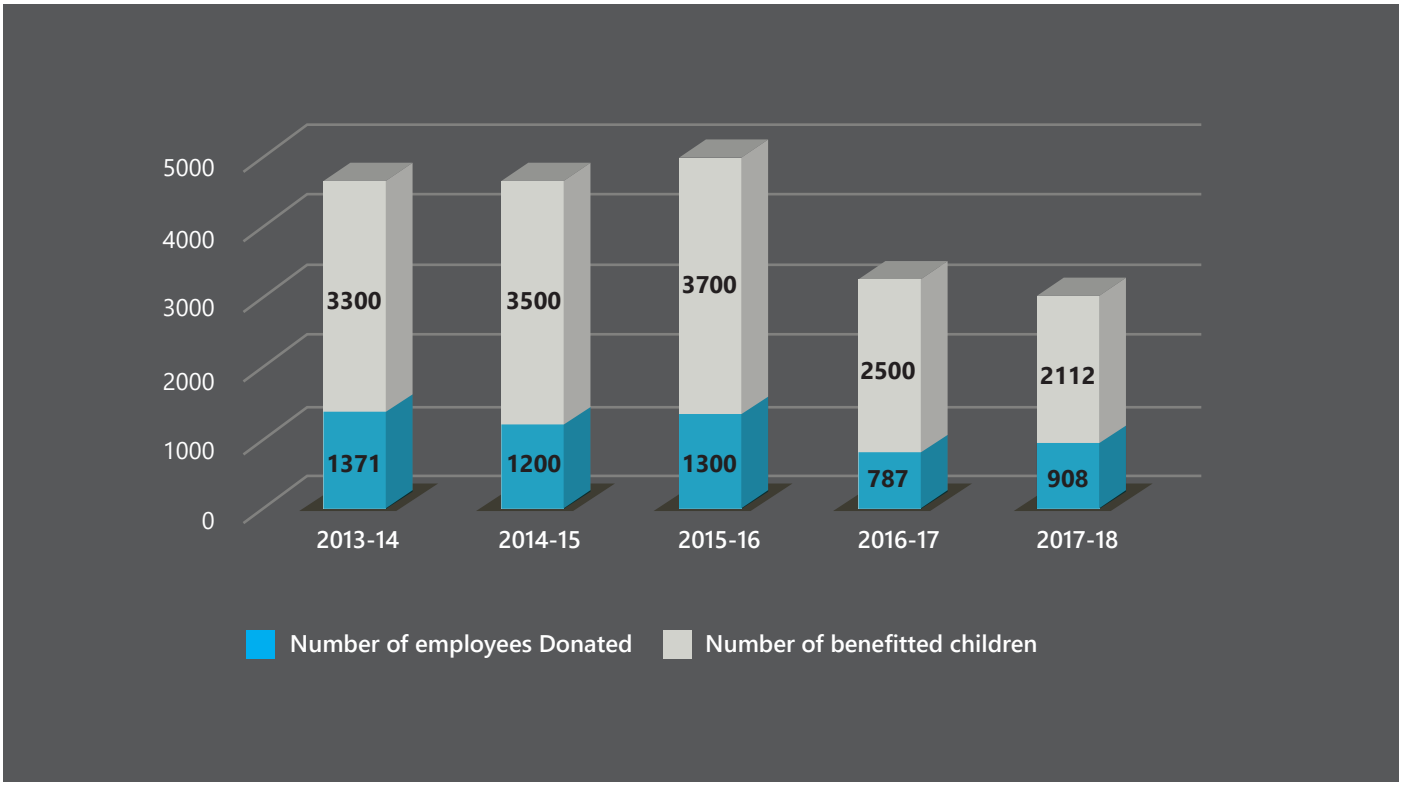
Smart India Hackathon 2018, Noida

School Kit Drive

The dropout rates in government schools for innumerable reasons have been one of primary concerns of India in achieving its literacy targets. Along with endemic poverty and social inequality, education remains inaccessible for millions of children in India.

KPIT, with the support of its partner NGOs – Seva Sahyog, Pune and Youth for Seva, Bengaluru, has been encouraging student retention at schools through 'School Kit Drive' for the past nine years. The year 2017 saw 908 employees contribute ₹ 9 lakhs, for 2112 beneficiaries across 50 schools. The engagement also included volunteers packing the school kit, with books and stationaries together into school bags. As a result, the dropout rate has steadily been decreasing with children, especially the first generation of learners showing tremendous learning potential.

School Kit Distribution



School Kit Distribution - yearly comparison

Teaching Classes at Thayimane, Bengaluru and Sarasvati Bal Niketan, Noida

Thayimane is a humanitarian organization for the lesser privileged children and KPIT's volunteer base supports their curricular activities. An initiative of a few years, volunteers teach subjects like Mathematics, Science, Social Science and Computers to the children. Our enthusiastic Volunteer-teachers visit Thayimane regularly during weekends (Saturday / Sunday) to assist these children with their studies. We received active participation from 70 volunteers this year, successfully completing as many sessions.

Sarasvati Bal Niketan School was established in 2003 by a trust named Brahmashree Saraswathi Devi Aadishakti Math. The school aims to educate the lesser privileged children in the surrounding localities. Volunteers from KPIT taught mathematics, science and computers for the 5 - 8 graders, comprising of 73 students. 60 of KPIT employees actively participated in the teaching exercise at Sarasvati Bal Niketan twice a month by employing interactive methods, such as practical science experiments, to make learning fun for the students.

Computer Training Centre at Kamalkot, Jammu & Kashmir

KPIT and Aseem Foundation, with support of the Indian Army, launched a computer training centre at Kamalkot, a village close to the Indian Line of Control (LoC) in Baramullah district. The computer centre, which will be run by Aseem Foundation and supported by KPIT, was inaugurated and handed over to the villagers of Kamalkot by Major General R.P. Kalita SM, VSM, the GOC Baramulla Division and Mr. Chinmay Pandit, AVP, KPIT.

The centre will be used to provide a six-month basic computer training to students from nearby villages. 60 students from 10 villages have already enrolled themselves for the same. The course has been registered with the Education Ministry of Jammu and Kashmir State Government. A certificate will be awarded by KPIT to the students at the end of six months.

After completion of the course, the students will acquire jobs and do individual Desktop Publishing (DTP) work as their own business. Bright students will be supported for further computer education too.

A KPIT volunteer teaching the students at a school

Students from Kamalkot and nearby villages around the Indian Line of Control (LoC)

4.3 Employee Engagement

We use energy and spirit of our employees to bring in a positive change in the communities that we live in. One-time community engagement activities bolster other focus areas by aligning employees' time and interest. Be it disaster relief work, donation drives, volunteering drives or workshops, they all instill the commitment of our employees to society's causes.

Blood Donation
Tackling blood shortage through community contribution

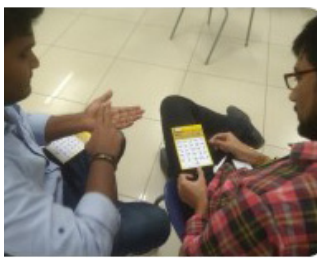
1

Food For All (Annadaan)
Respectful promotion of healthy sustenance

2

Meet The Legend
Inspiring employees into social contribution

3



For The Specially Abled
Towards a more inclusive society

4

Key projects under Employee Engagement focus area

Blood Donation

A regular in our annual calendar of events, KPIT acknowledges the shortage of blood available in cases of medical emergencies. With barely 50% of blood requirements met annually, the supply, since cannot be manufactured, thus should only be donated by generous donors. The frequency varying from two to four donation camps conducted across multiple centers, KPIT ensures that it is doing its share of duty in supplying needed units of blood, in partnership with blood banks such as Rashtrotthana Blood Bank in Bengaluru, Jankalyan Blood Bank, DM Hospital in Pune, and Samarpan Blood Bank and Vamanrao Oka Raktapedhi Mumbai blood bank in Mahape.

This year's camps received an appreciable response from employees across all locations resulting in 1,120 units of blood, benefiting 3,300 lives.

KPIT Centres	No of Units	Supporting Blood Bank
Pune	750	Jankalyan Blood Bank and DM Hospital
Bengaluru	320	Rashtrotthana Blood Bank
Mahape	60	Samarpan Blood Bank and Vamanrao Oka Raktapedhi

Sign language Workshop

KPIT, in association with EnAble India Community, organized Sign Language Workshop at Bengaluru office. The workshop was a repeat of previous year's two-day workshop, with added attraction of volunteering options with EnAble community and associated beneficiaries. Owing to its popularity, the workshop had 48 participants attending the two hour session. Participants were given a kick-starter lesson in spelling names using sign language, thereby learning the alphabets of Indian Sign Language. One wherein the communication is done using two hands as against one in American Sign Language. The session progressed into participants learning how to exchange greetings and to denote places and things of common usage in our everyday life.

Audio recording of books

In March 2016, KPIT Bengaluru launched a new CSR initiative "Audio Recording of Books", taking a step towards building an inclusive society. The Digital Library was started in May 2008 by Samarthanam Trust with an objective to reach out and catalyze education for print-disabled people (visually impaired, slow-learners and dyslexic children).

The disabled students share their text books, which need to be converted into a digital form. Volunteers who wish to record these books help in converting the text books into a digital audio form. The final audio is put in a portable form for the students to use according to their convenience. The library now has hundreds of books and the number is growing, with accessibility free-of-cost to anyone across the world. This type of recording helps students learn easily. This year, 30 KPIT volunteers participated in this initiative of recording digital books.

Meet the Legends

Motivational talk series at KPIT this year witnessed the following legends, in their respective spaces, graced us and encouraged employees towards social service:

Dr. (s) Ravindra and Smitha Kolhe

Inspiring generations, transforming one of Maharashtra's poverty-stricken regions into a malnutrition-free zone, are Dr. (s) Ravindra and Smita Kolhe. An incredible journey of theirs reads of having improved health outcomes of Melghat, helping villages gain electricity, connecting roadways and developing primary health care centres. Their striving journey for the community's sake can be regarded as nothing but selfless.

Dr. (s) Ravindra & Smitha Kolhe

Anand Shinde

A photographer, known as "The Elephant Whisperer", is renowned for his unique ability to communicate with and calm traumatized elephants. Trunk Call – Anand's Wildlife Foundation aims to have a sustainable future for elephants and a harmonious coexistence for wildlife and human communities. In collaboration with Kerala Forest Department, Trunk Call has worked to keep the elephants out of stress and trauma across all elephant centers in Kerala.

Anand Shinde

Paper bag Workshop

KPIT in Bengaluru took to in-house volunteering, by crafting newspaper bags, as an eco-friendly alternative to destructive plastic bags. The supporting NGO, Seva In Action, works for upliftment of people with intellectual disability. The paper bags made are sold to duly identified retailers, depending on their need and size of the bags. Three of KPIT's volunteers were trained by Seva In Action, in their method of making paper bags, to maintain the consistency. The initiative has been growing steadily with employees across all KPIT offices in Bengaluru taking up to making of paper bags. 225+ volunteers in Bengaluru engaged in making newspaper bags.

Weekly Paper Bag Workshop at KPIT Bengaluru

Clothing Drive

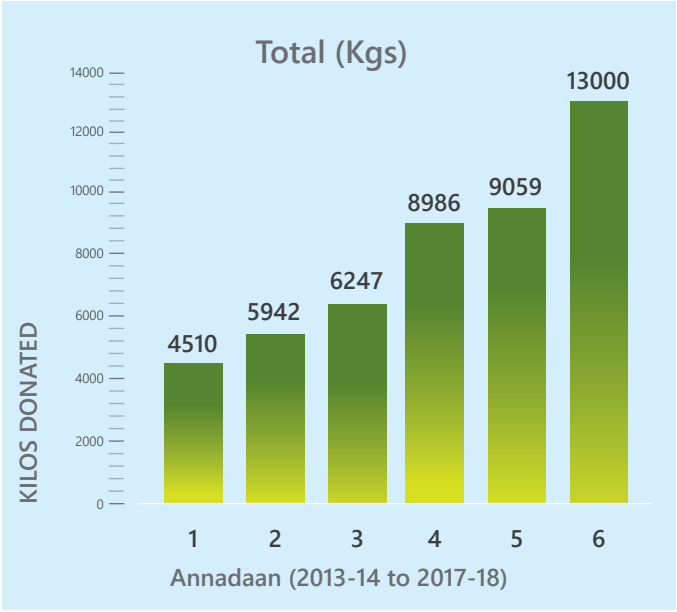
KPIT identifies the need to go beyond education and food, to also engage its people in a clothes collection drive, wherein employees were encouraged to bring unused and unsoiled clothing articles for donation as part of a larger campaign, at the partner NGO Goonj, called "Clothes for Work". This was part of the initiative in Bengaluru, with donated clothes and articles assuming the form of currency, paid in exchange to the workers in Goonj's social projects spread across India.

Pune collected clothes in support of Poornam Ecovision, with an objective of handing over usable clothes to registered orphanages.Their 'Project R' meant all the unwearable clothes went into upcycling, turning them into hand bags and purses. The collection drives amounted to about 1.5 tons of clothes collected, across three of KPIT locations.

KPIT's Clothes Collection Drive at Pune and Bengaluru

Annadaan – Each One Feeds One

Food is the basic requirement for all living beings. KPIT, each year, conducts this food collection drive, wherein the employees are requested to set aside a fist-full of grains every day, for a period of three weeks. Employees from KPIT Pune and Mahape locations participated in amassing 13 tons of food grains and groceries for this year, expected to feed nearly 16 foster care homes in drought areas, working for destitute and special children.



Cook-A-Meal

In addition to the collection and distribution of food grains to foster care homes, this year,we felt the need in KPIT Bengaluru to visit these foster homes and spend some time there. To make this engagement an interesting and motivating one, we gathered at the foster care homes or NGOs to cook a meal for the people at those homes and share a meal with them.

KPITes cooking up meals for Children and Elderly at foster care homes in Bengaluru

Our visit to Ashraya Seva Trust, an old age home for ladies, turned out to be a very emotional one for all who shared a meal together. The visit to 'Need Base India's Rainbow Homes' turned out to be quite an experience for our volunteers. For starters, they not only realized the difficult conditions these children were brought out of, but also how fortunate for them to have had an opportunity with Need Base India, to make a more meaningful life for themselves. 63 volunteers over three events got engaged in dishing out tasty meals while bridging the gap between the fortunate and the lesser fortunate of the society.

Know-n-Grow your food

Taking the food-based initiatives a step further, Know-n-Grow your food was undertaken by 31 volunteers in Pune, who made the trip to Velha, for rice plantation. Supported by Torna Rajgad Vastigrah, an NGO in Velha, employees engaged in two hours of toiling, planting rice saplings in a two-acre paddy field. A similar association with Initiatives for Development Foundation (IDF), an organization working for betterment of farmers and farm related practices through adoption of cooperatives approach. The first step of the program was a visit to a farmer in Ammanaghatta, near Gubbi taluk, 110 kms from Bengaluru. KPIT's 35 employees visited this location, where they not just heard the host speak, but also managed to clear a patch of land and sow a vegetable patch themselves.

These visits were to create awareness among consumers, the current inorganic practices in agriculture and contrasting natural farming. KPIT volunteers making these trips to the farms, carried back host of knowledge and freshly prepared value-added goodies.

KPITes taking to the fields near Bengaluru & Pune

Clean-n-Paint Green

A clean up and beautification activity in Bengaluru, KPIT partnered with 'Let's Be the Change' in clearing black spots and beautifying them with Warli art on the walls. The third wing in this association happened to be the residents who took up to the ownership of maintaining cleanliness around the beautified spot. Three such spots were identified in Maruthinagar, Tavarekere and attended to, with support offered by local corporator's office and the residents. 30 KPIT volunteers braved the sun and rain in ensuring they lived up to their commitment.

KPIT's Cleanup Drives in Bengaluru

Give Paper back

A unique initiative of salvaging remaining sheets from used notebooks and refurbishing them into new notebooks, Youth for Seva's 'Give Paper Back' has been saving huge on the environmental resources. 900 Tons of paper, 15,000+ trees and 24 Million litres of water have been saved as a result. Five of KPIT's volunteers took part in this initiative, sorting and segregating papers to be sent for binding.

KPIT in Give Paper Back campaign, Bengaluru

Sports Day with Enable Community

Enable Community organized a sports day on December 1, 2017 in Bengaluru. 21 volunteers from KPIT were vested with the responsibility of guiding the events through to completion. What was unique about this event, was that the participants (85 in number) were all specially abled. The day began, events took off, only for rain to intervene and play spoilsport. But, the rain gave our volunteers a chance to interact with these participants and learn the effective usage of sign language.

KPIT at Enable Community's Sports Day for the Specially Abled in Bengaluru

4.4 Community Initiatives, USA

The two main events KPIT Columbus joined hands with 'Day of Caring' and 'Day of Service'. There were around 1,400 volunteers who participated in the events. Volunteers from different organizations participated in community building activities by cleaning and repairing public places like park, river front etc. They also participated in building and repairing homes of old and poor people in the community, as well as repairing and assembling computers for donation.

KPIT sponsored these volunteering activities as part of United Way initiatives.

'Day of Caring' and 'Day of Service' initiatives as part of KPIT CSR, USA

4.5 Awards and Accolades

The CSR Journal Excellence Awards 2017 saw corporate and NGOs receive recognition for their unique initiatives, through a live judging process, conducted by an 11-member panel jury, consisting of senior-level bureaucrats, internationally recognized social-change makers and leading public figures. This decorated evening welcomed a gathering of over 250 personnel from the social responsibility sphere. KPIT's sustainability project 'Water Conservation through Mass Volunteering' was unanimously selected as the First Runner-Up in the environment category. This project is a brainchild of Mr. S. B. (Ravi) Pandit, implemented with the guidance of Tushar Juvekar and various employees of KPIT.

Tushar Juvekar, CSR Head at KPIT, receiving the award

During the Youth for Seva CSR Conclave held in March 2018 KPIT was recognized as a Corporate Engagement Champion for its flagship initiatives of "Water Conservation through Mass Volunteering" and Chhote Scientists. Viswa Narayanan S. and Sachin Pandit of KPIT were also felicitated as Employee Volunteer Champions, for their selfless volunteering stint with KPIT and outside.

The CSR Conclave is a platform for leaders from the corporate and development sector, along with CSR experts, policy makers and organizations studying trends and patterns of volunteering. They come together, to not just identify potential projects to contribute funds, but also to devise models to involve employees and inculcate a culture of volunteering, thereby building a sense of inclusion, promoting sustainability and maximizing impact.

KPIT receiving the award

KPIT in Print Media

गावातील पाण्याचा हिशेब मांडण्याची गरज

पिंपरीचे आयुक्त हर्डीकर यांचे मत; गुहिणी येथे विहिरीचे लोकार्पण

KPIT ties up with NITI for Atal Labs

KPIT TECHNOLOGIES HAS tied up with the NITI Aayog for supporting Atal Tinkering Labs (ATL) to promote innovation among school children. KPIT has signed a two-year statement of intent with the think-tank to support and mentor select ATLs for secondary level school children under the Centre's flagship programme, Atal Innovation Mission (AIM).ATLs are open-ended work spaces where students can give shape to their ideas through hands-on'do-it-yourself' learning modules and acquire critical skills to innovate with technology.

'पाण्याचा हिशेब मांडा'

శ్రావణ హర్డీకర్ యాంచ్యా హస్తే గుహిణీతీల విహిరిచే లోకార్పణ

కేపీఐటీ స్మార్ట్ ఇండియా హ్యాకథాన్

న్యూఢిల్లీ: బలీ కన్సల్టెన్సీ, ప్రొడక్ట్ ఇంజనీరింగ్ విభాగంలో అగ్రగామి సంస్థగా వేరొందిన కేపీఐటీ టెక్నాలజీస్ తాజాగా ప్రభుత్వ భాగస్వామ్యంతో మూడు 30, 31 తేదీలలో స్మార్ట్ ఇండియా హ్యాకథాన్-2018ను నిర్వహిస్తున్నట్లు తెలిపింది. ఈ సందర్భంగా కేపీఐటీ సీఈవో, సహభాగస్వామి రవి పండిట్ మాట్లాడుతూ దేశంలోని యువ సాంకేతిక నిపుణులు అవసరం ఎంతో ఉంది. యువతకు ప్రోత్సాహాన్ని అందించేందుకే స్మార్ట్ ఇండియా హ్యాకథాన్ నిర్వహిస్తున్నాం. ప్రభుత్వ భాగస్వామ్యంతో ఈ కార్యక్రమాన్ని చేపడుతున్నామని అన్నారు.

సూర్య Tue, 27 March 2018 epaper.suryaa.com//c/27375511

Hackathon challenge

The KPIT Technologies, a global technology company specialising in IT consulting and product engineering, in partnership with the Government will organise the Smart India Hackathon, 2018. It is the world's largest nation-building initiative to harness the innovative brilliance of the youth and develop digital products for solving some of the country's pressing problem.

Smart India Hackathon, in its second year, has two editions. The grand finale of the Software edition will be a 36-hour software product development competition, to be held on March 30 and 31, whereas the newly-introduced hardware edition, scheduled in June, will entail the teams working five straight days to build their hardware solutions.

Ravi Pandit, co-founder, Chairman and Group CEO, KPIT, said: "We believe that the young technical talent in India will be pivotal in transforming the country's innovation and start-up landscape by providing solutions that drive social inclusivity and sustainability. Smart India Hackathon gives a great platform to the youth to accelerate such a change."

As part of the partnership, KPIT will be responsible to ensure smooth execution of the final event of the software edition at the nodal center in Noida. its volunteers were also involved in the initial screening of the entries received for the competition. Furthermore, it will also confer the KPIT Inspiration Award to the teams ranking sixth at each of the 28 centers nationally hosting the finale.

KPIT, which brings profound expertise in developing clean and intelligent technologies for the automotive industry, will be steering the automotive and smart vehicle segment of the hardware edition. BVR Subbu, auto industry veteran and a Board of Director at KPIT will be chairing the evaluation committee of the segment.

The Smart India hackathon witnessed participation from 27 Central ministries/departments, and 17 State governments, which have sent around 340 problem statements. In the finals, 1296 teams will be participating comprising of students from engineering, management, and Masters in Computer Applications background.

Jliv means life in Sanskrit and we are giving back life to waste products... We stand by the 4 R's – Refuse, Reduce, Recycle and Reuse

Write with paper, pencils; watch them grow into plants

Jliv is a startup founded by two classmates during their post graduation, with a target audience of kids aged nine to 15 years

K Rathna

NITI Aayog to help students innovate

New Delhi: IT-based consulting firm KPIT technologies has announced its two-year statement of intent with National Institution for Transforming India, NITI Aayog, to promote innovative skills among the students of senior secondary level as part of the government's Atal Innovation Mission (AIM).

Under the (AIM), the central government aims at creating open-ended workshops at select Atal Tinkering Laboratories (ATL), which will allow students to learn through the mode of 'do-it-yourself' and help them acquire critical skills.

The purpose of this joint initiative is to push students to understand the concepts of science, technology, engineering and mathematics (STEM) through new-age technologies including robotics, Internet of Things (IoT) and 3D printing.

"KPIT will enable us to augment our vision of promoting grass-root innovators with a bottom-up approach and set the precedence for greater public-private partnerships in advancing the country's education system," said R Ramanan, mission director of NITI Aayog.

KPIT will further provide two volumes of booklets named 'Chhote scientists' that will help around 2,500 schools to prepare curriculum and teaching aids.

Additional teacher's training programmes will also be conducted for Atal Tinkering Laboratories. —ANI

KPIT signs two-year SOI with NITI Aayog

ST CORRESPONDENT
reporters@sakaaltimes.com

Pune: KPIT Technologies has signed a two-year statement of intent (SOI) with NITI Aayog (National Institution for Transforming India) to support and mentor select Atal Tinkering Laboratories (ATL) for secondary level school children across the country, under the central government's flagship programme, Atal Innovation Mission (AIM).

ATLs are open-ended workspaces where students give shape to their ideas through hands-on 'do-it-yourself' learning modules and acquire critical skills to innovate with technology.

They go beyond the school curriculum, work with tools to understand concepts in science, technology, engineering, and mathematics (STEM), including chemistry, electronics, robotics, IoT (Internet of Things), 3D printing and improve inventiveness. The labs are equipped with low-cost prototyping tools such as 3D printers, robotics, electronics and communications kits.

> ATLs are open-ended workspaces where students give shape to their ideas through hands-on 'do-it-yourself' learning modules .

R Ramanan, Mission Director, Atal Innovation Mission, and Anup Sable, Chief Technology Officer at KPIT signed the partnership agreement at the NITI Aayog office in New Delhi.

KPIT will depute an Innovation Guardian for nurturing creative talent and innovative mindset of students and leverage its network of employees and customers to induct volunteers for the programme. To augment learning, KPIT will organise workshops, boot camps, innovation contests, and science exhibitions.

R Ramanan said, "The government's emphasis is on giving impetus to building a knowledge economy that represents growth led by education, a robust R&D culture and a fast-evolving entrepreneurial ecosystem. With this partnership, KPIT will enable us to augment our vision of promoting grass-root innovators with a bottom-up approach and set precedence for greater public-private partnerships in advancing the country's education system."

KPIT will provide two volumes of Chhote Scientist booklets to help over 2,500 schools under the ATL initiative to prepare curriculum and teaching aids. It will provide an online teaching aid for execution of the referenced experiments in the booklets for entry-level ATL students. In collaboration with its partner NGO Jnana Prabodhini, KPIT will work on developing an advanced syllabus which will be at the next level to the scientific learning imparted through the Chhote Scientists platform.

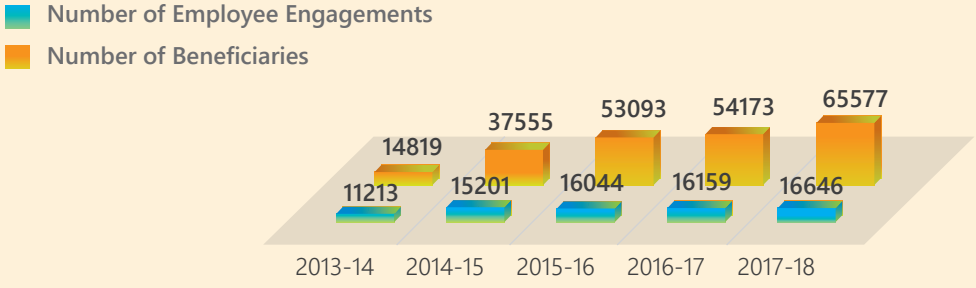
In the future, KPIT, in association with the Atal Innovation Mission, will conduct teachers' training programmes for ATLs, apply psychometric tests to measure improvement in scientific temperament of students, and potentially come up with quarterly newsletters for all ATL schools.

4.6 Employee Engagements v/s Beneficiaries of our CSR initiatives

As per our CSR guidelines, all practices and initiatives should be metrics-driven for greater transparency and to ensure measurable results. We aim to achieve employee engagements equal to or greater than 1.5 times of the total employee strength in any given year. For the year 2017-18, an estimated 65,000 people benefited as a direct result of 16,646 employees' engagements in various community initiatives through KPIT.

We, at KPIT, are proud to announce that, in adherence to our objective to achieve employee engagements for the FY 17-18, we could successfully reach out to a diverse community of beneficiaries and engage employees in newer meaningful CSR initiatives.

Number of Beneficiaries vs. Employee Engagements



A comparative graph of Employee Engagements Vs Number of Beneficiaries

4.7 Voice of Volunteers

It was on March 9, 2018 that I got an opportunity to visit the Turahalli forest for exciting activities lined up for the day, with KPIT. As a fresher, I was so afraid of how life is going to be at KPIT. However, this day made me realize that the upcoming days are going to be very exciting. It was such an awesome experience out there. Yes, I am talking about the CSR activity, where I was accompanied by Bharath, Vijetha and Soumya.

- Neha Wantamutte, KPIT Bengaluru

Mulched.
Just like how we KPITes did mulching for hundreds of little bamboos to preserve the water level at their roots. We got mulched too, to preserve our connection with nature and peace within ourselves. Team work and enthusiasm of individuals towards work helped us to cover more ground. We took a walk in silence within the forest to absorb and enjoy its beauty, and there we witnessed variety of trees and wildlife. We reached our destination and sun set brought end to a beautiful and tiresome day.

- Sandeep Hangaragi, KPIT Bengaluru

I personally have always wondered about the hard work those people need to do and experiencing it and being in their shoes was something out of the box. So, it was an amazing experience overall. Looking forward for more :)

- Shraddha Dande, KPIT Pune

4.8 Voice of Beneficiaries

Reforestation activity in private land supported by KPIT, is something like god gift for me. I realized the importance of conservation of forest on my own land. Apart from cash crop trees, I also started planting indigenous trees that conserve water, benefiting me in long run by enriching the nature.

-Sakpal, Farmer from Koyna

It was an awesome first experience in my student life on the part of my professional journey. Based on my internship program I was a part of KPIT's CSR activities which concentrated on CHHOTE SCIENTISTS, under education sector. Majority of the students were excited in scientific activities and teachers provided support to complete the activities. All the employees in KPIT provided a wonderful platform for us to underst and about CSR activities in a corporate organization.

- Matthews, CSR Intern, PBMMPGC

The time I spent in 'Chhote Scientists' as an intern from February 5 to 24, 2018 was a memorable one. It was rich in experience sharing and helped me discover my potential. The program helped many of us understand how CSR projects work from the Corporate and NGO angles. As a group, we got time to visit schools as a part of the program and interaction without having a common language was challenging. We thank KPIT for an opportunity to work closely on a CSR project.

- Anjali, CSR Intern, PBMMPGC

05

Environment Initiatives at KPIT

Environment Initiatives at KPIT

As responsible global corporate citizens, we believe that it is our duty to give our future generations a clean, green and sustainable world. KPIT's approach to being an environmentally friendly organization is founded on the belief that the interests of our future generations and the society at large is best served by the efficiency of our business operations. We are committed to protecting the environment along with the active involvement of our employees.

KPIT has always been concerned for the environment and committed towards employee's health and safety. We have implemented the best practices and are certified with ISO 14001:2004 (in environmental management) and OHSAS 18001:2007 (in occupational health and safety).

KPIT's state-of-the-art campus at Pune aims at building an environment that nurtures creativity through effective collaboration. The KPIT campus is spread across a sprawling 480,000 sq.ft. that comprises four buildings with a combined seating capacity of 4200+ employees with access to open landscape through the ground floor. The campus design is not only an insignia of KPIT's commitment to energy efficiency and sustainable development, but also embodies the spirit of corporate values – boundarylessness, knowledge sharing and team work.

5.1 KPIT Green Initiatives

Solar Panel Installation

KPIT has initiated many projects to cut down energy and water consumption. The latest project undertaken is to generate energy through solar power plant which has been installed on roof top of cafeteria as well as on terrace at the SDB1 building.

Highlights of the project:

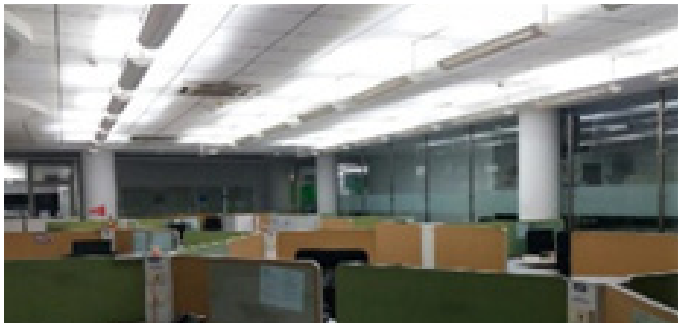
- Solar system is installed on power purchase model
- System has 397 panels installed with a generation capacity of 125KW
- Total units generated through this plant will be 180,000 units p.a.
- These units will save up to 5% of total consumption of the SDB1 building
- This installation will reduce the impact of direct sunlight on the roof top of cafeteria. The floors below will be much cooler and employees will get more comfort during summers
- This system is directly connected to the main LT panel feeder, so we will get benefit in reducing the MSEDCL kWh units
- These units will have a fixed rate for next 15 years resulting in a saving of ₹ 2 lakhs p.a. with existing rate of MSEDCL

Lightings

KPIT has always been committed and is doing its bit towards environmental conservation. Our maximum use of natural lights through our innovative infrastructure is just one of them. Latest addition to our list is introduction of Light Emitting Diode(LED) based in our lighting systems.

LEDs are the latest and most exciting technological advancement in the lighting industry. LEDs are small, solid light bulbs which are extremely energy efficient and long lasting. LED lights generate virtually no heat, therefore they are cool to the touch and can be left on for hours without incident or consequence if touched.

KPIT has undertaken the initiative of replacing its existing CFL/ T5 lamps with LED lights in phased manner (we have ensured to use our existing light fixtures with innovative retrofitting). This shall reduce 60% of lighting load vis-à-vis kWh consumption. Furthermore, the replacement of LED lights will significantly reduce the generation of e-waste.



Landscape and Garden

KPIT has always believed in restoring the nature which reflects in our continuous efforts and dedication. We have nurtured, protected and sustained our green zone for more than a decade. Pune Municipal Corporation (PMC) conducted its 37th Annual PMC Garden Competition 2017 awards (an annual garden competition in Pune city every year). Participants in this prestigious competition include government organizations, builders, townships, housing societies, companies etc. This year too PMC conducted the 37th Annual Competition in February 2017 in which approx. 650 organizations participated with almost 2,000 entries.

The competition comprised of a large variety of categories like flower decoration, landscaping, garden decoration, terrace garden, bonsai, flower arrangement, adding to green cover, trees sustenance etc. KPIT took part in this competition and showcased the following:

- Overall garden
- Lawn
- Trees
- Terrace garden

KPIT has bagged six awards in different categories.

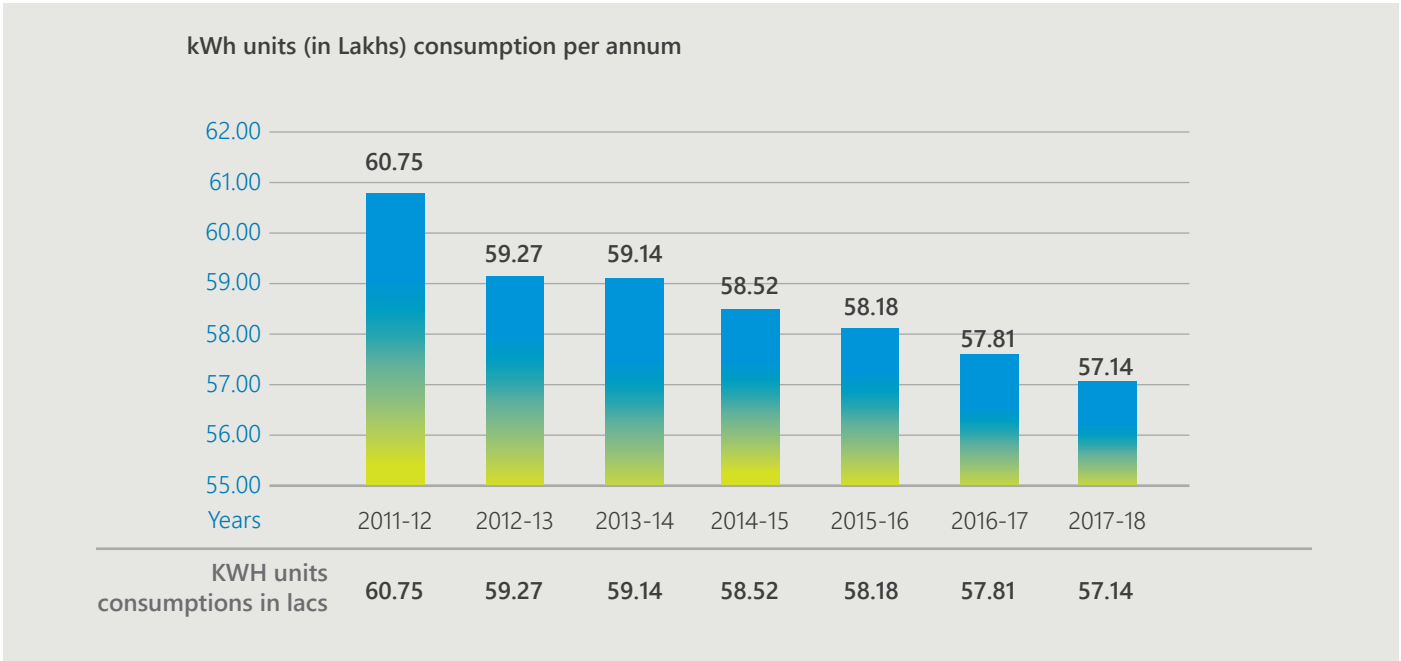
5.2 Power

Solar Panel Installation

In the current Indian scenario, conservation of electrical energy is extremely important for two major reasons:

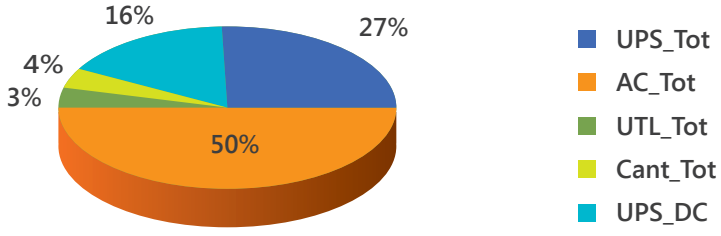
- Scarcity of power, which is resulting in load shedding in almost all states of India, which is not just inconvenient but also adversely impacts the economy
- India is world's third largest carbon emission country primarily because more than 60% of power is generated by using coal

As a responsible corporate citizen KPIT has been undertaken various initiatives to reduce the energy consumption that has resulted in reduction of 6.5% kWh units over the last 7 years even after addition of two new facilities on the same source of supply.



Power consumption is primarily required for the following major areas:

- Computers and Servers
- Air conditioning
- Lighting
- Utility



Power consumption distribution

5.3 Project undertaken at KPIT for reduction in power consumption for desktops

Name of the Project: Smart Campus Platform

Two years back we began the Smart Campus initative and rolled out various "Smart Applications" for employees. These applications were aimed at changing the user experience while optimizing the energy consumption. This year, we have pursued this initiative further and taken it to the next level. We have deployed our "Smart Campus" platform and have integrated fourteen different systems and sensor driven devices that come under the aegis of Building Management System (BMS). Traditionally all these BMS systems such as Access control, CCTV, Fire alarm system and air-conditioning systems operate within their own silos and use legacy (often proprietary) protocols. The silo-ed approach leads to an absence of ability to conduct common monitoring and controlling.

Operational challenges: Prior to the implementation of the "Smart Campus" platform, the building management system was a set of individual systems. The facility teams would perform control and monitoring of various systems using manual steps or individual close looped systems. Building correlations or monitoring using common dashboards was not in place, often leading to over-utilization of some of the resources e.g. more consumption of electricity. Additionally, manual handling of these systems was prone to human errors.

Solution and Technology Deployed: We have brought in higher level of automation in all these 14 systems by use of various control panels and adaptors, and have got them integrated to our platform. This has enabled us to provide accurate instantaneous reporting data of all these systems along with control functionality in a single dashboard. We are getting more visibility on electrical consumption across floors buildings, with clarity on which system is consuming how much electricity, how it can be effectively optimized. Automation in various pumps and fan system gives more operational efficiency for the operations team and reduction in human errors along with reduction in electrical usage. Operations team is now better equipped to see all the systems in single dashboard. Because of instantaneous alerts mapped on various gateways (SMS/E-mail), they are now better equipped to manage various BMS systems effectively, this also helps them in taking care employee safety at work.

As a next step: In the coming year, we will be integrating numerous more standalone systems on to this platform, the end goal here is enabling the use of historical data trends and information from various applications to create mash-ups which will bring in more automation and optimization of all the BMS systems.

Name of the Project: Hyper-converged Infrastructure

KPIT is an early adopter of converged infrastructure and reaping its benefits since last 7 years. In our pursuit of continual services optimization, last year we adopted Hyper-converged Infrastructure from all the three OEM solutions – Nutanix Acropolis, Cisco HyperFlex and EMC VxRAIL.

Environmental Challenges: While our business was growing, it was putting pressure to expand our footprint in datacenter, leading to more power, cooling and space consumption.

Operational Challenges: Though we were reaping the benefits of a converged infrastructure in terms of power, cooling and space optimization, it also introduced complexity in datacenter infrastructure, demanding highly skilled resources and associated dependencies. At the same time, converged infrastructure was having limitations in scaling horizontally besides issues such as vendor lockdowns. Implementation time for the converged infrastructure was in weeks and was holding us back from adding capacity on demand.

Solution and Technology Deployed: We were looking for an agile solution which will help us in making operations simpler, could be commissioned much faster, could be scaled on demand and could be effectively managed by skilling existing human resources.

Hyper-converged infrastructure addressed our issues. We could implement hyper-converged solution within a few hours. This infrastructure is helping us in adding capacity on demand, without vendor lockdown. Even achieving Disaster Recovery (DR) is much simpler and it even supports multi-hypervisor environments. Besides easing datacenter migrations, we do not have to make upfront investments now.

Following environmental returns are achieved: Hyper-converged Infrastructure has helped us in saving power, cooling and space by an additional 30%. We could also optimize the asset ratio from 7 to 1 for the same compute capacity in the datacenter.

Name of the Project: Virtual Desktop Environment

Like majority of business organizations globally, KPIT also relies on its internal IT implementations to make processes more efficient, increase automation and deploy IT to make collaboration across geographies easier. We have deployed the most advanced technologies for our processes. These deployments are scalable and future ready to support changing work styles, information security criteria and the changing usage patterns of computing devices.

Environmental Challenges: The organization faces the following operational and environmental challenges:

Power Consumption: Power consumption increases in equal proportion to the number of employees. Therefore, there is a constant need to control this with energy efficient solutions.

Space Utilization: Standalone computers with existing technologies are user specific and prevent optimum space utilization and easy transferability.

Consumption of Natural Resources: Due to the advancement in technology, computers need to be replaced every five years to be energy efficient.

Disposing of e-waste: Disposing of computers every five years result in an increase in e-waste.

Operational Challenges: As a fast-growing organization, KPIT constantly requires efficient and scalable IT infrastructure. Our existing solutions reaching the end of their lifecycle were creating performance issues, which in turn pressurizes the internal IT staff to spend most of their time on system administration and troubleshooting.

Solution: Considering the challenges, KPIT decided to shift from conventional desktop technology to Virtual Desktop Interface (VDI).

Following operational aspects were considered while implementing the VDI solution:

Deliver on-demand services for users, Increase IT efficiency, Simplify management, Ensure software compliance. Though KPIT was already evaluating a virtualization solution that was deployed in a limited environment, it had not explored the idea of transitioning the core ERP processes onto the virtualized environment, but had transitioned only the less critical ones. Taking a step further toward optimizing energy requirement and consumption, KPIT decided to increase use of virtualization technology.

Solution and technology deployed: VMware, EMC and CISCO infrastructure platforms VMware Horizon View Virtual Desktop Infrastructure (VDI) Thin client

Following Environmental Returns were achieved:

1. **Energy savings:** More than 60% reduction in energy consumption was achieved by moving to the private cloud platform (including new technologies like hyper converged) with VDI as compared to using conventional computers. Cisco Unified Computing System, which is included as part of the private cloud platform, delivers high-memory capacity to support a large number of virtual machines on each blade server, thus reducing the amount of physical equipment to be powered and cooled. The desktop computers that consume around 150 watts of electricity, were replaced with very small devices called thin clients that consume just 30 watts. This has resulted in energy savings of approximately 300,000 units per year amounting to 375 MT of Co2 emission.

2. **Reduction in e-waste:** Almost 90% reduction in e-waste generation was achieved due to the increased IT hardware refreshment cycle for desktops, laptops and workstations. Lifespan of the above-mentioned hardware is about five years due to high resource requirement, capacity and performance demand, and due to newer operating systems, application software and tools. Being a technology provider, it is extremely important for us to update our IT hardware platform and ready it for next generation development tools. The thin client on the other hand has more than eight years of lifespan. Till that time it does not require upgrades or replacement as all the resources such as computing power, memory and disk space are accessed through VDI setup hosted in the datacenter. The overall reduction of e-waste considering ten years cycle for 1,600 thin clients is given below:

Conventional PC disposal twice in 10 years cycle with 10% additional hardware requirement	2640 nos @ 14.7 kg (1200 PCs after every 5 years)	38.8 MT E- waste
Thin clients disposal after 8 years	1600 nos @ 1.88 Kg	3.08 MT E- waste
Savings in E Waste		35.72 MT E–waste

3. **Reduced IT Asset Ratio from 1.20:1 to 1.10:1:** VDI environment enables multiple users to access their accounts using a single machine without compromising on the security aspect. Before deploying the virtual desktop environment, the asset-to-employee ratio was 1.20:1. This meant that much of the IT infrastructure was underutilized and was consuming more natural resources. After the deployment of the private cloud platform with VDI, the asset ratio has reduced to 1.10:1 thereby reducing the computer hardware consumption by 10%.

4. **Workplace utilization increased by 10%:** The VDI helped in improving the utilization and flexibility of IT assets. Users can access their desktop, applications and data from any location, without compromising on the security of the system. In addition, employees can connect to corporate resources using any of the personal devices like iPads, Windows and Android based mobiles, thus enabling Consumerization of IT. This has led to workplace flexibility and optimal utilization of workspaces, i.e. reduction in demand for 120 new seats amounting to saving of 10,200 sq. ft. of space.

5. **Reduction in travel across locations:** KPIT has deployed best of the solutions such as Cisco Telepresence (Audio/ Video conferencing) across the offices and Cisco WebEx for better collaborations. With these solutions, our users can have conference meetings from anywhere and through any device. Even our business reviews, recruitment and customer meeting are conducted using these technologies. It has been observed that overall business travels across the globe has reduced by 25%. As this is a unified collaboration platform, end user productivity is also substantially improved.

6. **Smart Cafeteria:** Food wastage – Typically a lot of food and tons of litres of water was wasted worldwide. For a moment, just take a minute to think about all the water it takes to grow a plant. We took it seriously and identified a modern solution by launching Cafeteria App for food ordering, which will not only improve the user experience but also reduce food wastage and waiting time in the cafeteria. Experience ordering like never before, which is easy-to-use and hassle free. This food ordering app is digitalizing the way one orders food. Just place an order and the rest is taken care by the app. Free from the inconvenience of selecting dishes from the centralized big menu board/ menu card in the noisy and busy canteen area, users can now pre-order food and pay the amount through the app. Once the app receives an 'order ready' status, users can go to the canteen and collect it, without standing through long queues for placing and collecting their food orders. Users have multiple options on one window to choose from different vendor and each vendor has a live menu. Ordering has never been this easy. This approach reduces food waste, saves money and delivers food on-demand. The app displays real-time footfall density in the cafeteria, thereby helping save a lot of precious time. It also provides money-wallet feature supporting integration with different payment gateways and analytics to help vendors manage cost and reduce waste.

7. **Smart Incident Reporting:** Many times, users may want to raise incidents like spillage of garbage, leakage of water, users parking the vehicles in areas blocking the access to critical infra services etc. If the incidents are not timely reported, they can result in potential disasters. We have implemented an app with which the user can report the incident using their smart phone, in one click without worrying about whom to report it to. With one click scanning of QR code and voice activated commands, incidents can be immediately reported. Respective functions then act immediately to resolve the reported issues.

8. **Smart Commute:** No Jitters!! This app is an assistant for commuting, serving environment and traffic. Commuting in most cities is fraught at peak hours, with delays caused by congestion, signaling problems, etc. Top that with the hunt for parking which makes it even more frustrating. Smart Commute app gives oxygen to all these problems by redefining your daily commute to office. A single click gives access to all the information related to commuting, availability of parking slot along with route time for destination; thereby helping users to take the green and friendly way. Alternative public commute options are also incorporated in this Commute app. Users can opt for carpooling, which directly helps in reducing air pollution and unwarranted traffic jams on the roads.

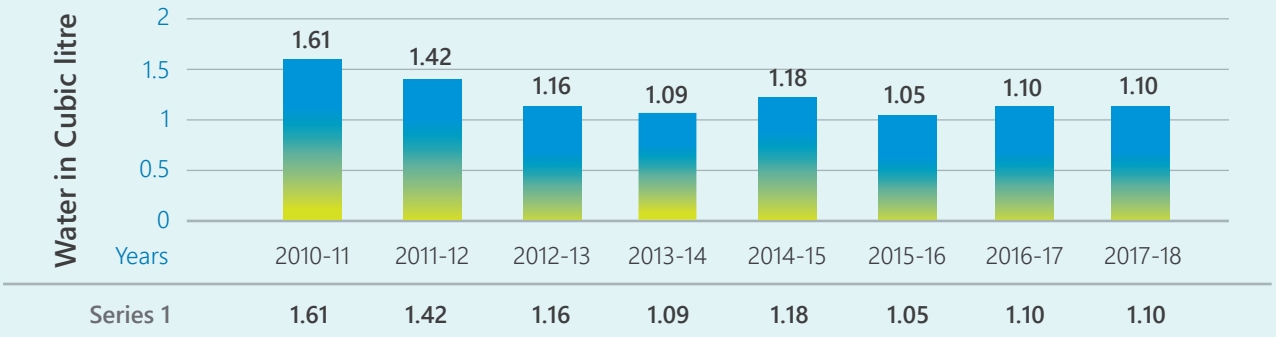
5.4 Water Management

Water is required and used only for domestic purposes, but is still the second largest natural resource consumed by KPIT. Therefore, investments were made to reduce fresh water consumption by setting up a Sewage Treatment Plant (STP). 70% of the water gets treated through STP and is recycled & used for gardening purposes. Apart from recycling of water, several other initiatives are also undertaken to reduce consumption of fresh water such as:

- Installing drip irrigation system for internal gardens
- Maintaining optimum pressure within water lines to reduce water wastage
- Regulating water flow at all the outlets of all the toilets
- Arresting leakages in pipelines and taps
- Engaging and educating employees through awareness drives
- Provision of hot water to the gymnasium and cafeteria kitchen using solar energy.

The above initiatives that have been running for the last 5 years have been resulting in an annual 11% reduction in water consumption vis-à-vis previous year's consumption. However, in last two years it is constant because of addition of new facility (R&D unit). The following table captures the per capita water consumption:

Monthly water consumption/person

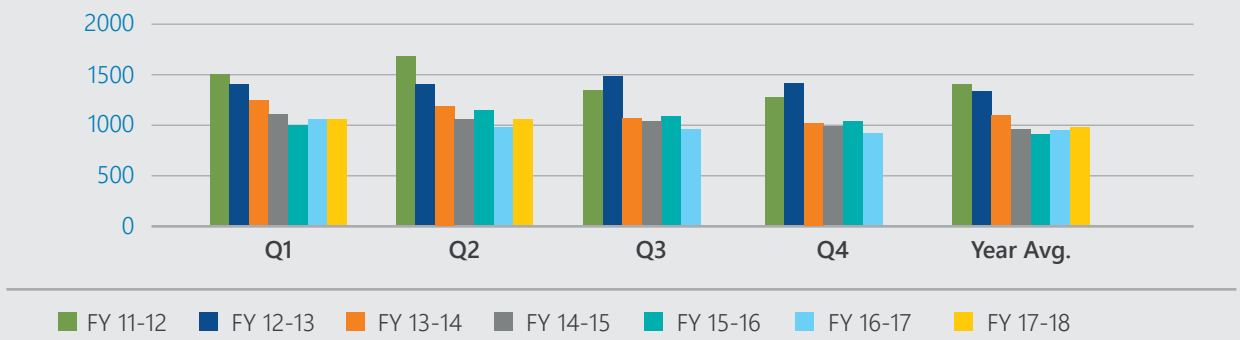


5.5 Waste Management

Being an IT services company, there are no significant primary emissions or process wastes. Due to the nature of our business, waste generation is limited and restricted primarily to Municipal Solid Waste (MSW). Other wastes include e-waste and a small proportion of hazardous waste like lead-acid batteries, electrical waste, waste lube oil, etc. Our waste management practice seeks to reduce the environmental impact of this limited waste to the maximum extent possible by reduction in generation and segregation at source.

We continuously encourage the employees to reduce food waste through awareness posters, daily food waste generation communication. Daily food waste is monitored and the quantity being wasted is published to all employees on a daily basis.

Food Waste in Kg per Month



E-waste Management
Being an IT company, KPIT generates e-waste like laptops, computers, monitors, servers, etc. Apart from this we also generate electrical waste like wires etc. KPIT's waste management policy is the defining guideline for handling all types of waste and complying with the Government and Maharashtra Pollution Control Board (MPCB) norms.

In FY 2017-18, 1720 kgs e-waste were disposed through government authorized handlers/recyclers.

Hazardous Waste
Hazardous waste is disposed through authorized agencies as per the guidelines of Ministry of Environment and Forests (MoEF).

Additionally, all the used printer cartridges are sent back to the manufacturer under "Planet HP Take Back Program" to ensure proper recycling.


JRS Recycling Solutions Pvt. Ltd.

"E-waste Disposal & Green Certificate"

This is to confirm that the E-waste Received

KPIT TECHNOLOGIES LTD.

5.6 Environment Awareness Campaigns

An e-learning module on environmental awareness has been made available on the employee portal. The module is designed to create awareness on key environmental issues, and initiatives undertaken by the organization and the employee role in these initiatives. Various environmental awareness campaigns are planned and carried out throughout the year for employee engagement.

5.7 Occupational Health and Safety

KPIT has always considered its employees as the most valuable asset of the organization. Towards this, KPIT constantly undertakes initiatives to ensure the safety and well-being of its employees at workplace.

Employee Transport and Safety
KPIT strongly believes that the safety and security of our employees isintrinsic to its core values. One of the major focus areas from employee safety perspective is commuting to and from office in individual transport or company provided transport.

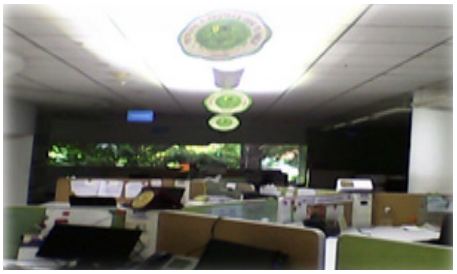
Some of the safety measures taken are:
- Mandatory Alcohol Tests are carried out for all drivers at the time of departures
- Annual Medical check-up mandatory for all cab drivers
- Security escorts provided for lady employees traveling between 2000 hours to 0600 hours and having last drop or 1st pick-up
- All cabs departing after 2000 hours having a lady employee are tracked and monitored continuously
- Periodic training sessions planned for all cab drivers on safety, first aid, traffic discipline etc.
- Incident reporting, Root Cause Analysis (RCA), Corrective and Preventive Action(CAPA) for all major and minor incidents
- Dos and Don'ts, Emergency Contact Helpline mandatory on all the vehicles
- Only cabs up to 5 years vintage are used for employee commute
- Mandatory use of seat belts and helmets within the premises
- Yoga Sessions for cab drivers to ensure they are stress free while driving

Employee Awareness Drive at KPIT
KPIT engages its employee and third party vendors in various Environmental, Occupational Health and Safety (EOHS) initiatives held in the organization. The hazard identification and risk assessment is carried out in consultation with relevant stake holders, employees and third party vendors. The implemented controls are monitored and evaluated regularly to ensure employee safety all the time at workplace.

Few of the activities performed towards occupational Health and employee safety:

- Awareness slides on DMPs
- Floor meeting by Nutritionist
- Occupational Health and Safety Assessment Series (OHSAS) awareness Floor Walks
- Periodic Evacuation Drills
- Quarterly EOHS Newsletters
- E-learning module on EOHS for all employees

KPIT organizes seminars and health related programs throughout the year. Some of the events which were observed are as follows:



- "World Health & Safety at Work Place Day" observed on 28th April 2017.
- "World Hypertension Day" observed on 5th May 2017.
- "World No Tobacco Day" observed on 31st May 2017.
- "International Yoga Day" celebrated on 21st June 2017.
- "Health Check-up" activity carried out in July 2017.
- "Music Therapy" session organized on 28th July 2017.
- "World Hepatitis Day" observed on 28th July 2017.
- "National Nutrition Week" observed on 4th Sept 2017.
- "Health Tips" awareness created on 18th Sept 2017.
- "World Alzheimer's Day" observed on 21st Sept 2017.
- "World Heart Day" observed on 29th Sept 2017.
- Session on "Heart Care" organized on 29th Sept 2017.
- Health Checkup conducted on 6th Oct 2017.
- "Hair & Scalp" Checkup Camp organized on 8th Nov 2017.
- "World Diabetes Day" observed on 14th Nov 2017.
- "World Anti-obesity Day" observed on 26th Nov 2017.
- Zumba & Yoga classes conducted on 3rd & 4th Jan 2018.
- "Health Carnival" organized on 18th & 19th Jan 2018.

06

Employee Engagement at KPIT

Employee Engagement at KPIT

6.1 Employee Engagement

We take great pride in our culture. We work to provide an environment where our talented people have fulfilling careers addressing challenges in technology and society. Our employees are among our best assets and are critical for our continued success.

We embrace collaboration, innovation and encourage the iteration of ideas. We will continue to focus on attract, retain and motivate versatile and talented employees. We continue to engage our employees through various forums such as Leaders Connect, All Hands Meet, Employee Satisfaction Survey and Connect with Senior Leadership for Exceptional performers. We celebrate our talent internally and on social media through campaigns like #TalentAtKPIT, #WomenAtKPIT, #GrowthAtKPIT.

Our people practices are aimed at developing a culture of care, commitment, engagement and harmony across the workforce.We focus on overall well-being of our employees, providing them with a fulfilling life long career.

Communication Channels to foster Employee connect

Transparency and open dialogue are central to how we work, and we like to ensure that company updates reach our employees first through internal channels. We use various platforms for continuous connect with talent across levels.

- **Bi-Annual Connect:** Chairman and Group CEO addresses entire organization bi-annually on key strategic, business developments along with Q&A from employees across the globe.
- **Leader's Connect:** Company MD and CEO addresses all leaders quarterly to provide key updates and future plans.
- **All Hands Meet:** Business/Function heads and Middle management convey the business update and developments with the employees across all grades regarding their units/ functions. This is an interactive session where employees can ask questions and seek relevant information.
- **Business Updates:** Quarterly emails on business development and pipeline are sent from the MD and CEO's desk.
- **Connect over Dinner with exceptional performers:** The senior management and leadership meet the employees who have demonstrated exceptional performance with high ratings in an informal set up giving them opportunity to interact and share their views transparently.
- **Floor Walk:** The Management and leaders conduct 'floor walks' within different work areas. The intent is to have regular and informal conversation between the employees, the management and the leadership team. This happens at the employee's work location giving the management access to first hand input.

We seek continuous feedback from employees through:

- One-on-One connect: 30 – 60 – 90 days connect – specially designed for new joiners, skip meetings, various discussion forums like Delivery Managers forum, Project Manager-Business HR forum, employee grievance mechanisms, and exit interviews are mechanisms used to collect feedback and stay updated about the employee's pulse.
- Buddy program helps our new incumbents to understand KPIT culture, system and processes. This allows them to easily become a part of the KPIT family.

6.2 Developmental Initiatives

- **ASPIRE:** A talent initiative to enable employees to fulfill their aspiration pertaining to Career, Customer and Technology.
- **Leadership Development Program (LIFT):** Leadership development program for young and high potential leaders, who are mentored by senior leaders of the organization for taking up higher/challenging roles and responsibilities.
- **Insight:** With intent to make all newly promoted employees in middle management more effective, this program facilitates interactions in small groups with the leaders of KPIT. The program helps the promoted employee to have visibility on the career path within the organization, requisite competencies, insight about business and expectations from the new role.

6.3 Vibrancy at Workplace

- **Interest Forums:** Various events are in place to encourage employees' participation and showcase their interests and talent. We have different interest forums like cerebral club, photography club, theatre club, trekking club to name a few. People are free to join as per their inclination and pursue their area of interest with like minded colleagues.
- **Resonance:** We organize family day every year in KPIT wherein all our employees and their families are invited for cultural evening followed by dinner. Employees and their families interact and socialize with their colleagues including senior management and leadership. This is organized at all our DCs i.e Pune, Mumbai, Bangalore and Noida.
- **Fun at Work:** Different fun games and activities such as Flash Dance, Secret Santa, Treasure Hunt, and Karaoke etc. are organized for the employees throughout the year

Wellness

We have the following programs in place for ensuring health and safety of our employees throughout the year.

- Health Risk Assessment was done during the Group Mediclaim enrolment drive.
- Zumba and Yoga sessions held with expert trainers.
- Health Carnival was introduced this year across all locations in India. It had various camps such as subsidized health check-up and Health diagnostic tools provided at discounted price.
- Collaborated with various online service providers to help employees purchase medicines and health check-ups at discounted rates.
- On the occasion of International Women's Day "Anaemia Free KPIT Campaign" was organized along with Anaemia awareness session
- Engagement through Wellness such as Laughter Sessions, Masala Bhangra, Tug of War etc.
- Executive Health Check-ups for Senior Management.
- Health Check-ups for employees (35 years and above).

6.4 Rewards and Recognition

We recognize and reward our best employees whose contributions play a vital role in the performance of our Company.

KROWN - Through this we recognize individual and team contributions in various areas such as customer delight, going beyond the call of duty, exceptional contribution in any sphere, coaching and mentoring team members, displaying all round performance, displaying excellent team work etc. The highlight of our program is that every employee is free to nominate peers, superiors, subordinates and themselves for these awards.

6.5 Employee Competency Development

PACE

Our **Program for Academic Collaboration and Engagement** (PACE) initiative believes in the adage of "catch them young," by attracting quality talent from campuses to make them KPIT ready. We have built industry academia model with strategic Industry - academia-based partnerships with 20+ premier institutions across India. As part of the model, we inculcate the KPIT culture by drafting industry and KPIT relevant courses and extensive training and internship opportunities for a short duration to faculty members (from these partner institutes). Every student will undergo KPIT offered elective while they are in their final semester to make them industry.

GENESIS

Graduate Engineering Trainees (GET) & Graduate Non-Engineering Trainees (GNET) begin their journey in KPIT with Genesis in order to get aligned to the Strategic Business Units (SBUs) and practices. This is the program spread over 8 to 10 weeks of dedicated in house training programs and will make a fresh engineer be project ready. The learning during this program is devised on Problem/ Project based learning led by Academies and subject matter experts in the practices. The engineer becomes well acquainted with KPIT driven processes, technologies and practices by the end of this learning duration.

INTERNSHIP

Partnering with 40+ top notch universities/Institutes in India and working towards to ensure internship opportunities to post graduate students primarily in cutting edge and state of the art technologies, we offer long term internship projects to students. The projects assigned are very contemporary and relevant to the industry problems and challenges. Academies and mentors will guide the students in the projects. Those who complete the internship with a successful project submission will be extended career opportunities in KPIT.

CONTINOUS EDUCATION

ECoDe Kaizen

To cater to the prerogative of lifelong learning which is the need of the hour, this role-based certification program looks at streamlining SBU practices with certification and prowess honing skills across Technology, Project Management Domains, Processes, Professional Skills and Leadership Development for employees globally at various experience levels. This allows them to move on to the next level in their career paths and helps them get cross-skilled, and stay relevant.

Training on Demand

To provide an opportunity for business leaders to raise a request for relevant training for themselves or their team members and provide a seamless time bound service.

Training on Demand (ToD) system is a platform through which ECoDe can capture and service business/project specific learning requirements raised by business swiftly which is over and above the ECoDe KAIZEN program, there by enhancing the overall learning experience.

LEADERSHIP DEVELOPMENT INSTITUTE (LDP)

Developing professional skills at multiple stages of career is a critical need of business leaders today. The KPIT Leadership Institute focuses on developing five core competencies – Communication Excellence, Professional Excellence, People Leadership, Client Centricity, and Personal Excellence for employees at various stages of the career. Identifying the leaders of tomorrow from multiple grades of employees calls for a specially devised program that cover the above competencies through blended learning, coaching, mentoring and action learning projects. Based upon a multi-tiered pyramid model, LDP operates on multiple sub-modules owned exclusively by the Executive Leadership Team and Members of the Board, fortifying potential candidates towards accelerated career augmentation.

100X100 – A LEADERSHIP DEVELOPMENT PROGRAM

An exclusive program for chosen high performers and high potentials from among managers of managers, designed and delivered in collaboration with Indian Institute of Management (IIM)-Indore to ensure future KPIT leaders receive world-class orientation. The program focuses on ensuring organic growth in leadership through exposure to 8 leadership tenets like Humility, Walk the Talk and others, a comprehensive understanding of leading change, the Mentoring Framework; all designed and customized to sharpen the skills of the aspirants. This rigorous program is especially engrossed in ensuring that the participants emerge as the talent pool through whom KPIT will conquer newer frontiers.

LEADERS IN MAKING PROGRAM (LMP)

A first-time manager undergoes several people and process related challenges. To overcome these challenges, the LMP program is designed to enhance the managerial competencies of associates who have transitioned into a people management role. Moving beyond theoretical knowledge, the program focuses on the practical application of the management principles, explores business operations and financial aspects while fine tuning one's personal edge. It aims to spruce up skills in 4 competencies: People Leadership, Customer Excellence, Business and Operational Excellence and Communication Excellence, thus, providing a comprehensive curriculum to help managers sharpen their managerial effectiveness in the workplace.

LEADERS IN FAST TRACK (LIFT)

A program for high potential, mid-level associates to build skills that enables them to take on subsequent managerial roles and responsibilities. Action Learning Projects and a Mentor-Protégé Framework to help achieve Individual Development Plans, all blended with interactive workshops on emotional intelligence, communicating with power and confidence and many others, leader videos, e-learning platforms are just some of the offerings that enable the associates to think and grow in alignment with KPIT goals and vision.

PROFESSIONAL SKILLS DEVELOPMENT

A fresh engineering graduate, needs to discover and assimilate certain behavioral competencies that will help them to align to the corporate culture along with being able to communicate with different stakeholders. These young graduates go through an intensive behavioral skills program of 40 hours, specifically designed to drive this change in mindset and behavior.

To continually elevate KPITes skills, a well laid out Continuous Education Program offers a choice of over 25 professional skills development programs related to Communication Excellence, Personal Excellence, Professional Excellence, Client Centricity and People Leadership.

PROJECT MANAGEMENT DEVELOPMENT PROGRAM (PMDP)

PMDP is offered to associates who are currently playing the role of Project Lead, Project Manager, Senior Project Manager and Program Manager. The PMDP framework is well aligned with the international standard such as PMI PMP® and is completely hands on with a pragmatic approach in training delivery. Programs are classified as per the grades and are called PMDP Foundation, PMDP Silver, and PMDP Gold. These programs are being developed in collaboration with IIMs and top business schools

HIGHER EDUCATION INITIATIVE

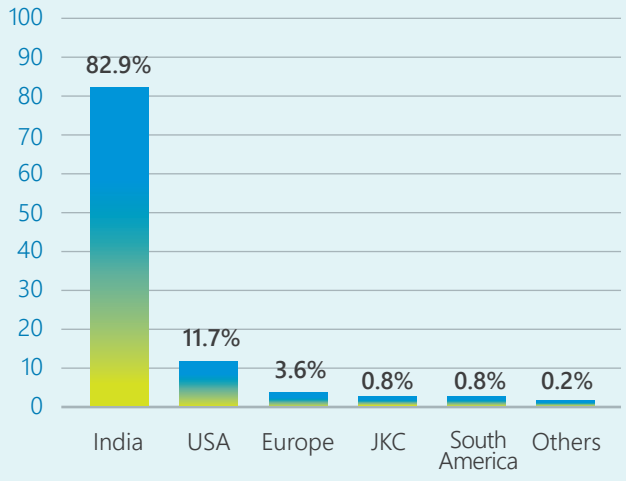
Learning is an incessant process and KPIT truly believes in creating a conducive learning environment for the employees. The Higher Education Initiative (HEI) at KPIT encourages KPIT Full Time Employees (FTE) for continuing education, leading to a Masters Degree from reputed Indian and Overseas Universities. This is to enable employees to acquire higher professional knowledge in areas of their interest and/or those that align with the growing business needs of the organization, including Product Engineering, Information Technology, and Management education and allied fields. Ongoing programs being offered are an MBA in Strategic Engineering Management and an M. Tech in Automotive Electronics in collaboration with Coventry University.

6.6 Employment and Compensation

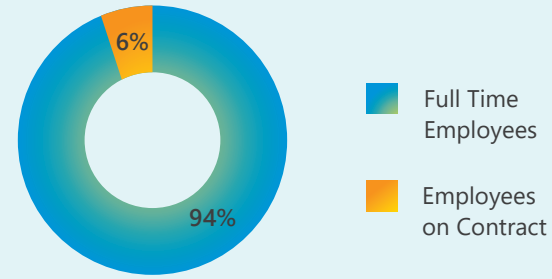
Our full time employees are 94%, while 6% are contractors and subcontractors in total workforce. Also, 24% of our employees are women. We provide numerous benefits to build a productive and happy environment.

- Cashless hospitalization benefits
- Group Personal Accident and Term Life Insurance
- In-house doctors, counsellor, dieticians
- Gymnasium with instructor
- Stress Management Program
- On premise recreation facilities
- Canteen, Concierge and assistance in finding accommodation
- Financial Reimbursement for external certifications
- Flexi working hours

Geo wise headcount distribution



Employee Distribution



6.7 Talent Acquisition Group (TAG)

KPIT continues to grow and expand across geographies, supplemented by our focused hiring teams in India and overseas that manage the Company's talent acquisition strategy. Our hiring involves recruiting the right talent in line with our core values and key behavioral attributes.

We believe in being an equal opportunity employer and our hiring process, at all levels, are based strictly on merit. Our hiring teams always look at every resource with an intent of matching them with a role that fits them well. In case improvements are needed in potential hires, internal training and development programs are in place.

There has been some significant realignment which was initiated this year in TAG, to bring in more synergies to help augment the business growth, pertinent of those being –

1. **TAG Centralizatio**n – The erstwhile SBU TAG team has been centralized under one umbrella of Global TAG. The move was quite significant in nature and it helped serve the purpose of bringing in a Unified and Uniform sets of Processes, Application Tracking System (ATS) resulting in significant cost optimization and process efficiencies.

2. **Geo-based Hiring** – Geographies were split in to bring in more rigor and focus on the hiring for the respective region. Hiring Team got strengthened with local specialized resources hired possessing linguistic expertise and sensitization to local customs and traditions. Working Geographies were split into three –
   - TAG India and RoW (Rest of the world)
   - TAG Europe
   - TAG USA

3. **Predictability and Operational Efficiency** – Best Estimate model was introduced by the corporate operations group by which the recruitment effort was brought in line with revenue prediction by the business unit. The systems and processes were upgraded to bring in the rigor and effectiveness of business alignment. To best utilize the internal resources, we have evolved our resourcing function through several processes and systems that include job rotation, reskilling and career planning etc. This ensures maximum opportunity to our employees to adapt to newer roles and make advances in their career as per their interest and performance. Our hiring is done through a number of sources, depending on the criticality of the requirement.

We made significant improvement in iRefer - Employee Referral program by doing the following:

1. Referral Bonus got Revamped and made at par with the industry standards. Global Referral policy introduced.
2. TAG Responsiveness and system enhancements- Enabled through digital interventions and system enhancements real-time tracking and status updates were made possible which helped bring in more transparency.
3. Escalation mechanism built in and let known to all, for speedier and faster issue resolution.

The recruitment channel and a balanced mix of laterals versus campus recruits, forms an important parameter of our recruitment strategy.

With our vast array of career opportunities and development programs, we help our new recruits and interns discover their potential and develop business knowledge and technological expertise.

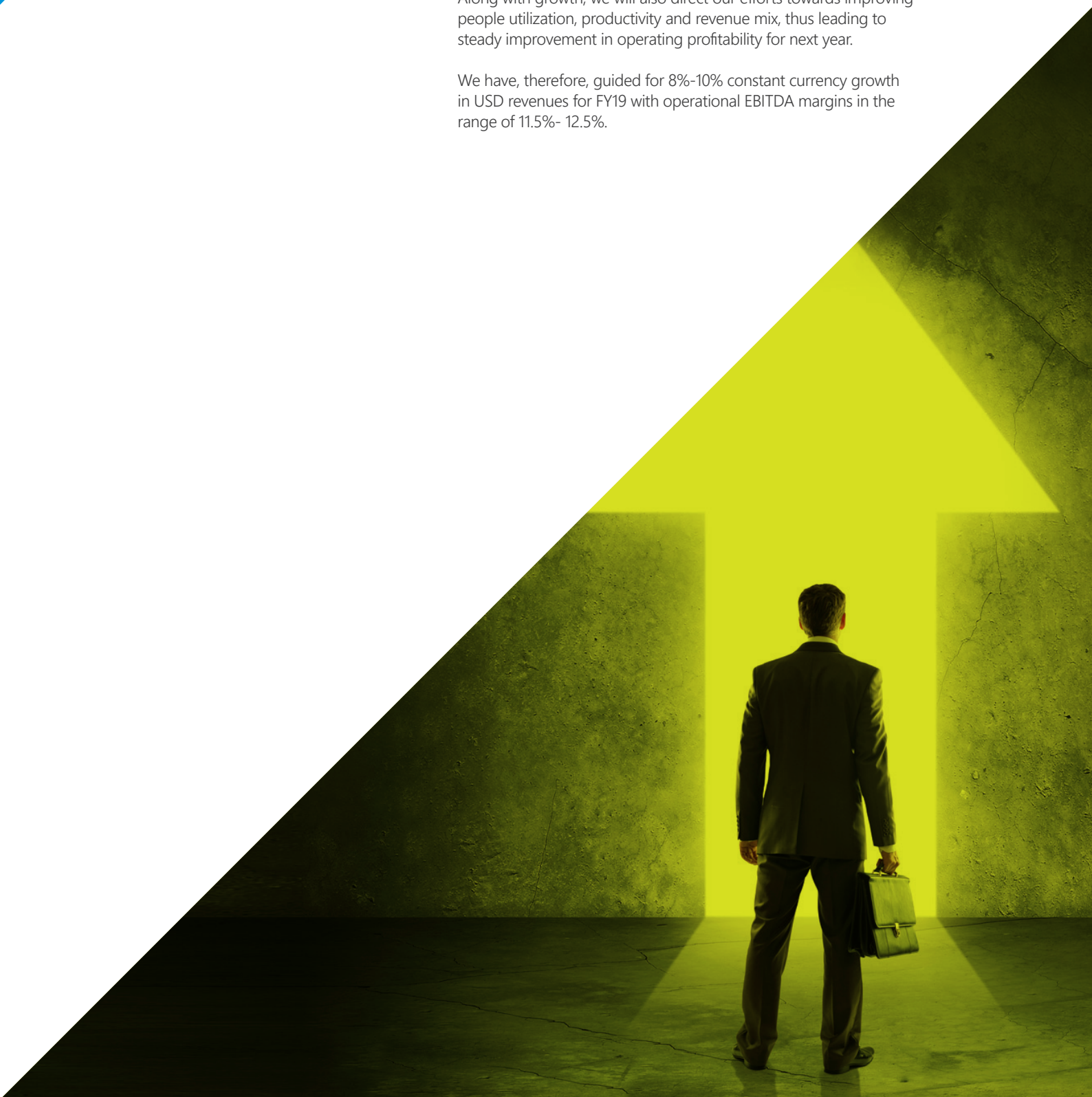
07

Looking Ahead

With a strong year gone by, we are looking forward to another decent growth year largely driven by the areas of our operation and offerings. Engineering services has always been at the forefront of our growth trajectory and the trend will continue going further. This domain is largely driven by emerging and smart technologies, an area where we are incessantly investing. Besides we are also witnessing robust and constant growth in our digital business which we expect to continue.

Along with growth, we will also direct our efforts towards improving people utilization, productivity and revenue mix, thus leading to steady improvement in operating profitability for next year.

We have, therefore, guided for 8%-10% constant currency growth in USD revenues for FY19 with operational EBITDA margins in the range of 11.5%- 12.5%.



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