

TELCOTIMES

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TELCOTimes

(Fourth Edition)



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From Editor's Desk

Manisha Chawla, Editor

Dear Readers,

Over the past so many months, I have been pondering over as to what can be said by me in this column on our documentation achievements and editorial efforts.

New year opens new vistas, and we hope to perform well, as we have done so far. Till date, our effort has been to not only focus on the issues and themes concerning telecom industry, but also elicit views of the leaders of the Telecom industry.

Incidentally, I may point out that among the people, we have interviewed for our magazine, who have shared many innovative ideas for the growth of the fast expanding industry with a PAN India footprint. Interestingly, even those who are not connected with the industry directly, have also expressed their views and opinions as outsiders for the benefit of the industry.





Now as the fourth edition of Telco Times is in your hands, I hope this edition will also provide you with necessary information, as I suppose the previous three editions must have done.

Telecom sector, as you are very well aware is breaking the new grounds every now and then, especially under the flagship programmes floated by the Hon'ble Prime Minister Shri Narendra Modi, such as 'Digital India' and 'Skill India' missions, have already made their mark. The remarkable expansion of mobile industry across the length and breadth of the country can be termed a historic. It is due to singular efforts of industry that an information super highway has now come into existence.

I must mention here, that this edition contains several write ups from outstanding contributors, which might be of great interest to readers. I cannot conclude my remarks without mentioning that the publication of this edition as well as the previous three editions could not have been possible without the encouragement and support of our CEO Lt. Gen Dr. SP Kochhar (Retd).

At last, I must also thank my colleagues for putting their heart and soul in the preparation of the magazine. My special thanks to those who were forthcoming in obliging us by granting us interviews.

Manisha Chawla
Editor

BLOGS



Mr. Tilak Raj Dua Director General, TAIPA

he telecommunication services have emerged as a key driver of economic and social development in an increasingly knowledge intensive global scenarios. Hence, it becomes uttermost significant to be well informed and educated on the latest developments, trends, and issues etc. which is triumphed if a specialist magazine is read. Over and above, the magazine carries expert viewpoint of industry's driving force and has wide elite industry stakeholders.

We wish Telco magazine good luck for the forthcoming editions and keep up the good work by enlightening our thoughts with variations of viewpoints on the subject matter of concern impacting various spectrum of pyramid i.e. public at large.

> Mr. Tilak Raj Dua, Director General, TAIPA

n today's fast paced world, technology is evolving at an exponential rate, more so in the telecom sector. To keep up with it, we need magazines like Telco Times to stay updated on prevailing and upcoming technology trends in the industry. I am glad that the magazine is providing such good practical information about latest industry trends and the different stakeholders in the sector. I wish all the best to the team and hope the magazine will continue to enrich us readers with latest updates from the industry.

Gavathri Vasudevan

PhD, Co-founder & CEO, LabourNet Services



Gayathri Vasudevan PhD, Co-founder & CEO, LabourNet Services



Mr. Pradeep Gupta

elco Times is a recent addition to my must reads. The area of humantechnology interventions and interactions including skilling that are scarcely covered in other publications is an important segment of the total landscape and Telco Times fills in the gap for industry leaders and professionals to have a complete perspective, and how it is impacting one of the most essential areas of livelihood and economic pursuits that have been riding the digital wave for the past few decades.

I wish the entire team at TSSC and contributors success in their pursuit of bringing this essential publication.

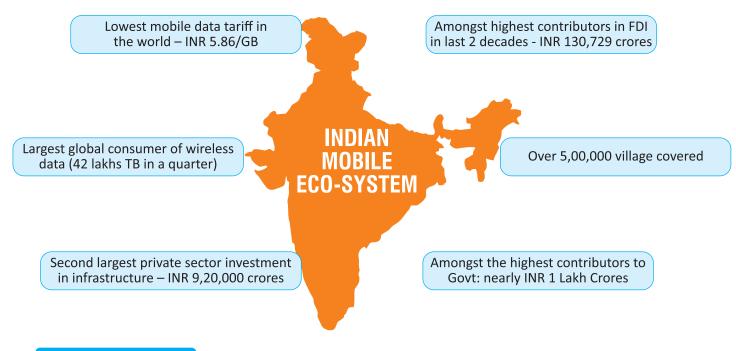
Mr. Pradeep Gupta,

Chairman & Managing Director, CMR



Cellular Operators Association of India

INDIAN TELECOM SECTOR VITAL ROLE IN GOVERNMENT'S NATION BUILDING AGENDA



UNION BUDGET

*Source GSMA The Mobile Economy India Report, 2016, DoT, Industry Estimates, TRAI

TELECOM - KEY SECTOR

- The Indian telecom sector can easily be considered the most essential sector in the country, as it remains the backbone of almost all others sectors
- The sector has been the main reason for the increasing empowerment and macroeconomic growth that the country has been seeing over the last two decades
- Almost every expert agrees with the GSMA's estimates that for every 10% penetration of telecom, the GDP sees around 1% growth.
- The sector is currently struggling to manage a cumulative debt of almost INR 4.6 Lakh crores and revenues that have fallen significantly to INR 2.5 Lakh crores and is expected to fall further.
- Hence, the Union Budget remains critical for the sector by way of an opportunity to provide the much-needed urgent relief.

अनंतकुमार हेगड़े Anantkumar Hegde ಅನಂತಕುಮಾರ ಹೆಗಡೆ

कौशल विकास और उद्यमशीलता राज्य मंत्री, भारत सरकार Minister of State Skill Development & Entrepreneurship Government of India





07th Feb 2018

MESSAGE



Hon'ble Prime Minister Shri Narendra Modi's mission of 'Digital India' and 'Skill India' lays a special emphasis on involving the youth to encourage them to take up skilling and vocational training to improve their employability and entrepreneurship.

The Telecom sector is one of the fastest growing sector and is a key driver for growth. Every month, one million people enter the labour market, our effort will be to coordinate with the state governments and

other agencies to create an ecosystem of skilling for them.

The Ministry of Skill Development and Entrepreneurship is devoted to further boost the training and innovation programmes, in the fast-growing telecom sector. In the view of this, the role of Sector Skill Councils assumes special importance, as it is contributing immensely to the creation of skilled workforce.

Telecom Sector Skill Council is actively engaged in providing quality training to the youth. With data speeds going up, larger bandwidth availability and India moving towards 'Digital India', therefore, large quantum of data volumes are going to be generated. IoT will become the catalyst for Industry 4.0.

Keeping the above-mentioned telecom sector scenario, TSSC has taken the initiative of tying up with University of Chicago, Microsoft, IBM and others for the following high-end tech courses which will address the future scenario ie., Big Data, Data Analytics, Cyber Security and IoT.

I have no doubt that all sections of telecom industry would gain tremendously from availability of skilled and trained manpower being provided by TSSC. I hope TSSC will continue to make strides towards achieving new goal.

Lastly, I would like to congratulate the TSSC team for successfully bringing the fourth edition of the Telco Times magazine.

(Anantkumar Hegde)





The last few months' global and economic developments have surprised everyone. For so many years, continuous technical transformation and information waves have driven high development in the telecom segment. The tone has been set for another exciting ride as we draw the curtains on the year that passed by.

Fourth edition of Telco Times is in your hands, with all the needed information for you in the telecom & allied sectors. I need not repeat how we have been able to turn the corner in our endeavors to pursue the agenda spelt out in the Skill India mission, envisioned by our Hon'ble Prime Minister Narendra Modi. India has witnessed a boom in the smartphone market and is considered as one of the fastest growing smartphone markets in the world. This has increasingly been recognized as a potential source of significant strength for the national economy, provided we are able to equip and continuously upgrade the skills of the population in the working age group.

Providing youth with the right skill sets, to be absorbed in the industry, we must focus on the emerging technologies that are likely to emerge soon. We are very much aligned with the flagship program of our Hon'ble Prime Minister of 'Skill India' and 'Digital India'. We at TSSC, are constantly engaging in putting our efforts in providing the quality training and make the youth employable.

Active industry interface is the key to improving the match between skilled work force and demand. Therefore, there is a need to make the system 'Industry Centric', where by the model for job aggregation becomes a 'pull- push' model.

In this model the industry must project firm demand for various job roles that they need to employ. This will ensure that training in the Training Centers is aligned to demand as projected by the industry, thus initiating a 'pull model'. In a way, the push system should be productive for the entrepreneurs and the unorganized sector.

FROM **CEO'S** DESK

In line with the flagship program of Digital India, we can create digital structures where we can make the industry meet skills and the right candidates. For this, we have been managing a Recruitment Management System (RMS).

I would also like to mention that, AICTE has partnered with TSSC to recognize TSSC's skill certification as an equivalent for industrial training as mandated for 3rd/4th year engineering students as per AICTE norms.

Therefore, TSSC is pitching this with Academic partners for encouraging their students to subscribe to TSSC paid courses, by which methodology engineering students can achieve the twin objective of benefitting from skill training, as also simultaneously getting an award of an industrial training certification

TSSC on its part, is playing a very significant role in such training programs. In our stride towards the furtherance of our goals, we have already completed several training schedules with our partners. We are covering rural areas in particular in a speedy manner, and in the times to come we will be meeting our targets successfully. May I, also underline that the year 2016-2017 marked a great success for TSSC in attaining its goals. Telecom Industry is gaining substantially from our initiatives.

Lastly, I would like to extend my heartfelt appreciation to TSSC staff for their loyalty & support towards the organization for all these years. We hope you enjoy reading the updated Telco Times magazine and we look forward to your feedback, so we can continuously improve this along the way.





Exclusive Interview

MR. R S MATHEWS Director General COAI

The next phase of telecom in the country will be about new technologies like IoT, M2M & even Artificial intelligence becoming part of our daily lives

Q&A

• What are your views and assessment on the impact of Skill India mission as per our

Hon'ble Prime Minister?

Prime Minister Narendra Modi's marquee 'Skill India Mission' and all the programs under it including the 'National Skill Development Mission', 'National Policy for Skill Development and Entrepreneurship, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and the 'Skill Loan scheme", are very well-intentioned programs and necessary for the growth of every sector as well as the government's social and economic reform schemes.

The Indian telecom sector is one of the biggest employers in the country, employing close to 2.8 million people directly and 7 million indirectly, across four major sub sectors – telecom infrastructure, network, handset manufacturing and repair, and telecom service providers. Initiatives like Digital India, Direct Benefit Transfer, financial inclusion, Aadhaar linked governance systems etc. will be almost completely dependent on the improving and evolving skill ecosystem of the Information and Communications Technology sector. Given the high growth expectations and with employment potential for 7.5 million in the next 5 years, the mission is yet to yield any substantial impact on the telecom ecosystem.

• What are your recommendations to make this mission more successful and impactful, so that it is able to achieve its objective of skilling the youth, as per industry requirements?

It is estimated that during the next 20 years, the labour force in the industrial world is expected to decline by 4%, while in India it will increase by 32%. Towards ensuring that the industry employs the necessary skilled labour that is up to a required standard, the following recommendations would make the programs more impactful:

- a) Integrate the Industry skilling effort with that of Sector Skilling Council (SSC) led effort i.e., TP should be same for both agency working with industry focus.
- b) Develop a dynamic labour market information system with SSCs working closely with industry.

- c) Trades capable of self-employment like mobile repair technician, broadband technicians, digital literacy trainers etc. should be given more attention in skilling to bring greater scale to the digital technology infusion at grass root level.
- d) As Telecom network and devices are being built to global standard, the skilled manpower trained in India should be deployable in any country and such facilitation should be provided through government efforts for better & global opportunity of the trained workforce. This will enhance internal quality too.



• How do you think the Industry can contribute positively towards further strengthening the India skill ecosystem?

The industry has to work for improving the skill as it is committed to provide better quality of service which can be possible not only by better technology but also through better skilled manpower.

• What recommendations would you like to articulate about the Government incentivizing the industry for absorbing the skilled manpower, which the skill ecosystem puts on to the market?

The skill ecosystem should produce good quality manpower that meets the industry requirement. For that purpose, the current intensity of training is not adequate. The money spent/offered for training thru government schemes does not absorb the cost of the training required in telecom sector due to its higher level of skill requirement. Therefore, differential schemes need to be developed for high end trades. The internship subsidy now being promoted for on the job training i.e. reimburse 25% of stipend max up to Rs. 500 per intern and keep 2.5-10% of work force as interns for all business houses is a good beginning but the upper limit seems too little to be attractive for the industry in the high-tech areas. Government should focus more to open up the employment channel to the global market and create more/share public sector training infra to the private players too.

• How do you see the future growth of Telecom Industry?

India is going through a transformational change. With the various government schemes centering on the mobile phone as the ubiquitous device, the telecom sector is bound to grow exponentially, and data consumption is the new fuel for growth. It is estimated that the industry all set to roll out around INR 2 lakh crore of investment in next 5 years and adopt contemporary 5G technology. With the increasing demand for high speed and capacity broadband as well as services like banking and finance, health, education etc., on the move, the telecom service providers are close to becoming overall service providers, which will require a huge influx of highly skilled labour force, specially trained in the provision of these services.

The next phase of telecom in the country will be about new technologies like Internet of Things, M2M, and even Artificial intelligence becoming a part of our daily lives.

• As the member of Governing Council, how do you think that TSSC contributing for providing skill training for the telecom sector?

I think it has all processes in place but need to work more closely with industry proactively to make an impact in the telecom ecosystem.

Any suggestions for further improvements in Skilling ecosystem?

The Government should play the role of a facilitator for skilling system keeping itself at arms-length distance from the actual training and planning. Skilling and entrepreneurship should go hand in hand. There seems to be a big disconnect although both departments function under same ministry. Self-employment encouraging skills should be encouraged and incentivized as much as possible. Further, the SSCs should be given their due role to forge a strong integration of skilling system with the industry and should be more empowered with accountability.

Mr. R S Mathews
Director General COAI

10 February 2018 | TELCO TIMES

About Us

Kumar Goyal is a Business Services organization focusing on providing high quality accounting, internal audit and financial processes outsourcing services.

Our approach integrates delivery excellence with execution that delivers the right solutions to support client needs. Listening to our clients is one of the key driver for us to successfully meet the long term business objectives of clients. This philosophy helps us nurture lasting client relationships and guarantees value maximization in all our engagements.



Our Services

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- Payroll Management
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- GST outsourcing & Advisory

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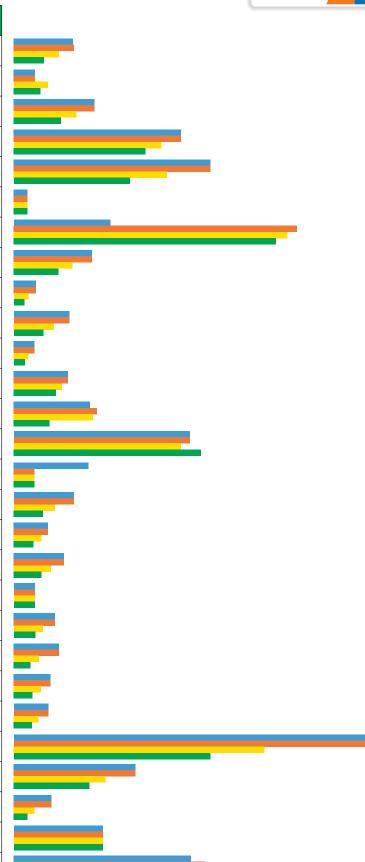
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ENROLMENTS & PASS PERCENTAGE



	ENROLLED	ALIGNED	ASSESSED	PASSED
AICTE	470	470	358	286
APSSDC	260	260	251	236
ASAP	522	522	437	368
CSR	1908	1908	1864	1744
DDUGKY	14038	14038	10445	8823
DU	16	16	16	16
ESDM	12981	33515	30499	28160
JSDM	553	553	427	392
M-Doner	30	30	25	19
MEPMA - NULM	315	315	266	207
MPACET	48	48	39	33
MSSDS	88	88	82	79
NBCFDC	300	400	323	197
Non-Star	1513	1513	1148	1087
NSKFDC	500	24	24	24
NULM	408	408	279	247
Paid RPL	225	225	197	190
PSDM	470	470	323	288
RECL	191	191	183	135
RSLDC	334	334	237	199
TNSDC	333	333	193	116
UKSDM	249	249	188	146
UPSDM	303	303	211	168
PMKVY 2.0	76423	76423	49068	38626
RPL 2.0	9719	9719	6196	5241
Special Project	205	205	122	107
Schools	3229	3229	3229	3229
TOTAL	125631	145789	106630	90363





Bigfix Xprs is a network of professional retail gadget care centers providing repair of multibrand mobilephones, tablets and laptops across India.

Bigfix Ecom connects customers with repair partners through web and mobile applications. We pickup, repair and deliver devices anywhere in India.

Bigfix Etrade distributes and sells spareparts, repair tools, accesories and refurbished devices.

Big Academy is a TSSC affiliated training partner to skill, certify and employ telecom technicians.

We work with OEM Brands, Ecommerce Portals and Warranty/Insurance companies as Repair Partner.

SPECIALITIES

Established in 2012 DIPP Certified Startup ASSOCHAM Awarded TSSC Accredited

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Certified Technicians 100 Days Warranty Device Audit GST Compliant Bill

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Telecom Sector Skill Council (TSSC) & All India Council for Technical Education (AICTE) join hands to drive Skill Development

All India Council for Technical Education and entered into a Memorandum of Understanding (MoU) with Telecom Sector Skill Council (TCSS) for complementing the skills imparted by the vocational system and its affiliated Institutions and Colleges, in order to match the need of Prime Minister's SKILL INDIA MISSION. The Main highlights of MOU are

- 1. TSSC's outcome based skill training is equivalent to the industrial training for two months, which is the mandatory part of the curriculum.
- 2. TSSC's Train the Trainer program for college faculty, can be paid under the aegis of Faculty Development Program (FDP). The trained faculty will be eligible to become Skill Trainers/ Master Trainers.
- 3. TSSC's skill training programmes will be made available for B. Voc Degree.
- 4. M. Tech scholars are also eligible for TSSC's Train the Trainer program.

For more details, you can contact

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• Being an important institution supervising technical education in the country, what fresh steps has AICTE taken for upgrading engineering education?

A huge infrastructure has now been created in the country, particularly hard infrastructure for imparting technical education. Today some 37 lakh students can take admission every year in various institutions in the country. That's the capacity we have already created in the last few years. However, our major challenge is to upgrade our curriculum in accordance with the need of the industry. While the industry needs very well qualified and knowledgeable students for recruitment, we are not able to match that need because of comparatively low -grade training and education imparted to them at present. That is why, out of some twenty lakh students who are passing out every year from various institutions, only 7-7.5 Lakh are able to secure a proper job. Therefore, our major challenge is to upgrade our knowledge system, we have already initiated many such steps to upgrade our teaching system with the inclusion of prolonged practical training and up gradation

of course material. We have also made mandatory an adhoc training, for teachers for brushing up their knowledge of the subject besides learning some tips on ethics.

• What is your assessment of the impact of Skill India Mission on training and employment?

It has definitely made a huge impact given the kind of training schemes, floated all over the country. Under the mission, Lakhs of young people are today being trained in different vocations under different streams, once trained fully, these young men and women will add to the overall economic growth of the country. Skilling is going to be the major factor in the economic growth rate.

What role do you see for academia in further strengthening the ongoing ling program?

Academic institutions can definitely contribute in this regard, particularly in the field of innovation and research. There are frontline institutions already engaged in such research. In future, the research and innovative findings will surely help in modernizing training and education. We must train them in a way that they work for the betterment of the society



• How do you rate TSSC 's participation in skilling in conjunction with AICTE?

Telecom Sector Skill Council is playing a very important role in skilling today. As we all know that telecom sector is expanding exponentially, and we wish it Godspeed. So, the role of TSSC is very much important especially for our engineering graduates. Our students in electronic, computer and mechanical streams are getting good grounding and hands on experience as never before. TSSC has a large number of experts and a huge network of industry, and this network is going to help students in a big way. Before joining AICTE, I was a director of a national institute, which was imparting training to technical teachers. TSSC experts were giving trainings to students, So, I know the usefulness of this sector. We have signed an MoU with TSSC, so our students will be taking training through TSSC, and it will be a great help.

• Is there anything new about the AICTE curriculum?

Yes, indeed, now the old curriculum has been revised. Under the current curriculum, around 50 per cent component has kept for skill part i.e. hands on training and 50 per cent for theory learning. Actually, without the hands-on training, our engineering graduates suffer from lack of

practical knowledge. Shall I say, the difference between China and India is that in China there is greater stress on practical training, which is not the case in India. That is the reason, Chinese are ahead of us in manufacturing. If you look at our GDP, around 15 per cent is coming from agriculture sector, 20 per cent from manufacturing and some 65 per cent from Service sector. While in China, 50 per cent alone is coming from manufacturing. And the reason behind this is, that their manpower is very much strong in the practical, and hands on part. The face of manufacturing sector can be changed, if our manpower is competent enough, particularly in hands on part. So, currently we are stressing on the hands-on training part.

• Any message that you would like to give for the youth?

Most importantly, an aspiring young man or woman has to be unique to be noticed. I must emphasize to them the need for enhancing skills and knowledge for upward mobility. I would also like youth to continue to make sincere efforts towards achieving their goals, and also always remember their mentors for the education, and help given to them in achieving success in life.

Dr. M.P. PooniaVice Chairman
All India Council for Technical Education (AICTE)



, like so many others, believe that education is a basic human right. The unfortunate reality is that there are so many roadblocks preventing hundreds of millions of people around the world from getting access to the world's repository of knowledge. In 2008, I decided something needed to be done to globalize and equalize education for all, so I set my sights on understanding how to create this change.

In 2013, I heard a speech given by Prime Minister Modi in New York City where he called for international educators to help support the education needs of his country and believed that India could support the world's growing workforce requirements. I agreed with Prime Minister Modi, so that same year I submerged myself into India's culture and over the years that followed, I began to understand the underlying issues contributing to the educational shortfalls experienced in the country. Issues were not just limited with access to content, but extended to collaboration, affordability, technology, internet connectivity, credential and skill validation, cultural differences, language barriers,

social class as well as the many learning variables within a geographically segmented population. Ultimately all these variables would need to be consolidated into one collaborative support system that recognizes the personal learning and work achievements of each individual and that could be accessible by global employers, educators, government and more.

Aside from the educational challenges of emerging markets, there are also global challenges around the current access and validation of a learner's certification, qualifications and equivalency to their respective countries. Due to the current centralization of information within each organization, learner credentials and information is not easily shared from institution to industry without manual validation. This lack of data interconnection between educators, employers and governments also make it difficult to support the lifetime learnings, skill proficiencies and experiences earned by individuals which could then be shared with confidence and transparency.



Blockchain as an emerging technology has the potential to not only change the financial sector, but the education one as well by encompassing all aspects of an individual's learning, experiences, aptitude, skills and more; opening the global potential for equalizing education and employment opportunities. The connection of such data would create an open and transparent system whereby global educators, employers and governments could access real-time validated credentials of an individual that go beyond a resume or interview. To make the system really work and provide the kind of data that validates qualifications or skills, all relevant educators or employers who have contributed to an individual's growth would need to participate in the blockchain education network. It is important to also understand that formal education should not be the only measurement of someone's capabilities, but is in fact only part of the criteria for consideration.

There are many individuals who do not have a formal education and, with over a billion people in India, part of the reason is that the educational system has been strained and is under pressure to support this fast-growing population. The reality is that there are not enough qualified teachers and brick-and-mortar facilities to support the needs of the country and as such, personal and professional experiences should also be considered when validating an individual's capabilities. While many international educators have been flocking to India in the hopes of tapping into the mass education opportunity, there are still many constraints preventing them from supporting the masses. These constraints can be summarized into two main categories; delivery and content.

While blockchain technology has significant potential for the education industry, key focus for emerging markets needs to be on establishing a global education and employment platform that can support the education needs of mass populations. In parallel, betterU will continue its efforts towards

advancing Blockchain technology to support global connectivity. Many of the world's leading tech companies such as Google, Facebook, Microsoft and Amazon are investing heavily into the development of technology, networks and the connectivity (delivery) side of the emerging market education puzzle. While this is critically important for delivery support, without the content side solved, India along with many other emerging markets will be faced with a fragmented education system ill equipped to meet the needs of the masses. This would potentially leave millions of people without access to quality education for many more years to come and unable to successfully participate in a blockchain education network. The education (content) side of the dilemma is complicated because it includes all levels of education across an endless spectrum of learning.

Additionally, there is no institution anywhere in the world who can provide content across so many age groups (KG-12), educational categories, skill levels, affordability, industries and many more. There are simply too many environmental challenges and educational variables from country-to-country and person-to-person for one educator to be everything to everyone. So, while many of the world's largest tech companies are focused on the delivery side of the problem, the educational side is still fragmented and disconnected.

The only way to solve the mass education problem from a content perspective, is for educators to be working together through a common marketing delivery platform. This platform would also be the starting point for educating world leaders and learners to the benefit of contributing to a blockchain education system. While many educators typically do not work together directly, either for competitive reasons or their target audiences are not aligned, the value of bringing them together onto one marketing platform would be significant.



This integration of global educators would provide an opportunity to support the flow of education into a country, organize the data in a centralized knowledge repository and then be able to map the data against the requirements of the industry. This repository could also integrate into a 'recommendation engine' that would pull content across multiple global educators automatically building customized learning solutions for individuals, mapped against their specific skill requirements while being aligned with global employment opportunities. While one educator might not have the solution for all individuals, hundreds of global educators could, which has been betterU's focus for many years. By leveraging our growing network of global educators, industry partners, employers, government and national learner base, we would also be able to help support the global advancements of blockchain opportunities for education.

Developing a globalized education ecosystem to support India involves content acquisition and delivery strategies which can be best explained as a combination of Amazon's product marketplace and Uber's asset light service model. Amazon for example provides access to a variety of different products from around the world through a single platform which is localized country-to-country. The consumer seeks out what they require across millions of products brought together by Amazon to help simplify purchase choice, convenience and confidence.

Uber on the other hand has scaled quickly around the world because their service and successes leverage a network of already established local drivers using their own vehicles. Uber simply provides the technology connecting the passenger with the driver while helping facilitate the local transaction. Imagine one educational delivery system (the product) that can quickly adopt and onboard content from anywhere in the world from leaders who have already built it (the service), no matter the subject, the technology backbone they use or the currency systems they work within. Then imagine connecting all these content databases together while leveraging the delivery systems being established by the tech giants. This is how transformative access to education can become a reality. 'Education for all' is achievable for India and other emerging markets when global educators, global leaders, industry, government and Ed-Tech companies all work together.

While these innovations come together to solve mass education challenges, blockchain technology can help equalize education and employment opportunities on a global scale. I am excited to be working at pioneering innovation for positive advancements for India and for the world.

Brad LoisellePresident & CEO of betterU

Globally over 40,000 Participants have gained the UTL Edge

Our Credentials:

- Providing training solutions to the leading IT, ITES, ESDM and Telecom Companies
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- Camps and Career Courses

Association with Telecom Sector Skill Council, Electronics Sector Skill Council, BFSI Sector Skill Council and Retail Sector Skill Council

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- skilling unemployed youth across Sectors

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For More Details Contact

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oT (short for the Internet of Things) has become a buzzword today. Not surprising, because its progress over the years, from 2010 to the present day, has been exponential. The term IoT was coined by Kevin Ashton, Founder of AutoID Center at MIT and is said to have been 'born' somewhere between 2008 and 2009, when the number of Internet-connected devices or Things, surpassed the number of people on planet Earth. It is predicted that by 2020, the number of devices connected to the IoT will reach 50 billion and this number is expected to double to 100 Billion by 2015!

According to The Mckinsey Global Institute Report of June 2015, if policy makers and businesses get it right, linking the physical and digital worlds could generate up to US\$11.1 trillion a year in economic value by 2025. More than 150 use cases were analyzed, ranging from people whose devices monitor health and wellness, to manufacturers who utilize sensors to optimize the maintenance of equipment and protect the safety of workers, to arrive at this potential economic impact of the IoT. The Internet Society (ISOC) has also recently released a 50-page whitepaper examining the opportunities and challenges associated with the IoT, titled, 'The Internet of Things: An Overview – Understanding the Issues and Challenges of a More Connected World'.

The opportunities presented by IoT for students and professionals of Computer Science and IT are tremendous! These are especially in the areas of Networking, Mobile Application Development, Device Management, Security, Business Intelligence & Analytics and Cloud Computing. Good technical skills in these enabling technologies will go a long way in not only promoting the development and deployment of efficient IoT systems, but also in imparting training to our youth and improving their job opportunities. These technologies have recently begun to come together and it is this confluence which is bringing the IoT to widespread reality.

For example, many current networking technologies like Bluetooth and Zigbee are being used in Device-to-device communication, together with newer ones like 6LoWPAN, which offers more interoperability, so essential when a myriad of device types are required to be connected. Networking technologies which offer conformity with Standards are the need of the hour.

Similarly, IoT implementations require new and unique security technologies to be developed, to ensure that their products and services are secure from vulnerabilities, especially as this technology become more pervasive and integrated into our daily lives. Closely related to security is the issue of privacy



of the users. Different IoT implementations will have different ways in which user data is collected, analyzed and used. Different strategies will need to be developed to respect individual privacy choices across a broad spectrum of expectations, while still fostering innovation in new technology and services.

IoT is also proving to be a game changer in the field of data science. Business Analytics (BA) has been surging ahead as a technology in the past decade and has created a strong hold over various business. It uses various tools to analyze and prepare data for use in strategy building by managers in businesses. Hence the easy availability of data through IoT devices, will play an important role in accelerating this process. Good BA skills are therefore going to be in great demand by corporates all over the world.

As far as Cloud Computing is concerned, it is expected that its volume will increase four times in the next few years. It has been predicted that only 8% of workloads will continue to be processed by traditional data centers and the rest 92% by cloud data centers. The amount of data generated by IoT is predicted to reach 600 Zettabytes (ZB) per year (1 ZB =1018 bytes), which is much more than all traffic from data centers to end users, at 2.2 ZB. Thus skills in cloud programming will become imperative for deploying IoT.

Management of large IoT device deployments requires a lot of cost and effort. In order to reduce this, and to make devices secure, Web Services are being increasingly used. This makes it easy to securely onboard, organize, monitor and remotely manage IoT devices at scale. It is also possibly to register devices individually or in bulk and manage permissions to make them secure. Troubleshooting device functionality and sending remote updates to the device is also becomes possible. Device management skills are, therefore, a major requirement of IoT.

Lastly, and importantly, mobile apps are today leveraging the IoT. For example, consumer wearables like health wrist bands, watches and glasses can be

connected to smart phones and data transferred between them. Similarly, enterprises of all kinds are welcoming this merger of mobile apps and IoT, to make apps for business, whether it is in smart home deployments or the healthcare industry. Hence persons skilled in mobile apps integration with IoT will be in great demand in the coming years.

All the skills mentioned above, and those in other skill sectors, have to be identified and nurtured through the combined and concerted effort of the Government, academia and industry. The policies and procedures for skill development and training, both theoretical and hands-on, have to be prioritized and efficiently implemented, if our youngsters have to be gainfully employed.

In this regard, the newly launched Bhartiya Skill Development University (BSDU) at Jaipur, is the first purely skills University in the world. Its mission is 'to create opportunities for skill development of Indian youth to make them globally employable'. As such it has started many undergraduate and postgraduate degree programmes in a diverse set of skill areas, ranging from Automotive, Carpentry, Construction, Electrical, HVAC, IT, Nursing and Polymechanics. Many more skill areas are being added every year.

BSDU follows the Swiss dual-system of training which mandates that every alternate semester, the student has to undertake an apprenticeship or hands-on training in the Industry. BSDU also follows the one-student-one machine concept, so that every student has a machine exclusively for herself to work and experiment upon.

The School of IT & Networking at BSDU has programmes in IT & Networking at the UG level and Embedded Systems & IoT at the PG level. A PhD programme in IT skills is also underway. It is also intended to start similar programmes in 3D printing technology, PCB manufacturing and Robotics technology.

Dr. Kumkum GargProfessor of Computing & Dean, BSDU

GLIMPSES of TSSC Initiative





TSSC partners with Udacity India Pvt. Ltd to drive skill development



enhance Skill Development



TSSC partners with BetterU Education to drive skill development



TSSC signed MoU with Sterlite Technologies to enhance skill development

GLIMPSES of TSSC Initiative





Mr. Kaustav Nath, SEO NSDC interacted with TSSC team on Southern State Engagement



TSSC partners with Jharkhand State Development Mission at Sector Skill Council Summit





A great initiative by TSSC Regional Head West- QP Validation workshop at Bangalore

GLIMPSES of TSSC Initiative





TSSC participated in Indian Mobile Congress (IMC) at Pragati Maidan, New Delhi



TSSC Regional Head Central, Mr. Vivek Ranjan met Dipak Kumar Singh, IAS Principal Secretary, Labour Resources cum CEO BSDM



National School Summit & Awards



TSSC signed MoU with ZTE to drive skill development

GLIMPSES of TSSC Initiative





Glimpse of Regional Heads & Staff Meet at TSSC Headquarters



TSSC to discuss new skill initiatives

GLIMPSES of



PLACEMENT DRIVES- FACILITATING LIVELIHOOD



TSSC participated in Rozgar Mela at Hamirpur. The response was huge and so many candidates returned home with flying colors



TSSC participated in Kaushal Mela organized at ITRC Udhampur, J&K



One of our Training Partner -Mahendra Skills placed 14 Candidates of Telecom In- Store Promoter in Surevin BPO Pvt. Ltd, Lucknow

GLIMPSES of TSSC Initiative







IBM and Telecom Sector Skill Council (TSSC) have reached an agreement to explore how the organizations can build technology skills across the telecom sector ecosystem in India. The organizations plan to provide students and young professionals with a program designed to train them in emerging technologies, including big data, cloud, IoT & mobile application development, which are critical for today's telecom sector.



TSSC- Annual General Body Meeting and Governing Body Meeting held on 4th September 17 at Bharti Enterprises Ltd.



ndia has witnessed a boom in the smartphone market and is considered as one of the fastest growing smartphone markets in the world. According to a Morgan Stanley research report, India is expected to overtake the US next year as the second-largest smartphone market, in terms of units. India's mobile handset market will grow nearly five times faster than the world's largest smartphone market - China, where growth has decelerated.

Earlier this year mobile manufacturing base in India reached astounding 100 million units. With new companies entering the stratosphere, Indian companies have made vital contributions in this milestone. As per the recent statistics, by 2020 India will become the 4th largest smartphone market in the world that can only be achieved once the nation's foremost companies take similar marquee establishment decisions.

In recent years, majority of smartphone companies have set up manufacturing units in India rather that procuring ready products from China. The first step to building a manufacturing eco-system i the smartphone category entails local assembling through emerging or established third party manufacturers. Taiwan-based Foxconn has two large scale manufacturing units in India, this reiterates the growing demand for manufacturing in India. The next step to making India's manufacturing ecosystem more robust is for companies to bring their complete infrastructure in India.

The demand for smartphones is growing exponentially in India specially in Tier II and III markets. Local smartphone manufacturing will contribute sizably growth of companies in India and the growth of the nation as well.

Government's 'Make in India' initiative has been pushing companies to invest in India and focus on local manufacturing. Quoting a recently released Government of India report, the mobile industry's contribution to the country's GDP currently stands at 6.5% (\$140 billion) and is likely to become 8.2% by 2020. When the government initially announced its plans to rebrand the nation as the new 'Manufacturing touchstone' of the world, many industry experts looked at the initiative with raised



eyebrows. With a 2.1% market share in global manufacturing the nation was in stark contrast with its neighbours China, the alpha dog in the global manufacturing game. But like every great story waiting to happen, the 'Make in India' initiative has gone down well in all aspects, especially in the electronics market. It also seeks to facilitate employment opportunities, foster innovation, boost skill development within the country. Other initiatives such as the 'Digital India' / 'Smart Cities' will certainly bring a boost for the mobile sector.

A complete manufacturing eco-system cannot ignore the importance of R&D. This includes the smartphones understanding of the Indian market and developing products that best suited for our country. The R&D department is also crucial as it sets the global standards for all its products and making sure they are in line with international norms.

In the 17-month period from Oct 2014 - Feb 2016, Make-in-India reforms have boosted FDI in India by 37%, India now is the 1st choice for MNC's and Tech companies to set up R&D centres outside their home countries. The telecom and electronics industry are well and truly poised to bolster India's domestic and manufacturing market, which is all set to touch \$440 billion by 2020.

The domestic consumer electronics and durables sector has witnessed a substantial amount of growth over the last few years. The sector plays an important part in the economy of the country and provides employment to millions across the nation.

With the long-term vision and continued support given by the government, India is on the right path to develop a complete ecosystem for manufacturing excellence.

Mr. Sanjay Kumar Kalirona CEO & Director COMIO





Government and Corporate need to create pull for SKILLING IN INDIA



feeling one gets after interacting with the 'complex' skilling infrastructure created over the past 6-8 years in the country is that the lack of assurance of skilling programs resulting in a definite job opportunity isn't keeping the entire initiative of skilling attractive anymore.

The reasons to that aren't very simple to find solution for. There is a definite need to perform a thorough assessment analysis and find out prescriptive measures that would help value add to the skilling initiatives benefiting the entire value chain; more importantly the individual undergoing skilling with a lot many aspirations riding.

With the way things are going at the moment across sectors in which skilling it done, we are creating an army of skilled as well as aspirational youth for whom undergoing skilling means a definite job placement. However, the reality is that all those skilled are not getting placed. It's not that simple to find out reasons to why that is happening. There are so many factors responsible for it; from a simple disparity between demand and supply to the quality of skilling and so on.

As per industry estimates at best there are 10% of the skilled people who land finding a job. So even after adding one more layer of increasing employability, skilling isn't making the job placement an easy walk.

While addressing fundamental things will take time; one of the quickest things in the hands of government as well as corporate members of the sector skills is assigning some points in final recruitment scores to the skilled certifications people would have. The job advertisements coming from government as well as corporate members of respective skill sectors should mention appropriate skill certifications as mandatory prerequisites for one to get shortlisted for a job opportunity. This would not only bring in skilled workforce to do the job but also spur demand in skilling programs resulting in paradigm shift in skilled to employed ratio.

This change might not be a very high level strategic augmentation. But, this kind of a tactical move is going to bring a lot of relevance to skilling across and the end-user beneficiary – the individual is going to find a huge direct value in getting skilled. It would be seen as a real value add helping individuals get jobs, one of the most difficult things to struggle with in present times.

So, while a person would be available in the market with the requisite skills, the seekers of such people, would be giving due recognition to the skills in the recruitment process itself resulting in Skilled India becoming Employed India and thus Happy India.

Mr. Faisal Kawoosa General Manager- Research & Consulting CMR





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> For any queries, you can reach Santosh Anand at santoshanandt.hyd@cnkonline.com



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The NEMPACT Job Center solves this through the Skill Aptitude and Level Test (SALT) that combines a physical interface with skill assessment.



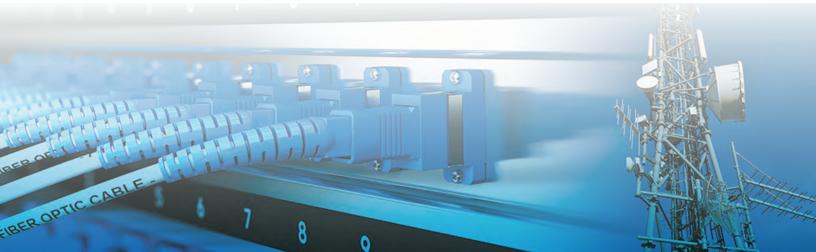
Skill Aptitude & Level Test (SALT)

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GLIMPSES OF LAUNCH OF RECOGNITION OF PRIOR LEARNING (RPL) CEREMONY

RPL LAUNCH CEREMONY OF U.P. INDUSTRIAL CONSULTANT LIMITED (UPICO)



RPL LAUNCH CEREMONY OF NMS ENTERPRISES LTD.





LAUNCH OF RPL CEREMONY



We have been talking about RPL and its types throughout. Now, I would like to apprise you about the RPL Type 4. The proposal on Type 4 initiated by NSDC/MSDE. As per the norms of RPL-Type 4, the Government proposes to recognize the workforce already employed with the relevant industry "Best in class employer", wherein the employees will be assessed and graded by the master assessors, nominated by the employing company. This will be in association with the Sector Skill Councils. The advantage of this RPL scheme 4 is that, a skilled employee who has been working in the industry over the given period of time, will get an opportunity to be certified. The industry will also be beneficial, as this will set as a motivational factor for their employees.



"AN ENLIGHTENED WOMAN IS A **SOURCE OF INFINITE ENERGY"**

Swami Vivekananda

Mr. Arun Bhardwai CEO and Director, Uday Skills

hen I addressed a meeting to mark the 'National Entrepreneurship Day' organized by MSME ministry last November, I discovered even though many women wanted to do business, yet I found government officials lamenting that not many women are coming forward to take advantage of the Government schemes in this regard.

As it were, government is providing collateral free loans up to Rs. Two Crores, subsidy on loans up to Rs. Twentyfive lacs and incubation centres etc. Today many women are engaged in entrepreneurial activities. According to the National Sample Survey Organization, only 14 per cent of business establishments in India are being run by women entrepreneurs. Of the nearly 4,400 start-ups surveyed, fewer than one in 10 were founded by women, according to industry body NASSCOM.

In order to assist women entrepreneurs, the government has introduced a slew of initiatives to empower women and aid them in leading a sustainable life.

Support to Training and Employment Programme for Women (STEP): The Ministry of Women and Child Development introduced the 'Support to Training and Employment Programme for Women (STEP)' scheme to provide employment to women. Under this scheme, women above 16 years of age are provided training to help them become self-employed.

Women's Vocational Training Programme: With a view to promote women 's employment, a vocational training programme was introduced in by Union government. As part of this programme, women are trained under the Craftsmen Training Scheme and Craft Instructors Training Scheme.

Digital India: A first Women Village Level Entrepreneur Conference that was held in March 2015 to ensure women" s involvement in the ongoing Digital India programme. Similarly, stand up and star up India programmes are involving women.

Start Up and Stand Up India: Both the Start Up and Stand Up India initiatives empower women entrepreneurs and provide financial assistance to those who are setting up their businesses. The programs also aid those who have already established their business but fall under the startup category.17

Through these schemes, the government aims to turn women from job-seekers to job-creators.



Some of the essential ingredients for women entrepreneurs to scale successfully are:

Clarity of thought and a firm drive: Women must be of strong intent and be decisive of the purpose of establishing her business

Constant investment in learning: They must acquire necessary to pursue the business growth. They must attend events, seminars, workshops as awareness is created A little investment in terms of time and learning can go a long way for your business.

Learn the fine art of knowledge/learning-based networking: Women are natural conservationists and as such networking should be done by them with the angle of knowledge and learning.

Build a Support system: Women, especially, recognize the value of support system and encourage the support and integrity of being there for each other, as they understand better the similar challenges faced. It is a bringing together of positive energies and create an atmosphere of growth and encouragement for all.

Coach and Mentor: It's very important for a budding career women entrepreneur to find a 'coach and an effective mentor' before she begins her journey. While a coach can give her an objective feedback and work with her to fine tune her plans and execution, a mentor can give her the industry perspective, co-create business plan and guide her on a day to day basis to help her in implementing those plans.

It is clear that women entrepreneurs can play a significant role in contributing to the GDP of the country and move from their traditional role of 'home maker to change maker'! With all the support system in place, there is no better time than to start your 'startup' now.

"Tamasoma, Jyotirgamaya" (a line from a verse in the Upanishads, meaning, 'From darkness, lead me to light')

Mr. Arun Bhardwaj, CEO and Director Uday Skills



*GLIMPSES of * * * TSSC 5TH YEAR ANNIVERSARY CELEBRATION



Celebrations & Activities **TELECOM SECTOR SKILL COUNCIL





TELECOM REVOLUTION IN INDIA

NAVIN BHATIA

Managing Director, Navkar Skills

t was year 1998 I was travelling by a flight from Bangalore to Delhi, sitting next to me was an American technocrat cum investor, we started chatting he was full of praise for China as their leadership was in the midst of creating a mega telecom revolution by laying optical fibre and he further articulated how China in future (25 years from now) will create a huge digital economy. He said India has no telecom story just the buzz.

In 2008 I was part of Bharti Airtel CEO annual business conclave in Macau (China); Bharti Group Chairperson Mr. Sunil Mittal had invited some board members from China Telecom as speakers to address us. Chairperson of China Telecom was full of praise of Indians (not India), he said it is Indian entrepreneurs at multiple levels in telecom value chain which are causing huge growth of telecom in India. It is because of their efforts, India will surge ahead of USA & will be at par or ahead of China in digital revolution led by telecom. He & the other board members of China Telecom bowed before us to honour the great spirit of Indian telecom entrepreneurs.

As year 2018 dawns India has 130 crore telecom subscribers, 121 crore Aadhar card holders, 50 crore internet subscribers, 4 G network and Bharat net which will bring broadband to 3 lakh villages in India. The great futurist Thomas Friedman recently wrote a beautiful article in New York Times where he wrote

"India is trying to leapfrog out of poverty by engaging in rapid digitization of entire economy & power grid. World where data is big oil India is creating a giant pool of digitized data& their innovators and entrepreneurs are creating innovative application in education, healthcare, banking, finance, energy, entertainment & governance.

My fellow traveller from USA in 1998 from a flight from Bangalore to Delhi could not comprehend power of Indian entrepreneurs and could not visualize the great future which Indians telecom entrepreneurs all levels were capable of creating 20 years down the line through their dedication, passion &hard work. The telecom story created by the great Indian telecom entrepreneurs is now slowly unfolding before the world.

The Indian telecom story is built on favourable & flexible Government telecom policies, great vision-risk taking & execution abilities of telecom service providers, brilliantly crafted win -win outsourcing partnership models between telecom infrastructure & equipment providers with telecom service providers. One story which is never highlighted is the world class high skills of employees of telecom providers at all level and their business partners & their employee's skills across length and breadth of urban & rural India. I was fortunate enough to work as Director Learning of Reliance Infocomm from



2003 to 2006 & Dy CEO of Bharti Learning from 2006 to 2011 and was accountable to build world class telecom domain skills, behavioural skills (customer communication, team work leadership) & entrepreneurship skills. It was an era of telecom growth where telecom professionals across all levels honed & sharpened their skills & behaviours and a great talent pool was developed in telecom sector.

How world class skills were developed amongst telecom employees & Entrepreneurs across India?

A Creation of Corporate University for Telecom Professionals

Most large telecom service providers in India created on pan India basis a corporate University for frontline employees & channel partners employees to enhance sales, customer service, supervisory, domain technical & entrepreneurship skills. The Telecom University delivered the following on consistent basis to the telecom professionals

- 1-Each role holders three level of learning plan documented based on tasks he/she had to perform (Role Based Learning Plan-RLP).
- 2-Each role holder's certification path based on performance outcomes & skill acquired (Assessment & Certification).
- 3-Each individual skills-learning-certification and performance record
- 4-A standardize learning defined for all the employees either on company's role or on partner/franchisee payroll.
- 5-A reservoir of content on portal in form of participant books-videos-faculty guide.
- 6-A pool of certified trainers as per functional expertise.

- 7-An image amongst all stakeholders as learning organization
- 8-Recorded region wise role wise skills & performance improvement.
- 9- An enhanced involvement of line supervisors &senior management towards achieving goals through people.
- 2-Creation of Entrepreneurial-professional culture amongst leaders and entrepreneur /business partners (through workplace projects)

Smart to Wise - Acting and leading with wisdom through

Perspective—what influences and shapes leaders world view

Action orientation—how leader is driven to act or not to act

Role-clarity—how he chooses a role &identifies with it

Decision Logic—what framework he uses to decide Fortitude-how he determines when to hold and when to unfold

Motivation-what inspires and drives a leader's actions and decisions

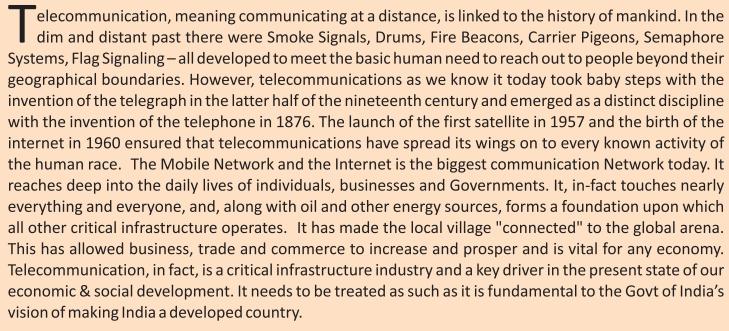
During the decade 2002-2012 telecom industry leaders were grounded in deep human values to build peoples (our own & business partners) capabilities as successful professionals and entrepreneurs with focus on future for a digitally connected India.

Navin Bhatia
Managing Director, Navkar Skills



BRIG VINOD PANT (RETD)

Head Operations & Technology Telecom Sector Skill Council



The "Digital India" initiatives and "Smart City" projects will greatly leverage a robust, reliable, omnipresent and secure telecom network. As per a Government of India report, the mobile sector's contribution to GDP which is presently 6.5 percent will increase to 8.2 per cent by 2020. It is also estimated that around 78 lakh youth will be trained in different streams of telecom technology in the next five years. This estimate stresses the need for quality of skilling in this sector. The present churning in the Telecom sector, is going to see a paradigm change in the way we see Telecom today. The digital revolution is making the legacy voice centric communications obsolete and the technologies of today are being phased out. The Telecom sector is therefore seeing a major retrenchment of manpower as businesses learn to adapt to the changes. The induction of newer technologies necessitates reorientation of existing manpower and induction of fresh manpower having the requisite skills. The Telecom jobs that get created, after the present churn stabilizes, will be distinctly different from today and need skills for the emerging technologies.

0



The coming together of Information, Communication Technologies, Electronics and Cyber Security (ICTEC) has vastly enhanced the power of the Internet. The Internet of Things — an amalgamation of devices and sensors—interconnected and controlled over the network, handling of large volumes of data created by the communication systems itself as also the data running on the network, Data Analytics on this vast amount of data to meaningfully adapt and operate the Telecom Network and the overarching need of Network Security to protect the systems and information residing on the network will drive the skill needs in the foreseeable future in the Telecom Sector. The technologies driving this change are summarized below.

EMERGING TECHNOLOGIES IN TELECOMMUNICATION

ICTEC What constitutes telecommunication in the digital age today, where boundaries dividing Information Technology and Telecommunications have blurred? It is important to answer this question before we start looking at the skills we need to impart to our workforce in the telecommunication sector. In-fact, Telecommunication is ICTEC as there can be no ICTEC without telecommunications. The Mobile has been a major skill enabler, killed the tyranny of the rich, reduced cost of business, done away with the need of an address. Its major contribution has been to leave people free to think of unknown possibilities. In the era of the Internet of Things, Telecommunications cannot remain the dumb pipe that transmits voice and data. Falling revenues of telecommunication service providers points to this fact. There is already an imminent shift in business models that is visible. We, therefore, need to look at the technologies that will drive the Telecommunication industry over the foreseeable future.

Internet of Things Internet of Things will ensure millions if not billions of devices to interconnect. The mobile phone will drive the growth of telecommunications. Up-scaling of networks would be critical as data volumes explode. Related technologies will therefore take centre stage and telecommunication companies will have to adapt to this explosion. There will be a major need to upgrade the skills of the workforce, especially at the top end of technologies. Even as our present stress on skilling the workforce at lower levels of technology continues, high order skills that will be critical to run the systems of tomorrow will have to be integrated into the curriculum of our institutions of higher learning.

Content In the ultimate analysis, however, content will be king. Today, content, service and product deliveries are taking the major share of the telecommunication revenues as opposed to the core services. Telecommunication business models would therefore have to compete with content providers and will have to adapt to build horizontal layers over their networks to compete with new disrupters that are changing the very nature of businesses.

Security Another major driver for telecommunication systems will be Security. The network is the threat and as custodians of the network, telecommunication companies sit at its very foundation. As users will demand and expect foolproof security of operations, information security will take centre stage. The telecommunication companies will embrace this trend and look at technical and operational innovations that will ensure building of secure networks bottom upwards.



Big Data The above-mentioned trends will lead to the proliferation of Big Data Applications in the Telecommunication sector. The telecommunication companies are the repository of massive amounts of data from mobile phone usage, call details, billing data, server logs, social networks etc that ensures reliable movement of traffic. This data also provides lots of information about the customers. Telecommunication is thus not only enabling huge volume and velocity of data flow to content providers, but also possesses data that can assist content providers to understand their customers better. The need of content service providers to quickly respond to events, security and reliability implies telecommunication companies can look at building business models to collaborate with Content Providers and profit from big data analytics. Customer acquisition and retention, network services optimization, and security are the three major verticals where there are overlapping interests.

Block Chains Traditionally, blockchains have been associated with cryptocurrencies and have been of interest to financial institutions, regulators and enthusiasts. However, the new features introduced by second-generation software blockchains like 'smart contracts' – agreements formalised in code – and private, or permissioned, blockchains open up possibilities in other fields also. Companies that venture into these new fields will have the first user advantage. The uses could vary from managing phones roaming on different networks, immediate authentication of people and devices, internal processes like Operational Support systems (OSS) and Business Support Systems (BSS), fraud management, identity management and so on.

Businesses that embrace the above technologies will remain ahead of the curve even as new challengers will use these disruptive technologies to unsettle established players. The Telecom skilling eco-system needs to also adapt to the above changes that will result in a paradigm change in the Telecom Sector as we have known it.

Conclusion The telecom Sector has been the driver of the new age businesses and one of the largest employer. There is a paradigm change taking place in the sector due to the induction of newer technologies. The present churning in the sector will stabilize and the industry again require a large pool of manpower skilled in new age technologies to drive the telecom networks of tomorrow. We live in exciting times as technology opens up limitless possibilities. As new business models emerge we may well see the emergence of new telecom giants and probably look back, in some unforeseen future, to these times with nostalgia.

Brig Vinod Pant (Retd)

Head Operations & Technology
Telecom Sector Skill Council

SKILLING THE CSR WAY



Skill is Strength, Strength is Power. Therefore, 'to skill is to empower'. This is the whole point of skill development and it also gives impetus to 'developing' the skill scenario in a well though-out strategic way for the overall economic upliftment of a country. In India, the high decibel buzz is there around the term 'skill' and everybody seems to jump on the skill bandwagon and why not. There are immense opportunities for growth to all stakeholders in the fertile and promising skill ecosystem. While all this is great for a 'skill ethos' to develop, steps need to be taken to ensure streamlining and smooth sailing of skill processes as skill development is a powerful tool for economic upliftment of the masses especially the youth of India and right strategies of skill development will



reap the rewards in terms of reach, quality and employment achieved of the Skill India Mission.

To Skill is an amazing social responsibility. The amalgamation of skill development in the CSR programmes of corporates is a great way for societies and the countries to benefit from. It is very encouraging to see Corporate spending on CSR increasing every year. According to recent data, corporate CSR spending has crossed Rs 18,600 crores in the last two years. It is also very encouraging to see corporates focusing on skilling the people through their CSR and coming up with their own skill development centres. CSR spending focused on skill development is a big step forward for corporates to help bring about positive change in the society and promote avenues for sustainable development and inclusive growth.

It is also important to impart training of handling technology and technological changes in today's time to the marginalised, largely underserved and economically challenged strata of society to make them technologically educated and participative to the Skill India Mission.

Telecom Sector is a magnanimous sector. It has a huge demand of manpower. Thus, skilling and up/reskilling requirements need to be addressed regularly. The Telecom job roles mostly, but not all, require adequate equipment and infrastructure for skill training to take place. Therefore, the importance of contributing CSR funding towards skilling in telecom domain will be contributing a lot to the upliftment of the morale and livelihood of weaker sections of the society.

Providing quality skilling improves the security quotient of the masses. A sense of security in the masses helps sustainability thrive in an economy. The vision and mission of CSR has to work towards sustainable goals and skilling is the right platform for it. Albeit not without challenges, the opportunities are enormous for corporate social responsibility to thrive and deliver effective, impactful results.

The coming together of Corporates and communities for skilling surely ensures a bright future for both the stakeholders involved. Besides, it is also the need of the hour. Skill is no less than Gold. Let us all invest in it for a wonderful future for all of us.

Shahana Qutab Research Consultant, TSSC

SKILLING MAY HELP REDUCE MIGRATION FROM THE HILLS



Mr. Rajendra Nailwal (Freelance journalist & Columnist) (Formerly associated with The Times of India)

mong the young, who is not thrilled at the prospects of getting a wonderful job anywhere which provides him or her adequate compensation and sufficient satisfaction. This indeed is a universal scenario particularly in the developing countries like India which is now witnessing a demographic dividend in terms of youth population. But the fact is, that this young population needs to get equipped with knowledge and skills for securing gainful employment.

In the light of this fact, Prime Minister Narendra Modi's Kaushal Vikas Yojna can be appreciated and understood. How Prime Minister Modi enunciated the idea of preparing the willing youths to become qualified and experts in different vocations after sufficient training is matter of extensive study. How the trained young people are being placed in gainful employment is getting noted today.

"Skilling is building a better India. If we have to move India towards development then skill development should be our mission", Prime Minister had observed from the ramparts Red Fort on August 15,2014.

And its three years from that time that much more has been achieved in the training of young men and women in different vocations.

Taking a cue from what Prime Minister, the sub - Himalayan State of Uttarakhand has come a long way since, then in the matter of providing vocational training to the youth of the state. Uttarakhand is one of the not so advanced state in the country, where the problem of migration of able-bodied young people to other states is rather serious. Hundreds of young men and women migrate from the rugged terrains of the hills to look for greener pastures. The problem very old and even after the formation of the state in November 2000, situation has not changed.

But the Hon'ble Prime Minister's Kaushal Vikas Yojna has kindled some hope that this trend would reverse gradually. According to official sources, under the current training programmes, being conducted by the Uttarakhand Skill Development Mission, some 1 lakh youth would have received full vocational training by 2020.



"Some 13800 youth will undergo vocational training every year", says Uttarakhand's finance minister Prakash Pant as the state government is trying move rapidly in advancing skilling programmes specially in the context of the unabated problem of migration.

Presently some 23 thousand youth are undergoing training in different vocations in some 300 Training Centres scattered over thirteen districts "says Ms. Sweta Uniyal, manager mobilization and placement in the Uttarakhand Skill Development Mission (USDM). Under the present skill development programmes some twenty-seven segments have been put in place for training of the aspirant youth. State's Skill Development Mission has already executed MOUs with some twenty-two Sector Skill Councils for providing training in various marked linked skill training programmes. MOU has also been signed with some 120 private partners.

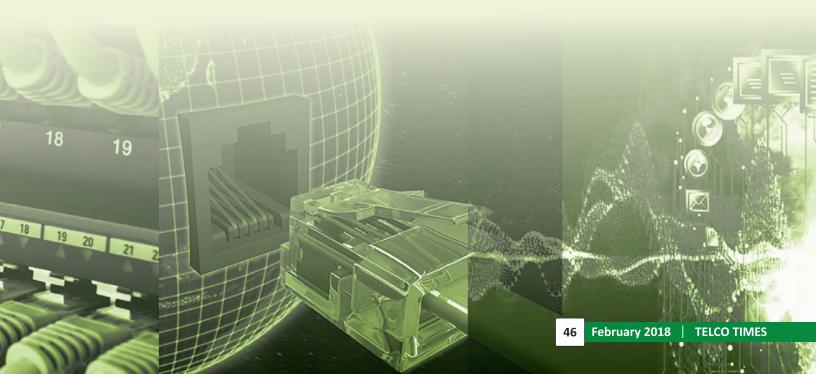
In fact, State Skill Mission also conducted training programmes for jail inmates in Dehra Dun, Haridwar as well as in Nari Niketan this year. The state Mission also sent middle level officials on a study tour of Hyderabad and Jaipur to understand how the skilling programmes were being conducted in Rajasthan and

Andhra Pradesh. In the meanwhile, advisor to the Mission, Mr. Shavez Baksh expresses confidence that the sustained implementation of the training programmes would surely help in reversing the process of migration of youth form Uttarakhand to other states.

It is worthwhile, to mention here that state Uttarakhand Chief Minister Trivndra Singh, has also evinced a great interest in the training of states youth in vocational streams. According to him, the ongoing training under the Central mission could play a significant role in reversing the migratory trend in the state. He shares the view that, the earlier such training programmes conducted in the state during pre-and post-Uttarakhand formation, had several defects. Mission's head, Dr. Pankaj Kumar Pande is hopeful now that the ongoing efforts would generate an efficient ecosystem for the states youth to get the desired employment opportunities.

Rajendra Nailwal

(Freelance journalist & Columnist) (Formerly associated with The Times of India)



VOCATIONAL SKILL TRAINING

in the current scenario takes place on the demand side i.e the Industry.



MR. SUPRATEEK GULIA Head- Academia Connect, TSSC

t has been a pleasure being associated with Telecom Sector Skill Council in my capacity as the Head of Academia Collaborations.

It is not without reason that the Indian academic system standalone is one of the best systems in the world. However, despite the good system in place, we are finding a drop in admissions, poor placements, and a gap between the requirements of the Industry, and what is being produced by the academia.

The result is that we have a huge pool of academically qualified students on one hand, and on the other, there is a huge pool of opportunities for livelihood including jobs, but unfortunately there is very small meeting ground. This needs to be addressed. There is a demand and supply gap between the Industry and Academia not stemming out of numbers but out of lack of desired skill sets. Vocational skill training, in the current scenario takes place on the demand side i.e the Industry. The need is to incorporate this skill training on the supply side itself i.e the academia. A solution based out of the supply side stakeholder will not only increase the acceptance of the students by the industry hence increasing quality placements (an important performance metric for a college) but will also decrease the cost for the industry(an important performance metric for the Industry) in terms of reduced training cost and increased quality. These are undeniable advantages to both the Industry as well as the academia flowing out of a simple tweak to the system.

The Telecom Sector Skill Council in our constant endeavour to stay true to our role in Skilling India is already proposing solutions to the above mentioned gap. I would appreciate the Far sightedness of Lt Gen SP Kochhar, CEO TSSC and also the All India Council for Technical Education wherein both parties proposed a solution to address the skill gap for students coming out of technical colleges in India. As you all know, a student at a technical college is required to do an Industrial training during his/her course, which is aimed at equipping that student with a skill set of his choice, hence, enabling him to look out for relevant jobs. In short, this exercise is mandated in order to increase the employability of a student. But what happens on ground is far from what was envisaged. Students do not get the right opportunity to get an Industrial Training while some also seek certificates without actually being trained on any skill.

Now, the proposed solution offers to train these students at their college itself leveraging the expertise of TSSC and our partners. All of these trainings (TSSC Courses) will now be equivalent to Industrial training (as per AICTE). Low cost, actual skill acquisition and equivalence to the mandated training, all key boxes remain checked now. We already have gone to market with this solution and the response has been tremendous. Most great initiatives begin with a simple idea. We have tried to keep it simple and effective in order to not disturb the existing systems in place but to leverage it and bridge this Skill gap. Success is often quantified, but the hedonic pleasure of being able to empower people has no parallel. In my endeavours at TSSC so far, I drive pleasure out of getting the opportunity of being a clog in skill ecosystem and being able to make a change. Today's youth is India's future, empower them now to empower India.

Suprateek Gulia

Head-Academia Connect, TSSC



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Telecom Manthan 2018

COMING SOON...

Voice&Data in association with Telecom Sector Skill Council is organising "Telecom Manthan" a meeting of Telecom Ecosystem & Talent pool in India. It is set to be a vibrant brainstorming session involving all the Stake holders.

HIGHLIGHTS

- 1 Day Forum & Recognitions
- 300+ Business Decision Makers
- Power Packed Sessions
- Keynote Sessions

KEY SESSIONS

- Telecom as a Driver of Change- Challenges and Opportunities
- Emerging Telecom Requirements- Enabling Students to be Job Ready
- Managing the Talent Supply Chain- Synergizing Industry-Academia Relationships
- How can Industry and Academia leverage their respective Expertise to Deliver Skilled Workforce and Entrepreneurs
- · Emerging Skill Ecosystem for 'Digital India' and 'Skill India'
- Present Scenario of the Skill Ecosystem and the way forward for Powering the Skill Ecosystem in Collaboration with all Stakeholders



SPEAKERS



Akhil Gupta Chairman, Bharti Infratel Ltd.



Arvind Bali CEO & Director,



P Balaji
Director-Regulatory Affai
Vodafone Telecom



Lt Gen Dr. SP Kochhar (Retd) CEO, TSSC



Ravi Shankar Rai MD, Savitri Telecom



Kumkum Garg Dean, Bhartiya Skill



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IN NEWS





टेलीकॉम सेक्टर रिकल काउंसिल और आईबीएम इंडिया के बीच हुआ समझौता



TSSC signs MoU with Udacity India Pv Ltd over skill development initiatives

nber 7th, 2017 02:10 PM IST



To drive skill development for youth in India and better livelihood opportunities, Telecom Sector Skill Council (TSSC) signed a Memorandum of Understanding (MoU) with Udacity India Pvt. Ltd. This partnership will provide students, training opportunities and core skills which help them to prepare for the jobs of tomorrow. Students will also get career support from Udacity Career Services and TSSC's







टैलीकॉम सैक्टर में लाखों नौकरियां



Business Standard

TSSC, IBM collaborate to spur emerging technology skills within Indian telecom industry

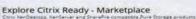














ALSO READ Titan using IBM Cloud. Wats technology to up customer base

IBM, Red Hat collaborate to accelerate Hybrid Cloud Adoption with OpenStack

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ed Hat collaborates to Cloud adoption

The organisations plan to provide students and young professionals with a program designed to train them in emerging technologies, including big data, cloud, loT and mobile application development, which are critical for today's telecom sector.

Under the program, IBM and TSSC plan to develop an innovative curriculum, designed by rechnology experts from IBM and domain specialists from TSSC. Students will have access to relevant IBM software and platforms, including IBM Cloud, IBM Watson IoT platform, Big Data Solutions as well as mobile

नवभारत टाइम्स

UP को टेलिकॉम सेक्टर में हर साल मिलेंगी 1.5 लाख जॉब्स

इंदिरा गांधी प्रतिष्ठान में आयोजित सेमिनार में जानकारों का दावा

एनबीटी, लखनक

क प्रनासीटी, लखनऊ

प्रावाइल को कहती जरूरतों को देखते
हुए पिछले कुछ वर्षों में देशिनकीम
संबदर में उद्याल आध्या है। अगले
पंच सालों में देश में 76 लाख से
ज्यादा नौकरियां टेशिनकीम संबदर के
उद्यादा नौकरियां टेशिनकीम संवदर के
उद्यादा नौकरियां टेशिनकीम लगाविक को दोलमार देशा है।
मंगलनाद को डीटेश मांची प्रतिच्छान
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से पार्टी संख्या स्वादा प्रतिकास कर पुरसंदर्भ किया। उनके समझ कीतिरिका
संख्या विलोगा अध्याल, दिलाकीम
कार्योशन के सेंबर उननीश कुमार



टेलिकॉम संवटर स्थिका कार्जसिल के सीईओ ले. जनरल ओ. एसपी कोफड़ ने बताया कि ब्रॅकास्ट्रकबर के बीई में बर्तमान में 1,40 लाख लोगों की जनस्व है। यूची में प्रियंत एक से डेड लाख लोगों को हस स्वेटर में मेंकिम मिलने की स्थानता है। उन्होंने यात किया कि दिव कार्जस्वित असले पांच सालों में 45 लाख यूचाओं को पिसिक्रित कर कुशत बनाएंगे

टीसीआईएस के सीएमडी अनुपम श्रीवास्तव सहित अन्य लोग ॥ बीएसएनएल के सीएमडी भीजुद रहे।









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