



Q-ZINE

Bimonthly Newsletter

National Institution for Quality & Reliability Chennai Branch

Round Table House, First Floor, No.80, Nungambakkam High Road, Chennai - 600 034.
Ph: 044 2827 1530 | Email: niqrchennai@gmail.com | Website: niqr.in

SEP. - OCT. 2017



President Speaks...

Dear Quality Professionals,

I hope the festival of lights this year had enhanced illumination, prosperity and peace; my best wishes to you and your family. As you are aware, in November 2016, we had initiated a program "Quality for Industry 4.0 - QFI 4.0" to drive digital movement across the industry. The reason why team NIQR took this initiative can be better explained through a famous quote from Mr. Ratan Tata "None can destroy iron, but its own rust can! Likewise none can destroy a person, but its' own mind set can!".

Yes, only to break this mind set of our industry people towards digitization, NIQR is driving the movement QFI 4.0. Good news is that we are soon going to partner with Industry 4.0 cluster program across the country. Our core activities viz. Six Sigma, Lean, Clusters etc. are simultaneously going strong. We will soon launch specific programs on Reliability, Metrology and other crucial topics. Our recent collaboration with ASQ - American Society for Quality, will reinforce this drive.

We have also been closely associated with the Quality Council of India to drive the **Zero Defect Zero Effect (ZED)**, a national program which is aimed at not only addressing quality of systems & processes and the waste that results from producing the products, but also to get a commitment from the manufacturers to do business with highest ethical standards and providing the safest working environment. While we continue our efforts to promote awareness about ZED, we need to accelerate our efforts to motivate & support the MSMEs to come forward for this certification and help "Make in India" mission.

I am sure that with usual zeal to excel, our institution will not only get strong across the country but also spread wings globally.

Warm regards
P.K. Aggarwal

The screenshot shows the NIQR website homepage with a navigation menu (HOME, ABOUT US, ACTIVITIES, AWARDS, MEMBERSHIP, FRANCHISES, CONTACT US) and a main banner for "Industry 4.0 mission" featuring Mr. K. Manikandan. Below the banner are sections for "Quality", "QFI", and "Reliability". A central article titled "How National Institution for Quality and Reliability (NIQR) Was Born" is featured, along with a "Publications" sidebar and an "Activities" sidebar. The footer includes copyright information and social media links.

Q-ZINE

From Chairman...



Dear NIQRians,
Heart Felt Deepavali Greetings to all of you...

Let this Deepavali annihilate all the darkness in all of us and also in NIQR.

I am happy to inform that we have been able to touch more than 8000+ hearts with our Quality for Industry 4.0 message. I would like to place on record my sincere appreciation to our Mr. C. V. Gowri Shankar - Secretary Chennai Branch for his major contribution towards this wonderful achievement. NIQR has become the pioneer in this subject now and various other organizations are now approaching us to become partner in this noble cause for the country. Soon, we will take this to the next level of showing to the world how a smart factory will look like. We are now dreaming to build a model smart factory here in Chennai.

In our digital journey, NIQR's website has been revamped and enriched and has become contemporary and responsive with more information to lure more members for our cause. The next steps are on the anvil and you all will feel it very soon.

Let us Dream Big, Think Big and Become Big!...

K. Manikandan



From Secretary...



We conducted Industry 4.0 awareness programs in colleges in Coimbatore and Madurai. With a coverage of 8500+ minds now, and with all your support, we are proud to feel that we are on the right path to achieve our mission of 20K.

The 11th Students Chapter of the NIQR Chennai Branch was inaugurated at Manakula Vinayagar Institute of Technology in Puducherry on 16th September 2017. We have plans to start student chapters in two more institutions in the next couple of months.

With Industry 4.0 getting prominence in various forums, it was felt some special lectures on some of its components would further interest the practitioners. 'Internet of Things' by Ms. Muthulakshmi and 'Skills for Industry 4.0' by Dr. N. Asokan were two such carefully selected lecture meetings which were well received. There was also a lecture on 'Awareness on IPR' by Mr. S. Prabhunarain. We have planned our Annual Memorial Lectures in October and November. The good patronage by the members in the recent lectures gives us encouragement to organise two lecture meetings every month.

During Ayudha Pooja Celebrations in our office, our revamped new website was launched - visit www.niqr.in - enrollment of new members will start soon.

Wishing you all a Happy and Safe Deepavali,
C. V. Gowri Sankar



**NIQR welcomes the new members
who joined during September October 2017**

Individual Life Members

Ms. S. Vedavalli, HR Manager - CIPL
Mr. Dinesh Uthayakumar, CEO - DU IT Consulting
Mr. V. Yuvaraj, Specialist - Global Quality Vestas Wind Tech

Individual Annual Members

4 Members

Institutional Member

RMK Engineering College
Hindustan Institute of Technology & Science

Individual Annual Student Members

95 from Manakula Vinayagar Institute of Technology, Pondicherry
200 from RMK Engineering College, Gummidipoondi

Chennai Branch Activities

Monthly Evening Lecture Programs

August 2017

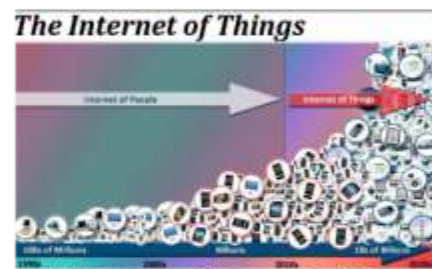
On 26th August 2017, Ms. Muthulakshmi Selvakumarasamy, CMD of Labtech Electronics Pvt. Ltd. Chennai delivered a lecture on "Internet of Things" at NIQR Conference Hall. Mr. C. V. Gowri Sankar welcomed the gathering and introduced the speaker.

IoT is such a vast subject – Ms. Muthulakshmi has to be complimented for giving the entire spectrum in about a 100 minutes module (session extended on popular demand) and it is more difficult to publish the contents of the module in this newsletter.

The speaker started with an excellent video depicting the scenario in a connected home at present in some western countries (maybe in India after some years).

As part of disseminating the subject, she covered the following sub-topics;

- What is Internet of Things (IoT)
- IoT Introduction and Architecture
- Sensors and Actuators
- IoT Communication Protocol
- Web Services
- Cloud Computing
- Big Data & Visual Analytics
- IoT Product Design



IoT & Industry 4.0 connect

For starters, IoT is a Link between the physical world of things to the virtual world of internet offering a multitude of new opportunities. IoT has been around for quite a while (from 1997), but only recently has become affordable and the growth is exponential recently.



She detailed the applications of IoT in different fields with examples – smart parking, healthcare, lighting, retail store, logistics to name a few. The Q&A session was very lively and has to be cut short due to time constraints.

Mr. T. S. Rangarajan, Enterprise Risk Officer, TCS summed up the proceedings and applauded the speaker for the way a vast subject has been presented in a short time.

Dr. Kalaiselvan, Director Anna University, released the Jul-Aug Newsletter and the first copy was received by the speaker. Ms. R. Ramya of WABCO India honoured the speaker with a shawl and Mrs. C. V. Gowri Sankar, NIQR Life Member honoured the speaker with a memento.

Mr. C. V. Gowri Sankar proposed the vote of thanks.



Ms. Muthulakshmi Selvakumarasamy has a BE (ECE) from CEG, MBA from MIT and ME (Applied Electronics) from Thiruvalluvar College of Engineering, Anna University. She has 23 Year of experience in Design, Development, Technology Forecast and Planning, Technology Transfer and Technology Commercialization in Engineering, Educational Products and Industrial Automation Products and developed more than 50,000 Products and Dedicated to Engineering Educational Institutes and R&D institutes and to Industries. Currently she is CMD of Labtech Electronics Pvt. Ltd. Chennai.

Monthly Evening Lecture Programs

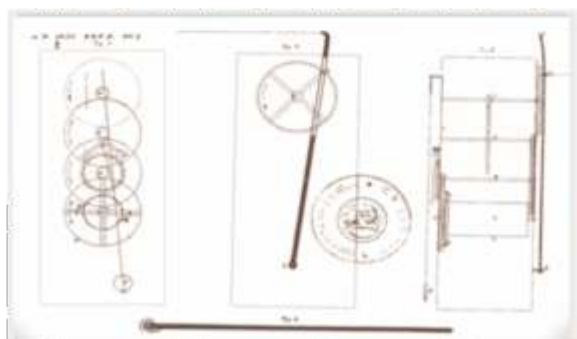
September 2017

On 7th September 2017, Mr. S. Prabhunaraïn, Director - IPR Division, Gagnant Financial & Legal Consultants LLP delivered a lecture on "Awareness on IPR" at NIQR Conference Hall.

Mr. C. V. Gowri Sankar welcomed the gathering and introduced the speaker.

The topic, 'Intellectual Property Rights' is a tricky one for the speaker as all the participants know the topic well but Mr. Prabhunaraïn won the applause of the audience at the end of the session with his vast knowledge base and excellent flow.

The speaker started from fundamentals of legal ownership of an intangible property. It was very interesting to know about the first IPR in India - "An Efficient Punkah-Pulling Machine" by George Alfred DePenning, of Calcutta, in 1856.



Explaining the procedure for obtaining IPR, he impressed on the importance of the Priority Date with the famous invention of Telephone - both Elisha Grey and Alexander Graham Bell independently designed devices that could transmit speech electrically at the same time but Bell patented first.

He further explained the types of patents and the inventions which are not patentable. He also gave details about Trademark Registration and all Trademark Representations like symbols, words, phrases, sound etc.

The audience made the Q&A session very lively with interesting queries. Mr. Dr. Ramesh, Vice Chairman NIQR Chennai Branch summed up the proceedings and appreciated the speaker for good research in the subject.

Dr. Ramesh honoured the speaker with a shawl and memento and Mr. V Raghavan, Vice Chairman NIQR Chennai Branch welcomed the new members Ms Chamundeswari and Mr. Dinesh Uthayakumar and presented the Membership Certificates to them.

Mr. C. V. Gowri Sankar proposed the vote of thanks.



Mr. Prabhunaraïn is a Techno-Legal professional specialized in Intellectual Property Rights of India. Presently he is heading the Intellectual Property Rights (IPR) and Technology development division of Gagnant Financial & Legal Consultants LLP. Having completed his Post graduation in the field of Biotechnology in 2007, he joined a Vinegar production company and started his carrier as a research apprentice. Later he worked for many companies in the field of research and development. He has wide experience in the field of IPR, and served as an Intellectual Property (IP) analyst in the Centre for Intellectual Property Rights, Anna University, Chennai.

Monthly Evening Lecture Programs

October 2017

On 7th October 2017, Dr. N. Asokan, Ex-Dean, Sree Sastha Group of Institutions delivered a lecture on "Skills for Industry 4.0" at NIQR Conference Hall.

Mr. C. V. Gowri Sankar welcomed the gathering and introduced the speaker.

It was indeed a pleasure to have a session on Skills for Industry 4.0 when the awareness itself is in nascent stage and NIQR is on a mission to sensitise 20K minds. Dr. N. Asokan gave a clear picture of the skill requirements emphasizing on the trans-disciplinary skills. He dwelt much on the subtle difference between Skill, Knowledge and Talent. He also explained different varieties of knowledge, especially Conceptual, Factual, Meta-cognitive and Procedural.

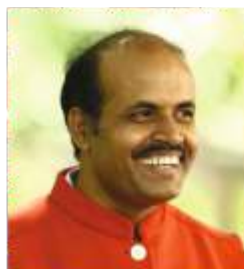
He concluded with a prediction that more than 35% of skills considered important today will change within the next 5 years. If Moore's Law applies to employment, it would mean workers must master new sets of knowledge/ skill / technology every 2 years or so.

The audience made the Q&A session very lively with interesting queries; the speaker was very emphatic that the Institution-Industry divide will only increase in the future.

Mr. K. Manikandan, Chairman, NIQR Chennai Branch summed up the proceedings and complimented the speaker for the correct assessment of the requirements of future skills; he also shared with the audience about NIQR's mission in sensitising 20K minds on Industry 4.0 wherein the youth are clearly given the picture of future Skills; he emphasised it is in the DNA of NIQR to de-learn and re-learn the skill/knowledge needs of tomorrow.



Mr. Karthikeyan of KCS Metal Industries honoured the speaker with a shawl, Mr. Gopi Kumar Bulusu, Chairperson, SCCI honoured the speaker with a memento and Ms. N. Mahalakshmi, AM- Quality of HOV Services honoured the speaker with a laminated memento. Mr. C. V. Gowri Sankar proposed the vote of thanks.



Dr. N. Asokan has a Ph. D in Material Science. Starting his career in Quality Control in Heavy Alloy Penetrator Project, (Ministry of Defence) Trichy, he has a good mix of Industrial and Academic Experience spanning over 35 years. He had served as Principal /Dean in many institutions and is a renowned Resource Person for Faculty Development Programmes having trained more than 700 faculties.

NIQR Chennai Branch AGM

The 29th Annual General Body Meeting of NIQR Chennai Branch was held at 6.30 PM Saturday, the 09th September 2017 at Hotel The Westin Chennai Velachery. Seventy Five members and guests attended the AGM this year. The proceedings started with the invocation song. Mr. K. Manikandan, Chennai Branch Chairman welcomed the members and shared some of the new initiatives like digitising NIQR, revamping our website and the progress in our mission of sensitising 20K minds about Industry 4.0. After the confirmation of the minutes of the 28th AGM held on 14th September 2016, Mr. C. V. Gowri Sankar, Chennai Branch Secretary presented the annual report for 2016-2017. Mr. S. Sundar, Chennai Branch Treasurer presented the audited statement of accounts for the period 01-04-2016 to 31-03-2017.

A resolution sent by Mr. N Jagannatha Rao about Certificate Course on Quality and Reliability through distance education and competitions on improvement projects done on "Quality & Reliability from all member companies was deliberated and Secretary assured to follow up on the proposal.

Mr. V. Raghavan, Vice Chairman proposed the vote of thanks.



INDUSTRY -4.0 Awareness Program: No. 29

The 29th Program in the series was conducted at KCG College of Technology, Chennai on 19th August 2017. There were 200 students and staff of Mechanical Engineering department.

Dr. S. Ramesh, HOD, Mechanical Engineering introduced the speaker Mr. C. V. Gowri Sankar and briefed the students about the future trends in manufacturing sector. Dr. C. Chinnaraj, Registrar, who organised the program, briefed the students about NIQR and its activities and its mission 20K.

Dr. G. Prabhakaran, Principal urged the students to be very interactive in learning the future requirements of the industry in this useful program.

The students were very much impressed by the presentation of potentials and challenges of the Indian economy. They showed keen interest in the constituents of Industry 4.0. After the session, many students enquired about the skills to be acquired to become industry ready.



INDUSTRY - 4.0 Awareness Program: No. 30

The 30th Program in the series was conducted at PSG College of Technology, Coimbatore on 1st September 2017. This was organised by students of Mech. Engg. in association with Indian Institute of Industrial Engineering and there were 740 students and staff of B. E., B. E. Sandwich Course and Diploma Course.

After the introduction of the speaker Mr. C. V. Gowri Sankar, Dr. R. Rudramurthy, Principal of the College briefed the students about the future trends in manufacturing sector. He explained to them the importance of additional skills in the industrial scenario.

The faculty briefed the students about NIQR and its activities and its mission 20K. He put the students in a happier mindset by showing them the potential of India Today and its challenges and opportunities. They showed keen interest in the constituents of Industry 4.0. After the session, many students enquired about the skills to be acquired and also requested the faculty to give guest lectures on different topics.



INDUSTRY - 4.0 Awareness Program: No. 31

The 31st Program in the series was conducted at KLN College of Engineering, Madurai on 11th September 2017. There were 300 students of Mech and Automobile Engg. Departments.

Dr. R. M. Satheesh Kumar, HOD Dept. of Automobile Engg. welcomed the gathering and introduced the speaker Mr. C. V. Gowri Sankar. Dr. A. V. Prasad, Principal of the College briefed the students about the future trends in manufacturing sector. He thanked NIQR for its mission which has been timed well.

The faculty started the session showcasing the potential of India Today and its challenges and opportunities. Then he detailed the constituents of Industry 4.0. He insisted on the students to learn new skills while studying in the college itself so that they will be industry ready.



INDUSTRY - 4.0 Awareness Program: No. 32

The 32nd Program in the series was conducted at KLN Institute of Information Technology, Madurai on 12th September 2017. There were 110 students of different departments of the college.

Dr. J. Bastin, HOD of EEE dept. welcomed the gathering and introduced the speaker Mr. C. V. Gowri Sankar. Dr. N. Balaji, Principal of the College briefed the students about the future trends in manufacturing sector. He thanked NIQR for its mission which has been timed well.

The faculty started the session explaining NIQR and its activities and its mission of sensitising 20000 minds this year about Industry 4.0. The program was from 10.00 AM to 12.30 PM. Starting with the industrial and economical Scenario of India, he showcased the challenges and opportunities facing India. Elaborating on the need of the day, he advised the students to be in the forefront to take up the challenges in embracing Industry 4.0 instead of being mere followers of technological changes as in the past.



NIQR Student Chapter in MIT, Puducherry

NIQR Student Chapter in Manakula Vinayagar Institute of Technology, Puducherry was inaugurated on 16th September 2017. This is the 11th Student Chapter of NIQR Chennai Branch. Dr. V Swaminathan, National Vice President NIQR, was the Chief Guest for the inaugural function organised by the Department of Mechanical Engineering in the college premises at 10.00 AM.

Dr. B. Radjaram, Professor & Head, Department of Mechanical Engineering welcomed the gathering which included many dignitaries from NIQR, students and staff. Dr. S. Malarkkan, Principal of the college delivered the felicitation address and commended NIQR for the services it was offering through Student Chapters

Mr. C. V. Gowri Sankar, Secretary, NIQR Chennai Branch spoke about NIQR and its activities especially in the area of industry-institution interaction. He introduced the mentor of the Student Chapter, Mr. R. Ganesan, Trainer & Consultant - Quality & Management.

Mr. R. Ganesan in his address elaborated on the future skill demands of Industries and assured the students he will be ready to serve them at any time.

Q-ZINE

The Chief Guest, Dr. V Swaminathan in his address explained the importance of skill development for the future and advised the students to make use of opportunities created by NIQR to enhance their knowledge and be industry ready when they leave the institution.

Then the Student Chapter was inaugurated by the Chief Guest. The Chief Guest and other dignitaries presented Individual Student Membership Certificates to the students.

Mr. K. Manikandan, Chairman, NIQR Chennai Branch gave a lecture on 'Electric Mobility' where in he gave the changes human mobility is undergoing today, he outlined how the future of the industry will be influenced by global environmental policies.

Dr. V Swaminathan gave a lecture on "QUALITY SEEDS FOR INCLUSIVE GROWTH OF ASIA". He covered a large spectrum of TQM activities and showed how the student community can benefit out of them.

Mr. S. Balaje, Asst. Prof. Department of Mechanical Engineering proposed the Vote of Thanks.



Head Quarters Activities

NIQR Head Quarters AGM

The 26th Annual General Body Meeting of NIQR Head Quarters was held at 7.30 PM Saturday, the 09th September 2017 at Hotel The Westin Chennai Velachery.

Mr. P.K. Aggarwal, National President welcomed the members and shared some of the highlights during the last one year.

- Inauguration of NIQR Pune Branch making our presence in the Western India
- Ambitious program "Quality for Industry 4.0" - where we have touched 8000+ minds till date
- Need for NIQR to drive special programs on Metrology
- Digitizing our administrative activities
- Awareness programs for MSMEs on ZED
- Signing of an MOU with ASQ to add more value to our efforts in promoting quality across the nation

After the confirmation of the minutes of the 25th AGM held on 14th September 2016, Mr. K. S. Balaji, National Secretary presented the annual report for 2016-2017. Mr. S. Muralishankar, National Treasurer presented the audited statement of accounts for the period 01-04-2016 to 31-03-2017.

For the first time, AGM had good representation from other branches and the representatives spoke about their Branch activities

- Mr. Sarathy, Chairman, NIQR Bangalore Branch highlighted the important activities of the branch during the year, namely,
 - ▲ 3rd International Conference On Robust Quality Engineering (ICRQE 3)
 - ▲ Two day Workshop on Robust Engineering
 - ▲ One day Workshop on Mahalanobis -Taguchi Strategy & System
 - ▲ Introduction of the Lean & Six Sigma Course for Engineering Students at PES University, Bangalore
- Mr. A. V. N. Rao, ECM, NIQR Delhi NCR Branch gave details about
 - ▲ Meetings with Suppliers of JCB and Faridabad Suppliers Association
 - ▲ Opening of 2 Student Chapters with Amity University and Global College of Engineering
 - ▲ Organising a program on Industry 4.0 with the great support and guidance from NIQR head office
- Mr. Vikram Salunkhe, Vice Chairman, NIQR Pune Branch spoke about the interest exhibited by all ECMs in the EC Meetings and plans for the next year.

Mr. K. S. Balaji, Secretary proposed the vote of thanks.



Ayutha Puja Celebrations

Ayutha Puja was celebrated on 29th September 2017 at NIQR Office with the usual simplicity and sincerity. The function was well attended by Past National Presidents, Past Branch Chairmen, Office Bearers of HQ and Chennai and EC Members.

During the auspicious occasion, the revamped NIQR website was launched by National President Mr. P. K. Aggarwal – visit www.niqr.in.

The salient features of the website are:

1. New User Experience and Interface
2. Membership Module with online registration and e-payment Introduction
3. Easy Management of Individual / Company / Institution profiles
4. The Membership Application includes information about membership such as academic and professional records & skill sets
5. Unique system-generated User ID and Password based on membership type and location
6. Auto e-mail trigger for New registration as well as renewals to Members.
7. Admin Module will have the provision to manage the following:
 - a. Home Page Banner Images
 - b. Publications
 - c. Activities
 - d. Evening Lecture Meetings
 - e. Student Chapter
 - f. Chennai Branch Activities
 - g. HQ Activities
 - h. Members in News
 - i. Videos
 - j. Location
 - k. Advertisement Management
 - l. Any new topic can be customized and added to the application.
8. The following Reports can be generated from Admin Module:
 - a. Active and Inactive Members
 - b. Payment information from the members
 - c. Detailed Membership information

The puja concluded with distribution of Prasad.



Bangalore Branch Activities

NIQR Bangalore Branch organized the 3rd International Conference On Robust Quality Engineering (ICRQE 3). The event was Co-organized by Meiji University (Japan), American Supplier Institute (USA), Universiti Teknologi Malaysia, Kuala Lumpur (Malaysia), Quality Engineering Society (Japan), Kennametal India Ltd., Premium Transmission Ltd., Capgemini India, Reliance Energy Management Institute (Reliance Infrastructure Ltd), JK Fenner and a few more.

The Conference was held in Mumbai between 19th and 21st January 2017 at Reliance Energy Management Institute, Goregaon (E), Mumbai. The theme of the Conference was 'Implementation of Zero Defect Using Product and Process Robustness'

(An innovative engineering practice to eliminate loss to Society caused by unreliable products.)

The Conference was inaugurated by Mr. Debasish Banerjee, CEO Reliance Energy, Mumbai.

There were three plenary sessions

1. Robust Optimisation - How to take it forward
2. How to spread the MTS among Indian Industries
3. Issues & Problems in Operational Performance Improvements faced by Indian Industries

International luminaries like Shin Taguchi (ASI, USA), Rajesh Juglum (MIT, USA), Shuichi Fukuda (Stanford, USA), Shari Muhd. Yousof (UTM), Rijal Jamaluddin (UTM) along with Top Indian industrial & Academic doyens like Santanoo Medhi (PTL), Sriram Nagaraju (JKF), Nityapriya Subramanian (L&T), Anup Mandal REL), Ashok Sarkar (ISI), Indrajit Mukherjee (IIT) and OS Vaidya (IIM) actively participated.

Six Keynote addresses were presented in the conference covering a wide variety of applications and theory like Robust Optimization for Reducing Cost & TTM, Integrated Framework for sustaining Total Quality Management implementation in Sudan, "A Recognition Taguchi Technique Approach to Embodied Knowledge", Importance Of Data:- Data As A Key Asset, and "A Robust approach to analysis of Customer Satisfaction Survey feedback".

There were 31 papers presented on Methodology, Concepts and applications from a number of Indian, Japanese, Malaysian and US delegates as well as academicians. Totally there were 350+ delegates in the conference.



Standards Organizations That Affect You-2(Whether You Know It Or Not)

There are thousands of standards organizations around the world, and they can standardize pretty much anything to make life easier, safer, and more productive. Often, these bodies have agreements to cooperate with each other. They may endorse each other's standards, build upon them, or purposely avoid duplicating efforts. In this series of articles we will understand the top standards organization for their establishment, method of developing standards and their contribution towards industrial development.

International Electrotechnical Commission

The International Electrotechnical Commission (IEC) creates and publishes standards for electrical and electronic technologies. It was founded in 1906 and is headquartered in Geneva, Switzerland. It is a not-for-profit, quasi-governmental organization. Members of the IEC are called National Committees. Each country can have just one National Committee in the IEC. There are 82 members. IEC standards reach over 150 countries. IEC's official languages are English and French. You can reach IEC by www.iec.ch



IEC prepares and publishes International Standards for all electrical, electronic and related technologies. Close to 20000 experts from industry, commerce, government, test and research labs, academia and consumer groups participate in IEC Standardization work.

Countless electronic and electrical products around the world use IEC standards and their corresponding conformity assessment systems. IEC standards help ensure that these products work properly, connect to each other, and perform safely.

IEC has more than 170 technical committee and subcommittees, along with about 700 project/maintenance teams that produce and maintain their standards which are fully consensus-based. Individuals who work on IEC standards do so through their country's National Committee. Voting on IEC standards follows a "one country, one vote" model.

Standards Development Process

Technical committees are created and disbanded by the Standardization Management Board. The field of technical activity is approved by the Standardization Management Board and any subsequent changes have to be submitted for approval.

Technical Advisory Committees which help ensure the coordination across the technical work of the IEC of issues such as safety, environment and electromagnetic compatibility;

Strategic Groups also help the SMB by looking at market needs and outlining any potential cross-over of work.

Systems Work will define and strengthen the systems approach throughout the technical community to ensure that highly complex market sectors can be properly addressed and supported.



Subcommittees (SC) A subcommittee may be created by the parent technical committee when it considers that its field of technical activity generates too many work items to be efficiently handled by itself. The scope of the subcommittee falls within the scope of the parent committee and any changes have to be approved by the parent technical committee.

Standards Approval Process

Experts prepare technical documents on specific subjects within their respective scopes. Those are then submitted to the IEC NCs for voting with a view to their approval as international standards. For a technical document to be approved as an IEC International Standard, at least 75% of all voting NCs must cast a positive vote. In this process, each country has only one vote.

IEC provides a platform to companies, industries and governments for meeting, discussing and developing the International Standards they require.

BIS (Bureau of Indian Standards) is representing India in ISO technical committee



Mr. S. Kumar,
Plant Head - Asahi India Glass Ltd.
and Joint Secretary of NIQR Chennai Branch
isokumar@yahoo.co.in



How to Make Kaizen Culture?

It is very difficult to make the Kaizen culture. There are plenty of self-proclaimed lean companies that cannot do Kaizen worth a lick. How many improvements were made in your organization last week? What if I told you that one company, with 120 people, have done over 60 in over 2 month?

It takes months, sometimes years to create a culture of Kaizen. I am not talking about periodic Kaizen "events" led by the lean champion or Black Belt. Those are merely top down "feel good" events that last three days or so, result in something called a Kaizen newspaper and when the three days are up, well, everybody goes back to work. Few, glad that over their job every day. Slow, steady, small, relentless step toward flow. That wonderful place where order come in, and you get paid. The customer gets exact amount they want, exactly when they want it. A true competition advantage.

What usually stops the order is what we call the 8 wastes ; defects, overproduction, waiting, non-essential processing, excessive transport, inventory, excess motion, or unused employee brainpower. All these things cost time. Seconds, minutes, hours, days, weeks, months.

Think of lean simply as time management, if a process takes an hour to do, figure out how to do it in 58 minutes by first recognizing, then eliminating one or more of 8 waste in that process. Then do it again. Then do it in other 5000 processes in your business.

Trouble is, there's only one you. We need to figure out how to inspire and teach every single person how to see first, and then eliminate the waste. Temporary, self-directed work teams led by the experts using A3 is a method more and more smart companies are using to eliminate thousands of hours of non-value added work.

A good way to start is with employee suggestions. Peoples will be more than happy to give the suggestions as long as they know they aren't wasting their breath. The suggestions can be thought of as the waste people can easily see with the naked eyes. The role of lean champion / management is to help the person who made the suggestion pick the right 3 to 5 person team. If the suggestion is too big, help them get their team together. Help them with form. Teach them 5 why. Help them present to others what they and their team did. Do not mix problem for them.

Using A3 to implement suggestions is so valuable because people are learning how to bust silos and practicing the DMAIC over and over again. The A3 form itself is laid out so the team starts with define, then measure, then analyse, then improve, then control. You are slowly and steadily building an entire population of better and better team players and better and better problem solvers.

As the time goes by, people will need less and less help and what started as world class suggestion system will turn into company of extremely good problem solvers.

Start small. Go see if you can get 3 people to answer this question this week: "If you owned the company, what one change would you make in their own job right now?" Consider what they say as employee suggestion, and use A3 to help get it done.

Parveen Yadav,

Sr. Manager - Quality, JCB India Ltd &

ECM, NIQR Delhi NCR Branch Don't expect people to solve difficult problems until they can do little ones really well. The beautiful part is that once established as a culture, it won't stop.



Parveen Yadav,

Sr. Manager - Quality, JCB India Ltd &
ECM, NIQR Delhi NCR Branch

Reliability in the Digital Age

On a snowy night in Paris in 2008, Travis Kalanick and his friend Garrett Camp couldn't get a cab. That inspired the two to set up taxi-hailing app Uber. Today, Uber is the world's most valuable privately held startup, with an estimated value of \$62.5 billion.

In a talk with Marc Benioff, founder of Salesforce, Kalanick says "The big vision of Uber is to have reliable transport available everywhere for everyone, though we're a long way away from achieving that". The theme Kalanick wanted to reinforce in his talk was "reliability". He called reliability the most important rule for Uber, from short pickup times to not missing a ride and filtering up only the best drivers to stay employed. "We want transportation as reliable as running water," Kalanick told Benioff.

In the past four decades, Information Technology (IT) has dramatically transformed the design, development, production and support of goods and services, so much so that it has ushered in a Digital Age of new products and services unthinkable of four decades ago. The key contribution of IT has been to separate 'information' from 'operation' and allow us to use this information to support many functions before, during and after their performance thus greatly improving the efficacy and efficiency of operations. Functions that have information only as input and output were the first to also get automated. Physical operations benefitted from IT based products such as Robots and Artificial Intelligence to automate many of them.

Reliability is one function which is entirely based on data. All the failure rates in the Bathtub curve need data over a timeline to determine the reliability of a part, sub-assembly or assembly. Fig below describes the bathtub curve and its data requirements, viz. failure rates over a timeline.

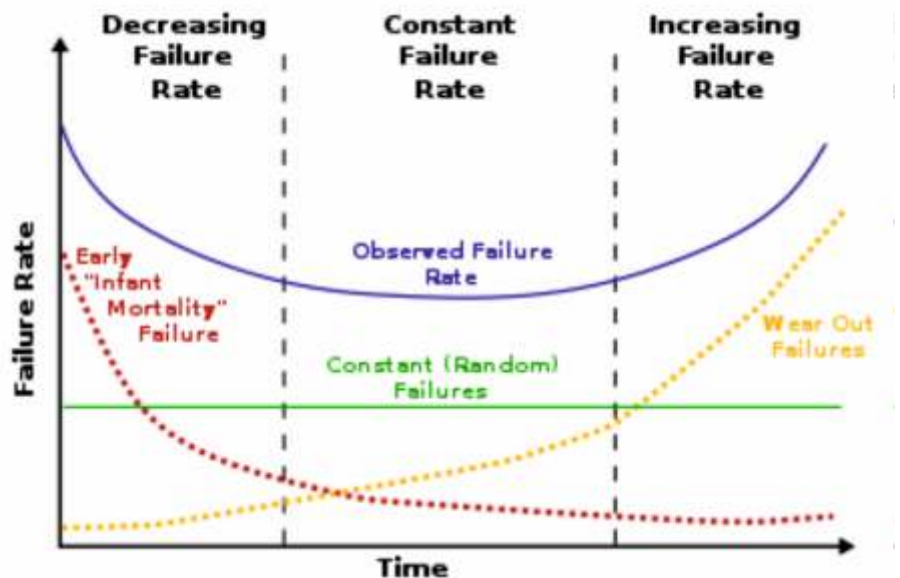
In the Digital Era, data acquisition has also been largely automated with the use of sensors. There is a constant stream of data gathered by these sensors and analysed by backend applications to provide insights into the wear and tear of the parts and increasing the efficiency of their performance and maintenance. One of the biggest gains from the digital era for reliability is 'predictability'. With vast amounts of data, it is possible to carry out pattern recognition of the data and use the patterns statistically to predict future failures and incidents with greater accuracy.

One thing Uber does to try to predict demand, and therefore surge pricing, is study its data to anticipate surges before they happen. "How

do we get more cars to the demand before it happens"? Kalanick asked. One solution for Uber has been to put heat maps on drivers' versions of the maps that visualize anticipated high-demand areas 15 minutes ahead. That use of Uber's data dovetails with Salesforce's own focus on predictive data used for salespeople this Dreamforce conference.

Extending the theme further, Fly-by-wire planes, driverless cars, lightless factories and personal robots are all realities of today, thanks to the reliable design, development, production and support of goods and services.

The next frontier of digital era is the use of machine learning, deep learning and artificial intelligence which will equip all the machines and equipment with self learning capabilities to adapt and constantly improve their own performance and reliability without human interference.



Analysis of past flight accidents clearly points to 'human error' as the main cause in more than 99% of the accidents. As machines replace humans in all the heavy lifting activities, thanks to enormous improvements in reliability in the digital era, humans can look forward to performing activities they are best suited for (e.g. creative pursuits) and that machines cannot do.

References

- 1.<https://www.gadgetsnow.com/tech-news/Reliable-transport-for-everyone-everywhere-Travis-Kalanick-on-Ubers-big-vision/articleshow/50631541.cms>
- 2.<https://www.forbes.com/sites/alexkonrad/2015/09/16/five-things-travis-kalanick-said-atdreamforce/#253f96ed5f67>
- 3.<https://www.linkedin.com/pulse/enterprise-ops-shifting-from-efficiency-reliability-arjun-shah/>
- 4.https://en.wikipedia.org/wiki/Bathtub_curve



T. S. Rangarajan,
Management Consultant
ts.rangarajan@gmail.com

Members in News



The Department of Mechanical Engineering, SRM University, Vadapalani, Chennai organized KRATORQ'17, a national level technical symposium on 6th October 2017. Shri. S. Rajasekaran, National Vice President, NIQR was the Chief Guest for the Inaugural Function. He delivered an inspiring and thought provoking inaugural address highlighting the importance and implementation of the fourth industrial revolution i.e. Industry 4.0.



National Institution for Quality & Reliability

Chennai Branch Newsletter September - October 2017

Editorial Committee:

Mr. C.V. Gowri Sankar, Secretary - NIQR Chennai Branch

Mr. I. Daniel Jeyaraj - Administrative Officer