September-21

Newsletter

Indian Society for Quality

Best wishes from ISQ on the upcoming World Quality month (November-21)!!

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Newsletter

Indian Society for Quality

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Bangalore chapter

Sarika V. Joshi
Editorial Team
Pune chapter

Girish Garg
Editorial Team
NCR chapter

B. Sundara Rajan
Editorial Team
Chennai chapter

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Dear Readers,

Greetings from ISQ!

We are delighted to bring you the third edition of ISQ Newsletter for the year 2021.

It is heartening to see the pandemic tapering down and a near normalcy returning slowly into daily life as well as industrial activity. Thanks to vaccine drive gaining momentum more than 70 % population in metro cities above 18 years has received at least one dose, which helps reduce infection and post infection fatalities. We hope the positive trend continues and we do not see the worrisome third wave.

While economic activity is yet to return to the pre Covid levels the business sentiment is very strong as is evident from the Sensex breaching a landmark 60,000 mark , an all time high. There has been a significant increase in the retail investors traction in share market and “Indian Story” continues to attract foreign investments.

With the Govt announcing various schemes and policies to boost the activity across sectors initiatives like PLI Scheme, FAME II subsidy increase, Scrappage Policy have had a very positive impact. In fact, FAME II subsidy increase and additional benefits by State Govts. to encourage EVs have created huge buzz and companies are working overtime to reap benefits.

As you know ISQ renewed its Vision, Mission to align with changed realities and needs of the real world , the progress on putting a structure to take it forward has been great with many committees taking shape and putting their plans together. Members are encouraged to volunteer into these committees as per their respective interest and contribute their bit towards these initiatives.

Activities like “Knowledge Sharing Sessions” , webinar have increased a lot. Tops Convention, Symposium too are regular features. Reaching out to business communities like MSMEs (Medium and Small Enterprises) with UDAAN initiative and BCIC (Bengaluru Chamber of Commerce and Industry) are gaining momentum.

Activities for our prestigious Annual Conference , which happens in Delhi this time in Dec-21 , are going on at great fervor. Do not miss out on listening to world renowned “Gurus” in the field of Business and Quality. Spread the word in your work-related communities to enroll participation and sponsorship. In a first of its kind the Conference will take place in hybrid mode i.e., physical and virtual attendance due to the prevailing situation. I have immense pleasure to share that ISQ opened up its Chennai Chapter , one which holds tremendous growth potential, Chennai being one of major industrial hubs in the country. The inauguration was done on 1st July 2021 ; please read the detailed report inside.

ISQ welcomes Dr S Rajkumar, President Chennai Chapter, and his entire Chennai Chapter team ! Wishing them a fulfilling journey ahead ! I welcome Mr. Sundara Rajan to the editorial committee who volunteered to represent Chennai Chapter.

I would like to place on record the contribution of our member colleague Mr. Nilesh Zambare , who was part of the ISQ Newsletter journey right from the inception , one of the very first volunteer when Bengaluru Chapter started the initiative in 2019. Many thanks for his time in bringing the Newsletter to current standard – regular, timely and content rich by the day. Nilesh is of course contributing in other initiatives; currently part of Tops Convention organizing committee. Appreciate his contributions on my own behalf as well as on behalf of ISQ Bengaluru Chapter.

We have Mr. Pandu Ranga who volunteered to replace Mr. Nilesh Zambare in the Editorial Committee. I extend him a warm welcome to the committee and look forward to working together for this noble cause. We have a collective dream of making the Newsletter more frequent and content rich as well. Towards this goal we need more content on regular basis. Request you all to come forward ; share your knowledge and experience for the benefit of humanity at large. You might know persons of great knowledge, please try to get them to share the same , even nonmembers can contribute to ISQ Newsletter, there are no restrictions.

Enjoy reading, stay safe !

Best Regards
Ved Parkash

Introduction of New Editorial Team Members

B. Sundara Rajan
Partner & Principal Consultant -BSR's Peepal Tree Consulting

- *Consultant in major Business excellence Systems like TQM, TPM & Lean.*
- *Worked with Senior Senseis like Prof. Washio , Prof. Ando , Prof. Ayano & Mr. N. Ramanathan*
- *As co consultant associated with many companies especially in the Mfg sector , in their Deming Prize Challenge*
- *30 + years of Industrial experience in Manufacturing sector. Has worked with CUMI, Rane Engine Valves and M&M.*
- *Headed different functions covering Product Development , Manufacturing , QMS & TQM*
- *Associated with reputed institutions like CII , ILO and*
- *MIQ as Trainer / assessor.*
- *Also associated with various educational institutions as visiting faculty*
- *Is an M.Tech (Chem.Engg) & MBA*

Panduranga B
Manager – Purchase Quality, SEG Automotive

- Mechanical Engineer from – UVCE Bangalore
- Qualified AMIIM –Indian Institute Metals
- Qualified Auditor for VDA6 part 3, EMS14001, ISO17025
- Qualified ASNT Certified NDT Engineer in UT/MPI/DPT
- 18+ Years of diverse experience in the areas of Automotive, Aerospace, Rail Transport & Steel Production.
- Lead SQA functions in establishing, developing & sustaining quality in Vendor Management, Metallurgical & special processes SEG-IN plants
- Previous experience includes Project & Operations Management in steel production, materials development, heat-treatment, failure analysis & NDT methods.
- Enacted in plays, Yoga & Marathon Enthusiast

Vignettes from Ram

QUALITY AND THE PRECAUTIONARY PRINCIPLE

In Quality, we have a history of anticipating risks and taking action to prevent potential damage from likely causes. Quality borrowed the technique of Failure Mode and Effects Analysis – FMEA – from NASA, and a probabilistic risk assessment technique, the Fault Tree Analysis – FTA – from the U.S. Nuclear Regulatory Commission. Semantic techniques like the Process Decision-Program-Chart – PDPC – also aid in averting unwanted events when pathways are not clear. Yet, industry has a long history of playing with fire, literally so in the case of smoking. Cigarette companies held out for decades, questioning scientific evidence. Their infamous 'Doubt is our product' strategy attempted to manufacture uncertainty and propagate systemic ignorance.

Scientific predictions of potential harm have necessarily to be probabilistic. 100 percent certainty is unrealistic. Quality practitioners know this, for Shewhart and Deming, both followers of the Pragmatic School of Philosophy, had asserted that all knowledge is probabilistic.

International cooperation has not been wanting in cases where the degree of scientific uncertainty has been low. Asbestos use has largely been curtailed, lead as anti-knock agent in petrol discontinued, and the use of chloro-fluorocarbons are under phase-out through the Montreal protocol. Nevertheless, the fact remains that industry did mount campaigns to question adverse effects on health of not only lead, but also of beryllium, the safe exposure limits of which are still unresolved, and of mercury, chromium and nickel. Even in the absence of scientific disputes, heavy metals, despite the dangers posed, continue to be found in textile industry effluents, soils and in the atmosphere. Industry has also fought scientific evidence of risks from products such as vinyl chloride, benzene, or benzidine. Where risks are reasonably certain, the preventive methods of Quality can deal with them. When there are significant uncertainties about both likelihood and consequences, another principle is called for – the precautionary principle. The question is: whose responsibility is it to 'prove' within reason that an activity or product is safe?

In 1973, economist E.F Schumacher suggested that "the burden of proof should lie on the man who wants to introduce change, he has to demonstrate that there cannot be any damaging consequences." On the other hand, industry has persistently sought absolute proof of harm from scientists and governments.

Not surprisingly, it was the United Nations that in 1982 first adopted the precautionary principle through a *World Charter for Nature*. Where irreversible damage was likely, or potential effects were not fully understood, it called for the proponents of an activity to "demonstrate that expected benefits outweigh potential damage to nature."

Article 15 of the Declaration of the so-called Earth Summit of 1992 in Rio de Janeiro adopted 'the precautionary approach' and clarified that "lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". Established in year 2000, the UN Global Compact lays out ten principles for businesses. Principle # 7 calls for business to "support a precautionary approach to environmental challenges." Article 191 (2) of the 2007 Treaty on the functioning of the European Union declares that its environmental policy "shall be based on the precautionary principle…, that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay." The United States, however, has not adopted the Precautionary Principle explicitly, though it has strong regulatory agencies like the FDA. The precautionary approach to managing risk of high uncertainty has thus far been focused on the environment. It ought to also encompass risks from food, cosmetics, textiles, construction chemicals, toxins in manufacturing processes, and pharmaceuticals, of course. Complete scientific certainty, if ever possible, would emerge too late for correction. To stall a product for long till its safety is confirmed would be a Type 1 error, the proponent's risk. More seriously, societal risk or Type 2 error would be to permit an unsafe product to cause irreversible damage before its dangers are discovered. The degree of uncertainty in the release of vaccines against Covid-19 shows up the dilemma decision makers face. The vaccines have had to be released on 'emergency' without completing the normal protocol of trials required for approvals. Potential Type 2 errors – the side effects of the vaccines – had to be allowed. In Quality Management, when a product is released under concession, a Type 2 error is being risked. Ishikawa urged that such decisions be treated as experiments and followed through to the stages of customer use, thus building knowledge and confidence. This is also the standard process in designed experiments, where data and knowledge get refined at each successive stage. At least conceptually, this is a Bayesian approach. In the case of Covid-19 vaccine, its premature release could be treated as large-scale experiments involving extensive data-gathering and feedback.

Both scientific and social judgments must necessarily be combined to take wise decisions in these circumstances. The precautionary principle clearly bats for reducing Type 2 error, and rightly so, for it is applied when consequences may be severe. This approach inevitably raises the risks of Type 1 error, which industry wants nothing of. Unlike in control charts on the manufacturing floor where Type 1 error is sought to be kept low, when it comes to granting permissions for risky products, it may be hard on industry, but Type 2 errors must be kept low. The Hippocratic oath of 'Do no harm' applies strongly to the practice of Quality. Luckily, the myriad tools of Quality can in most cases help forestall potential trouble or mitigate severity while building evidence-based confidence in stages. Quality can make the world safer.

About the author:

Mr. N. Ramanathan is a senior counsellor and advisor of TQM. He is a Mechanical Engineer with Masters from IIM, Ahmedabad(1969) with 50 years of experience in industry, and in teaching and counselling. Mr. Ram has received awards internationally for his work, as well as receiving the Dronacharya Award in 2018 by ISQ for his contributions to teaching and counselling on quality. Mr. Ram has been associated with twelve successful Deming Prize challenges, and has taught and advised Ashok Leyland, Ceat, SRF, Indus Towers, JSW, Mahindra group of companies, Tata Quality management Services, Tata Steel, and other organizations.

Advancement in Method of FMEA

New AIAG VDA Handbook and Other best in class approaches

By Mahesh Hegde,
Founder, LearnEx® Consulting Pvt Ltd

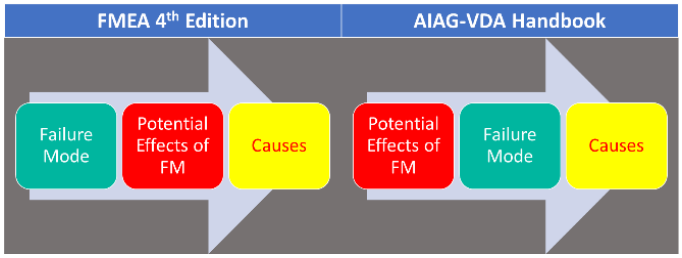
Is this article for you? Are you a FMEA practitioner? Are you still using RPN for risk assessment instead of AP? Are you interested to know some of the major advancement in FMEA approach? Are you working for new product design or development and want to achieve defect free products? If any of the answers is "YES", then this article is for you. **"Doing right first time and doing right every time"** is a slogan which all companies are striving to achieve. In search of doing first time "Failure Mode Effects Analysis (FMEA)" is a tool which is been effectively applied in some of the companies and it is just format filling exercise without meeting the intent in many other companies. Simple questions to be asked by company's could be

I. How many Failure modes proactively determined before occurrence?
II. How many causes proactively determined before occurrence? Whether they have more causes for the failure mode than whatever is addressed in Ishikawa diagrams prepared in the past?
III. How many recommended actions determined through FMEA? How many of them are engineering actions? How many of them are systemic actions?

Even though AIAG VDA handbook released in June 2019, discards usage of RPN due to its limitations and replaces with much better method of **"Action Priority"** several companies still not aware or not upgraded their FMEA approach. Instead of directly filling FMEA format 7 step approach is recommended in this new handbook which is radical change in FMEA approach. So, it is not AIAG 4th edition to 5th edition, instead it is AIAG-VDA handbook 1. This article provides some insights on changes and improvements. However, to practice and implement studying subject in depth is essential. Even after 2 years of these improvements addressed, companies are taking time even to understand, even though this approach can significantly minimize the risk of warranty, defects and chances of recall.

The 7 Step Approach

1. **Planning and Preparation:** Exclusive step for planning of FMEA to define objective, scope, core team, extended team, 5T approach, reference of foundation FMEA to ensure team has better planning and clarity before start of execution.
2. **Structure Analysis:** New tool to have better understanding of the process. This helps to address all process work elements required to convert input to output. This will enable to ensure causes are determined against each of the process work element like consumable items, tooling, material handling equipment, worktables and many more apart from usual category of 4M
3. **Function Analysis:** New tool added to have better understanding of 3 types of functions. This will enable to understand the function of part or product, function of entire process and function of various process work elements like machine, man tooling etc. Understanding of functions helps to determine possible causes in much more systematic manner.
4. **Failure Analysis:** Better definition of Failure mode, Failure cause and Failure effects are established by adding the concept of **"Focus Element"** provides clarity. As focus element changes from process to process, failure mode changes, failure cause and effect change. Effects are due to failure modes and failure modes are due to causes. For each failure mode clear linkage of failure effects and failure causes established in tree form as well as tabular. Sequence of arrangement Effects, failure mode and causes are more logical now.



These steps are expected to be done in depth to ensure that all possible causes related to the selected process are considered. Structure and function analysis which are done in previous steps practically helps to determine possible causes under various heads and functions. The linkage of DFMEA and PFMEA needs to be established considering end user effects. Clarity in Failure mode definition in DFMEA and PFMEA. Of course, tools like Boundary diagram, P-Diagram with various types of functions and functional requirements are explained to make this step effective.

5. **Risk Analysis:** There are several improvements in risk assessments which are discussed below.

5.1 Severity Assessment (SEV): Severity ranking assessment at end user and within plant has minor changes. New information on effect on "**ship to plant"** is added. Line stoppage at "ship to plant" or part replacement at dealers are also considered to be higher risk in terms of severity. If there is some minor reaction plan at ship to plant, severity reduces.

5.2 Occurrence Assessment (OCC): 3 Methods – Time based occurrence added for ease of ranking

Typically, occurrence ranking is difficult to decide if there is no data. Even though collecting cause wise data is ideal, often difficult or some time not possible. So alternate methods to assign ranking for Occurrence is "time-based occurrence" or "teams judgement based on degree of prevention control" established on causes.

5.2.1.Occurrence Data Based: Occurrence ranking by this method is useful where cause wise and failure mode wise data is available. This method of assessment remains same.

5.2.2.Time based cause occurrence: Whether cause occurs once in a shift (Occurrence ranking =8) or more than once in month (occurrence ranking =5) or once in year (occurrence 3) can be known by recording cause whenever it is noticed.

5.2.3.Occurrence Potential: Based on the type of control on the cause whether it is behavioural or technical, team can do judgement and assign occurrence ranking when data is not available.

5.3 Detection method (DET): Maturity of detection is considered in assessing the risk. Suppose company adopts new method of detection, which is not proven or new technology, then detection risk is higher till R&R results are proven to be within acceptable band. Quality of detection a) no detection b) random detection, c) subjective measurement/instruments d) automatic alerts from machine e) defective part is automatically locked in subsequent stations or same station e) cause level Poka-Yoke are considered without many changes.

5.4 RPN to Action Priority: New Action Priority Table is wisely designed to make Risk Assessment much more practical. Refer below Table, RPN has limitation of assigning same risk for all 3 cases. RPN considers same weightage for SEV, OCC and DET. However, new detailed action Priority table is provided for making better decision about the RISK associated with each cause.

SEV	OCC	DET	RPN	AP
8	6	3	144	High
6	8	3	144	Medium
3	6	8	144	Low

1. **Optimization:** Recommended actions with category of detection or prevention type, implementation status of action along with evidence of implementation to be added in FMEA. Impact on the risk after recommended action to be assessed as it was done earlier.

1. **Risk Documentation:** New FMEA recommends CFT team to formally document the risk and communicate the RISK to top management. New FMEA addresses responsibility of top management to understand the RISK and own up responsibility to ensure all HIGH-RISK items are acted, risk is minimized before launch.

Improvements and recommendations in FMEA approach

- **FMEA MSR:** Apart from Design FMEA and Process FMEA there is supplemental for FMEA for monitoring and system response. For example, if tyre pressure low or air bag faulty or various other abnormalities, vehicle can indicate on screen or mobile apps. Many new products are coming with various performance monitoring of the products. This minimizes the RISK before the occurrence of failure. Along with DFMEA if company adds some monitoring devises there is different way of addressing the risk which is developed as FMEA MSR.

- **Collaboration with customer and Supplier:** New FMEA fosters collaboration with ship to plant, as well as supplier. This will enable to have better understanding consequence at "ship to plant" and "end user". Knowledge sharing related to product, Process, effect, failure mode, causes and controls takes place between supplier, organization and ship to plant (customer)
  Foundation FMEA: Company must create process wise FMEA, and it serves as foundation FMEA for new products. This foundation FMEA contains maximum required common information which reduces the effort and time to develop FMEA during new product.
  Terminology Change: Part to "Process Item", Operation to "Process Step", new term "Process Work Element" and more new terminology added.
  Clearly spelled limitations: FMEA has limitations like dependency on knowledge of team, qualitative & not quantitative, possibility of variation in language while writing and it is not multi-point analysis.
  Clearly specified out of scope: FMEA scope is only technical risk. FMEA handbook is not for assessing financial risk, time risk, strategy risk.
  Usage of Spreadsheet or software: Since there are lot of linkages and many columns to address, it is recommended to use spread sheet or software.
  Linkages: AIAG-VDA handbook has represented linkages through pictures and tables with colours. Application of tools like Boundary diagram, P-Diagram added.
  Additional tools to make Process FMEA effective:
  AIAG-VDA new handbook is suitable for those who have been practicing FMEA for years and may be difficult for novice. Over and above AIAG VDA FMEA, there are many best-in-class practices while applying FMEA integrated by author includes

	Gemba, Video Recording	**Tasks performed by human, machines need to be mapped by visiting Gemba or video recording or if process is not established, it can be through steps or animations developed during process design.**
	16 Human Error modes	Understanding of each error mode in depth and clearly identifying all possible human errors can enhance listing of all possible man related causes with clarity.
	8 Functional errors & Why-Why	Determining all functional errors and determining sub causes of them using why-why determination of more possible causes
	Separate Risk Assessment for Failure Mode and causes	Having Failure mode and causes in different rows of FMEA and separately estimating the risk provides much better clarity where action is needed
	Cause Analysis Table	This tool helps to determine systemic actions
	Linkages to process controls	Establishing linkage of Past trouble data base with FMEA and then from FMEA to SOP helps to come with clearly defined key points and consequences. Linkage of FMEA with Control plan, PM check, start-up and set up checks can improve various systemic controls
	13 Principles of Human Error Prevention	Understanding 13 principles clearly along with its applications helps to minimize human errors through various technical actions.

2. Keep roles flexible with due competence building : Multi tasking is their cup of joy. Do not deny it. If shop floors should multi skill, why not offices too. Transfer the skills from matrix to action. Flexibility should be beyond "timing". Give freedom for them to workout on their own to interchange jobs/tasks if they want to.

The rule of Competence is sacrosanct. This would give a strain on monitoring individual specific performance, but why sweat over it. Give higher weightage to team performance, so they will shore up each other.

3. **Reviews and Meetings : Physical is passe.** (COVID-19 only precipitated it). Virtual rooms (like how you play mobile games) are the way to go. Gamify the meetings. Make them fun. Within expected norms (like Time management) choose options to make them participative and productive. Always give sincere, hard and impactful comments on feedback. Remember Gen Y respects knowledge not just age & hierarchy.

Some specifics :

1. **Daily Work Management(DWM)** – Don't " paint it" as dull and routine. Make roles crisper and focussed to the contextually important points. Keep changing the focal points from quarter to quarter to keep up freshness. Standards are a must no doubt but not to be seen as "blinkers". Ensure brevity with controls only on "risky" points. Give flexibility to imagine and implement on the go. Praise for compliance is not a delight factor for the Millennials. Pay more compliments to the ability to prevent outliers and the ability for a pull back with alacrity. Data for all simply because it's digital is very risky. Ensure that data visibility and review options go with the Org Structure and role needs chosen. Do not allow layers of comments to be heaped upon every outlier.

2. **Policy Management** :Presumably a very interesting challenge for the Millennials. With traits like Confidence & Creative they do make a mark in PM. The way they lap up opportunities like "Shadow Board " and come up with some radically practical (oxymoron!!) ideas is a testimony to this . We need to emphasise the connect to the "Big Picture" and not to make the Means and CPs as a hand down!!. We need to keep the teams highly charged and keep reviews at an "ON Demand" basis. Specify outer limits for time and lower limits for targets. Let them get that sense of superior achievement. Design for some quick finish means by which the progress is rapid and visible. Mini Celebrate every success. Challenge shortfalls and push for results.

3. **Continuous Improvement** : Teams are what millennials enjoy. Leverage that. Hierarchy is neither feared nor gloated upon by the Millennials. We have experienced it as parents. So put this to good use. With Millennials barriers of QCC/ QIT can be broken. Make teams seamless and task/target oriented . Any one deemed to contribute is welcome. Training on Systematic problem solving is a must. Shun quick fixes. Ensure technological enablement of navigation through a QC story, including Tool selection if required. Poka Yoke the urge to skip steps. Projects and meetings need not be rigid in time lines. Ensure digital visibility of progress and public praise.

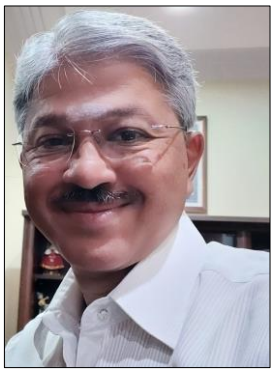
Parting thoughts: Many companies appreciate firefighting, and problem solving. They ignore these problems occurred due to poor controls established during design and development. Companies learning and practicing new improved FMEA approach leads to hundreds of recommended actions during new product development. These improved controls minimize risk of failures, defects and recall. Success of FMEA depends on company having true intent of defect prevention rather than passing audit, top management commitment for quality, long-term thinking instead of immediate benefits, focussed work of cross functional team which has technical knowledge of product and process.

About the author:

Mahesh Hegde, President, ISQ Pune Chapter has a BE in Mechanical Engineering and is a founder & MD of *LearnEx® Consulting Pvt Ltd.* He has an experience of 20 years with 17 years in training and consulting in the field of quality. He is trained by Quality Gurus like Mr N. Ramanathan and Japanese Gurus like Prof. Hitoshi Kume, Prof. Yasutoshi Washio, Noriaki Kano and Renault-Nissan Institute -France on SPR. He is an expert in TQM, Six Sigma, Problem Solving basic to advanced level, various types of DOE, Daily Management, FMEA, SPC, World class SOP, MSA, Human Error Prevention, Application of statistical tools for practical problems, VSM. He has presented papers and published articles in international conferences, and magazines/ newsletters of quality conferences.

'Smart and Innovative work by Breakthrough Management Team for reducing Cost of Poor Quality'

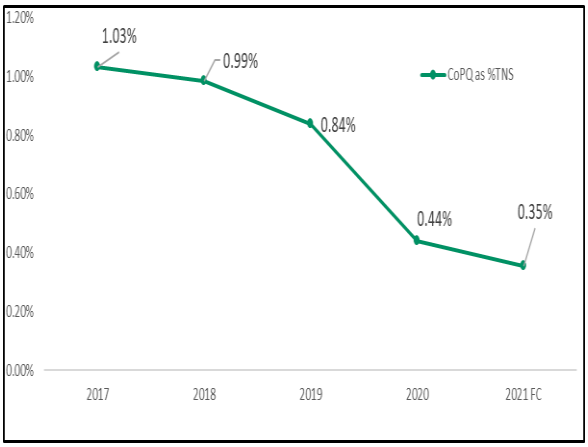
By: Chandra Mouli S
Head of Quality and After Market Service, SEG Automotive India Private Limited.
Vice President of ISQ , Bengaluru chapter



This column is presented as a part of experience sharing. The experience of "journey towards excellence" with specific KPRs, most crucial being World Class Quality (WCQ). Pre-requisites to WCQ are zero defect both in Before In Service and After In Service, zero rework (100% First Pass Yield) throughout the value chain and complete control on Cost of Poor Quality (CoPQ).

CoPQ is the waste generated in an organization which has to be killed before it does.

In order to achieve ambitious results, Breakthrough Management Team (BMT) for WCQ is put in place at SEG Automotive India Private Limited. The activity is daily by the team of middle level management, front line managers in shop and quality. Of course, continuous support on demand from Engineering and Maintenance. BMT targets are derived by the team itself and are far more stretched than the Business Plan targets. Obviously, special efforts are needed with a different mindset to achieve extraordinary results. The graph of CoPQ shows year on year trend of CoPQ as a % of Total Sales



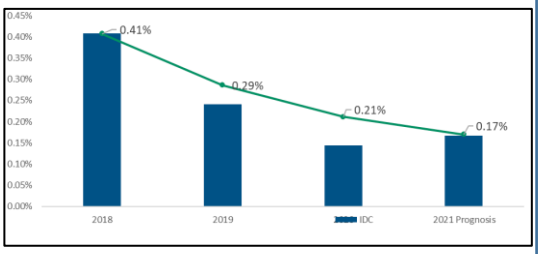
COPQ is basically is a sum of Internal defect cost + External defect cost + Analysis cost + Sorting out cost. At SEG we understood the importance of COPQ which was affecting our bottom line and through COPQ reduction we could directly contribute to profitable growth and liquidity of the company.

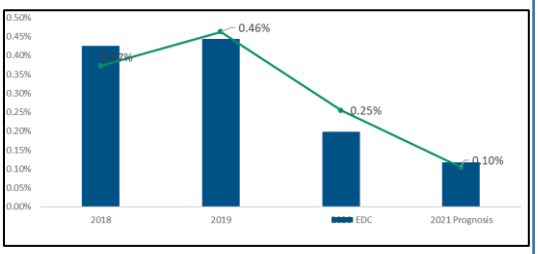
Major Initiatives to reduce COPQ

- Understanding the effect of COPQ on health of Quality KPI's.
- Daily focus on First Pass Yield to reach 100% for assembly lines and 99.5% for subassemblies
- Identify 95% causes for each failure mode for field complaints.
- Work towards 'Mindset' change on shop floor to create awareness on Cost of Poor Quality

- ✓ **Question everything – don't accept these myths:**
  - ❖ **Destructive test is mandatory**
  - ❖ **100% First Pass Yield is not practical**
  - ❖ **Frequent change over leads to set-up scrap**
  - ❖ **With available resources, we can solve problems one by one**
  - ❖ **Too much of quality controls need high investment**
  - ❖ **Technology limitation**
  - ❖ **Severe abuse by customer**
  - ❖ **Parts are okay as per spec, so not our problem**

- ✓ What we have inculcated so far:
  - ❖ Trust, Transparency and Teamwork (within SEG and including Suppliers, Customers).
  - ❖ Accept mistakes and find Root Cause(Supplier– SEG – Customer).
  - ❖ Reduction of IDC by using dummy samples for weld strength checking instead of running parts (see graph showing IDC trend as % of manufacturing cost).
  - ❖ Improve processes through FMEA line walk, technical ideas, poka yoke to reduce IDC.
  - ❖ Introduction of ECU logics for BSIV and BSVI vehicles to eliminate field complaints and reduce EDC (see graph which indicates EDC trend as % of Sales to Third Parties).
  - ❖ Innovative ideas like Thermal Protection and Surge protection to avoid field failures in electrical products to reduce EDC
  - ❖ Proactive weekly review with Customer and Senior Management to evidence effectiveness of actions.





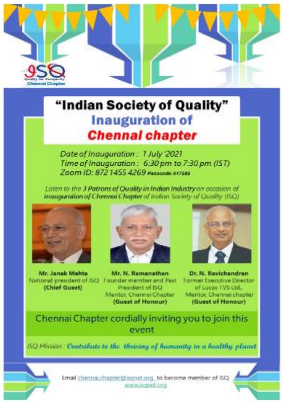
About the author:

Mr. Chandra Mauli is Senior General Manager, Quality Management & Field Service at SEG Automotive India Private Limited. Mr. Chandra Mauli has a B.E. in Industrial & production and post graduate diploma in marketing. He has also completed advanced training in Executive Management from IIM Bangalore and Level 1 and Level 2 Management Development Programs organized by Bosch Limited. He has total work experience of 30 years and worked in various positions and locations of Bosch. Mr. Chandra Mauli is an Internal auditor for IATF 16949, VDA6 part 3, ISO/IEC 17025 and a Senior Assessor for EFQM Business excellence model from CII. He has completed 5 external assessments, one SMB assessment and one internal assessment .
He has received the Best paper award conducted by ASQ in Japan, 2009 (Topic – Prosperity through quality).
Mr. Chandra Mauli is also Vice President of ISQ (Indian society for Quality) – Bengaluru Chapter.

ISQ Chennai Chapter -The New Kid on the Block

"Namma Chennai" arguably the TQM Capital of India added another feather to its Quality Cap on **1st of July 2021**, by the launch of the Chennai Chapter of ISQ. In a program which was completely digital as per the "New Normal", was graced by the presence and participation of the Doyens of the TQM movement in India.

The program began with the Traditional Invocation and e-Lighting of the Lamp by the dignitaries. The audience were welcomed by Mr. Thomas Mathew (VP_EC), wherein he reaffirmed the Chapter inauguration fulfilling a long felt need of the Quality professionals of Chennai.



Mr. Janak Mehta, President of ISQ and Chief Guest for the function recalled the journey of ISQ. Ina nostalgic moment he recalled his association with Chennai at the start of his career at Union Carbide, Chennai. He also briefly explained the new Vision & Mission of ISQ and the evolving hub and spoke structure of ISQ with multiple Chapters / Divisions/ Forums & Committees for the benefit of the chapter members. Mr. Mehta then formally inaugurated the chapter and instated Dr. S. Rajkumar as it's first president.

Then the First executive Committee of the Chennai Chapter was introduced by Mr. Nandakumar , Secretary, with a dash of purposive humor.

Dr. N Ravichandran, Chapter mentor and a Guest of Honor, who spoke next urged the importance of Gemba focus for the Chapter to " Make Products that Speak" and advised the members to invest more time with the MSME through various kinds of training including making many "Operation Specific Booklets" with emphasis on Quality, which can be prepared by collaborating with the veterans of industry available.

ISQ Chennai Chapter -The New Kid on the Block cont'd…

Mr. N. Ramanathan , Chapter Mentor and a Guest of Honor , recalled the importance of a Local Chapter even in a web world , for better local contacts and ease of physical meetings , there by increasing the opportunity to build the member base which is the purpose and of ISQ . He a appreciated the diverse composition of the EC, representing the spectrum of industry sectors in and around Chennai. He encouraged the chapter members for active participation in ISQ National level activities like Annual Conventions , newsletter articles and suggested that the Chapter should have sustained promotional activities like Monthly Colloquia, Expert speeches. He mentioned the importance of inducting the new members in a structured manner to carry forward the ISQ Credo. All the speakers stressed on the need for the Chennai Chapter collaboratively with existing Quality Forum like NIQR , in promoting TQM .

In his acceptance speech, Dr S Rajkumar, Chapter president, rolled out 7 Point Objectives and a 7 Point action plan for the 1st year, reflecting the many guidelines given by the Chief Guest & Mentors.

The occasion was also embellished by encouraging words from Mr. Shandilya who stressed on developing the mindset of Quality Starts from Me. The Presidents of the other ISQ Chapters , encouraged the younger sibling and urged on the need for a collaborative promotion. All the speakers appreciated the Professional conduct of the inaugural and the hosting by Ms. Srividya. The function ended with the vote of thanks proposed by Mr. Sundara Rajan ; an EC member.

ISQ News:

HOPE Health of Planet Earth through QUALITY

N. Ramanathan

Quality Earth Forum organized the two-module program online one each on 3rd & 10th July 2021 -10 30 AM to 12PM. The program was designed and delivered by **Mr. N. Ramanathan** for everyone concerned with the challenges in keeping our planet healthy and humanity thriving, for all managers concerned with sustainability or quality and for academics, students, administrators and professionals in many walks of life. It was free for members.

The Quality Earth Forum of ISQ focuses on environmental or planet earth concerns. The concept is that the sustaining of the earth's resources goes along with human existence, without which it has no meaning.

The objectives of the program was to learn about

- The types of concerns about the health of planet earth, and their sources.
- Approaches to countermeasures to prevent harm, such that humanity can thrive.
- Quality-based management approaches to preserve the health of the planet.

145 participants attended the two-module program which was well received and appreciated by the participants. Based on the popular demand, ISQ will be repeating this program in beginning of 2022.

ISQ Pune Chapter News

ISQ Pune Chapter EC member Mr. Raghavendra Deolankar well supported by the Chairman Mr. Sunil Kaul and President Mr. Mahesh Hegde kickstarted a collaborative initiative with academia in July-21. A Webinar titled **"Quality Leadership for Responsible India"**was jointly organized by ISQ and **ICFAI Business School, Pune (IBSP)** 24th July 2021**. The Objective of the Webinar conducted by the eminent Guest Speakers was to give us knowledge about Quality Management ,and to make the Youth come forward to represent India around the world to make " Quality a Way of Life".**

Mr. Prabhakar Shettigar – GC Member & Executive Director at ISQ India, Mr. Raghavendra Deolankar - EC Member, ISQ Pune Chapter, Mr. Sunil Kaul - , Chairman, ISQ Pune Chapter, and Mr. Mahesh Hedge – President, ISQ Pune Chapter led a Panel of Professionals from the Indian Society for Quality (ISQ) to discuss Topics on Quality. Through their excellent presentations, they developed the Concept of Quality Leadership. The Webinar was well-attended by Working professionals from ISQ, IBS Pune Students and faculty members, resulting in a successful event.

After the presentation by the Speakers, a Question-Answer Round was conducted, and the best Questions by the Students were judged by the Mentors of Operations Club Dr. Bidhan Datta and Prof. Rajaram Krishnaswami.

Automotive Recall notification and consequences
Preventive and Reaction actions for organizational readiness
E-Learning Program

ISQ Pune Chapter organized an eLearning session on 24th July 2021 by **Mr. Rahul Yadav**, Head of Department, General Manager in 'Excellence in Manufacturing & Services' function of ANAND Group. The Ministry of Road Transport and Highways (MoRTH) has announced that all the carmakers will be made to undertake a mandatory recall to fix issues in a vehicle (that impact safety & environment) and this decision can be on the basis of complaints received or internal findings. Certain criteria or threshold limits will trigger the recall. Thus, automotive Recall have become mandatory from 1st of April 2021 & goes back to seven years from date of manufacturing.

Hence the eLearning session on Automotive recall notification was an important learning to professionals responsible for quality in the entire process chain and those who deal with customers directly or indirectly. 86 participants took benefit of the program.

ISQ Pune Chapter News

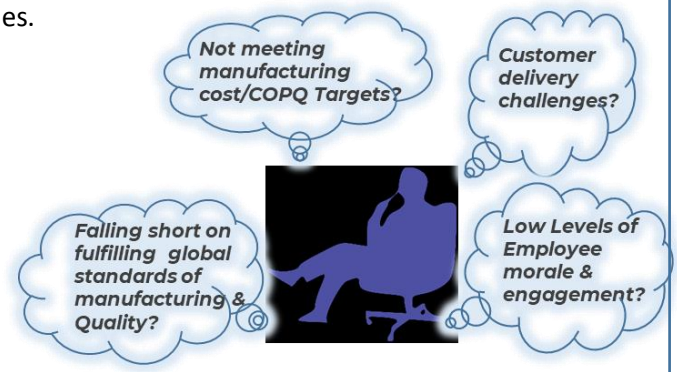
UDAAN *The Journey Towards Self Reliance*

21st August 2021

MSME PROGRAM COMMENCEMENT: PANEL DISCUSSION, an initiative by Pune Chapter of ISQ to support small and micro enterprises and

- enable them to initiate a journey to come out as a winning player.
- Converting Current Challenges into Business Opportunities.

Some Challenges of MSMEs



Purpose

ISQ Pune chapter as a step towards its vision – "be the principal national forum for leaders, professionals, and academics for exchange of knowledge on delivering quality that benefits humanity", initiated a well curated program called **"UDAAN"** to initiate and strengthen MSME's efforts in their journey towards excellence.

The Udaan program commenced with a Panel discussion on 21st August 2021 with the Quality Guru and Industry experts

The program started with Mr. Mahesh Hegde, President Pune Chapter-ISQ giving a welcome address to the panelists, MSME delegates and participants and setting the contest.

Mrs. Sarika V. Joshi was the moderator for the panel discussion.

172 participants attended virtually. The first step of Udaan, Panel discussion was well appreciated by the participants with the panelists and moderator bringing out the challenges, needs and action plan effectively . Panel discussion was conducted in both Hindi and English.

Panelists UDAAN

The next Modules:

- ❖ Mindset change
- ❖ Quick wins
- ❖ Implementation review
- ❖ Customized modules
- ❖ Implementation review

The program concluded with Mr. Valmik, Executive member, Pune Chapter giving the vote of thanks.

ISQ Chennai Chapter News

First Knowledge Sharing Session

The Chennai Chapter kickstarted knowledge sharing sessions with a topic of **"Japanese Management Practices (JMP)- Challenges and how to turn it to opportunities",** on July 29,2021 by Prof. Prem Motwani.

Prof. Prem Motwani is a former Professor at Jawaharlal Nehru University in the Japanese Department, School of Language, Literature and Culture Studies. He has a vast experience of Japanese Management Practices since he is involved in many TQM and TPM related assessments done by Japanese agencies as language interpreter, which had given him a ring side view of the adoption of the practices by many companies as well as the Japanese assessors' view of the practices.

Prof. Prem Motwani

Professor – Jawaharlal Nehru University (Japanese department)

Author of "Becoming World Class" Book & others Awarded with 'Order of the Rising Sun, Gold Rays with Neck Ribbons' by the Government of Japan

Prof. Prem Motwani shared the TQM Principle and Philosophy along with the unique feature of the Japanese approaches such as dissemination through keiretsu (Developing and deploying a practical working model), strong TWI (Training within Industry) and Monozukuri wa Hitozukari (Lifelong training) etc. Professor emphasized on gaps in the Indian approach to implement Japanese Management Practices and cultural roadblocks. He suggested to improve the existing eco system through empowering blue-collar people more, reduce the dependency on consultants and put self-effort, establish the long term prospective of development and arrest the high attrition rate of employees which leads to break in continuity of a methodology etc. While expressing his concern over the compromising of underlying philosophies of JMPs in India such as Total Employee Involvement, Built in Quality, Cross Functional Management, use of data to make decisions, prevention approach etc., Mr Motwani also suggested the way forward for corporate to create self-reliant India. This program was attended by around 40 people from various type of industries. Mr. Vishwadeepak, EC Member of Chennai Chapter introduced Mr. Motwani. Mr. Nandakumar, Secretary of Chennai chapter moderated the session. Dr S. Rajkumar, President of ISQ Chennai Chapter, felicitated Prof. Prem Motwani.Mr. Babu Sivalingam, EC Member of Chennai chapter offered the vote of thanks .

ISQ Chennai Chapter
2nd Knowledge Sharing session
Bench Marking & Lean Design

The Chennai Chapter of ISQ hosted its 2nd Knowledge Sharing session on 28th Aug 2021. This session was on the perpetually relevant topic of "Benchmarking and Lean Design ". The Subject Matter Expert(SME) , for the topic was Mr. Mark Limage (Mark) , who is the MD of M/s Munro Associates of UK , with over 25 years of experience with the Auto and related industries.

ISQ Chennai chapter - 2nd knowledge sharing session by Mr. Mark Limage (28th August 2021)

ISQ Chennai chapter - 2nd knowledge sharing session by Mr. Mark Limage (28th August 2021)

Mark explained the multiple purposes of benchmarking viz Product / Process / Systems etc. Excellent examples for BM using multiple case studies were shown, interspersed with Videos and pictures . he emphasized on the importance of the Design Engineers right from the Tear Down stage to understand the wholistic system. He then explained the linkage between Benchmarking and Lean design (as in pic). The 3 mantras explained about lean Design was very interesting – See, Think about & Do the design differently. He emphasized the need for Design Engineers to understand that Lean Design directly influences the profit made by the product/ company.

Mr. N. Ramanathan, the Chapter Mentor and Special Speaker for the session , appreciated Mark's deep knowledge of the subject and simple explanations .He recalled his experiences with the Toyota's NPD system and how it should help promote multiple facets like early supplier involvement , flexibility at early design stages of concurrent engineering(Set Based Thinking) , cross functional management and interproject cooperation . He cautioned the over emphasis on attractive quality at the cost of must be quality in the digital era leading to " Digital Frustrations ". Both the esteemed speakers were e-felicitated by Dr S Rajkumar , President , ISQ Chennai Chapter . The entire session can be viewed on YouTube under ISQ Chennai Chapter .

International News:

Quality Earth Forum of ISQ

presents

Quality Sustainability Award 2021

Call for applications for the quality innovation award 2021 received good response from the participants. 45 applications were received

The expert panel evaluators systematically went through the process of evaluation based on the guidelines set by IAQ (International Academy for Quality) and shortlisted 18 applications for the next Jury round.

12 projects have been selected for the national finals – a presentation round to be held on 1st October 2021.

The selected projects in this national finals will be eligible to apply for the international competition of QSA.

ANQ CONGRESS 2021

Theme: Relentless Pursuit of Quality in a VUCA World"

(Volatile, Uncertain, Complex, Ambiguous)

Dates:

20 – 21, October 2021

Organized by: Singapore Quality Institute through Zoom

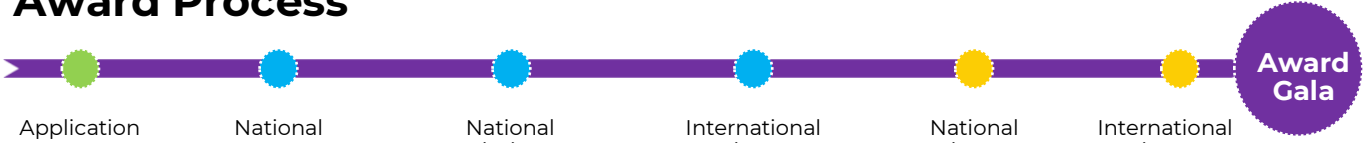
ISQ, being a board member in Asian Network for Quality (ANQ), invited papers for ANQ Congress 2021 from India. It received overwhelming response. 47 abstracts were received from various organisations out of which 37 abstracts have been shortlisted to submit papers for Organized ANQ Congress 2021.

Quality Innovation Award

As a national partner to the coveted international Quality innovation award, ISQ, for the second year in succession, has called for applications for the Quality Innovation Award 2021 from India. The award is initiated by the Finnish Quality Association since 2007.The last date for submission of papers is 28th September 2021

For updates visit http://www.qualityinnovation.org

Award Process



ISQ annual conference 2021 an update:

Date: 9-11, December 2021 Delhi/ NCR

Theme: Rebooting Quality for Competitive India

For updates stay in touch with www.isqnet.org

Invitation Message by President ISQ

https://www.isqnet.org/ISQConference/message-from-isq-president/index.html

ISQ Symposium 2022 :

An event to advance quality management by providing a common platform for both academicians & industry practitioners to present the research/ implementations through technical & scientific papers of higher order in the field of quality in **February 2022**. Stay tuned for further details at www.isqnet.org

Newsletter

Indian Society for Quality

Welcome to the new Life Members!

A warm Welcome to the ISQ family!

We value you joining hands with ISQ to fulfill ISQ's mission :"*Contribute to the thriving of humanity in a healthy planet ".*

We look forward to your valuable contribution to serve the humanity through this forum.

Anand Somabhai Patel	Asst. Professor, Mechanical Engg, Dept	Institute of Technology, Ahmedabad
B. Raajkumar	GM- Business Excellence	TAFE - Chennai
Vinothkumar Rajendran	Founder - iTRACK SOLUTIONS & Co	iTRACK SOLUTIONS & Co, Chennai
Sunil Dattatray Kulkarni	Self employed	Consulting professional
Praveen P. V.	Asst General Manager - Corporate TQM	Ashok Leyland Ltd - Hosur
Babu Sivalingam	Associate Vice President	Tata Consultancy Services, Chennai
Sivanesan R.	President Quality	Ashok Leyland Ltd, Guindy , Chennai
Ashok Kumar J.	Executive Director	Salem Gopi Hospital , Salem
Arun Shankar G.	Manager	JSW Energy Ltd, Toranagallu, Bellary
Sameer Subhash Pathak	Deputy General Manager	Mahindra & Mahindra , Mumbai
Vishwas R. Puttige	Business Head	Amace solutions pvt limited, Bengaluru
Pushkar Pande	Asst. General Manager	Maruti Suzuki India Ltd, Gurgaon
Raghavendran K. B.	Plant Operations Head	AISIN AUTOMOTIVE KARNATAKA PVT LTD, Kolar, Karnataka
Kumar S.	General Manager	ATC Tires Pvt Ltd.,Tirunelveli, TN
Vikas Matta	Plant Head	Hero Motocorp Ltd, Gurugram
Sandeep Saini	Divisonal Manager	Ashok Leyland Ltd. Pantnagar, UTK
Kumar S.	General Manager	ATC Tires Pvt Ltd., Tirunelveli
Vikas Matta	Plant Head	Hero Motocorp Ltd, Gurugram
Sandeep Saini	Divisonal Manager	Ashok Leyland Ltd. Pantnagar, UTK
Anand Prakashbabu Mistry	Deputy General Manager	Larsen& Toubro Ltd, Defence, Hazira Mfg complex, Surat394510
Ramesh Baluswamy	Chief Manager TQM	TVS Credit Services Ltd,, Chennai
M. S. Shankar	Vice President, Engine Operations	VE commercial vehicles, Pithampur
Tansen Chaudhari	COO & CTO	Fluid Controls Private Limited, Mumbai
Aditya Kumar Srivastava	President & Head of Operations ,	VE Commercial Vehicle Ltd

Welcome to the new Annual Members!

A warm Welcome to the ISQ family!

We appreciate you becoming annual members of ISQ. We look forward to your valuable and long-term contribution to serve the humanity through this forum.

M.Anantha		Amararaja Power systems
A.Munikrishnama Raju		Amararaja Power systems
M.Prasad		Amararaja Power systems
S.Naveen		Amararaja Power systems
N.Mohankrishna		Amararaja Power systems
R.Satyanarayana Reddi		Amararaja Power systems
N.Prasad Reddy		Amararaja Power systems
S.Madhu		Amararaja Power systems
M.Kavitha		Amararaja Power systems
S.Mohana lakshmi		Amararaja Power systems
M.Vivek		Amararaja Power systems
S.Hari Babu		Amararaja Power systems
B.Bhaskar		Amararaja Power systems
R.Sunil		Amararaja Power systems
K.Rupesh kumar		Amararaja Power systems
Swagata Deb		Ceat Ltd
Ashok Muthuswamy	VP BE & TQM	Tractor & Farm Equipment (TAFE)
Ganesh Srinivasan	CEO,	Tata Power Delhi Distribution Ltd, New Delhi
Dwijadas Basak	Sr. General Manager	Tata Power Delhi Distribution Ltd, New Delhi
Suranjith Mishra	Chief Financial Officer	Tata Power Delhi Distribution Ltd, New Delhi
Subrata Das	Sr. General Manager	Tata Power Delhi Distribution Ltd, New Delhi
Rajesh Bahl	Chief Network Sevices & Quality	Tata Power Delhi Distribution Ltd, New Delhi
Subir Verma	Chief HR IR &Health Services	Tata Power Delhi Distribution Ltd, New Delhi
H. C. Sharma	GM Head(Engg & Qulaity	Tata Power Delhi Distribution Ltd, New Delhi
G. Ganesh Das	Chief-Strategy, innovation, collaboration and R&D	Tata Power Delhi Distribution Ltd, New Delhi
Siddharth Singh	General Manager,	Tata Power Delhi Distribution Ltd, New Delhi
Santadyuti Samanta	Chief IT-TPDDL	Tata Power Delhi Distribution Ltd, New Delhi
Yogendra Singh Butola	Chief BD & C&S	Tata Power Delhi Distribution Ltd, New Delhi
Kunal Pareek	Dy. General Manager	Tata Power Delhi Distribution Ltd, New Delhi
Gurpreet kaur Sehgal	Manager	Tata Power Delhi Distribution Ltd, New Delhi
Uchit Kumar	Manager	Tata Power Delhi Distribution Ltd, New Delhi
Anuj Sharma	Officer	Tata Power Delhi Distribution Ltd, New Delhi
Hrishita Goyal	Asst Office trainee	Tata Power Delhi Distribution Ltd, New Delhi
Sowmesh Chandran	Assistant Manager	Tractors and Farm Equipement Ltd, Chennai
Avinash Belamkar	Senior Manager	Mahindra & Mahindra Ltd, Mumbai
Rohit Pathak	Dy. General Manager	Mahindra Institute of quality, M &M
S. Sivaraman	Manager Lean Sigma	Carborandum Universal Ltd, Chennai

Welcome to the new Student Members!

ISQ warmly welcomes young minds of India to our family!!

We look forward to the fresh ideas and enthusiastic participation during ISQ events in your journey to become knowledgeable professionals.

Janak Makarand Kanade	B. Tech Production Engg	Vishwakarma Instt of Technology, Pune
Jay Parimal Gohel	Studying PGPM	ICFAI BUSINESS SCHOOL, PUNE
Muthuchary Tukkapuram	Studying PGPM	ICFAI BUSINESS SCHOOL, PUNE
Abdullah Khan	Studying PGPM	ICFAI BUSINESS SCHOOL, PUNE
Kaki Kumar Akhil	Studying PGPM	ICFAI BUSINESS SCHOOL, PUNE

Be a member of ISQ

Download the membership form here

ISQ look forward to you to introduce professionals with passion for quality, align with its objectives willing to contribute; as members of ISQ. Those whose membership has ended in March 2020, it is time to renew the same.