



Prepare yourself for the AI enhanced Quality Era by attending the Major Convention on "Redefining Quality Leadership Resilience and Agility for the New Era" @ Hotel Feathers, Manapakkam, Chennai - on 28th & 29th Augst 2025

Message from National President, NIQR

It is my privilege to communicate with you through this newsletter as we reflect on another period of growth and accomplishment for NIQR. The latter half of 2024 has been marked by landmark events such as the 250th Quality Awareness Programme, which stands as a testament to our sustained efforts in promoting quality consciousness across industries. As we move forward, the need for collaboration and innovation becomes even more critical.

We take great pride in informing you all that NIQR successfully conducted the 10th Annual six sigma competition with a record number of teams participating in the event. We at NIQR, are happy to inform you that we felicitated the Deming Prize winners of 2024 and Deming grand prize winner of 2023 at a grand function in December 2024 reinforcing our commitment to promote best quality practices.

The MOUs with Mohamed Sathak Institutions signify our commitment to forging strong partnerships that bridge the gap between academia and industry, fostering a new generation of quality-driven professionals.

NIQR has consistently adapted to emerging trends, from embracing Risk-Based Thinking to exploring advanced methodologies like digital transformation in quality management. I encourage every member to actively engage in our initiatives, ensuring that quality remains a cornerstone of industrial and societal growth. Let us continue this journey with the same passion and determination that has defined NIQR's legacy.

With warm Regards,

S Muralishankar, National President, NIQR



Message from Chairman NIQR Chennai Branch



It is with immense pride that I present this edition of the newsletter, highlighting the achievements and activities of the Chennai Branch. The successful completion of the 250th Shop Operatives Programme was a monumental milestone, demonstrating the dedication of our team and the trust placed in us by industries. Our training sessions on New QC Tools, Cost of Poor Quality, and other key topics have received overwhelming appreciation for their practical relevance and impact.

In today's dynamic world, the integration of advanced technologies like AI and predictive analytics in quality processes is reshaping industries. Staying ahead of these trends is vital, and NIQR remains committed to equipping members with the knowledge and skills required to navigate these changes. Thank you for your unwavering support and active participation. Together, let us continue to push the boundaries of quality excellence.

Best Regards,

R. Sriram, Chairman - NIQR Chennai Branch.

Message from Secretary NIQR Chennai Branch

Dear Colleagues, We've had an incredible six months that have energized and excited us, bringing NIQR closer to its VISION and MISSION. We all witnessed the grandeur of the unique 250th Quality Awareness Programme, which was attended by over 270 participants from 60+ organizations. This event truly shone as a diamond in the glittering crown of NIQR.

We also hosted the prestigious 2nd VK Medal Competitions, and as always, the Award Function was a memorable occasion. The Quality Month was celebrated with great enthusiasm and participation from the entire NIQR family. The Quality Tit Bits, shared daily with our members members in the Quality Month, stand out for their variety and high-quality content.

In addition, we have organized numerous training programs, webinars, and competitions throughout the past six months. All these events and milestones have been beautifully captured in the newsletter by our Editorial Team.

Congratulations to everyone, and we look forward to an action-filled future ahead!

with warm regards,

Arulmani P, Secretary - NIQR Chennai Branch.



From the Editorial Desk



Every challenge brings with it an opportunity, and this principle has been the driving force behind NIQR's journey. This newsletter captures the essence of our collective efforts in the latter half of 2024, highlighting events like the 250th Shop Operatives Programme, innovative training sessions, and impactful collaborations with academic institutions. Through these initiatives, NIQR continues to make strides in spreading quality awareness and building a culture of excellence.

As we embrace new trends such as digital transformation and sustainability in quality management, our mission remains steadfast; to make quality an integral part of every organization. We extend our heartfelt thanks to all contributors and participants for their unwavering support. Let us continue to innovate, inspire, and lead as we shape the future of Quality and Reliability.

P. Kothandaraman, Dr. V. Santhanam, Dr. E. Vijayaragavan, S. Kirthivasan
Editorial Committee - NIQR Chennai Branch.



Training Programs

One-day training programme on Daily Work Management (DWM)

On 27th July 2024, the National Institution for Quality & Reliability (NIQR) Chennai Branch conducted a one-day training programme on Daily Work Management (DWM) with 22 participants from 8 industries.

Mr. C. Sundaravadivelu conducted the program, focusing on the significance of maintaining daily operations and continuous improvement. The event successfully equipped the participants with practical skills for effective daily management



Executive Excellence and Outcome Based Leadership

On 10th August 2024, the National Institution for Quality & Reliability (NIQR) Chennai Branch conducted a one-day training program titled "Executive Excellence and Outcome Based Leadership."

The program was attended by 25 participants from 17 industries and was led by Mr. V.K. Venkataramani. The session focused on developing effective leadership skills and achieving business excellence.



One-day training program on New 7 Quality Control Tools

On 21st September 2024, NIQR Chennai Branch held a training program on the "New 7 Quality Control Tools." The session was led by Mr. N. Jagannadha Rao and attended by 18 participants from 10 companies. Participants learned advanced quality control techniques, including practical applications in various industries, to enhance their quality management processes. The new QC tools discussed included affinity diagrams, tree diagrams, and matrix data analysis, all aimed at solving complex problems and improving quality control.



One-day training program on Mistake Proofing



On 28th December 2024, NIQR Chennai Branch conducted a one-day training program on "Mistake Proofing," led by Mr. S. Raja. The workshop saw active participation from 29 attendees representing 9 different industries. The session focused on mistake-proofing techniques tailored for automotive manufacturing

processes, utilizing real-world case studies and practical exercises to enhance quality management.

One-day workshop on Problem Solving Tools and Techniques

On 28th August 2024, the National Institution for Quality & Reliability (NIQR) Chennai Branch conducted a one-day workshop titled "Problem Solving Tools and Techniques." The workshop was attended by 19 participants from 11 industries and was led by Mr. D. Rathinasabapathy. The session provided valuable insights into effective problem-solving tools and techniques for daily and organizational challenges.



One-day training program on Cost of Poor Quality

On 14th September 2024, the National Institution for Quality & Reliability (NIQR) Chennai Branch conducted a one-day training program on the "Cost of Poor Quality." Dr. R. Srinivasan led the session, which was attended by 32 participants from 11 industries. The workshop highlighted the financial impact of inefficiencies and provided actionable strategies for quality improvement.

Total Programmes Conducted: 9

Total Participants: 199

Industries Benefited: More than 25

Key Resource Persons: 7 experts facilitated the programmes.



NIQR Dr. VK Medal for Manufacturing Excellence

The 2nd Annual NIQR-Dr V Krishnamurthy Medal Presentation Function was held on 23rd November 2024 at The Westin Chennai celebrating the remarkable achievements of MSMEs in the manufacturing sector. Instituted in honor of Dr. V. Krishnamurthy, a pioneer in Indian industrial quality and management, the award aims to recognize and promote global standards of excellence among MSMEs.

The awardees, selected through a stringent evaluation process, showcased exemplary practices in operational efficiency, innovation, and sustainability, reinforcing the vital role of MSMEs in driving industrial progress.

This prestigious award has set a benchmark for manufacturing excellence, inspiring MSMEs to adopt innovative strategies and improve their competitiveness on a global scale. The ceremony underscored the importance of quality, innovation, and teamwork in achieving sustainable success.

Venue: The Westin Chennai, Velachery

Participants: MSMEs from diverse sectors

Chief Guest: Sri. S. Ganesh Mani, Chief Operating Officer, Ashok Leyland Limited

Keynote Address: Dr. N. Ravichandran, Chief Mentor, UCAL Fuel Systems Ltd.

Guest of Honour: Sri. P. Kaniappan, Managing Director, ZF Commercial Vehicle Control Systems India Ltd.

V K Medal Awarded to: M/s Prakash Techno Plast India Pvt Ltd, Hosur

M/s Venkateswara Steels & Springs India Pvt Ltd, Coimbatore

V K Medal Committee: Chairman : Dr.S.Rajasekaran, Secretary: Dr.V.M. Gunasekaran



Tenth Annual Six Sigma Competition

The 10th Annual Six Sigma Competition was conducted on 21st December 2024 at Hotel Radha Regent, Chennai, providing a platform for industries to showcase their Six Sigma projects and task management solutions. The event witnessed the participation of industries representing diverse domains such as Automotive, Manufacturing, IT, and Services.

The participating teams presented innovative case studies that demonstrated measurable improvements, showcasing the transformative potential of Six Sigma principles.

This annual competition highlighted NIQR's commitment to fostering a culture of quality and continuous improvement. It provided a platform for cross-industry learning and collaboration, reinforcing the importance of Six Sigma as a strategic tool for achieving operational excellence.

Venue: Hotel Radha Regent, Chennai

Participants: 77 teams from 26 industries

Domains Represented: Automotive, Manufacturing, IT, and Services

Chief Guest: Shri N. S. Venkatamurugan, National Head - Operations & Head - DTI (India), Saint-Gobain India Private Ltd.

Jury Panel: Led by Dr. A. Sanjeeva Rao, supported by Six Sigma experts.

Program Director **Dr V Swaminathan**



Memorandum of Understanding

Two MOUs were signed with Mohamed Sathak Institutions for academic partnerships. These collaborations aim to integrate quality principles into academic programs and foster industry-academia synergy. By promoting initiatives like the NIQR Student Chapter and practical sessions on quality methodologies, these MOUs strengthen the foundation for a quality-conscious future workforce.

Mohamed Sathak Department of Management Studies

On **27th September 2024**, NIQR signed a Memorandum of Understanding (MOU) with the **Mohamed Sathak Department of Management Studies**. This partnership aims to foster collaboration between academia and industry by promoting quality and reliability as core principles. The MOU marks a significant step in integrating quality-oriented practices within academic programs, thereby preparing future managers to contribute effectively to the national quality movement. **Dr. E. Vijayaragavan**, Treasurer of NIQR – Chennai Branch coordinated the MOU process.

Mohamed Sathak Engineering College, Kilakarai

On **28th December 2024**, NIQR signed an MOU with **Mohamed Sathak Engineering College, Kilakarai**, during an event organized by the college's Department of Management Studies. The event featured the inauguration of the NIQR Student Chapter, followed by engaging sessions on quality practices and workplace excellence. 100+ Students and Staff participated in the sessions.

Key Sessions Included:

Special Address: Mr. R. Sriram, Chairman, NIQR Chennai Branch.

Session on NIQR Activities: Presented by **Dr. E. Vijayaragavan**, NIQR Chennai Treasurer.

5S Methodology: Mr. S. Murugan, Sr. Vice Chairman, NIQR Chennai.

Kaizen Principles: Mr. P. Arulmani, Secretary, NIQR Chennai.



Webinar

Webinar: Yoga – A Journey of Self-Discovery

On 14th December 2024, the National Institution for Quality and Reliability (NIQR), in collaboration with Laghu Udyog Bharati, Tamil Nadu, organized its 100th Virtual Seminar titled “Yoga – A Journey of Self-Discovery”. Conducted by Dr. Pavithra, BNYS, a renowned Yoga and Naturopathy Physician, the session aimed to explore the profound impact of yoga on physical, mental, and emotional well-being.

The webinar covered topics such as the importance of movement, principles of a yoga lifestyle, balance diet, and the healing process from within. Participants gained valuable insights into how yoga can address lifestyle disorders and promote holistic wellness. The session highlighted five key takeaways, including the benefits of yoga in life, the role of food culture, and the transition from pain to peace through natural healing methods.

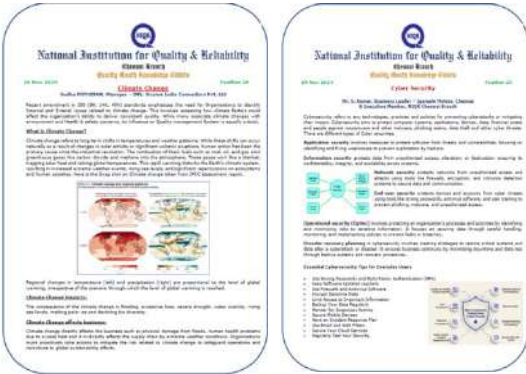
With over 500 participants registered, this free webinar provided a transformative experience, emphasizing the importance of adopting yoga as a tool for better living. The interactive session was well-received, offering practical approaches for achieving a balanced and healthier lifestyle.



Tidbits

Celebrating Quality Month: A Journey of Knowledge and Inspiration

Quality Month November 2024 was celebrated by NIQR with the release of Daily Knowledge Tidbits that illuminated various facets of quality, innovation, and best practices across industries and personal lives. Each tidbit, thoughtfully compiled and released by Mr. P. Kothandaraman, Chennai Branch Vice Chairman served as a valuable resource for professionals and enthusiasts alike. Covering themes like Total Quality Management (TQM), Lean Six Sigma, Artificial intelligence, Cybersecurity, and Climate change, man-machine balance for enhanced productivity, risk-based thinking (RBT) etc., these insights brought a renewed focus on the principles of quality and reliability. Through these daily snippets, NIQR not only highlighted the importance of quality in industrial and organizational growth but also extended its relevance to personal development and societal impact.



Article Corner

Advanced Risk Management Techniques in Modern Quality Systems

In the dynamic landscape of modern industries, risk management has transitioned from a compliance-driven process to a strategic necessity. With the rise of complex supply chains, automation, and global market pressures, organizations are embracing advanced techniques to identify, assess, and mitigate risks. Here are some cutting-edge approaches that professionals can adopt to stay ahead.

1. Predictive Analytics in Risk Assessment

Traditional risk management relied on historical data to assess potential failures. Today, predictive analytics powered by artificial intelligence (AI) and machine learning (ML) is transforming this process. By analyzing real-time data and identifying patterns, predictive models can forecast potential risks before they materialize. For example, in manufacturing, predictive maintenance systems can identify equipment issues early, reducing downtime and costs.

2. Bowtie Analysis for Risk Visualization

Bowtie Analysis is gaining popularity for its ability to visually map risks, causes, and mitigation measures in a structured format. Unlike traditional risk matrices, bowtie diagrams offer a clear representation of how risks evolve and the effectiveness of control measures. This technique is particularly useful in industries like oil and gas, aviation, and healthcare, where safety is paramount.

3. Dynamic Failure Modes and Effects Analysis (DFMEA)

Building on traditional FMEA, DFMEA incorporates real-time updates and feedback loops. This dynamic approach ensures that risk evaluations remain relevant as conditions change. DFMEA is particularly effective in agile environments, such as software development and advanced manufacturing, where rapid iterations are the norm.

4. Blockchain for Supply Chain Risk Management

The integration of blockchain technology in supply chain management is revolutionizing risk mitigation. By providing a transparent and immutable ledger of transactions, blockchain ensures traceability, accountability, and fraud prevention. Industries like pharmaceuticals and food production are adopting blockchain to enhance safety and compliance.



5. Risk-Based Thinking (RBT) in ISO Standards

The inclusion of **Risk-Based Thinking (RBT) in ISO 9001:2015** has shifted the focus of quality management systems from reactive to proactive. RBT encourages organizations to integrate risk awareness into their processes, ensuring that potential failures are addressed at every stage. Advanced tools like **Monte Carlo simulations** are being used to quantify uncertainties and improve decision-making.

The Future of Risk Management

The future of risk management lies in the convergence of technology, data, and human expertise. Emerging trends like **digital twins**—virtual replicas of physical systems—are enabling organizations to simulate and mitigate risks in controlled environments. Additionally, the integration of **cyber security risk management** into broader frameworks is becoming essential as industries digitize their operations.

By adopting these advanced techniques, professionals can not only safeguard their organizations but also transform risk management into a strategic advantage, driving innovation and resilience in a rapidly changing world.

Dr. V. Santhanam
EC Member- NIQR Chennai Branch

Quiz Corner

1. What is the primary focus of the "Plan" phase in the PDCA cycle?
2. Which Japanese term used in quality management translates to "waste" in English?
3. What does the '5' in 5S methodology represent?
4. What is the primary goal of a Poka-Yoke system in quality management?
5. Which quality management principle emphasizes "customer focus" as its cornerstone?
6. What is the lesser-known 8th waste added to Lean methodology beyond the original seven?
7. What is the critical difference between "reactive quality" and "proactive quality"?
8. In Risk-Based Thinking, what is a "severity-weighted failure rate" used for?
9. Which advanced statistical tool is used to analyze the relationship between independent variables and a dependent variable in quality control?
10. What is the unique contribution of Genichi Taguchi's methods in quality engineering?

1. Plan phase in PDCA: Identify improvement opportunities and plan the changes.
2. Japanese term for "waste": Muda.
3. '5' in 5S: Sort, Set in order, Shine, Standardize, Sustain.
4. Primary goal of Poka-Yoke: Prevent or detect mistakes before defects occur.
5. Customer focus principle: Prioritize understanding and meeting customer needs and expectations.
6. 8th waste in Lean: Unused employee creativity.
7. Reactive vs Proactive quality: Reactive addresses defects after they occur; proactive prevents defects before they occur.
8. Severity-weighted failure rate: Prioritize risks by likelihood and severity.
9. Statistical tool in quality control: Multiple regression analysis.
10. Taguchi's unique contribution: Robust design methodology against variability.

ANSWERS

Acknowledgements:

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