

QUALITY HERALD



INDIA'S MANUFACTURING REVOLUTION

Building a Greener,
Safer &
Self-Reliant Nation

BUILDING
A BETTER
TOMORROW



**SUSTAINABLE
MANUFACTURING**

Building responsibly
for a better tomorrow.



**INDUSTRY 4.0
& INNOVATION**

Smart technology.
Stronger tomorrow.



**SAFER WORKPLACES
STRONGER NATION**

Safety today.
Strength forever.



**MAKE IN INDIA
ATMANIRBHAR
BHARAT**

Proudly Indian.
Powering the world.



Table of Contents

<i>Content</i>	Page no.
<i>Beyond Production: India's Manufacturing Transformation</i>	06
<i>Engineering the Future: Digital Innovation as the Backbone of India's Manufacturing Revolution</i>	09
Intelligent Manufacturing: How Digital Innovation is Shaping India's Industrial Future	13
Forging the Nation: Engineering Excellence at the Heart of India's Manufacturing Revolution	16
Engineering Tomorrow: Driving India's Manufacturing Revolution	20
NEWS	24
GLIMPSES	28

ABOUT THE JOURNAL

Quality Herald – The Voice of Excellence is a monthly professional magazine published by Quality Growth Services Pvt. Ltd. (QGS Group).

It serves as a platform for sharing practical insights, innovative ideas, and thought leadership in Quality Management, Sustainability, Business Excellence, and emerging technologies.

The July 2026 edition, themed “The AI Economy: How Intelligent Enterprises Are Redefining Business,” explores how Artificial Intelligence is transforming industries through smarter decision-making, operational excellence, sustainability, and innovation.

The magazine welcomes contributions from professionals, academicians, researchers, industry experts, and students who wish to share knowledge, research, case studies, and best practices that create real-world impact.



To be the leading platform for sharing practical insights, innovative ideas, and thought leadership in the field of Quality, Sustainability, Operations, and Business Excellence. It seeks to inspire professionals, academicians, and organisations to adopt and implement quality-driven approaches that lead to continuous improvement and societal value.



FREQUENCY
Monthly



FORMAT
Online



LANGUAGE
English



STARTING YEAR
2023



SCOPE

- Management System
- Sustainability and ESG Practices
- Operational and Business Excellence
- Women Empowerment
- Youth, Education and Future of Quality Leadership
- Industry 4.0 and Artificial Intelligence



WE WELCOME

- Articles / Case Studies
- Research Papers
- Industry Insights



AUTHOR BENEFITS

- Publication in a reputed professional magazine
- Visibility among industry & academic leaders
- Contribution to the knowledge community
- Digital certificate of publication

SUBMISSION GUIDELINES

- Original & unpublished work
- Word Count: 1000–1500 words
- Format: MS Word
- Tables & Figures: Clearly labelled
- Referencing: Author–Date (APA) style
- Plagiarism: <10%
- Peer-reviewed by editorial board



REVIEW POLICY

- Double-blind peer review
- Feedback within 1–2 weeks
- Editorial board may accept, request revisions, or reject submissions



SUBMIT YOUR ARTICLE

We invite quality-driven professionals, academicians, and industry experts to contribute and be a part of this journey of excellence.

Email: info@qgspl.com

Quality Herald – The Voice of Excellence
Vol-3, Issue-8 | August 2026

Dear Readers,

As India proudly celebrates its **80th Independence Day**, we reflect on a remarkable journey of growth, resilience, and innovation. Today, our nation's progress is increasingly driven by a manufacturing sector that is evolving into one that is smarter, greener, safer, and globally competitive.

This edition of **Quality Herald – The Voice of Excellence** focuses on **India's Manufacturing Revolution**, a transformation powered by quality, sustainability, technology, and operational excellence. Initiatives such as *Make in India* and *Atmanirbhar Bharat* are encouraging industries to embrace advanced manufacturing, digital transformation, automation, and environmentally responsible practices while strengthening India's position as a global manufacturing hub.

Manufacturing excellence is no longer defined by productivity alone. It is built on robust quality systems, safe workplaces, continuous improvement, innovation, and a skilled workforce committed to delivering value. Behind every successful organization are professionals who strive every day to improve processes, solve problems, and create products that meet global standards.

Through this issue, we bring together expert insights, practical experiences, and emerging trends that we hope will inspire organizations and professionals to continue their pursuit of excellence.

On behalf of the editorial team, I sincerely thank our contributors, reviewers, partners, and readers for their continued trust and support.

I also extend my heartfelt wishes to all our readers, learners, trainers, and industry professionals on the occasion of India's 80th Independence Day. May we continue to work together towards building a Greener, Safer & Self-Reliant India, where quality and innovation remain the cornerstones of national progress.

Happy Independence Day!



Chief Editor - Dr. Sumit Shandilya
Quality Herald – The Voice of Excellence

EDITORIAL BOARD

A collective of experts committed to quality, integrity and impact.

66

Excellence is not a skill, it is an attitude.



PUBLISHED BY

Quality Growth Services Private Limited
(QGS Group)

H-13, Kirti Nagar,
New Delhi - 110015 India



QGS Group

Delivering excellence since 1993



EDITOR - IN - CHIEF

Dr. Sumit Shandilya

sumit@qgspl.com



EXECUTIVE EDITOR

Sachin Grover

sachin@qgspl.com



EDITORIAL TEAM

- **Surbhi Taneja** | surbhi@qgspl.com
- **Manisha Jha** | manisha@qgspl.com
- **Yash Sanduja** | yash@qgspl.com
- **Dhairya Gupta** | dhairya@qgspl.com



ADVISORY BOARD

- **Praveen K. Pasricha** | praveen@qgspl.com
- **Ramesh C. Grover** | ramesh@qgspl.com
- **Dr. Surendra P. Tiwari** | surendra@qgspl.com
- **Mohit Mehendale** | mohit@qgspl.com
- **Nilaj Wadwekar** | nilaj@qgspl.com
- **Tejas Marawar** | tejas@qgspl.com



CONTACT US

☎ +91-11-25431737 / 25918332

✉ qgs@qgspl.com / info@qgspl.com

Director - Dr. Surendra P. Tiwari



Beyond Production: India's Manufacturing Transformation

A few days ago, while returning from a plant visit, I found myself reflecting on how dramatically Indian manufacturing has changed over the last three decades. The machines are certainly different. The technology is far more advanced. But what struck me most was not the equipment, it was the mindset. Somewhere along the way, Indian manufacturing is going beyond just asking, “How much can we produce?” and started asking, “How well can we compete with the world?” That, to me, captures the essence of India’s manufacturing revolution.

The numbers are certainly encouraging. Manufacturing continues to be a key contributor to India’s economy. Government initiatives such as the Production Linked Incentive (PLI) schemes have attracted investments exceeding ₹2 lakh crore, generated substantial manufacturing output and created millions of employment opportunities. India has also emerged as a global force in sectors such as electronics, automobiles, pharmaceuticals and defence manufacturing.

Yet, the real transformation lies beyond these numbers.

During my interactions with industries over the years, I have witnessed a remarkable shift. Earlier, production meetings revolved around output and delivery. Today, the discussions include AI, digitalization, energy efficiency, safety, customer satisfaction and sustainability. This change in priorities reflects the maturity of Indian manufacturing.

Technology is undoubtedly accelerating this journey. Artificial Intelligence, Industrial Internet of Things (IIoT), automation and data analytics are enabling organizations to make faster and better decisions.



THE UNCHANGED LESSON

Technology can make a factory smart. Only people can make it world-class

I still remember a CEO telling me, “Our biggest challenge is no longer buying advanced machines; it is developing people who can fully utilize them.” That simple statement captures the true competitive advantage of any organization. Equally encouraging is the growing commitment towards sustainable manufacturing. Green manufacturing is no longer just about regulatory compliance. Customers, investors and global supply chains increasingly expect industries to reduce emissions, conserve resources and adopt environmentally responsible practices. Sustainability has become a business strategy. The same transformation is visible in safety and quality. Progressive organizations now focus on preventing problems rather than correcting them. Whether it is safety through risk-based thinking or quality through methodologies like APQP, FMEA and Statistical Process Control, the emphasis is on building excellence into the process itself. Perhaps the most inspiring aspect of this journey is India’s growing confidence in indigenous capability



From Vande Bharat trains and Tejas aircraft to the rapid growth of electronics manufacturing, India is steadily moving from assembling products to designing, developing and manufacturing globally competitive technologies. That is the true spirit of Atmanirbhar Bharat. As I look ahead, I remain optimistic. India possesses the talent, engineering capability, entrepreneurial spirit and policy support needed to become a global manufacturing leader. The challenge is to continue investing in people, embracing innovation and maintaining an uncompromising commitment to quality, safety and sustainability. The next decade will not belong to the nations that manufacture the most. It will belong to those that manufacture responsibly, innovate continuously and earn the world’s trust.

India has already begun that journey. It is now our collective responsibility to ensure that every product carrying the words “Made in India” also carries the promise of quality, safety, sustainability and excellence.


QGS Group

Delivering excellence since 1993

QUALITY GROWTH SERVICES PVT. LTD.

— YOUR PARTNERS IN EXCELLENCE —

Established in 1994, Quality Growth Services Pvt. Ltd. (QGSPL) is a leading consultancy firm specializing in **Quality, Environmental, and Safety Management Systems**. With a mission to foster a culture of quality and continuous improvement, QGSPL collaborates with expert consultants trained by premier European institutions. We empower organizations to enhance efficiency, achieve compliance, and improve profitability.

Our offerings include world-class training and consultancy services, including Lead Auditor certification, management awareness programs, and internal audit workshops tailored for global industries.

OUR CORE SERVICES



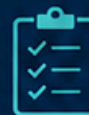
TRAINING PROGRAMS

Customised training solutions on management systems, internal auditing, statistical tools, and decision-making techniques designed specifically for senior and mid-level professionals.



ECO SERVICES

End-to-end sustainability solutions focused on decarbonization, ESG compliance, resource optimization, and green transition strategies to enable organizations to build a sustainable future.



MANAGEMENT SYSTEM CONSULTING

Expert guidance in implementing, auditing, and achieving certification for ISO standards such as:

- ISO 9001
- ISO 14001
- ISO 45001



SUPPORTING INDIA'S MANUFACTURING REVOLUTION
THROUGH **QUALITY, SUSTAINABILITY & OPERATIONAL EXCELLENCE**



Saurabh Kumar,
Senior Software Engineer, Editorialist,
Gurugram



Engineering the Future: Digital Innovation as the Backbone of India's Manufacturing Revolution

India's manufacturing sector is undergoing one of the most significant transformations in its history. Driven by initiatives such as Make in India, Atmanirbhar Bharat, and rapid technological advancements, the nation is redefining its industrial capabilities. While factories, machines, and production lines remain the visible face of manufacturing, an equally important revolution is taking place behind the scenes—powered by software, data, and digital innovation.

Today, software engineering is no longer confined to the IT sector. It has become the intelligence layer that connects machines, people, and processes, making manufacturing more efficient, sustainable, and resilient. As industries embrace automation, artificial intelligence, and smart manufacturing, software professionals are playing a pivotal role in shaping India's journey toward becoming a global manufacturing powerhouse.

Digital Engineering: The New Manufacturing Engine

Modern manufacturing is increasingly driven by data rather than just machinery. Every production line generates valuable information that can be analyzed to improve productivity, reduce waste, and enhance product quality.



Advanced software systems enable manufacturers to monitor operations in real time, predict equipment failures before they occur, and optimize resource utilization. Technologies such as cloud computing, digital twins, and Industrial Internet of Things (IIoT) have transformed traditional factories into intelligent ecosystems where every decision is supported by accurate insights.

Software engineers contribute by developing platforms that integrate production systems, automate workflows, and provide actionable intelligence. Their work ensures that manufacturing becomes not only faster but also smarter.

Building Sustainability Through Technology

As industries strive to reduce their environmental footprint, digital technologies have become essential tools for achieving sustainability goals. Smart software solutions help organizations monitor energy consumption, optimize production schedules, and minimize material waste. Data analytics enables manufacturers to identify inefficiencies, improve resource utilization, and reduce emissions across the production lifecycle.

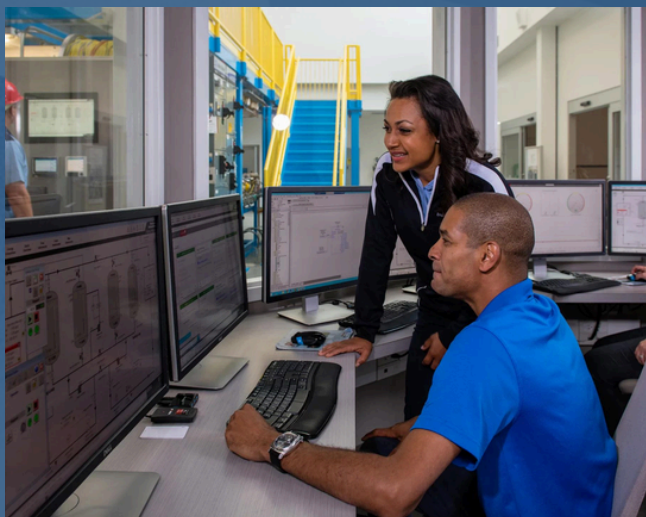
Digital documentation, automated reporting, and intelligent planning systems also reduce paper usage and improve operational transparency. By leveraging technology, organizations can achieve greater productivity while supporting environmental responsibility. A greener manufacturing future is not built solely through renewable energy or eco-friendly materials—it is equally powered by intelligent software that helps industries make better, more sustainable decisions every day.

Creating Safer and Smarter Workplaces

Workplace safety has always been a cornerstone of successful manufacturing. Today, technology is making industrial environments safer than ever before.

Artificial intelligence-powered monitoring systems can detect potential hazards in real time. Connected sensors monitor equipment health, workplace conditions, and operational risks before they escalate into incidents. Automated alerts and predictive maintenance reduce equipment failures, protecting both employees and production assets. Software platforms also streamline safety training, compliance tracking, and incident reporting, ensuring organizations maintain high safety standards while fostering a culture of continuous improvement.

By combining human expertise with intelligent technology, manufacturers can create workplaces where safety is proactive rather than reactive.



The Road Ahead

India's manufacturing revolution is about much more than expanding industrial capacity—it is about building an ecosystem where technology, sustainability, safety, and innovation work together.

As software continues to reshape industrial operations, the role of technology professionals becomes increasingly critical. Their ability to develop intelligent systems, harness data, and drive digital transformation is helping industries become more efficient, environmentally responsible, and globally competitive.

The factories of tomorrow will not simply produce goods—they will produce innovation, resilience, and sustainable progress. By embracing digital engineering alongside manufacturing excellence, India is laying the foundation for a greener, safer, and truly self-reliant future.



SATISFY India – DRIVING EXCELLENCE THROUGH STANDARDS

For more than **30 years**, SATISFY India has been the trusted ally for organizations looking to stay ahead in a rapidly evolving business landscape.

We connect you to the right **national and international standards** – helping you stay compliant, competitive, and future-ready.

Standards We Provide:

AIAG | ISO | ASTM | IEC | BIS | IEEE | BS | AAMI

Why SATISFY India?



30+ years of trust and reliability



End-to-end **compliance** and **lifecycle** management



Access to the world's most **recognized standards**



A partner that ensures your business is always **ahead of the curve**

“**STANDARDS**
aren't paperwork.
They are
**COMPETITIVE
ADVANTAGE.**”

COMPLIANT TODAY.

COMPETITIVE TOMORROW.

FUTURE-READY ALWAYS.

What We Offer



Global Standards Access

Seamless availability of international benchmarks.



CSUM Standard Monitoring

Stay updated with the latest changes.



Tailored Compliance Solutions

Designed to fit your business needs.



Industry Expertise

Insights built on decades of knowledge.



Customized Approach

Because one-size never fits all.



Lifecycle Support

From adoption to implementation and beyond.

Partner with SATISFY India —and navigate today's complex regulatory environment with ease and confidence.

— 7TH AUGUST —

NATIONAL HANDLOOM DAY

Honouring Hands.
Celebrating Heritage.
Weaving a Sustainable Future.



ROOTED IN TRADITION
Preserving India's timeless weaving heritage.



CRAFTED WITH CARE
Every thread tells a story of skill and dedication.



EMPOWERING ARTISANS
Supporting livelihoods and strengthening communities.



SUSTAINABLE BY NATURE
Handloom for a conscious, greener tomorrow.

Wear
Heritage.
Support
Handloom.



Let's celebrate the beauty of Handloom
and the hands that weave our culture.

PROUD TO SUPPORT. PROUD TO WEAR.



Garima Maharaj Singh
Developer (SDE-2) SAP Labs, Bangalore



Intelligent Manufacturing: How Digital Innovation is Shaping India's Industrial Future



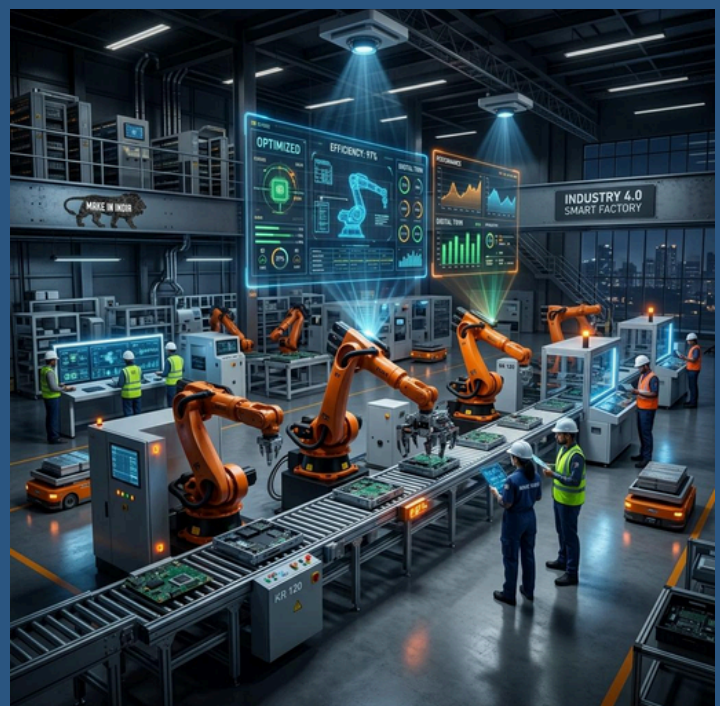
India stands at the threshold of a new industrial era—one driven not only by machines and infrastructure but also by the power of digital technologies. As the nation advances its vision of Atmanirbhar Bharat and strengthens its position as a global manufacturing hub, software and intelligent enterprise solutions are becoming indispensable to industrial growth.

Modern manufacturing today extends far beyond factory floors. It encompasses connected supply chains, real-time analytics, cloud-based systems, and sustainable practices that help industries operate efficiently while reducing environmental impact. At the heart of this transformation lies the role of software engineers and technology innovators who are enabling industries to become smarter, more resilient, and future-ready.

For organizations operating at the intersection of enterprise technology and innovation, such as SAP and its global development centers like SAP Labs India, digital solutions are helping businesses worldwide optimize operations, improve sustainability, and unlock new opportunities for growth.

Industry 4.0: The Digital Backbone of Manufacturing

The fourth industrial revolution, commonly known as Industry 4.0, is redefining how products are designed, manufactured, and delivered. Technologies such as Artificial Intelligence (AI), Machine Learning (ML), cloud computing, Internet of Things (IoT), and advanced analytics are creating connected and intelligent manufacturing environments.



Factories today can monitor production lines in real time, predict equipment failures before they occur, and optimize energy consumption through data-driven insights. Enterprise software platforms integrate information from suppliers, production units, logistics, and customers, enabling seamless coordination across the value chain.

Software developers play a critical role in building these intelligent systems—creating scalable applications, automating workflows, and ensuring secure and reliable digital operations. Their work transforms complex industrial processes into agile, efficient, and responsive ecosystems.



Building Self-Reliance Through Innovation

India's self-reliance journey is driven not only by producing more goods but also by creating indigenous capabilities in technology, innovation, and digital infrastructure.

The development of world-class software solutions, enterprise applications, and cloud technologies contributes significantly to strengthening India's industrial ecosystem. Skilled technology professionals are enabling businesses to become more competitive, efficient, and globally connected.

Innovation centers, research hubs, and technology organizations across the country are nurturing talent and accelerating advancements that support manufacturing excellence. This synergy between technology and industry is laying the foundation for a stronger and more self-reliant economy.

The Human Element in Digital Transformation

While advanced technologies are transforming industries, people remain at the center of progress. Engineers, developers, data scientists, manufacturing experts, and business leaders are collaborating to create solutions that address complex challenges.

Continuous learning, innovation, and cross-functional teamwork are essential for building future-ready industries. By embracing new technologies and fostering a culture of collaboration, organizations can unlock greater efficiency, sustainability, and value creation.

The future of manufacturing will be shaped not just by what we build, but by how effectively people and technology work together.

12 AUGUST

INTERNATIONAL YOUTH DAY

**Empowering Youth.
Building Leaders.
Shaping the Future.**

Today's young minds, equipped with the right skills and values, are driving innovation, quality and sustainable growth for tomorrow.

“
Today's skilled youth are tomorrow's leaders, driving **innovation**, **quality** and **sustainable growth**.
”



SKILL DEVELOPMENT
Building capabilities for tomorrow



LEADERSHIP
Inspiring young minds to lead with purpose



INNOVATION
Driving new ideas for a better future



SUSTAINABILITY
Creating impact that lasts



OPPORTUNITY
Empowering youth, empowering nations



Invest in Youth Today, Lead a Better Tomorrow.

Gopal Singh Manager (Mechanical), Larsen & Toubro



Forging the Nation: Engineering Excellence at the Heart of India's Manufacturing Revolution

India's journey toward becoming a global manufacturing powerhouse extends far beyond factory walls. It is reflected in the construction of world-class infrastructure, advanced industrial facilities, energy projects, and engineering marvels that strengthen the nation's economic foundation. At the heart of this transformation lies mechanical fabrication—a discipline that transforms engineering designs into robust, reliable, and enduring structures.

From refineries and power plants to metro rail networks, renewable energy facilities, and industrial complexes, mechanical fabrication plays a vital role in bringing ambitious projects to life. Site managers and engineering professionals ensure that every fabricated component is installed with precision, adheres to stringent quality standards, and contributes to projects that will serve the nation for decades.

As India embraces the vision of Building a Greener, Safer & Self-Reliant Nation, the role of construction and fabrication professionals has become more significant than ever.

Mechanical fabrication forms the backbone of these developments by ensuring that pipelines, pressure vessels, structural steel, heavy equipment, and process systems are fabricated and installed with exceptional precision.



Safety: The Foundation of Every Successful Project

Construction sites are dynamic environments where multiple activities occur simultaneously. Heavy machinery, lifting operations, welding, fabrication, and installation require rigorous planning and uncompromising attention to safety.

A strong safety culture goes beyond compliance—it becomes a shared responsibility among every member of the project team. Regular toolbox talks, hazard identification, risk assessments, permit-to-work systems, and continuous safety training help create an environment where people can perform confidently and responsibly.

Modern technologies are also enhancing construction safety. Digital inspections, wearable safety devices, drones for site monitoring, and real-time project tracking enable teams to identify potential risks early and respond proactively.



Quality Engineering Through Precision Fabrication

In heavy engineering and industrial construction, quality cannot be inspected into a project—it must be built into every stage of fabrication and installation.

Mechanical fabrication demands strict adherence to engineering drawings, welding procedures, dimensional tolerances, and international quality standards. Every fabricated component must perform reliably under demanding operating conditions for many years. Comprehensive quality control measures, non-destructive testing, material traceability, and continuous inspections ensure that structures meet the highest standards of safety and performance.

Attention to detail during fabrication directly influences operational efficiency, maintenance costs, and the long-term reliability of industrial facilities.

Empowering India's Vision of Self-Reliance

India's aspiration for self-reliance is built upon the capability to design, fabricate, construct, and maintain complex engineering projects using domestic expertise.

The country's expanding infrastructure—from manufacturing plants and transportation networks to renewable energy installations and industrial corridors—reflects the growing strength of Indian engineering talent.

Mechanical fabrication professionals contribute to this vision by transforming engineering concepts into operational reality. Their expertise strengthens local manufacturing capabilities, generates employment, and reduces dependence on external resources.

As India's industrial ambitions continue to grow, the contribution of skilled engineers and construction professionals will remain central to building resilient infrastructure for future generations.

The Road Ahead

India's manufacturing revolution is as much about building world-class infrastructure as it is about producing world-class products. Mechanical fabrication professionals stand at the intersection of engineering, construction, safety, and innovation, ensuring that every project is executed with precision and purpose.

By embracing advanced technologies, sustainable practices, and a culture of continuous improvement, the engineering and construction industry is helping create industrial ecosystems that are stronger, greener, and more resilient.

Every fabricated structure, every safely completed project, and every engineering milestone brings India one step closer to realizing its vision of becoming a globally competitive, self-reliant manufacturing nation.



The background of the top section features a large, modern glass-walled industrial building with the QGS logo on its facade. To the left of the building, there are several wind turbines and a large array of solar panels in the foreground. The sky is a mix of blue and orange, suggesting a sunset or sunrise. In the upper right, there is a stylized globe with various icons connected by lines, including a leaf, a recycling symbol, a CO2 molecule with a downward arrow, and a globe icon.

QGS Group SUSTAINABILITY PROGRAMS

DRIVING INDUSTRY TOWARDS
A GREENER FUTURE

QGS is committed to helping organizations achieve sustainable growth through carbon neutrality, ESG integration, decarbonization, and climate resilience.

Building environmentally responsible and future-ready operations.



NET ZERO
EMISSIONS



CARBON
NEUTRALITY



DECARBONIZATION



CLIMATE RISK
MITIGATION &
ADAPTABILITY



BUSINESS RESPONSIBILITY
& SUSTAINABILITY
REPORTING (BRSR)



MATERIALITY
ASSESSMENT

OUR SUSTAINABILITY JOURNEY



MEASURE



REDUCE



TRANSFORM



COMPLY



SUSTAIN

“ SUSTAINABILITY ISN'T AN INITIATIVE.
IT'S THE FUTURE OF MANUFACTURING. ”

— 15TH AUGUST —

— **HAPPY** —

INDEPENDENCE DAY

Freedom in our hearts.
Pride in our soul.

Stronger Together.



UNITY

Diverse in culture,
united in purpose.



PROGRESS

Building a self-reliant
and developed India.



INNOVATION

Transforming ideas
into real impact.



QUALITY

Delivering excellence
in everything we do.



SUSTAINABILITY

Creating a better today
for a better tomorrow.

Mohammad Faizan Senior Piping Engineer, Jacobs



Engineering Tomorrow: Driving India's Manufacturing Revolution

India's manufacturing revolution is being shaped by innovation, infrastructure, and engineering excellence. As the nation accelerates its journey towards becoming a global manufacturing hub, industries such as energy, pharmaceuticals, chemicals, food processing, semiconductors, and renewable energy are witnessing unprecedented growth. Behind every successful industrial facility lies an intricate network of piping systems that safely transport essential fluids, gases, and utilities, ensuring seamless operations.

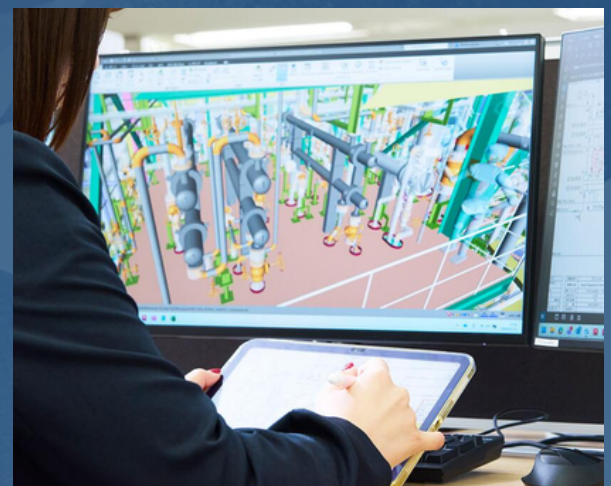
Piping engineering is often described as the circulatory system of an industrial plant. Though largely hidden from view, it is fundamental to operational efficiency, safety, and sustainability. Every pipeline, valve, and support structure is carefully designed to meet stringent engineering standards while ensuring reliability throughout the facility's lifecycle.

As India advances its vision of Building a Greener, Safer & Self-Reliant Nation, piping engineers are playing a pivotal role in developing world-class industrial infrastructure that supports sustainable growth.

Engineering the Lifelines of Modern Industry

Every manufacturing facility depends on an extensive network of piping systems to transport water, steam, chemicals, gases, fuels, and other process fluids. Designing these networks requires a deep understanding of engineering principles, material science, process requirements, and international safety standards.

Piping engineers work closely with multidisciplinary teams to ensure that every system is optimized for performance, maintainability, and long-term reliability. From selecting appropriate materials to designing layouts that maximize efficiency while minimizing operational risks, every decision contributes to the overall success of a project.





Supporting Sustainability Through Intelligent Design

Sustainability has become a defining objective for modern manufacturing, and engineering design is making a meaningful contribution to achieving it.

Efficient piping layouts reduce pumping energy, minimize pressure losses, and optimize resource utilization throughout industrial processes. Careful material selection extends equipment life, reducing maintenance requirements and conserving valuable resources.

Digital engineering enables teams to evaluate multiple design alternatives, helping organizations reduce material consumption while maintaining performance and safety standards.

As industries transition towards cleaner energy sources, green hydrogen, carbon capture technologies, and renewable energy facilities, piping engineering continues to evolve, supporting the infrastructure required for a low-carbon future.

Sustainable manufacturing begins long before production—it begins with thoughtful engineering design.



Digital Transformation in Engineering

Technology is revolutionizing how industrial facilities are designed and executed. Digital engineering platforms allow teams across multiple disciplines and locations to collaborate in real time, improving project coordination and reducing costly design conflicts.

Organizations such as Jacobs are part of an industry-wide movement that embraces digital engineering, integrated project delivery, and innovative design methodologies to help clients build resilient and future-ready infrastructure.

For piping engineers, digital tools enhance accuracy, streamline documentation, and improve communication between design, procurement, fabrication, and construction teams. These advancements lead to faster project execution, higher quality outcomes, and greater operational efficiency.

The Road Ahead

India's manufacturing revolution is being built on a strong foundation of engineering innovation, sustainable practices, and collaborative expertise. While machinery and production lines often capture the spotlight, it is the carefully designed systems behind them that enable industries to operate efficiently, safely, and responsibly.

Piping engineering exemplifies this silent yet indispensable contribution. By integrating advanced technologies, sustainable design principles, and rigorous safety standards, engineers are helping create industrial facilities that are resilient, resource-efficient, and prepared for the future.



INSTITUTE FOR INDUSTRIAL PERFORMANCE & ENGAGEMENT

औद्योगिक क्षमता एवं समावेशन संस्थान | QGS Group

Empowering **Learning**.
Enabling **Excellence**.

IIPE INDIA

BRIDGING INDUSTRY-ACADEMIA GAPS.
BUILDING SKILLS. EMPOWERING FUTURES.



ABOUT US

Institute for Industrial Performance & Engagement (IIPE India) is your gateway to a transformative learning experience. As a leading Ed-Tech platform, we offer a dynamic range of online courses, bridge Industry-Academia gap and skill certification programs designed to empower learners worldwide.

OUR SERVICES

- Long-term Programmes
- Certificate Programmes
- Management System
- Business Excellence Business
- Problem Solving
- Open House Programmes

OUR APPROACH - WHY US?



Our service includes a comprehensive consult to help identify gaps and opportunities, a comprehensive report that includes a project plan with timelines and milestones, a cost analysis, and a schedule.



We also offer a suite of quality products that will help you get there quickly and smoothly. That's how we ensure your success.

EMPOWERING LEARNERS. ENABLING EXCELLENCE.



Industry-Relevant
Learning



Bridging
Industry-Academia Gap



Quality Certification
Programs



Skilled Workforce
for Tomorrow



Global Impact,
Local Relevance

“ Together we'll create and refine your plan for success. We didn't get there alone. And neither will you. ”

ELEVATE YOUR QUALITY. MASTER YOUR PROCESSES.

Your complete guide to
Statistical Process Control
excellence.



IMPROVE PERFORMANCE

Strengthen process capability
and reduce variation.



DATA-DRIVEN DECISIONS

Use control charts to monitor
and manage your processes
with confidence.



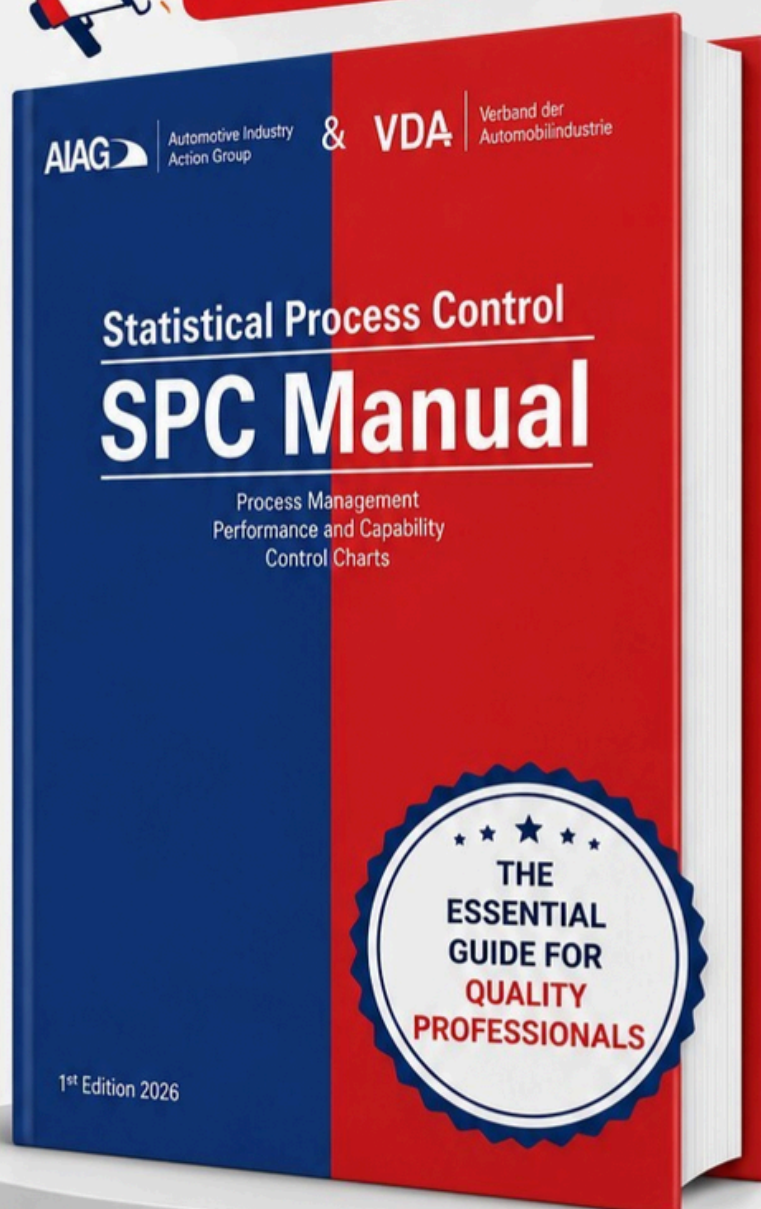
INDUSTRY APPROVED

Aligned with AIAG & VDA
standards and best practices.



BUILT FOR PROFESSIONALS

A must-have resource for
quality & process professionals
across industries.



A MUST-HAVE RESOURCE FOR EVERY QUALITY & PROCESS PROFESSIONAL.

TO BUY THIS BOOK,
YOU CAN CONTACT US



Mr. Bharat Kataria



Mob.: +91 7042333220



Email: Bharat@qgspl.com



Ms. Surbhi Taneja



Mob.: +91 9217979191



Email: surbhi@qgspl.com



**NEW
RELEASE
2026**

FREE AWARENESS WEBINAR (ONLINE)

AIAG-VDA SPC MANUAL 2026

1ST EDITION

**What's New? Why the Change?
How Does it Impact Your Organization?**



DATE

13 August 2026



TIME

2:00 PM ONWARDS



DURATION

1.0 – 1.5 HOURS

WHAT YOU WILL LEARN

- ✓ Why a new SPC Manual was needed
- ✓ Major changes from the previous SPC Manual
- ✓ SPC as a Process Management approach
- ✓ New concepts: Process Performance, Capability, Time-dependent Distributions, OCAP and more
- ✓ Impact on Design, Manufacturing, Quality & Suppliers
- ✓ How to prepare your organization for successful implementation

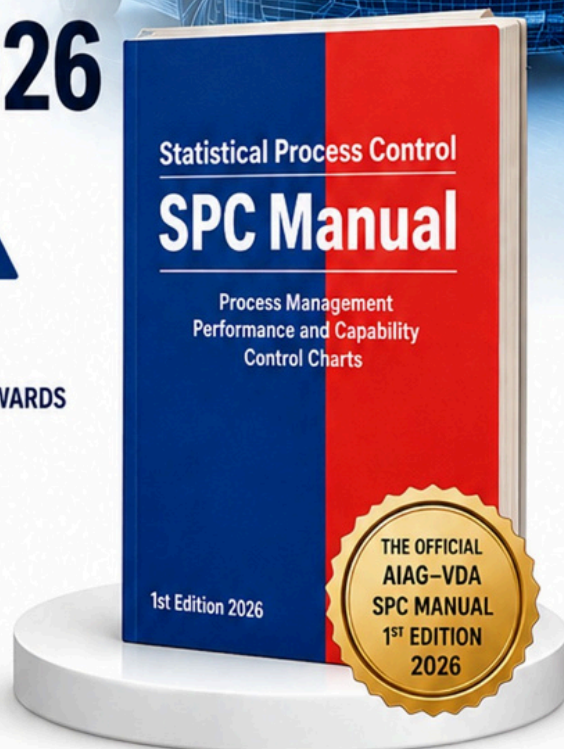
FACULTY

Dr. Sumit Shandilya

Director – QGS Group

Ph.D., MTech & BTech in Mechanical,
MBA (Operations) & MSC (Applied Statistics).

Over 16 years of experience,
a patent holder in Problem Solving.



SCAN TO REGISTER



STAY AHEAD

Understand the latest
industry expectations



GET CLARITY

Know what's new
and why it matters



DRIVE IMPACT

Align your processes
for better performance



INTERACTIVE SESSION

Live Q&A with
the expert

FOR MORE INFORMATION



Bharat Kataria

+91-7988304255



bharat@qgspl.com



Surbhi Taneja

+91-92179 79191



surbhi@qgspl.com



info@qgspl.com



www.qgspl.com



GLOBAL STANDARDS

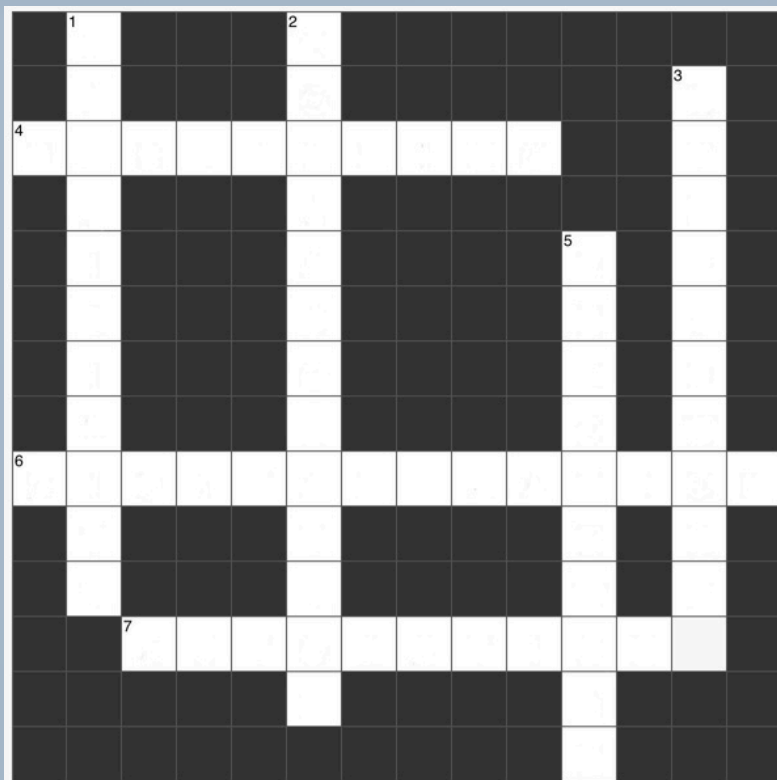


PRACTICAL INSIGHTS



MEASURABLE IMPACT

INTELLIGENT ECONOMY: POWERING THE FUTURE



ACROSS

- 4. Learning new skills for changing job demands
- 6. Adopting digital technologies in workplaces
- 7. Use of technology to perform tasks with minimal human effort

DOWN

- 1. Freedom to choose when and where to work
- 2. Employees working together through online platforms
- 3. Work model combining office and remote working
- 5. Working from locations outside a traditional office



Answers of the Previous edition

ACROSS: 3. Minimalism 5. Sustainable 6. Sustainability 7. Ecofriendly

DOWN: 1. Ethical Sourcing 2. Circular Economy 4. Recycling



CONTACT US

Our Phone
+91-11-25431737



Our Website
<https://qgspl.co.in/>

August 2026

BREAKING NEWS

THE ECONOMIC TIMES

India Strengthens Electronics Manufacturing Ecosystem

India's electronics manufacturing sector has witnessed remarkable growth over the past decade, establishing the country as one of the world's fastest-growing electronics production hubs. Driven by the Government's Make in India, Digital India, and Production Linked Incentive (PLI) initiatives, India is steadily moving beyond product assembly to building a comprehensive manufacturing ecosystem that includes components, semiconductors, printed circuit boards, and advanced electronics.

According to the Ministry of Electronics & Information Technology (MeitY), the value of India's electronics production has increased from approximately ₹1.9 lakh crore in 2014-15 to nearly ₹12 lakh crore in 2024-25, representing more than a six-fold increase. Electronics exports have also grown significantly, rising from ₹38,000 crore to around ₹3.3 lakh crore during the same period—an impressive eight-fold growth. This surge has positioned electronics among India's fastest-growing export sectors.



**STRONGER
ECOSYSTEM**



**HIGHER
INNOVATION**



**MORE JOBS
MORE GROWTH**



**SUSTAINABLE
FUTURE**

The PLI Scheme for Large Scale Electronics Manufacturing has already exceeded several of its targets. Against an investment target of ₹7,000 crore, beneficiary companies have invested over ₹17,500 crore. Similarly, production under the scheme has crossed ₹11 lakh crore, while exports have exceeded ₹6.2 lakh crore, demonstrating the effectiveness of policy-driven industrial growth.

As global companies continue to diversify their supply chains, India is increasingly being viewed as a preferred destination for electronics manufacturing. With sustained investments, supportive government policies, improved infrastructure, and a skilled workforce, the country is well positioned to become a global leader in electronics production.

QUALITY-LED HUMOR

— When Work Gets Too Serious —



1 AI FACTORY ASSISTANT



2 SMART MACHINE



3 GREEN FACTORY



“ Smarter factories
still need smarter people. ”

August 2026

BREAKING NEWS



"Specialty Steel Investments Gain Momentum"

India is strengthening its position in high-value steel manufacturing through the Production Linked Incentive (PLI) Scheme for Specialty Steel, aimed at reducing import dependence and enhancing domestic production. Introduced with a budgetary outlay of ₹6,322 crore, the scheme is expected to attract investments of over ₹27,000 crore, add nearly 24.8 million tonnes of specialty steel production capacity, and create around 14,700 direct jobs.

The initiative has already delivered encouraging results. As of early 2025, participating companies had invested nearly ₹19,850 crore, while the Ministry of Steel launched additional rounds of the scheme to attract more manufacturers into advanced steel production. The program supports the manufacture of value-added steel used in sectors such as automobiles, defence, railways, renewable energy, electrical equipment, and infrastructure, enabling India to move up the global steel value chain.

MAJOR INDUSTRY PLAYERS



Industry leaders including SAIL, Tata Steel, JSW Steel, ArcelorMittal Nippon Steel India, and Jindal Steel & Power have committed significant investments under the scheme, reflecting strong confidence in India's manufacturing ecosystem. With sustained policy support and increasing private-sector participation, specialty steel is expected to become a key driver of industrial growth, technological advancement, and the vision of Atmanirbhar Bharat.

THE ECONOMIC TIMES



QGS Group
Delivering excellence since 1993

ISO 45001:2018 LEAD AUDITOR TRAINING COURSE



Enhance Safety. Ensure Compliance.
Build a **Safer Future**.



COURSE HIGHLIGHTS



In-depth understanding of
ISO 45001:2018 requirements



Audit planning, execution
and reporting



Risk-based thinking and
opportunity identification



Practical case studies
and exercises



Internationally recognized
certification



WHY JOIN US?

- ✓ Expert & experienced faculty
- ✓ Interactive and engaging sessions
- ✓ Practical learning approach
- ✓ Certificate on successful completion
- ✓ Career growth & global recognition



**SCAN &
REGISTER**



TRAINING DETAILS



DATES

04 – 08 AUGUST 2026



MODE

ONLINE



FEE

INR 25,000
+ GST @18%



CERTIFICATION

CERTIFIED LEAD AUDITOR



REGISTRATION

SCAN QR CODE



**BECOME A CERTIFIED LEAD AUDITOR
AND ADVANCE YOUR PROFESSIONAL
EXCELLENCE!**



**EXPERT LED
TRAINING**
+91 95441092
info@qgspl.com
www.qgspl.com



**GLOBALLY
RECOGNIZED
CERTIFICATION**
Internationally accepted
and valued



**PRACTICAL
LEARNING**
Real-world examples
& case studies



**CAREER GROWTH
& ADVANCEMENT**
Unlock new
opportunities



www.qgspl.co.in

GLIMPSES



A Quality Management System (QMS) Awareness Training based on ISO 9001:2015 was conducted for the team at a leading manufacturer of industrial electrical and electronic products. The session focused on process approach, risk-based thinking, customer focus, and continual improvement, reinforcing a strong culture of quality and operational excellence across the organization.

A two-day workshop on AIAG & VDA PFMEA was successfully conducted for professionals from a leading manufacturer of automotive wheel rims and auto components. The program focused on the AIAG & VDA 7-Step PFMEA methodology, risk analysis, Action Priority (AP), and practical implementation to enhance process reliability, product quality, and operational excellence.



Professionals from one of the world's largest two-wheeler manufacturers participated in an Advanced Excel & Analytics workshop conducted by Quality Growth Services (QGS). Through hands-on exercises and real-world business scenarios, the program strengthened participants' capabilities in data analysis, reporting automation, and data-driven decision-making to improve operational efficiency.



Quality Growth Services (QGS) successfully conducted an IATF 16949:2016 Internal Auditor Training focused on process approach, risk-based thinking, core quality tools, and internal auditing. The program strengthened participants' understanding of automotive quality management and continual improvement practices.



IMPORTANT DATES

AUGUST 2026

Key Observances
This Month

“
Building a
greener, safer and
self-reliant India
together.”



07
AUGUST



NATIONAL HANDLOOM DAY

Celebrating our rich heritage of craftsmanship and sustainable manufacturing.

12
AUGUST



INTERNATIONAL YOUTH DAY

Empowering young minds, shaping the future of India's manufacturing.

15
AUGUST



INDEPENDENCE DAY

Honouring our freedom and strengthening our commitment to a self-reliant India.

19
AUGUST



WORLD HUMANITARIAN DAY

Recognizing those who bring hope and help, and building safer, people-first workplaces.

29
AUGUST



NATIONAL SPORTS DAY

Promoting fitness, discipline and teamwork for a stronger, healthier nation.



The DPDP Act, 2023 is Here. Is Your Business **Ready?**

Avoid penalties up to ₹250 Crores.

Turn Compliance into a **Competitive Advantage** with **QGS**.

Data Privacy is no longer optional—it's the law.

The Digital Personal Data Protection (DPDP) Act, 2023 dramatically shifts how Indian organizations must handle personal data. From 'Consent Managers' to 'Data Principal Rights,' the compliance landscape has changed.



Are you prepared to answer:

- Do you have verifiable consent for all legacy data?
- Is your Data Protection Board reporting mechanism ready?
- Have you identified if you are a **Significant Data Fiduciary (SDF)**?

Your DPDP Implementation Partner

At QGS, we don't just offer advice; we **Implement the framework**. We bridge the gap between Legal Requirements, IT Security, and Process Management.

4-Step DPDP Implementation Roadmap:

1. Data Discovery & Gap Assessment

- Data inventory & data flow mapping.
- Current maturity assessment vs DPDP 2023 requirements.
- Have you identified if you are a **Significant Data Fiduciary (SDF)**?

2. Framework Design & Documentation

- Drafting Privacy Notices (available in 22 languages).
- Vendor/Processor contract upgrades.

3. Operational Implementation

- Setting up the Consent Management Manager (CMM).
- Establishing the Grievance Redressal Mechanism.

4. Training & Sustainment

- ✓ **Role-based privacy training** for employees.
- ✓ **Mock Data Breach drills.**
- ✓ **Internal Privacy Audits.**

Why Choose QGS?

- ✓ **Holistic Approach:** We combine Legal interpretation with IT implementation.
- ✓ **Customized Solutions:** Tailored for MSMEs and Large Enterprises.
- ✓ **Proven Methodology:** Based on global best practices (GDPR/ISO 27701) adapted for India.

**QGS Group**

Delivering excellence since 1993

Upcoming TRAINING PROGRAMMES

**ISO 45001:2018**LATC August 04 -08,
2026**SPC Webinar –**

August 13, 2026

**Six Sigma Green Belt**

August 08-12, 2026

**ISO 14001:2026**LATC from September 01
-05, 2026Scan QR and
register**CONTACT DETAILS:****Mr. Bharat Kataria**

Mob.: +91 7042333220

Email: bharat@qgspl.com

Ms. Surbhi Taneja

Mob.: +91 9217979191

Email: surbhi@qgspl

<https://qgspl.co.in/>



Quality Growth Services Pvt. Ltd.
Your partners in excellence

“In the Intelligence Economy, value is no longer created by scale alone, but by the speed, depth, and precision of insight—where AI transforms data into decisions, automation into innovation, and intelligence into competitive advantage.”

Quality Herald: The Voice of Excellence
H-13, Kirti Nagar, New Delhi, India 110015

Phone : +91-11-25431737/25918332/41425273

Email: qgs@qgspl.com / info@qgspl.com