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CATALYST

>Automation Innovation in Pharma Manufacturing<

THURSDAY 21 MAY 2026

TIME: 12:30PM TO 1:30PM

Leadership speakers from Automation technology companies offering innovative state of the art solutions for intelligent and smart pharma manufacturing.

Hosted on zoom Webinar

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PARA Tech Product Spotlight

HIBEX INDIA'S DESKTOP ROBOTS

As manufacturing moves toward smarter, space-efficient solutions, desktop robots are emerging as powerful enablers of precision automation. Compact in size yet robust in capability, these systems are redefining how industries approach high-accuracy, repetitive tasks.

Designed for applications such as dispensing, screw fastening, soldering, and PCB handling, desktop robots bring industrial-grade performance to smaller workspaces. Their rigid construction ensures stability and repeatability, making them ideal for processes where even the slightest variation can impact quality. This level of consistency is particularly valuable in electronics manufacturing, where precision is non-negotiable.

One of the key advantages of desktop robots lies in their ease of use. With intuitive programming interfaces and simplified teaching methods, operators can quickly configure and deploy them without extensive technical expertise. Integration capabilities such as built-in control systems and connectivity options further enable seamless adoption within modern production environments.

Beyond their functionality, desktop robots support the broader shift toward flexible and scalable manufacturing. They allow businesses to automate specific tasks without investing in large, complex systems, making automation more accessible to both small enterprises and large-scale industries.

Compact robots for precise and efficient small-scale automation.

HIBEX INDIA

In an era driven by efficiency and accuracy, desktop robots prove that impactful automation doesn't require a large footprint—just intelligent design and precise execution.

https://www.hibexindia.in/desktop-cartesian-and-scara-robots-industrial-robots-and-equipment/

BRONKHORST: FLEXI-FLOW COMPACT- REDEFINING PRECISION IN GAS FLOW CONTROL

In an era where process accuracy and system integration define industrial efficiency, the FLEXI-FLOW Compact series emerges as a transformative solution in gas flow technology. Designed as an all-in-one instrument, it seamlessly combines flow, pressure, and temperature measurement and control within a remarkably compact footprint—setting a new benchmark for multifunctional instrumentation.

What distinguishes the FLEXI-FLOW Compact is its multi-parameter capability. By integrating three critical functions into a single device, it eliminates the need for multiple instruments, reducing system complexity and potential leak points while improving overall reliability. This consolidation is particularly valuable in applications such as analytical equipment, bioreactors, and fuel cell production, where precision and space optimization are essential.

At the core of its performance lies advanced sensor technology, enabling **high accuracy and rapid response times**—often below 150 milliseconds. Combined with an on-board gas database supporting multiple gases, the system ensures real-time adjustments based on actual process conditions, delivering consistent and reliable results even in dynamic environments.

High-precision, compact solution for advanced gas flow control.

Bronkhorst®

Beyond performance, the FLEXI-FLOW Compact is engineered for adaptability. With a wide dynamic range and flexible control modes—including mass flow and upstream or downstream pressure control—it caters to a broad spectrum of industrial requirements. Its compact design, up to 35% smaller than conventional systems, further enhances its suitability for integration into space-constrained setups.

In a landscape increasingly driven by smart manufacturing and efficient process control, the FLEXI-FLOW Compact stands out as more than just a measurement device—it is a **versatile, intelligent solution** that brings precision, flexibility, and simplicity into one cohesive platform.

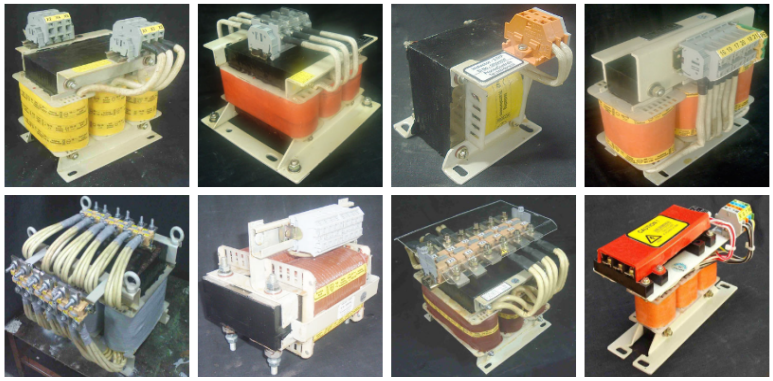
https://www.bronkhorst.com/int/products/gas-flow/flexi-flow-compact/ff-axxx/

Download

PROCON CONTROLS - AC FILTER CHOKES

In today's increasingly noise-sensitive industrial environments, the humble AC filter choke has emerged as a silent enabler of system reliability. Often overlooked, these inductive components play a critical role in mitigating electrical disturbances, particularly in variable frequency drive (VFD) applications and power conditioning systems.

At its core, an AC filter choke is a precision-wound coil designed to create a controlled magnetic field when current flows through it. This simple principle translates into a powerful function—suppressing electrical noise, limiting current spikes, and protecting sensitive equipment from di/dt stresses.



Improves power quality by reducing electrical noise in systems.

Modern designs, available in both single-phase and three-phase configurations, combine compact construction with robust performance. With features such as high overload capacity, long operational life, and safe, maintenance-friendly design, these chokes are engineered for demanding industrial duty cycles.

Where they truly prove indispensable is in VFD-driven systems—across brands and platforms—where harmonic distortion and switching noise can compromise both efficiency and equipment longevity. By acting as a buffer between supply and load, AC filter chokes ensure smoother waveforms and enhanced system stability.

As automation ecosystems continue to evolve, the role of passive components like AC filter chokes becomes increasingly strategic. They may not command attention on the plant floor—but without them, modern automation simply wouldn't run as smoothly, or as reliably.

http://www.transformerzone.com/acfilterchoke.htm

ARROWMECH: INTEGRATED ELECTROMAGNETIC FLOW METERS

In process industries where accuracy is non-negotiable, the evolution of flow measurement has steadily moved toward non-intrusive, maintenance-free technologies. Integrated electromagnetic flow meters represent a mature expression of this shift—combining measurement precision with operational simplicity.

Built on the principles of electromagnetic induction, these meters are engineered specifically for conductive fluids and slurries flowing through closed pipelines. What sets them apart is their full-bore design, ensuring zero obstruction within the flow path—eliminating pressure drops while preserving measurement integrity.

Accurate flow measurement for conductive liquids with easy integration.

The AEFM-100 series from Arrowmech exemplifies this approach, offering a compact, microcontroller-based solution with an integrated display for real-time monitoring. Designed for industrial versatility, it supports a wide range of pipe sizes (15 mm to 300 mm), delivers bidirectional measurement, and achieves accuracy levels up to 0.5%—critical for process control and efficiency optimization.

Equally noteworthy is its adaptability. With outputs such as 4–20 mA, pulse, and RS-485, the system integrates seamlessly into modern auto mation architectures, including PLC and SCADA environments. The rugged construction—featuring SS316 measuring tubes, PTFE or rubber linings, and IP-rated protection—ensures resilience in chemically aggressive and physically demanding environments.

Arrowmech®
Instruments & Automation

From water and wastewater treatment to chemical processing and slurry handling, integrated electromagnetic flow meters are redefining reliability in flow measurement. In an industry driven by precision and uptime, they are not just instruments—they are enablers of process confidence.

Looking for the best electromagnetic flow meter price? Arrowmech Instruments & Automation offers competitive pricing for our innovative flow meters.

https://www.arrowmech.com/products

PARA Tech Product Spotlight

SUSAN AUTOMATION: CORIOLIS MASS FLOWMETERS

In precision-driven industries, where even the smallest deviation can translate into significant losses, Coriolis mass flowmeters have established themselves as the benchmark for accuracy and reliability. Unlike conventional flow technologies that infer mass through volumetric calculations, Coriolis meters measure mass directly—eliminating assumptions and elevating process confidence.
Operating on the Coriolis principle, these meters utilize vibrating flow tubes through which the fluid passes. As the medium flows, it induces a measurable phase shift in the tube oscillation—directly proportional to the mass flow rate. This enables real-time, high-fidelity measurement independent of variations in pressure, temperature, or fluid density.
What sets Coriolis technology apart is its multi-variable capability. Beyond mass flow, it simultaneously delivers density and temperature data from a single installation point—transforming a simple measurement device into a comprehensive process instrument.
From an application standpoint, the versatility is remarkable. Whether handling viscous fluids, slurries, or gases, Coriolis meters maintain accuracy levels as high as 0.1%, making them indispensable in chemical processing, pharmaceuticals, oil & gas, and food industries.
Susan Automations' Coriolis mass flowmeter range reflects this technological maturity, offering robust construction with SS316L and Hastelloy options, wide temperature tolerance from -200°C to +200°C, and seamless integration through outputs such as 4–20 mA, HART, and RS-485.

Delivers precise mass flow, density, and temperature measurement.

In an industrial landscape increasingly defined by data accuracy and process optimization, Coriolis mass flowmeters are not merely instruments—they are the foundation of measurement integrity.

https://www.susanautomations.com/mass-flow-meter/

TESTO : WIFI DATA MONITORING SYSTEMS

In an increasingly compliance-driven and quality-sensitive industrial landscape, data monitoring is no longer a passive function—it is a real-time operational necessity. WiFi-based data monitoring systems are redefining how industries track, analyze, and respond to environmental conditions, particularly in sectors where even minor deviations can have serious consequences.
The Testo WiFi data monitoring ecosystem, built around the Saveris platform, exemplifies this transition toward intelligent, cloud-connected monitoring.
At its core, the system combines wireless data loggers with centralized cloud infrastructure, enabling automated measurement and seamless data transmission over standard WLAN networks.
What distinguishes this solution is its ability to deliver continuous, real-time visibility. Temperature, humidity, and even CO_2 levels are recorded at defined intervals and transmitted directly to the cloud, where they can be accessed anytime via smartphone, tablet, or desktop. This ensures that critical environments—from cold storage and laboratories to server rooms—remain under constant supervision, regardless of physical presence.

Remote monitoring system with real-time alerts and cloud access.

Equally critical is the system's proactive alerting capability. Configurable threshold limits trigger instant notifications via email, SMS, or app-based alerts, enabling rapid intervention before deviations escalate into operational risks. Combined with automated documentation and reporting, this makes compliance with standards such as EN12830 significantly more streamlined.
Ease of deployment further strengthens its industrial appeal. With plug-and-play installation and browser-based configuration, the system minimizes setup complexity while offering scalable integration across multiple monitoring points.
As industries continue to move toward digitization and remote operations, WiFi data monitoring systems are no longer optional—they are foundational tools for ensuring process integrity, regulatory compliance, and operational continuity.

https://www.testo.com/en-IN/products/wifi-datamonitoring

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YASHTEC: DIGITAL PRESSURE GAUGES

In an industrial landscape increasingly defined by accuracy, reliability, and real-time diagnostics, digital pressure gauges have steadily replaced their analog counterparts as the preferred choice for critical measurement tasks. Compact, precise, and user-friendly, these instruments are redefining how pressure is monitored across process industries.

The digital pressure gauges offered by Yashtec reflect this shift toward intelligent measurement. Designed primarily for calibration and testing applications, these instruments deliver stable and accurate readings across a wide pressure spectrum—from vacuum ranges (-1 bar) to high-pressure environments extending up to 1000 bar.

At the core of their functionality is a high-resolution digital display, enabling clear and error-free readings—eliminating the subjectivity associated with analog dials. Battery-powered operation, typically supported by long-life lithium or standard cells, ensures portability and flexibility in field as well as laboratory environments.

Reliable digital gauges for accurate pressure measurement.

What enhances their industrial value is versatility. With standard 1/4-inch process connections, compatibility across multiple pressure ranges, and accuracy levels around 0.5% to 1% of full-scale deflection, these gauges are well-suited for calibration, maintenance, and routine inspection tasks.

In high-demand sectors—ranging from manufacturing and hydraulics to pharmaceuticals and utilities—digital pressure gauges serve as essential tools for ensuring process safety and performance consistency. Their ability to deliver quick, reliable readings with minimal operator dependency makes them indispensable in today's efficiency-driven operations. As industries continue to embrace digital instrumentation, the role of precision tools like digital pressure gauges becomes not just functional—but foundational to process integrity.

YASHTEC Instrumentation & Engg. Source

https://www.yashtec.net/digital-pressure-gauge.html

OGP : SCANNING PROBES

As manufacturing geometries grow increasingly complex, traditional point-by-point inspection methods are fast becoming inadequate. Scanning probes represent a decisive advancement in dimensional metrology—enabling continuous, high-density data capture across intricate surfaces with remarkable efficiency.

Unlike conventional touch-trigger probes, scanning probes operate by tracing the contour of a component between defined points, collecting a stream of data in real time. This dynamic measurement approach allows for accurate profiling of curves, freeform surfaces, and complex geometries—areas where discrete point measurement falls short.

High-precision probes for detailed inspection and measurement.

At the heart of systems such as those offered by Optical Gaging Products (OGP) is intelligent software integration. Platforms like ZONE3 drive the probe along the part profile, automatically adjusting data point density—particularly around curves—ensuring both speed and precision without manual intervention.

What further enhances capability is the integration of scanning probes within multisensor environments. Mounted alongside optical and laser sensors, and often paired with articulating probe heads, these systems provide unmatched flexibility—allowing manufacturers to measure features inaccessible to vision systems alone.

From an operational standpoint, the impact is significant. Reduced programming time, faster inspection cycles, and improved repeatability translate directly into higher throughput and better quality assurance. Optional automated probe exchange systems further streamline operations, eliminating the need for manual tool changes during measurement routines.

In today's precision-driven manufacturing landscape, scanning probes are no longer just accessories—they are essential tools for capturing the full dimensional truth of modern components.

QVI ogp QVI India Pvt. Ltd.

https://www.ogpnet.com/products/options-accessories/touch-probe-options/scanning-probe-2/

PARA Tech Product Spotlight

ERIC ROBOTICS : PANTHER-E- SHOP-FLOOR AUDITING

In the age of smart manufacturing, the traditional approach to shop floor auditing—manual inspections, fragmented data capture, and human-dependent analysis—is rapidly becoming obsolete. Enter Panther-E, an autonomous mobile robot from ERIC Robotics, designed to bring intelligence, consistency, and scalability to industrial audits.

At its core, Panther-E represents a shift from reactive inspection to continuous, data-driven auditing. Built as a versatile mobile platform, the robot navigates complex shop floor environments, capturing high-resolution data through advanced sensors and vision systems. This enables it to detect anomalies, monitor equipment conditions, and assess process deviations with a level of consistency that manual inspections simply cannot match.

What makes Panther-E particularly relevant is its integration with AI and machine learning. The system doesn't just collect data—it learns from it. Each audit cycle contributes to refining algorithms, improving detection accuracy, and enabling predictive insights that can pre-empt failures and optimize operations.

Equally important is its role as part of a broader digital ecosystem. Platforms like Insight.IO unify inspection data, translating raw inputs into actionable intelligence for plant managers and quality teams. This convergence of robotics and software transforms auditing from a periodic activity into a real-time, continuously evolving process.

Automated robot for efficient shop-floor auditing and inspection.

In high-demand sectors such as automotive, manufacturing, and heavy engineering, where downtime and defects carry significant cost implications, Panther-E offers a compelling value proposition—enhanced accuracy, reduced human dependency, and scalable inspection capabilities.

As Industry 4.0 continues to mature, solutions like Panther-E are not just augmenting shop floor audits—they are redefining them.

https://www.ericrobotics.com/

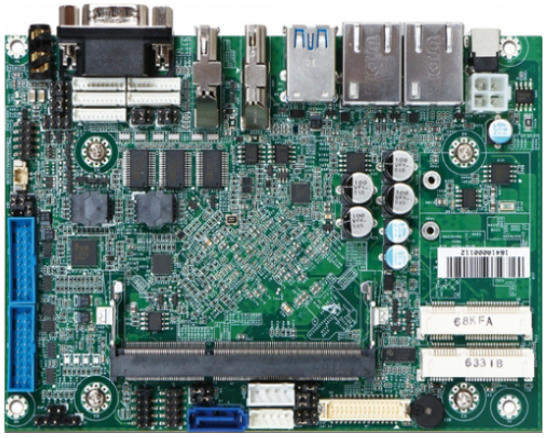
PORTWELL : EMBEDDED BOARDS

In the evolving landscape of industrial automation, intelligence is no longer confined to centralized systems—it is increasingly embedded at the edge. Embedded boards, particularly industrial-grade single board computers, are at the heart of this transformation, enabling compact, reliable, and high-performance computing across diverse applications.

Solutions from Portwell exemplify this shift toward integrated, space-efficient design. Built on standardized form factors such as Mini-ITX, these boards combine processor, memory, and I/O interfaces into a single compact unit—simplifying system integration while accelerating time-to-market.

What distinguishes modern embedded boards is their versatility and scalability. With support for a wide range of Intel processors—from energy-efficient Atom and Celeron platforms to high-performance Core architectures—these systems cater to applications ranging from point-of-sale terminals and medical instruments to industrial automation and digital media.

Equally critical is their rich I/O ecosystem. Multiple USB ports, serial interfaces, dual Gigabit Ethernet, SATA storage, and expansion slots such as PCIe, M.2, and mini-PCIe enable seamless connectivity with sensors, machines, and networks.



High-performance embedded solutions for industrial and IoT applications.

This makes them ideal for data-intensive, real-time industrial environments where reliability and responsiveness are paramount. Designed for durability, these boards support wide temperature ranges, fanless operation, and long lifecycle availability—key requirements for mission-critical deployments. Their compact footprint, often just 170mm × 170mm, allows deployment in space-constrained environments without compromising performance.

As industries accelerate toward edge computing and Industry 4.0, embedded boards are no longer just hardware components—they are strategic enablers of intelligent, connected, and future-ready automation systems.

https://www.portwell.in/industrial-automation/

Download

INVT : EC304 ELEVATOR CONTROLLER

In the rapidly evolving elevator industry, integration and efficiency are no longer optional—they are expected. The EC304, part of INVT's EC300 series architecture, represents a new generation of compact, intelligent elevator control solutions designed to simplify system design while enhancing performance.

Positioned as an integrated controller, the EC304 brings together drive control, logic control, and communication capabilities into a unified platform. This convergence significantly reduces panel complexity, wiring effort, and commissioning time—key advantages for both OEMs and system integrators working in space-constrained installations.

At its core, the EC304 leverages advanced vector control and intelligent algorithms to deliver smooth acceleration, precise leveling, and stable operation across varying load conditions. Features such as automatic curve generation and load-adaptive performance tuning ensure consistent ride comfort—an essential parameter in modern buildings.

Equally critical is its emphasis on energy efficiency and system intelligence. Built on a four-quadrant control philosophy, the system optimizes power usage while supporting regenerative capabilities—feeding excess energy back into the grid during braking cycles.

From a connectivity standpoint, the EC304 supports high-speed communication protocols, enabling seamless integration with group control systems, building management platforms, and emerging IoT ecosystems. Its ability to coordinate multiple elevators enhances traffic management in high-rise environments while maintaining operational reliability.

Smart controller ensuring safe and efficient elevator operation.

Safety remains deeply embedded in its design, with multi-layer protection mechanisms, fault diagnostics, and compliance with global elevator safety standards ensuring dependable performance in demanding applications.

In a market moving toward smarter and more efficient vertical transport, the EC304 stands out as a compact yet powerful controller, delivering the right balance of performance, intelligence, and integration.

https://www.invt.com/products/ec160a-series-elevator-intelligent-control-40

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How AI Is Enhancing Precision, Speed, and Safety on Factory Floors -By Sagar Mahurkar, VP at Findability Sciences

"Automation gave factories muscle; AI orchestration gives them judgment—and judgment is what turns efficiency into advantage."

About the Author

SAGAR MAHURKAR

VP at Findability Sciences

Sagar Mahurkar, VP at Findability Sciences, is an AI executive with five patents, an IEEE International Award, and experience with over 60 AI projects. He has worked on products generating more than $6B in annual revenue and has enabled the agentic AI journey for multiple Fortune 500 companies. His work has been recognized by organizations such as IEEE, IET, Trak.in, EnterpriseAI, Alley, Verizon, NRF, MIT, NASA, and NASSCOM.

Findability Sciences is an enterprise that has been focusing on AI since 2010. It provides Agentic Workflow Engine: a product that enables enterprises to adopt data-driven operations by combining Analytical and Generative AI with data to deliver autonomous business workflows. It has been recognized as Fortune's Most Innovative Company, and Inc. and the Financial Times have listed it amongst the fastest-growing companies.

Every time I step into a modern factory, I am struck by its mechanical elegance. Robotic arms move with tireless discipline, automated guided vehicles glide across shop floors, and sensor networks hum quietly in the background. This is the "muscle" of modern industry—powerful, reliable, and relentlessly efficient. Over the past few years, this muscle has grown rapidly, with the global automation systems industry clocking annual revenue growth of nearly 17–20%. Manufacturers rightly called it a technological evolution. Yet, beneath this impressive display of physical capability, something critical was missing.

As automation matured, the focus shifted decisively from operator expertise to machine-driven execution. But while machines replaced manual effort, they still depended on instructions—commands that needed to be generated with minimal human intervention. Automation delivered speed and consistency, but it also created a byproduct few were prepared to handle: massive volumes of data. Sensor readings, process logs, lab results, alarms, and contextual signals were often treated like industrial fumes—vented out, archived, or used only for basic reporting. The real transformation began when manufacturers realized that muscle alone cannot win races. It needs a brain.

From Technology Evolution to Data Revolution: The Rise of the Orchestrator

Having worked as an applied intelligence practitioner across manufacturing environments in the US, India, Latin America, the Middle East, Singapore, and Japan, I've observed a common inflection point. The next phase of industrial transformation is not about adding more machines, it is about deploying a centralized intelligence layer that can sense, reason, and decide. I call this layer the Orchestrator.

The Orchestrator represents the "brain" of the factory. It draws strength from years of historical sensor data, lab results, and operational records. It processes multi-dimensional signals in seconds and interfaces seamlessly with PLCs, SCADA systems, LIMS, ERPs, and human operators. Most importantly, it is trained and tuned using deep domain expertise, knowledge accumulated from decades of process engineering and control systems experience.
Even the most advanced hardware today often operates on reflex logic: If X happens, do Y. This linear thinking works well for isolated tasks but breaks down in complex, interconnected environments. Consider a chemical plant where increasing

production speed raises energy consumption or creates unacceptable byproduct waste. Manually calculating the optimal balance between real-time energy prices, raw material variability, equipment health, and quality targets, every few minutes, is simply impossible for humans.
The Orchestrator thrives in this complexity. It consumes internal and external data, structured and unstructured, and optimizes across multiple objectives simultaneously. The outcome is not just operational efficiency, but sustained profitability.

From Static Rules to Dynamic Setpoints

One of the most visible shifts on the factory floor is the move from static rules to dynamic setpoints. Traditionally, process engineers define operating conditions based on historical best practices. A machine might be set to run at 200°C, and that value remains unchanged until something goes wrong. This approach assumes the environment is static, even though every experienced operator knows it never is. The Orchestrator treats the factory as a living system. It respects hard constraints such as safety limits and compliance thresholds, while continuously recalculating optimal operating points aligned with business objectives. If vibration data, ambient conditions, or raw material quality changes, the Orchestrator responds in real time.
For example, it may determine that operating at 198.5°C instead of 200°C delivers identical quality while saving 4% in energy costs. These micro-adjustments, executed continuously, ensure that equipment operates in service of business outcomes, not just technical manuals. In a recent engagement with a large sugar mill, the Orchestrator dynamically optimized 43 control parameters that were previously considered immutable. The result was a 3% improvement in yield, a 4.5% reduction in downtime, and a 6% drop in energy consumption, translating into approximately $66 million in annual value. This is the power of intelligence layered over automation.

Enhancing the Athlete: Precision, Speed, and Safety

When manufacturers connect the muscle of automation to the brain of AI-driven orchestration, the factory evolves into an athlete—capable of excelling across the holy trinity of manufacturing: precision, speed, and safety.

Precision: Physical assets degrade over time. Belts loosen, sensors drift, and tolerances widen, even in world-class facilities. A robot without intelligence is precise only until its components begin to vary. The Orchestrator continuously corrects trajectories, adjusts grip pressure, and signals maintenance needs, sustaining micron-level accuracy despite mechanical fatigue.

Speed: Throughput is often constrained by the slowest subprocess, leading to bottlenecks, stop-start operations, and unnecessary energy waste. The Orchestrator synchronizes workflows across the plant, preventing downstream congestion while balancing cost, quality, and throughput. Speed becomes smooth, not reckless.

Safety: Traditional automation reacts after failures occur. The Orchestrator anticipates them. By detecting subtle anomalies and evaluating risk in milliseconds, it can trigger preventive actions that protect both human lives and capital assets, transforming safety from reactive compliance to proactive intelligence.

A Parting Thought

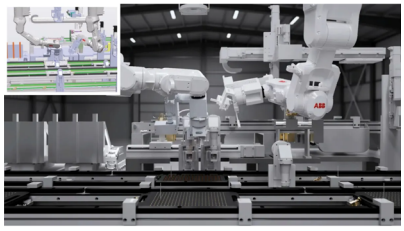
The real revolution on the factory floor is not about machines replacing people. It is about data-driven decision-making replacing guesswork. After deploying Orchestrators across 17 factories in the past year, one insight stands out clearly: data and domain expertise drive ROI just as decisively as investments in machinery and automation.
Industry has spent years building extraordinary muscle. The next era belongs to those who invest equally in developing the factory's brain.

www.imprint-magazine.in

Imprint Automation India magazine brings you upto speed with the explosion of information on breakthrough tech in PARA domain. Breaking news soon gets forgotten. Professionals can't miss out on information. Imprint you to valuable gossip.

AI startup Skild, backed by NVIDIA, has deployed a generalized robotic "brain" on real assembly lines—marking a shift from task-specific robots to adaptable automation.
https://www.reuters.com/business/media-telecom/skild-ai-nvidia-deploy-robot-brain-blackwell-assembly-lines-2026-03-16/

ABB Robotics is partnering with NVIDIA to bring simulation-trained robots into real factories—cutting deployment time and costs dramatically.
https://www.manufacturingdive.com/news/abb-robotics-nvidia-simulation-scale-in-dustrial-physical-ai/814415/
STMicroelectronics plans to deploy 100+ humanoid robots in European fabs to modernize aging facilities without rebuilding them.



https://www.tomshardware.com/tech-industry/semiconductors/stmicro-to-deploy-humanoid-robots-to-its-legacy-fabs-in-europe-over-100-humanoid-robots-to-be-used-for-routine-and-physically-demanding-tasks-in-fight-for-efficiency

Humanoid robots like "Digit" are now performing physically demanding tasks in factories, working full shifts alongside human teams.
https://www.wsj.com/business/south-carolina-schaeffler-plant-robots-d56c91d0

Experts say 2026 is when automation moves from experimentation to real ROI—focusing on "what actually works."
https://www.forbes.com/councils/forbestechcouncil/2026/02/27/2026-is-the-year-when-manufacturers-get-real-about-automation-and-ai/

Automation is no longer optional—it's now a core driver of productivity, capacity, and global competitiveness.
https://www.scio-automation.com/update/automation-2026-key-trends-technologies-opportunities-for-businesses

Global industrial robot installations have reached an all-time high, reflecting massive adoption across industries.
https://ifr.org/ifr-press-releases/news/top-5-global-robotics-trends-2026

Industry 4.0 is moving from theory to reality, with connected dashboards and robotic systems becoming standard on shop floors.
https://themachinemaker.com/technology/industry-4-0-and-the-next-phase-of-indian-manufacturing/

Indian manufacturing is transitioning from cost-driven to AI-powered, intelligent factories driven by robotics and IIoT.
https://www.industrialautomationindia.in/articles/indian-manufacturing-agentic-ai-robotics-2026

2026 is seeing the rise of "physical AI"—robots that can think, adapt, and operate beyond fixed programming.
https://www.manufacturingdive.com/news/physical-ai-craze-2026-automation-trends-to-watch/810860/

Digital twins and simulation platforms are reducing real-world testing costs and speeding up automation deployment.
https://www.manufacturingdive.com/news/abb-robotics-nvidia-simulation-scale-in-dustrial-physical-ai/814415/

Automation systems are now expected to meet strict cybersecurity standards for global market access.
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As automation grows, industries are investing heavily in reskilling workers rather than replacing them outright.
https://www.deloitte.com/us/en/insights/industry/manufacturing-industrial-products/manufacturing-industry-outlook.html

Collaborative robots are no longer "light-duty"—they now rival traditional industrial robots in payload and performance.
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Modern robots are now used in inspection, logistics, and complex adaptive tasks—not just repetitive manufacturing.
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FANUC continues pushing flexible automation with new cobots designed for adaptable production lines.
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Automation World 2026 highlighted the rise of autonomous manufacturing powered by AI and humanoid robotics.
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Live robotic demo cells and turnkey automation systems will dominate upcoming industrial expos.
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Despite global uncertainty, investments in automation, semiconductors, and AI-driven production are rising sharply.
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Bezos Wants $100 Billion to Jumpstart Manufacturing's AI Revolution
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India's cheap weight-loss drugs could reshape global obesity fight
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China is investing billions into humanoid robots aiming to automate up to 80% of factory assembly—raising both efficiency hopes and job concerns.
https://www.theguardian.com/technology/2026/mar/19/inside-chinas-robotics-revolution

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