

#### **Unlock the value of Digital Transformation**

Innovative Digital Transformation Experience Center for The Connected Enterprise® in India.



Rockwell Automation's approach to The Connected Enterprise enables customers to realize the benefits of smart manufacturing. The Connected Enterprise helps manufacturers to optimize production, respond fast to market changes and maintain their competitive edge. To provide manufacturers with the support they need on their path to digitalization, Rockwell Automation invites

you to the Digital Transformation Experience Center (DTEC) in Gurugram, India. The DTEC shows visitors how the holistic Connected Enterprise approach works in practice. Visitors can see interactive demos and application examples, as well as live views of operations in the manufacturing facilities of Rockwell Automation with real-time access to production data.

DTEC is the ideal environment for customers to address their business needs and discuss opportunities for innovation. Together, we can help you reach your specific goals.

Speak with Rockwell Automation executives and subject matter experts to get the answers you are looking for and discover new smart manufacturing solutions that will positively impact your business.

# Technology showcases available at DTEC, Gurugram



## Digital **Engineering**

**Business KPI impacted:** Faster Go-To-Market/ Reduced risk/Reduced costs/ Improve Equipment Productivity/Improve Equipment Reliability/Reduce Design, Develop, and Deployment Cost/Time.

Digital engineering is defined as an integrated digital approach to (machine) design that uses multiple sources of system data and models—shared across disciplines—to support machine lifecycle activities from concept through end of life. A Digital Twin is a complete digital replica of an asset, which could be a product, machine, or an entire plant. This replica is 'living', which means it changes as the asset is developed, operated, and maintained. This use case is demonstrated using the following technologies:

- Emulate3D™: It allows for virtual prototyping, simulation & modelling, enabling engineers to optimize designs and identify potential issues before physical implementation. It provides a 3D virtual environment where users can create and visualize complex systems. It allows for the accurate representation of machinery, equipment, and material flows. It enables dynamic simulations that capture the behavior of systems over me, including interactions and collisions.
- Studio 5000° Application Code Manager: It provides centralized management of application code for industrial automation systems, allowing for version control, easy deployment, and efficient collaboration. This results in improved development efficiency, reduced downtime, and enhanced reliability of control systems.





**Business KPI impacted:** Improve Asset Utilization/ Reduce Maintenance Costs/Reduce MRO Spend/ Increase Capacity/Throughput/Reduce Safety Risk.

Asset Performance Management (APM) is a digital solution that allows companies to monitor and optimize the efficiency, availability, and reliability of high value equipment and assets essential to the operation of an enterprise. This use case is demonstrated using the following technologies:

- Smart Sensor & Safety: Smart IO-Link based sensors & network safety offer flexible remote parameterization and real-me diagnostics, resulting in reduced downtime and enhanced integration with industrial automation systems.
- Fiix CMMS: It is a computerized maintenance management system designed to streamline maintenance operations. It helps businesses track and manage assets, schedule preventive maintenance, and monitor work orders.
- Drive Analytics: It provides valuable insights into drive performance and health, enabling proactive maintenance and reducing unplanned downtime for improved productivity and cost savings.
- FactoryTalk® Metrics: It provides real-time visibility into production metrics, enabling organizations to monitor and optimize their manufacturing processes for increased efficiency, productivity, and informed decision-making.
- FactoryTalk® AssetCentre: It provides a centralized tool for securing, managing, versioning, tracking and reporting automation-related asset information across entire facility.
- Condition Monitoring: It offers real-time monitoring of equipment and machinery, providing early detection of faults and potential failures. This enables proactive maintenance, minimizing downtime, and optimizing equipment performance for increased productivity and cost savings.
- ThingWorx Dashboard: It provides customizable
  widgets and data visualizations, allowing users to
  create personalized dashboards that display realtime data from connected devices and systems. It
  also offers interactive features such as drill-down
  capabilities and alerts, providing actionable insights
  and facilitating quick response to critical events.



Business KPI impacted: Reduced Downtime.

Remote Assistance is about accessing and leveraging technical experts, quickly, safely, and securely, regardless of where they are located. This use case is demonstrated using following technologies:

- Secure Remote Access: It allows secure remote access to industrial control systems, enabling remote monitoring, troubleshooting, and maintenance.
- Vuforia Chalk: It is an augmented reality collaboration tool that allows remote experts to guide onsite technicians through live video calls, enabling real-time problem-solving and reducing the need for travel and onsite visits. It enhances efficiency, improves firstme fix rates, and lowers costs by facilitating remote assistance and knowledge sharing.



#### Digital Work Instructions Knowledge Transfer

**Business KPI impacted:** Enable Productive Workforce/Reduce Safety Risk/Improve Quality/ Reduce Material Cost/Reduce Downtime.

Knowledge Transfer and Digital Work Instructions leverage visualization technologies—mixed, virtual, and augmented reality—to enhance worker capabilities. This use case is demonstrated using the following technologies:

- Vuforia View: It is an augmented reality (AR)
   platform that enables the creation and deployment
   of interactive AR experiences, offering features
   such as real-time object tracking, spatial mapping,
   and remote collaboration, enhancing visualization,
   training, and maintenance processes in various
   industries.
- Vuforia Expert Capture: It is a solution that allows users to easily create step-by-step AR work instructions, capturing expert knowledge and delivering it in a guided and interactive manner, enhancing training, maintenance, and knowledge transfer processes in industries. It offers features like AR content creation, intuitive authoring tools, and integration with existing enterprise systems for seamless workflow integration.



Business KPI impacted: Reduce Security Risk.

Cybersecurity solutions and services from Rockwell Automation take customers through all the steps of designing and implementing a comprehensive Business Continuity Plan from Asset Identification and Assessment to developing and executing the appropriate strategy for Disaster Recovery and Incident Response. This use case is demonstrated using the following technologies:

- Industrial data center: It provides robust physical security measures and redundant infrastructure for high availability, ensuring the safety and continuity of critical industrial data. It also offers scalable storage and processing capabilities, enabling efficient data management and analysis to support industrial operations.
- ThinManager®: It is a content delivery software solution that centralizes and manages multiple remote devices, providing secure access, advanced monitoring, and flexible control capabilities, resulting in streamlined operations and improved productivity for industrial environments.
- CIP security: It provides strong authentication and access control mechanisms, encryption of data in transit and at rest, intrusion detection systems, and incident response capabilities, all aimed at safeguarding critical infrastructure assets from cyber threats and ensuring continuous operational resilience.



"Manufacturing in India is going through a huge transformation. DTEC is a one-of-a-kind setting where we have people, technology and implementation in a live setting and where we've removed all constraints."

Dilip Sawhney Managing Director, Rockwell Automation India





## Improve Plant Operations

**Business KPI impacted:** Reduce Downtime/Reduce Project Risk/Reduce Project Costs.

This use case is demonstrated using the following technologies:

- PlantPAx®: It is a process automation system that
  offers standardized control and visualization features,
  allowing for seamless integration and scalability
  across industrial plants. It provides a unified
  platform for improved process efficiency, increased
  productivity, and enhanced decision-making through
  comprehensive data analytics and diagnostics
  capabilities.
- DySC® sag corrector: It mitigates voltage sags in power systems by injecting compensating voltage during sag events, ensuring uninterrupted power supply to sensitive loads. It offers fast response times, high accuracy, and adaptive control algorithms to stabilize voltage levels and protect equipment from potential disruptions or damage caused by voltage sags.



**Business KPI impacted:** Added Technology Differentiation/Faster Time to Market/Reduce Design Time/Cost/Reduce Develop Time/Cost/Improve Equipment Reliability.

This use case is demonstrated using the following technologies:

Independent cart technology (ICT): A smart
conveying system specifically designed to move loads
quickly and efficiently. It outperforms traditional belt
and chain conveyors for in-machine applications and
for applications with demanding motion requirements,
delivering new levels of process optimization and
throughput.



### Batch Performance Analytics (Golden Batch):

**Business KPI impacted:** Improve Quality/Improve Asset Utilization/Reduce Safety Risk.

Batch Performance Analytics provides benefits by enabling real-time monitoring and analysis of batch processes, allowing for the identification of bottlenecks, inefficiencies, and quality issues. This use case is demonstrated using the following technologies:

Batch Performance Analytics: It provides insight and allows comparison of each batch against historical performance, as well as the Golden Batch. As each batch is run, the application compares the critical variables to the 'Golden Batch' profile and displays these for the user to view and act upon.



**Business KPI impacted:** Improve Yield, Reduce Material Costs, Improve Quality Yield Optimization provides benefits by Improving Production Efficiency, Reducing Waste, and Increasing Overall Output, Leading to Cost Savings and Improved Profitability. It helps identify and address process inefficiencies, minimize defects, and maximize the yield of high-quality products.

This use case is demonstrated using the following technologies:

 Model Predictive Control (MPC): It optimizes process performance, improves product quality, and reduces energy consumption. It achieves this by continuously adjusting control parameters based on real-time data and predictive models, resulting in increased efficiency, reduced variability, and enhanced operational stability.